



**Ohio Attorney General's Office**  
**Bureau of Criminal Investigation**  
Investigative Report



2023-3023

Officer Involved Critical Incident - 6235 Hathaway Rd.,  
Garfield Heights, Cuyahoga County, Ohio 44125

Investigative Activity: OOCIC Video Review  
Involves: Ohio Organized Crime Investigations Commission  
Activity Date: 01-04-2024  
Authoring Agent: Special Agent Joseph Goudy #83

**Narrative:**

On Thursday, December 14, 2023, Ohio Bureau of Criminal Investigation (BCI) Special Agent (SA) Joseph Goudy (Goudy) received disks and documents from the Ohio Organized Crime Investigations Commission (OOCIC). SA Goudy had previously sent video recordings (Matrix Reference Item H) to OOCIC from body camera footage received from the Garfield Heights Police Department (GHPD). OOCIC was requested to perform various enhancements of the submitted video as detailed below.

SA Goudy reviewed the documents from OOCIC. The documents were:

1. OOCIC Evidence Submission Form 23-00100

This document was the submission sheet created to submit the video recordings to OOCIC. It also documented the creation of data disks by OOCIC.

2. OOCIC Chain of Custody Report 23-00100

This document was the chain of Custody for OOCIC

3. OOCIC Curriculum Vitae 23-00100

This document was the curriculum vitae for OCIC Analyst David F. Loomis.

4. OCIC Forensic Video Analysis Report 23-00100

SA Goudy reviewed the data disks created by OOCIC and noted the following:

The video presentations consist of the following two files:

- 23-00100 Hash Values (.csv)
- 23-00100 Video Presentations (.mp4)

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The .csv files contained hash values and identifying information for the video production.

The .mp4 file contained a 2 minute and 44 second video presentation which appeared to have been produced from the video footage provided to OCIC.

The frames-per-second (FPS) rate of the video presentation was 29.97 FPS.

An audio wave form effect and a timecode effect were included in the video presentation.

Disclaimer and Additional Factors to consider when evaluating Video.

The speed of the incident is remarkable. The speed and complexity of rapidly evolving situation(s) that occur during use of force encounters are difficult concepts to comprehend by only watching the video or listening to the audio recording.

Video and audio recording devices also record more information about a particular scene or incident than the person(s) involved in the incident can process during the critical incident. Video and audio recording devices rarely record an event from the same perspective of the officer or subjects involved. It captures the action but not the perception, decision-making, focus or intent of the officer. Video recordings often miss tactile cues or other actions of a subject.

Video and audio recording devices record within the video and sound capabilities available, and they record objectively. Video and audio recordings lack the history, perspective, and interest of the people involved. The positions, angles, obstacles, lighting, and distance from the incident are also factors that need serious consideration.

Video and audio recordings are only components of an investigation and should not be the only evidence relied upon. All available evidence, statements and other information must be evaluated alongside the video recordings available.

Due to audio recording limitations, the speed at which sound travels, the distance of the recording device from the origin of the sound, the size and density of objects positioned between the recording device and the origin of a sound, and various other environmental factors, sounds heard on a recording may not be definitively identified.

Throughout this report the percussion sounds consistent with the sound of gunfire may be referred to as gunshots or gunfire. It should be noted that those references are

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based on the totality of corroborating information and evidence gathered throughout this investigation. It in no way suggests that the percussion sounds referenced could not have originated from some other unknown source.

Method and Process

SA Goudy utilized the audio waveform effect to help identify sounds and when they occurred within the video production, specifically when reviewing the video frame by frame.

The timecode effect was used to count frames between significant events identified within the recording.

The video/audio production indicated the video contained 29.97 (30) frames per second. Time was calculated by dividing 1 second by 30 frames. The result was each frame represents 0.03333333 seconds. Using this calculation, the amount of time that transpired between significant events can be approximately calculated by multiplying the number of frames captured between the events by the amount of time each frame represented (0.03333333). The product is the approximate amount of elapsed time. For this review, SA Goudy rounded the product to the nearest hundredth place decimal (example 0.46666662 was rounded to 0.47 seconds).

The sound was depicted through the audio wave bar which traveled horizontally from the screen right to the screen left. As sound increased, so did the number of waves depicted. When a sound first became audibly detectable, the wave bar began to increase in frequency on the right side of the screen (See Figure 1). For this reason, SA Goudy identified the frames depicting significant events as the first frame displaying an increase in frequency on the wave bar.

SA Goudy identified significant events based on the best available visual and audio cues. The first event was the time frame when Lieutenant Berdysz is seen on [REDACTED]'s body camera telling the officers to exit the residence. The significant events that followed were distinct percussion sounds which appeared to be consistent with the sound of gunfire. The frame numbers depicting these events were noted and placed in a spreadsheet. The number of frames between each of the events was counted and then multiplied by 0.03333333 to identify the amount of time that elapsed between each event. The spreadsheet created for this review has been attached to this report.

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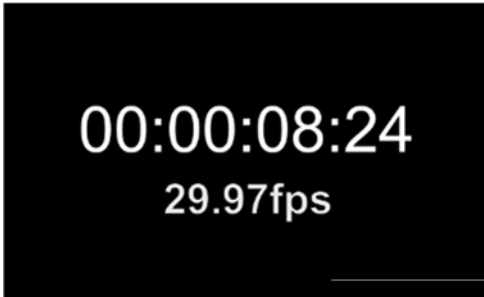


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**Video Review**

████████████████████

At the 00:00:08:24-mark, ██████████ (████████) ██████████ ██████████ is negotiating with the subject Benard Russell to remove the gun from his head. It should also be noted that Lieutenant (Lt) Berdysz was planning on having all GHPD officers exit the residence. This represents the first significant event as indicated in the attached spreadsheet. From the time frame to when the first gunshot was fired, there were 59 total frames which equated to 2.0 seconds.



*(Image #1)*

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At the 00:00:10:23-mark, this image represents the second significant event in which the first gunshot is fired by [REDACTED] in the direction of Benard Russell (Russell). This image depicts the slide going back on [REDACTED]'s firearm which indicated a gunshot being fired. In addition, the wavelength bar indicated the repercussion of the gunshot. From this time frame to when the second gunshot was fired, there were 7 total frames which equated to 0.23 seconds.



**00:00:10:23**  
**29.97fps**

*(Image #2)*

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At the 00:00:11:00-mark, this image represents the third significant event in which the second gunshot is fired by █████ █████ in the direction of Benard Russell (Russell). This image depicts the slide going back on █████ █████'s firearm which indicated a gunshot being fired. From this time frame to when the third gunshot was fired, there were 24 total frames which equated to 0.79 seconds. Due to multiple gunshots and yelling in the enclosed basement, the sound bar was ineffective to determine █████ █████'s gunshot being fired.



**00:00:11:00**  
**29.97fps**

*(Image #3)*

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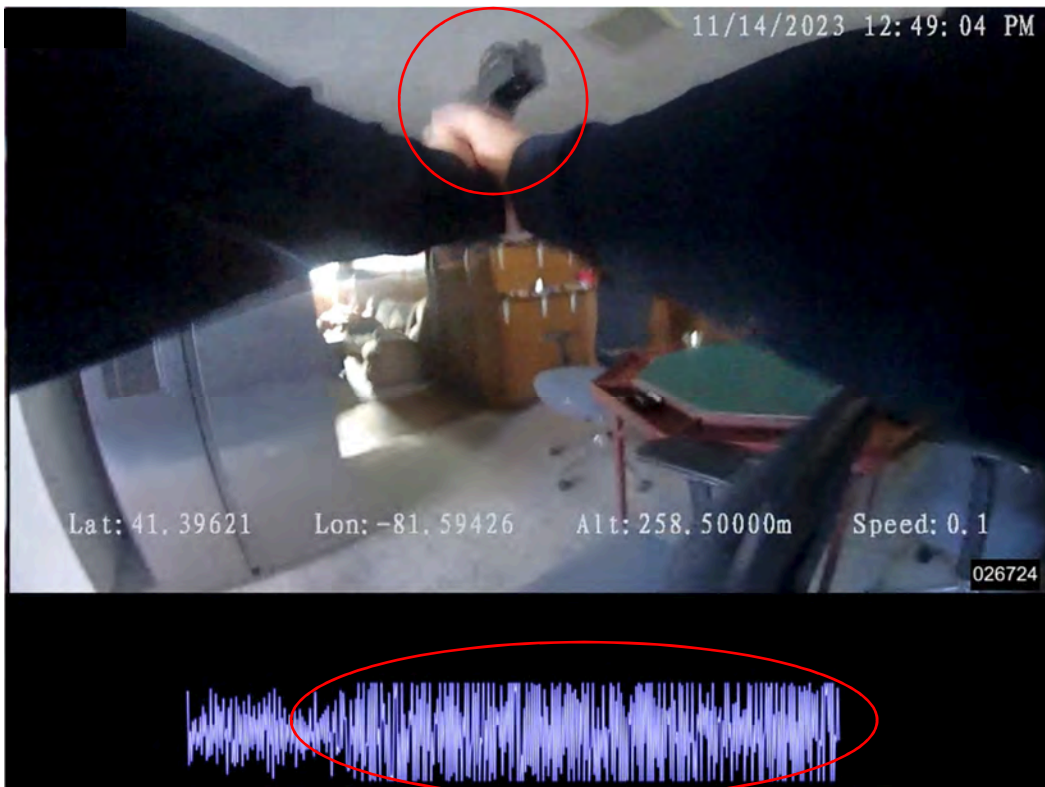


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At the 00:00:11:24-mark, this image represents the fourth significant event in which the third gunshot is fired by ██████████ in the direction of Russell. This image depicts the slide going back on ██████████'s firearm which indicated a gunshot being fired. In addition, the wavelength bar indicated the repercussion of the gunshot. From this time frame to when the fourth gunshot was fired, there were 6 total frames which equated to 0.19 seconds.



**00:00:11:24**  
**29.97fps**

*(Image #4)*

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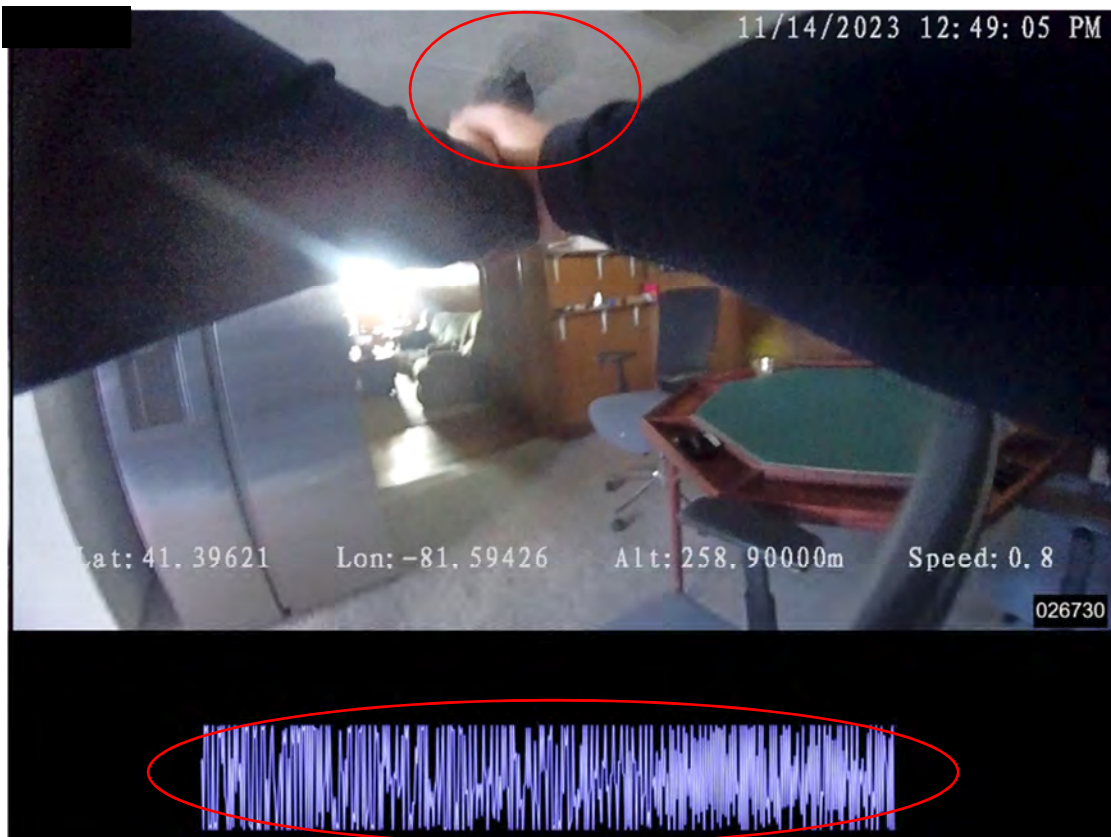


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At the 00:00:12:00-mark, this image represents the fifth significant event in which the fourth gunshot is fired by [REDACTED] in the direction of Russell. This image depicts the slide going back on [REDACTED]'s firearm which indicated a gunshot being fired. In addition, due to multiple gunshots and yelling in the enclosed basement, the sound bar was ineffective to determine [REDACTED]'s gunshot being fired. From this time frame to when the fifth gunshot was fired, there were 7 total frames which equated to 0.23 seconds.



**00:00:12:00**  
**29.97fps**

*(Image #5)*

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At the 00:00:12:07-mark, this image represents the sixth significant event in which the fifth gunshot is fired by [REDACTED] in the direction of Russell. This image depicts the slide going back on [REDACTED]'s firearm which indicated a gunshot being fired. In addition, due to multiple gunshots and yelling in the enclosed basement, the sound bar was ineffective to determine [REDACTED]'s gunshot being fired. From this time frame to when the sixth gunshot was fired, there were 5 total frames which equated to 0.16 seconds.



**00:00:12:07**  
**29.97fps**

*(Image #6)*

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At the 00:00:12:12-mark, this image represents the seventh significant event in which the sixth gunshot is fired by [REDACTED] in the direction of Russell. This image depicts the slide going back on [REDACTED]'s firearm which indicated a gunshot being fired. In addition, due to multiple gunshots and yelling in the enclosed basement, the sound bar was ineffective to determine [REDACTED]'s gunshot being fired. From this time frame to when the seventh gunshot was fired, there were 6 total frames which equated to 0.19 seconds.



**00:00:12:12**  
**29.97fps**

*(Image #7)*

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At the 00:00:12:18-mark, this image represents the eighth significant event in which the seventh and final gunshot is fired by ██████████ in the direction of Russell. This image depicts the slide going back on ██████████'s firearm which indicated a gunshot being fired. In addition, due to multiple gunshots and yelling in the enclosed basement, the sound bar was ineffective to determine ██████████'s gunshot being fired.



**00:00:12:18**  
**29.97fps**

*(Image #8)*

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██████████

At the 00:00:09:00-mark, While ██████████ (██████) ██████████ ██████████ is negotiating with the subject Benard Russell to remove the gun from his head, ██████████ ██████████ took up another position in a separate room for cover. It should also be noted that Lieutenant (Lt) Berdysz was planning on having all GHPD officers exit the residence. This represents the first significant event as indicated in the attached spreadsheet. From the time frame to when the first gunshot was fired, there were 72 total frames which equated to 2.39 seconds.



**00:00:09:00**  
**29.97fps**

*(Image #1)*

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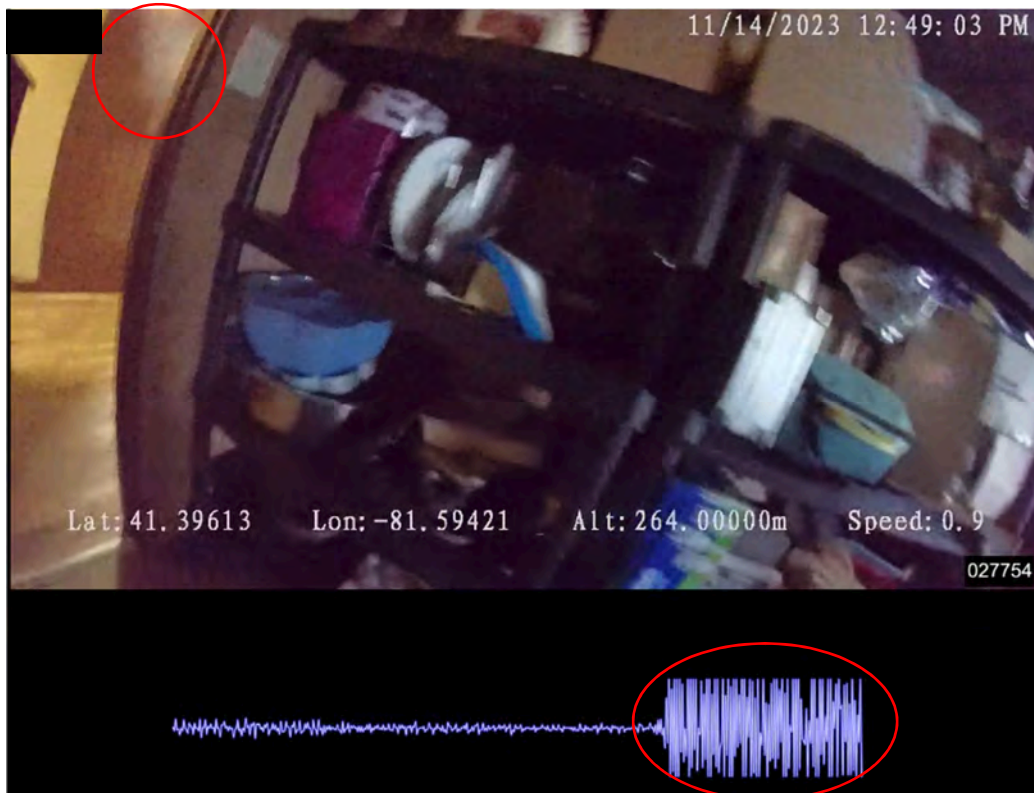
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At the 00:00:11:12 mark, this is the second significant event indicated on the attached spreadsheet in which [REDACTED] fired his first gunshot in the direction of Russell. This photo depicts smoke from the gunshot residue. In addition, the wavelength bar indicated the repercussion of the gunshot being fired. From the time frame to when the second gunshot was fired, there were 9 total frames which equated to 0.29 seconds.



**00:00:11:12**  
**29.97fps**

*(Image #2)*

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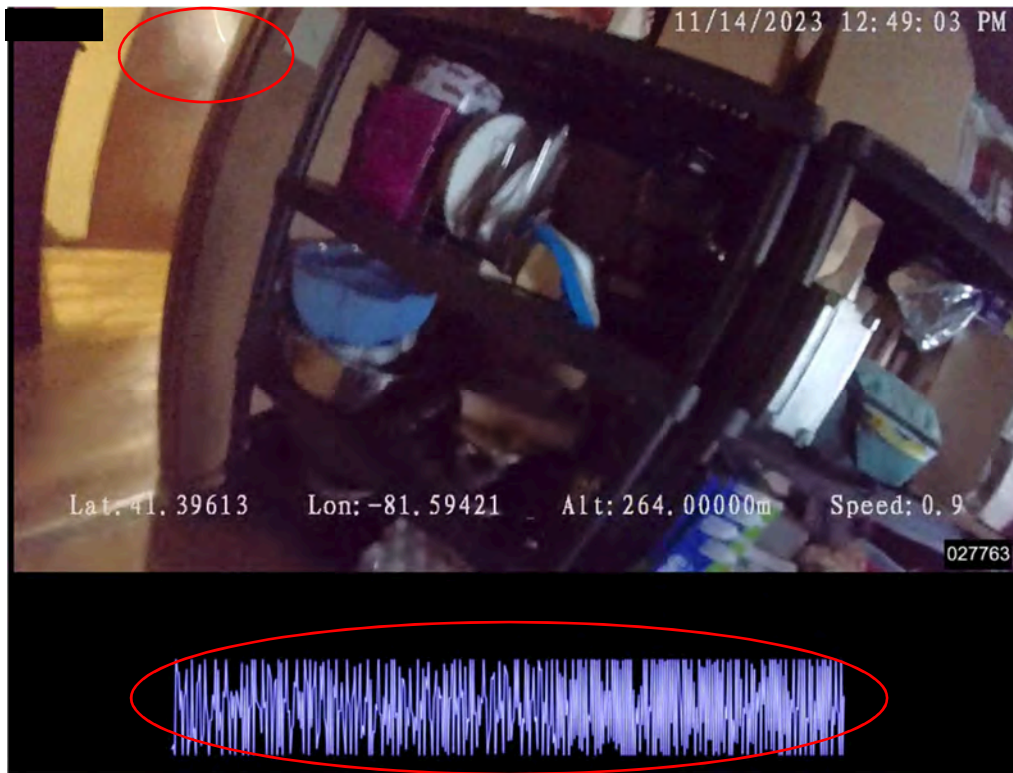
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At the 00:00:11:21 mark, this is the third significant event indicated on the attached spreadsheet in which [REDACTED] fired his second gunshot in the direction of Russell. This photo depicts smoke from the gunshot residue. In addition, due to multiple gunshots and yelling in the enclosed basement, the sound bar was ineffective to determine [REDACTED]'s gunshot being fired. From the time frame to when the third gunshot was fired, there were 8 total frames which equated to 0.26 seconds.



**00:00:11:21**  
**29.97fps**

(Image #3)

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At the 00:00:11:29 mark, this is the fourth significant event indicated on the attached spreadsheet in which [REDACTED] fired his third gunshot in the direction of Russell. This photo depicts smoke from the gunshot residue. In addition, due to multiple gunshots and yelling in the enclosed basement, the sound bar was ineffective to determine [REDACTED]'s gunshot being fired. From the time frame to when the fourth gunshot was fired, there were 469 total frames which equated to 15.63 seconds.



**00:00:11:29**  
**29.97fps**

*(Image #4)*

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At the 00:00:27:18 mark, this is the fifth significant event indicated on the attached spreadsheet in which [REDACTED] fired his fourth and final gunshot in the direction of Russell. This photo depicts smoke from the gunshot residue. In addition, the wavelength bar indicated the repercussion of the gunshot being fired by [REDACTED]



**00:00:27:18**  
**29.97fps**

(Image #5)

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Based on the data gathered from this video production, SA Goudy was able to approximately calculate the following:

██████████ ██████████

- 2.0 seconds elapsed from the first significant event to when the first gunshot was fired.
- All seven gunshots were fired in 1.79 seconds.
- The table depicts the time that elapsed between the sound of each gunshot.

1st Gunshot	2nd Gunshot	3rd Gunshot	4th Gunshot	5th Gunshot	6th Gunshot	7th Gunshot
Frame 00:00:10:23	Frame 00:00:11:00	Frame 00:00:11:24	Frame 00:00:12:00	Frame 00:00:12:07	Frame 00:00:12:12	Frame 00:00:12:18
Start	0.23 Seconds	0.79 Seconds	0.19 Seconds	0.23 Seconds	0.16 Seconds	0.19 Seconds
			<b>Total Time Elapsed</b>			
			<b>1.79 Seconds</b>			

██████████ ██████████

- 2.39 seconds elapsed from the first significant event to when the first gunshot was fired.
- All four gunshots were fired in 16.18 seconds.
- The table depicts the time that elapsed between the sound of each gunshot.

1st Gunshot	2nd Gunshot	3rd Gunshot	4th Gunshot
Frame 00:00:11:12	Frame 00:00:11:21	Frame 00:00:11:29	Frame 00:00:27:18
Start	0.29 Seconds	0.26 Seconds	15.63 Seconds
	<b>Total Time =</b>	<b>16.18 Seconds</b>	

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**Ohio Organized Crime  
Investigations Commission**

<u>Submission Date</u> 11/27/2023	<u>Priority Code</u>	<u>Due Date</u>
<u>OOCIC Case Number</u> 23-00100	<u>Shelf Location</u>	
(OOIC Evidence Tech will complete this section) Refer to OCIC Submission Number for Inquires		

**Evidence Submission Form**

<u>Submitting Agency (or OOCIC Task Force Number)</u> BCI Richfield		<u>Case Investigator Name:</u> S/A Joseph Goudy	<u>Submitting Investigator:</u> S/A Joseph Goudy
<u>County:</u> Summit		<u>Agency Case Number:</u> 2023-3023	<u>Court Date:</u>
<u>Telephone Number:</u> 234-400-3396	<u>Cell Phone Number</u> 614-208-3009	<u>FAX Number:</u> 877-690-1793	
<u>Mailing Address:</u> 4055 Highlander Pkwy Richfield, OH 44286		<u>E-Mail Address:</u> joseph.goudy@ohioago.gov	

**Submitted Items: (OOIC Evidence Tech will complete this section)**

Item #	Description	Make	Model	Lot Number
1	Flash Drive/Jump Drive/Thumb Drive Black and Red 8GB Flash Drive			
W.P. 1.1	DVD - Data 3 DVDs.			

**Requested Services: (Check all that apply)**

Video Analysis	Video Duplication	Digital Photographs	Audio Analysis	Audio Duplication	Audio Reconst./Repair	Video Reconst./Repair	Audio Redaction	Video Redaction

**Subject Information: (Complete as much as possible)**

<u>Subject Name:</u> Russell, Benard	<u>Custody Status:</u> NC	<u>Sex:</u> Male	<u>Race:</u> African American	<u>DOB:</u>
<u>Offense:</u> Officer Involved Shooting	<u>Date of Offense:</u> 11/14/2023	<u>Location : (City, County)</u> 6235 Hathaway Rd.		

**Additional information: (Data from Time Date Generator / Type of System / Court Date / Special Instructions. etc.)**

See attached.

**Submitted By:**

S/A Joseph Goudy

**Evidence Tech:**

Nissa Low



## Ohio Organized Crime Investigations Commission

P.O. Box 968  
Grove City, OH 43123  
Telephone: (614) 277-1000  
Facsimile: (614) 277-1010

### Chain of Custody Report

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**Lab Case** 23-00100  
**Department Name:** BCI Richfield  
**Incident Number** 2023-3023

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Item # 1 Description : Flash Drive/Jump Drive/Thumb Drive Black and Red 8GB Flash Drive

<u>Date</u>	<u>Time</u>	<u>Custody Of</u>	<u>Location / Person</u>	<u>Transaction By</u>
11/27/2023	14:08	Clerical/Evidence	Nissa Low	Nissa Low
11/27/2023	14:25	Evidence Storage	Shelf A2	Nissa Low
11/28/2023	10:28	Clerical/Evidence	Nissa Low	Nissa Low
11/28/2023	10:28	Analyst	David F. Loomis	Nissa Low
12/12/2023	9:34	Clerical/Evidence	Nissa Low	Nissa Low
12/12/2023	9:40	Evidence Disposal	Returned to Department	Nissa Low

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Item # W.P. 1.1 Description : DVD - Data 3 DVDs.

<u>Date</u>	<u>Time</u>	<u>Custody Of</u>	<u>Location / Person</u>	<u>Transaction By</u>
12/12/2023	9:25	Analyst	David F. Loomis	Nissa Low
12/12/2023	9:33	Clerical/Evidence	Nissa Low	Nissa Low
12/12/2023	9:40	Evidence Disposal	Returned to Department	Nissa Low

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## Ohio Organized Crime Investigations Commission Forensic Video Analysis

Written December 19<sup>th</sup>, 2023

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To: BCI Richfield  
S/A Joseph Goudy  
4055 Highlander Pkwy  
Richfield, OH 44286

OCIC Case Number: 23-00100

Agency Case Number: 2023-3023

Type of Offense: Officer Involved Shooting  
Location of Offense: 6235 Hathaway Rd.  
Garfield Heights, OH 44125  
Cuyahoga County

On November 27<sup>th</sup>, 2023, Special Agent Joseph Goudy of BCI submitted one flash drive for the purpose of forensic video analysis. Special Agent Goudy requested video presentations be created from video files contained on the flash drive. The item submitted will be referred to as ITEM ONE throughout the body of his report. The process, as it pertains to this case, is as follows:

- Inspect ITEM ONE to ascertain that no physical damage exists
- Generate and save a working copy of the contents of ITEM ONE
- Utilize software to create video presentations as requested
- Produce a data DVD of video presentations

On November 28<sup>th</sup>, 2023, ITEM ONE was checked out of the evidence room by Senior Analyst David Loomis.

ITEM ONE was a SanDisk Cruzer Blade 8GB flash drive with no label. ITEM ONE was inspected for damage and no damage was found. The contents of ITEM ONE were copied and verified via SHA256 hash using Quick Hash 3.0.4.

ITEM ONE contained two .mp4 video files with a display resolution of 1280 pixels by 720 pixels using the h264 video codec, with audio at a 44100 hertz sample rate, mono, using the mp4a audio codec:

██████████\_11142023123434.mp4

██████████\_11142023123358.mp4

The two .mp4 video files from ITEM ONE were imported into the Adobe Premiere CC 2024 video analysis software for review. A new timeline was created and the video files were synchronized based upon audio cues. The Premiere video timeline was imported into the Adobe After Effects CC 2024 video analysis and compositing software for the creation of the video presentations. A new composition was created, showing the two camera views. The video was edited to the scope requested.





## Ohio Organized Crime Investigations Commission Forensic Video Analysis

Written December 19<sup>th</sup>, 2023

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Frame counters, audio waveforms, and a timecode effect were added. The timeline was duplicated for a ½-speed and original-speed view. Title slates were added and the two synchronized video timelines were exported as universal .mp4 video files for demonstrative purposes.

The two .mp4 video presentations were placed onto a data DVD. A total of three copies of the DVD were created.

On December 12<sup>th</sup>, 2023, the three DVDs were released to evidence for shipping, along with ITEM ONE.

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David F. Loomis  
Senior Forensic Audio & Video Analyst  
614-277-1000  
David.Loomis@OhioAGO.gov



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Matt S. Hilbert  
Supervisor Approval

# DAVID F. LOOMIS – CURRICULUM VITAE

The Ohio Organized Crime Investigations Commission  
P.O. Box 968, Grove City, Ohio 43123  
(614) 277-1000 / (614) 277-1010 fax / David.Loomis@OhioAGO.gov

## Professional Experience

### **Senior Forensic Audio/Video Analyst**

March 2019 – *Present*  
Columbus, Ohio

The Ohio Organized Crime Investigations Commission  
Office of the Ohio Attorney General

- Provides general supervision of the OOCIC Audio/Video laboratory
- Implements policy and procedures
- Reviews case files and lab testing practices
- Provides recommendations on training and equipment
- Assists in the hiring process of new Analysts
- Performs all other duties of Forensic Audio/Video Analyst (as listed below)

### **Forensic Audio/Video Analyst**

August 2014 – March 2019  
Columbus, Ohio

The Ohio Organized Crime Investigations Commission  
Office of the Ohio Attorney General

- Performs forensic analysis of audio, video, photographic, and other evidence, whether analog or digital in nature, for investigation and court presentation
- Attends training, workshops, and seminars to maintain current working knowledge of trends and developments in the Forensic Audio/Video field
- Conducts testing and preparation of audio, video, and photographic evidence
- Clarification of evidentiary audio and video recordings
- Clarification of digital images
- Performs audio and video transcoding
- Forensic 2D and 3D animation
- Extraction of video from Digital Video Recorders
- Carves video data from various digital sources
- Duplication and digitization of audio and video recordings
- Repairs damaged audio and video tapes for evidentiary purposes
- Makes presentations to task force investigators and law enforcement agencies

### **Graphic Artist**

April 2010 – June 2014

Educational Outfitters

Pittsburgh, Pennsylvania

- Created various designs for email marketing campaigns, customer logos, t-shirts, store signage, and fliers
- Prepared media for use in email marketing campaigns, various printing and production processes
- Responsible for installation and maintenance of design software packages
- Designed and digitized artwork for embroidery

### **Freelance Photographer / Videographer**

Sept 2003 – April 2010

Self-Employed

Denver, CO and Pittsburgh, PA

- Family and portrait photography
- Digital photo editing and digital photo restoration

- Video recording, editing, and DVD presentations

**Forensic Animation Intern**

July 2003 – Sept 2003

Knott Laboratory

Denver, Colorado

- Assisted a team of animators and engineers to create accident reconstruction animations for legal proceedings
- 3D modeling, animation, compositing, and video editing
- Use of photogrammetry and camera matching to reconstruct scenes
- 3D cut-away views of mechanical processes

**Lead Network Transport Planner**

Nov 2000 – Nov 2001

Qwest Communications International, Inc.

Denver, Colorado

- Quarterly planning of nationwide wavelength services network (10 gigabit and 2.5 gigabit line system)
- Optimized the network plan using various equipment vendor and third-party software tools
- Calculated budgetary requirements for entire planned wavelength services network over various time periods
- Conducted studies of new nationwide network architectures, impacts of large customer deals, and potential fiber optic routes
- Utilized knowledge of various equipment interfaces (Nortel Preside / Ciena Wavewatcher) along with internal databases and the Microsoft Office suite to constantly improve processes, monitor planning progress, and analyze trends
- Tested and evaluated various vendor-specific and third party planning software
- Supported deployment planning of network transport technologies

**Senior Network Transport Planner**

June 1999 – Nov 2000

Qwest Communications international, Inc.

Denver, Colorado

- Assisted with development of and updates to quarterly SONET network plans
- Actively supported planning efforts concerning new, changes to, and life cycle management / retirement of currently deployed network transport technologies
- Supported deployment planning of newly installed network assets
- Involved with scenario analysis concerning plan assumption changes / timing
- Utilized knowledge of Visual Basic for Excel to streamline current network data extraction from several weeks by many planners to minutes by a solo planner
- Awarded Letter of Recognition from VP for outstanding work in streamlining operations

**Space Communications Systems Controller**

June 1995 – June 1999

United States Air Force

Schriever AFB, Colorado

22d Space Operations Squadron

50<sup>th</sup> Space Communications Squadron

- Responsible for operating and troubleshooting communication and computer resources valued at over \$440 million to support the Air Force Satellite Control Network (AFSCN)
- Directed and implemented fault isolation, testing, troubleshooting, and analysis of transmission links, including T1 through T3, to ensure proper operations
- Provided worldwide connectivity across seven Department of Defense space programs, NASA, and NOAA
- Maintained a 99% efficiency rating on over 4,000 satellite communications mission supports, directly contributing to work center's 93.3% success rate on satellite mission contacts
- Handpicked to assist contractors with implementation and test procedures on a \$7 million project to link new satellite operations center with resources located at Schriever Air Force Base

- Awarded Senior Airman Below the Zone (promoted to E-4 six months early)
- Awarded the National Defense Service Medal and Air Force Good Conduct Medal
- Decorated – Awarded the Air Force Achievement Medal for Meritorious Service

## Education

### **Bachelor of Arts**

Media Arts and Animation

*The Art Institute of Colorado  
Denver, Colorado*

- Instruction in animation, video production, editing, and compositing, and audio production and editing
- 3.9 GPA
- Alpha Beta Kappa National Honor Society
- Portfolio Voted “Best Book” by AiC instructors at graduation

### **Journeyman**

Communications, Computer Systems Operations

*USAF Technical Training School  
Biloxi, Mississippi*

- Honor Graduate (98% average)

Undergraduate Studies

Fine Art, Liberal Arts, Mathematics

*Ohio University  
Athens, Ohio*

## Certifications

**LEVA Certified Forensic Video Technician**

June 2016 - Present

## Training

LEVA Level 1 – Forensic Video Analysis and the Law (40 Hours)

April 2015

- Principles of CCTV Systems
- Non-Linear Editing
- Data Authentication and Integrity
- Video Compression
- Scientific Method
- Video and the Law
- Infrared Light

Issues of Bias in Forensic Science (8 Hours)

May 2015

- Defining Bias as it Applies to Scientific Fields
- Overview of Decision Making and How We Think
- Discussion of Methods to Counter-act Bias

Introduction to Forensic Audio Analysis (24 Hours)

September 2015

- Science and Physics of Sound
- Fundamentals of Recording and Playback Devices
- Audio Processing Techniques
- Critical Listening
- Best Practices

- Hands-on Audio Clarification
- LEVA Level 2 – Processing Digital Multimedia Evidence (40 Hours) June 2016
- Compression Theory
  - Digital Video Acquisition
  - Screen Capture Utilities
  - Video File Formats and Video Containers
  - Integrating Hashing into Workflow
  - Technical Report Writing
  - Legal Aspects of Digital Multimedia Evidence
  - TCP/IP Networking
  - Analytical Report Writing
- NW3C CI 100 – Identifying and Seizing Electronic Evidence (2.5 Hours) July 2016
- Identifying sources of electronic evidence
  - Preserving electronic evidence for analysis
  - Best practices for seizure of electronic evidence
- NW3C CS 100 – Introduction to Computer Networks (2.75 Hours) August 2016
- Networking overview
  - OSI Model
  - TCP/IP
- NW3C CI 102 – How Computers Work and Store Data (3 Hours) July 2018
- Hardware and storage configurations
  - Number systems (Decimal, Hexadecimal, Binary)
  - Partitioning drives
  - Identifying volumes
  - File systems
- U.S. Department of Homeland Security - Cyber Security Investigations (9 Hours) August 2018
- Overview of cybersecurity incident response and forensic analysis
  - Digital forensic concepts, forensic media preparation
  - Digital evidence collection
  - Triage process and analysis
  - Suspicious trace analysis
  - Data carving
- LEVA Level 3 – Video Contrast and Comparison (40 Hours) September 2018
- Philosophy and principles of video contrast and comparison
  - Scientific method
  - Class Characteristics vs Individual Characteristics
  - Effects of lighting, aspect ratio, resolution, and compression on video analysis
  - Analytical report writing
  - Types of bias in forensic video analysis and how to reduce them
- LEVA Courtroom Testimony for Expert Witnesses (24 Hours) May 2019
- Trial procedure



- Report writing techniques
- Effects of bias
- Moot court

iNput Ace Video Evidence Training Symposium (15 Hours)	June 2020
<ul style="list-style-type: none"> <li>• Video Analysis with iNput Ace</li> <li>• Trends in video analysis</li> <li>• Issues with timing in video</li> <li>• Digital video evidence recovery</li> </ul>	
LEVA Level 4 – Advanced Forensic Video Analysis and the Law (40 Hours)	December 2020
<ul style="list-style-type: none"> <li>• Advanced video analysis techniques</li> <li>• Creating demonstratives for court</li> <li>• Preparation for advanced certification</li> </ul>	
iNput Ace Video Evidence Training Symposium (12 Hours)	March 2021
<ul style="list-style-type: none"> <li>• Video evidence narrative techniques</li> <li>• Issues with video timing</li> <li>• Video evidence workflow</li> </ul>	
Amped Authenticate Training (20 Hours)	June 2021
<ul style="list-style-type: none"> <li>• Image and video authentication techniques</li> </ul>	
Amped FIVE Training (25 Hours)	December 2021
<ul style="list-style-type: none"> <li>• Forensic Video Analysis theory</li> <li>• Workflow in Amped FIVE</li> <li>• Digital image and video clarification techniques</li> </ul>	
iNput Ace Video Evidence Training Symposium (12 Hours)	March 2022
<ul style="list-style-type: none"> <li>• Video investigation training</li> <li>• Bias in video forensics</li> <li>• Video compression refresher</li> </ul>	

### Court Testimony

<b>State of Ohio vs Thaddeus Bumgardner</b>	<b>June 29<sup>th</sup>, 2016</b>
Common Pleas Court of Meigs County	14 CR 117
<ul style="list-style-type: none"> <li>• Expert Witness Qualification</li> <li>• Testified concerning forensic audio analysis of evidence in a felonious assault trial</li> </ul>	
<b>State of Ohio vs Tony Cohen</b>	<b>December 1<sup>st</sup>, 2017</b>
Common Pleas Court of Summit County	2016-11-3966
<ul style="list-style-type: none"> <li>• Expert Witness Qualification</li> <li>• Testified concerning forensic video analysis of evidence in an aggravated robbery trial</li> </ul>	
<b>State of Ohio vs Mark Mabry</b>	<b>October 16<sup>th</sup>, 2018</b>
Common Pleas Court of Richland County	2018-CR-0255R

- Expert Witness Qualification
- Testified concerning deleted file recovery and forensic video analysis of evidence in an aggravated assault trial

**State Medical Board of Ohio vs Atta Asef, D.P.M.**

**August 21<sup>st</sup>, 2019**

State Medical Board of Ohio

18-CRF-0038

- Expert Witness Qualification
- Testified concerning video authenticity in a State Medical Board adjudication hearing

**State of Ohio vs Warriayre Armond Roundtree**

**December 11<sup>th</sup>, 2019**

Franklin County Common Pleas Court

18-CR-01669

- Expert Witness Qualification
- Testified concerning forensic video analysis of evidence in an aggravated murder trial

**State of Ohio vs Andrew Kirk Mitchell**

**April 7<sup>th</sup>, 2022**

Franklin County Common Pleas Court

19-CR-01662

- Expert Witness Qualification
- Testified concerning forensic video analysis of evidence in a murder trial

**State of Ohio vs Andrew Kirk Mitchell (Retrial)**

**April 13<sup>th</sup>, 2023**

Franklin County Common Pleas Court

19-CR-01662

- Expert Witness Qualification
- Testified concerning forensic video analysis of evidence in a murder trial

**State of Ohio vs Bria Kaye-Paige Henslee**

**May 17<sup>th</sup>, 2023**

Franklin County Common Pleas Court

21-CR-01524

- Expert Witness Qualification
- Testified concerning forensic video analysis of evidence in a murder and assault trial

**State of Ohio vs Tylan Chance Sims**

**June 6<sup>th</sup>, 2023**

Franklin County Common Pleas Court

21-CR-00595

- Expert Witness Qualification
- Testified concerning forensic video analysis of evidence in a murder and felonious assault trial

**Professional Memberships**

Law Enforcement and Emergency Services Video Association

August 2014 – Present

High Technology Crime Investigation Association

August 2018 - Present