

NATIONAL TRANSPORTATION SAFETY BOARD

Vehicle Recorder Division
Washington, DC 20594

February 18, 2021

Onboard Image Recorder

Specialist's Factual Report By Gerald Kawamoto

1. EVENT SUMMARY

Location: Ozark, Alabama
Date: May 30, 2020
Vehicle: Hughes Schweizer 269
Registration: N9421P
Operator: Private
NTSB Number: ERA20LA197

2. GROUP

An onboard image recorder group was not convened.

3. DETAILS OF INVESTIGATION

On June 18, 2020, the National Transportation Safety Board (NTSB) Vehicle Recorder Division received the following Onboard Image Recorder:

Recorder Manufacturer/Model: **GoPro Hero 8 Black**
Recorder Serial Number: **C3333425060994**

3.1. Recorder Description

The GoPro is a compact, lightweight, point-of-view digital camera enclosed in a ruggedized housing that allows the camera to be mounted in a variety of positions using an array of supported accessories. The camera supports various recording resolutions and frame rates set by the user. The camera can be set to record still images simultaneously or independently of the video stream. The camera supports recording to micro SD¹ cards. A built in WiFi module allows users to connect to the camera via an accessory remote control or a smart phone app that permits camera control and image transfer.

3.2. Recorder Damage and Data Recovery

Upon arrival at the NTSB Vehicle Recorder Division, an external examination revealed the device had sustained impact damage, as shown in Figure 1, rendering it inoperable. An internally mounted 400 GB micro SD card was undamaged and data were extracted normally using laboratory tools.

¹ Secure Digital – a standardized format for removable memory devices.



Figure 1. GoPro Hero 8 as received.

3.3. Video Files

A total of eight video files were present on the SD card from May 30, 2020, half of which were lower resolution duplicates. The last three video files were split segments from one single recording session due to the recording logic of the device. A summary of the last recording is shown in Table 1.

File name	Resolution	FPS	File Length (mm:ss)	Recorded End Time (hh:mm:ss)
GH010008.mp4	1920x1080	59	11:47	10:21:48
GH020008.mp4	1920x1080	59	11:47	10:33:35
GH030008.mp4	1920x1080	59	07:13	10:40:48

Table 1. Summary of final recording.

Date and time on a GoPro Hero 8 are updated when the device is connected to the GoPro application or can be manually set by the user. Due to the condition of the device, the date and time on the recorded files was unable to be correlated to local time.

The camera was mounted to the windshield of the aircraft and the Field-of-View (FoV) of the camera was forward facing directed outward.

The last recorded file (GH030008.mp4) was found to be corrupted. The device manual explains that sudden loss of power while recording may result in damage to the recorded file. The corrupted file was repaired by using a functional laboratory surrogate and it did not contain the accident event. In agreement with the Investigator-In-Charge, it was determined that no accident related data were contained on the recorded files.