

Aviation Investigation Final Report

Location: Angola, Indiana Accident Number: CEN22LA107

Date & Time: January 20, 2022, 19:00 Local Registration: N42VR

Aircraft: CIRRUS DESIGN CORP SR20 Aircraft Damage: Substantial

Defining Event: Collision with terr/obj (non-CFIT) **Injuries:** 2 None

Flight Conducted Under: Part 91: General aviation - Instructional

Analysis

The cross-country flight was being conducted by a flight instructor and pilot in conjunction with an instrument rating course from a Part 141 flight school. According to the flight instructor, upon reaching the decision altitude, they transitioned to a visual descent to the runway. During the descent, the airplane impacted trees and the flight instructor assumed control of the airplane and continued to the runway for landing. The airplane sustained substantial damage to the fuselage, right wing, and both horizontal stabilizers.

The pilot stated that after terminating use of the view limiting device and she transitioned to visual references, she continued to glance back at the glideslope indicator, which showed that they were low on the approach. Shortly thereafter, a tree appeared in front of them, about the same time as they felt the impact. She stated that the precision approach path indicator (PAPI) would not turn on and there was not a current Notice to Air Mission (NOTAM) for the outage.

The pilot reported no mechanical malfunctions or 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 failure to ensure adequate terrain clearance during an approach. Contributing to the accident was the flight instructor's delayed remedial action when the airplane descended too low after transitioning to a visual descent to the runway.

Findings

Personnel issues	rsonnel issues Decision making/judgment - Student/instructed pilot	
Aircraft	Descent/approach/glide path - Not attained/maintained	
Personnel issues	Delayed action - Instructor/check pilot	
Personnel issues	Monitoring equip/instruments - Instructor/check pilot	

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Factual Information

History of Flight

Approach-IFR final approach Collision with terr/obj (non-CFIT) (Defining event)

Flight instructor Information

Certificate:	Commercial; Flight instructor	Age:	23,Female
Airplane Rating(s):	Single-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):		Restraint Used:	4-point
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane single-engine; Instrument airplane	Toxicology Performed:	
Medical Certification:	Class 1 With waivers/limitations	Last FAA Medical Exam:	October 4, 2021
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	September 30, 2021
Flight Time:	335 hours (Total, all aircraft), 260 hours (Total, this make and model), 278 hours (Pilot In Command, all aircraft), 45 hours (Last 90 days, all aircraft), 9 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

Student pilot Information

Certificate:	Private	Age:	20,Female
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	4-point
Instrument Rating(s):	None	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	
Medical Certification:	Class 1 Without waivers/limitations	Last FAA Medical Exam:	November 12, 2019
Occupational Pilot:	No	Last Flight Review or Equivalent:	August 17, 2020
Flight Time:	132 hours (Total, all aircraft), 43 hours (Total, this make and model), 131 hours (Pilot In Command, all aircraft), 14 hours (Last 90 days, all aircraft), 8 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

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Aircraft and Owner/Operator Information

Aircraft Make:	CIRRUS DESIGN CORP	Registration:	N42VR
Model/Series:	SR20	Aircraft Category:	Airplane
Year of Manufacture:	2006	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	1673
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	December 11, 2021 Annual	Certified Max Gross Wt.:	3000 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	7141 Hrs at time of accident	Engine Manufacturer:	Continental Motors
ELT:	C126 installed, not activated	Engine Model/Series:	I0360-ES27B
Registered Owner:	BOARD OF TRUSTEES OF WESTERN MICHIGAN UNIVERSITY	Rated Power:	200 Horsepower
Operator:	BOARD OF TRUSTEES OF WESTERN MICHIGAN UNIVERSITY	Operating Certificate(s) Held:	Pilot school (141)

Meteorological Information and Flight Plan

Visual (VMC)	Condition of Light:	Night/dark
KGWB,880 ft msl	Distance from Accident Site:	20 Nautical Miles
18:35 Local	Direction from Accident Site:	178°
	Visibility	10 miles
Overcast / 4500 ft AGL	Visibility (RVR):	
7 knots / None	Turbulence Type Forecast/Actual:	/
340°	Turbulence Severity Forecast/Actual:	/
30.5 inches Hg	Temperature/Dew Point:	-7°C / -13°C
No Obscuration; No Precipitation		
Battle Creek, WI (KBTL)	Type of Flight Plan Filed:	None
Angola, IN	Type of Clearance:	VFR flight following
18:00 Local	Type of Airspace:	Class G
	KGWB,880 ft msl 18:35 Local Overcast / 4500 ft AGL 7 knots / None 340° 30.5 inches Hg No Obscuration; No Precipitate Battle Creek, WI (KBTL) Angola, IN	KGWB,880 ft msl Distance from Accident Site: 18:35 Local Direction from Accident Site: Visibility Overcast / 4500 ft AGL Visibility (RVR): 7 knots / None Turbulence Type Forecast/Actual: 340° Turbulence Severity Forecast/Actual: 30.5 inches Hg Temperature/Dew Point: No Obscuration; No Precipitation Battle Creek, WI (KBTL) Type of Flight Plan Filed: Angola, IN Type of Clearance:

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Airport Information

Airport:	TRI-STATE STEUBEN COUNTY ANQ	Runway Surface Type:	Asphalt
Airport Elevation:	995 ft msl	Runway Surface Condition:	Dry
Runway Used:	05	IFR Approach:	RNAV
Runway Length/Width:	4540 ft / 75 ft	VFR Approach/Landing:	Straight-in

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	41.638739,-85.084952

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Administrative Information

Investigator In Charge (IIC):	Williams, David
Additional Participating Persons:	Josh Osman; FAA; Grand Rapids, MI
Original Publish Date:	June 14, 2022
Last Revision Date:	
Investigation Class:	Class 4
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=104554

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.

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