



Aviation Investigation Final Report

Location:	Melbourne, Florida	Accident Number:	ERA24LA113
Date & Time:	February 13, 2024, 18:40 Local	Registration:	N650FT
Aircraft:	Piper PA28	Aircraft Damage:	Substantial
Defining Event:	Collision with terr/obj (non-CFIT)	Injuries:	3 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

The pilot receiving instruction reported that after receiving clearance from the control tower to take off, he taxied onto the runway during nighttime conditions. As the airplane proceeded along the center of the taxiway, he mistook the right runway edge line for the runway centerline and attempted to take off. During the takeoff roll, the airplane impacted a runway edge light, and went into the grass area adjacent to the runway. The airplane sustained substantial damage to the horizontal stabilator and the right wing during the accident. The pilot and the flight instructor reported 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 pilot receiving instruction's failure to correctly identify the runway centerline prior to initiating the nighttime takeoff, which resulted in a collision with a runway edge light and subsequent runway excursion. Contributing to the accident was the flight instructor's inadequate monitoring the pilot.

Findings

Personnel issues	Identification/recognition - Student/instructed pilot
Personnel issues	Monitoring other person - Instructor/check pilot
Environmental issues	Dark - Response/compensation

Factual Information

History of Flight

Taxi-into takeoff position	Wrong surface or wrong airport
Takeoff	Collision with terr/obj (non-CFIT) (Defining event)
Takeoff	Runway excursion

Pilot Information

Certificate:	Private	Age:	24, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	
Medical Certification:	Class 1 Without waivers/limitations	Last FAA Medical Exam:	April 4, 2022
Occupational Pilot:	No	Last Flight Review or Equivalent:	January 30, 2024
Flight Time:	177 hours (Total, all aircraft), 45 hours (Total, this make and model), 88 hours (Pilot In Command, all aircraft), 13 hours (Last 90 days, all aircraft), 9 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

Flight instructor Information

Certificate:	Commercial; Flight instructor	Age:	27, Female
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane single-engine; Instrument airplane	Toxicology Performed:	
Medical Certification:	Class 1 Without waivers/limitations	Last FAA Medical Exam:	March 26, 2019
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	February 5, 2024
Flight Time:	1108 hours (Total, all aircraft), 274 hours (Total, this make and model), 1014 hours (Pilot In Command, all aircraft), 190 hours (Last 90 days, all aircraft), 77 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Passenger Information

Certificate:		Age:	
Airplane Rating(s):		Seat Occupied:	Right
Other Aircraft Rating(s):		Restraint Used:	3-point
Instrument Rating(s):		Second Pilot Present:	Yes
Instructor Rating(s):		Toxicology Performed:	
Medical Certification:		Last FAA Medical Exam:	
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:			

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N650FT
Model/Series:	PA28 181	Aircraft Category:	Airplane
Year of Manufacture:	2013	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	2843710
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	January 13, 2024 100 hour	Certified Max Gross Wt.:	2550 lbs
Time Since Last Inspection:	97.3 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	5758.6 Hrs at time of accident	Engine Manufacturer:	LYCOMING
ELT:	C126 installed, not activated	Engine Model/Series:	O-360-A4M
Registered Owner:	FLORIDA INSTITUTE OF TECHNOLOGY	Rated Power:	180 Horsepower
Operator:	FLORIDA INSTITUTE OF TECHNOLOGY	Operating Certificate(s) Held:	Pilot school (141)
Operator Does Business As:	FIT Aviation, LLC	Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Night
Observation Facility, Elevation:	MLB, 22 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	18:53 Local	Direction from Accident Site:	107°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	6 knots /	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	40°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.03 inches Hg	Temperature/Dew Point:	17°C / 13°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Melbourne, FL (MLB)	Type of Flight Plan Filed:	IFR
Destination:	Sarasota, FL (SRQ)	Type of Clearance:	IFR
Departure Time:	18:40 Local	Type of Airspace:	Class D

Airport Information

Airport:	MELBOURNE ORLANDO INTL MLB	Runway Surface Type:	Asphalt
Airport Elevation:	33 ft msl	Runway Surface Condition:	Dry
Runway Used:	09R	IFR Approach:	None
Runway Length/Width:	10181 ft / 150 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 None	Latitude, Longitude:	28.1013,-80.6451

Administrative Information

Investigator In Charge (IIC):	Gibson, Kurt
Additional Participating Persons:	James Holmes; FAA/FSDO; Orlando, FL
Original Publish Date:	April 30, 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=193798

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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](#).