



# Aviation Investigation Final Report

---

<b>Location:</b>	Ray, Michigan	<b>Accident Number:</b>	CEN21LA295
<b>Date &amp; Time:</b>	June 28, 2021, 19:30 Local	<b>Registration:</b>	N920SS
<b>Aircraft:</b>	FLIGHT DESIGN GMBH CTLS	<b>Aircraft Damage:</b>	Minor
<b>Defining Event:</b>	AC/prop/rotor contact w person	<b>Injuries:</b>	1 Serious, 1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Instructional		

---

## Analysis

The flight instructor was conducting the 16-year-old student pilot’s first instructional flight. After completing several takeoffs and landings, they “taxied around the airport multiple times,” during which they experienced “light to sometimes moderate” rain. At the conclusion of the lesson, the rain became heavy enough that visibility was reduced, and the instructor decided to taxi the airplane into its open hangar to avoid getting wet. As they approached the hangar, the instructor noted a set of wheel chocks on the ground, and with the engine still running, he instructed the student to exit the airplane, walk around the propeller arc, and move the chocks so that he, “could taxi the airplane nose-first into the hangar...then turn it around once inside and shut down.” He stated that he repeated the instructions to ensure that the student understood. The student subsequently exited the airplane and walked forward into the spinning propeller, resulting in serious injury. The instructor 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 flight instructor’s improper decision to direct the student pilot to exit the airplane with the engine running, which resulted in serious injury when the student walked into the propeller arc.

## Findings

---

**Personnel issues**

Decision making/judgment - Instructor/check pilot

## Factual Information

### History of Flight

<b>Other</b>	AC/prop/rotor contact w person (Defining event)
--------------	---

### Pilot Information

<b>Certificate:</b>	Commercial; Flight instructor	<b>Age:</b>	37
<b>Airplane Rating(s):</b>	Single-engine land; Single-engine sea; Multi-engine land	<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	3-point
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	Airplane single-engine	<b>Toxicology Performed:</b>	
<b>Medical Certification:</b>	Class 2 Unknown	<b>Last FAA Medical Exam:</b>	
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	April 14, 2021
<b>Flight Time:</b>	(Estimated) 571 hours (Total, all aircraft), 4.2 hours (Total, this make and model), 46.6 hours (Pilot In Command, all aircraft), 1080.9 hours (Last 90 days, all aircraft), 27 hours (Last 30 days, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	FLIGHT DESIGN GMBH	<b>Registration:</b>	N920SS
<b>Model/Series:</b>	CTLS	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	2010	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Special light-sport (Special)	<b>Serial Number:</b>	F-10-02-05
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	March 2, 2021 Condition	<b>Certified Max Gross Wt.:</b>	1320 lbs
<b>Time Since Last Inspection:</b>	45.5 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	2315 Hrs as of last inspection	<b>Engine Manufacturer:</b>	Rotax
<b>ELT:</b>	C126 installed, not activated	<b>Engine Model/Series:</b>	912ULS
<b>Registered Owner:</b>	DODGER AIRCRAFT LLC	<b>Rated Power:</b>	100 Horsepower
<b>Operator:</b>	On file	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	KMTC, 580 ft msl	<b>Distance from Accident Site:</b>	8 Nautical Miles
<b>Observation Time:</b>	18:56 Local	<b>Direction from Accident Site:</b>	158°
<b>Lowest Cloud Condition:</b>	Scattered / 4000 ft AGL	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	Broken / 5000 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	/	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>		<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30.11 inches Hg	<b>Temperature/Dew Point:</b>	26°C / 26°C
<b>Precipitation and Obscuration:</b>	Light - Showers - Rain		
<b>Departure Point:</b>	Ray, MI	<b>Type of Flight Plan Filed:</b>	
<b>Destination:</b>	Ray, MI	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>		<b>Type of Airspace:</b>	

## Airport Information

<b>Airport:</b>	RAY COMMUNITY 57D	<b>Runway Surface Type:</b>	
<b>Airport Elevation:</b>	632 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>		<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>		<b>VFR Approach/Landing:</b>	None

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Serious, 1 None	<b>Aircraft Damage:</b>	Minor
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>		<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 Serious, 1 None	<b>Latitude, Longitude:</b>	42.738367,-82.889726(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Aguilera, Jason
<b>Additional Participating Persons:</b>	David Schrader; FAA FSDO; Belleville, MI
<b>Original Publish Date:</b>	February 18, 2022
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class 4</a>
<b>Note:</b>	The NTSB did not travel to the scene of this accident.
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=103380">https://data.nts.gov/Docket?ProjectID=103380</a>

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](#).