



# **Aviation Investigation Final Report**

Location: Rock Hill, South Carolina Accident Number: GAA19CA083

Date & Time: November 28, 2018, 10:25 Local Registration: N909CA

Aircraft: Smith Aerostar601 Aircraft Damage: Substantial

**Defining Event:** Loss of control on ground **Injuries:** 2 None

Flight Conducted Under: 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**

Personnel issues Decision making/judgment - Pilot

Personnel issues Illness/injury - Pilot

Aircraft Directional control - Not attained/maintained

Personnel issues Aircraft control - Passenger

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## **Factual Information**

### History of Flight

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

#### **Pilot Information**

Certificate:	Commercial; Flight instructor	Age:	55,Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	Helicopter	Restraint Used:	3-point
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane single-engine; Instrument airplane	Toxicology Performed:	No
Medical Certification:	Class 2 Without waivers/limitations	Last FAA Medical Exam:	June 14, 2018
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	December 8, 2017
Flight Time:	(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)		

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### **Aircraft and Owner/Operator Information**

Aircraft Make:	Smith	Registration:	N909CA
Model/Series:	Aerostar601 UNDESIGNAT	Aircraft Category:	Airplane
Year of Manufacture:	1976	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	61-0281-107
Landing Gear Type:	Retractable - Tricycle	Seats:	6
Date/Type of Last Inspection:	June 22, 2018 Annual	Certified Max Gross Wt.:	6000 lbs
Time Since Last Inspection:		Engines:	2 Reciprocating
Airframe Total Time:	2704 Hrs as of last inspection	Engine Manufacturer:	Lycoming
ELT:	C91 installed, not activated	Engine Model/Series:	TIO-540-S1A5
Registered Owner:	P&M Truck Sale Inc	Rated Power:	300 Horsepower
Operator:	P&M Truck Sale Inc	Operating Certificate(s) Held:	None

### Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KUZA,669 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	15:54 Local	Direction from Accident Site:	1°
<b>Lowest Cloud Condition:</b>	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	330°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.01 inches Hg	Temperature/Dew Point:	3°C / -7°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Douglas, GA (DQH )	Type of Flight Plan Filed:	IFR
Destination:	Rock Hill, SC (UZA )	Type of Clearance:	IFR
Departure Time:	09:00 Local	Type of Airspace:	Class G

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### **Airport Information**

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

## 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:	34.984722,-81.058052(est)

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#### **Administrative Information**

Investigator In Charge (IIC):	Benhoff, Kathryn
Additional Participating Persons:	Marshall Bogan; FAA; West Columbia, SC
Original Publish Date:	September 26, 2019
Last Revision Date:	
Investigation Class:	<u>Class</u>
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=98712

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, "accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person" (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB's statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available here.

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