



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Washington, D.C. 20594

October 17, 2021

EXAMINATION SUMMARY

ERA21LA073

A. ACCIDENT

Location: Marion, North Carolina
Date: December 13, 2020
Time: 1045 EST
Airplane: Flight Design CTSW, N138CT

B. INVESTIGATION PARTICIPANTS

Ralph E. Hicks - IIC
Eastern Region Aviation (ERA)
National Transportation Safety Board
Marietta, Georgia 30068
[REDACTED]
[REDACTED]

C. SUMMARY

On December 13, 2020, about 1045 eastern standard time, a Flight Design CTSW, N138CT, was substantially damaged when it was involved in an accident near Marion, North Carolina. The airline transport pilot and one passenger had minor injuries. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

The pilot reported that all preflight operations were routine for the cross-country flight to Frankfort, Kentucky. Shortly after liftoff, about 46 kts, the airplane suddenly yawed to the right and came back down to the runway. The pilot elected to reject the takeoff. The airplane continued to veer to the right and the airplane departed the runway and entered an area of soft terrain. The nose wheel collapsed and the airplane nosed over.

Inspectors with the Federal Aviation Administration responded to the accident site and examined the wreckage. The wreckage had been recovered by the pilot and moved to a hangar. The nose gear was collapsed and crushed into the lower fuselage. The vertical stabilizer and rudder were structurally damaged.

1.0 Accident Site

The wreckage was examined at the accident by inspectors from the Charlotte, NC FSDO. See inspector's statement for details.

2.0 Fuselage

Fuselage was generally intact. Nose gear collapsed and crushed aft and up, into the lower engine cowling.

3.0 Left Wing

Removed by recovery personnel. Aileron control attachment point at wing root intact; attaching hardware removed by recovery personnel. Aileron continuity established.

4.0 Right Wing

Removed by recovery personnel. Aileron control attachment point at wing root intact; attaching hardware removed by recovery personnel. Aileron continuity established.

5.0 Empennage

Stabilator and stabilator trim: Control continuity established from control surfaces to both cockpit sticks. All connections were secure with no interference or obstructions.

Rudder: Rudder pedals at both seats were jammed. Followed cables from rudder to pedals and continuity was established; no binding or separations. All connections were secure with no interference or obstructions.

Cut away the fiberglass console area between the two pairs of pedals. The steel rod between the right pedals and the nose wheel steering connection was bent down about 10 degrees, forward of the firewall, preventing movement of the pedals. The bent rod was indicative of impact damage from the nose gear collapsing and crushing up against the lower fuselage.

6.0 Engine

Not examined.

7.0 Propeller

Not examined.