



# Aviation Investigation Final Report

<b>Location:</b>	Rock Hill, South Carolina	<b>Accident Number:</b>	GAA19CA083
<b>Date &amp; Time:</b>	November 28, 2018, 10:25 Local	<b>Registration:</b>	N909CA
<b>Aircraft:</b>	Smith Aerostar601	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Loss of control on ground	<b>Injuries:</b>	2 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The pilot reported that he was flying the airplane while wearing an "air cast boot." During landing, the airplane decelerated, and he asked the passenger to move his feet up to the brake pedals and apply the brakes. He added that the passenger applied "insufficient differential brake application," and the airplane veered left. The passenger applied right brake and rudder to correct, but the airplane then veered right, exited the runway, and impacted a ditch.

The pilot reported that he was wearing the boot due to a previous injury. He added that he had the ability to fully manipulate both rudder controls, but the boot prevented him from being able to fully apply brake pressure.

The airplane sustained substantial damage to the right wing.

The pilot reported that there were no preaccident mechanical failures or malfunctions with the airplane that would have precluded normal operation.

## Probable Cause and Findings

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

The pilot's improper decision to fly with an air cast boot on his foot, which led him to rely on the passenger to apply brakes and rudder, which was performed improperly and led to a loss of directional control.

## Findings

<b>Personnel issues</b>	Decision making/judgment - Pilot
<b>Personnel issues</b>	Illness/injury - Pilot
<b>Aircraft</b>	Directional control - Not attained/maintained
<b>Personnel issues</b>	Aircraft control - Passenger

## Factual Information

### History of Flight

<b>Landing</b>	Miscellaneous/other
<b>Landing</b>	Loss of control on ground (Defining event)
<b>Landing</b>	Attempted remediation/recovery
<b>Landing</b>	Runway excursion
<b>Landing</b>	Collision with terr/obj (non-CFIT)

### Pilot Information

<b>Certificate:</b>	Commercial; Flight instructor	<b>Age:</b>	55,Male
<b>Airplane Rating(s):</b>	Single-engine land; Single-engine sea; Multi-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	Helicopter	<b>Restraint Used:</b>	3-point
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	Airplane single-engine; Instrument airplane	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 Without waivers/limitations	<b>Last FAA Medical Exam:</b>	June 14, 2018
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	December 8, 2017
<b>Flight Time:</b>	(Estimated) 3000 hours (Total, all aircraft), 200 hours (Total, this make and model), 2900 hours (Pilot In Command, all aircraft), 41 hours (Last 90 days, all aircraft), 12 hours (Last 30 days, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Smith	<b>Registration:</b>	N909CA
<b>Model/Series:</b>	Aerostar601 UNDESIGNAT	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	1976	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	61-0281-107
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	6
<b>Date/Type of Last Inspection:</b>	June 22, 2018 Annual	<b>Certified Max Gross Wt.:</b>	6000 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	2 Reciprocating
<b>Airframe Total Time:</b>	2704 Hrs as of last inspection	<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	C91 installed, not activated	<b>Engine Model/Series:</b>	TIO-540-S1A5
<b>Registered Owner:</b>		<b>Rated Power:</b>	300 Horsepower
<b>Operator:</b>		<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>	0 Nautical Miles
<b>Observation Time:</b>	15:54 Local	<b>Direction from Accident Site:</b>	1°
<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>	7 knots /	<b>Turbulence Type Forecast/Actual:</b>	None / None
<b>Wind Direction:</b>	330°	<b>Turbulence Severity Forecast/Actual:</b>	N/A / N/A
<b>Altimeter Setting:</b>	30.01 inches Hg	<b>Temperature/Dew Point:</b>	3°C / -7°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Douglas, GA (DQH )	<b>Type of Flight Plan Filed:</b>	IFR
<b>Destination:</b>	Rock Hill, SC (UZA )	<b>Type of Clearance:</b>	IFR
<b>Departure Time:</b>	09:00 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>	ROCK HILL/YORK CO/BRYANT FIELD UZA	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	666 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	02	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	5500 ft / 100 ft	<b>VFR Approach/Landing:</b>	Full stop

## 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>	34.984722,-81.058052(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Benhoff, Kathryn
<b>Additional Participating Persons:</b>	Marshall Bogan; FAA; West Columbia, SC
<b>Original Publish Date:</b>	September 26, 2019
<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=98712">https://data.nts.gov/Docket?ProjectID=98712</a>

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