

# **Aviation Investigation Final Report**

Location:	POTTSTOWN, Pennsylvania	Accident Number:	ERA22LA003
Date & Time:	October 1, 2021, 15:00 Local	Registration:	N329CC
Aircraft:	CULP JOHN S CULPS SPECL SOPWITH	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 recently purchased the experimental, amateur-built, free-castering tailwheel airplane. He had completed nine takeoffs and landings uneventfully on the day of the accident. During the tenth landing, as the tail touched down, the airplane turned left. The pilot tried to correct with full right rudder and right brake application; however, the airplane continued to travel left, and ground looped on the runway, resulting in substantial damage to the left wing. Examination of the wreckage by a mechanic did not reveal any preimpact mechanical malfunctions, nor did the pilot report any.

#### **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 during landing, which resulted in a ground loop.

#### **Findings**

Personnel issues Aircraft Aircraft control - Pilot Directional control - Not attained/maintained

# **Factual Information**

History of Flight	
Landing-landing roll	Loss of control on ground (Defining event)
Landing-landing roll	Abnormal runway contact

#### **Pilot Information**

Certificate:	Airline transport; Commercial	Age:	56,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Rear
Other Aircraft Rating(s):	None	Restraint Used:	5-point
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine; Instrument airplane	Toxicology Performed:	
Medical Certification:	Class 1 Without waivers/limitations	Last FAA Medical Exam:	February 23, 2021
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	July 1, 2021
Flight Time:	13182 hours (Total, all aircraft), 3 hours (Total, this make and model), 12830 hours (Pilot In Command, all aircraft), 115 hours (Last 90 days, all aircraft), 68 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

## Pilot-rated passenger Information

Certificate:	Private	Age:	49,Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land	Seat Occupied:	Front
Other Aircraft Rating(s):	Glider	Restraint Used:	5-point
Instrument Rating(s):	None	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	
Medical Certification:	Class 3 With waivers/limitations	Last FAA Medical Exam:	May 5, 2021
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	5250 hours (Total, all aircraft)		

#### Aircraft and Owner/Operator Information

Aircraft Make:	CULP JOHN S	Registration:	N329CC
Model/Series:	CULPS SPECL SOPWITH	Aircraft Category:	Airplane
Year of Manufacture:	2005	Amateur Built:	Yes
Airworthiness Certificate:	Experimental (Special)	Serial Number:	1009
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	June 1, 2021 Condition	Certified Max Gross Wt.:	2650 lbs
Time Since Last Inspection:	13 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	216 Hrs at time of accident	Engine Manufacturer:	Vendenayer
ELT:	Not installed	Engine Model/Series:	M-14P
Registered Owner:	On file	Rated Power:	360
Operator:	On file	Operating Certificate(s) Held:	None

#### Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	PTW,308 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	14:54 Local	Direction from Accident Site:	0°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	5 knots /	Turbulence Type Forecast/Actual:	None / None
Wind Direction:		Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.23 inches Hg	Temperature/Dew Point:	18°C / 6°C
Precipitation and Obscuration:	No Obscuration; No Precipita	ation	
Departure Point:	POTTSTOWN, PA	Type of Flight Plan Filed:	None
Destination:	POTTSTOWN, PA	Type of Clearance:	None
Departure Time:		Type of Airspace:	Class E

#### **Airport Information**

Airport:	Heritage Field PTW	Runway Surface Type:	Asphalt
Airport Elevation:	308 ft msl	Runway Surface Condition:	Dry
Runway Used:	28	IFR Approach:	None
Runway Length/Width:	3371 ft / 75 ft	VFR Approach/Landing:	Full stop;Traffic pattern

## Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	40.239556,-75.556722(est)

#### **Administrative Information**

Investigator In Charge (IIC):	Gretz, Robert
Additional Participating Persons:	Mike Brubaker; FAA/FSDO; Allentown, PA
Original Publish Date:	April 29, 2022
Last Revision Date:	
Investigation Class:	Class 4
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=104036

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 <u>here</u>.