



Aviation Investigation Final Report

Location:	DAYTONA BEACH, Florida	Accident Number:	MIA00LA137
Date & Time:	April 11, 2000, 15:30 Local	Registration:	N27235
Aircraft:	Walden A. Cooper PITTS S1S	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Minor
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot stated the landing on runway 5 was normal and during landing rollout, the rudder suddenly went full to the right and the aircraft veered to the right. He could not regain control and the aircraft went off the runway and collided with a hangar. Post crash examination of the aircraft by an FAA inspector showed the forward tail wheel attach bolt had sheared and the tail wheel had collapsed to the right and deflected the rudder to the right. The remains of the sheared bolt could not be removed and was not retained for further examination.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: Collapse of the tail wheel to the right during landing rollout when the forward attach bolt sheared for undetermined reasons. This resulted in the aircraft's rudder deflecting to the right, the pilot losing directional control, and the aircraft running off the runway and colliding with a hangar.

Findings

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

Findings

1. LANDING GEAR, TAILWHEEL - SHEARED

- 2. (C) REASON FOR OCCURRENCE UNDETERMINED
- 3. LANDING GEAR, TAILWHEEL - COLLAPSED
- 4. FLIGHT CONTROL, RUDDER - HARDOVER

Occurrence #2: LOSS OF CONTROL - ON GROUND/WATER
Phase of Operation: LANDING - ROLL

Findings

- 5. DIRECTIONAL CONTROL - NOT POSSIBLE - PILOT IN COMMAND

Occurrence #3: ON GROUND/WATER COLLISION WITH OBJECT
Phase of Operation: LANDING - ROLL

Findings

- 6. OBJECT - HANGAR/AIRPORT BUILDING

Factual Information

On April 11, 2000, about 1530 eastern daylight time, a Cooper Pitts S1S, N27235, registered to a private individual, went off the runway and collided with a hangar during landing at Spruce Creek Airport, Daytona Beach, Florida, while on a Title 14 CFR Part 91 personal flight. Visual meteorological conditions prevailed at the time and no flight plan was filed. The aircraft received substantial damage and the commercial-rated pilot was not injured. The flight originated from Fernandina Beach, Florida, the same day, about 1445.

The pilot stated the landing on runway 4 was normal. During landing rollout, the rudder suddenly went full to the right and the aircraft immediately turned to the right and went off the runway. He was unable to regain directional control and the aircraft collided with a hangar. His postcrash examination of the aircraft showed the forward tail wheel attach bolt had broken and the tail wheel had collapsed to the right and jammed the rudder to the right.

The NTSB was not notified of the accident until April 21, 2000. The aircraft was examined by an FAA inspector after the accident. The inspector could not remove the remains of the failed bolt from the tail wheel and it was not retained for further examination.

Pilot Information

Certificate:	Commercial	Age:	47, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Center
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	March 23, 2000
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	784 hours (Total, all aircraft), 58 hours (Total, this make and model), 784 hours (Pilot In Command, all aircraft), 15 hours (Last 90 days, all aircraft), 10 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Walden A. Cooper	Registration:	N27235
Model/Series:	PITTS S1S PITTS S1S	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	Yes
Airworthiness Certificate:	Experimental (Special)	Serial Number:	P-796-WC
Landing Gear Type:	Tailwheel	Seats:	1
Date/Type of Last Inspection:	July 15, 1999 Annual	Certified Max Gross Wt.:	1100 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	1600 Hrs	Engine Manufacturer:	Lycoming
ELT:	Not installed	Engine Model/Series:	O-320-A2B
Registered Owner:	THOMAS E. SUTPHIN	Rated Power:	150 Horsepower
Operator:		Operating Certificate(s) Held:	None
Operator Does Business As:		Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	DAB ,35 ft msl	Distance from Accident Site:	6 Nautical Miles
Observation Time:	15:53 Local	Direction from Accident Site:	10°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	11 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	90°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	24°C / 12°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	FERNANDINA BCH., FL (55J)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	14:30 Local	Type of Airspace:	Class G

Airport Information

Airport:	SPRUCE CREEK 44J	Runway Surface Type:	Asphalt
Airport Elevation:	24 ft msl	Runway Surface Condition:	Dry
Runway Used:	5	IFR Approach:	
Runway Length/Width:	4000 ft / 100 ft	VFR Approach/Landing:	Full stop;Traffic pattern

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor	Latitude, Longitude:	29.170427,-81.13906(est)

Administrative Information

Investigator In Charge (IIC):	Kennedy, Jeffrey
Additional Participating Persons:	ALAN NEMCIK; ORLANDO , FL
Original Publish Date:	December 4, 2000
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=49016

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](#).