

A REVIEW OF THE
BALTIMORE POLICE DEPARTMENT'S
USE OF PERSISTENT SURVEILLANCE
(BALTIMORE COMMUNITY SUPPORT PROGRAM)

January 30, 2017

Table of Contents

Executive Summary	3
About the Police Foundation	4
Introduction	5
BPD's Use of Technology to Reduce Crime	6
Why Persistence Surveillance in Baltimore	8
How the Baltimore Community Support Program Worked	9
Summary of the BCSP	14
Review of Policies Governing BPD's Baltimore Community Support Program	17
The BCSP and the Expectation of Privacy	18
Protection and Storage of Data	18
Recommendations	18
Conclusion	20
Endnotes	22
Appendix	24
BPD Policy 1014 – Video Surveillance Procedures	25
General Order P-3	29
PSS/BCSP's Privacy Protection Policy	37
Memorandum of Law in Support of Persistent Surveillance	39
BCSP Flight Orbit Areas	41
Form 371 – Video Retrieval Request	42
Sample Support Briefing	43

Executive Summary

The U.S. has seen an increase in violent crime in many of its largest cities. So too, has it risen in Baltimore, MD where homicides rose 63% between 2014 and 2015.¹ Like their counterparts in other cities, Baltimore Police Department (BPD) leaders are intent on addressing violent crime and have struggled to find sufficient resources to do so. An innovative, experimental strategy they employed was “persistent surveillance.” This is the use of aerial photographic systems that cover large areas over extended periods of time. In Baltimore, this took the form of a small plane outfitted with a series of cameras that flew 98 times, at an altitude of about 8,000 feet, for a total of 314 hours between January and August 2016. The program – named the “Baltimore Community Support Program” (BCSP) – is not currently operational pending an organizational determination of its effectiveness. It was intended to compliment BPD’s existing, and widely known “CitiWatch” land-based public surveillance camera program.

At the same time the BPD was trying to control the rise in violent crime community tensions, which were exacerbated by the in-custody death of Freddie Gray on April 12, 2015. After Mr. Gray’s death, community protests regarding police tactics ensued. In addition to the peaceful protests rioting by non-protestors took place. Similar protests occurred in other cities across the nation, fueling the debate about police use of force and legitimacy.

Tensions in Baltimore were strained further, when, on August 10, 2016, the Department of Justice released the results of its civil rights investigation of the BPD. Soon after, Bloomberg News published a story of an experimental airborne persistent surveillance program being tested in Baltimore (the BCSP) aimed at reducing violent crime.² That article, and subsequent media reports, highlighted the perceived secretiveness of the surveillance operation, further challenging delicate police-community relationships.³

BPD officials contend that the BCSP was never intended to be secretive. Consistently, they view it as an extension of, and compliment to, its CitiWatch program. In its limited review of the BCSP the Police Foundation found no evidence to contradict the BPD’s position. It is more likely that the BPD’s perceived lack of candor was simply the result of bureaucratic misunderstanding relative to the clarity of the connection to the CitiWatch program and of what had been disclosed, and to whom and when it had been disclosed.

While confusion and a lack of clarity contributed to the initial public perception that it was a secret program there appears to be a change in public opinion about it. Non-scientific polls by both the Baltimore Business Journal⁴ and the Baltimore Sun⁵ in mid-2016 indicated that a

majority (82%) of the respondents were “comfortable” with the BCSP “as long as it’s keeping people safe” (Business Journal)⁶ and (79%)⁷ said that the BPD should not have disclosed the existence of the program if it put at-risk (Sun).

A lack of programmatic data precludes a rigorous evaluation, or thorough analysis, of this program or its cost-effectiveness. However, from its limited review, the Police Foundation has concluded that persistent surveillance has the potential for increasing the clearance of crimes and reducing the cost of criminal investigations. Anecdotal information from BPD officers who have used BCSP data to investigate crimes reported that the BCSP was a helpful crime-fighting tool that saved them considerable investigative time. Furthermore, this is suggestive that trust and confidence in the police could also be elevated through this type of program – as long as adequate public understanding and support is present before the technology is employed.

The Police Foundation concludes that persistent surveillance holds potential for helping solve crime and highly recommends that a rigorous evaluation of persistent surveillance be conducted before American policing employs it on a wide scale basis. Issues related to operational and cost effectiveness, organizational alignment, transparency, accountability, public support and privacy should be examined. At a minimum, a guidebook should be developed to assist other departments if they choose to further explore or implement this technology.

The Police Foundation was not paid by any organization or individual to conduct this analysis. Its leadership believes persistent surveillance technology is being developed by the private sector for policing and is currently being considered by other policing organizations. As such, policing’s use of this technology should be studied for effectiveness and impact on civil liberties and the public’s sense of trust and confidence in the police. Accordingly, this report is an appropriate expression of the Foundation’s mission to advance policing through innovation and science.

About the Police Foundation

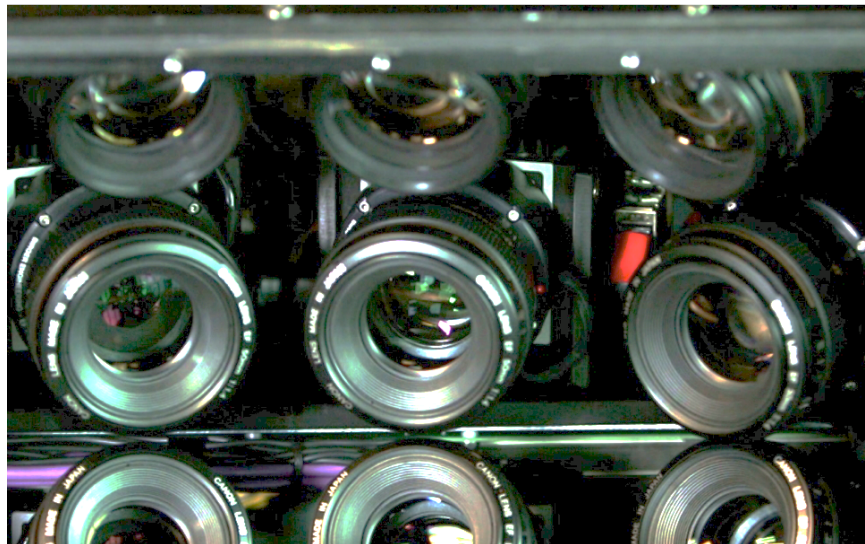
The Police Foundation has a rich history and dedication to advancing innovation and science in policing. As the country’s oldest non-partisan, non-membership police research organization, the Police Foundation predicates its work on the paradigm of evidence-based policing – leveraging scientific evidence to advance police practices. Established in 1970, the foundation has conducted seminal research in police behavior, policy, and procedure, and works to

transfer to local agencies the best new information about practices for dealing effectively with a range of important police operational and administrative concerns. Motivating the foundation's work is the goal of effective, rightful policing that operates within the framework of democratic principles and the highest ideals of the nation. Its leadership can be contacted, and its work found, at www.policefoundation.org.

Introduction

Persistent Surveillance is a term used for aerial photographic systems that cover large areas simultaneously over extended periods of time. Camera capabilities range from low to high-resolution images or video, and are often mounted on aircraft, but have also been attached to unmanned aerial vehicles, towers, blimps, and other high vantage points.⁸⁹

Across the U.S. law enforcement agencies are exploring the adoption of Unmanned Aerial Systems (UAS's) to assist with a multitude of policing tasks (e.g. crime scene and traffic accident investigations, narcotics surveillance, search and rescue, etc.). Similarly, a number of law enforcement agencies are exploring adding persistent surveillance to their crime reduction strategies. This technology has the potential to serve as a cost-effective tool to broaden crime-related information gathering capabilities without increasing staff or increasing existing personnel workloads. While the potential benefits to employing these technologies may seem clear to some, challenges relating to public privacy concerns must also be addressed. Policing leaders, communities, privacy advocates and technologists have not yet arrived at a consensus as to how persistent surveillance can be used to fight crime while also ensuring the protection of citizen privacy.



Persistent Surveillance System's Hawkeye II camera. Photo: Al Jazeera.

Persistent surveillance technology has largely been developed for, and used by, the military to increase soldier safety while in dangerous environments. It has been used to develop intelligence, for example, when a roadside bomb or explosion occurs in crowded areas. Footage is typically used to try and determine the identity and location of persons who planted the device by tracking movements of people and vehicles at the location before, during, and after the event. Systems vary in sophistication and some use cameras augmented with other technology to increase image resolution. There is an inherent tradeoff between camera resolution and coverage area.



Aeryon SkyRanger UAV is typical of UAV's marketed to police agencies.

Non-military applications vary. Persistent surveillance systems have been used to monitor traffic flow in various cities, monitor wildlife, and assist in wildfire and other natural disaster and humanitarian planning and responses.¹⁰ The level of sophistication varies with specific mission requirements, but these types of uses have generally garnered positive public support. However, as law enforcement agencies have started to consider this technology, initial public response to it has not necessarily been positive. The Los Angeles Sheriff's Department and the Dayton Police Department met with considerable public criticism when exploring this technology. Both organizations abandoned plans to further develop airborne persistent surveillance projects¹¹.

BPD's Use of Technology to Reduce Crime

For the last eleven years, the BPD has followed the national trend of employing surveillance technologies and special units to investigate, deter, and interrupt crime. It has employed

stationary or “ground” cameras as well as imagery captured by helicopters. Baltimore’s use of these surveillance tools vary, but the common denominator is their purpose to capture images and video of crimes in-progress.

BPD has had a helicopter Aviation Unit since 1970. Over time, the program has gone through various iterations in equipment and personnel including a halt to the program following a fatal crash in 1998 that killed a Baltimore police officer piloting the helicopter. The unit was revived in 2001 with new helicopters outfitted with new technology. In 2011, the department acquired new helicopters that were equipped with updated video cameras, a FLIR thermal imaging camera, GPS navigation, LoJack tracking, and a powerful spotlight. The unit has assisted in numerous arrests, calls for service and support operations.¹² There is wide-spread public knowledge of its existence and scope of surveillance capabilities. And, as is common with law enforcement aviation camera systems the resolution of the images from these systems is much higher than that of the BCSP persistent surveillance system.

In 2005, the BPD created ground-based surveillance program called CitiWatch. This program, which has been widely publicized, comprises a network of approximately 700 CCTV cameras located throughout the city that collect video used to respond to, and investigate, crimes. The locations of the cameras are listed on the city’s open data portal.¹³ The unit is under BPD command and has thirty civilian employee “monitors” who operate the cameras. The majority of the monitors are retired or former law enforcement officers. Watching live footage, the monitors focus their attention on high crime areas. They have the option with some of the cameras to pan, tilt and zoom them to focus on specific areas or individuals. They are also able to coordinate responses with officers in-the-field through the BPD radio system.¹⁴ The BPD has consistently found that crime dropped an average of 33% around the areas where cameras were installed. Similar to experiences in law enforcement agencies throughout the country, observations and evidence collected through the CitiWatch cameras and the Aviation Unit operations have been successfully used in many investigations and prosecutions.¹⁵

In October of 2014, CitiWatch expanded further with the creation of a database of information provided – on a voluntary basis – by privately operated surveillance systems.¹⁶ Owners of Baltimore businesses and other privately owned surveillance systems could volunteer to participate in this program by sharing the locations and owner information of their system with the BPD to solve crimes. By participating, private owners do not automatically agree to share footage. Rather, when a crime occurs near a private camera included on the database, the department seeks approval from the camera owner for access to the camera and its footage. Because of its voluntary nature, participants can opt out of the program at any time.¹⁷



CitiWatch officers monitoring the CCTV system in 2013. Photo: Baltimore Police Department Twitter.

Why Persistence Surveillance in Baltimore

A robust ground surveillance camera program (CitiWatch) notwithstanding, the City of Baltimore has experienced an increase in violent crime. In 2014, there were 211 homicides¹⁸ compared to 344 in 2015 (an increase of 63%).¹⁹ Although the majority of victims were young adults between the ages of 18 and 34 (226), 22 juveniles were also killed in 2015 – several of them toddlers.²⁰ There are conflicting views as to why the spikes are occurring; some maintain it stems from the de-policing, “Ferguson effect,” on BPD officers after the riots while others attribute it to an increase in drugs on the streets.²¹

At the same time crime rates in Baltimore have increased, limited resources have caused case clearance rates to drop below the national average. BPD’s statistics indicated its clearance rate hovered around 30% in 2015.²² According to the Federal Bureau of Investigation’s (FBI) Uniform Crime Report (UCR) for 2015, national clearance rates averaged at 46% for violent crimes and 19.4% for property crimes.²³

Like many major and mid-sized cities across the country, Baltimore is challenged with the task of fighting crime amidst a national conversation about police legitimacy with advocacy groups calling for substantive police reform. This has become more acute since the death of Freddie Gray. Faced with intense community scrutiny and lack of trust at the local level, Baltimore’s increasing violent crime rates and falling clearance rates have been exacerbated by on-going challenges in police recruitment, hiring and retention.

In light of Baltimore's rising crime and staffing challenges, BPD has been looking for innovative, cost-effective programs to address crime fighting and staffing resources.²⁴ In August 2015, as BPD was contemplating new programs and technology, it was contacted by Ohio-based Persistent Surveillance Systems (PSS) with a proposal to test persistent surveillance in an urban environment. PSS offered to demonstrate its effectiveness at reducing crime with airborne surveillance data.²⁵ PSS maintained that full time operation of this pilot program could reduce Baltimore's crime rate by as much as 20-30%, and would reduce public safety costs for the City of Baltimore as it tackled violent crime in the city.

Given the investments that BPD had already made to investigate, deter, and interrupt crime through the use of CCTV cameras and aerial surveillance (using helicopters), adding persistent surveillance technology to its portfolio of intelligence gathering seemed consistent with the Baltimore's use of surveillance tools and a logical extension of the CitiWatch program. Accordingly, the BPD and PSS entered into an agreement to test the viability of persistent surveillance technology in Baltimore, and named the pilot program the "Baltimore Community Support Program" (BCSP). Technically, it was intended to operate independently (by PSS) from the CitiWatch program. However, it was the intention of both BPD and PSS that the two programs would work in concert as a way of increasing the effectiveness of CitiWatch. The BCSP was intended to have three developmental stages; Phase I – technology and integration, Phase II – operational impact of the crime and cases generated by PSS's technology, and Phase III – a not-yet-scheduled programmatic evaluation.

How the Baltimore Community Support Program Worked

In January 2016 PSS set up the BCSP office in Baltimore and staffed it with a director, two managers, twelve analysts and two IT/Software support staff (all employees of PSS). BPD provided one civilian liaison to the program. It dedicated its Cessna 207 aircraft to operate out of Martin State Airport, located about a ten-minute flight from downtown Baltimore.

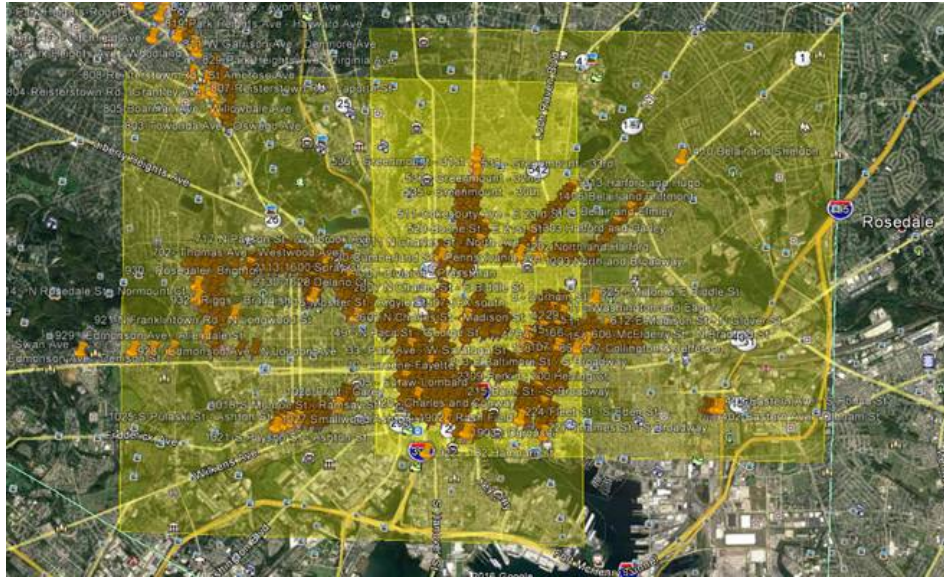


A PSS sensor operator checks the company's Hawkeye II wide-area surveillance system during a flight over Ohio in 2015. Photo: Chris Stewart/Dayton Daily News.



PSS's Cessna aircraft. Photo: CBS News.

When weather permitted, the aircraft flew at roughly 8,000 feet for 5-6 hours collecting approximately 1.3 terabytes worth of photos captured from a specially mounted camera system called the "HawkEye II." The HawkEye II system integrates twelve imaging cameras that capture image areas that range from 1 to 6.8 miles wide. In Baltimore, the BCSP typically imaged a 5.8 x 5.8 mile or 32 square miles area every second. The pilot flies an eastern or western orbit over the city as directed by the BPD. The BPD based these directions on recent crime statistics. Between the eastern and western orbits, portions of all of the BPD districts were covered²⁶.



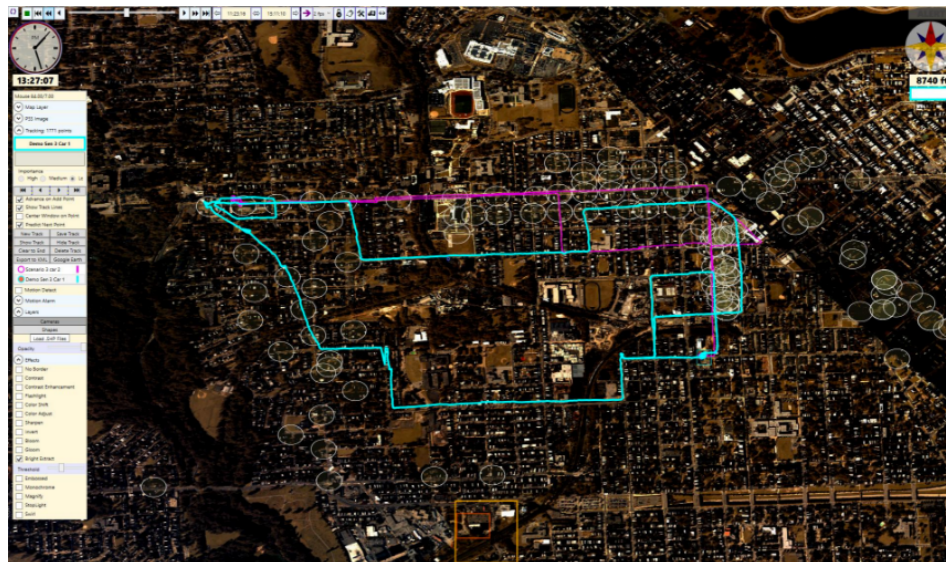
The eastern and western orbits cover all of the BPD districts. Brown and yellow pins indicate CitiWatch ground camera locations. Photo: Persistent Surveillance Systems.

Although the images captured had roughly 192 million pixels, they are far different from images collected by sophisticated military systems. The resolution of the PSS cameras result in people appearing as single pixel dots. Personal attributes such as height, weight, skin or hair color, or clothing are not discernable. Similarly, in images of motor vehicles, automobile makes, models, and license plates are unidentifiable. Rather, these blurry dots are only useful for marking location and movement in one second intervals. (Note: It may be possible to assign a low-confidence, inferred identification of individuals or vehicles based on the address they left from, or arrived at. Analyzing many, many hours of video, correlating existing data or knowledge and extrapolating observations from specific locations might also increase the confidence level of the inferred identification. However, for purposes of this analysis it was understood that neither BPD nor PSS have done that, nor had nearly enough resources to do so. In addition, it was assumed that neither would acquire the motivation nor resources to do so – and no evidence was uncovered to the contrary.)

Images captured by the plane's camera system were transferred from the plane to the PSS office through air-to-ground data links. The PSS ground data station was connected to the BPD networks, including CitiWatch, to allow for support during live operations. Two PSS analysts sat within the BPD Watch Center where they had access to Computer Aided Dispatch (CAD) 9-1-1 calls. The analysts monitored the CAD call list looking for violent or high priority incidents to which they could assist in real time.

When used in real time, the transmitted images allowed analysts to concentrate on the areas in question and quickly follow movements of people and vehicles around the event location. There was no automated tracking, and analysts were trained to follow these movements manually. When doing so, analysts marked the area movements with various colored lines, referred to as tracks. Multiple tracks typically emerged, as analysts looked at the movement of people and vehicles. The analysts relayed any critical information on movements to BPD officers in-the-field as the event was taking place. The analysts could also access CitiWatch cameras in real-time for detailed images to support communications with the field officers. Analysts tracked the events as long as possible for live operations.

When analysts complete their involvement with an incident they build an “investigative briefing.” The briefing illustrates movement tracks and connected them with any identified ground-based CitiWatch images. Analysts prepared visuals (charts, images and maps) and connected them to a timeline and any other pertinent data gathered. Typically, these briefings were delivered to investigative officers within hours of the crime. Officers and detectives could then use the collected data in the support briefings to aid them in identifying and locating suspects and witnesses, and in eliminating unrelated movement tracks.²⁷



Track lines during a simulated exercise scenario. Photo: Baltimore Police Department.



Simulated suspect is circled in light blue. Photo: Baltimore Police Department.

In addition to real time analysis, the PSS reviewed CAD calls for past events that with which it could assist by providing additional information. Typically, PSS received a list of all the calls for service from the previous day. Software integrated that data with their flight data, giving analysts a list of events eligible for support briefings. These lists were usually 15-20 pages and included several hundred calls for service. Analysts began tracking violent crimes first. Similar to the live action process, an analyst reviewed footage and attempted to locate the crime and suspect(s) at a respective time and location. When a suspect was located, the analyst followed the same process described above by mapping tracks, identifying cameras, and creating the investigation support briefing.

BPD did not retain or store the data collected by the PSS effort. PSS maintained the servers, where data was stored for 45 days. After 45 days, the data was archived in a secure server and moved to a secure safe. As the data is removed from the server it is copied and stored in classified safes in both Baltimore and Ohio to ensure data integrity and reliability. Officers can request access to the data using the BPD “Form 371– Video Retrieval Request” form, which is the same form they use to request CitiWatch Camera data.²⁸ In response to an inquiry from the Baltimore Public Defender’s Office PSS archived all collected data to ensure it is available for the Public Defender's Office use. As of January 2017, PSS does not have a timeline for the destruction of this specific data, and anticipates to store it indefinitely.

Summary of The BCSP

Phase I: Technology and Integration (January – February 2016)

Phase I of the BCSP Project focused on technology integration and testing. The hardware, software, and networks were all successfully integrated during this first phase, including integrating the persistent surveillance technology with existing surveillance technology. **Phase I**

Data:

Number of Flights: 34

Total Flight Hours: 103.4

Area Coverage: 16.46 Eastern orbit (Districts –Central and Eastern, portions of Southeastern, Northeastern, North and Northwestern), 86.9 Western orbit (Districts – Western and Central, portions of South, Southwestern, Northwestern, North, Eastern and Northeastern)²⁹

Total Calls for Service in Coverage areas: 6,326

Images Captured: 372,076

Phase One Program Costs: \$120,000

Phase II – Operational Use (June 15 –August 18, 2016)

After determining in Phase I that PSS technology could be used with the CitiWatch system, the purpose of Phase II was to evaluate how the persistent surveillance technology and data generated by BCSP could be employed by BPD personnel to assist in investigations, and possibly prosecutions. The goal was for BPD investigators was to be able to add this data as part of intelligence gathering to identify and follow leads, verify witness accounts, and obtain search warrants, to support arrests and convictions.

Because the State’s Attorney had not yet approved the program, some BPD investigators were reluctant to view the data for fear of jeopardizing their cases, in the event the evidence would be deemed as inadmissible. Using the data collected through the BCSP, analysts completed and presented investigative support briefings to the BPD and were able to provide information for crimes ranging from illegal dumping to violent crimes. The Office of the States Attorney was briefed on the program in August 2016.

Phase II Data:**Number of Flights:** 64**Total Flight Hours:** 210.6**Area Coverage:** 210.6 Western orbit (Districts – Western and Central, portions of South, Southwestern, Northwestern, North, Eastern and Northeastern)³⁰**Total Calls for Service in Coverage areas:** 14,917**Images Captured:** 758,273**Phase Two Program Costs:** \$240,000**Support Briefings Developed:** 105

Crime / Calls for Service Type	# of Briefings
Homicides	5
Shootings	15
Rape	1
Stabbings	3
Assault	2
Car Jacking	3
Burglary	3
Dirt Bike Complaints	4
Hit and Run	16
Auto Theft	3
Special Operations Surveillance/Investigation	7
Illegal Dumping	1
Traffic Accidents	<u>42</u>
Total Support Briefings	105

All of the support briefings, imagery data, and associated suspect tracks are still available to BPD investigators and the Office of the State's Attorney. One of the early uses of BCSP data was the February 2016 daytime shooting of an elderly brother and sister while they were walking down a Baltimore street in a busy shopping area.

In addition to support briefings that provided actionable information to investigations about crimes, PSS analysts examined traffic accident reports to examine if fault could be determined. During the Baltimore operations PSS imagery captured more than 1000 accidents. PSS analyzed 42 of the accidents and could determine the vehicle at fault in 35 cases. This analysis illustrated the ability to identify which driver would have been assigned responsibility for the accident. In ten of those forty-two investigations, PSS analysts were able to identify the primary suspect in a hit and run accident. While those experimental briefings were not used to support the cases, they illustrated another potential use for the technology.

BCSP staff sampled multiple murders and shootings that occurred during the test period and provided investigators with 537 tracks to consider: 73 primary vehicles or people associated with the events, and 130 CitiWatch camera locations that captured images of potential suspects and witnesses along those tracks. Investigators used some of the information and as a result advanced 7 shooting and 3 homicide investigations. In one murder investigation, 28 tracks identified 4 primary people or vehicles. In addition, 10 CitiWatch cameras captured images that helped identify 10 suspects and witnesses in that case.

Investigators who have used the data have expressed support and interest in the technology. A homicide investigator who used BCSP data in an upcoming case stated that he found the support briefing to be a significant timesaver. The investigator believes that BPD might well have found those same images using the CitiWatch camera footage alone; however, it would have taken several weeks to comb through the footage of every ground camera for every potential route of every potential suspect and witness. Use of the data enabled him to view the routes of vehicles and people in the area and efficiently determine which cameras to review for key footage.

The program data also helped some investigators verify witness accounts, therefore saving time otherwise spent chasing down bad leads. The data potentially shaved weeks off the investigative process.

There was some initial organizational hesitancy by some BPD officers to use at the program data for fear that, until cleared by the Office of the State's Attorney, use of persistent surveillance data could compromise their investigations. There was also some degree of hesitancy to use the data simply because it was the result of a new, and unproven, strategy. This is extremely common throughout American policing and not unique to the BPD. Outreach from the BCSP program manager enabled officers to better understand the technology and therefore understand how it could prove useful to them. Also, facilitating acceptance were briefings provided to investigators in the Homicide, Robbery, Sexual Assault, Burglary and the City-Wide Shooting Units and the Dirt Bike and the Regional Auto Theft Task Forces.

Phase III: Extended Evaluation (date to be determined)

If a decision is made to extend the BCSP, and funding is available, a third phase will be implemented and focused on an evaluation of the program's efficacy. This is envisioned to include a rigorous evaluation strategy, a comprehensive data collection plan, an organizational integration and support plan, close coordination with prosecutors and comprehensive

community outreach efforts. It should last a minimum of 12 months to allow for adequate evaluation of the program's potential effectiveness and impact on investigations, prosecutions and community-police relationships.

Review of Policies Governing BPD's Baltimore Community Support Program

PSS and BPD staff agreed, that, given its close alignment with the CitiWatch program, the use of existing BPD policies for surveillance was appropriate and applied BPD Policy 1014 "Video Surveillance Procedures"³¹ and BPD *General Order P-3* (published July 26, 2004) as they pertain to surveillance and aviation operations. These served as the primary policy that guided BCSP activities.

BPD Policy 1014 (updated August 1, 2016) outlines the usage of "surveillance cameras for the purposes of deterring crime, aiding in apprehending suspects and protecting homeland security." It describes a series of 'fixed-position' cameras strategically throughout Baltimore on a preprogrammed tour (that can also be manually controlled). The use of video cameras to monitor public areas does not require a warrant or court order. Court orders are also not required for video surveillance unless there is non-consensual interception of oral communication, or if the recorded area is not in public view where privacy is not reasonably expected.

BPD and PSS also applied BPD *General Order P-3* (published July 26, 2004) which provides the operational guidelines for using aircrafts in assisting ground based units with crime prevention, apprehending suspects, and searches for police units and civilians. This order details surveillance as the ability to use thermal imaging technology that can track suspects in the dark and assist in evidence recovery. This order also outlines other surveillance functions as necessary to provide for the safety of both the residents of Baltimore and police personnel during events such as crowd control, fire and major accidents, and search and rescue efforts.

In addition, PSS utilized a *Privacy Protection Policy* that defined privacy guidelines, limitations and protections of its management of employees and data.³² The policy defines the imagery system, including its limitations in image sophistication. The data collection purpose is outlined for use for crime, major events, natural disasters, and illegal dumping investigations. The policy also includes language on the use and access of data by employees and police department partners. Under this policy, the BCSP director is authorized to audit employees use of the hardware and software to ensure that data is being used and shared appropriately. Finally, the policy incorporated four Supreme Court Rulings that PSS maintains support its use of persistence surveillance as legal and permissible activity.³³ Using these cases, and a

memorandum prepared by their legal counsel, PSS leadership believes its policies addressed the expectation of privacy, and the validity of using aerial observation as permissible data for investigations and prosecutions.

The BCSP and the Expectation of Privacy

The images and data obtained through BCSP point users toward other data from existing programs (CitiWatch and the Aviation Unit) that have a long history of support in investigations and prosecutions. The BCSP images were accessed only when a crime was being reported or was under investigation. PSS insists that it cannot feasibly watch footage constantly in real-time and determine independently when a crime is occurring. PSS maintains that it must be notified of a crime with location details to extract any useful information.

PSS and the BPD operated the BCSP under the same expectation of privacy conditions as those operated by law enforcement airborne units throughout the country. The U.S. Supreme Court decision in 1989's *Florida v. Riley* ruled that citizens do not have a reasonable expectation of privacy or that their activities are private because airplanes and helicopters routinely fly over private property. PSS and the BPD relied on this, and other, US Supreme Court cases that determined there was no reasonable expectation of privacy in a public places (see Appendix: *Memorandum of Law*).

Protection and Storage of Data

The data viewed by BCSP analysts was collected and stored on PSS servers. The PSS Privacy Protection Policy states that after 45 days, the data will be destroyed unless an inquiry is received. However, PSS is retaining all the data from the BCSP pilot program. As of the conclusion of the BCSP's Phase II this has not been finalized in the Privacy Protection Policy as PSS, BPD and the Office of the State's Attorney had not finalized the guidelines for data storage.

Neither the data, nor the servers are maintained by BPD directly. For security purposes, PSS designed the BCSP software to capture every keystroke and inquiry made by the analysts. Stated in the PSS Privacy policy, analysts were thoroughly trained to the proper use of the software and must have signed the policy before working on the BCSP program. PSS's internal controls for this project allowed the BCSP director the ability to review analyst activity at any time (this was not verified by the Foundation in this analysis).

Recommendations

Recommendation 1: Prior to implementing Phase III of the BCSP the BPD should affirm its desire to conduct a rigorous evaluation of the BCSP and its use of persistent surveillance and identify a competent research partner to conduct the evaluation.

Recommendation 2: Prior to the implementation of Phase III of the BCSP the BPD should seek an external assessment of the constitutionality of the technology, policies and practices to be employed to assure the public that it is a constitutionally correct strategy.

Recommendation 3: Prior to implementing Phase III the BPD should ensure it has adequately explained the BCSP to the public through the use of appropriate public presentations, media opportunities, focus groups, etc. to ensure public support. It can refer to the USDOJ publication *Community Policing & Unmanned Aircraft Systems (UAS): Guidelines to Enhance Community Trust*,³⁴ as a resource in this regard. Once Phase III is implemented the BPD provide an on-going mechanism for input into the program by the community. The community should have an opportunity to voice their concerns and ask questions about the persistent surveillance and the BPD should have an opportunity to respond, throughout the life of the program.

Recommendation 4: Prior to implementing Phase III the BPD should identify and implement transparency and accountability measures to ensure the public has full access to the progress and effectiveness of the BCSP. This can take the form of something as simple as a publically posted program policies and monthly reports on the program. The BPD can make this available on its own website or make the data available through existing mechanisms such as the national *Police Data Initiative* (www.publicsafetydataportal.org).

Recommendation 5: If Phase III is implemented, the BPD should ensure that all of its operational units are trained on the use of the BCSP prior to implementation.

Recommendation 6: If Phase III is implemented: the BPD should ensure that an adequate data collection system is in place so that a rigorous evaluation can determine whether the program helped control crime and was cost-effective.

Recommendation 7: Prior to Phase III the BPD should conduct a thorough policy analysis to ensure that its policies relating to CitiWatch, its Aviation function and the BCSP, and the privacy policies of PSS, are in alignment. The BCSP should be specifically covered in BPD policy.

Recommendation 8: Prior to Phase III the BPD should create a unique policy specific to the goals and objectives, capabilities and usage of the BCSP. It should clearly state goals and objectives agreed upon by PSS and BPD, and have a concise outline of the technology, data, process for obtaining data for investigations and prosecutions. It should include a process for oversight and auditing of the BCSP. It should be created and revised to include clear definitions of terms and roles as the technology advances. As recommended by the USDOJ Office of Community Oriented Policing Services the policies should avoid vague language and provide a glossary and references.³⁵

Recommendation 9: Prior to Phase III the BPD and the Office of the State’s Attorney should enter into a written agreement regarding the use of BCSP data for prosecutorial purposes.

Recommendation 10: The BPD should formalize agreements with PSS as it relates to persistent surveillance data retention and ownership. This agreement should outline who “owns” the data, how it is stored, how long it is retained and how it can be accessed.

Conclusion

Violent crime investigations are among the most important, sensitive and time-consuming investigations policing agencies conduct. Appropriately, solving violent crimes was one of the BCSP’s primary goals. Unfortunately, it was not possible for the Police Foundation to quantify the value of the persistent surveillance used in the BCSP to improve violent crime clearance rates or reduce investigative time. However, the limited data available for this analysis is highly suggestive that persistent surveillance technology may prove effective in solving these crimes and prove to be a cost-effective strategy.

Using advanced technology to control crime can increase policing effectiveness and leverage taxpayer investment in public safety. However, there can also be unintended consequences in doing so. The Police Foundation maintains that civic leaders should always be attentive to the potential, unintentional harm to individuals, communities or the public’s sense of confidence and trust in the police that well-meaning crime control strategies can produce. But it also maintains that when traditional approaches to saving lives prove ineffective, innovative approaches must be explored. The police do not always have the luxury of waiting until research yields scientific evidence about the efficacy of a particular approach. When people are dying the police must act to stop the violence – even when doing so carries a degree of political risk.

It seems clear and reasonable to the Police Foundation that BPD officials believed they needed to employ new strategies to stop the rising violent crime that was claiming so many lives. To some, it might seem reasonable that BPD leadership would decline to take any unnecessary political risks given the community tension over Freddie Gray's death and the issuance of the DOJ report – especially those involving experimental surveillance technology. But in the face of violent crime that was claiming hundreds of deaths – many of them young people – the BPD leadership appeared to place its personal and professional self-interests aside to test persistent surveillance as one means of impacting the increasing violence. This is the hallmark of courageous leadership and should be acknowledged (the lack of clarity regarding the implementation of the program notwithstanding).

Baltimore's leadership must decide if the technology employed by the BCSP is worth the inherent challenges in using it. They must determine – ideally with the assistance of a rigorous scientific evaluation – if they can effectively control crime with this program in a way that also increases community trust and confidence in the police. Faced with increases in violent crime they must also answer the question: "If not this, then what strategy should we use?"

Finally, one thing is clear. The efforts of the BPD in testing persistent surveillance will benefit police agencies nationwide. It has laid the groundwork for efforts to further evaluate the technology and develop guidelines for successfully implementing it in a way that speaks directly to a principle goal of 21st Century policing – reducing crime while also enhancing the public's trust and confidence in the police.

Endnotes

- ¹ Federal Bureau of Investigation, Crime in the United States 2014, Offenses Known to Law Enforcement by City, accessed September 28, 2016, [https://ucr.fbi.gov/crime-in-the-u.s/2014/crime-in-the-u.s.-2014/tables/table-8/table-8-by-state/Table 8 Offenses Known to Law Enforcement by Maryland by City 2014.xls](https://ucr.fbi.gov/crime-in-the-u.s/2014/crime-in-the-u.s.-2014/tables/table-8/table-8-by-state/Table%208%20Offenses%20Known%20to%20Law%20Enforcement%20by%20Maryland%20by%20City%202014.xls); Federal Bureau of Investigation, Crime in the United States 2015, Offenses Known to Law Enforcement by City, accessed September 28, 2016, [https://ucr.fbi.gov/crime-in-the-u.s/2015/crime-in-the-u.s.-2015/tables/table-8/table-8-state-pieces/table 8 offenses known to law enforcement maryland by city 2015.xls](https://ucr.fbi.gov/crime-in-the-u.s/2015/crime-in-the-u.s.-2015/tables/table-8/table-8-state-pieces/table%208%20offenses%20known%20to%20law%20enforcement%20maryland%20by%20city%202015.xls).
- ² Monte Reel, "Secret Cameras Record Baltimore's Every Move From Above," *Bloomberg Businessweek*, August 23, 2016, <https://www.bloomberg.com/features/2016-baltimore-secret-surveillance/>.
- ³ Kevin Rector and Luke Broadwater, "Report of secret aerial surveillance by Baltimore police prompts questions, outrage," *The Baltimore Sun*, August 24, 2016, <http://www.baltimoresun.com/news/maryland/baltimore-city/bs-md-ci-secret-surveillance-20160824-story.html>.
- ⁴ Baltimore Business Journal, "Business Pulse Poll," <http://www.bizjournals.com/baltimore/pulse/poll/are-you-comfortable-with-city-polices-surveillance-program/20446022>
- ⁵ Baltimore Sun, "Baltimore Police Surveillance Poll," September 1, 2016, <http://www.baltimoresun.com/news/opinion/bal-bpds-secret-surveillance-poll-20160825-htmlstory.html>
- ⁶ Baltimore Business Journal, "Business Pulse Poll," <http://www.bizjournals.com/baltimore/pulse/poll/are-you-comfortable-with-city-polices-surveillance-program/20446022>
- ⁷ Baltimore Sun, "Baltimore Police Surveillance Poll," September 1, 2016, <http://www.baltimoresun.com/news/opinion/bal-bpds-secret-surveillance-poll-20160825-htmlstory.html>
- ⁸ "New surveillance techniques raise privacy concerns," *PBS Newshour*, April 26, 2014, <http://www.pbs.org/newshour/bb/new-police-surveillance-techniques-raise-privacy-concerns/>;
- ⁹ Jeff Stone, "Baltimore Not Alone In Use of Surveillance Planes As Police Increasingly Spy From The Sky," *International Business Times*, May 16, 2015, <http://www.ibtimes.com/baltimore-not-alone-use-surveillance-planes-police-increasingly-spy-sky-1911174>;
- ¹⁰ World Wildlife Fund, "An Eye in the Sky for Boots on the Ground," February 3, 2014, <http://www.worldwildlife.org/stories/an-eye-in-the-sky-for-boots-on-the-ground>; "Technology Confronts Disasters," Lincoln Laboratory, Massachusetts Institute of Technology, October 2015, <https://www.ll.mit.edu/news/technology-confronts-disasters.html>.
- ¹¹ Reel, "Secret Cameras Record Baltimore's Every Move From Above."
- ¹² Baltimore Police Department, Aviation Unit, accessed September 1, 2016, <https://www.baltimorepolice.org/about-us/special-units/aviation-unit>.
- ¹³ City of Baltimore, "CCTV Locations," dataset last updated December 2, 2014, <https://data.baltimorecity.gov/Public-Safety/CCTV-Locations/hdyb-27ak>.
- ¹⁴ Edward Ericson Jr., "Watching the CitiWatcher: The night shift monitoring Baltimore's security cameras," *City Paper*, January 27, 2016, <http://www.citypaper.com/news/features/bcp-012716-night-citiwatch-20160127-story.html>.
- ¹⁵ Brandon Jordan, "Man, 22, found guilty in violent robberies caught on CitiWatch cameras," *WBAL-TV*, September 2, 2016, <http://www.wbal.com/news/man-22-found-guilty-in-robbery-caught-on-citiwatch-cameras/41485922>.
- ¹⁶ Luke Broadwater and Justin George, "City expands surveillance system to include private cameras of residents, businesses," *The Baltimore Sun*, October 30, 2014, <http://www.baltimoresun.com/news/maryland/baltimore-city/bs-md-ci-citiwatch-20141029-story.html>.
- ¹⁷ CitiWatch, "FAQ," last accessed September 1, 2016, <https://citiwatch.baltimorecity.gov/layouts/CitiWatch/faq.aspx>.
- ¹⁸ Federal Bureau of Investigation, Crime in the United States 2014.
- ¹⁹ Federal Bureau of Investigation, Crime in the United States 2015.

- ²⁰ "Baltimore Homicides," *The Baltimore Sun*, last update September 28, 2016, <http://data.baltimoresun.com/news/police/homicides/>; Kevin Rector, "Deadliest year in Baltimore history ends with 344 homicides," *The Baltimore Sun*, January 1, 2016,
- ²¹ David A. Graham, "What's Causing Baltimore's Crime Spike?" *The Atlantic*, June 5, 2015, <http://www.theatlantic.com/politics/archive/2015/06/baltimore-police-slowdown/394931/>.
- ²² Jess Bidgood, "The Numbers Behind Baltimore's Record Year in Homicides," *The New York Times*, January 15, 2016, <http://www.nytimes.com/interactive/2016/01/14/us/Baltimore-homicides-record.html>.
- ²³ Federal Bureau of Investigation, Crime in the United States 2015, Clearances, accessed September 28, 2016, <https://ucr.fbi.gov/crime-in-the-u.s/2015/crime-in-the-u.s.-2015/offenses-known-to-law-enforcement/clearances>.
- ²⁴ Brian Kuebler, "BPD struggles to recruit new officers after Freddie Gray," *ABC 2 News*, April 29, 2016, <http://www.abc2news.com/news/region/baltimore-city/bpd-struggles-to-recruit-new-officers-after-freddie-gray>.
- ²⁵ Funding administered by the Baltimore Community Foundation from a private donor.
- ²⁶ Baltimore Police Department District Map and BCSP Orbit Map is attached as Appendix 5.
- ²⁷ A sample support briefing is attached as Appendix 7.
- ²⁸ BPD Form 371 – Video Retrieval Request is attached as Appendix 6.
- ²⁹ Baltimore Police Department District Map and BCSP Orbit Map is attached as Appendix 5.
- ³⁰ Baltimore Police Department District Map and BCSP Orbit Map is attached as Appendix 5.
- ³¹ BPD Policy 1014 – Video Surveillance Procedures is attached as Appendix 2.
- ³² BCSP's Privacy Protection Policy is attached as Appendix 4.
- ³³ *United States v. Karol*, 468 U.S. 705, 730 (1984); *California v. Cirilo*, 476 U.S. 209 (1986); *Dow Chemical Co. v. United States*, 476 U.S. 227 (1986); and *Florida v. Riley*, 488 U.S. 445 (1989).
- ³⁴ COPS & Police Foundation's *Community Policing & Unmanned Aircraft Systems (UAS): Guidelines to Enhance Community Trust* -To be released by the end of 2016.
- ³⁵ COPS & Police Foundation's *Community Policing & Unmanned Aircraft Systems (UAS): Guidelines to Enhance Community Trust* -To be released by the end of 2016.

Appendix



Policy 1014

Subject VIDEO SURVEILLANCE PROCEDURES	
Date Published 1 August 2016	Page 1 of 4

By Order of the Police Commissioner

POLICY

It is the policy of the Baltimore Police Department (BPD) to utilize surveillance cameras for the purposes of deterring crime, aiding in apprehending suspects and protecting homeland security.

GENERAL

The Closed-Circuit Television (CCTV) system is an investigative tool, capable of capturing real-time events. Footage captured by the CCTV system can be permanently stored as evidence on available media when requested within specified time frames.

The CCTV system is a series of fixed-positioned cameras strategically placed in locations throughout Baltimore City. The CCTV system operates on a preprogrammed tour, but the camera may be manually controlled. The CCTV system stores digital video up to 28 days.

DEFINITION

Video Surveillance — Non-consensual interception of a CCTV broadcast which requires a court order.

1. The use of a video surveillance camera does not require a court order unless there is non-consensual interception of oral communication, or if the area of surveillance is not in public view and a reasonable expectation of privacy in the location exists.
2. The use of video cameras to monitor an area open to public view does not require a warrant or court order.

Reviewing Entity — CCTV personnel at the district, CitiWatch, Watch Center and/or the Homeland Security Division.

REQUIRED ACTION

Member

1. Respond to reports of crimes/incidents, reported by members of CitiWatch, at the discretion of the Shift Commander.
2. Information provided by active sworn members, who have viewed crimes/incidents at CitiWatch, might constitute probable cause for an arrest.
3. Information provided by personnel other than active sworn members, who have viewed

crimes/incidents at CitiWatch, might constitute reasonable articulable suspicion to justify an investigatory stop of an individual.

- 3.1. Such investigatory stops may lead to an arrest only if:
 - 3.1.1. Observations/Information obtained by officers at the scene of the investigatory stop furnish probable cause; or
 - 3.1.2. An active sworn member views the video footage seen by the CitiWatch personnel, and that footage is sufficient to establish probable cause.
4. For all arrests made utilizing the CCTV system:
 - 4.1. Write on the first line of the narrative before the property listing on the Incident Report (Form 08), Arrest Report (Form 407), and the Statement of Probable Cause in bold capital letters, "ARREST VIA CCTV," when applicable.
 - 4.2. Ensure that a Video Retrieval Request (Form 371) is completed.
 - 4.3. Submit the form to a reviewing entity within 24 hours of the arrest.
 - 4.4. Indicate in the narrative of the Incident Report (Form 08) that CCTV evidentiary footage was requested and the results of the request.
 - 4.5. Attach the goldenrod copy of the Video Retrieval Request (Form 371) to the Incident Report (Form 08).
5. For all other arrests:
 - 5.1. Observe your surroundings and determine whether there are any CCTV cameras in the area of the arrest.
 - 5.2. If necessary, contact a reviewing entity to verify whether there are any CCTV cameras located in the area of the arrest.
 - 5.3. If a CCTV camera(s) is located at or near the area of the arrest:
 - 5.3.1. Ensure that a Video Retrieval Request (Form 371) is completed.
 - 5.3.2. Submit the form to a reviewing entity within 24 hours of the arrest.
 - 5.4. Examine the video footage with the reviewing entity and verify whether the arrest and/or the conduct leading to the arrest was captured.
 - 5.5. Indicate in the narrative of the Incident Report (Form 08) that CCTV evidentiary footage was requested as well as the results of the request.
 - 5.6. Attach the goldenrod copy of the Video Retrieval Request (Form 371) to the Incident Report (Form 08).
6. To review footage of an incident potentially captured by the CCTV system:

- 6.1. Ensure that a Video Retrieval Request (Form 371) is completed.
- 6.2. Submit the form to a reviewing entity.
- 6.3. Examine the video footage with the reviewing entity and verify that the desired incident was captured by the CCTV system.
7. A Supplement Report (Form 07) must be completed when video evidence is obtained post arrest or as part of an on-going investigation.
8. Upon receipt, ensure video footage is submitted to the Evidence Control Unit.
9. If the video footage is for a non-evidentiary purpose or for an internal or confidential investigation, mark the appropriate box at the top of the Video Retrieval Request (Form 371). Ensure the form is authorized by your supervisor.

NOTE: Without a court order, only events within the public view may be monitored. Invasion of privacy is illegal and may be subject to criminal proceedings and disciplinary action.

Supervisor

1. Ensure subordinates adhere to proper procedures when requesting evidentiary video footage.
2. Ensure a copy of the Video Retrieval Request (Form 371) is attached to applicable Incident Reports.
3. Have officers obtain CCTV video, if available, that potentially captures an accident involving a departmental vehicle. Once the footage is retrieved, submit a Video Retrieval Request (Form 371) for the camera that potentially captured the accident. Thereafter, forward the video to the Accident Investigation Unit (AIU).

Shift Commander

Have officers respond to reports of crimes/incidents from CitiWatch personnel, based upon the severity of the reported crime/incident and the availability of shift personnel.

Chief, Legal Affairs Section

Forward all subpoena/Public Information Act requests for video evidence to the Watch Center.

Chief, Homeland Security Division

1. Upon receipt of the Video Retrieval Request (Form 371), ensure the video is transferred to the appropriate media.
 - 1.1. For each Video Retrieval Request (Form 371), except as outlined below, ensure four copies of the video are produced and disseminated in the following manner:
 - 1.2. One copy to the requesting member or the CCTV Liaison for submittal to the Evidence Control Unit.

- 1.3. Two copies to the CCTV Liaison for transmittal to the State's Attorney's Office.
 - 1.4. One copy to be archived in the Watch Center.
2. For internal, confidential or non-evidentiary requests, ensure at least two copies are produced and disseminated in the following manner:
 - 2.1. One copy to the requesting member; and,
 - 2.2. One copy to be archived in the Watch Center.
3. Ensure the appropriate copy of the Video Retrieval Request (Form 371) is attached to each copy of the footage, as indicated on the Video Retrieval Request (Form 371).
4. Maintain a record of each request. The record shall include, but is not limited to:
 - 4.1. The requesting member's name, sequence number, assignment, date, time and location of incident, central complaint number and the name of the Watch Center personnel who transferred the video.
5. Ensure evidentiary video media, not otherwise submitted by officers/detectives, is submitted to the Evidence Control Unit by the CCTV Liaison.

Commanding Officer, Evidence Control Unit

1. Ensure submitted media/videos are safely stored in containers appropriate for the media used.
2. Retain video surveillance footage for the duration of the arrestee's sentence, including any consecutive sentence(s) and/or period of probation.

Commanding Officer, Records Management Section

1. Ensure the appropriate copy of the Video Retrieval Request (Form 371) is archived with a copy of the Incident/Supplement Reports.
2. Return any submitted Incident/Supplement Reports, which indicate evidentiary CCTV footage was requested, but do not have the copy of the Video Retrieval Request (Form 371) attached.

RESCISSION

Remove and destroy/recycle Policy 1014, *Video Surveillance Procedures*, dated 27 March 2015.

COMMUNICATION OF POLICY

This policy is effective on the date listed herein. Each employee is responsible for complying with the contents of this policy.



General Order P-3

Subject AVIATION UNIT		
Distribution "A"	Date Published 26 July 2004	Page 1 of 8

POLICY

It is the policy of the Baltimore Police Department to utilize aircraft to assist (ground) police units with law enforcement functions such as crime prevention, apprehension of suspects, and searches for police units and civilians.

BACKGROUND

The Aviation Unit is under the Command of the Special Operations Section. Any police unit may request an aircraft, such as the helicopter, for assistance via their respective dispatcher, Citywide channel or by telephone to the Communications Section. The aircraft's ability to navigate through the air enables a quick response to a location, and the altitude of the aircraft allows the crew to observe and to cover a very large area. **Safety** is, ultimately, the most important factor when the aircraft is in operation.

The Aviation Unit's aircraft can function and perform a multitude of tasks:

- Force Multiplier - An airborne law enforcement asset, is often referred to as "Force Multiplier." Aboard the aircraft are optical devices and cameras that enable the flight crew to see and record events. The combined team of ground police units and aircraft units increases arrest rates.
- Command and Control - The aircraft's ability to hover over a crowd or civil disorder enables the flight crew to quickly assess the behavior of the crowd; thus, potentially preventing any crowd from becoming a mob.
- Pursuits - High-speed vehicle pursuits are unnecessary when an aircraft is on active patrol. The aircraft's bird's-eye view of the vehicle's location or direction of travel allows ground police units to converge towards the vehicle in a safer manner. This tactic reduces risk to civilians and police units.
- Traffic - During hazardous conditions, fires or major accidents, the aircraft can assist by quickly selecting the best alternative routes for emergency vehicles. The aircraft can also serve to airlift equipment and personnel across blockages.
- Officer Safety - The aircraft's visual vantage point enhances officer safety by being able to "see" around corners and behind fences. The flight crew can also canvass an area and warn officers of any impending danger.
- Search and Rescue - Equipped with searchlights and thermal imaging equipment, the aircraft's search is effective during both day and night operations.

- Surveillance - The aircraft's superior coverage enables the flight crew to locate suspects who may use escape tactics to evade apprehension. At night, the aircraft with FLIR (Forward Looking Infrared) can track suspects in the dark and direct ground police units to intercept them. The aircraft can also assist in the recovery of evidence, if discarded.
- Fire Fighting Support - The aircraft can assist in fire fighting, pinpointing locations of backfires, moving equipments and water sources.
- Community Relations - It is important for the community to understand that the aircraft protects and serves them. The flight crew's involvement in community events establishes a positive persona vital to the Department's and the aircraft's image.

SAFETY PROCEDURES

- The Aviation Unit shall operate all aircraft within certain safety and flight limitations that provide the safest and most efficient service possible to the Baltimore Police Department and the community.
- In addition to the guidelines of this Order, all personnel assigned to the Aviation Unit shall adhere to the applicable Federal Aviation Administration (FAA) regulations, the aircraft's manufacturer procedures and the Aviation Unit's Standard Operating Procedures.
- In accordance with the Aviation Unit's Standard Operating Procedures, all aerial operations shall return to the respective base airport, Headquarters rooftop heliport or the nearest airport or heliport during hazardous weather conditions. Such conditions include, but are not limited to:
 - Visibility is less than three miles.
 - Wind velocity in excess of twenty-five knots.

HELICOPTERS

The helicopters, commonly referred to as "Fox" and "Foxtrot," are available during routine patrol flights for calls for service at the request of police units.

The helicopters may be utilized for selective patrol, special attention areas, overt and covert surveillance, community relations, and educational programs. Requests for these special types of missions shall be made in writing to the Commanding Officer, Aviation Unit. Photographic services are also available, and all such requests shall be made in writing via official channels the Director, Photography Unit.

GENERAL SAFETY RULES

- **NO ONE** is to approach the helicopter unless permission is granted from a crewmember.

- At all times, remain clear of the tail rotor blades.
- All persons shall stay at least **100 feet** away from any turning rotor blades, unless directed by an aircraft crewmember.
 - **Never** approach or depart the helicopter from the rear.
 - Always approach and depart the helicopter in a crouched position from the front of the aircraft.
 - At all times, be conscious of the terrain grade such as when the ground is sloped at an angle higher than the rotor blades.
- Prior to approaching the helicopter, secure hats and any other loose objects that may be blown by the rotor system.
- Do not park any vehicles within 100 feet of the helicopter.
- Smoking is not permitted onboard the helicopter or within 100 feet of the helicopter, whether the aircraft is in operation or not.

EMERGENCY OR PRECAUTIONARY LANDING

Member

- The first law enforcement unit that arrives at the scene of an emergency landing of a helicopter shall provide aid to any injured person.
- Aircraft components should **only** be moved to aid the injured if aircraft components are jeopardizing the welfare of an injured person.
- Preserve the security of the aircraft and treat the landing site as a crime scene.

Crewmember, Aviation Unit

- While the helicopter is in flight, consideration must be given to the possibility of an emergency situation that necessitates landing in an area other than those officially designed as heliports or airports.
- Any unscheduled landing, emergency or precautionary, requires the commencement of specific procedures that delineate the responsibilities of those personnel needed to effectively handle the situation and ensure adherence to all mandated Federal Aviation Administration (FAA) and National Transportation Safety Board (NTSB) regulations.
- Once an emergency landing is imminent, a crewmember shall notify the Communications Section of an emergency or precautionary landing by utilizing the Official Baltimore Police Department Code Signals, Form 123. The crewmember shall broadcast a "10-50" for "helicopter landing" followed by the appropriate status code (Green, Amber or Red) and then give location.

- **GREEN** - Aircraft is making a normal landing at a location other than that authorized in accordance with this Order.
- **AMBER** - Aircraft is making a precautionary landing as a result of a unique condition or minor malfunction.
- **RED** - Aircraft is making an emergency landing that is to result in personal injury and/or substantial aircraft damage/major malfunction.
- When the aircraft has made an unscheduled landing either under a "10-50 Amber" or a "10-50 Red," a crewmember shall provide, if able, the Communications Section with one of the following post-landing status codes:
 - **GREEN** - Aircraft has landed routinely without personal injury or property damage. No further assistance is needed unless specifically requested by any crewmember.
 - **AMBER** - Aircraft has conducted an unscheduled or precautionary landing with no personal injury or property damage.
 - **RED** - Aircraft has conducted an emergency or precautionary landing with personal injury and/or property damage/major malfunction.

NOTE: The loss of voice communications during a "10-50 Amber" or "10-50 Red" shall automatically be construed by the Communication Section to be a "Red" status.

Citywide Dispatcher / Area Dispatcher, Communications Section

- Be mindful when the aircraft is "10-08" or "in service" and advise the aircrew of any calls for service. Assist the aircrew with additional requests for service for the aircrew may be working on a different channel.
- Keep track of any additional requests and dispatch the calls for service accordingly when the aircraft becomes clear.

NOTE: Always be mindful of any "10-50" transmissions from the aircrew.

Emergency Dispatch Supervisor, Communications Section

- In the event of a "10-50" followed by an "Amber" or "Red" status, dispatch the following units to the scene:
 - Emergency Services Unit (ESU) and any available units from the Special Operation Section.
 - Additional patrol units, as needed, to properly secure the scene.
 - Accident Investigation Unit (AIU) to investigate and document the incident.
- In the event of a "10-50" landing with "Amber" or "Red" status, make the following notifications:
 - Police Commissioner.
 - Deputy Police Commissioner.

- Chief, Patrol Division.
 - Duty Officer.
 - Commanding Officer, Special Operations Section.
 - Commanding Officer, Aviation Unit.
 - Flight Operations Supervisor, Aviation Unit.
 - Director, Public Affairs Section.
 - Any other applicable Law Enforcement or Public Safety Agency if landing occurs outside city limits.
- Notify Citywide Dispatcher to alert the helicopter of any sniper situations (from the Official Baltimore Police Department Code Signal "10-91").
 - In the event of a Hazardous Material (HAZMAT) incident, immediately notify any departmental aircrew. Personnel at the Aviation Unit must also be notified so appropriate safeguards can be taken.

AVIATION UNIT PERSONNEL - GENERAL RESPONSIBILITIES

Flight Officers

- The pilots of the Aviation Unit are employed primarily for their expertise as professional aircraft pilots, and are designated as Flight Officers by the Police Commissioner. Their primary responsibility is the safe and effective operation of departmental aircrafts.
- To qualify for helicopter Flight Officer status all candidates must meet the basic requirements for entry-level police officer and must possess a Commercial/Instrument Pilot Certificate with rotor craft-helicopter rating. Minimum flight time of 1,400 hours in helicopters, 800 hours pilot-in-command, 700 hours in a turbine helicopter and a current Class II-FAA Medical Certificate are also required.

Aerial Observers

- Are Police Officers/Agents who function primarily as mission coordinators. It is their responsibility to safely control all law enforcement aspects of the patrol flight in such a way that flight safety is not compromised.
- Selection for the position of Aerial Observer shall be Police Officer/Agent who possesses a minimum of three years of police experience. Aerial Observers are to serve a probationary period of ninety days, during which time the Aerial Observer may be deemed as "Not Suitable" for the position and removed from the Aviation Unit. Applicants for the Aerial Observer must also meet the standards of an FAA - Class II Flight Physical.

Standardization Instructor (SI) / Check Pilot

- Shall supervise aircrew standardization and training, serve as the Unit's primary evaluator and training manager, and be responsible for the administration of the Aircrew Training Program.

- Identify training requirements and request resources based on mission, operational standards and proficiency, ensuring compliance with Federal, State and local requirements.
- Plan and conduct training inspections and compile records documenting mandatory requirements.

Technical Advisor

- Shall be designated by the Police Commissioner, and shall serve in this capacity until such designation is revoked. Selection shall be based upon comprehensive knowledge of aviation activities and experience in flight operations including qualification as an operational aviator.

Operations Supervisors

- Primarily responsible for the supervision of the flight crew and unit's daily operations. Also, the Operations Supervisors shall coordinate special operational missions with other departmental units as well as other law enforcement agencies (for example: photographic flights, sensitive investigations and surveillance flights).
- The Operations Supervisors have the additional responsibility of training all Aerial Observers and their periodic recurrence training. Other responsibilities of the Operations Supervisors include, but are not limited to, preparing daily flight schedules and conducting preflight briefings.

Headquarters and Services Supervisor

- Primarily responsible for the supervision of administrative and unit facility duties. These responsibilities include the coordination of all departmental required training and the daily administrative functions as deemed by the Commanding Officer, Aviation Unit.
- Additionally, the Headquarters and Services Supervisor shall manage and review all statistical data, tracking and inspection of issued departmental flight equipment and the supervision of maintenance for both the unit hangar and the heliport at the Headquarters building.
- The Headquarters and Services Supervisor is also to act as the liaison to the Baltimore City Department of Safety, Maryland Occupational Safety and Health Administration (MOSHA) and Occupational Safety and Health Administration (OSHA) to ensure the Aviation Unit's compliance with standards and requirements.

Commanding Officer

- Be responsible for the monitoring of any fiscal matters and ensuring budgetary compliance pertaining to the Aviation Unit.
- Shall serve as the Aviation Unit's director of maintenance.

- Oversee the operational and administrative aspects of the Aviation Unit. These include, but are not limited to, ensuring the coordination of all flight activities, schedules, training and safety standards.
- Ensure members comply with all Federal, State and local laws, Departmental General Orders and Standard Operating Procedures as they pertain to the Aviation Unit.
- Coordinate all flight activities, schedules, training of flight officers and reporting as required.
- Publish a Divisional Memorandum detailing the Standard Operating Procedures for the Aviation Unit.
 - The Standard Operating Procedure will serve as an Annex to this General Order and distributed to authorized personnel as determined by the Division Chief.
 - Be responsible for reviewing the Standard Operating Procedure on an annual basis, at the minimum, to ensure that the protocols contained therein are in keeping with current mandates and requirements.
 - Ensure members of the Aviation Unit are held responsible for the proper performance of their duties in keeping with this Order and all applicable Standard Operating Procedures. (Any violation of this Order or the Aviation Unit's Standard Operating Procedures may result in disciplinary action to include that member's removal from the Aviation Unit.)

EMERGENCY RESPONSE - HOMELAND SECURITY

It is the intent of the Aviation Unit to provide support services during any emergency incident. The Aviation Unit conducts random patrols of sensitive areas designated by the Commanding Officer, Special Operations Section, as Homeland Security targets, such as hospitals, watersheds, and marine ports.

Shift Commander, Communications Section

- In the event that an incident occurs that may be vital to Homeland Security or be deemed an incident of mass destruction, immediately notify the Commanding Officer, Aviation Unit.

Commanding Officer, Aviation Unit

- Ensure that the Operations Supervisors and the Headquarters and Services Supervisor are notified and prepared for duty.

RECISION

Remove and destroy/recycle General Order P-3, "Helicopter Unit," dated 23 September 1977.

COMMUNICATION OF POLICY

Supervisors shall be responsible for communication of this directive to their subordinates and to ensure compliance. This directive is effective on the date of publication and is to be read at all roll calls for five consecutive days and posted on Departmental Bulletin Boards.

By Order of Kevin P. Clark Police Commissioner



Baltimore Community Support Program Wide-area Imagery System PRIVACY PROTECTION POLICY

The PSS Community Support Program utilizes a Wide-Area Imagery System for the purpose of supporting community organizations including law enforcement in creating a safer environment for all those who live, work, and visit the supported city. This policy explains the purpose of the acceptable use of this technology and provides guidelines for acceptable use, operation, analysis, and for the storage of captured images.

DEFINITIONS

Wide-Area Imagery Systems - Wide-Area Imagery System Sensors are an optical camera assembly that can provide continuous, second-by-second pseudo-video monitoring of a city-sized area via a manned small fixed wing aircraft platform.

Part I Crimes - The Federal Bureau of Investigation (FBI) designates certain crimes as Part I or index offenses because it considers them to be the major crimes plaguing society in the United States: Murder, Rape, Robbery, Aggravated assault, Burglary, Larceny-theft, Motor vehicle theft, and Arson.

Major Events - For the purposes of this operating policy, major events will be interpreted as any event where a large gathering of individuals may congregate and there is suspected illegal and/or dangerous activity.

Weather Emergencies - Large scale damage or power outages due to weather related events.

Natural Disaster Response - Coordination of emergency services to aid the populace in the event of a natural disaster.

Large Scale Disturbances - Rioting, civil unrest, violent strikes, etc.

Illegal Dumping - Large scale disposal of waste in public right-of-way.

I. Purpose

PSS Wide-Area Imagery System (WAIS) can be used for general deterrence of targeted crimes; disrupting identified crime patterns; safeguarding against potential threats to the public; management of emergency response situations during natural and man-made disasters; and other uses of similar nature.

II. Wide-Area Imagery Systems

The wide-area imagery system will only be utilized to view areas within the public right-of-way and/or public view. The current system has the ability to operate uninterrupted for four to five hours without the aircraft having to land for fuel. The sensor technology on the airplane has the capability of viewing up to a 25 square mile radius depending upon the altitude of the aircraft. The images captured by the sensor technology have the ability to be viewed nearly in real-time leveraging a secure data down-link system. While images cannot identify specific persons, they can provide significant leads to investigators (See Appendix B).

III. Acceptable Uses of PSS WAIS Imagery and Analysis

The Community Support Program is used to support a wide range of activities. Below are some examples of acceptable uses of the wide area imagery collected as part of the Community Support Program effort.

- To support the investigation of reported Part I & II Crimes (murder, rape, robbery, aggravated assault, burglary, larceny-theft, motor vehicle theft, and arson.)
- To support the investigation of drug related manufacturing and distribution related crimes,

- To support investigation of significant community and victim reported crimes,
- To support the management and execution of major events,
- To assist civil authorities during weather emergencies or natural disaster response,
- To support civil organization during large scale disturbances,
- To support approved law enforcement tactical operations,
- To assist in the investigation of illegal dumping.

During active WAIS operations dispatch information, to include citizen generated calls for service, will be monitored and evaluated to see if the use of this technology would assist in the apprehension or case solvability of an active incident.

IV. Prohibited Activity

The use of WAIS will be conducted in a professional, ethical and legal manner. WAIS will not be used to invade the privacy of individuals, to look into private areas or areas where the reasonable expectation of privacy exists. All reasonable efforts will be taken to protect these rights. WAIS technology shall not be used to track individuals arbitrarily or based on race, gender, ethnicity, sexual orientation, disability or other classifications protected by law.

V. Training

Personnel involved directly with the use of WAIS technology shall be appropriately trained and supervised. Training shall include the review of this policy.

VI. Media Storage

All media will be stored in a secure area with access restricted to authorized persons. Recordings not otherwise needed for criminal evidence or for official reasons are retained for a period of 45 days and then destroyed.

VII. Review and Release of Video Images and related Data

The review or the release of video images and analytical data (to non-law enforcement personnel) shall be done only with the authorization of the Director and Chief of Police or their designee and only with an approved public records request. Any recordings or analytical data needed for a criminal investigation or other official reason shall be collected and stored in an appropriate and secure manner and submitted into evidence in accordance with customer determined evidence procedures. An audit trail shall be maintained to record all access to the video images and analytical data and may be used to detect inappropriate or unauthorized use.

VIII. Policy Violations

Unauthorized access to the WAIS recorded imagery, misuse of the imagery, unauthorized reproduction of the imagery, or unauthorized distribution of imagery will result in an Administrative Investigation. The Director and Chief of Police or their designee shall authorize access to the system.

Signature By signing below, you acknowledge receipt of the policies as listed above. You further acknowledge that you have read, understand, and accept each policy in its entirety. You also acknowledge that you will abide by the policies detailed above have and will report any violations to the policy.

This Signature Authorization Form will become part of your employee record.

_____/_____/____ Signature Date

____ Printed name



MEMORANDUM OF LAW IN SUPPORT OF CONSTITUTIONALITY OF WIDE AIRBORNE SURVEILLANCE

This case involves photographs taken from a manned aircraft flying within publicly navigable airspace. The photographic surveillance is being utilized by law enforcement in support of a warrant. The photographic surveillance does not constitute a search or violate the Fourth Amendment of the Constitution under United States Supreme Court precedent.

The United States Supreme Court has developed a “relatively straightforward” test for determining what expectations of privacy are protected by the Fourth Amendment. *United States v. Karo*, 468 U.S. 705, 730 (1984). “What a person knowingly exposes to the public, even in his own home or office, is not a subject of Fourth Amendment protection.” *United States v. Karo*, 468 U.S. 705, 730 (1984) (quoting *Katz v. United States*, 389 U.S. 347, 351 (1967)). Under the familiar *Katz* test, the defendant’s ability to challenge a search turns on two inquiries: (1) whether he had an actual, subjective expectation of privacy in the premises searched; and (2) whether this subjective expectation is one that society is prepared to recognize as reasonable. *Katz*, 389 U.S. at 361 (Harlan, J., concurring). “The touchstone of search and seizure analysis is whether a person has a constitutionally recognized expectation of privacy.” *California v. Ciraolo*, 476 U.S. 207, 211 (1986).

In *California v. Ciraolo*, the Supreme Court considered whether a naked eye aerial observation of the defendant’s backyard was a Fourth Amendment violation. The police had received an anonymous tip that defendant was growing marijuana in his backyard, but the police were unable to confirm this tip from driving by his residence. *Ciraolo*, 476 U.S. at 209. The officers secured a private plane and flew over the area at 1,000 feet within navigable airspace. From that height the officers, who were trained in marijuana identification, could readily identify marijuana growing in the yard. *Id.* They subsequently secured a warrant and seized marijuana plants. *Id.*

There was no dispute that the defendant had manifested a subjective intent to maintain the privacy of his backyard from any street-level views because the defendant erected a 6-foot outer fence and a 10 foot inner fence completely enclosing his yard. *Id.* at 209, 211. Thus, the case turned on whether or not society was prepared to recognize this expectation as reasonable. The Court concluded that the intrusion was not unconstitutional:

The observations by [the officers] in this case took place within **public navigable airspace . . . in a physically nonintrusive manner**; from this point they were able to observe plants readily discernible to the naked eye as marijuana. That the observations from aircraft were directed at identifying the plants and the officers were trained to recognize marijuana is irrelevant. Such observation is precisely what a judicial officer needs to provide a basis for a warrant. **Any member of the public flying in this airspace who glanced down could have seen everything that these officers observed.** On this record, we readily conclude that respondent’s expectation that his garden was protected from such observation is unreasonable and is not an expectation that society is prepared to honor.

Id. at 213-14 (emphasis added).

Further, “[i]n an age where private and commercial flight in the public airways is routine, it is unreasonable for respondent to expect that his marijuana plants were constitutionally protected from being observed with the naked eye from an altitude of 1,000 feet.” *Id.* at 215. “The Fourth Amendment simply does not require the police traveling in the public airways at this altitude to obtain a warrant to order to observe what is visible to the naked eye.”

The same conclusion was reached in *Dow Chemical Co. v. United States*, 476 U.S. 227 (1986). In that case, the EPA contracted with a commercial aerial photographer to provide images of the Dow Chemical manufacturing facility from altitudes of 1200, 3000, and 12,000 feet. *Id.* at 229. Dow Chemical filed suit, alleging the surveillance amounted to a search in violation of the Fourth Amendment. The district court found in favor of Dow Chemical, but the Sixth Circuit disagreed, concluding the aerial images did not constitute a Fourth Amendment search. *Id.* at 230.

The United States Supreme Court accepted certiorari, and affirmed the Sixth Circuit’s decision. *Id.* at 239. The Court held that “the taking of aerial photographs of an industrial plant complex from navigable airspace is not a search prohibited by the Fourth Amendment.” *Id.* In so holding, the Court reasoned, “any person with an airplane and an aerial camera could readily duplicate” the photographs at issue. *Id.* at 231.

Three years later, the Court decided *Florida v. Riley*, 488 U.S. 445 (1989). In *Riley*, the sheriff’s office received an anonymous tip that marijuana was being grown on the respondent’s property. The respondent lived in a mobile home on five acres of rural property. *Id.* at 448. A greenhouse was located ten to twenty feet behind the home and two sides of it were enclosed. The other two sides were not enclosed but were obscured from view by surrounding trees and shrubs. The roof of the greenhouse was covered with corrugated panels, some of which were translucent and some which were opaque. Two of these panels, comprising approximately ten percent of the roof were missing.

The respondent had a wire fence enclosing his property with a “DO NOT ENTER” sign posted. *Id.* The investigating officer realized he could not confirm the anonymous tip from the road and twice circled the property in a helicopter at the height of 400 feet. *Id.* With his naked eye, he was able to see through the openings in the greenhouse and observe what he thought was marijuana growing inside. He sought and procured a search warrant based on these observations and marijuana plants were seized. *Id.* at 449.

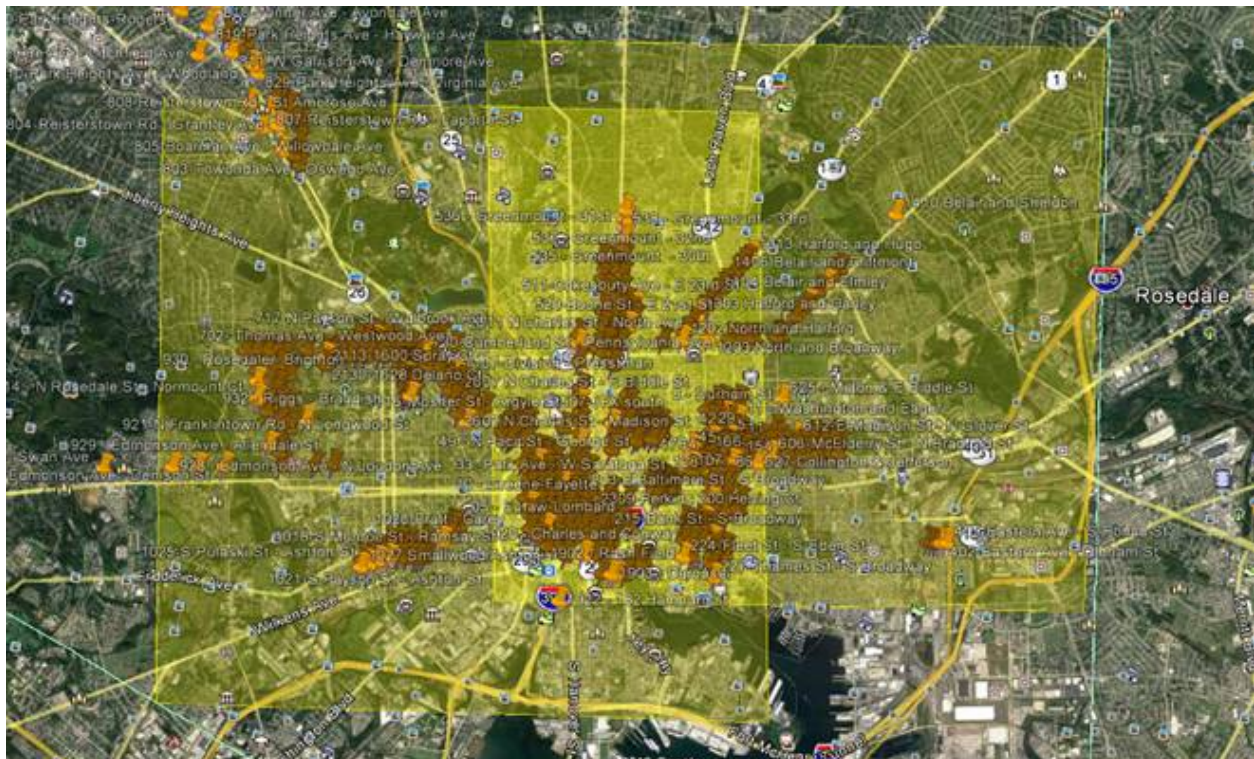
The Court found that respondent’s actions evinced his intent that his property would not be open to public inspection from the road. However, because the greenhouse roof was partially exposed, its contents were subject to aerial viewing. *Id.* at 450. Thus, under *Ciraolo*, the respondents “could not reasonably have expected the contents of his greenhouse to be immune from examination by an officer seated in a fixed-wing aircraft flying in navigable airspace at an altitude of 1,000 feet or, as the Florida Supreme Court seemed to recognize, at an altitude of 500 feet, the lower limit of the navigable airspace for such an aircraft.” *Id.* The fact that the helicopter was flying at 400 feet did not change the analysis because “helicopters are not bound by the lower limits of the navigable airspace allowed to other craft” and any member of the public could have legally flown over the property at that altitude and observed the marijuana. *Id.* at 451. Moreover, there was no indication that “intimate details” of respondent’s property or curtilage were observed or that there was “undue” noise, dust, or threat of injury. *Id.* at 452.

Here, like in *Ciraolo*, *Dow Chemical*, and *Riley*, the photographs taken from a manned aircraft flying within publicly navigable airspace do not constitute a search, and do not run afoul of the Constitution. Particularly, the photographs were obtained by wide area airborne surveillance by manned aircraft operating in publicly navigable airspace at 3,000 to 12,000 feet altitude. The cameras are available to, and routinely used by members of the public. The cameras capture images visible to the naked eye. No infrared, telephoto, or zoom lenses are utilized. The photographs do not reveal intimate details of private life. Thus, in utilizing the photographs, law enforcement did not violate any reasonable expectations of privacy. They are simply observing what can be seen from public space. Like in *Ciraolo*, *Dow Chemical*, and *Riley*, the photographic surveillance is constitutionally permissible.

BCSP Flight Orbit Areas

Western Orbit – Covers the Western, Central, Police Districts in their entirety and portions of the South, Southwestern, Northwestern, North, and North Eastern and Eastern Districts.

Eastern Orbit – Covers the Central and Eastern Districts in their entirety, and covered major portions of the Southeastern, Northeastern, North and Northwestern Police Districts.



Map of the flight orbit areas over Baltimore.

POLICE DEPARTMENT
BALTIMORE, MARYLAND

VIDEO RETRIEVAL REQUEST

CAMERA DATA

OF COPIES

Camera Type ☐ BWC ☐ CCTV ☐ Other:	
Camera Location or Camera Number (N/A for BWC)	

INCIDENT DATA

Date	Time Frame (Indicate AM / PM or use Military Time) From: To:	CC #
Street Address / Location		
Type of Incident		
Additional Cameras and Time Frames:		
Additional Comments:		

REQUESTING MEMBER

ARREST MADE: (Check One) YES ☐ NO ☐		Check any boxes below if applicable NON - EVIDENTIARY ☐ INTERNAL ☐ CONFIDENTIAL ☐			
Name (Print Last, First, MI)	Signature	Sequence #	Rank	Assignment	

WATCHCENTER / BWC PERSONNEL

Name (Print Last, First, MI)	Signature	Sequence #	Date	Time
------------------------------	-----------	------------	------	------

REQUESTING MEMBER'S ACKNOWLEDGEMENT OF RECEIPT

Name (Print Last, First, MI)	Signature	Sequence #	Date	Time
------------------------------	-----------	------------	------	------

White - Requesting Member

Canary - Watch Center

Pink - CCTV/ BWC Unit

Goldenrod - Central Records Section

BCSP Sample Support Briefing



Exercise Simulated Shooting

3117 W North Ave
9/07/2016 13:17:07
CFS# 1625114XX
Incident # 16I029XX



Exercise Scenario 3 Investigation Summary



- A CFS report indicated a shooting along the 3100 block of W North Ave.
- Analysts identified several cars that were near the location at the time of the incident.
- Two cars were identified based on witness reports of vehicles involved.
- Suspect Vehicle 1 appears to be a white Ford Excursion. Suspect Vehicle 2 appears to be a grey 2012 Ford Focus.
- Both cars were observed to and from the Riggs Ave Address both before and after the simulated shooting.
- Car 1 stops at the Payson location for 30 seconds to retrieve something from the woods.
- Ground cameras were used to identify and verify routes.



Calls for Service on the Event

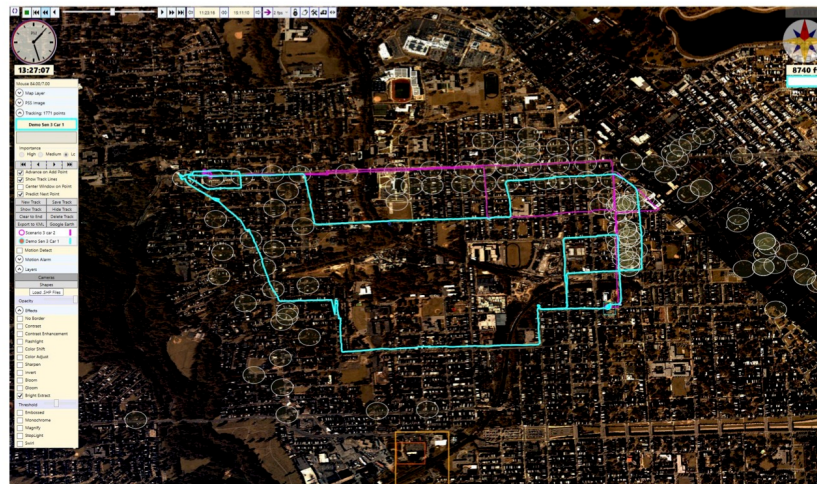


Inci XX ort

CFS#	162511421	TimeReceived	9/07/2016 1:20:23 PM
Inv#		TimeArrived	9/07/2016 1:23:42 PM
Incident Type	4A AGG ASSAULT - C	Priority	1
Disposition		<button>Make Track</button>	
Address	3100 BLOCK W NORTH AVE.		
Remarks	Age unknown, Male, Consciousness unknown, Breathing status unknown. Caller Statement: shooting		



Observed Routes







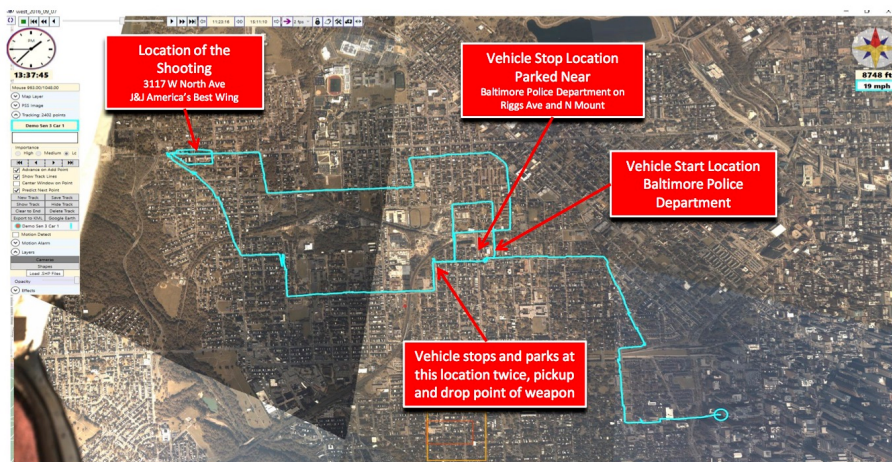
9/7/2016

Baltimore Police Department on Riggs Ave

SUSPECT VEHICLE 1



Suspect Vehicle 1 Route





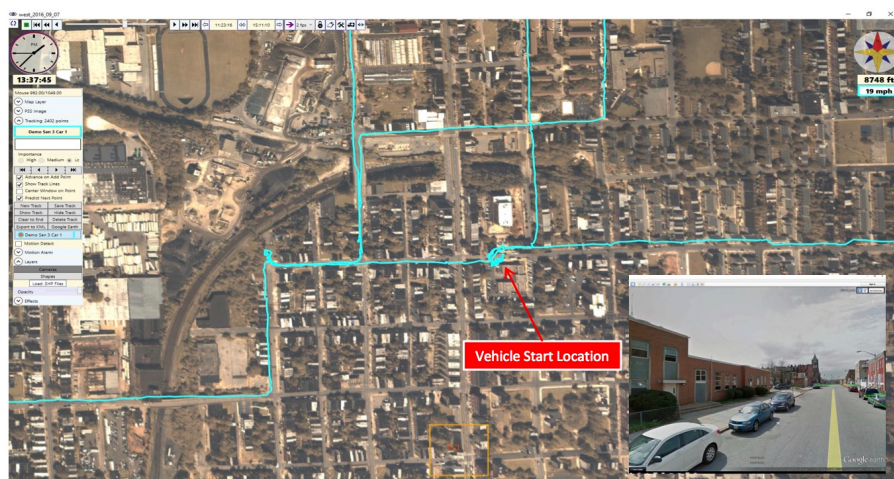
Suspect Vehicle 1 Route Report



Time	Comment		
12:57:04	[First]	13:17:07	Pulls over and stops for 12 seconds and shooting occurs
13:02:33	Leaves Police Station on Riggs Ave	13:17:18	Departs scene outside of J&J America's Best Wing
13:02:45	Turns left on N Mount St.	13:17:38	GC 904
13:03:20	GC 2129	13:17:51	GC 905
13:03:23	GC 2128 verified	13:17:54	Turns right on North Dukeland St.
13:03:37	GC 2120		
13:03:38	Turns left on Presstman St.	13:18:41	Turns left on Baker St.
13:04:55	Turns left on N. Mount St.	13:20:36	Turns left on N Pulaski St.
13:05:57	Turns right on Riggs Ave	13:21:02	GC 711
13:06:11	Turns right into dead end	13:21:03	Turns right on Westwood Ave.
13:06:23	Reverses and parks for 37 seconds	13:21:23	GC 719
13:07:03	Travels South on N Payson St.	13:21:31	GC 720 verified
13:07:31	Turns right on W Lafayette St.	13:21:55	GC 723
13:10:04	Turns right on Ashburton St.	13:22:29	GC 726
13:11:15	Turns left on Winchester St.	13:22:33	Turns right on North Calhoun St.
13:11:49	Turns right on Bloomingdale St.	13:22:45	GC 729
13:11:58	GC 916 verified	13:22:46	Turns right on North Gilmor St.
13:12:10	GC 913 verified passing bus 09086	13:23:18	GC 2118 verified
13:12:34	GC 911 verified	13:23:38	GC 2131
13:14:13	GC 901	13:23:58	Turns right on Laurens St.
13:15:13	Turns right on West North Ave.	13:24:52	Turns left on North Monroe St.
13:15:26	GC 902	13:25:13	Turns right on Riggs Ave.
13:15:37	GC 903	13:25:29	Car turns right into dead end
13:15:38	Turns right on N Longwood St.	13:25:34	Makes U turn and stops for 30 sec
13:15:51	Turns right on Westwood Ave. circling around the block	13:25:57	Passenger gets out of vehicle and ditches the gun
13:16:23	Turns right on Bloomingdale Rd.	13:26:12	Departs Payson Location
13:16:55	GC 901 verified	13:26:17	Turns left heading East on Riggs Ave.
13:16:56	Turns right on West North Ave.	13:27:04	Car stops at Riggs Location
		13:27:06	Parks on South side of street North of Police station



Suspect Vehicle 1 Start Location Baltimore Police Department - Western District at 13:02:33 Parked on Riggs Ave

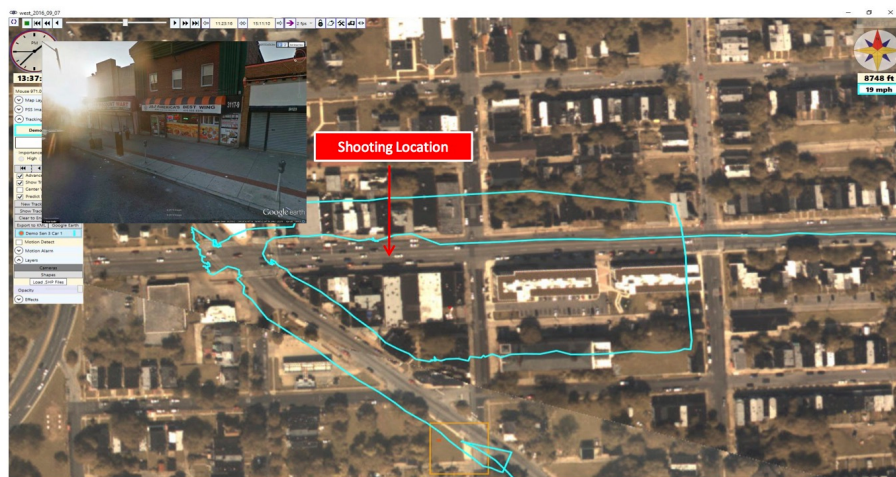




Suspect Vehicle 1 Stop Location
Dead end on N Payson
Vehicle picked up gun at 13:06:23 and dumped it at 13:25:57



Suspect Vehicle 1 Shooting Location
3117 W North Ave at 13:17:07
Outside of J&J America's Best Wing

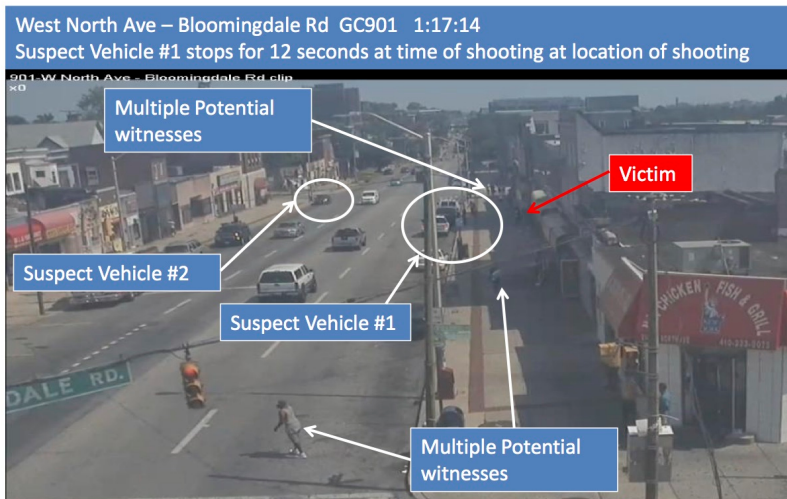




Suspect Vehicle 1 Ending Location Baltimore Police Department - Western District at 13:27:06 Parked on Riggs Ave and walks inside of BPD WD



Suspect Vehicle 1 and Suspect Vehicle 2 Ground Camera 901 During Event





Suspect Vehicle 1 Ground Camera 902 During Event

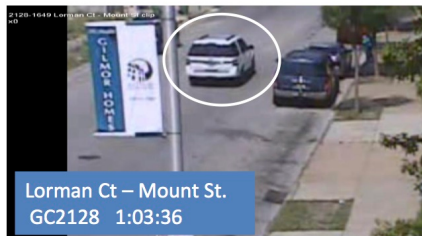


West North Ave – Bloomingdale Rd GC902 1:17:14

Suspect Vehicle #1 stops for 12 seconds at time of shooting at location of shooting



Suspect Vehicle 1 in Ground Cameras



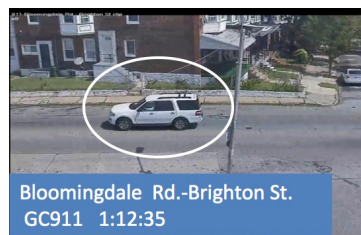
Lorman Ct – Mount St.
GC2128 1:03:36



Bloomingdale Rd.- Belmont Ave.
GC913 1:12:03 passing Bus 09089



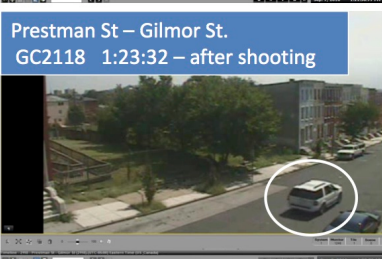
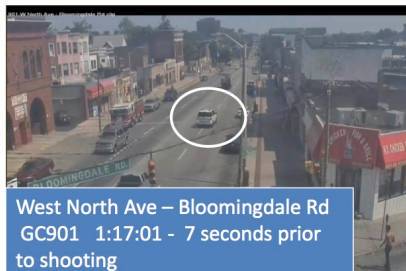
Bloomingdale Rd.-Ellicott Drive
GC916 1:11:55



Bloomingdale Rd.-Brighton St.
GC911 1:12:35



Suspect Vehicle 1 in Ground Cameras



9/7/2016

Baltimore Police Department on Riggs Ave

SUSPECT VEHICLE 2



Suspect Vehicle 2 Route



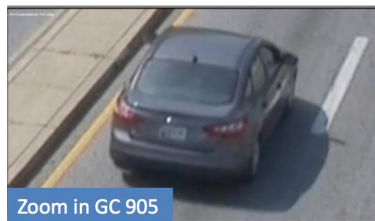
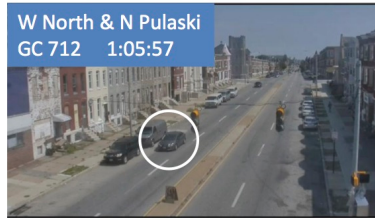
Suspect Vehicle 2 Route Report



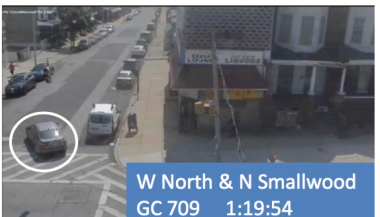
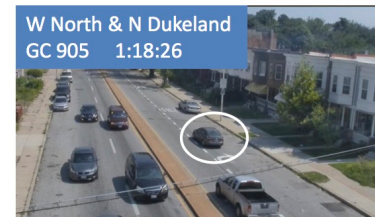
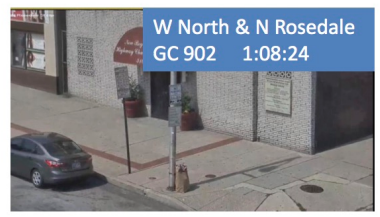
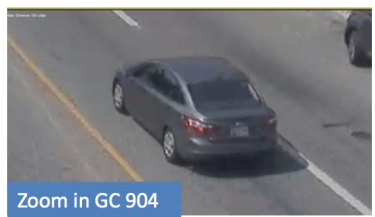
Time	Comment		
13:00:23	[First] Start Track	13:15:51	Bus passes on left
13:01:30	Car parked on Riggs	13:17:23	Car departs after 9:26 following car 1
13:02:17	Car reverses and departs from spot on Riggs	13:17:25	Car Makes U Turn and Follows Car 1
13:02:25	Car Departs Riggs Location	13:17:27	GC 902
13:02:37	Turns North on Mount Street	13:17:33	GC 903
13:04:11	GC 726	13:17:40	GC 904
13:04:41	Turns West on North Ave	13:17:48	GC 905 Verified
13:04:58	GC 724	13:18:36	GC 906
13:05:29	GC 721	13:18:50	GC 703
13:05:39	GC 715	13:19:23	GC 706
13:05:47	GC 712 Verified	13:19:34	GC 737
13:05:56	GC 709	13:19:40	GC 709 Verified
13:06:04	GC 737	13:19:44	Turns right onto N Smallwood
13:06:20	GC 706	13:19:51	GC 708 Verified
13:06:31	GC 703	13:20:29	Turns left on Baker
13:06:52	GC 906	13:22:36	Turns left onto N Mount
13:07:11	GC 905 Verified	13:23:06	GC 726 Verified
13:07:20	GC 904 Verified	13:23:08	Turns right onto N Calhoun
13:07:30	GC 903	13:23:17	GC 729
13:07:40	GC 902 Verified	13:23:48	Turns right onto Baker
13:07:52	Car stops on corner of W North and N Rosedale	13:24:19	Turns left onto N Mount
13:07:57	Stops at 3110 North Ave	13:25:32	Turns right onto Riggs
13:11:12	Bus 2 Passes Car	13:25:45	Parks on Riggs
		13:27:06	[Last] End Track



Suspect Vehicle 2 in Ground Cameras



Suspect Vehicle 2 in Ground Cameras





Suspect Vehicle 2 in Ground Cameras

