



Aviation Investigation Final Report

Location:	Stockton, California	Accident Number:	GAA19CA014
Date & Time:	October 5, 2018, 11:45 Local	Registration:	N78239
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 solo student pilot reported that, during departure and before rotation, the airplane veered left, and he applied opposite rudder, but the airplane impacted a taxiway sign. The nose landing gear separated from the firewall, and the airplane exited the runway to the left and came to rest upright in a field adjacent to the runway.

The airplane sustained substantial damage to the firewall structural plate and the lower firewall flange.

The student reported that there were no preaccident mechanical failures or malfunctions with the airplane 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 student pilot's failure to maintain directional control during takeoff.

Findings

Aircraft	Directional control - Not attained/maintained
Personnel issues	Aircraft control - Student/instructed pilot
Aircraft	TE flap control system - Incorrect use/operation
Personnel issues	Knowledge of equipment - Student/instructed pilot

Factual Information

History of Flight

Takeoff	Loss of control on ground (Defining event)
Takeoff	Attempted remediation/recovery
Takeoff	Collision with terr/obj (non-CFIT)
Takeoff	Part(s) separation from AC
Takeoff	Runway excursion

Student pilot Information

Certificate:	Student	Age:	27,Male
Airplane Rating(s):	None	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Lap only
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 With waivers/limitations	Last FAA Medical Exam:	March 20, 2018
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	(Estimated) 47.7 hours (Total, all aircraft), 19.2 hours (Total, this make and model), 33.9 hours (Last 90 days, all aircraft), 11.8 hours (Last 30 days, all aircraft), 3.2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N78239
Model/Series:	172 K	Aircraft Category:	Airplane
Year of Manufacture:	1968	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	17257540
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	September 21, 2018 100 hour	Certified Max Gross Wt.:	2299 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	5442.2 Hrs as of last inspection	Engine Manufacturer:	Lycoming
ELT:	C91A installed, not activated	Engine Model/Series:	O-320 ED2
Registered Owner:		Rated Power:	160 Horsepower
Operator:		Operating Certificate(s) Held:	Pilot school (141)

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KSCK, 27 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	18:55 Local	Direction from Accident Site:	118°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	None / None
Wind Direction:		Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.05 inches Hg	Temperature/Dew Point:	21°C / 14°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Stockton, CA (SCK)	Type of Flight Plan Filed:	None
Destination:	Stockton, CA (SCK)	Type of Clearance:	VFR
Departure Time:	11:00 Local	Type of Airspace:	Class D

Airport Information

Airport:	STOCKTON METROPOLITAN SCK	Runway Surface Type:	Asphalt
Airport Elevation:	33 ft msl	Runway Surface Condition:	Dry
Runway Used:	29L	IFR Approach:	None
Runway Length/Width:	4448 ft / 75 ft	VFR Approach/Landing:	Full stop;Traffic pattern

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	37.894165,-121.238334(est)

Administrative Information

Investigator In Charge (IIC):	Nepomuceno, Eleazar
Additional Participating Persons:	Dave Jensen; FAA; Oakland, CA
Original Publish Date:	June 10, 2019
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=98452

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).