



Ohio Organized Crime Investigations Commission



Submission Date	Priority Code	Due Date
03/29/2023		
OOCIC Case Number	Shelf Location	
23-00031		
(OOIC 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 Charles Moran	Submitting Investigator: S/A Charles Moran
County: Summit		Agency Case Number: 2023-0795	Court Date:
Telephone Number: 234-400-3618	Cell Phone Number: 330-807-7261	FAX Number: 866-218-0993	
Mailing Address: 4055 Highlander Pkwy Richfield, OH 44286		E-Mail Address: charles.moran@ohioattorneygeneral.gov	

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

Item #	Description	Make	Model	Lot Number
1	Flash Drive/Jump Drive/Thumb Drive 64 GB SanDisk 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)

Offense: Officer Involved Shooting	Date of Offense: 03/21/2023	Location : (City, County) Brookfield Township, Trumbull County
Victim(s): (Business Name (If applicable) and Address) Wild III, Fred		

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

Please contact investigator by phone.

Submitted By:

S/A Charles Moran

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 23-00031
Department Name: BCI Richfield
Incident Number 2023-0795

Item # 1 Description : Flash Drive/Jump Drive/Thumb Drive 64 GB SanDisk Flash Drive

<u>Date</u>	<u>Time</u>	<u>Custody Of</u>	<u>Location / Person</u>	<u>Transaction By</u>
03/29/2023	14:30	Clerical/Evidence	Nissa Low	Nissa Low
03/29/2023	14:51	Analyst	David F. Loomis	Nissa Low
05/11/2023	14:30	Clerical/Evidence	Nissa Low	Nissa Low
05/11/2023	14:34	Evidence Disposal	Returned to Department	Nissa Low

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>
05/11/2023	14:15	Analyst	David F. Loomis	Nissa Low
05/11/2023	14:30	Clerical/Evidence	Nissa Low	Nissa Low
05/11/2023	14:34	Evidence Disposal	Returned to Department	Nissa Low



Ohio Organized Crime Investigations Commission Forensic Tape Analysis

Video Laboratory Report

To: BCI Richfield
S/A Charles Moran
4055 Highlander Pkwy
Richfield, OH 44286

OCIC Case Number: 23-00031

Agency Case Number: 2023-0795

Type of Offense: Officer Involved Shooting
Location of Offense: Brookfield Township, Trumbull County

On March 29th, 2023, Special Agent Charles Moran of BCI submitted one flash drive for the purpose of forensic video analysis. Special Agent Moran requested video timelines 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 generate video presentations as requested
- Produce a data DVD of video presentations

On March 29th, 2023, Senior Analyst David Loomis received custody of ITEM ONE.

ITEM ONE was a SanDisk Ultra 64GB 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 seven .mp4 video files with a display resolution of 1280 pixels by 720 pixels using the HEVC video codec, with audio at a 16000 hertz sample rate, stereo, using the MP4A audio codec:

1_20230321-01075153_1130s5_2301B400466_████████.mp4
1_20230321-01380359_1130s5_2301B400466_████████.mp4
1_20230321-02080357_1130s5_2301B400466_████████.mp4
1_20230321-01082201_1130s5_2301B400464_ELLWOOD-BELLAS.mp4
1_20230321-01380199_1130s5_2301B400464_ELLWOOD-BELLAS.mp4
1_20230321-02080206_1130s5_2301B400464_ELLWOOD-BELLAS.mp4



Ohio Organized Crime Investigations Commission Forensic Tape Analysis

Video Laboratory Report

1_20230321-02380198_1130s5_2301B400464_ELLWOOD-BELLAS.mp4

ITEM ONE also contained six .mp4 video files using the H264 video codec, with audio at a 48000 hertz sample rate, stereo, using the MP4A audio codec, with the following display resolutions:

Axon_Body_3_Video_2023-03-21_0107_X60A2163V.mp4	1280x720
Axon_Body_3_Video_2023-03-21_0108_X60A2773V.mp4	1280x720
Axon_Body_3_Video_2023-03-21_0108_X60A2895V.mp4	1280x720
Axon_Body_3_Video_2023-03-21_0117_X60A2866V.mp4	1280x720
Axon_Fleet_3_Dual-View_Camera_Video_2023-03-21_0117.mp4	1344x540
Fred Henry Wild Incident Case # VIE23-01272 03-21-2023.MP4	1920x1080

ITEM ONE also contained nine-hundred seventy-one .mp4 video files with a display resolution of 1920 pixels by 1080 pixels using the H264 video codec. These video files did not capture the incident requested and were not used in the creation of the requested video timelines.

Video files representing the six camera views requested by Special Agent Moran were imported into the Adobe Premiere CC 2023 video analysis software for review and synchronization. A new timeline was created and the six camera views were synchronized based upon audio cues. The video timeline was edited to the scope requested by Special Agent Moran.

The premiere video timeline was imported into the Adobe After Effects CC 2023 video analysis and compositing software for the creation of the video timeline presentations. A six-camera composite view was created. Frame counters and audio waveforms were added to each camera view. Each video was brightened using the Levels filter. A timecode effect was added to the overall presentation. An individual presentation was generated for each individual camera view in the same manner as the composite view. The seven video presentations were then duplicated to show the video at half-speed and original speed, for a total of fourteen video presentations. Title slates were added and the fourteen video presentations were rendered out as universal .mp4 video files for demonstrative purposes.

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

On May 11th, 2023, the three DVDs were released to evidence for shipping, along with ITEM ONE.



Ohio Organized Crime Investigations Commission
Forensic Tape Analysis

Video Laboratory Report

David F. Loomis
Senior Forensic 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*

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

Columbus, Ohio

- Provides general supervision of the OOCIC Audio/Video laboratory
- Implements policy and procedures
- Reviews case files and lab testing practices
- Responsible for reviewing and approving lab reports
- 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

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

Columbus, Ohio

- 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

LEVA Courtroom Testimony for Expert Witnesses (24 Hours)	May 2019
<ul style="list-style-type: none"> • 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"> • 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
<ul style="list-style-type: none"> • Advanced video analysis techniques • Creating demonstratives for court • Preparation for advanced certification 	
iNput Ace Video Evidence Training Symposium (12 Hours)	March 2021
<ul style="list-style-type: none"> • Video evidence narrative techniques • Issues with video timing • Video evidence workflow 	
Amped Authenticate Training (20 Hours)	June 2021
<ul style="list-style-type: none"> • Image and video authentication techniques 	
Amped FIVE Training (25 Hours)	December 2021
<ul style="list-style-type: none"> • Forensic Video Analysis theory • Workflow in Amped FIVE • Digital image and video clarification techniques 	
iNput Ace Video Evidence Training Symposium (12 Hours)	March 2022
<ul style="list-style-type: none"> • 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
<ul style="list-style-type: none"> • 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
<ul style="list-style-type: none"> • Expert Witness Qualification • Testified concerning forensic video analysis of evidence in an aggravated robbery trial 	

State of Ohio vs Mark Mabry
Common Pleas Court of Richland County

October 16th, 2018
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.
State Medical Board of Ohio

August 21st, 2019
18-CRF-0038

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

State of Ohio vs Warriayre Armond Roundtree
Franklin County Common Pleas Court

December 11th, 2019
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
Franklin County Common Pleas Court

April 7th, 2022
19-CR-01662

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

Professional Memberships

Law Enforcement and Emergency Services Video Association

August 2014 – Present

High Technology Crime Investigation Association

August 2018 - Present

- Critical Listening
- Best Practices
- Hands-on Audio Clarification

LEVA Level 2 – Processing Digital Multimedia Evidence (40 Hours)	June 2016
<ul style="list-style-type: none"> • 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
<ul style="list-style-type: none"> • 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
<ul style="list-style-type: none"> • Networking overview • OSI Model • TCP/IP 	
NW3C CI 102 – How Computers Work and Store Data (3 Hours)	July 2018
<ul style="list-style-type: none"> • 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
<ul style="list-style-type: none"> • 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
<ul style="list-style-type: none"> • 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 	

- 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

- 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