



## **NATIONAL TRANSPORTATION SAFETY BOARD**

Office of Aviation Safety  
Central Region

May 27, 2022

### **ON SCENE OBSERVATIONS**

**CEN22FA214**

This document contains 13 embedded photos.

## **A. ACCIDENT**

Location: Wauwatosa, WI  
Date: May 26, 2022  
Aircraft: Cessna 152, Registration N4978B  
NTSB IIC: Samantha Link

## **B. EXAMINATION PARTICIPANTS:**

Samantha Link  
Aviation Accident Investigator  
National Transportation Safety Board  
Denver, CO 80239

Brandon Molina  
Aviation Safety Inspector  
Federal Aviation Administration  
Milwaukee, WI 53207

Todd Davis  
Aviation Safety Inspector  
Federal Aviation Administration  
Milwaukee, WI 53207

## **C. SUMMARY**

An on scene examination of the airplane was conducted on May 27, 2022. No anomalies were noted during the examination.

## **D. DETAILS OF THE INVESTIGATION**

### **1.0 Accident Site Overview**

The airplane impacted the ground in a residential neighborhood about ¼ mile from the departure end of runway 22R. The first identified point of impact was damage to a garage roof. Some singles were damaged and separated at the edge of the garage; damaged shingles extended inward along a narrow path, consistent with the shape of a wing leading edge. The airplane itself came to rest nose down with the engine in a deep impact crater. The cabin area extended upward, and the aft fuselage was fractured just aft of the baggage area. The empennage remained mostly whole and came to rest on the ground. Both wings remained partially attached to the fuselage and their leading edges sustained aft crush damage.

## 1.1 Accident Site Photos



Figure 1: Damage to Garage Roof



Figure 2: Overall View of Wreckage



Figure 3: Right side of Airplane

## 2.0 Airframe Examination

- The cabin area sustained extensive crush damage.
  - It was crushed forward into the engine compartment and upward just in front of the main landing gear.
  - Flight control cable continuity could not be established within the cabin due to deformation of the cabin floor.
    - All cables were present and extended from their control surfaces to the cabin area.
    - The left pilot seat control yoke was fracture separated, however, the rod still extended forward into the instrument panel.
      - The forward most portion of the rod was exposed, and the aileron chain remained secured.
- The instrument panel sustained extensive damage; the instruments themselves were displaced and scattered.
  - The throttle was found in the full forward position.
  - The mixture handle was fracture separated.
  - The carburetor heat was observed extended (into the “on” position).
    - It was bent about mid length.
  - The electric flap control handle was found in the up position.
- A Garmin 396 was found loose within the cockpit, and it was off.
  - It was sent to the NTSB laboratory for download.

- Left Wing:
  - The left wing was partially separated from the fuselage at the wing root.
  - A large indent was present in the inboard portion of the left wing.
  - The left-wing flap was in the up and locked position; however, the outboard track was slightly loose.
  - Aileron flight control continuity was established from the aileron control surface to wing root.
- The right wing remained attached at the fuselage and came to rest slightly lower than the left.
  - The leading edge was crushed aft along its entire edge,
    - It was crushed somewhat aft near the wing root, and the crush damage went progressively further aft the further outboard on the wing.
      - Near the wing tip, the aft crushing extended into the aileron.
  - The outboard portion of the aileron was bent.
    - The aileron was manipulated by hand and corresponding motion was observed at the wing root.
  - The right flap was secured in the up and locked position.
  - The flap actuator jack screw was examined.
    - No threads were exposed which is consistent with the flaps in the up position.
- The aft fuselage was fractured just aft of the baggage area and was bent down and to the right.
  - The aft fuselage sustained a large bend on its right side.
  - The empennage came to rest on the ground.
  - The left horizontal stabilizer remained mostly intact, and the elevator remained attached.
  - The right elevator remained attached to the right horizontal stabilizer. Both were bent slightly inboard of midspan.
  - The rudder remained secured to the vertical stabilizer.
  - Flight control continuity was established from the elevator and rudder control surfaces to the baggage area.
    - The cables were taught going forward from the baggage area and were unable to be manipulated due to airframe deformation.
- Flight control continuity was established from:
  - The rudder and elevator flight control surfaces to the airplane's baggage area.
  - Aileron continuity was established from both the left and right aileron control surfaces to the aft cabin door posts.
  - The left pilot seat control yoke was fracture separated, however, the rod still extended forward into the instrument panel.
    - The forward most portion of the rod was exposed, and the aileron chain remained secured.
  - Control continuity was unable to be established within the cabin area, due to deformation of the airframe.

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## 2.1 Airframe Photos



Figure 4: Left Wing



Figure 5: Aft Fuselage and Right side of Empennage



**Figure 6: Carburetor heat, Throttle, Mixture, and Flap Handle**

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**Figure 7: Forward most Portion of Control Yoke**



**Figure 8: Tachometer and Hobbs Meter**



Figure 9: Underside of the Right Wing



Figure 10: Flap Actuator and Jack Screw

### 3.0 Engine Examination

- The engine came to rest nose down in a deep impact crater.
  - The spinner along with one propeller blade were not visible.
  - The outboard portion of the second blade extended upward from the crater.
- The engine cowling was removed; and there were no visual indications of catastrophic failure.
- When the engine was removed from the ground, the spinner exhibited aft crushing.
- Both propeller blades were bent sweepingly aft.
- The lower portion of the engine was covered in dirt and no obvious visual anomalies were noted.
- The carburetor was fractured at its attachment point and a lot of oil was found in the impact crater.
- The left magneto and oil filter were fracture separated from their mounts.

### 3.1 Engine Photos



Figure 11: Top of Engine

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Figure 12: Accessory Section of Engine



Figure 13: Spinner and Propeller Assembly

END.

Submitted by: Samantha Link