



Aviation Investigation Final Report

Location:	Lodi, Wisconsin	Accident Number:	CEN19LA045
Date & Time:	December 15, 2018, 14:20 Local	Registration:	N393SX
Aircraft:	Brandt Sonex	Aircraft Damage:	Substantial
Defining Event:	Collision during takeoff/land	Injuries:	1 Serious
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The sport pilot was conducting a personal, local flight when the airplane's left wingtip impacted a tree while on final approach to the runway. The pilot stated that, during final approach, he was fixated on maintaining the proper landing airspeed and that he inadvertently allowed the airplane to drift north of the final approach course into the tree. The airplane then spun around the tree and descended nose down to ground impact. The pilot reported that there were no preaccident mechanical 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's failure to maintain proper alignment with the runway during final approach, which resulted in impact with a tree.

Findings

Personnel issues	Monitoring environment - Pilot
Personnel issues	Aircraft control - Pilot
Aircraft	Heading/course - Not attained/maintained
Environmental issues	Tree(s) - Effect on operation

Factual Information

History of Flight

Approach-VFR pattern final	Collision during takeoff/land (Defining event)
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On December 15, 2018, about 1420 central standard time, an amateur-built Sonex airplane, N393SX, collided with a tree and terrain while on final approach to Lodi Lakeland Airport (9WN5), near Lodi, Wisconsin. The sport pilot sustained serious injuries, and the airplane was substantially damaged. The airplane was owned by the pilot and operated under Title 14 *Code of Federal Regulations (CFR)* Part 91 as a personal flight without a flight plan. Day visual meteorological conditions prevailed for the local flight that departed 9WN5 about 1340.

The pilot reported that he entered the left downwind leg for runway 9 with the intention to make a full-stop landing. He stated that his turn from the downwind leg to base leg was uneventful; however, the airplane's airspeed had increased slightly during the base leg. The pilot reported that he turned onto final approach about ½ mile from the end of the runway at 1,600 ft mean sea level (about 750 ft above the ground) and reduced airspeed to about 63 mph. The pilot stated that while he focused on maintaining proper landing airspeed the airplane drifted north of the extended runway centerline and the airplane's left wingtip collided with a treetop about 50-60 ft above the ground. The airplane subsequently spun around the tree and descended about 60° nose-down into the ground. The pilot stated that the airplane did not bounce upon impact with the ground. The pilot reported that there were no preimpact mechanical malfunctions with the airplane that would have precluded normal flight. The pilot stated that he was fixated with maintaining his airspeed during final approach and that he inadvertently allowed the airplane to drift north of the final approach course and into the tree.

Pilot Information

Certificate:	Sport Pilot	Age:	73,Male
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:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Sport pilot With waivers/limitations	Last FAA Medical Exam:	August 25, 2005
Occupational Pilot:	No	Last Flight Review or Equivalent:	November 26, 2017
Flight Time:	187.6 hours (Total, all aircraft), 28 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	Brandt	Registration:	N393SX
Model/Series:	Sonex B	Aircraft Category:	Airplane
Year of Manufacture:	2014	Amateur Built:	Yes
Airworthiness Certificate:	Experimental (Special)	Serial Number:	393
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:	December 14, 2018 Condition	Certified Max Gross Wt.:	1150 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	28 Hrs at time of accident	Engine Manufacturer:	ULPower Aero Engines
ELT:	C91 installed, activated, did not aid in locating accident	Engine Model/Series:	UL260IS
Registered Owner:	On file	Rated Power:	107 Horsepower
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	C29,928 ft msl	Distance from Accident Site:	13 Nautical Miles
Observation Time:	14:15 Local	Direction from Accident Site:	182°
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:	30.17 inches Hg	Temperature/Dew Point:	9°C / -2°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Lodi, WI (9WN5)	Type of Flight Plan Filed:	None
Destination:	Lodi, WI (9WN5)	Type of Clearance:	None
Departure Time:	13:40 Local	Type of Airspace:	Class G

Airport Information

Airport:	Lodi Lakeland Airport 9WN5	Runway Surface Type:	Grass/turf
Airport Elevation:	844 ft msl	Runway Surface Condition:	Dry
Runway Used:	09	IFR Approach:	None
Runway Length/Width:	1875 ft / 105 ft	VFR Approach/Landing:	Traffic pattern

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious	Latitude, Longitude:	43.326667,-89.529441

Administrative Information

Investigator In Charge (IIC):	Fox, Andrew
Additional Participating Persons:	Todd Davis; Federal Aviation Administration - Milwaukee FSDO; Milwaukee, WI
Original Publish Date:	April 13, 2020
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=98773

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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](#).