



Aviation Investigation Final Report

Location:	Knoxville, Tennessee	Accident Number:	ERA23LA085
Date & Time:	December 12, 2022, 13:50 Local	Registration:	N783SF
Aircraft:	Cessna 172	Aircraft Damage:	Substantial
Defining Event:	Loss of control on ground	Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

The student pilot reported that upon engine startup for a local solo flight the airplane “almost immediately pivoted to the left.” The airplane impacted a two support beams of the shade hangar it was parked under, substantially damaging the left wing. The pilot reported that the parking brake was set when the engine was started and that his feet were on the brakes. A witness reported that the airplane “started up with what sounded like an excessively high RPM.” Postaccident inspection of the throttle, toe brake, and parking brake system by a Federal Aviation Administration inspector found no anomalies 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 loss of directional control during engine start.

Findings

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

Factual Information

History of Flight

Standing-engine(s) start-up	Loss of control on ground (Defining event)
------------------------------------	--

Pilot Information

Certificate:	Student	Age:	67,Male
Airplane Rating(s):	None	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	
Medical Certification:	Class 3 Without waivers/limitations	Last FAA Medical Exam:	April 21, 2021
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	80 hours (Total, all aircraft), 80 hours (Total, this make and model), 15 hours (Pilot In Command, all aircraft), 11 hours (Last 90 days, all aircraft), 2 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N783SF
Model/Series:	172 SP	Aircraft Category:	Airplane
Year of Manufacture:	2001	Amateur Built:	
Airworthiness Certificate:	Normal; Utility	Serial Number:	172S8980
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:		Certified Max Gross Wt.:	2550 lbs
Time Since Last Inspection:		Engines:	1
Airframe Total Time:		Engine Manufacturer:	
ELT:	Installed, not activated	Engine Model/Series:	
Registered Owner:	BREMFOUR AVIATION GROUP INC	Rated Power:	
Operator:	Knoxville Flight Training Academy	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	DKX,833 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	13:55 Local	Direction from Accident Site:	310°
Lowest Cloud Condition:		Visibility	10 miles
Lowest Ceiling:	Overcast / 2400 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	None / None
Wind Direction:		Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.16 inches Hg	Temperature/Dew Point:	10°C / 5°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Knoxville, TN	Type of Flight Plan Filed:	None
Destination:	Knoxville, TN	Type of Clearance:	None
Departure Time:		Type of Airspace:	Class E

Airport Information

Airport:	KNOXVILLE DOWNTOWN ISLAND DKX	Runway Surface Type:	
Airport Elevation:	833 ft msl	Runway Surface Condition:	Dry
Runway Used:		IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	35.962503,-83.8718(est)

Administrative Information

Investigator In Charge (IIC): Young, Joshua

Additional Participating Persons: David Clouse; FAA/FSDO; Nashville, TN

Original Publish Date: February 23, 2023

Last Revision Date:

Investigation Class: [Class 4](#)

Note: The NTSB did not travel to the scene of this accident.

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=106444>

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](#).