



# Aviation Investigation Final Report

<b>Location:</b>	Hamilton, Ohio	<b>Accident Number:</b>	NYC04LA140
<b>Date &amp; Time:</b>	June 13, 2004, 18:30 Local	<b>Registration:</b>	N963CB
<b>Aircraft:</b>	Aviat Pitts S2B	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	2 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

After completing a 1-hour flight, which included sustained inverted flight, the pilot returned to land. The pilot stated that after touching down on runway 29, a 5,500-foot long, 100-foot wide asphalt runway, the right landing gear brake stuck. The airplane veered to the left, departed the runway surface, and struck a taxiway sign with the right wing. The right landing gear assembly collapsed, and the airplane came to rest in a grass area. Examination of the brake system by a Federal Aviation Administration inspector did not reveal any abnormalities. The winds recorded at the airport, about the time of the accident, were from 230 degrees 12 knots, gusting to 18 knots.

## 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 after experiencing a brake system malfunction during landing. Factors related to the accident were the malfunction of a landing gear brake as reported by the pilot, and the crosswind conditions.

## Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION  
Phase of Operation: LANDING - ROLL

### Findings

1. (F) LANDING GEAR,NORMAL BRAKE SYSTEM - MALFUNCTION

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Occurrence #2: LOSS OF CONTROL - ON GROUND/WATER

Phase of Operation: LANDING - ROLL

Findings

2. (F) WEATHER CONDITION - CROSSWIND

3. (C) DIRECTIONAL CONTROL - NOT MAINTAINED - PILOT IN COMMAND

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Occurrence #3: ON GROUND/WATER COLLISION WITH OBJECT

Phase of Operation: LANDING - ROLL

Findings

4. OBJECT - AIRPORT SIGN/MARKER

## Factual Information

On June 13, 2004, at 1830 eastern daylight time, an Aviat Pitts S2B, N963CB, was substantially damaged while landing at the Butler County Regional Airport (HAO), Hamilton, Ohio. The certificated private pilot and pilot-rated passenger were not injured. Visual meteorological conditions prevailed, and no flight plan was filed for the local personal flight conducted under 14 CFR Part 91.

According to the pilot, he had just completed a 1-hour flight, which included sustained inverted flight, and returned to land at HAO. After touching down on runway 29, a 5,500-foot long, 100-foot wide asphalt runway, the right landing gear brake stuck. The airplane veered to the left, departed the runway surface, and struck a taxiway sign with the right wing. The right landing gear assembly collapsed, and the airplane came to rest in a grass area.

The pilot additionally reported to the inspector that he had accumulated about 19 hours of total flight experience in make and model airplane.

Examination of the brake system by a Federal Aviation Administration (FAA) inspector did not reveal any abnormalities.

Review of a weather observation recorded at HAO, at 1753, included winds from 230 degrees 12 knots, gusting to 18 knots.

### Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	33, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Rear
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	December 12, 2002
<b>Occupational Pilot:</b>	UNK	<b>Last Flight Review or Equivalent:</b>	September 9, 2003
<b>Flight Time:</b>	652 hours (Total, all aircraft), 19 hours (Total, this make and model), 508 hours (Pilot In Command, all aircraft), 81 hours (Last 90 days, all aircraft), 29 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Aviat	<b>Registration:</b>	N963CB
<b>Model/Series:</b>	Pitts S2B	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Aerobatic; Normal	<b>Serial Number:</b>	S-2B
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	July 16, 2003 Annual	<b>Certified Max Gross Wt.:</b>	1700 lbs
<b>Time Since Last Inspection:</b>	27 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	540 Hrs at time of accident	<b>Engine Manufacturer:</b>	Textron Lycoming
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	AE IO-540 D4A
<b>Registered Owner:</b>	James M. Faddis	<b>Rated Power:</b>	260 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>	HAO,633 ft msl	<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>	17:53 Local	<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>	Few / 4800 ft AGL	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	12 knots / 18 knots	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	230°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	29.86 inches Hg	<b>Temperature/Dew Point:</b>	29°C / 21°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Hamilton, OH (HAO )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>		<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	17:30 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>	Butler County Regional Airport HAO	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	633 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	29	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	5500 ft / 100 ft	<b>VFR Approach/Landing:</b>	Traffic pattern

## 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>	39.363609,-84.521942

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Demko, Stephen
<b>Additional Participating Persons:</b>	Robert Gillespie; FAA; Cincinnati, OH
<b>Original Publish Date:</b>	April 28, 2005
<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=59500">https://data.ntsb.gov/Docket?ProjectID=59500</a>

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](#).