



AVIATION



HIGHWAY



MARINE



RAILROAD



PIPELINE

Aviation Investigation Final Report

Location:	Oral, South Dakota	Accident Number:	CEN22FA109
Date & Time:	January 30, 2022, 17:10 Local	Registration:	N3177F
Aircraft:	Christavia MK1	Aircraft Damage:	Substantial
Defining Event:	Loss of control in flight	Injuries:	1 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The noncertificated pilot, who had no previous training or flight experience, texted his friend to ask if he, the pilot, could taxi the airplane on a private airstrip, which was located at the friend's residence. At the time of the pilot's request, the friend was not at his residence. The friend arrived home about 1645 and observed the pilot taxiing the airplane. About 1700, the friend observed the airplane airborne, and the pilot completed two touch-and-go landings on the private airstrip. The airplane departed to the south and did not return. About 30 minutes later, the friend located the accident airplane, which had crashed in a field near the pilot's residence, about 2 miles from his private airstrip. There were no witnesses to the accident.

Postaccident examination of the airplane revealed no evidence of any preimpact mechanical anomalies or failures that would have precluded normal operation. The ground scar, impact signatures on the airplane structure, and wreckage fragmentation patterns were consistent with an aerodynamic stall, loss of control, and impact with terrain.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The noncertificated pilot's failure to maintain control of the airplane, which led to the airplane exceeding its critical angle-of-attack and subsequent aerodynamic stall. Contributing to the accident was the pilot's decision to attempt a flight with no previous flight experience.

Findings

Personnel issues	Qualification/certification - Pilot
Personnel issues	Decision making/judgment - Pilot
Aircraft	Airspeed - Not attained/maintained
Aircraft	Angle of attack - Capability exceeded
Personnel issues	Aircraft control - Pilot

Factual Information

History of Flight

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

On January 30, 2022, about 1710 mountain standard time, N3177F, a Christavia MK1 airplane, sustained substantial damage when it was involved in an accident near Oral, South Dakota. The uncertificated pilot sustained fatal injuries. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

According to the pilot's friend, the pilot texted him to ask if he, the pilot, could taxi the airplane on the private airstrip, which was located at the friend's residence. At the time of the pilot's request, the friend was not at his residence. The friend arrived home about 1645 and observed the pilot taxiing the airplane. About 1700, the friend observed the airplane airborne, and the pilot completed two touch-and-go landings on the private airstrip, then departed to the south.

About 1720, the friend texted the pilot to inquire about his location and there was no response. The friend then departed in his Piper airplane to look for the pilot. The friend located the accident airplane, which had crashed in a field near the pilot's residence, about 2 miles from the private airstrip.

The friend then returned to his private airstrip to respond to the accident site in his personal vehicle. The friend noted the pilot had the lap belt restraint secured, and the shoulder harness restraint was not used.

There were no witnesses to the accident.

Pilot Information

Certificate:	None	Age:	19,Male
Airplane Rating(s):	None	Seat Occupied:	Front
Other Aircraft Rating(s):	None	Restraint Used:	Lap only
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	None None	Last FAA Medical Exam:	
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	0 hours (Total, all aircraft), 0 hours (Total, this make and model)		

According to the pilot's friend and Federal Aviation Administration records, the pilot did not hold a pilot certificate and had no previous training or flight experience.

Aircraft and Owner/Operator Information

Aircraft Make:	Christavia	Registration:	N3177F
Model/Series:	MK1	Aircraft Category:	Airplane
Year of Manufacture:	1992	Amateur Built:	Yes
Airworthiness Certificate:	None	Serial Number:	347
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:		Certified Max Gross Wt.:	
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	CONT MOTOR
ELT:	Not installed	Engine Model/Series:	0-200 SERIES
Registered Owner:		Rated Power:	100 Horsepower
Operator:	On file	Operating Certificate(s) Held:	None

According to the pilot's friend, the pilot had been working on the kit airplane for several months in preparation to have the airplane certificated.

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KCUT, 5545 ft msl	Distance from Accident Site:	25 Nautical Miles
Observation Time:	17:53 Local	Direction from Accident Site:	328°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	5 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	240°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.91 inches Hg	Temperature/Dew Point:	3°C / -11°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Oral, SD	Type of Flight Plan Filed:	None
Destination:	Oral, SD	Type of Clearance:	None
Departure Time:		Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	1 Fatal	Latitude, Longitude:	43.375175,-103.29778

Postaccident examination of the airplane revealed that the left-wing aft spar was separated at the wing root, and the wing was displaced forward. The lower forward fuselage was crushed upward and aft. The outboard right wing displayed leading edge aft crush damage. A ground scar consistent with the wing leading edge was located below the wing. The engine was displaced downward and to the right (see figure). The fixed-pitch propeller was located about 5 ft forward of the main wreckage and was separated at the engine crankshaft flange. The propeller blades displayed forward twisting deformation.



Figure. Accident Airplane

Flight control continuity was established from the cockpit controls to all of the flight control surfaces. The airframe and engine examination revealed no evidence of mechanical malfunctions or failures that would have precluded normal operation.

Administrative Information

Investigator In Charge (IIC):	Sauer, Aaron		
Additional Participating Persons:	Todd Obritsch; FAA; Rapid City, SD		
Original Publish Date:	August 31, 2022	Investigation Class:	3
Note:			
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=104569		

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