CAMERA TECHNOLOGY

CBP will rely on existing and new technologies to expand the use of cameras in its operating environments.

November 2015

U.S. Customs and Border Protection

Office of the Commissioner
November 2015

CAMERA TECHNOLOGY

The use of cameras has long been a key component of U.S. Customs and Border Protection's (CBP) efforts to earn and keep the public's trust and confidence in the critical work we do, while enforcing the laws we are sworn to uphold. CBP undertook a yearlong, in-depth study to explore the use of body-worn cameras (BWCs) in our varied operating environments. The study concluded that these and other types of cameras could have positive benefits for CBP if acquired, deployed, and managed properly. This report concludes the feasibility study and communicates the next steps for CBP.

I would like to thank the members of the CBP Body-Worn Camera Working Group ("Working Group") and those who volunteered to test the technology in their day-to-day operations. During my interactions with those who tested the cameras, I heard about the potential benefits they may have for CBP. Their findings allowed CBP to chart a path forward for camera technology and our overall efforts to increase transparency to the public. I also appreciate the expertise provided in the 2014 Police Executive Research Forum report, *Implementing a Body-Worn Camera Program*, and the resources made available by the U.S. Department of Justice and non-governmental organizations.

Many state and local agencies utilize cameras and observe positive benefits. However, we know that the operating environments and needs of CBP can be quite different. CBP works in harsh physical environments, in some locations with limited internet connectivity, and experiences differences in the nature of law enforcement encounters. Additionally, varied assignments, uniforms, equipment and environmental elements can impact the functionality of technology. While the study found the particular BWCs evaluated were not well-suited for all CBP environments, overall camera technology does present benefits for CBP's mission.

This is an area of constantly evolving technology and we are committed to testing durable new cameras that may be a better fit with CBP's operational requirements. CBP must also develop policies, conduct further technical evaluations, and resolve other issues, such as funding and collective bargaining considerations.

I am directing an expanded camera review, including the integration of BWC testing into law enforcement operations such as checkpoints, vessel boarding and interdictions, training environments, and outbound operations at ports of entry as well as mobile camera options in vehicles. We will approach this effort thoughtfully and I welcome the opportunity to share our progress with the entire workforce and the public as we move forward.

R. Gil Kerlikowske

Commissioner

CAMERA TECHNOLOGY

CURRENT STATE: CAMERA RICH ENVIRONMENT

At the ports of entry – whether land, air, or sea – there is often a camera capturing CBP's interaction with the public. Overall, there are approximately 7,500 cameras covering the southern and northern border ports of entry. Between the ports of entry, CBP operates over 1,200 cameras, located in a variety of CBP environments, including fixed and mobile cameras, checkpoints, and facility cameras.

Camera footage is useful for showing how officers and agents perform their duties in the field. It can also play a role when members of the public have alleged misconduct, as seen in recent events.[1]

CBP BODY-WORN CAMERA STUDY

NEXT STEPS: CAMERA TECHNOLOGY

As a next step following completion of the feasibility study, Commissioner Kerlikowske has directed the Working Group to develop and coordinate the Agency's implementation strategy for camera technology. The study found that while the particular cameras evaluated were not well suited for all CBP environments, camera use can have a number of benefits for the CBP mission.

In recent years, state and local law enforcement agencies have deployed BWCs to enhance transparency, accountability, and credibility with the public. However, the use of BWCs in recent years has also raised important policy and technology questions that require further consideration before implementation by CBP. These factors include the availability of fitting technology to CBP's varied operating environments; better understanding needs in relation to the existing camera infrastructure at CBP; and policy considerations raised later in this report such as privacy matters; data storage; funding and collective bargaining.

CBP will require a hybrid solution including multiple camera deployments and product options. Consistent with the approach of other law enforcement agencies, CBP will consider a risk-based, scaled deployment of BWCs. A risk-based deployment option consists of measured deployment based on individual component risk analysis, current capabilities, and operational need.

Because cameras are already in use in CBP's day-to-day operations, a full scale deployment of BWCs is not necessary. For example, a BWC may not be needed at a port of entry where there is already an abundance of cameras in place. Rather than focusing exclusively on BWCs, CBP will expand its overall use of camera technology in the next phase of this effort. That comprehensive expansion will include mobile, port, maritime, and body worn cameras.

In this next phase, CBP will:

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[1] In July 2014, a Boy Scout Scoutmaster alleged mistreatment by CBP Officers at the Alcan, Alaska port of entry. The Office of Inspector General, Department of Homeland Security reviewed the group's inspection, including video footage from a port camera. The footage showed that the CBP officer did not un-holster or handle his weapon and that the allegations were unfounded.

- evaluate existing fixed camera infrastructure;
- evaluate mobile/dash camera capabilities at and between ports of entry; and
- deploy cameras within training units.

We will explore the use of mobile/dash cameras in CBP marked vehicles, for both the Office of Field Operations (OFO) and the U. S. Border Patrol (USBP). CBP will continue to test camera use in new ways and locations and will likely discover new mission-supporting applications.

The expanded Working Group will comprise members from all CBP offices. Once established, CBP's OFO, USBP, and Office of Policy and Planning (OPP) will manage the day-to-day operations of the Working Group as co-chairs. The Working Group will coordinate the following:

1. Test and deploy BWC technology.

a) CBP's Office of Training and Development is directed to incorporate camera technology into the academies and training facilities, ensuring camera footage is used as a teaching strategy to provide constructive feedback and promote officer/agent awareness. This technology and the resulting footage will allow for immediate feedback to the trainee regarding their performance during a training scenario. Use of camera technology in training will commence based on the development of technology requirements, availability, and recommendations of the Working Group due in January 2016.

b) CBP's Air and Marine Operations (AMO), OFO, and the USBP are directed to identify and test new camera technology, and conduct deployment assessments of BWC technology using a risk-based approach. Recommendations must specifically address use of BWCs in operations including the following: checkpoints, vessel interdiction operations, vessel boarding, outbound operations, and Field Training Units. Recommendations should also address all guidance or changes that may impact the working conditions of CBP employees, to ensure collective bargaining requirements are met. Recommendations for deployment, with funding estimates, will be submitted to the Commissioner by January 31, 2016.

2. Examine existing fixed camera technology with the expectation of optimizing current resources. OFO and USBP are directed to examine upgrading and enhancing existing fixed camera infrastructure at CBP facilities and along the border. The results of this assessment must include recommendations that specifically address plans for a risk-based approach, upgrading existing camera technology, identify areas without camera technology, and investing in higher grade video resolution, video and audio recording abilities, data storage, improved audio capabilities, and other infrastructure needs in coordination with the Office of Information Technology (OIT). An assessment of existing fixed camera capabilities with recommendations for enhancements, to include funding estimates, will be submitted to the Commissioner by January 31, 2016.

3. Explore mobile camera systems. OFO, USBP, and Office of Technology Innovation and Acquisition (OTIA) are directed to evaluate possible integration of mobile camera systems with CBP marked vehicles in coordination with CBP's Office of Administration (OA). A plan for this feasibility evaluation will be submitted to the Commissioner by March 31, 2016. Following the evaluation, OFO and USBP will prepare recommendations for potential integration of this technology.

4. Continue implementation of vessel-mounted camera systems. AMO will continue implementation of vessel-mounted cameras that capture a 360-degree view of the area surrounding a vessel. AMO will provide a status update by December 31, 2015.

Moving forward, the Working Group will:

1. Establish goals, objectives, desired outcomes, and performance measures for camera technology.
2. Develop timelines for policy development, bargaining, technology requirements, acquisition, training, and outreach.
3. Prepare all necessary policies and procedures for key issues identified, such as the establishment of parameters to handle, catalog, use, access, and activate all considered technologies and the resulting video footage.
4. Establish an acquisition program management office to define the relationship and governance between this office and the Working Group. Decisive to this effort is the ability to quickly define requirements and establish an acquisition strategy. The Working Group and acquisition program office will coordinate to prepare the necessary documentation, detailed schedules and required decisions and demonstrations.
5. Coordinate with the OIT, the OA, and the Office of Internal Affairs to analyze such requirements as data storage capability and capacity; field infrastructure and facility readiness for new or improved technology; information technology resources and personnel needs to support camera technology; and select software, network, data storage, evidence, and video redaction solutions.
6. Coordinate with the Office of the Chief Counsel to receive legal opinions for privacy, data storage, retention, and other legal matters.
7. Conduct all necessary communication, education, and engagement opportunities with officers and agents, unions, and with CBP's stakeholders.
8. Develop solutions to support the expected increase in Freedom of Information Act (FOIA) requests for BWC footage.

As the co-chairs, OFO, USBP, and OPP will report the Working Group status on a regular schedule to Commissioner Kerlikowske and his leadership team as well as to leaders within their chains of command.

CBP BODY-WORN CAMERA STUDY

BACKGROUND AND SUMMARY

CBP Commissioner Kerlikowske established the Working Group in July 2014 to evaluate the feasibility of incorporating BWC technology into CBP law enforcement operations. Membership comprised representatives from 13 CBP offices, the Department of Homeland Security (DHS), Office for Civil Rights and Civil Liberties, and the DHS Privacy Office.

First, the Working Group reviewed and analyzed available data, reports, expert recommendations, and scholarly papers. Members also participated in a government sponsored expert panel, hosted by the U.S. Department of Justice, Bureau of Justice Assistance, and several interagency meetings with the U.S. Department of Justice, U.S. Department of Interior, and U.S. General Services Administration. The Working Group also consulted state and local law enforcement entities with experience using body-worn camera technology, including the Los Angeles Police Department and the New Orleans Police Department, affording additional understanding and insight.

The first phase of the study was a controlled environment evaluation at the CBP academies and training facilities in Glynco, Georgia; Artesia, New Mexico; Oklahoma City, Oklahoma; and St. Augustine, Florida. Academy personnel at those sites observed the technology on officer and agent trainees during scenario-based training.

In the second phase, CBP evaluated the technology in practical situations at the Northern, Southern, and Coastal Border environments. It included BWC use by officers from USBP (El Paso and Blaine Sectors) and officers from the Office of Field Operations (Seattle Field Office) and agents from Air and Marine Operations (West Palm Beach Marine Unit and Great Lakes Air and Marine Branch). CBP's OTIA conducted an Operational Utility Evaluation, including quantitative analysis of the data collected during the field evaluations.

The Operational Utility Evaluation concluded "most [BWCs evaluated] were not designed to meet the rigors required by CBP officers and agents," and "for the most part were not suited for CBP operational use." While noting potential benefits, conclusions also emphasized operational and policy hurdles to overcome.

The third phase analyzed the data collected and considered policy, legal, privacy, labor relations, operations, deployment, cost, record retention, and information technology factors.

The Working Group found the following potential benefits of BWCs by CBP:

- Reduction of allegations and complaints, deterring frivolous complaints and lowering the likelihood of use of force incidents;
- Insight into law enforcement encounters that have traditionally been unavailable;
- Supplemental evidence in criminal cases increasing the likelihood of obtaining successful prosecution for those who have violated the law;

- Enhanced training capabilities through utilization of footage as a learning tool;
- Reduced hostilities between officers/agents and citizens;
- Strengthened officer and agent performance and accountability;
- Increased officer and agent awareness and safety by influencing public behavior; and
- Simplified incident review by enabling the quick and immediate review of footage.

The Working Group also identified several factors that may adversely affect CBP officers/agents, operations, and mission effectiveness. These factors will be subjected to more in-depth study:

- Without appropriate training, there may be impacts to officer/agent safety such as changes to officer stance in tense encounters;
- There are concerns about the BWC technology capabilities and limitations as well as the potential to create mistrust and suspicion between officers/agents and management;
- There are questions about whether the BWC video accurately conveys the same sense of threat that is experienced by an officer/agent;
- Diverse operational environments and enforcement assignments within CBP, especially for the USBP, make the application of BWC technology less conducive than its application within the traditional law enforcement environment;
- The public may be less likely to divulge information to law enforcement officers if they know they are being recorded, as CBP found at some testing sites;
- BWCs and software may pose a vulnerability and security risk due to a lack of adequate security features; signals from BWCs could be susceptible to hacking by non-CBP approved devices;
- There will be ongoing, long-term financial costs of a BWC program after implementation such as technology enhancements, infrastructure improvements, increasing storage, and additional staffing requirements to support the management of footage; and
- Management and support of a BWC program could result in lost law enforcement hours due to added administrative duty of uploading of footage after shifts, records management, training, and technology infrastructure support, and processing potentially high numbers of FOIA requests.

The Working Group strongly recommended CBP complete the following prior to deploying BWC technology:

1. Develop a final policy document that resolves key issues and establishes parameters for the handling, cataloging, use, access, and activation of BWCs and the footage.

2. Perform technology evaluations that identify technology requirements for each operational component, with particular attention to their specific operating environments.
3. Examine CBP's existing fixed camera technology to identify areas where BWC technology may overlap with existing CBP technology. Avoid redundancy by reserving the use of BWC technology for those areas where technology gaps are identified.

The Working Group considered and rejected several different deployment options before recommending a risk-based deployment option.

Risk factors would be articulated by leadership and may include, but not limited to:

- Volume of illegal traffic;
- Rate of assaults against agents and officers;
- Frequency of complaints against agents and officers; and
- Gaps in existing technology, training, or other identified need.

This approach will allow for a fluid deployment strategy that is fact based and responsive to individual component operational requirements. Each component may, based on their operational need, be able to utilize the technology as an operational tool, which could ultimately have a significant positive impact on CBP's overall mission, as long as a cautious and deliberate implementation strategy is applied.

U.S. Customs and
Border Protection

Body-Worn Camera Feasibility Study Report

Presented by: CBP Body-Worn Camera Working Group
August 2015

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EXECUTIVE SUMMARY

The U.S. Customs and Border Protection (CBP) Body-Worn Camera (BWC) Working Group is pleased to present findings and recommendations regarding the feasibility of using BWC technology within CBP's operational environments. The information presented in this report, and the recommendations made herein, are subject to change as the technology continues to develop and gain momentum within the law enforcement community and the nation's neighborhoods.

The BWC Working Group was established in July 2014 at the request of Commissioner R. Gil Kerlikowske. The Working Group's objective was to evaluate the feasibility of incorporating BWC technology into CBP law enforcement operations. Members were comprised of representatives from 13 CBP offices, and the Department of Homeland Security (DHS), Office for Civil Rights and Civil Liberties, and DHS Privacy Office.

For twelve months, the BWC Working Group conducted a Feasibility Study. Members studied available data, reviewed published reports, analyzed expert recommendations, and consulted scholarly papers to assist in the development of this report. Members also participated in a government sponsored expert panel hosted by the U.S. Department of Justice-Bureau of Justice Assistance, and took part in several interagency meetings with the U.S. Department of Justice, U.S. Department of Interior, and U.S. General Services Administration. Consultation with state and local law enforcement entities, to include the Los Angeles Police Department and the New Orleans Police Department, afforded members a greater understanding of the subject matter and provided valuable insight.

Meetings were held with BWC manufacturer representatives to provide Working Group members with an understanding of the abilities and limitations of the existing technology. Based on the information received, a representative sample of available technology was purchased for use during the feasibility study.

The Working Group employed a methodical approach that incorporated three phases. The first phase consisted of a controlled environment evaluation at the CBP academies and training facilities in Glynco, GA, Artesia, NM, Oklahoma City, OK, and St. Augustine, FL. Evaluations at these sites were conducted by Academy personnel who observed the technology on officer and agent trainees during scenario-based training.

The second phase, the field evaluation phase, applied practical evaluations at CBP environments on the Northern Border, Southern Border and Coastal Border. This phase utilized officers and agents from: the United States Border Patrol, El Paso and Blaine Sectors; the Office of Field Operations, Seattle Field Office; and the Air and Marine Operations, West Palm Beach Marine Unit and Great Lakes Air and Marine Branch.

Additionally, the field evaluation phase utilized the services of the CBP Office of Technology Innovation and Acquisition in conducting an Operational Utility Evaluation. The evaluation produced critical quantitative analysis of the data collected during the field evaluations, and the information contained in their evaluation has been incorporated into the Working Group's final recommendation.

The Operational Utility Evaluation concluded that "While there are many BWCs in the marketplace today, it is vital to recognize that most were not designed to meet the rigors required by CBP officers and agents. As such, these BWCs tend to provide limited effectiveness, and for the most part are not suited for CBP operational use. While the concept of BWCs has potential benefits for CBP, there are operational requirements that need to be met, policies that need to be developed, and issues that need to be resolved before a BWC solution is deployed."

The third phase consisted of analyzing the data from the previous phases, as well as associated policy, legal, privacy, labor relations, operations, deployment, cost, record retention, and information technology considerations.

After analyzing available data, understanding the capabilities afforded by the technology, and evaluating the technology within the CBP operational environments, our findings conclude that BWC technology may offer benefits in support of the CBP mission by:

- Reducing allegations and complaints, deterring frivolous complaints and lowering the likelihood of use of force incidents.[1]
- Affording insights into law enforcement encounters that have traditionally been unavailable.
- Supplementing evidence in criminal cases increasing the likelihood of obtaining successful prosecution for those who have violated the law.[2]
- Enhancing training capabilities through utilization of footage as a learning tool.
- Contributing to a "civilizing effect" on law enforcement/civilian interactions by reducing hostilities between officers/agents and citizens.[3]
- Strengthening officer/agent performance and accountability.
- Increasing officer/agent awareness and safety by influencing public behavior.[4]
- Simplifying incident review by enabling the quick and immediate review of footage.

[1] Ariel, Barak, William A. Farrar and Alex Sutherland. November 2014. *The Effect of Police Body-Worn Cameras on Use of Force and Citizens' Complaints Against the Police: A Randomized Controlled Trial*; Miller, Lindsay, Jessica Toliver, and Police Executive Research Forum. 2014. *Implementing a Body-Worn Camera Program: Recommendations and Lessons Learned*; White, Michael D. 2014. *Police Officer Body-Worn Cameras: Assessing the Evidence.*

[2] International Association of Chiefs of Police. 2005. *The Impact of Video Evidence on Modern Policing: Research and Best Practices from the IACP Study on in-Car Cameras*; Miller, Toliver and PERF, 2014.

[3] White, 2014; Mateescu, Alexandra, Alex Rosenblat and Danah Boyd. 2015. *Police Body-Worn Cameras.*

[4] Farrar, Tony, and Barak Ariel. 2013. *Self-Awareness to Being Watched and Socially-Desirable Behavior: A Field Experiment on the Effect of Body-Worn Cameras on Police Use-of-Force.*

The Working Group also identified several factors that may adversely affect CBP officers/agents, operations, and mission. These factors represent significant concerns that require additional research and study prior to an implementation decision being made, such as:

- Impacts to officer/agent safety. The BWCs increase the cognitive load experienced by officer/agents, causing them to redirect their attention towards the operation of the camera versus allowing them to focus on the encounter.[5] BWCs may also cause an officer/agent to second-guess a course of action.[6]
- Implementation of a BWC program may be interpreted as a lack of trust in officers/agents, which could negatively impact morale and create mistrust and suspicion between officers/agents and management. Officers/agents involved in the study were concerned about the BWC video being used for disciplinary actions and uncertain about the BWC technology capabilities and limitations.[7]
- BWCs cannot capture the physiological and psychological phenomena that an officer/agent experiences during a high stress situation.[8] Consequently, the footage may not accurately convey the same sense of threat that is experienced by an officer/agent.
- The diverse operational environments and enforcement assignments within CBP make the application of BWC technology less conducive than its application within the traditional law enforcement environment.
- The presence of a BWC may negatively impact intelligence gathering, such that the public may be less likely to divulge information if they know they are being recorded.[9]
- BWC technology, and its corresponding software, may pose a significant vulnerability and security risk to CBP through the availability of Bluetooth capabilities, interactive apps and a lack of adequate security features. Streaming and interfacing with non-CBP approved devices and signals from BWCs could be susceptible to hacking.[10]
- The significant costs associated with implementation, including those that must be born long after the initial purchase costs have been defrayed, such as: technology enhancements, infrastructure improvements, associated costs of storage, and additional staffing requirements to support the management of footage.
- The associated man-hours needed to manage and support the program, such as: enforcement hours lost due to new administrative duties for end of shift uploading of footage, processing of Freedom of Information Act (FOIA) requests, records management and retention, training, and technology infrastructure support.

[5] See Section II. Operational Utility Evaluation, page 6.
[6] Force Science Institute, Ltd. 2015. *10 Limitations of Body Cams You Need To Know For Your Protection.*
[7] See Section II. Operational Utility Evaluation, page 6.
[8] Force Science Institute Ltd., 2015.
[9] See Section II. Operational Utility Evaluation, page 6.
[10] Ibid.

After compiling available information, reviewing the feedback received from participating officers/agents, and considering the evaluation results provided by the Office of Technology Innovation and Acquisition, the Working Group offers the following three paths forward and recommends their completion prior to deploying BWC technology.

1. Develop a final policy document that advances solutions for key issues and establishes parameters for the handling, cataloging, use, access, and activation of BWCs and the resulting footage.
2. Perform technology evaluations that identify specific technology requirements for each operational component.
3. Examine existing fixed camera technology to identify areas where BWC technology may overlap with existing technology, causing redundancy and duplication. Reserve the use of BWC technology for those areas where technology gaps are identified.

In conclusion, the complexity of the issues surrounding the use of BWCs requires a deliberative approach to deployment, as well as consideration to the long-term consequences that may continue to impact the CBP law enforcement mission into the future. The Working Group considered and rejected several different deployment options, including a pilot program and broad-based deployment, before deciding on the recommended paths forward.

Our research and findings leads the Working Group to recommend a risk-based deployment option. A risk-based deployment option consists of measured deployment based on individual component risk analysis and operational need. This approach will allow for a fluid deployment strategy that is fact based and responsive to individual component operational requirements. Each component may, based on their operational need, be able to utilize the technology as an operational tool, which could ultimately have a significant positive impact on CBP's overall mission, as long as a cautious and deliberate implementation strategy is applied.

Body-Worn Camera Working Group
August 2015

I. Comprehensive Summary

1.1 Background

In 2013, a comprehensive review of U.S. Customs and Border Protection's (CBP) use of force policy by internal and external entities generated more than 90 recommendations calling for enhancements to policy, training and tactics, analysis tools, equipment options for officers/agents, and a defined operational and tactical posture. CBP agreed with the spirit of the review, as well as the underlying concerns, and began taking steps to implement the recommendations.

One of the recommendations stated that CBP should study the feasibility of using video cameras. As part of CBP's emphasis on increasing officer/agent safety, as well as being accountable to the public, CBP sought to determine the feasibility of including body-worn camera (BWC) technology into its law enforcement operations and each of its operational environments.

1.2 Establishing a Body-Worn Camera Working Group

On July 30, 2014, at the request of Commissioner R. Gil Kerlikowske, CBP established a Working Group to evaluate the feasibility of incorporating BWC technology into its law enforcement operations. The CBP BWC Working Group was comprised of representatives from the following offices:

- Air and Marine Operations (AMO),
- Office of Administration,
- Office of the Chief Counsel,
- Office of the Commissioner: Non-Governmental Organization Liaison, Office of Policy and Planning, Privacy and Diversity Office, and Office of State, Local and Tribal Liaison,
- Office of Congressional Affairs,
- Office of Field Operations (OFO),
- Office of Human Resources Management,
- Office of Information and Technology,
- Office of Internal Affairs,
- Office of Public Affairs,
- Office of Technology Innovation and Acquisition,
- Office of Training and Development,
- United States Border Patrol (USBP), and
- Department of Homeland Security: Office for Civil Rights and Civil Liberties and Privacy Office.

The Working Group established a three-phased approach to allow for the thorough consideration of issues surrounding the application of BWCs in the operational environments of Air and Marine Operations, Office of Field Operations and United States Border Patrol. The Air and Marine Operations, Office of Field Operations and United States Border Patrol designated headquarters level BWC Program Managers to oversee the implementation, logistics and evaluation during the study.

During the first phase, trainees evaluated BWCs during scenario-based training at the CBP academies and training facilities. In the second phase, officers/agents wore BWCs in various operational environments. During the third phase of the study, the Working Group thoroughly analyzed data generated in the study and formulated recommendations regarding the feasibility of using BWC technology within the CBP operational environments.

U.S. Customs and Border Protection Body-Worn Camera Feasibility Study		
Phase I	**Phase II**	**Phase III**
Conducted a controlled environment evaluation at the CBP academies and training facilities	Conducted a limited field evaluation at the Northern Border, Southern Border and Coastal Border	Prepared findings, recommendations and report for the Commissioner
October 2014 to December 2014	January 2015 to May 2015	June 2015 to August 2015

Table 1. Feasibility Study - Phases and Dates

Throughout the yearlong process, Working Group members studied available data, analyzed expert law enforcement recommendations, and consulted scholarly papers to understand the fundamental aspects, benefits, and limitations of BWC programs.

Members reviewed model policies created by the Police Executive Research Forum, the International Association of Chiefs of Police (IACP), the American Civil Liberties Union, and consulted existing policy documents from state and local law enforcement agencies that have or are in the process of implementing a BWC program. On several occasions, members took part in interagency discussions with attorneys and researchers from the U.S. Department of Justice-Bureau of Justice Assistance. Topics included policy issues associated with BWC usage, current technology capabilities and limitations, and lessons learned from state and local law enforcement deployment.

Working Group members also participated in a BWC expert panel hosted by the U.S. Department of Justice-Bureau of Justice Assistance. Members collaborated with leaders from small and large law enforcement agencies, as well as a variety of other stakeholders, to discuss a wide range of topics from policy, procedure and legal liability, to technology requirements and training. Representatives from police departments across the country such as Fort Worth, Los Angeles, New Orleans, New York City, Oakland, Phoenix, Washington DC, and Seattle shared valuable information with Working Group members.

Meetings were held with BWC manufacturer representatives to provide Working Group members with an understanding of the abilities and limitations of the existing technology. Based on the information received, a representative sample of available technology was purchased for use.

Finally, the Working Group assessed the legal and operational issues associated with establishing a BWC program in a large federal law enforcement agency.

1.3 Body-Worn Camera Feasibility Study

Phase I – Controlled Environment Evaluation

Phase I of the BWC feasibility study, which lasted from October 1, 2014 through December 31, 2014, evaluated the functionality of BWCs in the non-operational environments of the CBP academies and training facilities. Locations used were:

- Border Patrol Academy, Artesia, NM;
- Field Operations Academy, Glynco, GA;
- National Marine Training Center, St. Augustine, FL;
- National Air Training Center, Oklahoma City, OK; and
- Air and Marine Basic Training Academy, Glynco, GA.

CBP trainees, under the guidance of instructors and training personnel, evaluated various BWC technology during scenario-based training (i.e., replicated situations of real life events and encounters). Participants completed user evaluation surveys which were forwarded to the BWC Program Managers.

The Working Group developed guidance documentation and training materials prior to the start of Phase II. Officer/Agent safety was the primary consideration for CBP leadership and Working Group members. The guidance documentation, which details when officers/agents should activate and deactivate the camera, encourages them to advise individuals that they are being recorded, but does not require them to obtain consent. It also prohibits CBP from modifying recordings and outlines procedures for the review of BWC footage. The guidance details the responsibilities of the CBP Headquarters BWC Program Managers, BWC Coordinators (a new addition for Phase II) and CBP Supervisory Officer/Agents. CBP engaged both the National Border Patrol Council and National Treasury Employees Union during implementation of Phases I and II.

BWC Demonstration to USBP Leadership

Phase II – Field Evaluation

Phase II of the feasibility study, which lasted from January 2015 through May 31, 2015, evaluated the use of BWCs in select Air and Marine Operations, Office of Field Operations and United States Border Patrol operational environments. Officers/Agents volunteered to wear BWCs during daily assignments to record enforcement-related encounters at the time of the event, or as soon as safely possible thereafter. Ninety officers/agents participated in eight selected locations. CBP deployed 32 devices to the field for Phase II evaluation (USBP = 12 devices, AMO = 10 devices, OFO = 10 devices).

For Phase II, the Working Group asked the CBP Office of Technology Innovation and Acquisition-Operational Integration and Analysis Directorate, Operational Evaluation Branch to conduct an Operational Utility Evaluation of BWC technology. The Operational Utility Evaluation was not a test of BWC technology, but rather an evaluation of its potential effectiveness and suitability in support of the CBP mission when employed

by typical operators at various operational sites. The Operational Evaluation Branch, a DHS designated Operational Test Authority, coordinated with the three CBP Headquarters BWC Program Managers to develop the following Operational Issues (OI).

- OI-1: Does the information provided by body-worn camera technology contribute to the overall CBP mission?
- OI-2: Can body-worn cameras be employed by typical CBP personnel in the operational environment?

The Operational Utility Evaluation was conducted by an Operational Evaluation Branch-Evaluation Team at all evaluation sites from January to May 2015. They focused on BWC technology in regards to the two OIs, not on any one particular product or vendor solution.

The CBP Headquarters BWC Program Managers and the CBP Field Office/Sector designated BWC Coordinators who were responsible for overseeing the implementation and evaluation of BWCs at their specific field location, training volunteers, on-site daily deployment, and troubleshooting. The BWC Coordinators ensured that officers/agents successfully completed BWC training. Only volunteer officers/agents who completed all necessary training requirements participated in the evaluation. Training included:

- The correct procedures for operating a BWC;
- Understanding and acknowledging the protocols regarding the use of BWCs; and
- Procedures for the proper upload, safekeeping, and labeling of BWC recorded data.

Air and Marine Operations Locations

Two locations were selected for BWC technology evaluation within the Air and Marine Operations environment (Northern Region and Southeast Region). Five cameras were deployed at each selected location. Six agents volunteered to participate, were trained on the use of the cameras, and participated in the study.

The Air and Marine Operations evaluation was focused on the daily assignments of air interdiction and marine interdiction agents. Such assignments included: pilot certificate inspections, marine intercepts and marine boardings.

Air and Marine Operations Phase II Evaluation Locations		
Locations	**Start**	**Finish**
First Location: West Palm Beach Marine Unit, FL	January 6	March 31
Second Location: Great Lakes Air and Marine Branch, Selfridge, MI	January 26	April 30

Table 2. AMO Phase II Evaluation Locations and Dates

Office of Field Operations Locations

One Field Office was selected for evaluation with three locations that incorporated an air, land and sea venue. Ten cameras were deployed and evaluations lasted for 30 days at each selected site. Thirty-nine officers volunteered to participate, were trained on the use of the cameras, and participated in the study.

The Office of Field Operations evaluation sites were limited to daily assignments that encompassed a representative sample of CBP Officer duties. Assignments included: pre-primary inspection, outbound operations, cargo inspection, vessel boarding, private aircraft inspections, and use of force training venues. Cameras were not deployed in areas prohibited by the draft guidance documentation nor in primary inspection areas covered by existing cameras.

Office Of Field Operations Phase II Evaluation Locations		
Locations	**Start**	**Finish**
First Location: Seattle Seaport, Seattle Field Office	February 26	March 28
Second Location: Seattle-Tacoma Airport, Seattle Field Office	April 2	May 2
Third Location: Blaine Land Border Crossing, Seattle Field Office	May 3	May 30

Table 3. OFO Phase II Evaluation Locations and Dates

United States Border Patrol Locations

Three locations were selected for evaluation (One Northern Border Station, One Southwest Border Station, and One Checkpoint location). Twelve cameras were deployed at each location and evaluations lasted for 30 days at each selected site. Forty-five agents volunteered, were trained on the use of the technology, and participated in the study.

The United States Border Patrol evaluation sites focused on certain daily field assignments. Such assignments included: line watch, checkpoint, sign-cutting, responding to sensor activations, all-terrain vehicle, and roving patrol. Cameras were not deployed in processing centers, hospitals, airports or other specialty unit assignments.

United States Border Patrol Phase II Evaluation Locations		
Locations	**Start**	**Finish**
First Location: Santa Teresa Station, El Paso Sector	February 18	March 14
Second Location: Ysleta Station, El Paso Sector	March 22	April 18
Third Location: Blaine Station, Blaine Sector	May 3	May 30

Table 4. USBP Phase II Evaluation Locations and Dates

Phase III – Data Analysis and Report Creation

Phase III of the feasibility study, which began in June 2015, focused on the analysis of the data generated during the previous two phases. Working Group members analyzed the data from Phase I and II, as well as associated policy, legal, privacy, labor relations, operations, deployment, cost, record retention, and information technology. The Working Group's analysis and recommendations are subsequently laid out in the next few sections.

Excerpt Taken From BWC Footage Taken During Phase II – USBP

II. Operational Utility Evaluation

At the request of the BWC Working Group, CBP's Office of Technology Innovation and Acquisition-Operational Integration and Analysis Directorate, Operational Evaluation Branch conducted an Operational Utility Evaluation of BWC technology. Ultimately, the Operational Utility Evaluation concluded that "While there are many BWCs in the marketplace today, it is vital to recognize that most were not designed to meet the rigors required by CBP officers and agents. As such, these BWCs tend to provide limited effectiveness, and for the most part are not suited for CBP operational use. While the concept of BWCs has potential benefits for CBP, there are operational requirements that need to be met, policies that need to be developed, and issues that need to be resolved before a BWC solution is deployed."

Throughout the evaluation period, 1,895 video files were recorded for a total of 163 gigabytes of data stored, representing about 271 hours of video footage.

The Operational Utility Evaluation also reported the following findings:

- In general, BWCs caused officers/agents to have reduced situational awareness during an encounter as they were more concerned whether their camera was on or off and pointed in the right direction rather than having all their attention on the situation and person they were confronting. This is an unsafe scenario.
- Officers/Agents felt that officer safety could be compromised due to positioning themselves in a way to capture an event for the camera rather than taking proper distance and defensive stances (e.g., blading off; field interview stance) necessary to avoid standing in a compromising position.
- BWCs were generally easy to use, but time to upload videos was excessive and could reduce available enforcement hours.
- Several officers/agents expressed concern that BWCs caused others they encountered to be more guarded in their conversations thus limiting exchange of information, hindering intelligence gathering, and rapport building with public and private land managers.
- Lack of adequate security features could allow videos to be deleted by personnel either intentionally or unintentionally.
- Lack of video stabilization and wind noise made some videos less useful.
- Officers/Agents indicated that the BWCs did not have sufficient video quality during night operations.
- Cameras that lacked an auto rotation feature produced hard to view upside down videos.
- Agents were concerned about the video being used for disciplinary actions.
- Lack of security allows some cameras to be susceptible to hacking.

Body-Worn Camera Statistics by Component			
Component	**Number of BWC Users**	**Average Years of Experience**	**Number of Video Files Created**
AMO	6	18.5	18
OFO	39	11.1	840
USBP	45	11	1,037
TOTAL	**90**	**13.5**	**1,895**

Table 5. Operational Utility Evaluation

III. Deployment Strategies

3.1 Pre-Deployment Actions

In order to maximize the benefits of BWC technology and realize successful implementation there are several actions that must be completed prior to the deployment of any BWC device. These actions will serve as the foundation on which a BWC program can be implemented and their successful completion is a key first step in the overall process.

1. Develop a final policy document to ensure effective and efficient utilization of the technology. The policy development process should:

    a. Advance solutions for issues that may impede successful deployment, such as: costs, records retention, privacy, training, expectation management, program messaging, BWC footage handling, cataloging and access protocols, and BWC use and activation parameters.

    b. Engage the National Treasury Employees Union and National Border Patrol Council in the decision making process.

2. Perform technology evaluations that identify specific technology requirements to support CBP operations. Current technology limitations make full scale implementation not possible as available products may be effective, but not suitable for all CBP operational environments.

3. Evaluate current capabilities to avoid redundancies. Investigate the benefits of enhancing existing fixed camera technology to determine the most effective technology options for each location.

4. Involve officer/agents in the decision making process to establish a bottom-up approach that articulates the concerns and opinions of the end users.

5. Avoid a one-size fits all approach to implementation. The diversity of the CBP operational environments requires multiple product and deployment options.

6. Make resource allocations and deployment choices as close as possible to the operational decision points. This will ensure a thorough understanding of individual component needs and make sure that decisions are fact based.

3.2 Component Deployment Strategies

Within the operational environments of the Air and Marine Operations, Office of Field Operations, and United States Border Patrol there exists a large variance in the type of terrain, weather conditions, and operational duties performed by each component. These differences necessitate the creation of individual BWC deployment strategies for each component. The Working Group, in coordination with each component, makes the following recommendations.

Each component strategy includes more than one recommendation. Recommendations can be implemented separately or in concert with one another to provide each component the most beneficial path forward.

Air and Marine Operations

Risk-Based Deployment – Aircraft Certificate Inspection and Vessel Interdiction Operations.

The Air and Marine Operations deployment strategy should encompass a risk-based approach to deployment that can utilize BWC technology in those areas or assignments where internal assessments have indicated the need for an enhanced level of technology.

Risk factors should be determined by Air and Marine Operations leadership, and may include: duties that result in a high level of complaints, gaps in existing technology, or other identified needs. Consideration should be given to those areas where the benefits of the technology can be maximized and deficiencies minimized. The deployment of BWC technology should remain fluid and deployment adjustments should be made based on evolving needs.

The Air and Marine Operations may realize the greatest benefit from BWC technology in its aircraft certificate inspection operations. The recording of these encounters will aid in resolving complaints from citizens and the Aircraft Owners and Pilots Association.

The Air and Marine Operations may also see value in placing BWC technology on Marine agents while conducting enforcement operations. Recording these encounters may help the complaint resolution process and capture assaults and uses of force.

Risk-Based Deployment – Vessel-Mounted Cameras.

The Air and Marine Operations should continue to pursue the implementation of vessel-mounted cameras that capture a 360° view of the area surrounding a vessel. This would capture most of the Air and Marine Operations' significant maritime events.

Excerpt Taken From BWC Footage Captured During Phase I Field-Based Scenarios – AMO

Office of Field Operations

Enhance and Expand Current Fixed Camera Capabilities.

Camera – CBP

The Office of Field Operations deployment strategy should begin by examining existing fixed camera technology, with the expectation of expanding and enhancing current infrastructure, technologies, and recording abilities to optimize present-day resources. The deployment of BWC technology should be reserved for areas where technology gaps are identified.

A significant portion of the Office of Field Operations operational environment already has varying degrees of existing camera coverage. Subsequently, wholesale deployment of BWCs in these environments would have limited benefits. Enhancements may include investment in higher grade video resolution and improved audio capabilities to allow for the accurate capture of real-time data. Benefits of BWC technology may be realized at outbound operations and vessel boardings where camera technologies are less prevalent. Vehicle mounted technology may have applications at outbound operations.

The DHS Office for Civil Rights and Civil Liberties has indicated that fixed camera footage is successful in conclusively

resolving complaints involving the use of force when the fixed camera technology is optimal and includes audio capabilities. In ports of entry where optimally placed fixed camera technology already exists the fixed camera capabilities render BWC technology unnecessary. In these cases the fixed camera capabilities offer multiple angles, audio recording, and the recording of multiple officer interactions over the course of an encounter, which are benefits not offered by a single officer BWC.

Risk-Based Deployment.
A risk-based approach to deployment may be utilized to dispatch BWC technology to those areas or assignments where internal assessments have indicated the need for enhanced technology.

Risk factors would be articulated by Office of Field Operations leadership, and may include: volume of illegal traffic, rate of assaults against officers, frequency of complaints against officers, gaps in existing technology, or other identified need.

Leadership would identify duties, assignments, locations, or areas that require the use of BWC technology based on need. Consideration would be given to those areas where the benefits of the technology can be maximized and deficiencies minimized. The deployment of BWC technology should remain fluid and deployment adjustments should be made based on evolving needs.

United States Border Patrol

Enhance and Expand Current Fixed Camera Capabilities.
The United States Border Patrol should consider upgrading and enhancing fixed cameras at checkpoints and along the international border. Fixed cameras are a highly effective tool that have been used for decades. They enhance border security and improve employee accountability.

Risk-Based Deployment.
A risk-based approach to deployment may be utilized to dispatch BWC technology to those areas or assignments where internal assessments have indicated the need for enhanced technology.

Risk factors would be articulated by United States Border Patrol leadership and may include: volume of illegal traffic, rate of assaults against agents, frequency of complaints against agents, gaps in existing technology, training, or other identified need.

Leadership would identify duties, assignments, locations, or areas that require the use of BWC technology based on need. Consideration would be given to those areas where the benefits of the technology can be maximized and deficiencies minimized. The deployment of BWC technology should remain fluid and deployment adjustments should be made based on evolving needs.

Possible applications for BWC technology utilizing a risk-based approach may include checkpoint operations where technology gaps may exist, and Special Operations where the agents responding are exposed to elevated safety concerns and where the use of force is more likely to occur.

Additional applications for the technology might be found within the Field Training Units where they may enhance traditional training tools. At the United States Border Patrol Academy, agents could be provided with a basic understanding of the technology, making them better prepared to make effective use of the technology in the operational environment.

IV. Implementation Considerations

The Working Group identified several issues that represent the complexity of incorporating BWC technology into CBP operations. The issues referenced are not all-inclusive, but represent those that require resolution prior to implementation. BWC is a viable technology, but ultimately it is the successful resolution of the areas of concern that will determine if benefits of the technology are realized.

4.1 Costs

Due to the number of variables affecting the implementation of a BWC Program, the Working Group was unable to produce a definitive cost analysis for this document. However, the Working Group recognized that the implementation of a BWC program represents a significant initial and long-term investment of federal funds and resources. This investment includes such things as the procurement of technology, infrastructure enhancements, officer/agent training, and the management and storage of footage generated by BWCs.

Variables such as the number of individual camera units, technologies, and data storage architecture selection largely influences cost estimates. Operational deployment strategies also significantly influence cost. CBP policy decisions also have a large impact on program costs such as video retention time, camera activation times, and potential impacts to overtime. The largest cost drivers for any BWC program are storage, security, and redaction of the footage.

4.1.1 Storage and Security

There are many factors that influence storage cost, including record retention standards, the size of the video file, and where and how the video file will be stored.

The final record retention schedule for BWC footage will contribute to the amount of storage capacity required. The majority of BWC footage is expected to fall into the non-evidentiary category, thus rendering it eligible for more timely destruction.

As to be expected, audio and video files, such as those produced from BWCs, require more storage than their paper counterparts. The duration of recording and the resolution settings impact the size of BWC files. BWC footage classified as evidence may be restricted from the use of compression software that would otherwise minimize the size of the files. This will exacerbate the storage concerns and directly impact cost estimates.

Where CBP decides to store the BWC footage will also influence cost. Whether it is stored locally or stored and shared over the CBP network will impact the infrastructure enhancements that need to be undertaken. Sharing files over the network will consume a considerable amount of network bandwidth and will affect day to day operations and network usage.

It has been reported that police departments pay a minimum of $10 per month, per officer to store their data in vendor-supplied third party cloud storage. Many of these solutions make the data storage a simple task, where data is easy to recall when necessary and is destroyed according to the police department's schedule.

Camera vendors have differing formats for their video as well. Some are not accessible except through proprietary software. This becomes problematic for video files that are kept for long periods, as vendors may discontinue software products or even cease to operate. This would make vital video evidence unusable.

Conversely, many CBP facilities will not be able to support the storing of BWC footage locally without enhancements being made to their systems.

Excerpt Taken From BWC Footage Captured During Phase I Field-Based Scenarios – OFO

Whatever storage mechanism is selected must meet the standards put forward by the Federal Bureau of Investigation-Criminal Justice Information Services. While cloud storage is offered by many manufacturers, the associated privacy and security concerns require this option to undergo additional review.

Cyber security concerns and opportunities for hackers to access footage make storage decisions a critical aspect of a BWC program. While cloud storage might reduce the amount of time and resources CBP would need to devote to managing footage, it also shifts many of the privacy and security responsibilities onto a third party. These third party concerns have proven to be problematic for CBP in the area of cyber security.

The 2014 Police Executive Research Forum report, *Implementing a Body-Worn Camera Program*, advises police departments to consult with prosecutors and legal experts on whether a third party vendor's policies are "in compliance with all relevant laws and adequately preserve evidentiary chain of custody."

Additionally, technology staff will be needed to support records management functions, such as: filing, retrieval, and management of the footage. Adequate support is essential to ensure proper maintenance of files and adherence to record retention schedules.

4.1.2 Redacting Footage

Significant staffing increases should be anticipated in order to support the expected increase in FOIA requests for BWC footage. BWC footage requires special equipment and certified personnel to successfully redact footage. The process of redacting a data file will result in a second copy of the file being created and stored. Additional storage will be required to keep the original footage and the redacted version of the footage. Redaction and review of footage is also more time consuming than redacting paper documents.

Making BWC footage available to the public without proper protocols in place violates the privacy of individuals who may or may not be associated with the law enforcement actions that are captured on video. Blurring individuals' faces or sensitive information requires an inordinate amount of time and expense for an agency, and still does not sufficiently address privacy concerns. One solution is to limit the storage of the data; footage that is not of value for prosecution or complaint resolution would be destroyed after a relatively short time. Another solution to the privacy problem is to exempt BWC footage from FOIA.

4.2 General

4.2.1 Human Resource Constraints and Costs

In addition to the funding required to purchase BWC technology, the number of man-hours needed to perform administrative BWC functions and the increased levels of staffing needed to support redaction and storage efforts, contribute to the overall expense of implementing a BWC program.

The most intensive human capital aspect of implementing a BWC program comes in the form of border enforcement hours lost due to officers/agents needing to review, catalog and upload BWC footage.

During the Field Evaluation Phase, average review, catalog and upload times were 30 minutes for every hour of footage recorded. BWC administrative functions can account for 1-2 hours per officer/agent per shift depending on the amount of footage recorded, type of technology used, the supporting network bandwidth and infrastructure available. Actual upload time is a mechanical issue that with different levels of investment can be overcome. However, officer/agent time for the review and cataloging of BWC footage is not so easily remedied. To view a representation of potential enforcement hours lost, see Table 6.

Calculations estimate that the implementation of BWC technology at a USBP Checkpoint could result in a 8.3% loss in available duty hours.

Potential Enforcement Hours Lost - USBP Checkpoint Scenario
Estimated enforcement hours lost in this scenario are 8.3%.
Key Assumptions: 1) Shifts per day = 3 2) Agents assigned to Primary a. Headcount = 4 b. Hours of recording per agent per shift = 2 3) Agents at Secondary Inspection a. Headcount = 2 b. Hours of recording per agent per shift = 1 6) Agent time spent downloading = 30 minutes For the sake of simplicity we have assumed a large checkpoint with a single lane operating.
Assumption Calculations:
Hours of recording at Primary = 3 shifts x 4 agents x 2 hours of recording = 24
Hours of recording at Secondary Inspection = 3 shifts x 2 agents x 1 hour of recording = 6
Total hours of recording = 30
Duty hours at Primary = 3 shifts x 4 agents x 10 hours per shift = 120 duty hours per day
Duty hours at Secondary Inspection = 3 shifts x 2 agents x 10 hours per shift = 60 duty hours per day
Total duty hours = 180
Time to download and catalog = 30 hours of recording x 30 minutes per hour to download and catalog = 15 hours
Percent of lost enforcement hours = 15 downloading and cataloging hours ÷ 180 duty hours = 8.3%

Table 6. Representation of potential enforcement hours lost

All BWC footage will require some level of review in order to correctly identify and separate evidentiary from non-evidentiary footage. Correct classification and labeling is essential to ensure prompt and efficient retrieval of footage and to avoid the accidental deletion of evidentiary footage.

Additional secondary review will also be required to provide oversight and substantiate the content and labeling of footage to avoid the deletion of evidentiary footage.

4.2.2 Change Management

Successful implementation of a BWC program is dependent on the ability of CBP to effectively initiate change management. At the February 26, 2015 panel discussion hosted by the Department of Justice-Bureau of Justice Assistance, conversations with state and local representatives revealed that several had experienced an issue with officers not turning on their cameras when they had been unable to effectively establish officer buy-in.

Phase II of CBP's Feasibility Study relied exclusively on volunteers for the field evaluation portion. Utilizing volunteers allowed for increased levels of officer/agent buy-in since most volunteers had a pre-disposition towards embracing the technology. Volunteers were also more willing to participate and turn-on their BWCs once they understood the protections afforded to them under the guidance documentation.

A deployment strategy that does not rely on volunteers, coupled with a final policy document that will be more restrictive and compliance oriented, will probably change the opinions of the officers/agents and make the application of the BWC technology harder to implement.

> ***"One of the most challenging issues an agency may face is officer acceptance. If officers feel that the video cameras are being used as a tool to monitor behavior, as several officers felt in the IACP study, they may be resistant to using the cameras."***
>
> ***International Association of Chiefs of Police, 2004***

For that reason, continued dialogue and transparency between CBP decision makers and the workforce is strongly encouraged. Making officer/agent buy-in an integral part of the discussions and solutions is critical to ensuring a successful BWC program.

4.2.3 Labor Union Considerations

Successful union negotiations are required prior to implementation. BWC policy negotiations will be extensive and time consuming. The negotiations will have a direct effect on an implementation timeline and the ultimate success of a BWC program.

Keeping the CBP unions, and the workforce involved in the development and implementation of the program, combined with having the appropriate policies and procedures, will allay many concerns among officers/agents. Union engagement regarding the selection of technology and policy creation will encourage cooperation and promote officer/agent confidence in the implementation process.

Officers and agents must be willing to wear and operate their BWCs, without fear of reprisal. Officers and agents must have the confidence of knowing that the primary purpose of BWCs is to corroborate their sworn testimony, not create frivolous punishments. They also must be assured their privacy will be protected from unnecessary review and release.

Addressing union concerns about the use of footage for disciplinary actions should be discussed and addressed with the unions, in a proactive and open forum. The discussion and resolution of this topic will increase the likelihood of successful implementation.

4.2.4 Data Metrics

In consideration of the national attention surrounding CBP's possible deployment and use of BWCs, it is anticipated that analytical data will be requested to substantiate results and to report on the impact BWCs are having on CBP's national security efforts. In anticipation of such requests, data metrics should be established and reporting requirements developed to capture information pertaining to camera usage and costs, as well as any changes in the number of complaints or in the number of use of force incidents. CBP's ability to publically provide the requested data may impact its transparency and accountability efforts. Additionally, CBP should explore the development of an auditing tool to assist in supporting compliance verification.

4.2.5 Other Federal Agency Integration

The Working Group supports coordination with federal partners to develop a consistent federal narrative. Economies of scale and maximization of federal investments can be achieved through coordination.

CBP should give consideration to including partner agencies, federal prosecutors, and investigating agencies in decisions regarding BWC purchases, file storage formats, information sharing, and availability and access to footage.

4.2.6 Available Research and Data

While BWC technology is widely used within state and local law enforcement communities, there is a lack of systematic empirical research on the long-term use and implementation and the benefits believed to result from the implementation of BWC technology. CBP should consider all available research and data, but be cognizant of the limited scope and study of BWC technology that makes the long-term benefits and effects unknown.

> ***"Data should be retained no longer than necessary for the purpose for which it was collected….."***
>
> ***American Civil Liberties Union, 2012***

4.3 Records Management and Retention

The retention requirements for video recording and the destruction schedule will play an integral role in policy development and cost management. Understanding the records retention process and the limitations currently in existence are central factors to consider.

The National Archives and Records Administration provides oversight for the management of Federal Government records. Through the use of General Records Schedules (GRS) they provide authorization for the disposition of records produced by the Federal Government. GRS 21 is the governing schedule for audiovisual records disposition.

GRS 21 states that disposition authority must be obtained from the National Archives and Records Administration for the disposition of records that are not described in the schedule. It further states that all such records should be held indefinitely pending disposition authority.

GRS 21 allows for the disposition of "Routine Surveillance Footage." However, it has yet to be determined if BWC recordings, which are incident driven, will fall under the definition of "Routine." If they are not classified as "Routine" then under GRS 21 all BWC footage would be required to be retained indefinitely. The amount of storage that would be required to support such retention requirements would significantly impact costs.

Realizing the impact that indefinite retention would pose to the BWC program, the CBP Office of Administration-Records Management Office has applied for a disposition schedule of 60 days for non-evidentiary BWC footage. Evidentiary BWC footage will be cataloged and retained according to established rules of evidence. The application is currently pending within the appraisal and approval process.

When selecting a destruction schedule of 60 days, consideration was given to allowing enough time for complaints or allegations to come to light, while at the same time balancing storage costs and the potential downside associated with the retention of non-evidentiary footage as it relates to privacy.

In support of efficient records management, a naming convention and cataloging system that allows for the retrieval of files as well as their timely destruction is essential. Particular attention should be paid to the retention and cataloging of footage identified as having evidentiary value to ensure its retrieval and retention are in keeping with established laws of evidence.

Excerpt Taken From BWC Footage Captured During Phase I Field-Based Scenarios – AMO

4.4 Expectation Management

BWCs are oftentimes perceived as being a silver bullet and panacea for addressing accountability and transparency. In order to successfully manage public expectations, a messaging campaign describing the BWC program's goals, benefits, limitations of the technology, and CBP's stance on the release of footage will need to be effectively communicated.

BWC technology has the potential to enhance transparency if the footage is proactively shared with those who believe they have a right to view it. If managed correctly, BWC technology may be used to enhance accountability with officers/agents, the community, and other interested parties.

The potential for community distrust exists if officer/agents fail to capture events the public perceives they should have, or when an encounter of significant public interest is recorded but CBP requirements do not allow for the disclosure of footage.

Coordination between the Offices of Congressional Affairs, Privacy and Diversity, Public Affairs, and the DHS Office for Civil Rights and Civil Liberties is essential in proactively educating the public on the disclosure requirements of BWC footage.

Excerpt Taken From BWC Footage Captured During Phase II Field Evaluation – USBP

4.5 Technology Considerations

There are many technology requirements and decisions that need to be contemplated prior to the implementation of a BWC program.

4.5.1 Storage

While there is no typical file size for BWC video footage, the quality of the video being recorded by BWCs and possible limitations on the use of compression software, may result in considerable storage requirements.

4.5.2 Proprietary Software

Most manufacturers require the use of proprietary software to upload recorded footage. This proprietary software may be restrictive and hard to work with. It may also require regular updates and maintenance that will place an additional burden on CBP technology personnel.

4.5.3 Technology Cycle

Innovation and new product development by BWC manufactures is expected to increase as the technology continues to be more widely used within the state and local law enforcement communities.

CBP should be cognizant of the typical technology cycle—approximately every 2.5 years—that results in significant changes to the technology.

The Operational Utility Evaluation indicated that most BWCs in the marketplace today were not designed to meet the rigors required by CBP officers/agents and opportunities may exist for CBP to drive industry to build BWCs that fit its mission.

4.5.4 Infrastructure

Certain facilities within CBP will need to be upgraded to properly support BWC technology. The additional storage and network bandwidth requirements needed to accomplish the uploading and storage of footage is of great concern. Presently, many facilities do not have the infrastructure to handle the volume associated with this technology.

A thorough review of existing infrastructure will need to be accomplished and a cost estimate evaluation created to determine the financial implications associated with upgrading and enhancing infrastructure to support BWC technology.

4.5.5 Back-up System

A reliable back-up/back-end system to manage BWC footage must be developed or procured. The system will need to manage the retention of the data, deleting it after the retention period expires, and prevent viewing, editing and deletion by non-authorized individuals.

A comprehensive back-end system must provide an impeccable audit trail while protecting the chain of custody. Moreover, all access to BWC footage should be automatically recorded with audit logs.

Excerpt Taken From BWC Footage Captured During Phase I Field-Based Scenarios – AMO

Excerpt Taken From BWC Footage Captured During Phase I Field-Based Scenarios – OFO

Excerpt Taken From BWC Footage Captured During Phase I Field-Based Scenarios – OFO

4.6 Privacy Concerns

Technology advances coupled with the proliferation of camera phones and social media have changed the way people view privacy. BWC technology allows law enforcement to record sensitive situations with a degree of closeness that has previously been unavailable. The courts have been unable to keep pace with technology advancements, and legal decisions have yet to decide the parameters by which law enforcement can function in respect to BWCs while upholding the public's right to privacy.

Jay Stanley, in his 2013 American Civil Liberties Union report entitled, *Police Body-Mounted Cameras: With Right Policies in Place, a Win for All*, stated that the challenge of BWCs "is the tension between their potential to invade privacy and their strong benefit in promoting police accountability."

He went on to stress that BWCs must be "deployed within a framework of strong policies to ensure they protect the public without becoming yet another system for routine surveillance of the public, and maintain public confidence in the integrity of those privacy protections. Without such a framework, their accountability benefits would not exceed their privacy risks."

On a whole, the public is aware of street Closed Circuit Televisions and is accustomed to being recorded as they go about their daily lives. However, BWC technology allows individuals to be singled out and by having their actions and conversations recorded on a more intimate level. They also allow for the potential recording of sensitive situations that may present a privacy concern. Furthermore, BWCs may capture audio and video of bystanders who are not the subject of any law enforcement encounter.

A Privacy Threshold Analysis was completed by the CBP Privacy and Diversity Office to identify privacy issues associated with a BWC program. Subsequently, a Privacy Impact Assessment will be published to evaluate the privacy impact of the information captured by BWCs during the Feasibility Study. The Privacy Impact Assessment may be updated and additional privacy documents may be updated or developed, such as a System of Records Notice as required.

The BWC Working Group suggests additional guidance should be sought from CBP's Office of the Chief Counsel in coordination with the CBP Privacy and Diversity Office, particularly ones regarding any Fourth Amendment implications that may arise with the advent of a BWC program. Guidelines should be considered for the recording of vulnerable populations and sensitive situations. CBP officer/agent privacy concerns should also be considered in the creation of a BWC program.

4.7 Policy Considerations

A well-executed policy is crucial to attaining program success, and should be in place prior to implementation. Multiple decision points must be addressed within the policy to provide officers/agents with clearly defined parameters, while at the same time affording them enough latitude to allow for discretion.

Sample policy documents are available from the IACP, and additional policy guidance can be located in the Department Of Justice - Bureau of Justice Assistance-Community Orientated Policing Service, Police Executive Research Forum report, *Implementing a Body-Worn Camera Program*.

4.7.1 When to Record

One of the most important and widely debated policy questions pertains to when BWCs should be turned on and off. There is no definitive answer that is universally accepted, but consideration should be given to officer/agent discretion, privacy concerns, camera storage capabilities, battery life, and record retention issues.

A clearly defined policy also assists officers and agents in articulating their decision to record or not record an encounter.

When drafting a policy, consideration should be given to the amount of discretion that will be given to officers/agents. Discretion is important because it recognizes that officers/agents are professionals, and allows them flexibility in evolving situations.

Established industry norms suggest officers/agents should record all "law-enforcement encounters." Generally, law enforcement agency policy defines what constitutes a "law-enforcement encounter" and what types of encounters should be excluded from recording. Currently, it is impractical to record an entire shift from beginning to end due to technology limitations of memory capacity and battery life. Even if the technology did allow for the recording of a whole shift, the amount of resulting footage would present significant storage issues at a considerable cost to CBP. In his updated 2015 report titled, *Police Body-Mounted Cameras: With Right Policies in Place, a Win For All*, Jay Stanley, recognized the complexities associated with the topic and stated, "The problem is that continuous recording raises many thorny privacy issues, for the public as well as officers."

The Working Group supports using a broad descriptor, such as "law enforcement encounter", to guide activation decisions. This same language was utilized in the Phase II guidance documentation during the field evaluation phase. Feedback received by instructors during Phase I training indicated that some officers/agents communicated a level of unease with the latitude afforded them, but most felt comfortable with the level of discretion given. Success will be predicated on clearly articulated parameters detailing what constitutes a "law enforcement encounter."

Excerpt Taken From BWC Footage Captured During Phase II Field Evaluation – USBP

Just as important will be the creation of parameters for turning off a BWC at the conclusion of a "law enforcement encounter." The Working Group advocates for the BWC to remain on for the longest possible duration in order to afford a more complete representation of the events. However, policy should clearly indicate what is expected from an officer/agent.

4.7.2 Consequences for Failing to Record

If parameters exist for the recording of encounters, then consequences must be applied to those who fail to comply. Consideration should be given to what consequences, if any, may be applied for officers/agents who stop recording during an encounter, have gaps in a recording, or who fail to record an encounter.

The consequences for officers/agents who do not record an activity required by CBP policy should be clearly delineated prior to deployment. Officers/agents must have a clear understanding of the requirements for them to maximize compliance.

Since BWCs represent a new technology, time should be allowed for officers/agents to become comfortable with the technology before disciplinary action takes effect. How much time should be allowed, and the type of consequence imposed, will be contentious issues requiring additional review and consideration.

4.7.3 Review of Recorded Footage

Any policy document must address the question of when officers/agents and management may review the footage—before they write a report, always, or never.

This issue will have a direct impact on officer/agent morale and the successful prosecution of criminal cases. The final decision should take into consideration the impact, if any, on the accuracy and credibility of a report if officers/agents are able to review the footage beforehand.

There are a multitude of opinions on this topic from experts in the field, with no current or clear consensus. Peter Bibring and Jay Stanley from the American Civil Liberties Union wrote in their 2015 report, *Should Officers Be Permitted to View Body Camera Footage Before Writing Their Reports?,* that "In our review of the available research, we found ample evidence that seeing additional information than what was experienced (such as seeing the action from a different angle) can alter the memory of an event." Similarly, many experts believe officers/agents memories can become tainted if they are allowed to view footage prior to writing a report. The idea being that an officers/agents initial recollections may be spoiled by showing them what they believe is other evidence. Therefore, these experts advocate against officers/agents being able to view footage prior to writing a report.

Conversely, the Police Executive Research Forum is a proponent of showing officers/agents videos prior to them writing any reports. Their findings and research show that in stressful situations, even trained observers may have trouble recalling events accurately. They argue that since BWC footage is often the most accurate record of what occurred, letting officers/agents review the footage will help get to the truth of the incident enabling them to remember an occurrence more clearly.

Yet still, other experts believe it is a combination of both that will yield the most accurate information. They advocate that officers/agents be required to give an initial statement before they are granted access to footage. Officers/agents should then be allowed to watch the footage and offer additional information if it jogs their memory

or if they left out, misremembered, or missed something entirely. This approach may help provide the fullest picture of what happened without tainting their initial recollection.

The Working Group was unable to reach a consensus on this issue. All sides felt equally passionate about the merits of their opinion, which is a strong indication of the complexity of the topic. Regardless of which viewing option is chosen, processes will need to be in place to respond to observed deficiencies in existing policies or tactics that come to light as a result of reviewed footage.

Excerpt Taken From BWC Footage Captured During Phase I Field-Based Scenarios – AMO

Excerpt Taken From BWC Footage Captured During Phase I Field-Based Scenarios – OFO

4.8 Training

Ensuring BWC footage is utilized as a teaching tool instead of a discipline tool is directly tied to change management. BWC footage could be used as a mechanism to provide constructive feedback and promote officer/agent awareness. The opportunity exists for CBP training curriculums to be improved through the use of BWC footage. Recordings could be used as remedial training tools to correct the behavior of individual officers/agents, with or without disciplinary action being taken. In addition, processes will need to be in place to respond to observed deficiencies in existing policies or tactics that come to light as a result of the review of footage.

The Working Group believes that BWCs have the potential to be a useful training tool, although the Department of Justice-Office of Justice Programs has reported that this claim is mostly untested. There is some evidence that BWCs are being used for training in the United Kingdom and the Miami Police Department, but more research is needed to fully evaluate the effectiveness of BWCs as a training tool.

It must be noted that initial and continual training will require additional resources for materials, as well as time for training. An issue that came up repeatedly during the evaluation was an agent's failure to activate the devices in a timely manner. Many agents simply failed to turn on the devices due to their focus on the dynamic situation at hand. This issue could be alleviated with training, but could still be problematic.

Effective workforce training and public education play an integral role in the successful implementation of a BWC program. To that end, training should not be limited to the officers/agents that will be using the technology. Training should be expanded to incorporate a public, media, and court system awareness campaign.

4.9 Risk Management

BWCs may modify the behavior of both citizens and law enforcement. As such, BWCs could play a role in CBP's risk management by reducing the number of incidents involving force, reducing civil liability, and increasing officer/agent safety. BWC footage may also:

- Decrease the number of complaints from the public.
- Decrease the number of lawsuits filed against CBP.
- Resolve lawsuits more quickly through settlements in cases where the video evidence eliminates disputes about facts of a case.
- Deter the filing of frivolous claims and help CBP evaluate the merits of a case before engaging in any settlement negotiations.
- Establish a faster and more effective complaint resolution process.

However, in order to support the benefits listed above, CBP's video retention period will have to be long enough to ensure that relevant footage is preserved for review.

In 2014, Michael D. White, with the Office of Community Oriented Policing Service, offered the following information in his report, *Police Officer Body-Worn Cameras: Assessing the Evidence.* "In 2012, Mesa, Arizona, police officers were equipped with BWCs as part of a yearlong study. The study indicated that BWC caused a significant decrease in the number of complaints filed against officers. Officers who wore cameras were the subject of eight complaints during the first eight months of the study, while the officers who did not wear cameras were the subject of 23 complaints during that same period."

Further evidence in the report stated that "In April 2013, the Phoenix Police Department began a yearlong study using BWCs. Complaints against officers wearing body cameras dropped by 23 percent during the testing period, compared to a nearly 11-percent increase in complaints for the officers without them. Anecdotal evidence from the study found that the use of BWCs had a 'civilizing effect' on civilians who recognized that they were being recorded."

4.10 Evidentiary Value

In 2004, The IACP, in partnership with the National District Attorneys Association and the American Prosecutors Research Institute, conducted a survey regarding the use of in car police camera footage in criminal prosecutions. The survey of prosecutors examined the positive and negative aspects of acquiring and using video evidence.

The survey reported "anecdotal evidence that cases involving video evidence were more rapidly resolved." Prosecutors told IACP that "the greatest value of video evidence is its ability to refresh the officer's memory" and "to verify the accuracy of written reports and statements surrounding [an] incident." Among the prosecutors surveyed, "96% reported that video evidence has improved their ability to prosecute cases." It can be speculated that if these types of benefits were derived from the use of in-car video, then the footage provided by BWCs may be just as, if not more so, worthwhile.

V. Conclusion

Whether the decision to deploy BWCs is based on identified risks, supplementing existing fixed camera technologies, or additional research and investigation, the decision remains complex. Reconciling costs and infrastructure limitations with the perceived benefits of increased accountability and transparency will not be easily accomplished. BWC technology is already being incorporated into the law enforcement environment, and regardless of the decision made by CBP there is little doubt that officer/agent encounters will continue to be recorded by the public.

For the immediate future, BWC technology will continue to outpace policy and law, and BWC technology decisions will continue to be made with a decided lack of supporting data. Innovation is always ahead of regulation, and this technology is no different. The BWC Working Group recommends against sacrificing a deliberative and methodical process in order to expedite a deployment decision.

Thoughtful consideration of the advantages and disadvantages of BWC technology, resolution of policy issues, as well as recognition of the diverse individual component operational environments, risk-assessments and enforcement assignments, should direct the implementation decision and timeline.

As the Operational Utility Evaluation revealed, most of the BWCs available in the marketplace today "provide limited effectiveness, and for the most part are not suited for CBP operational use." The limits of the available technology make effective and efficient deployment harder to achieve.

The Working Group reiterates that BWC technology may offer benefits in support of the CBP mission, but advocates for caution as the identified factors surrounding BWC technology may adversely affect CBP officers/agents, operations, and mission.