



# Aviation Investigation Final Report

<b>Location:</b>	Sanford, Florida	<b>Accident Number:</b>	ATL02LA018
<b>Date &amp; Time:</b>	December 19, 2001, 12:30 Local	<b>Registration:</b>	N522H
<b>Aircraft:</b>	Pitts S-1S	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The pilot executed a downwind approach and touched down on runway 9 center. During landing roll at 10 miles per hour, a tailwind picked up the tail of the airplane. The airplane's propeller struck the ground, and the airplane nosed over and came to rest inverted on the runway. Examination of the airplane revealed the propeller and spinner were damaged, the top wing spar support members were bent, one outboard wing spar was broken, the top rudder bow was bent with wrinkling of the fuselage at the base of the fin, the leading edge of the top wing showed cracks on both sides of the fuel tank, and the engine mounts were displaced.

## 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 control of the airplane during landing roll in a tailwind, which resulted in a nose-over on the runway.

## Findings

Occurrence #1: NOSE OVER  
Phase of Operation: LANDING - ROLL

### Findings

1. TERRAIN CONDITION - RUNWAY
2. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND
3. WEATHER CONDITION - TAILWIND



## Factual Information

On December 19, 2001, about 1230 eastern standard time, a Pitts S-1S, N522H, registered to a private owner, nosed over during landing roll at Orlando Sanford Airport in Sanford, Florida. The personal flight was conducted under the provisions of Title 14 CFR Part 91 with no flight plan filed. Visual meteorological conditions prevailed at the time of the accident. The airplane sustained substantial damage, and the airline transport pilot was not injured. The local flight departed Orlando Sanford Airport about 1150.

The pilot executed a downwind approach and touched down on runway 9 center. The pilot stated, during landing roll at 10 miles per hour, a tailwind picked up the tail of the airplane. The airplane's propeller struck the ground, and the airplane nosed over and came to rest inverted on the runway. A review of weather observation data for the airport indicated at 1253, winds were reported from 260 degrees magnetic at 10 knots.

Initial examination of the airplane revealed the propeller and spinner were damaged, the top wing spar support members were bent, one outboard wing spar was broken, the top rudder bow was bent with wrinkling of the fuselage at the base of the fin, the leading edge of the top wing showed cracks on both sides of the fuel tank, and the engine mounts were displaced.

### Pilot Information

<b>Certificate:</b>	Airline transport	<b>Age:</b>	57, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Single
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 With waivers/limitations	<b>Last FAA Medical Exam:</b>	May 17, 2001
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	June 7, 2001
<b>Flight Time:</b>	16800 hours (Total, all aircraft), 205 hours (Total, this make and model), 120 hours (Last 90 days, all aircraft), 30 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Pitts	<b>Registration:</b>	N522H
<b>Model/Series:</b>	S-1S	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	Yes
<b>Airworthiness Certificate:</b>	Experimental (Special)	<b>Serial Number:</b>	093
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	1
<b>Date/Type of Last Inspection:</b>	March 30, 2001 Annual	<b>Certified Max Gross Wt.:</b>	1200 lbs
<b>Time Since Last Inspection:</b>	50 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	187 Hrs at time of accident	<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	Not installed	<b>Engine Model/Series:</b>	AEIO-360 H1B
<b>Registered Owner:</b>	John L. Heverling	<b>Rated Power:</b>	180 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>	KSFB, 55 ft msl	<b>Distance from Accident Site:</b>	0 Nautical Miles
<b>Observation Time:</b>	12:53 Local	<b>Direction from Accident Site:</b>	
<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>	10 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	260°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	29.98 inches Hg	<b>Temperature/Dew Point:</b>	22°C / 8°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Sanford, FL (KSFB)	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>		<b>Type of Clearance:</b>	VFR
<b>Departure Time:</b>	11:50 Local	<b>Type of Airspace:</b>	Class D

## Airport Information

<b>Airport:</b>	Orlando Sanford Airport KSFB	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	55 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	9C	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	3578 ft / 75 ft	<b>VFR Approach/Landing:</b>	Full stop;Traffic pattern

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 None	<b>Latitude, Longitude:</b>	29.239837,-81.060165(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Powell, Phillip
<b>Additional Participating Persons:</b>	John M Murphy; FAA - Orlando FSDO - 15; Orlando, FL
<b>Original Publish Date:</b>	June 3, 2002
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.ntsb.gov/Docket?ProjectID=53935">https://data.ntsb.gov/Docket?ProjectID=53935</a>

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