

NATIONAL TRANSPORTATION SAFETY BOARD

Vehicle Recorder Division
Washington, DC 20594

November 9, 2020

Image Recorder

**Specialist's Factual Report
By Nick Swann**

1. EVENT SUMMARY

Location:	Senoia, GA
Date:	January 25, 2020
Vehicle:	Bushby Mustang II
Registration:	Unregistered
Operator:	Private
NTSB Number:	ERA20FA086

2. GROUP

An image recorder group was not convened.

3. DETAILS OF INVESTIGATION

On January 30, 2020, the National Transportation Safety Board (NTSB) Vehicle Recorder Division received a witness video file.

3.1. Video Files

The file provided has a resolution of 1920 by 1080 pixels and was recorded at 59 frames per second (FPS). The recording is 2 minutes and 54 seconds long

3.2. Timing and Correlation

Timing of the summary is expressed as Video Elapsed Time (mm:ss), which is time from the beginning of the recording.

3.3. Summary of Recording Contents

In agreement with the Investigator-In-Charge, a video group did not convene and a summary report was prepared.

The perspective of this video recording was from the ground at a large distance away. The video began with the accident aircraft in the frame and the operator of the camera tracking the aircraft.

At 00:27, the aircraft performed a 360 degree left roll. The aircraft then returned to level flight. At 00:37 the aircraft performed a left turn half lazy eight.

The aircraft continued to descend and accelerate and at approximately 00:53 the

aircraft performed a 360 degree right roll. At 01:03, the aircraft appeared to perform a right chandelle. After the chandelle, the aircraft began to descend again and gain speed.

At 01:25, the aircraft began to climb and performed two consecutive 360 degree left rolls. The aircraft exited the second roll descending and then performed a sharp descending right turn. At 01:54, the aircraft appeared to be level again.

At 01:58, the aircraft began to climb again and then performed a right 360 degree roll. The aircraft then appeared to descend briefly, level out, and, at 02:18, performed a left 360 degree roll. The aircraft then began a right turn.

At 02:37, the camera operator zoomed out and the aircraft attitude was difficult to discern although its position was still visible as the sun reflected off the red painted surface.

At 02:46, the aircraft appeared to be flying toward the camera and leveling off.

By extracting individual frames from the remainder of the recording, a frame by frame analysis was performed of the airplane breaking up. An example of debris images can be seen below in figure 1 and figure 2. Visible in figure 2 are three distinct pieces of debris; one glinting in the sunlight circled in green, and two other darker pieces circled in red. Due to the resolution of the recording, the compression effects of recorded video, and the distance the camera operator was from the aircraft, the parts of the aircraft that liberated in flight were not able to be identified.

At 02:47, the first piece of debris from the airplane was visible. Just thereafter, the camera autofocus was unable to track the airplane and the camera temporarily lost focus for several frames. When focus returned roughly a second later, four pieces of debris were seen behind the aircraft and the aircraft appeared to be in a sharp nose down attitude. The aircraft continued to descend rapidly toward a tree line in the distance and several frames later, just before 02:49, the fuselage of the aircraft was seen in a sharp nose down attitude and appeared to descend into the trees. At this time, a 5th piece of debris was seen liberating from the aircraft.

The camera operator panned away and the recording ended shortly thereafter at 02:54 elapsed time.



Figure 1. Frame captured from video showing debris

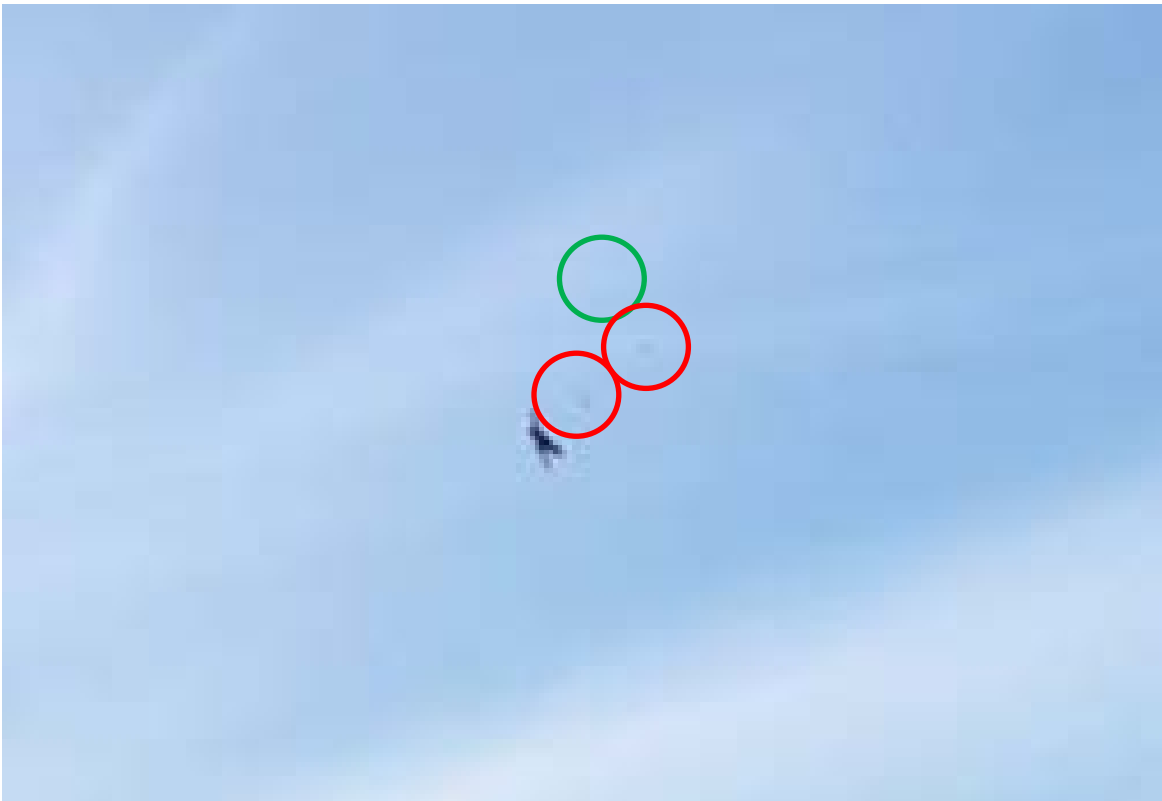


Figure 2. Zoomed in look at the frame above