

National Transportation Safety Board

Office of Research and Engineering

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WPR25LA082

ONBOARD IMAGE RECORDER

Specialist's Factual Report

January 15, 2026

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A. ACCIDENT

Location: Columbia, California
Date: January 23, 2025
Time: 1515 Pacific Standard Time (PST)
2315 Coordinated Universal Time (UTC)
Airplane: Cessna 172K, private operator, N79910

B. ONBOARD IMAGE RECORDER SPECIALIST

Specialist: Steven Smith
Mechanical Engineer (Recorder Specialist)
National Transportation Safety Board (NTSB)

C. DETAILS OF THE INVESTIGATION

In agreement with the Investigator-In-Charge (IIC), a group was not convened, and a summary was prepared. The NTSB Vehicle Recorder Division received the associated card from the following onboard recorder:

Device Manufacturer/Model:	GoPro Hero 12 Black
Device Serial Number:	C3501324745138
Associated Card:	SanDisk Extreme 64 GB

1.0 GoPro Hero 12 Black Condition

The associated card arrived at the laboratory with no visible damage, and the video files were extracted normally, without difficulty.

1.1 GoPro Hero 12 Black Recording 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-SD cards.¹ A built in Wi-Fi 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.

¹ Secure Digital - A standardized format for removable memory devices.

2.0 Video File Information

The SD card contained 11 recordings. Three of the recordings displayed an internal timestamp of January 23, 2025, the day of the accident. The other eight recordings had internal timestamps from January 5 through 17, 2025. The first recording was only three seconds long and contained no relevant information. The second recording captured the accident flight and is discussed below in the summary. The third recording was reconstructed and showed the aircraft on the ground with first responders on site.

The accident recording was made at a resolution of 1920x1080 pixels at a frame rate of 60 frames per second (fps). An associated audio track was also recorded from the camera's internal microphone. The camera was mounted on a GoPro Gooseneck to the instrument panel of the aircraft and was oriented at an angled view showing both occupants. The instrument panel view was obstructed due to the orientation of the camera. The actions of the occupants, including but not limited to, inputs into the instrument panel and yoke could be observed. Figures 1 and 3 show the orientation of the camera inside the aircraft.

3.0 Timing and Correlation

The times used in this report are expressed as Video Elapsed Time, which is the time from the beginning of the recording. The format given is MM:SS, where MM stands for the number of elapsed minutes and SS the number of elapsed seconds.

4.0 Summary of Recording Contents

The accident recording was 37 minutes and 9 seconds long, and using video reconstruction tools, an additional two seconds of video was recovered. The aircraft departed on runway 26 from Lodi Airport, Lodi California (1O3). The climbout, cruise, descent, and approach were uneventful, with no anomalous engine sounds observed on the recorded audio. For most of the flight, the occupant in the left seat was the pilot flying. For this summary, the left and right seat occupants will be referred to as the pilot and passenger, respectively.

While on approach, the pilot communicated over the common traffic advisory frequency (CTAF) that they would be landing on runway 17 at Columbia airport, Columbia, California (O22). As the aircraft attempted to land, the pilot initiated a go-around. Approximately ten seconds after the go-around, the audio contained sounds of the engine sputtering. Using local landmarks, it was estimated that the pilot flew the aircraft about 2.55 miles away from the airport, before initiating a turn back towards runway 35. Using local landmarks to compare with the last second of the recording, the occupants were still flying with their position approximately 1,592 feet from the reported wreckage location. The accident recording is summarized below in table 1.

4.1 Instrument Panel and Throttle Quadrant View

Due to the positioning of the GoPro, the instrument panel and throttle quadrant were mostly obstructed. None of the gauges or displays on the instrument panel were visible. The adjustable and flexible mount that held the GoPro in place sometimes brought the throttle quadrant into view. In the summarized section below in table 1, all summaries after the go-around will include a statement on whether the throttle quadrant was obstructed or in view at that moment.

5.0 Go-Around Flight Path

Automatic Dependent Broadcast System (ADS-B) data was captured for the accident flight. However, the ADS-B data is only available from the departure at 1003 to the point when the aircraft briefly landed and initiated the go-around. The go-around up to the eventual accident of flight track data was not available, neither from the GoPro nor the available ADS-B data.

Therefore, an approximated flight path was derived from the video recording. Various still images within the recording were viewed and compared to local landmarks on Google Earth. Certain landmarks, such as homes, roads, trees, and other distinguishing objects were used to build an approximated layout of the aircraft path after the go-around.

Figure 4 shows the approximated flight path of the aircraft. The weather and lighting conditions in Google Earth are not necessarily representative of the weather and lighting conditions present at the time of the recording. Note that the flight path isn't exact, and that the timestamp presented reflect an estimated location based on the video footage and comparison to Google Earth.

The corresponding tabular data used to create figure 4 are provided in electronic comma-separated value (CSV) format as attachment 1 to this report.

Submitted by:

Steven Smith
Mechanical Engineer (Recorder Specialist)

D. SUMMARY OF EVENTS

Table 1. Summary of events.

Video Elapsed Time (MM:SS)	Observation
00:22	The aircraft began takeoff roll on runway 26 from 103.
00:40	The pilot called out "rotate" and the aircraft began to climb.
00:41 - 01:50	During climbout, no anomalous engine noises were observed from the recorded audio.
01:00 - 01:49	The pilot was looking down at a tablet and adjusting an instrument on the panel.
01:50	The pilot began a left turn.
01:51 - 01:56	The pilot made the following communication over the CTAF, "Columbia traffic Cessnaaa seven niner niner one zero departing to the south. **. Columbia."
01:57 - 02:50	The pilot continued looking down at a tablet and adjusting an instrument on the panel.
06:45	The pilot adjusted the heading knob on the gyrocompass.
08:52	The passenger took control of the aircraft. The pilot began looking down at the tablet again and kept hands off the yoke.
12:00 - 12:09	The pilot was looking over the tablet and tuning the radio.
12:10 - 12:48	The occupants listened to the automated weather observation system (AWOS) for O22. The following was observed, "visible approach end of runway one seven from January twenty two until January twenty four twenty twenty five. Columbia Airport automated weather observation two two four niner zulu. wind variable at three knots. visibility more than one zero. sky conditions clear below one two thousand. temperature one niner Celsius. dew point minus seven Celsius. altimeter three zero three two inches of mercury."
13:07 - 13:50	The occupants listened to the AWOS for O22. The observation was at two two five zero zulu and the only difference was the wind changed from "wind variable" to "wind one seven zero at three knots." A remark was observed with the following: "remarks. attention crew work in progress with ** visible approach end of runway one seven starting January twenty two until January twenty four twenty twenty five."

Video Elapsed Time (MM:SS)	Observation
13:53 - 14:36	The occupants listened to the AWOS for O22. The time of the observation was at two two five zero zulu and there were no differences from the previous observation.
14:40 - 15:23	The occupants listened to the AWOS for O22. The time of the observation was two two five one zulu and there were no differences from the previous observation.
14:57 - 15:44	The passenger pulled out a GoPro camera and began filming.
16:00 - 28:19	Uneventful cruise portion of flight.
23:52 - 23:58	The pilot made the following communication over the CTAF, "Columbia traffic Cessna seven niner niner one zero we're about ten miles to the west. we'll be on the forty five for runway one seven. Columbia."
27:24 - 27:31	The pilot made the following communication over CTAF, "Columbia traffic Cessna seven niner niner one zero we're about five miles to the west. we'll be on the forty five for runway one seven. Columbia."
28:14 - 18:18	The pilot was making some adjustments in the area of the throttle quadrant.
28:45 - 28:51	The pilot made the following communication over CTAF, "Columbia traffic Cessna seven niner niner one zero entering forty five for runway one seven. Columbia."
29:01 - 29:03	Another aircraft radioed over CTAF, "how many miles are you entering the forty five on?"
29:05 - 29:07	The pilot responded the following communication over CTAF, "about two and a half miles."
29:09 - 29:11	The aircraft responded over CTAF, "now we know where to find you. thank you."
29:12 - 29:14	The pilot responded the following communication over CTAF, "no problem. sorry about that."
29:47 - 29:52	The pilot made the following communication over CTAF, "Columbia traffic Cessna seven niner niner one zero uhh going downwind runway one seven. Columbia." The pilot subsequently began a slight left turn.
30:23 - 30:29	The pilot made the following communication over CTAF, "Columbia traffic Cessna seven niner niner one zero turningggg base runway one seven. Columbia." The pilot subsequently began a right turn.

Video Elapsed Time (MM:SS)	Observation
31:02 - 31:08	The pilot made the following communication over CTAF, "Columbia traffic Cessna seven niner niner one zero turning final runway one seven. Columbia." The pilot subsequently began a right turn.
31:36	The aircraft finished the right turn onto final. The aircraft subsequently began a descent for runway 17 at O22.
32:20	Approximate time that the aircraft touched the runway. The aircraft was approximately 1,885 feet past runway 17's threshold (see figure 1). The throttle quadrant was obstructed.
32:21 - 32:23	The pilot made the following communication over CTAF, "Columbia traffic Cessna going around." The pilot subsequently pulled the yoke aft and the aircraft began to climb. For the remainder of the flight, the pilot was flying the aircraft. The throttle quadrant was obstructed.
32:26 - 32:31	The pilot was making adjustments to controls in the throttle quadrant. The throttle quadrant was partially obstructed.
32:32 - 32:42	The instrument panel began to vibrate. The nose of the aircraft dipped. The aircraft began to bounce. The reflection of the propeller blade in both occupants' sunglasses showed the propeller slowing to a stop and then starting up again. The throttle quadrant was partially visible briefly.
32:43 - 33:20	The pilot began making quick and aggressive twists and pulling various controls on the throttle quadrant. At the same time, the pilot was pulling aft on the yoke. The audible engine noise sounded similar to a surging sound. The throttle quadrant was obstructed.
33:10 - 33:12	The pilot said something in a foreign language.
33:13 - 34:14	The aircraft continued to bounce around with the engine audio similar to a surging engine. The terrain was very rugged, with many hills and trees in the area. The pilot was aggressively pulling and turning multiple controls in the throttle quadrant. The throttle quadrant was visible at times.
34:15 - 34:17	The pilot made the following communication over CTAF, "Columbia traffic I'm having engine problems down here."

Video Elapsed Time (MM:SS)	Observation
34:18 - 34:40	The pilot was pulling back on a control in the throttle quadrant. The pilot pulled yoke aft and followed by pushing it forward. The throttle quadrant was briefly visible.
34:41	The pilot appeared to turn a device extruding from the lower left of the instrument panel.
34:42 - 34:57	The pilot kept turning and pulling controls at the throttle quadrant. The throttle quadrant was obstructed.
34:58 - 35:42	The pilot initiated and leveled out from a 180-degree turn back to O22. At the initiation of the turn, the aircraft was approximately 2.55 miles from the displaced threshold of runway 35 at O22. During the turn, the throttle quadrant was visible (see figure 2).
35:25 - 35:26	The pilot made the following communication over CTAF, "Columbia traffic."
35:45 - 36:18	The engine surging noise wasn't present once the aircraft leveled out from the turn. The throttle quadrant was obstructed.
35:49 - 35:50	The pilot made the following communication over CTAF, "Columbia traffic."
36:19 - 37:10	The pilot kept adjusting controls in the throttle quadrant by twisting a knob and pulling another control. The engine's surging noise was getting louder. The instrument panel was vibrating. With the end of each surge, the reflection of the propeller momentarily stopped and then restarting was observed in the occupants' sunglasses. The rugged mountainous terrain was getting closer to the aircraft. The aircraft position showed the direction flying back towards O22. Both occupants were looking out in the distance. The throttle quadrant was briefly visible.
37:11	End of recording. The aircraft was still flying. The aircraft was getting closer to terrain (see figure 3). From this approximate position, the aircraft was 1,592 feet from the reported wreckage location.



Figure 1. Approximate point of touchdown at O22 before go-around initiation.



Figure 2. Approximate position where the aircraft began to turn back towards the airport.



Figure 3. Final still image of the recording.



Figure 4. ADS-B recreation after the go-around.