



AVIATION



HIGHWAY



MARINE



RAILROAD



PIPELINE

Aviation Investigation Final Report

Location:	Devine, Texas	Accident Number:	CEN19LA087
Date & Time:	February 27, 2019, 16:38 Local	Registration:	N1778
Aircraft:	Warner Aerocraft Space Walker II	Aircraft Damage:	Substantial
Defining Event:	Loss of control in flight	Injuries:	1 Serious
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot was conducting a personal flight over his private airstrip when the airplane collided with trees while in a descent to make a low pass over the runway. The forward fuselage and left wing sustained substantial damage during the accident.

The pilot does not recall the final portion of the flight besides a brief memory of the airplane descending toward trees in a 90° nose-down pitch attitude. The pilot does not recall if the airplane had any mechanical malfunctions during the flight. A witness reported hearing a reduction in engine power shortly before the accident; however, based on the pilot's statement, it is likely that he had reduced engine power to descend toward the runway for a low pass.

Additionally, an examination of the airplane and its engine did not reveal any evidence of mechanical malfunction that would have precluded normal operation. Based upon the pilot's recollection that the airplane was in a vertical nose-down descent, it is likely the airplane exceeded its critical angle of attack while maneuvering near the runway, which resulted in an aerodynamic stall and collision with trees and terrain.

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 control of the airplane while maneuvering at a low altitude, which resulted in the airplane exceeding its critical angle of attack and an aerodynamic stall.

Findings

Aircraft	Angle of attack - Not attained/maintained
Personnel issues	Aircraft control - Pilot

Factual Information

History of Flight

Maneuvering-low-alt flying	Low altitude operation/event
Maneuvering-low-alt flying	Loss of control in flight (Defining event)
Maneuvering-low-alt flying	Collision with terr/obj (non-CFIT)

On February 27, 2019, about 1638 central standard time, a Warner Aerocraft Space Walker II airplane, N1778, was substantially damaged when it was involved in an accident near Devine, Texas. The pilot was seriously injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

The pilot reported that the purpose of the flight was to overfly his private airstrip to evaluate the runway surface condition and to view wildlife. The pilot remembers an uneventful takeoff from Castroville Municipal Airport (CVB), Castroville, Texas, flying to his airstrip, and maneuvering near the north end of the airstrip as he prepared to make a low pass over the runway. The pilot does not recall the remaining portion of the flight besides a brief memory of the airplane descending toward trees in a 90° nose-down pitch attitude. The pilot does not recall if the airplane had any mechanical malfunctions during the flight.

The pilot’s wife was in the kitchen when she heard her husband’s airplane overfly their residence a couple of times. She subsequently went outside and saw the airplane make a shallow turn to the north and estimated that it was higher than a nearby water tower. She noted that it was during this turn that she realized there was no engine sound coming from the airplane. The airplane then began a slow descent toward the tree line at the northern end of their property. She realized that the airplane had crashed when she saw a brief “puff of dust” among the trees.

Based upon photographs of the accident site, there was tree damage preceding the grass runway. The airplane impacted the ground just beyond the trees resulting in substantial damage to the forward fuselage and left wing.

A postaccident examination confirmed proper flight control continuity. A fluid consistent with aviation fuel was observed inside the fuel filter assembly. A visual examination of the engine crankcase did not reveal any holes, cracks, or oil leaks, and the engine crankshaft rotated smoothly with no binding. Internal engine and valve train continuity were confirmed, and compression and suction were observed on all cylinders while the crankshaft was rotated. The spark plugs were removed and exhibited features consistent with normal engine operation. Both magnetos provided spark on all leads when rotated with an electric drill motor.

A partial disassembly of the engine did not reveal any evidence of mechanical failure with the cylinders, connecting rods or pistons, or their respective bearings. Adequate lubrication was observed throughout

the engine and there was no evidence of oil starvation or excessive heat. The carburetor exhibited no evidence of malfunction when it was disassembled. The engine examination did not reveal any anomalies that would have precluded normal operation during the accident flight.

Pilot Information

Certificate:	Commercial; Flight instructor	Age:	81, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Rear
Other Aircraft Rating(s):	Helicopter	Restraint Used:	4-point
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine; Helicopter; Instrument airplane	Toxicology Performed:	No
Medical Certification:	Class 3 With waivers/limitations	Last FAA Medical Exam:	September 25, 2018
Occupational Pilot:	No	Last Flight Review or Equivalent:	April 24, 2017
Flight Time:	(Estimated) 22182 hours (Total, all aircraft), 15.6 hours (Total, this make and model), 22000 hours (Pilot In Command, all aircraft), 12 hours (Last 90 days, all aircraft), 4.2 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Warner Aircraft	Registration:	N1778
Model/Series:	Space Walker II	Aircraft Category:	Airplane
Year of Manufacture:	2018	Amateur Built:	Yes
Airworthiness Certificate:	Experimental (Special)	Serial Number:	TB006
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	February 18, 2019 Condition	Certified Max Gross Wt.:	1325 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	26.3 Hrs at time of accident	Engine Manufacturer:	Lycoming
ELT:	C91 installed, activated, did not aid in locating accident	Engine Model/Series:	O-235-C1
Registered Owner:		Rated Power:	108 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:	CVB,774 ft msl	Distance from Accident Site:	5 Nautical Miles
Observation Time:	16:35 Local	Direction from Accident Site:	19°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	160°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	29.96 inches Hg	Temperature/Dew Point:	26°C / 16°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Castroville, TX (CVB)	Type of Flight Plan Filed:	None
Destination:	Castroville, TX (CVB)	Type of Clearance:	None
Departure Time:	16:30 Local	Type of Airspace:	Class G

Airport Information

Airport:	Private Airstrip N/A	Runway Surface Type:	Grass/turf
Airport Elevation:	859 ft msl	Runway Surface Condition:	Dry;Rough
Runway Used:	17	IFR Approach:	None
Runway Length/Width:	1200 ft / 40 ft	VFR Approach/Landing:	Traffic pattern

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	1 Serious	Latitude, Longitude:	29.274999,-98.877502(est)

Administrative Information

Investigator In Charge (IIC):	Fox, Andrew		
Additional Participating Persons:	Jeffrey W. Burns; Federal Aviation Administration - San Antonio FSDO ; San Antonio, TX		
Original Publish Date:	December 14, 2021	Investigation Class:	3
Note:	The NTSB did not travel to the scene of this accident.		
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=99030		

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).