



Aviation Investigation Final Report

Location:	Melbourne, Florida	Accident Number:	ERA24LA145
Date & Time:	March 15, 2024, 16:05 Local	Registration:	N838ER
Aircraft:	TEXTRON AVIATION INC 172S	Aircraft Damage:	Unknown
Defining Event:	Loss of control on ground	Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

The student pilot was on the first leg of his initial solo cross-country flight. He was initially cleared for an approach to runway 9R at the destination airport, with a surface wind reported from 110° at 13 knots. After reporting a 7-mile final for runway 9R, tower controller directed him to land on runway 5. During landing, as the nose wheel touched down, the airplane “weathervaned” to the right. He abruptly added left rudder, which resulted in the airplane’s wheels “side drift[ing]” to the right and he lost control of the airplane. The airplane departed the runway to the right, eventually coming to rest in a grassy area adjacent to the runway. The right wing and upper fuselage were substantially damaged during the runway excursion. The pilot reported that there were no preaccident mechanical malfunctions or failures of 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 while landing in a crosswind.

Findings

Aircraft	Directional control - Not attained/maintained
Personnel issues	Aircraft control - Student/instructed pilot
Environmental issues	Crosswind - Effect on operation

Factual Information

History of Flight

Landing-flare/touchdown	Loss of control on ground (Defining event)
Landing-landing roll	Runway excursion

Student pilot Information

Certificate:	None	Age:	19,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 2 With waivers/limitations	Last FAA Medical Exam:	July 6, 2023
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	53 hours (Total, all aircraft), 53 hours (Total, this make and model), 2 hours (Pilot In Command, all aircraft), 53 hours (Last 90 days, all aircraft), 34 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	TEXTRON AVIATION INC	Registration:	N838ER
Model/Series:	172S	Aircraft Category:	Airplane
Year of Manufacture:	2023	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	172S12961
Landing Gear Type:	Tricycle	Seats:	3
Date/Type of Last Inspection:	March 11, 2024 AAIP	Certified Max Gross Wt.:	2558 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	674 Hrs at time of accident	Engine Manufacturer:	Lycoming
ELT:	C126 installed, not activated	Engine Model/Series:	IO-360-L2A
Registered Owner:	EMBRY-RIDDLE AERONAUTICAL UNIVERSITY INC	Rated Power:	180 Horsepower
Operator:	EMBRY-RIDDLE AERONAUTICAL UNIVERSITY INC	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:	KMLB, 27 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	15:53 Local	Direction from Accident Site:	3°
Lowest Cloud Condition:	Few / 5500 ft AGL	Visibility	10 miles
Lowest Ceiling:		Visibility (RVR):	
Wind Speed/Gusts:	10 knots /	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	110°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.03 inches Hg	Temperature/Dew Point:	26°C / 19°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Daytona Beach, FL (DAB)	Type of Flight Plan Filed:	VFR
Destination:	Melbourne, FL	Type of Clearance:	VFR
Departure Time:	15:00 Local	Type of Airspace:	Class D

Airport Information

Airport:	Melbourne Orlando International MLB	Runway Surface Type:	Asphalt
Airport Elevation:	33 ft msl	Runway Surface Condition:	Dry
Runway Used:	5	IFR Approach:	None
Runway Length/Width:	3001 ft / 74 ft	VFR Approach/Landing:	Straight-in

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Unknown
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	28.09788,-80.63526(est)

Administrative Information

Investigator In Charge (IIC):	Hicks, Ralph
Additional Participating Persons:	Kevin Olenginski; FAA/FSDO; Orlando, FL
Original Publish Date:	May 3, 2024
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=193960

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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](#).