



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



2023-2059
Officer Involved Critical Incident - 205 US 250, Polk, Ohio
44866

Investigative Activity: Video Review – OOCIC Production
Involves: Larry Dunham (S)
Activity Date: 10/16/2023
Activity Location: BCI – Richfield, 4055 Highlander Parkway, Ohio 44286
Authoring Agent: SA Nicholas Valente

Narrative:

On October 16, 2023, Ohio Bureau of Criminal Investigation (BCI) Special Agent (SA) Nick Valente (Valente) received an envelope from the Ohio Organized Crime Investigations Commission (OOCIC). Contained in the envelope were the original flash drive SA Valente sent OOCIC, and an additional 8 gigabyte USB flash drive. The additional flash drive contained work product for OOCIC case #23-00073. SA Valente previously sent OOCIC body-worn camera video recordings from Officer Johnie Wilcox (Officer Wilcox), Officer Brittney Pennywitt (Officer Pennywitt) and Officer Jacob Hemenway (Officer Hemenway). These recordings captured activity related to the August 5, 2023 shooting of Larry Dunham in Polk, Ohio.

SA Valente reviewed the USB flash drive provided by OOCIC and determined it contained two folders.

One folder contained two spreadsheets. These spreadsheets contained hash values and identifying information from the video production. These spreadsheets were titled:

1. *23-00073 Item 001 SHA256 Hash Values*
2. *23-00073 Video Presentations SHA256 Hash Values*

The second folder contained two MP4 video files. These files were titled:

1. *23-00073 Synchronized Video Presentation - Speed Views*
2. *23-00073 Synchronized 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 video or listening to audio recordings of these events.

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

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officer(s) or subject(s) involved. Video recordings capture 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 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 a gunshot. It should be noted those references are 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 Valente utilized the audio waveform effect to help identify sounds and when they occurred within the video production, specifically 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 elapsed time.

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

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first became audibly detectable, the wave bar began to increase in frequency on the right side of the screen. For this reason, SA Valente identified the frames depicting significant events as the first frame displaying an increase on the wave bar.

Video Review

SA Valente first reviewed the video presentation titled *23-00073 Synchronized Video Presentation*. SA Valente noted this video file contained a synchronized video presentation of all three involved deputies' body-worn video camera recordings. Audio wave bars were added below each officer's body-worn video recording. A timecode and frame counters were also added.

SA Valente then reviewed the second video presentation titled *23-00073 Synchronized Video Presentation – Speed Views*. This video file contained the same three video recordings, again synchronized together and played with audio waveforms added, timecode added and frame counters added but now included the videos playing at both half speed and full speed.

Below is a collection of select video frames from the above described productions provided with additional relevant information noted below the images.



OCIC Image 1 - Moment Dunham appeared to begin chambering a cartridge

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OCIC Image 2 - Moment Pennywitt fires taser for 1st time



OCIC Image 2 - Crop of 1st Taser Firing – Pennywitt

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OCIC Image 3 - Moment Wilcox fires taser



OCIC Image 4 - Moment Pennywitt fires taser for 2nd time

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OCIC Image 5 - Gun being raised by Dunham



OCIC Image 5 - Crop - From Hemenway BWC

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OCIC Image 6 - Dunham pointing 2nd gun with left hand



OCIC Image 6 - Crop - Hemenway BWC

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OCIC Image 6 - Crop - Wilcox BWC



OCIC Image 7- Dunham clearly pointing gun at Hemenway

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OCIC Image 7 - Crop- Wilcox BWC



OCIC Image 7 - Hemenway BWC

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OCIC Image 8 - Moment first apparent gun smoke cloud visible on Hemenway BWC



OCIC Image 9 - Apparent shot fired by Dunham

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OCIC Image 9 - Hemenway BWC Crop



OCIC Image 9 - Wilcox BWC Crop

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OCIC Image 10 - Apparent 2nd shot fired by Dunham



OCIC Image 10 - Hemenway BWC Crop

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OCIC Image 10 - Pennywitt BWC Crop



OCIC Image 10 - Wilcox BWC Crop

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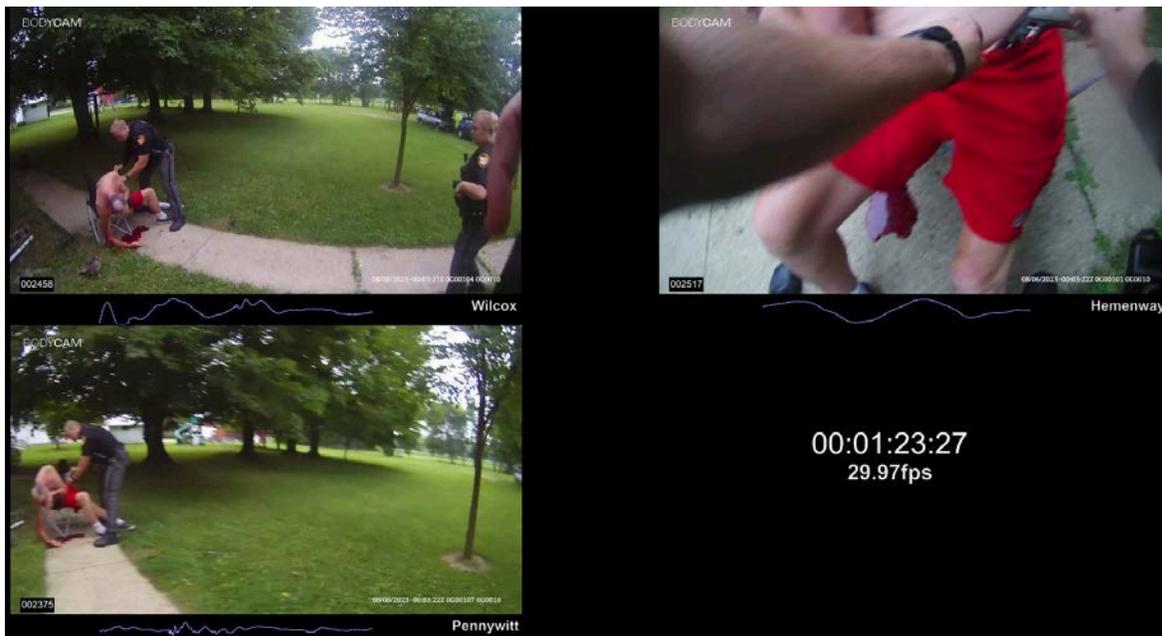
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OCIC Image 11 - Pennywitt and Wilcox calling for EMS



OCIC Image 12 - Hemenway removing 3rd gun from Dunham's waistband

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The following chart notes the time and a brief description of significant activity captured in the video production.

Timestamp on OOCIC Synchronized Production:	Activity:
00:00:23:29	Dunham's leg/person first became visible (on Deputy Pennywitt's BWC)
00:00:28:00	Statement "Hello Sir" made by Deputy Hemenway upon approaching Dunham
00:00:39:00 Estimated	Deputy Wilcox stated "Do you mind not touching that firearm, sir?"
00:00:39:14	Dunham dropped the phone he was holding on the ground
00:0040:18	Dunham appeared to begin lifting a gun from his lap and chambering a cartridge.
00:00:41:00 Estimated	Deputy Wilcox stated "Drop it!"
00:00:43:24	Deputy Pennywitt fired her taser for the 1 st time
00:00:52:23 Estimated	Deputy Wilcox stated "Drop the firearm!"
00:00:54:00 Estimated	Deputy Wilcox stated "Drop it!"
00:00:56:02	Deputy Wilcox fired his taser
00:00:58:10	Deputy Pennywitt fired her taser the 2 nd time
00:00:58:20 Estimated	Deputy Wilcox stated "Sir, do not point that."
00:00:59:17	Dunham was in the process of raising a gun from his lap.
00:00:59:28	Dunham raised a second gun in his other hand
00:01:00:00 Estimated	Deputy Wilcox stated "Sir, do not" and the sound of gunfire commenced.
00:01:00:02	Dunham clearly pointed gun at Deputy Hemenway
00:01:00:06	Possible gun powder / smoke visible on Deputy Hemenway's BWC
00:01:00:21	Sparks visible coming from pistol Dunham was holding in his left hand and pointing at Deputy Hemenway
00:01:01:00	Sparks visible coming from pistol in Dunham's left hand pointed at Deputy Hemenway for 2 nd time

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00:01:03:00	Sound of gunfire and ceased
00:01:03:06	Deputy Pennywitt and Deputy Wilcox began calling for E.M.S.
00:01:23:27	Deputy Hemenway in process of removing 3 rd gun from Dunham's waistband
Note the timestamps in the left column equate to hours:minutes:seconds:frame number	

Based on a review of these video recordings it could not be determined who fired first. On two separate and distinct occasions sparks can be seen coming from the barrel of the gun Dunham held in his left hand and pointed at Deputy Hemenway. Likewise, two bullets were later recovered from the scene that were scientifically matched to the gun Dunham held in his left-hand corroborating Dunham likely fired two bullets at Deputy Hemenway during the encounter.

Prior to firing their duty pistols, the deputies collectively fired three taser cartridges at Dunham. None of the taser deployments had the effect of stopping Dunham's continued unencumbered movement and his handling of the firearms. Deputy Hemenway and Deputy Wilcox gave Dunham five complete orders to "drop the firearm" or a command similar thereto prior to firing their pistols. When Dunham leaned to his right and began pointing two guns at Deputy Hemenway, Deputy Wilcox gave Dunham a sixth command "Sir, do not..." and the sound of gunfire erupted as Dunham, Deputy Hemenway, and Deputy Wilcox began exchanging gunfire. The exchange of gunfire lasted approximately 3 seconds. Within a fraction of a second thereafter, Deputy Wilcox and Deputy Hemenway radioed that shots had been fired and requested emergency medical services response. Throughout the interaction, Dunham ignored the deputy's commands to not touch the firearms on his lap and to drop them. Dunham instead appeared to charge one of the pistols, picked one up in each hand, leaned to his right, pointed both guns at Deputy Hemenway and exchanged gunfire.

Approximately 21 seconds elapsed from the time Deputy Wilcox first requested Dunham not touch the guns on his lap until the start of the gunfire exchange. Immediately after the gunfire ceased Deputy Hemenway approached Dunham and removed a third handgun from Dunham's waistband. Deputy Hemenway and Deputy Wilcox then assisted Dunham to the ground and checked his person for signs of life.

On November 6, 2023, SA Valente received an email from Nissa Low of the OOCIC. The email contained a 10-page PDF attachment. SA Valente opened the attachment and found it to contain copies of the Evidence Submission Form completed by SA Valente when the videos were

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submitted to OOCIC, the OOCIC Chain of Custody Report, a letter explaining the forensic analysis that was performed by OOCIC and the Curriculum Vitae of David Loomis who completed the forensic analysis. The document was attached to this report.

Reference Items:

1. F – ACSO OCIC Production

Attachments:

1. 2023-02-16: OOCIC Chain of Custody
2. 2023-02-28: OOCIC Documents
3. OCIC Image 1 - Moment Dunham appeared to begin chambering a cartridge
4. OCIC Image 2 - Moment Pennywitt fires taser for 1st time
5. OCIC Image 2 - Crop of 1st Taser Firing – Pennywitt
6. OCIC Image 3 - Moment Wilcox fires taser
7. OCIC Image 4 - Moment Pennywitt fires taser for 2nd time
8. OCIC Image 5 - Gun being raised by Dunham
9. OCIC Image 5 - Crop - From Hemenway BWC
10. OCIC Image 6 - Crop - Hemenway BWC
11. OCIC Image 6 - Crop - Wilcox BWC
12. OCIC Image 6 - Dunham pointing 2nd gun with left hand
13. OCIC Image 7 - Crop - Wilcox BWC
14. OCIC Image 7 - Hemenway BWC
15. OCIC Image 7- Dunham clearly pointing gun at Hemenway
16. OCIC Image 8 - Moment first apparent gun smoke cloud visible on Hemenway BWC
17. OCIC Image 9 - Wilcox BWC Crop
18. OCIC Image 9 - Apparent shot fired by Dunham
19. OCIC Image 9 - Hemenway BWC Crop
20. OCIC Image 10 - Wilcox BWC Crop
21. OCIC Image 10 - Pennywitt BWC Crop
22. OCIC Image 10 - Hemenway BWC Crop
23. OCIC Image 10 - Apparent 2nd shot fired by Dunham
24. OCIC Image 11 - Pennywitt and Wilcox calling for EMS
25. OCIC Image 12 - Hemenway removing 3rd gun from Dunham's waistband
26. 2023-11-06: OOCIC Lab Submission

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Wilcox



Hemenway



Pennywitt

00:00:40:18
29.97fps



Wilcox



Hemenway



Pennywitt

00:00:43:24
29.97fps





BODYCAM

001623

08/06/2023-00:02:53Z 0G00104 0G0010

Wilcox



BODYCAM

001682

08/06/2023-00:02:54Z 0G00101 0G0010

Hemenway



BODYCAM

001540

08/06/2023-00:02:54Z 0G00107 0G0010

Pennywitt

00:00:56:02
29.97fps



Wilcox



Hemenway



Pennywitt

00:00:58:11
29.97fps



Wilcox



Hemenway



Pennywitt

00:00:59:17
29.97fps









BODYCAM

001739 08/06/2023-00:02:57Z 0G00104 0G0010

Wilcox



BODYCAM

001798 08/06/2023-00:02:58Z 0G00101 0G0010

Hemenway



BODYCAM

001656 08/06/2023-00:02:58Z 0G00107 0G0010

Pennywitt

00:00:59:28
29.97fps







BODYCAM

001743

08/06/2023-00:02:57Z 0C00104 0C0010

Wilcox



BODYCAM

001802

08/06/2023-00:02:58Z 0C00101 0C0010

Hemenway



BODYCAM

001660

08/06/2023-00:02:58Z 0C00107 0C0010

Pennywitt

00:01:00:02
29.97fps



BODYCAM

001747 08/06/2023-09:02:57Z 0G00104 0G0010



Wilcox



BODYCAM

001806 08/06/2023-09:02:58Z 0G00101 0G0010



Hemenway



BODYCAM

001664 08/06/2023-09:02:58Z 0G00107 0G0010



Pennywitt

00:01:00:06
29.97fps





BODYCAM

001762 08/06/2023-00:02:58Z 0G00104 0G0010

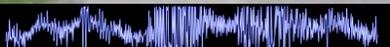


Wilcox



BODYCAM

001821 08/06/2023-00:02:59Z 0G00101 0G0010



Hemenway



BODYCAM

001679 08/06/2023-00:02:59Z 0G00107 0G0010



Pennywitt

00:01:00:21
29.97fps











00:01:01:00
29.97fps



Wilcox



Hemenway



Pennywitt

00:01:03:06
29.97fps



Wilcox



Hemenway



Pennywitt

00:01:23:27
29.97fps



**Ohio Organized Crime
Investigations Commission**

Submission Date 09/05/2023	Priority Code	Due Date
OOCIC Case Number 23-00073	Shelf Location	
(OOCIC Evidence Tech will complete this section) Refer to OCIC Submission Number for Inquires		

Evidence Submission Form

Submitting Agency (or OOCIC Task Force Number) BCI Richfield		Case Investigator Name: S/A Nick Valente	Submitting Investigator: S/A Nick Valente
County: Summit		Agency Case Number: 2023-2059	Court Date:
Telephone Number: 234-400-3622	Cell Phone Number: 614-208-8405	FAX Number: 877-476-2195	
Mailing Address: 4055 Highlander Pkwy Richfield, OH 44286		E-Mail Address: nicholas.valente@ohioago.gov	

Submitted Items: (OOCIC Evidence Tech will complete this section)

Item #	Description	Make	Model	Lot Number
1	Flash Drive/Jump Drive/Thumb Drive Black and Red SanDisk 128 GB Flash Drive			
W.P. 1.1	Flash Drive/Jump Drive/Thumb Drive 1 8GB Flash Drive			

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)

Subject Name: Dunham, Larry	Custody Status: NC	Sex: Male	Race: Caucasian	DOB:
Offense: Officer Involved Shooting	Date of Offense: 08/08/2023	Location : (City, County) Ashland County		

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

Please see attached sheet.

Submitted By: _____
S/A Nick Valente

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

Lab Case 23-00073
Department Name: BCI Richfield
Incident Number 2023-2059

Item # 1 Description : Flash Drive/Jump Drive/Thumb Drive Black and Red SanDisk 128 GB
Flash Drive

<u>Date</u>	<u>Time</u>	<u>Custody Of</u>	<u>Location / Person</u>	<u>Transaction By</u>
09/05/2023	12:40	Clerical/Evidence	Nissa Low	Nissa Low
09/05/2023	13:36	Evidence Storage	Shelf A7	Nissa Low
10/03/2023	12:42	Clerical/Evidence	Nissa Low	Nissa Low
10/03/2023	12:42	Analyst	David F. Loomis	Nissa Low
10/12/2023	13:34	Clerical/Evidence	Nissa Low	Nissa Low
10/12/2023	13:37	Evidence Disposal	Returned to Department	Nissa Low

Item # W.P. 1.1 Description : Flash Drive/Jump Drive/Thumb Drive 1 8GB Flash Drive

<u>Date</u>	<u>Time</u>	<u>Custody Of</u>	<u>Location / Person</u>	<u>Transaction By</u>
10/12/2023	13:15	Analyst	David F. Loomis	Nissa Low
10/12/2023	13:34	Clerical/Evidence	Nissa Low	Nissa Low
10/12/2023	13:37	Evidence Disposal	Returned to Department	Nissa Low



Ohio Organized Crime Investigations Commission
Forensic Video Analysis

Written November 6th, 2023

To: BCI Richfield OCIC Case Number: 23-00073
S/A Nick Valente
4055 Highlander Pkwy
Richfield, OH 44286
Agency Case Number: 2023-2059

Type of Offense: Officer Involved Shooting
Location of Offense: Ashland County

On September 5th, 2023, Special Agent Nick Valente of BCI submitted one flash drive for the purpose of forensic video analysis. Special Agent Valente 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 this 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 synchronized video presentations as requested
- Produce a flash drive containing requested video presentations

On October 3rd, 2023, ITEM ONE was checked out of the evidence room by Senior Analyst David Loomis.

ITEM ONE was a SanDisk Ultra 128GB flash drive with no label. The case of ITEM ONE was labeled:

“BCI CASE 2023-2059”

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 six .mp4 video files with a display resolution of 1920 pixels by 1080 pixels using the h264 video codec, with audio at a 48000 hertz sample rate, mono, using the mp4a audio codec, in three separate folders:

328 Hemenway\0G00101_0G0010_08062023000159_0011.MP4

328 Hemenway\0G00101_0G0010_08062023003200_0012.MP4

331 Wilcox\0G00104_0G0010_08062023000200_0005.MP4

331 Wilcox\0G00104_0G0010_08062023003201_0006.MP4



**Ohio Organized Crime Investigations Commission
Forensic Video Analysis**

Written November 6th, 2023

333 Pennywitt\0G00107_0G0010_08062023000204_0005.MP4

333 Pennywitt\0G00107_0G0010_08062023000528_0006.MP4

The six video files from ITEM ONE were imported into the Adobe Premiere CC 2024 video analysis software for review. A new timeline was created, representing the three camera views provided. The video files were synchronized based upon audio cues.

The Premiere 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 a three-camera view. Frame counters were added to each camera view. Audio waveform effects and a timecode effect were added to the composition. The composition was duplicated to also show the presentation in half-speed and original-speed views. Title slates were added and the two video presentations were rendered out as universal .mp4 video files for demonstrative purposes.

The two .mp4 video presentations were placed onto an 8GB flash drive as work product.

On October 12th, 2023, the 8GB flash drive was released to evidence for shipping, along with ITEM ONE.

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



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

50th 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

- Video Analysis with iNput Ace
- Trends in video analysis
- Issues with timing in video
- Digital video evidence recovery

LEVA Level 4 – Advanced Forensic Video Analysis and the Law (40 Hours)

December 2020

- Advanced video analysis techniques
- Creating demonstratives for court
- Preparation for advanced certification

iNput Ace Video Evidence Training Symposium (12 Hours)

March 2021

- Video evidence narrative techniques
- Issues with video timing
- Video evidence workflow

Amped Authenticate Training (20 Hours)

June 2021

- Image and video authentication techniques

Amped FIVE Training (25 Hours)

December 2021

- Forensic Video Analysis theory
- Workflow in Amped FIVE
- Digital image and video clarification techniques

iNput Ace Video Evidence Training Symposium (12 Hours)

March 2022

- Video investigation training
- Bias in video forensics
- Video compression refresher

Court Testimony

State of Ohio vs Thaddeus Bumgardner

June 29th, 2016

Common Pleas Court of Meigs County

14 CR 117

- Expert Witness Qualification
- Testified concerning forensic audio analysis of evidence in a felonious assault trial

State of Ohio vs Tony Cohen

December 1st, 2017

Common Pleas Court of Summit County

2016-11-3966

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

State of Ohio vs Mark Mabry

October 16th, 2018

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 21st, 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 11th, 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 7th, 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 13th, 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 17th, 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 6th, 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