

No. 20-1495

**UNITED STATES COURT OF APPEALS
FOR THE FOURTH CIRCUIT**

LEADERS OF A BEAUTIFUL STRUGGLE, *et al.*,

Plaintiffs–Appellants,

v.

BALTIMORE POLICE DEPARTMENT, *et al.*,

Defendants–Appellees.

**On Appeal from the United States District
Court for the District of Maryland at Baltimore**

JOINT APPENDIX

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Alexia Ramirez
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Leaders of a Beautiful Struggle, et al. v. Baltimore Police Department, et al.

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**U.S. District Court
District of Maryland (Baltimore)
CIVIL DOCKET FOR CASE #: 1:20-cv-00929-RDB**

Leaders of a Beautiful Struggle et al v. Baltimore Police
Department et al
Assigned to: Judge Richard D. Bennett
Case in other court: Fourth Circuit Court of Appeals,
20-01495

Date Filed: 04/09/2020
Jury Demand: None
Nature of Suit: 440 Civil Rights: Other
Jurisdiction: Federal Question

Cause: 28:1331 Violation of Constitutional Rights

Plaintiff

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Leaders of a Beautiful Struggle

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Kevin James
Kevin James

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V.

Defendant

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Baltimore Police Department

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Defendant

Michael S Harrison
Michael S. Harrison, in his official
capacity as Baltimore Police
Commissioner

represented by **Dana Petersen Moore**
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LEAD ATTORNEY

Elisabeth Walden
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ATTORNEY TO BE NOTICED

Date Filed	#	Docket Text
04/09/2020	<u>1</u>	COMPLAINT against All Defendants (Filing fee \$ 400 receipt number 0416-8606257.), filed by Leaders of a Beautiful Struggle, Kevin James, Erricka Bridgeford. (Attachments: # <u>1</u> Civil Cover Sheet, # <u>2</u> Summons, # <u>3</u> Summons)(Rocah, David) (Entered: 04/09/2020)
04/09/2020	<u>2</u>	MOTION for Temporary Restraining Order & <i>Preliminary Injunction</i> by Erricka Bridgeford, Kevin James, Leaders of a Beautiful Struggle (Attachments: # <u>1</u> Memorandum in Support)(Rocah, David) (Entered: 04/09/2020)
04/09/2020	<u>3</u>	AFFIDAVIT re <u>2</u> MOTION for Temporary Restraining Order & <i>Preliminary Injunction of Alexia Ramirez</i> by Erricka Bridgeford, Kevin James, Leaders of a Beautiful Struggle (Attachments: # <u>1</u> Exhibit (A) BPD Presentation, # <u>2</u> Exhibit (B) BPD/PSS Contract, # <u>3</u> Exhibit (C-1) PSS Hawkeye II Web Pages Part 1 of 2, # <u>4</u> Exhibit (C-2) PSS Hawkeye II Web Pages Part 2 of 2, # <u>5</u> Exhibit (D) Unique in the Crowd Study, # <u>6</u> Exhibit (E) PSS Nighthawk II Web Page)(Rocah, David) (Entered: 04/09/2020)
04/09/2020	<u>4</u>	AFFIDAVIT re <u>2</u> MOTION for Temporary Restraining Order & <i>Preliminary Injunction of Dayvon Love, Leaders of a Beautiful Struggle</i> by Erricka Bridgeford, Kevin James, Leaders of a Beautiful Struggle(Rocah, David) (Entered: 04/09/2020)
04/09/2020	<u>5</u>	AFFIDAVIT re <u>2</u> MOTION for Temporary Restraining Order & <i>Preliminary Injunction of Erricka Bridgeford</i> by Erricka Bridgeford, Kevin James, Leaders of a Beautiful Struggle(Rocah, David) (Entered: 04/09/2020)

04/09/2020	<u>6</u>	AFFIDAVIT re <u>2</u> MOTION for Temporary Restraining Order & <i>Preliminary Injunction of Kevin James</i> by Erricka Bridgeford, Kevin James, Leaders of a Beautiful Struggle(Rocah, David) (Entered: 04/09/2020)
04/09/2020	<u>7</u>	NOTICE by Erricka Bridgeford, Kevin James, Leaders of a Beautiful Struggle re <u>2</u> MOTION for Temporary Restraining Order & <i>Preliminary Injunction of Proposed Order Granting TRO</i> (Rocah, David) (Entered: 04/09/2020)
04/09/2020	<u>8</u>	NOTICE by Erricka Bridgeford, Kevin James, Leaders of a Beautiful Struggle re <u>2</u> MOTION for Temporary Restraining Order & <i>Preliminary Injunction of Proposed Order Granting Preliminary Injunction</i> (Rocah, David) (Entered: 04/09/2020)
04/09/2020	<u>9</u>	MOTION To Omit Home Address From Caption by Kevin James (Attachments: # <u>1</u> Memorandum in Support, # <u>2</u> Text of Proposed Order)(Rocah, David) (Entered: 04/09/2020)
04/09/2020	<u>10</u>	MOTION to Appear Pro Hac Vice for Brett Max Kaufman (Filing fee \$100, receipt number 0416-8606411.) by Erricka Bridgeford, Kevin James, Leaders of a Beautiful Struggle(Rocah, David) (Entered: 04/09/2020)
04/09/2020	<u>11</u>	MOTION to Appear Pro Hac Vice for Ashley Gorski (Filing fee \$100, receipt number 0416-8606437.) by Erricka Bridgeford, Kevin James, Leaders of a Beautiful Struggle(Rocah, David) (Entered: 04/09/2020)
04/09/2020	<u>12</u>	MOTION to Appear Pro Hac Vice for Alexia Ramirez (Filing fee \$100, receipt number 0416-8606444.) by Erricka Bridgeford, Kevin James, Leaders of a Beautiful Struggle(Rocah, David) (Entered: 04/09/2020)
04/09/2020	<u>13</u>	MOTION to Appear Pro Hac Vice for Nathan Freed Wessler (Filing fee \$100, receipt number 0416-8606446.) by Erricka Bridgeford, Kevin James, Leaders of a Beautiful Struggle(Rocah, David) (Entered: 04/09/2020)
04/09/2020	<u>14</u>	MOTION to Appear Pro Hac Vice for Ben Wizner (Filing fee \$100, receipt number 0416-8606459.) by Erricka Bridgeford, Kevin James, Leaders of a Beautiful Struggle(Rocah, David) (Entered: 04/09/2020)
04/09/2020		Telephone conference with all parties re: status held on 4/9/2020 before Judge Richard D. Bennett. (NOT on the record) (krs, Deputy Clerk) (Entered: 04/09/2020)
04/09/2020	<u>15</u>	ORDER directing the Defendants to respond to Plaintiffs' Motion by 4/15/2020 at 4:00 p.m. and Plaintiffs shall file reply by 4/17/2020 at 4:00 p.m. The Court will conduct a Preliminary Injunction Hearing on 4/21/2020 at 11:00 a.m. and issue a decision on the Plaintiffs' Motion by 4/24/2020 at 5:00 p.m. Signed by Judge Richard D. Bennett on 4/9/2020. (krs, Deputy Clerk) (Entered: 04/09/2020)
04/09/2020	<u>16</u>	ORDER granting <u>9</u> Motion for Permission to Omit Home Address from Caption; granting <u>10</u> , <u>11</u> , <u>12</u> , <u>13</u> , and <u>14</u> Motions for Admission Pro Hac Vice. Signed by Judge Richard D. Bennett on 4/9/2020. (cc Attorney Admissions 4/9/2020) (krs, Deputy Clerk) (Entered: 04/09/2020)
04/09/2020	<u>17</u>	NOTICE of Appearance by Dana Petersen Moore on behalf of Baltimore Police Department, Michael S Harrison (Moore, Dana) (Entered: 04/09/2020)
04/09/2020	<u>18</u>	NOTICE of Appearance by Elisabeth Walden on behalf of Baltimore Police Department, Michael S Harrison (Walden, Elisabeth) (Entered: 04/09/2020)
04/10/2020		Deficiency Notice as to Leaders of a Beautiful Struggle -- Your Local Rule 103.3 disclosure statement has not been filed. The Statement must be filed by 4/17/2020 (kw2s, Deputy Clerk) (Entered: 04/10/2020)
04/10/2020	<u>19</u>	PAPERLESS ORDER granting <u>10</u> Motion to Appear Pro Hac Vice on behalf of Brett Max Kaufman. Directing attorney Brett Max Kaufman to use the attorney's existing CM/ECF login and password previously issued in this Court. The account password can be reset at http://www.mdd.uscourts.gov/electronic-case-filing-password-reset . Signed by Clerk on 4/10/2020. (srd, Deputy Clerk) (Entered: 04/10/2020)
04/10/2020	<u>20</u>	QC NOTICE: <u>1</u> Complaint, filed by Erricka Bridgeford, Kevin James, Leaders of a Beautiful Struggle was filed incorrectly.*** Please submit a proposed summons for Michael S Harrison. Use the event Notice> Notice(Other) and link to <u>1</u> Complaint

		(kw2s, Deputy Clerk) (Entered: 04/10/2020)
04/10/2020	<u>21</u>	PAPERLESS ORDER granting <u>11</u> Motion to Appear Pro Hac Vice on behalf of Ashley Marie Gorski. Directing attorney Ashley Marie Gorski to register online for CM/ECF at http://www.mdd.uscourts.gov/electronic-case-filing-registration . Signed by Clerk on 4/10/2020. (srds, Deputy Clerk) (Entered: 04/10/2020)
04/10/2020	<u>22</u>	PAPERLESS ORDER granting <u>12</u> Motion to Appear Pro Hac Vice on behalf of Alexia Ramirez. Directing attorney Alexia Ramirez to register online for CM/ECF at http://www.mdd.uscourts.gov/electronic-case-filing-registration . Signed by Clerk on 4/10/2020. (srds, Deputy Clerk) (Entered: 04/10/2020)
04/10/2020	<u>23</u>	PAPERLESS ORDER granting <u>13</u> Motion to Appear Pro Hac Vice on behalf of Nathan Freed Wessler. Directing attorney Nathan Freed Wessler to use the attorney's existing CM/ECF login and password previously issued in this Court. The account password can be reset at http://www.mdd.uscourts.gov/electronic-case-filing-password-reset . Signed by Clerk on 4/10/2020. (srds, Deputy Clerk) (Entered: 04/10/2020)
04/10/2020	<u>24</u>	PAPERLESS ORDER granting <u>14</u> Motion to Appear Pro Hac Vice on behalf of Ben Wizner. Directing attorney Ben Wizner to register online for CM/ECF at http://www.mdd.uscourts.gov/electronic-case-filing-registration . Signed by Clerk on 4/10/2020. (srds, Deputy Clerk) (Entered: 04/10/2020)
04/14/2020	<u>25</u>	NOTICE by Erricka Bridgeford, Kevin James, Leaders of a Beautiful Struggle re <u>1</u> Complaint, <i>Corrected Summons for Michael Harrison</i> (Rocah, David) (Entered: 04/14/2020)
04/14/2020	<u>26</u>	Local Rule 103.3 Disclosure Statement by Leaders of a Beautiful Struggle (Rocah, David) (Entered: 04/14/2020)
04/15/2020	<u>27</u>	Summons Issued 21 days as to Baltimore Police Department, Michael S Harrison. (Attachments: # <u>1</u> Summons)(kw2s, Deputy Clerk) (Entered: 04/15/2020)
04/15/2020	<u>28</u>	Local Rule 103.3 Disclosure Statement by Baltimore Police Department (Walden, Elisabeth) (Entered: 04/15/2020)
04/15/2020	<u>29</u>	Local Rule 103.3 Disclosure Statement by Michael S Harrison (Walden, Elisabeth) (Entered: 04/15/2020)
04/15/2020	<u>30</u>	RESPONSE in Opposition re <u>2</u> MOTION for Temporary Restraining Order & <i>Preliminary Injunction</i> filed by Baltimore Police Department, Michael S Harrison. (Attachments: # <u>1</u> Exhibit A, # <u>2</u> Exhibit B)(Walden, Elisabeth) (Entered: 04/15/2020)
04/17/2020	<u>31</u>	REPLY to Response to Motion re <u>2</u> MOTION for Temporary Restraining Order & <i>Preliminary Injunction</i> filed by Erricka Bridgeford, Kevin James, Leaders of a Beautiful Struggle.(Rocah, David) (Entered: 04/17/2020)
04/21/2020		Telephone Motion Hearing held on 4/21/2020 re <u>2</u> MOTION for Temporary Restraining Order & <i>Preliminary Injunction</i> filed by Erricka Bridgeford, Kevin James, Leaders of a Beautiful Struggle before Judge Richard D. Bennett.(Court Reporter: Christine Asif) (chs, Deputy Clerk) (Entered: 04/22/2020)
04/24/2020	<u>32</u>	MEMORANDUM OPINION Signed by Judge Richard D. Bennett on 4/24/2020. (cags, Deputy Clerk) (Entered: 04/24/2020)
04/24/2020	<u>33</u>	ORDER denying <u>2</u> Motion for Preliminary Injunction; the Air Pilot Program may proceed. Signed by Judge Richard D. Bennett on 4/24/2020 (cags, Deputy Clerk) (Entered: 04/24/2020)
04/24/2020	<u>34</u>	NOTICE OF INTERLOCUTORY APPEAL as to <u>33</u> Order on Motion for TRO, <u>32</u> Memorandum Opinion by Erricka Bridgeford, Kevin James, Leaders of a Beautiful Struggle. Filing fee \$ 505, receipt number 0416-8625995.(Rocah, David) (Entered: 04/24/2020)
04/27/2020	<u>35</u>	Transmission of Notice of Appeal and Docket Sheet to US Court of Appeals re <u>34</u> Notice of Interlocutory Appeal. IMPORTANT NOTICE: To access forms which you are required to file with the United States Court of Appeals for the Fourth Circuit please go to http://www.ca4.uscourts.gov and click on Forms & Notices.(Filing Fee

		incorrectly on transmittal as unpaid and the Filing Fee is Paid)(slss, Deputy Clerk) Modified on 4/27/2020 (slss, Deputy Clerk). (Entered: 04/27/2020)
04/28/2020	<u>36</u>	USCA Case Number 20–1495 for <u>34</u> Notice of Interlocutory Appeal filed by Erricka Bridgeford, Kevin James, Leaders of a Beautiful Struggle – Case Manager – Cathi Bennett (slss, Deputy Clerk) (Entered: 04/28/2020)
04/28/2020	<u>37</u>	TRANSCRIPT ORDER ACKNOWLEDGMENT by Leaders of a Beautiful Struggle for proceedings held on Telephone motion hearing of 04/21/2020 before Judge Bennett, re <u>34</u> Notice of Interlocutory Appeal – Transcript due by 4/30/2020. (Court Reporter; Christine Asif)(slss, Deputy Clerk) (Entered: 04/28/2020)
04/28/2020	<u>38</u>	NOTICE OF FILING OF OFFICIAL TRANSCRIPT for dates of 4/21/2020, before Judge Richard D. Bennett, re <u>34</u> Notice of Interlocutory Appeal Court Reporter Christine Asif, Telephone number 410–962–4492. Transcript may be viewed at the court public terminal or purchased through the Court Reporter before the deadline for Release of Transcript Restriction. After that date it may be obtained from the Court Reporter or through PACER. Does this satisfy all appellate orders for this reporter? – Y . Redaction Request due 5/19/2020. Redacted Transcript Deadline set for 5/29/2020. Release of Transcript Restriction set for 7/27/2020.(ca, Court Reporter) (Entered: 04/28/2020)

**UNITED STATES DISTRICT COURT
DISTRICT OF MARYLAND**

LEADERS OF A BEAUTIFUL STRUGGLE
25 W. Fayette St.
Baltimore, MD 21201

ERRICKA BRIDGEOFORD
136 Garden Ridge Rd.
Cantonsville, MD 21228

KEVIN JAMES*

Plaintiffs,

v.

BALTIMORE POLICE DEPARTMENT
601 East Fayette Street
Baltimore, MD 21202

MICHAEL S. HARRISON, in his official
capacity as Baltimore Police Commissioner
601 East Fayette Street
Baltimore, MD 21202

Defendants.

Civil Action No. 20-929

COMPLAINT FOR DECLARATORY AND INJUNCTIVE RELIEF

1. This lawsuit challenges the Baltimore Police Department’s (“BPD”) deployment of aircraft to conduct long-term, wide-area aerial surveillance of the entire city of Baltimore. The BPD’s mass surveillance system will persistently record the movements of virtually all of Baltimore’s 600,000 residents, including Plaintiffs. This surveillance system presents a novel and society-changing threat to individual privacy and to free association, and it violates the Constitution.

* In a concurrently filed motion, Plaintiff Kevin James has requested a waiver of his obligations under Local Rule 102.2(a) to provide his home addresses in the caption of this complaint.

2. The BPD calls this system the “Aerial Investigation Research” program, or “AIR.” The BPD has contracted with a company, aptly named Persistent Surveillance Systems, LLC (“PSS”), whose planes will fly over Baltimore at least 40 hours a week. Once per second, advanced wide-angle camera systems on those planes will collect images of over 90 percent of the city at a time, creating slow-frame-rate video recordings of pedestrians on sidewalks, parks, driveways, and back yards, and vehicles moving about on public streets and private lots. To Plaintiffs’ knowledge, the BPD has not yet commenced the program.

3. The AIR program would put into place the most wide-reaching surveillance dragnet ever employed in an American city, giving the BPD a virtual, visual time machine whose grasp no person can escape. And though the program’s objectives to reduce crime and violence are laudable, the Constitution dictates that this all-seeing and ever-present “eye in the sky” is not an available solution.

4. Plaintiffs Leaders of a Beautiful Struggle (“LBS”), Erricka Bridgeford, and Kevin James are Baltimoreans deeply concerned about their community, its relationship with law enforcement, justice, and equality. The ability to associate with others, free from unwarranted government scrutiny, is essential to Plaintiffs’ political activity and advocacy. If the AIR program is permitted to proceed, it will violate Plaintiffs’ privacy rights and burden their freedom of association; it will undermine the ability of LBS to carry out political activities crucial to its mission; and it will hinder Ms. Bridgeford’s and Mr. James’s advocacy and community organizing.

5. Through this action, Plaintiffs seek a declaration that the BPD’s policy and practice of persistent aerial surveillance violates their First and Fourth Amendment rights; an

injunction against Defendants’ operation of the AIR program; and an order requiring the BPD to destroy the information about them that it has collected in violation of their constitutional rights.

JURISDICTION AND VENUE

6. This Court has subject matter jurisdiction pursuant to 28 U.S.C. § 1331 and 42 U.S.C. § 1983 because this lawsuit alleges violations of the U.S. Constitution.

7. The Court has authority to grant declaratory and injunctive relief, and any other appropriate relief, under the Declaratory Judgment Act, 28 U.S.C. §§ 2201–2202, and under the Court’s inherent equitable jurisdiction. A substantial, actual, and continuing controversy exists between the parties with respect to Plaintiffs’ claims for declaratory and injunctive relief.

8. Venue is proper in this district pursuant to 28 U.S.C. § 1391(b) because Defendants reside in this district and the events giving rise to the claim occurred in this district.

PARTIES

9. Plaintiff LBS is a Baltimore-based grassroots think-tank, founded in 2010, that advances the public policy interests of Black people in the city through youth leadership development, political advocacy, and intellectual innovation. LBS’s work addresses historic and structural impediments to Black people’s quality of life, including poverty, violence, and white supremacy in the American political and socio-economic order. To this end, LBS advocates for policing reform, and it has spearheaded numerous legislative efforts aimed at policing accountability. LBS has been a frequent critic of law enforcement’s use of surveillance technologies against Black communities. LBS sues on its own behalf and on behalf of its staff.

10. Plaintiff Erricka Bridgeford is a Black activist in Baltimore City, where she was born and raised. Ms. Bridgeford is the co-founder and current co-organizer of Baltimore Ceasefire 365 (“Ceasefire”), a movement that serves as a hub for organizations and citizens to support one another, work together, and share resources with the goal of seeing an end to murder

in Baltimore City. Ceasefire organizes quarterly “ceasefire weekends” in the city, and one recent study has shown that these efforts have led to more than a 50% reduction in gun violence in Baltimore while in effect.

11. Plaintiff Kevin James is an information-technology professional, hip-hop musician, activist, volunteer Emergency Medical Technician, and community organizer. Mr. James lives in Baltimore City and has lived in the area since 2001, when he joined Teach for America in Baltimore. He has been involved with many grassroots movements in the city, including advocacy related to school funding, housing rights, mental health, and immigration.

12. Defendant Baltimore Police Department (“BPD”) is the police department for the City of Baltimore. No state official or agency exercises any supervisory authority over the BPD or the Police Commissioner of the BPD. The BPD operates only within the City of Baltimore. The BPD is the entity responsible for the implementation of the AIR program.

13. Defendant Michael S. Harrison is the Police Commissioner of the BPD. He has supervisory authority over all operations of the BPD, including policymaking authority over the AIR program. On behalf of the BPD, Commissioner Harrison signed the contract with PSS to implement the AIR program. He is sued in his official capacity.

FACTUAL ALLEGATIONS

Background

14. Wide-area, persistent aerial surveillance is not entirely new. It was first developed as a military program, named Gorgon Stare, for use over battlefields abroad.

15. It is also not entirely new to Baltimore. In 2016, the BPD and PSS initially deployed this technology for several months, keeping it secret from the public, the Mayor of Baltimore, and the city’s prosecutors. It was only after news reports revealed the existence of this system—which led to an overwhelming public outcry—that the BPD halted this surveillance.

Ultimately, the BPD recorded more than 300 hours' worth (and one million images) of the movements of ordinary Baltimoreans as they moved about the city. Although PSS publicly represented that the information it collected would be deleted after 45 days, PSS instead saved all of the recordings indefinitely.

16. In September 2019, PSS pitched the BPD on a three-year, \$6.6 million revival of the aerial surveillance program. In December 2019, Baltimore Police Commissioner Michael Harrison announced that, despite the program's "controversial history," he intended to enter into a contract for a 180-day pilot program of wide-area, persistent aerial surveillance, beginning in the spring of 2020.

17. In March 2020, as Baltimoreans were reeling from a State of Emergency declaration by Governor Larry Hogan concerning the fast-evolving coronavirus pandemic, and the shuttering of enormous portions of the local and national economies, the BPD held three public meetings about its imminent aerial surveillance program. The meetings were conceived as steps to assuage the public in the wake of the BPD's secret aerial surveillance trials with PSS in 2016. The first, on March 11, was attended by just 20 people. Two other meetings, rescheduled to March 23 and March 30, were held as online Facebook events, as Baltimoreans were under emergency orders prohibiting gatherings of more than ten people.

18. On April 1, 2020, the Baltimore Board of Estimates approved the BPD's contract with PSS to implement the AIR program (the "Contract") by a 3-to-2 vote.

The AIR Program

19. According to the Contract, the BPD will authorize PSS to use its aerial technology and analytics to assist in the investigation of certain crimes in Baltimore during a six-month "pilot" period. The BPD acknowledges that this technology's "effect on crime has not been

analyzed and is unknown.” The cost of the 180-day program, funded by Texas-based philanthropists, is estimated to be \$3.69 million.

20. Under the AIR program, PSS will fly three manned aircraft over Baltimore equipped with its “Hawkeye Wide Area Imaging System.” While neither the Contract nor Defendants have described that system in detail, PSS’s website describes a “Hawkeye II” system as “consist[ing] of twelve, full color cameras” equipped with a “192 million pixel, full color, geo and ortho rectified airborne wide area surveillance sensor” with a “1/2 meter resolution throughout” its coverage area. Commissioner Harrison explained in his March 30 Facebook Live presentation that the BPD and PSS have “agreed” that resolution of the surveillance cameras will be “one pixel per person,” but the “technology has the ability to upgrade the [image] quality.” According to the Contract, the aircraft over Baltimore will capture one image per second covering up to 32 square miles each, and Commissioner Harrison has stated during his community presentations that the system will capture images of 90 percent of the city at once. The Contract provides that the planes will fly a minimum of 40 hours per week, weather permitting. While the system will not employ infrared or night vision technology, the Contract states that the aerial surveillance cameras are “sensitive enough to capture images at night with ambient City lighting.” Although these images are technically photographs taken from cameras, the high frequency of these photographs, taken once per second, produces data akin to a slow frame-rate video feed.

21. Unlike lawful forms of aerial surveillance, the warrantless AIR program subjects Plaintiffs and virtually all of Baltimore’s 600,000 residents to long-term, wide-area, and indiscriminate surveillance that will capture the whole of an individual’s movements and thereby reveal their privacies of life. This surveillance is inescapable, and revelation of private

information to the AIR program is involuntary: short of never leaving home when the planes are in the air, there is no way to avoid Defendants' surveillance system. But even one's home is not entirely safe from the surveillance, as the AIR program will also inevitably capture movements in the curtilage surrounding homes, including driveways and yards. The data collected through the AIR program will amount to a comprehensive record of the movements of Plaintiffs and nearly everyone in Baltimore—facilitating an unprecedented police power to engage in retrospective location-tracking.

22. Although the resolution of the AIR program cameras will be one pixel per person—meaning that an individual cannot immediately be identified through a single image alone—Baltimoreans captured by the surveillance are in no way anonymous. That is the case for at least two reasons.

23. First, with persistent aerial surveillance, it will be trivially easy to roll back the tape to trace pedestrians' or vehicles' paths to the homes they left in the morning, and roll it forward to the homes they returned to at night, thereby deducing identity. Moreover, it takes only a small number of unique location points to identify even an "anonymous" person. Researchers have shown that, using cell-phone location data, just four points are enough to identify an individual based on their pattern of movements. In short, the AIR program's ongoing collection of location data every second in Baltimore will yield unique and easily identifiable information about every resident who moves in the city over time, including Plaintiffs.

24. Second, as explained in the Contract, the BPD and PSS will link AIR program data with the BPD's other surveillance technologies to identify individuals in the vicinity of crime scenes, as well as others who have "met with" those individuals. As set forth in the Contract and discussed by Commissioner Harrison in his community presentations, these

additional surveillance technologies include automated license plate readers and ground-based, closed-circuit television (“CCTV”) security cameras. Both systems are far-reaching and will readily facilitate identification of individuals of interest to Defendants. And identifying individuals is the entire point of the AIR system technology.

25. Particularly in light of the broad scope of data that Defendants will amass through the AIR program, the procedures governing the implementation of the program and the use of the resulting data are weak, vague, and incomplete. These procedures fail to adequately protect Plaintiffs’ rights to privacy and free association.

26. In his community presentations, Commissioner Harrison has emphasized that, as a technical matter, PSS will possess the AIR program’s massive trove of aerial imagery and will provide specific data to the BPD only upon request. However, as discussed below, the Contract reveals that BPD and PSS personnel and systems will be deeply intertwined—and that PSS personnel will be responsible for tapping into the BPD’s other surveillance technologies.

27. According to the Contract, PSS will employ between 15 and 25 analysts in two seven-hour daily shifts, some of whom may work out of BPD’s “Watch Center to be teamed with a sworn BPD officer or BPD analyst.”

28. Upon request by the BPD, PSS analysts will review AIR program data, as well as data from other BPD surveillance technologies, to produce reports for the BPD. The BPD will make requests of PSS in connection with investigations of any of four “Target Crimes”—murder, non-fatal shooting, armed robbery, or car-jacking. In addition, the Baltimore Police Commissioner retains the authority to approve other uses of AIR program data on a case-by-case basis.

29. PSS analysts will also produce reports for the BPD in response to alerts from the BPD's Computer-Aided Dispatch system. PSS analysts will access this system "from monitors in BPD facilities."

30. In creating reports for the BPD, PSS analysts will not only analyze imagery data from the AIR program, but will also "track individuals and vehicles that pass the Baltimore CitiWatch CCTV cameras[,] noting the time the vehicles pass the cameras. [PSS] analysts will access or request CitiWatch camera information[.]" PSS analysts will also use the BPD's Shot Spotter Acoustic Gunshot Detection System to "speed the identification of the location of active gun shots within the imagery," "allowing analysts to quickly identify the location and time of gunshots."

31. Within 18 hours of a BPD request or PSS's notice of a Target Crime on the Computer-Aided Dispatch system, PSS will provide to the BPD an "investigative briefing" that will include "imagery analysis," "the tracks of vehicles and people to and from the crime scene," "the location the vehicles and people from the crime[] scene visited after and before the crime," and "observations of driving patterns and driving behaviors of vehicles from the crime scene prior to and after a crime."

32. Within 72 hours of a BPD request or PSS's notice of a Target Crime, PSS will provide to the BPD a detailed "Investigation Briefing Report," which will include "ground-based camera video made available to [PSS] by BPD including but not limited to CitiWatch camera video images of the vehicles and people tracked from the crime scene for the cameras they pass on the way to and from the crime scene." In addition, the report will include "tracks of people and vehicles that met with people who were tracked from the crime scene and the locations they came from and went to."

33. The Contract contemplates no role for judicial review before, or during any stage of, implementation of the AIR program.

34. The standards related to the retention and deletion of AIR program data are both insufficiently protective and unclear. Commissioner Harrison's cover letter to the Contract, sent to the Baltimore Board of Estimates, states that "[u]nanalyzed imagery data will be stored for 45 days[,] after which point it will be deleted during the pilot period." In his community presentations, Commissioner Harrison has likewise represented that "Data is only stored for up to 45 days during the pilot." However, the Contract itself merely states that PSS "will retain the AIR imagery data for forty-five (45) days," without specifying that PSS will in fact purge the data. Notably, during the secret 2016 aerial surveillance trial run, PSS represented that it stored data for only 45 days. But a January 2017 National Police Foundation report found that, following the trial run, PSS simply moved the data to indefinite storage on backup servers.

35. At present, according to the Contract, it appears that the lone mechanism for auditing "unauthorized use of the system" is "self-report[ing]" by PSS. Although Commissioner Harrison has stated in his presentations about the AIR program that an independent auditing firm will ensure that the program is used only for its intended purpose, Defendants have not yet identified the firm they or their funders intend to retain.

36. In terms of physical security of the AIR program data, which will include information about every Baltimorean, the Contract states that it is left to PSS to "institute physical, technical and policy systems to ensure the integrity of the data it records in its surveillance and analysis." It is unclear whether these systems are in place, let alone whether they are adequate to protect this highly sensitive information.

37. The Contract states one of Defendants’ explicit goals in implementing this experimental pilot surveillance system is to enable BPD to collect and “to test and rigorously evaluate” data to determine whether to permanently implement wide-area aerial surveillance in Baltimore. Although Commissioner Harrison has stated in his presentations about the AIR program that the BPD will work with one of four “research partners” to evaluate the efficacy of the program, Defendants have not yet identified the particular research partner that they or their funders intend to retain.

38. The data collected over the coming months will be of severely limited value due to the present circumstances of the COVID-19 pandemic. Due to Maryland’s stay-at-home order, movement and activity are greatly reduced throughout Baltimore. Under these circumstances, the collection of data regarding the impact of the AIR program on the city’s crime rates is effectively useless if meant to inform decisions about the system’s use in times of ordinary city life.

PSS’s Activities Are Fairly Attributable to Defendants

39. The Contract makes clear that PSS will engage in long-term wide-area aerial surveillance over Baltimore at the BPD’s direction, and that Defendants have delegated policing functions—namely, law enforcement surveillance—that are traditionally reserved for state actors to PSS. Every aspect of the AIR program is conducted pursuant to the Contract, which was negotiated by the BPD and signed by Commissioner Harrison, a final policymaker for the BPD. In the absence of the Contract, PSS would not be collecting imagery for 40 hours each week over 90 percent of Baltimore, nor would it be voluntarily submitting “investigative briefings” or “Investigation Briefing Reports” to the BPD. Defendants are affirmatively initiating, directing, encouraging, and facilitating PSS’s surveillance through the AIR program, and PSS is participating in the AIR program to assist law enforcement. Accordingly, Defendants’ and PSS’s

conduct is under color of state law, and Defendants are responsible for PSS's execution of the AIR program.

40. As discussed in paragraphs 19 to 38, Defendants have plainly delegated policing functions to PSS, encouraged PSS's implementation of the AIR program, and established a close nexus between themselves and PSS. In addition to the examples above, several other provisions of the Contract reflect Defendants' delegation, encouragement, and/or the close nexus between Defendants and PSS, such that PSS's operation of the AIR program is fairly attributable to Defendants.

41. For example, the Contract provides that, "BPD shall provide [PSS] with access to its offices and personnel as are reasonably required for [PSS] to perform its duties and responsibilities under this Agreement."

42. The Contract also provides that, "[t]o the extent of [PSS's] negligence, [PSS's] insurance coverage shall be primary insurance as respects the . . . BPD, its elected/appointed officials, employees, and agents." The BPD also dictates the Best's rating of the insurers providing coverage to PSS and the BPD.

43. The Contract also provides that, if PSS should cease to exist, "custody of all records related to this Agreement will be transferred to BPD."

44. The Contract also provides that, "[a]t any time during business hours and as often as BPD may deem necessary, there shall be made available to BPD for examination, [PSS's] records with respect to matters covered by this agreement"—including, presumably, data from the AIR program.

45. The Contract also provides that, to the extent any images or other materials prepared by PSS under the Contract include material subject to copyright protection, “such materials have been specifically commissioned by BPD.”

46. The Contract also provides that PSS “shall obtain prior written approval regarding any advertising, publicity, or promotional materials from the BPD before such advertising, publicity, or materials can be released.” In addition, “BPD will be responsible for answering all media requests related to the operation of the Pilot Program, and [PSS] will notify BPD of any media inquiry made to [PSS].”

Plaintiffs

Leaders of a Beautiful Struggle

47. LBS is a Baltimore-based LLC organization that advances the public policy interests of Black people in the city through youth leadership development, political advocacy, and intellectual innovation. LBS strives to address the complex issues facing Black Baltimore residents in every arena of civil society. To do this, LBS seeks to radically change the discourse around local and regional politics by injecting community voices into political conversations through policy research, advocacy, and community organizing from a grassroots perspective.

48. LBS’s staff includes a Chief Executive Officer, a Chief Operating Officer, a Director of Public Policy, a Director of Research, a Cultural Curator, an Events and Projects Manager, and a Bookkeeper, all of whom advance LBS’s activities in Baltimore.

49. A central focus of LBS’s work is addressing historic and structural impediments to Black people’s quality of life, including poverty, violence, and white supremacy in the American political and socio-economic order. To this end, LBS has been heavily involved in policing reform and has spearheaded numerous legislative efforts aimed at policing accountability. For example, it helped pass Christopher’s Law, which requires police officers to

be trained in CPR, cultural sensitivity, the proper use of force, and interacting with people with physical and cognitive disabilities. During the 2019 Maryland General Assembly, it vigorously fought the creation of a private police force at Johns Hopkins University. And during the 2020 Maryland General Assembly, it supported bills focused on restricting police use of force, reforming Maryland's Law Enforcement Officer Bill of Rights to increase police accountability, and amending Maryland's public records law to increase transparency and accountability in how departments address police misconduct.

50. In addition to its direct political activity, LBS also strives to support activists within its community, through hosting talks, engaging in collaborations with local institutions, and conducting civic engagement trainings.

51. An important component of LBS's advocacy is maintaining close proximity to the communities it represents in order to prioritize the needs of these communities in its agenda-setting. This requires its staff to travel throughout Baltimore, by foot, by bus, and by car.

52. The AIR program intrudes on LBS's and its staff's reasonable expectations of privacy. In particular, it intrudes on LBS staff's reasonable expectation of privacy in the whole of their long-term physical movements, by foot, by bus, and by car. The AIR program's surveillance of these physical movements will capture LBS staff's privacies of life, thereby comprehensively revealing the private activities of LBS itself.

53. The AIR program also infringes on LBS's and its staff's freedom to associate privately. If Defendants' wide-area aerial surveillance program is permitted to proceed, it will undermine and significantly burden LBS's work. LBS will have to be more cognizant of the individuals and groups with whom it associates, because many of its relationships are private and sensitive. The nature and extent of these relationships are also private and sensitive. The BPD's

continuous, comprehensive aerial recording of LBS staff's movements throughout Baltimore will force staff to change their behavior to maintain the privacy of their relationships, including by altering the timing of certain meetings and the means by which they travel. This effort will divert time and staff resources from other LBS work. LBS also believes that, as a result of the program, some of its present and future partners will decide not to engage with the organization out of fear the association would provoke government retaliation.

Erricka Bridgeford

54. Plaintiff Erricka Bridgeford is a Black activist in Baltimore City, where she was born and raised. Ms. Bridgeford has been an involved community activist since the late 1990s, and has focused on a range of social justice issues during that time, in particular abolishing the death penalty and supporting survivors of homicide victims. She currently works full-time as the Director of Training for Community Mediation Maryland, which advances collaborative conflict resolution in Maryland.

55. Ms. Bridgeford is also the co-founder and current co-organizer of Baltimore Ceasefire 365 (“Ceasefire”), a movement that serves as a hub for organizations and citizens to support one another, work together, and share resources with the goal of seeing an end to murder in Baltimore City. Ceasefire organizes quarterly “ceasefire weekends” in the city, and one recent study has shown that these efforts have led to more than a 50% reduction in gun violence in Baltimore while in effect.

56. As part of her work for Ceasefire, Ms. Bridgeford conducts significant community outreach in neighborhoods throughout Baltimore, including by visiting every murder site in the city within two weeks of the crime occurring—and, on ceasefire weekends, visiting those sites within a day or even a matter of hours.

57. The AIR program intrudes on Ms. Bridgeford's reasonable expectation of privacy in the whole of her long-term physical movements in Baltimore, by foot and by car.

58. As part of Ms. Bridgeford's community organizing and engagement, she often visits and speaks with people in high-crime neighborhoods. The very nature of that work involves visiting murder scenes and talking with people who are processing the trauma associated with being in the vicinity of a murder. Accordingly, if the AIR program is permitted to go forward, Ms. Bridgeford believes it is likely that the program will generate an individualized report about her, pursuant to the terms of the Contract. This warrantless reporting will further intrude on Ms. Bridgeford's reasonable expectation of privacy.

59. The AIR program also infringes on Ms. Bridgeford's freedom to associate privately. In her work for Ceasefire, Ms. Bridgeford drives from neighborhood to neighborhood throughout Baltimore to engage with communities affected by violence. Once in a neighborhood, she spends two to three hours walking along public streets and parks to interact with community members. She also sometimes walks with people she meets back to their homes to meet their family members and continue the conversation. Under the AIR program, Ms. Bridgeford will have to be far more cognizant of her associations in public, out of concern that each and every association will be captured by the AIR program, and that those associations will subject her to unjustified BPD scrutiny.

60. The AIR program will also burden the effectiveness of Ms. Bridgeford's work as a Ceasefire co-organizer. Ms. Bridgeford believes that some people will likely no longer feel comfortable having private and sensitive conversations with her, given that the very fact of their meeting will be captured by the BPD's blanket aerial surveillance. Furthermore, Ms. Bridgeford cannot change the timing of her outreach work to avoid surveillance without compromising her

work. If she were to only conduct community outreach when the planes are not flying (perhaps at night or during bad weather), she would encounter far less foot traffic on the streets, and she would have far less time in each neighborhood, because she cannot feasibly work every night and all night long. Because people will know definitively that they will be subject to aerial surveillance when associating with Ms. Bridgeford in public or inviting her into their home—and for that reason linked to every other person she meets with—Ms. Bridgeford believes the AIR program will undermine her role as a safe resource within the communities she serves.

61. The AIR program's comprehensive and continuous surveillance will impair Ms. Bridgeford's work with Ceasefire in still other ways. Ms. Bridgeford believes that awareness of the AIR program will discourage others from volunteering and joining her in the streets to work with Ceasefire, because every association with individuals in high-crime areas will be captured by the BPD. In addition, Ms. Bridgeford anticipates that she will have to shift most of her outreach and conversations to be over the phone, over social media, or over email, which will severely impact the nature and quality of the inherently personal and sensitive work she does through Ceasefire.

Kevin James

62. Kevin James is an information-technology ("IT") professional, as well as an activist, community organizer, and hip-hop artist who lives in Baltimore City. He volunteered for many years with the Baltimore Algebra Project to advocate for a number of issues that face Baltimore youth, such as increasing funding for schools and starting a bus pass program. He has also worked with organizations such the United Worker and the Right to Housing Alliance in Baltimore. In addition, Mr. James is a former trained paramedic, and he has periodically

volunteered as an Emergency Medical Technician in Baltimore County and as a street medic in Baltimore City during the 2015 protests.

63. Currently, Mr. James works full-time for an IT company. In his spare time, he remains committed to serving the Baltimore community. He is especially focused on educating and reducing stigma in Black and Brown communities around mental health issues. He and fellow advocates organize meetings and workshops to educate others around mental health and to create opportunities to reduce the associated stigma. In addition, Mr. James is involved in advocacy and protests to call for equitable and fair treatment of immigrants and other marginalized groups.

64. Mr. James typically spends his day outside of his home: driving public roads to his job, meeting friends to get dinner, and visiting the Tubman House community garden. He also spends time each day in the curtilage in front of and behind his home.

65. The AIR program intrudes on Mr. James's reasonable expectation of privacy in the whole of his long-term physical movements, by foot and by car. It also intrudes on Mr. James's reasonable expectation of privacy in the curtilage surrounding his home.

66. As part of his community organizing and engagement, Mr. James often visits and speaks with people in Tubman House and the Gilmor Homes, two areas with high rates of violent crime. He believes it is therefore likely that, during the operation of the AIR program, he will be in the vicinity of a crime scene involving one of the four Target Crimes, or he will meet with individuals who were in the vicinity of such a crime scene. Accordingly, he believes it is likely that the AIR program will generate an individualized report about him, pursuant to the terms of the Contract. This warrantless reporting will further intrude on Mr. James's reasonable expectation of privacy.

67. The AIR program also infringes on Mr. James's freedom to associate privately. Mr. James often participates in protests and community events that require him to leave his home. The implementation of the AIR program will undermine and significantly burden his political advocacy and organizing. Mr. James will have to be more aware of and deliberate about whom he meets and associates with, whether in his home or elsewhere, because all of his associations will be captured by the AIR program. He will also have to spend time deliberating about whether those associations could result in unwarranted government scrutiny. In addition, when Mr. James recruits individuals to participate in community events, protests, and rallies, he will be obligated to tell them about the program and explain the risks the program poses. The time spent explaining the AIR program will often reduce the time available for substantive discussion, and Mr. James believes that the chilling effect of the AIR program will result in fewer people being willing to participate in the community events, protests, and rallies for which he is recruiting them.

CAUSES OF ACTION

First Claim for Relief

42 U.S.C. § 1983 Claim for Violation of Plaintiffs' Fourth Amendment Rights (Against all Defendants by all Plaintiffs)

68. Plaintiffs incorporate by reference paragraphs 1 through 67 as if fully set forth herein.

69. Defendants' warrantless AIR program violates the Fourth Amendment because it infringes upon a reasonable expectation of privacy in the whole of Plaintiffs' movements and captures information about the privacies of life. First, this program results in indiscriminate searches of Plaintiffs lacking any individualized suspicion or judicial approval, which are prohibited by the Fourth Amendment, and no exception to the Fourth Amendment's warrant

requirement applies. Second, Defendants' use and analysis of information collected through the AIR program absent judicial authorization also violates the Fourth Amendment. And third, Defendants' procedures governing this surveillance are constitutionally unreasonable.

70. By entering into the Contract with PSS to implement the AIR program, Defendants, acting under color of state law, have established an official municipal policy that violates Plaintiffs' Fourth Amendment rights. This policy consists of persistent, wide-area aerial surveillance pursuant to the Contract. Commissioner Harrison, the signatory to the Contract for the BPD, is an officer with final policymaking authority. Once flights commence under the AIR program, the resulting surveillance will also constitute a persistent and widespread practice in violation of Plaintiffs' Fourth Amendment rights.

Second Claim for Relief

42 U.S.C. § 1983 Claim for Violation of Plaintiffs' First Amendment Rights (Against all Defendants by all Plaintiffs)

71. Plaintiffs incorporate by reference paragraphs 1 through 67 as if fully set forth herein.

72. Defendants' warrantless AIR program violates the First Amendment because it infringes on Plaintiffs' exercise of associational freedoms through constant and inescapable monitoring by the BPD.

73. By entering into the Contract with PSS to implement the AIR program, Defendants, acting under color of state law, have established an official municipal policy that violates Plaintiffs' First Amendment rights. This policy consists of persistent, wide-area aerial surveillance pursuant to the Contract. Commissioner Harrison, the signatory to the Contract for the BPD, is an officer with final policymaking authority. Once flights commence under the AIR program, the resulting surveillance will also constitute a persistent and widespread practice in violation of Plaintiffs' First Amendment rights.

REQUEST FOR RELIEF

WHEREFORE, Plaintiffs respectfully request judgment against Defendants as follows:

1. Declaring that the policies, practices, and acts of Defendants described here are unlawful and violate the First and Fourth Amendments to the Constitution of the United States;
2. Permanently enjoining the Defendants and their agents, employees, successors, and all others acting in active concert with them, from operating the unconstitutional AIR program, including collecting or accessing any images through the program;
3. Ordering Defendants to expunge all records of Plaintiffs created and maintained as a result of the unconstitutional and unlawful practices described here;
4. Awarding Plaintiffs' counsel reasonable attorneys' fees and litigation costs, including but not limited to fees, costs, and disbursements pursuant to 42 U.S.C. § 1988; and
5. Granting such other relief as this Court may deem just and proper.

April 9, 2020

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Respectfully submitted,

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UNITED STATES DISTRICT COURT
DISTRICT OF MARYLAND

LEADERS OF A BEAUTIFUL STRUGGLE
et al.,

Plaintiffs,

v.

BALTIMORE POLICE DEPARTMENT
et al.,

Defendants.

Civil Action No. 20-929

**TELEPHONIC ORAL
ARGUMENT REQUESTED**

**PLAINTIFFS' MOTION FOR A TEMPORARY RESTRAINING ORDER & A
PRELIMINARY INJUNCTION**

PLEASE TAKE NOTICE that as soon as counsel may be heard, Plaintiffs, through undersigned counsel, will move the Court for entry of a Temporary Restraining Order and a Preliminary Injunction in the form attached and asking that this matter be set down for a hearing to convert those temporary restraints into a Preliminary Injunction pursuant to Fed. R. Civ. P. 65 and Local Rule 65.1. In support of their motion, Plaintiffs submit the accompanying Memorandum of Law in Support of Their Motion for a Temporary Restraining Order; the declarations of Plaintiffs Leaders of a Beautiful Struggle (through Dayvon Love), Erricka Bridgeford, and Kevin James; and the declaration of attorney Alexia Ramirez with attached exhibits.*

WHEREFORE, Plaintiffs respectfully request that this Court:

1. Grant this Motion for a Temporary Restraining Order and/or Preliminary

* Plaintiffs respectfully request that, given the restrictions in place surrounding the present public-health crisis around the country and the geographic locations of Plaintiffs' counsel, any oral argument ordered by the Court take place telephonically.

Injunction;

2. Enter the Proposed Order Granting Plaintiffs' Motion for a Temporary

Restraining Order and/or Preliminary Injunction; and

3. Grant such other and further relief as justice may require.

April 9, 2020

Respectfully submitted,

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Counsel for Plaintiffs

UNITED STATES DISTRICT COURT
DISTRICT OF MARYLAND

LEADERS OF A BEAUTIFUL STRUGGLE
et al.,

Plaintiffs,

v.

BALTIMORE POLICE DEPARTMENT
et al.,

Defendants.

Civil Action No. 20-929

DECLARATION OF ALEXIA RAMIREZ

I, Alexia Ramirez, in accordance with 28 U.S.C. §1746 declare as follows:

1. I am an attorney at the American Civil Liberties Union Foundation and co-counsel for Plaintiffs Leaders of a Beautiful Struggle, Erricka Bridgeford, and Kevin James in the above-numbered action.

2. I submit this declaration in support of the Plaintiffs' Memorandum of Law in Support of Their Motion for a Temporary Restraining Order & a Preliminary Injunction.

3. The following Exhibits, attached hereto as Exhibits A to E and filed on April 9, 2020, represent true and correct copies, or true and correct copies of excerpts of such documents:

No.	Exhibit
A	BPD, Community Education Presentation: Aerial Investigation Research (AIR) Pilot Program (March 2020) (“BPD Presentation”)
B	Professional Services Agreement, Aerial Investigation Research (“AIR”) (“BPD/PSS Contract”)
C	PSS, Hawkeye II, https://www.pss-1.com/hawkeye-ii (quotations from various web pages)
D	Yves-Alexandre de Montjoye et al., <i>Unique in the Crowd: The Privacy Bounds of Human Mobility</i> , 3 Sci. Reps. 1376 (2013), https://doi.org/10.1038/srep01376
E	PSS, NightHawk II, https://www.pss-1.com/nighthawk-ii (discussing camera that provides “affordable nighttime, wide area surveillance” including in “[p]artial moonlight”)

I declare under penalty of perjury that the foregoing is true and correct. Executed on
April 9, 2020.



Alekia Ramirez

Exhibit A

COMMUNITY EDUCATION PRESENTATION:

AERIAL INVESTIGATION RESEARCH (AIR) PILOT PROGRAM

Baltimore Police Department

MARCH 2020





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- **PHILANTHROPIC FUNDING SOURCE**
- **FREQUENTLY ASKED QUESTIONS**



LIMITED DURATION AND SCOPE

WHILE THE PROGRAM OPERATORS ORIGINALLY OFFERED TO PROVIDE THE SERVICE FOR AT LEAST 3 YEARS, COMMISSIONER HARRISON IS PROPOSING UP TO A **180 DAY PILOT PROGRAM IN ORDER TO COLLECT ENOUGH DATA THAT CAN BE ANALYZED AND REVIEWED**

ANTICIPATED LAUNCH DATE WILL BE IN APRIL 2020



LIMITED DURATION AND SCOPE

THE PILOT PROGRAM FOCUS WILL BE ON THE FOLLOWING CRIME CATEGORIES:

- Murder, Non-fatal Shootings, Armed Robberies, Car-Jackings

THE SYSTEM CAN ONLY BE ACCESSED IF AN INCIDENT HAS ALREADY OCCURRED

- Must have a case number or an incident number

THE PROGRAM WILL **NOT** BE A REAL-TIME, ACTIVE SURVEILLANCE SYSTEM

- Only used for investigative “look-back”
- Only used to capture movements – not people



REVIEW OF TECHNOLOGY

VENDOR WILL FLY ONE OR MORE AIRCRAFT OVER BALTIMORE CITY TO COLLECT IMAGERY DATA OVER 90% OF BALTIMORE CITY

THE AIRCRAFT WILL FLY A MINIMUM OF (40) FORTY HOURS PER WEEK AND USE ITS SYSTEM TO CAPTURE UP TO 32 SQUARE MILES OF THE CITY PER IMAGE EVERY SECOND

THE RESOLUTION IS LIMITED TO 1 PIXEL PER PERSON AND THEREFORE INDIVIDUALS AND VEHICLES ARE SHOWN AS A SINGLE DOT THAT CAN BE TRACKED FROM A CRIME SCENE

- **At a resolution of one pixel per person or vehicle, it is not possible to determine any identifiable characteristic including an individual's ethnicity, sex, or clothing or a vehicle color, make, model or license plate**



REVIEW OF TECHNOLOGY

VENDOR'S SYSTEM WILL NOT USE INFRARED OR NIGHT VISION TECHNOLOGY

VENDOR WILL NOT TRACK INDIVIDUALS OR VEHICLES IN REAL TIME

VENDOR DATA IS TRANSMITTED FROM THE AIRCRAFT TO GROUND STATIONS WHERE ANALYSTS USE IMAGERY DATA TO LOCATE CRIMES, TRACK INDIVIDUALS AND VEHICLES FROM A CRIME SCENE, AND EXTRACT INFORMATION TO ASSIST BPD IN THE INVESTIGATION OF TARGET CRIMES

REVIEW OF TECHNOLOGY



REVIEW OF TECHNOLOGY





MEASURES OF SUCCESS

IMPACT ON SOLVE RATE

- Identifying who allegedly committed the crime

IMPACT ON CLEARANCE RATE

- Apprehending those who allegedly committed the crime and closing the case

PUBLIC SUPPORT OF PROGRAM

- Surveys conducted before and after the program begins to ensure sustained community support

POTENTIAL DETERRENCE EFFECT ON CRIME

- This is the most difficult to determine



CIVILIAN REVIEW AND AUDITS

INDEPENDENT RESEARCH PARTNERS WILL EVALUATE EFFECTIVENESS OF THE PROGRAM

- **Potential Research Partners:**
 - Morgan State University
 - NYU
 - University of Baltimore
 - RAND

IF RESEARCH DETERMINES LITTLE TO NO IMPACT ON THE MEASURES FOR SUCCESS, THEN BPD WILL GROUND THE PLANE AND DISCONTINUE OPERATIONS

INDEPENDENT CIVILIAN AUDITORS WILL REVIEW SYSTEM USE LOGS TO ENSURE PROGRAM IS ONLY BEING USED FOR ITS INTENDED PUBLIC SAFETY PURPOSE



PHILANTHROPIC SOURCES OF FUNDS

100% FUNDING THROUGH ARNOLD VENTURES AND ASSOCIATED NON-PROFIT PHILANTHROPIES

WORKING WITH ABELL FOUNDATION TO FUND CIVILIAN AUDIT WORK TO ENSURE PROGRAM IS BEING USED PROPERLY

PROGRAM IS FUNDED FOR LIMITED DURATION TO STUDY IMPACT



FREQUENTLY ASKED QUESTIONS

WHAT HAPPENS WITH THE IMAGERY DATA?

- **Data is stored on a stand-alone server by the vendor**
- **Data is only stored for up to 45 days during the pilot**
 - **BPD will consider longer or shorter duration for this after seeing how the pilot program operates**
- **Data will be made available through the discovery process**
- **Evidence packets are made that are specific to incidents of crime and the evidence packets are maintained as part of the case file forever in cases where an individual has been convicted in accordance with the law**
- **The data is only used for BPD and is not allowed to be used for any other purpose**



FREQUENTLY ASKED QUESTIONS

WHAT ABOUT USING THE PLANE TO INVESTIGATE OTHER CRIME CATEGORIES OR POLICE MISCONDUCT?

- Pilot program scope to analyze incidents of murder, shootings, armed robberies and car-jackings during the 120-180 period
- Other serious incidents may be analyzed but only on a case-by-case basis, with the Police Commissioner directly signing off on its use
- BPD may use the plane for serious cases of misconduct but will not use it to investigate minor policy violations during the pilot program



FREQUENTLY ASKED QUESTIONS

CAN A PERSON BE ARRESTED JUST BECAUSE OF THE PLANE?

- The plane imagery alone does not provide enough information to stop a person or vehicle because the system does not have the ability to identify an individual
- The plane's imagery will only be used to develop investigative leads
- BPD must use other proven investigative systems or techniques (CitiWatch) cameras, CCTV, on the ground surveillance, etc.) before stopping or arresting anyone



FREQUENTLY ASKED QUESTIONS

WHAT ABOUT PRIVACY?

- **The use of aerial surveillance is constitutionally permitted in areas open to public view based on Supreme Court rulings**
- **Data that is unused or unanalyzed after 45 days will be deleted**
- **Controls are in place so that the imagery can only be used by the vendor's analysts and to analyze specific crimes/incidents**
- **BPD will publicly report all flight plans and flight durations and report out on a regular basis how the plane was used in investigations**



THANK YOU

Exhibit B



Bernard C. "Jack" Young
Mayor

BALTIMORE POLICE DEPARTMENT



Michael S. Harrison
Police Commissioner

To: The Honorable President and Members of the Board of Estimates
From: Michael S. Harrison – Police Commissioner
Date: March 17, 2020
Subject: Professional Service Agreement Acceptance

Dear Honorable President and Members:

ACTION REQUEST OF BOARD OF ESTIMATES:

The Board of Estimates is requested to approve and authorize execution of a professional services agreement between the Baltimore Police Department ("BPD") and Persistent Surveillance Systems, LLC, an Ohio limited liability company (the "contractor"). The contractor will undertake the Aerial Investigation Research ("AIR") pilot program in an effort to assist BPD in the investigation of certain crimes. The funding for this professional service agreement does not come from any City or public sources, but rather will be paid for by Arnold Ventures, a philanthropic organization. The term of the agreement is one year following approval of the agreement by this Board.

BACKGROUND/EXPLANATION:

The purpose of this agreement is for BPD to test and rigorously evaluate the Aerial Investigation Research (AIR) pilot program which will be used to assist BPD investigate and reduce violent crime in Baltimore City. The program is at no cost to the City, and is being donated through the term of the agreement by Arnold Ventures, a philanthropic organization. During the term, the Contractor will fly aircraft over Baltimore City to collect imagery data. The resolution is limited and therefore individuals and vehicles are unidentifiable but are shown as a single dot and/or movement that can be tracked from a crime scene. This program will be used for investigative "look-back" after an incident has already occurred and can only be used after receiving a case number or incident number. Included in the agreement are additional safeguards and oversight:

- **Limited Scope and Duration:** Flight operations will be active for up to 6 months in order to collect sufficient data to evaluate and determine the efficacy of the technology. The program will be focused on the following crimes: murder, non-fatal shootings, armed robberies and car-jackings.
- **Civilian Review and Audits:** Independent research partners will evaluate the effectiveness of the program. Potential partners include: Morgan State University, New York University,

University of Baltimore, and the RAND Corporation. Independent civilian verification and validation auditors will be engaged to review system use logs to ensure the program is only being used for its intended public safety purpose.

- **Data Protection:** That data that is obtained can only be used for the purposes related to criminal investigations and will not be authorized for any other purpose. Unanalyzed imagery data will be stored for 45 days after which point it will be deleted during the pilot period. However, with respect to specific imagery analyzed to investigate incidents of crimes, the evidence will be compiled into packets and become a permanent part of the case file. As with all evidence, the imagery data and investigative findings will be provided to the prosecution and be made available to defense counsel through the discovery process.

Respectfully,

Agency: Baltimore Police Department



Michael S. Harrison
Police Commissioner

MBE/WBE PARTICIPATION:

N/A

EMPLOY BALTIMORE:

Not Applicable.

LIVING WAGE:

Not Applicable

Attachment:

APPROVED BY BOARD OF ESTIMATES

DATE

CLERK

PROFESSIONAL SERVICES AGREEMENT
Aerial Investigation Research (“AIR”)

PROFESSIONAL SERVICES AGREEMENT (this “Agreement”) dated as of _____, 2020 by and between the POLICE DEPARTMENT OF BALTIMORE CITY, an agency and instrumentality of the State of Maryland (“BPD”), and PERSISTENT SURVEILLANCE SYSTEMS, LLC, an Ohio limited liability company (the “Contractor”). BPD and Contractor are each referred to as a “Party” and collectively as the “Parties.”

RECITALS

WHEREAS, Baltimore City suffers from extremely high levels of violent crime and the City, through the Mayor’s Office and BPD, its principal law enforcement agency is engaged in a continuous effort to use evidence-based law enforcement strategies to reduce violent crime and improve public safety;

WHEREAS, the Contractor has developed an aerial investigation research system designed to assist law enforcement and in 2017 the Contractor conducted flight operations on approximately 68 days over Baltimore City in an effort to assist BPD in the investigation of various crimes;

WHEREAS, the Contractor proposes to conduct a 6-month pilot project (the “Pilot Project”) using its experimental AIR technology and analytics to assist BPD in investigating certain crimes;

WHEREAS, BPD desires to participate in the Pilot Project and work with the Contractor pursuant to the terms and conditions set forth below;

WHEREAS, Arnold Ventures, a philanthropy dedicated to tackling some of the most pressing problems in the United States, intends to pay for Contractor’s costs for the Pilot Project in order to assist the BPD in assessing whether Contractor’s technology can be a helpful tool in furtherance of BPD’s public safety objectives;

WHEREAS, Arnold Ventures also intends to provide grants to several independent research organizations (the “Independent Evaluators”) to objectively evaluate the Pilot Project and their results and findings will be detailed in reports that will be broadly disseminated and made available to the public.

NOW, THEREFORE, in consideration of the foregoing recitals and the mutual covenants set forth below and for other good and valuable consideration receipt and sufficiency of which is hereby acknowledged, BPD and the Contractor agrees as follows:

1. PURPOSE:

- 1.1.** BPD seeks to continuously develop effective, evidenced based policing strategies to improve public safety and police community relations. The purpose of this Agreement is for BPD to test out and rigorously evaluate an innovative AIR technology used to assist BPD investigate and reduce violent crime in Baltimore

City. The Contractor will provide technical assistance, training, technology and research and subject matter expertise to assist BPD assess, develop, implement and evaluate this public safety technology and community building strategy.

- 1.2. On January 12, 2017, following an investigation by the U.S. Department of Justice (“DOJ”), the DOJ, the Mayor and City Council of Baltimore (the “City”) and BPD entered into an Agreement and proposed consent decree (the “Consent Decree”) to ensure that, among other things, the City and BPD protect individuals’ statutory and constitutional rights, and promote public safety in a manner that is fiscally responsible and responsive to community priorities. On April 17, 2017, the Consent Decree was entered as an Order of the United States District Court, District of Maryland (the “Federal Court”) in the case titled *United States v. Baltimore Police Dept., et al.*, No. 17-cv-00099-JKB (ECF 2-2). The Federal Court retains jurisdiction over the City’s and BPD’s police reform requirements under the Consent Decree.

2. SCOPE OF SERVICES:

- 2.1. The Contractor shall provide the services, on a non-exclusive basis, as described in the Scope of Services that is attached hereto at **Exhibit A** and made part of this Agreement.

3. CONTRACTOR’S RESPONSIBILITIES:

- 3.1. The Contractor’s primary point of contact (the “POC”) for the Pilot Project is Ross T. McNutt, PhD, the Contractor’s founder and sole member. The Contractor shall exercise independent professional judgment and shall assume professional responsibility for all services provided hereunder.
- 3.2. The Contractor shall be available for monthly management meetings with BPD, or as needed to ensure on-going communication and resolution of concerns.
- 3.3. The Contractor will employ sufficient personnel to staff its Baltimore City Offices to analyze video and draft reports and otherwise assist in the investigation of criminal activity. Where Contractor’s data and analysis is used in a criminal case that result in arrest, charges or prosecution, the Contractor will also provide relevant data, analysis and reports to the prosecution and defense. The Contractor will work with the BPD to ensure that recommendations on policy and procedure are consistent with the requirements of the Consent Decree.
- 3.4. Contractor shall provide the Independent Evaluators with access to personnel, offices, documentation, and information as are reasonably required for the Independent Evaluators to conduct the evaluations which are described in the Description of Independent Evaluation that is attached hereto at **Exhibit C**.
- 3.5. Contractor shall provide an independent verification and validation firm (the “Independent Validators”) with access to personnel, offices, documentation, and information as are reasonably required for the Independent Validators to conduct

the verifications and validations which are described in the Description of Independent Verification and Validation that is attached hereto at Exhibit D.

4. BPD'S RESPONSIBILITIES:

- 4.1. BPD shall provide the Contractor with access to its offices and personnel as are reasonably required for the Contractor to perform its duties and responsibilities under this Agreement.
- 4.2. BPD's Deputy Commissioner, Operations Bureau, or designee, shall be BPD's POC for this Pilot Project. BPD's POC shall assign a Lieutenant or other officer to coordinate activities with the Contractor personnel who (i) are assigned to BPD's facilities, (ii) access BPD data or information systems or (iii) work with BPD criminal investigators.
- 4.3. BPD shall take the necessary steps to ensure their capacity to meet the recommendations the Contractor has outlined for success. This includes but is not limited to:
 - 4.3.1. Subject to available funding, a project manager to facilitate the work of BPD investigators, the Contractor, the Independent Evaluators, an independent reviewer of the Contractor's use of the aerial imagery and public interest in the Pilot Project.
 - 4.3.2. One Sergeant level liaison officer to assist with implementation
 - 4.3.3. A commitment to the implementation of new policing approaches for crime reduction.
- 4.4. BPD shall provide the Independent Evaluators with access to personnel, offices, documentation, and information as are reasonably required for the Independent Evaluators to conduct the evaluations which are described in the Description of Independent Evaluation that is attached hereto at Exhibit C.

5. TERM:

- 5.1. The term ("Term") of this Agreement will commence immediately upon the date (the "Effective Date") first above written and will expire one (1) year after the Effective Date, unless terminated prior to that date in accordance with Section 9 below.

6. FUNDING:

- 6.1. Arnold Ventures intends to pay to Contractor fees and expenses in respect of the Pilot Project, as described in the Budget that is attached hereto at Exhibit B, subject to mutual agreement of Arnold Venture and Contractor as to grant agreement terms

and conditions and Contractor's compliance with those terms and conditions. Arnold Ventures also intends to provide grants to the Independent Evaluators to evaluate the Pilot Project, subject to mutual agreement of Arnold Ventures and such Independent Evaluators as to grant terms and conditions and the Independent Evaluators' compliance with those terms and conditions. Except as may be explicitly agreed upon in those grant agreements, neither Arnold Ventures nor any of its associated entities shall have any obligation with respect to the Pilot Project, including but not limited to Contractor's performance or obligations under this Agreement, any continuation of the project beyond the pilot, or any Renewal Term.

- 6.2. The Abell Foundation, Inc. intends to pay the fees and expenses of the Independent Validators for its activities in respect of the Pilot Project, subject to mutual agreement of The Abell Foundation, Inc. and the Independent Validators as to grant agreement terms and conditions and Independent Validator's compliance with those terms and conditions.
- 6.3. BPD and the City have no responsibility or liability to pay any fees or expenses of the Contractor, the Independent Evaluators or the Independent Validators or any other person or entity in connection with the Pilot Program.

7. INSURANCE:

- 7.1. The Contractor shall procure and maintain the following specified insurance coverage during the entire life of this Agreement, including extensions thereof.
 - 7.1.1. Professional Liability, Errors and Omissions Insurance, at a limit of not less than One Million Dollars (\$1,000,000) per occurrence and three (\$3,000,000) in the aggregate, for claims related to the services under this Agreement.
 - 7.1.2. Aviation Liability Insurance at limits of not less than One Million Dollars (\$1,000,000) per occurrence for claims arising out of bodily injuries or death, and property damages.
 - 7.1.3. Workers' Compensation coverage as required by the State of Maryland or other applicable State's law.
 - 7.1.4. Commercial General Liability Insurance, at a limit of not less than One Million Dollars (\$1,000,000) per occurrence for claims arising out of bodily injuries or death, and property damages, including products and completed operations coverage. For those policies with aggregate limits, a minimum limit of Two Million Dollars (\$2,000,000) is required. Such insurance shall include contractual liability insurance.
- 7.2. The Contractor's insurance shall apply separately to each insured against whom claim is made and/or lawsuit is brought, except with respect to the limits of the insurer's liability.

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- 7.3. To the extent of the Contractor's negligence, the Contractor's insurance coverage shall be primary insurance as respects the Mayor and City Council of Baltimore, a Maryland municipal corporation (the "City") and BPD, its elected/appointed officials, employees, and agents. Any insurance and/or self-insurance maintained by the City or BPD, its elected/appointed officials, employees, or agents shall not contribute with the Contractor's insurance or benefit the Contractor in any way.
- 7.4. Required insurance coverage shall not be suspended, voided, canceled, or reduced in coverage or in limits, except by the reduction of the applicable aggregate limit by claims paid, until after forty-five (45) days prior written notice has been given to BPD. There will be an exception for non-payment of premium, which is ten (10) days' notice of cancellation.
- 7.5. Unless otherwise approved by BPD, insurance is to be placed with insurers with a Best's rating of no less than A:VII, or, if not rated with Best's, with minimum surpluses the equivalent of Best's surplus size VII and said insurers must be licensed/approved to do business in the State of Maryland.
- 7.6. The Mayor and City Council of Baltimore and BPD, its elected/appointed officials, employees, and agents shall be covered, by endorsement, as additional insured as respects to liability arising out of activities performed by or on behalf of the Contractor in connection with this Agreement.
- 7.7. The Contractor shall furnish to BPD a "Certificate of Insurance", with a copy of the additional insured endorsement as verification that coverage is in force. BPD reserves the right to require complete copies of insurance policies at any time.
- 7.8. Failure to obtain insurance coverage as required or failure to furnish Certificate(s) of Insurance or complete copies as required shall be a default by the Contractor under this Agreement.
- 7.9. Notwithstanding anything to the contrary in any applicable insurance policy, the Contractor expressly warrants, attests and certifies that there are no carve outs or exclusions to the policy coverage and limitations stated herein, except as required by law.

8. INDEMNIFICATION AND RELEASE:

- 8.1. The Contractor shall indemnify, defend and hold harmless the City and BPD, its elected/appointed officials, employees, and agents from any and all claims, demands, liabilities, losses, damages, fines, fees, penalties, costs, expenses, suits, and actions, including attorneys' fees and court costs, connected therewith, brought against the City or BPD, its elected/appointed officials, employees, and agents, arising as a result of: (a) breach of the Contractor's representations, warranties, covenants, or agreements under this Agreement; (b) the Contractor's violation or breach of any federal, state, local, or common law, regulation, law, rule, ordinance, or code, whether presently known or unknown; (c) breach of the Contractor's confidentiality obligations, including data security and privacy

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obligations; (d) any claim that the intellectual property provided or used by the Contractor within the scope of this Agreement infringes any patent, copyright, trademark, license or other intellectual property right; and (e) any direct or indirect, willful, negligent, tortious, intentional, or reckless action, error, or omission of the Contractor, its officers, directors, employees, providers, agents, or volunteers in connection with the performance of this Agreement, whether such claims are based upon contract, warranty, tort, strict liability or otherwise.

- 8.2.** BPD shall have the right to control the defense of all such claims, lawsuits, and other proceedings. In no event shall the Contractor settle any such claim, lawsuit or proceeding without BPD's prior written approval. In the event of any liability claim against the Contractor, the Contractor shall not seek to join the City, BPD, its elected/appointed officials, employees, or agents in such action or hold such responsible in any way for legal protection of the Contractor.
- 8.3.** In recognition of Arnold Ventures' and The Abell Foundation, Inc.'s sole role as a philanthropic funder, each Party, on behalf of itself and its respective present and former parents, subsidiaries, affiliates, officers, directors, shareholders, members, successors, and assigns (collectively, "Releasers") hereby releases, waives, and forever discharges Arnold Ventures, The Abell Foundation, Inc., their respective associated entities, and each of their respective present and former, direct and indirect, founders, parents, subsidiaries, affiliates, employees, officers, directors, managers, members, agents, representatives, permitted successors, and permitted assigns (collectively, "Releasees") of and from any and all causes of action, suits, losses, liabilities, debts, sums of money, obligations, costs, expenses, liens, covenants, agreements, damages, judgments, claims, and demands, of every kind and nature whatsoever, whether now known or unknown, foreseen or unforeseen, matured or unmatured, suspected or unsuspected, in law or equity, which any of such Releasers ever had, now have, or hereafter can, shall, or may have against any of such Releasees for, upon, or by reason of any matter, cause, or thing whatsoever arising out of or relating to this Agreement.
- 8.4.** The Parties hereby designate all Releasees as third-party beneficiaries of Section 8.3, having the right to enforce such Section.
- 8.5.** The obligations of this Section 8 shall survive the expiration or earlier termination of this Agreement.

9. TERMINATION:

- 9.1. Termination for Convenience.** BPD shall have the right to terminate this Agreement at any time during the Term of this Agreement, for any reason, including without limitation, its own convenience, upon thirty (30) days' prior written notice to the Contractor. The Contractor shall have the right to terminate this Agreement at any time during the Term in the event that Arnold Ventures terminates funding for the Contractor under its grant agreement.

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- 9.2. Termination for Cause.** If the Contractor shall fail to fulfill in a timely and proper manner its obligations under this Agreement, or if the Contractor shall violate any of the representations, warranties, covenants, terms or stipulations of this Agreement, BPD shall have the right to terminate this Agreement, provided the Contractor has failed to cure such violation within ten (10) days after receiving written notification from BPD. Notwithstanding the above, the Contractor shall not be relieved of liability to BPD for damages sustained by BPD by virtue of any breach by Contractor of this Agreement prior to the date of termination.
- 9.3. Notice of Termination and Performance Matters.** Arnold and the Contractor will provide prompt written notice to BPD and The Abell Foundation if it Arnold Ventures notifies Contractor that it will discontinue funding Contractor or any Independent Evaluator for the Pilot Project under any of its grant agreements. The Abell Foundation will provide prompt written notice to BPD and Arnold Ventures if it decides to discontinue funding the Independent Validators for the Pilot Project under its grant agreement. If BPD decides to terminate this Agreement, it shall immediately provide written notice of such termination to Arnold Ventures and The Abell Foundation. The Parties shall also immediately notify Arnold Ventures and The Abell Foundation, Inc. in writing of any event or circumstance that does or would reasonably be expected to impact the performance of either Party under this Agreement.

10. RETENTION OF RECORDS:

- 10.1.** The Contractor shall retain and maintain all records and documents relating to this Agreement for a minimum of three (3) years from the date of final payment under this Agreement or pursuant to any applicable statute of limitations, whichever is longer, except in cases where unresolved audit questions, investigations, or cases require retention for a longer period as determined by BPD. The Contractor shall make such records and documents available for inspection and audit at any time to authorized representatives of BPD, and if applicable to state and/or federal government authorized representatives. If the Contractor should cease to exist, custody of all records related to this Agreement will be transferred to BPD; provided, that any such records or documents that relate exclusively to the relationship or agreements between Arnold Ventures and Contractor shall be transferred to Arnold Ventures.

11. AUDITS:

- 11.1.** At any time during business hours and as often as BPD may deem necessary, there shall be made available to BPD for examination, the Contractor's records with respect to matters covered by this Agreement. The Contractor shall permit the BPD to audit, examine and make excerpts or transcripts from such records, and to make audits of all contracts, invoices, materials, records of personnel, conditions of employment and other data relating to matters covered by this Agreement.

12. INFRINGEMENT PROTECTIONS:

- 12.1.** The Contractor represents and warrants to the BPD that any concepts, idea, studies, models, presentations, graphics, images, maps, guides, photos, printed materials, reports, brochures, operating manuals, designs, data, electronic files, software, processes, plans, procedures and other materials prepared or used by the Contractor in performance of services under this Agreement do not infringe or otherwise violate any intellectual property right of others, including patent, copyright, trademark, or trade secret.
- 12.2.** The Contractor agrees to defend at its expense any action brought against the BPD to the extent based on a claim that the work product or services provided by Contractor violates any third party intellectual property right. The Contractor will pay any costs and damages finally awarded against the BPD in such action that are attributable to such claim, provided that the BPD promptly notifies the Contractor in writing of the claim (provided, however, that the failure to so notify shall not relieve the Contractor of its indemnification obligations), allows the Contractor to control the defense, provides the Contractor with the information and assistance necessary for the defense and/or settlement of the claim, and does not agree to any settlement without the Contractor's prior written consent. In no event shall the Contractor agree to any settlements related to this Agreement without first receiving the BPD's written consent.
- 12.3.** Should the Contractor's work product or services become, or in the Contractor's opinion be likely to become, the subject of any intellectual property claim, the BPD may at its sole option direct the Contractor to (i) procure for the BPD the right to continue using the product or services, (ii) replace or modify the product or services so as to make it non-violating, or, if (i) and (ii) are not commercially reasonable, (iii) terminate this Agreement and the BPD shall be entitled an equitable adjustment in accordance with the Agreement.

13. WORK FOR HIRE:

- 13.1.** To the extent any graphics, images, maps, guides, photos, printed materials, brochures, operating manuals, designs, data, processes, plans, procedures and information prepared by the Contractor in performance of services under this Agreement include material subject to copyright protection, such materials have been specifically commissioned by BPD and they shall be deemed "work for hire" as such term is defined under U.S. copyright law. The Contractor shall secure a "work for hire" agreement on behalf of BPD for any subcontractor who provides materials for this Agreement.
- 13.2.** To the extent any of the materials may not, by operation of law, be a work made for hire in accordance with the terms of this Agreement, the Contractor hereby assigns to BPD all right, title, and interest in and to any intellectual property, and BPD shall have the right to obtain and hold in its own name any copyrights, registrations, and other proprietary rights which may be available

14. CONFIDENTIALITY:

- 14.1.** “Confidential Information” refers to any and all information or records that are protected from public disclosure by any federal or state law, including but not limited to the Omnibus Crime Control and Safe Streets Act of 1968, as amended by the Crime Control Act of 1973, and its implementing regulations including 28 C.F.R. § 20.1, et seq.; the Maryland Public Information Act, MD. CODE ANN., GEN. PROV. § 4-101 et seq.; MD. CODE ANN., CTS. & JUD. PROC. § 3-8A-27(a)(1); and MD. CODE ANN., CRIM. PROC. § 10-219. Confidential Information may include: criminal justice information, criminal history record information, personnel files, juvenile records, medical records, employment records, personally identifying information and/or personal data identifiers including, inter alia, names, social security numbers, financial and tax information, dates of birth, home address, current home or cellular telephone numbers, and/or other information of a private nature as defined by the Privacy Act of 1974, 5 U.S.C. § 552(a), which may be contained in any record, document, tangible thing, testimony, information, or other material. Confidential Information shall not include any information that is (i) generally available to the public; or (ii) made available by any independent third party who has the right to disclose the information.
- 14.2.** The Contractor agrees that any Confidential Information received from BPD or its personnel in the furtherance of this Agreement shall remain strictly confidential and shall not be used or disseminated or otherwise made available to any individual or organization without the prior written approval of BPD or pursuant to applicable federal, state, or local laws. Notwithstanding the foregoing, provided that the Independent Evaluator’s and the Independent Validator’s have executed confidentiality agreements with both BPD and Contractor, Contractor may disclose Confidential Information to the Independent Evaluators and Independent Validators for the purpose of conducting the independent evaluations. The provisions of this Section shall remain binding upon the Contractor after the expiration or earlier termination of this Agreement.
- 14.3.** As required under the Maryland Public Information Act, the Contractor shall implement and maintain reasonable security procedures and practices that are appropriate to the nature of the personal information disclosed to the Contractor by BPD or other government agencies and which are reasonably designed to help protect the personal information from unauthorized access, use, modification, disclosure, or destruction.
- 14.4.** Contractor’s Independent Evaluators’ and Independent Validator’s employees and representatives that work with BPD or otherwise access BPD Confidential Information in connection with the Pilot Project or the Independent Evaluations shall be required to sign a Confidentiality and Non-Disclosure Agreement as requested by BPD. Prior to commencement of any of work with BPD and access to any files or databases of BPD, BPD will provide these individuals with applicable BPD policies, and orientation to facilities and activities that analyst

will be involved in. BPD will ensure that these individuals undergo an initial criminal background investigation, the results of which must be acceptable to BPD, and any further background checks as deemed appropriate by BPD. The individuals will be required to consent to these background checks to obtain access to Confidential Information and access to BOD files or databases.

15. PUBLICATION:

- 15.1. The Parties desire to have a coordinated communication strategy about the Pilot Project. Prior to any advertising, community engagement or education, publicity (i.e., speaking events, press interviews, press release, professional or trade publication, website, advertisement, or other meeting, document or announcement), or promotional materials initiated by (or in response to requests to) the Contractor relating to the services under this Agreement or the Pilot Project, the Contractor shall obtain prior written approval regarding any advertising, publicity or promotional materials from the BPD before such advertising, publicity or materials can be released. Materials shall be presented to the BPD for prior written approval and shall be returned to the Contractor in a timely manner. BPD will be responsible for answering all media requests related to the operation of the Pilot Program, and Contractor will notify BPD of any media inquiry made to Contractor. Failure of Contractor to comply with this provision may result in termination of the agreement
- 15.2. Prior to any publicity (i.e., speaking events, press interviews, press release, professional or trade publication, website, advertisement, or other public document or announcement) initiated by BPD or Contractor relating to Arnold Ventures or any of its founders, associated entities, employees, representatives or agents, Contractor shall obtain prior written approval regarding such promotional materials from Arnold Ventures before such materials can be released. Materials shall be presented to by the party wishing to initiate the publicity to Arnold Ventures at least three (3) business days in advance of the proposed publicity.
- 15.3. The Parties hereby designate Arnold Ventures as a third-party beneficiary of Section 15.2, having the right to enforce such Section.
- 15.4. The provisions of this Section shall survive the expiration or earlier termination of this Agreement.

16. MODIFICATIONS AND AMENDMENTS:

- 16.1. Any and all modifications, alterations, or amendments to the provisions of this Agreement must be by means of a written amendment that refers to and incorporates this Agreement, is duly executed by an authorized representative of each Party. No modifications, alterations, or amendments of this Agreement are valid and enforceable unless the above requirements have been satisfied.

17. COMPLIANCE WITH LAWS:

17.1. The Contractor hereby represents, warrants, covenants, and agrees that:

17.1.1. It is qualified to do business in the State of Maryland and that it will take such action as, from time to time hereafter, may be necessary to remain so qualified;

17.1.2. The Contractor's name in this Agreement is its full legal name;

17.1.3. It has the requisite corporate power (if applicable), authority and legal capacity to enter into this Agreement and fulfill its obligations hereunder;

17.1.4. The execution and delivery by it of this Agreement and the performance by it of its obligations hereunder have been duly authorized by all requisite action of its stockholders, partners or members, and by its board of directors or other governing body (if applicable);

17.1.5. During the Term, it will comply with all federal, state and local laws, ordinances, rules and regulations, including interim expenditure and annual report requirements, and applicable codes of ethics pertaining to or regulating the services to be performed pursuant to this Agreement, including those now in effect and hereafter adopted;

17.1.6. There are no suits or proceedings pending or threatened, whether in law or in equity, to the best of the Contractor's knowledge, which if adversely determined, would have a material adverse effect on the financial condition or business of the Contractor; and

17.1.7. It has obtained, at its expense, all licenses, permits, insurance, and governmental approvals, if any, necessary to perform its obligations under this Agreement.

17.2. The Contractor's violation of the above representations and warranties shall entitle the BPD to terminate this Agreement immediately upon delivery of written notice of termination to the Contractor.

18. INTENTIONALLY DELETED.

19. BPD AND BALTIMORE CITY REQUIREMENTS:

19.1. Nondiscrimination.

19.1.1. The Contractor shall operate under this Agreement so that no person otherwise qualified is denied employment or other benefits on the grounds of race, color, religion, ancestry, national origin, sex, age, marital status, sexual orientation, disability or other unlawful forms of discrimination except where a particular occupation or position reasonably requires consideration of these

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attributes as an essential qualification for the position. The Contractor shall post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause.

- 19.1.2.** The Contractor shall not discriminate on the basis of race, gender, religion, national origin, ethnicity, sexual orientation, gender identity or expression, age, or disability in the solicitation, selection, hiring, or treatment of subcontractors, vendors, suppliers, or commercial customers. The Contractor shall provide equal opportunity for subcontractors to participate in all of its public sector and private sector subcontracting opportunities, provided that nothing contained in this clause shall prohibit or limit otherwise lawful efforts to remedy the effects of marketplace discrimination that has occurred or is occurring in the marketplace, such as those specified in Article 5, Subtitle 28 of the Baltimore City Code, as amended from time to time. The Contractor understands and agrees that violation of this clause is a material breach of this Agreement and may result in contract termination, debarment, or other sanctions. This clause is not enforceable by or for the benefit of, and creates no obligation to, any third party.
- 19.1.3.** Upon the BPD's request, and only after the filing of a complaint against the Contractor pursuant to Article 5, Subtitle 29, of the Baltimore City Code, as amended from time to time, the Contractor agrees to provide BPD, within 60 calendar days, a truthful and complete list of the names of all subcontractors, vendors, and suppliers that the Contractor has used in the past four (4) years on any of its contracts that were undertaken with the Baltimore BPD Market Area as defined in Article 5, §28-1(d) of the Baltimore City Code, as amended from time to time, including the total dollar amount paid by the Contractor for each subcontract or supply contract. The Contractor agrees to fully cooperate in any investigation conducted by the BPD pursuant to the BPD's Commercial Non-Discrimination Policy, as contained in Article 5, Subtitle 29, of the Baltimore City Code as amended from time to time. The Contractor understands and agrees that violation of this clause is a material breach of this Agreement and may result in contract termination, debarment, and other sanctions.
- 19.2. MBE/WBE.** The requirements of the Baltimore City Code, Article 5, Subtitle 28 (pertaining to Minority and Women's Business Enterprise), as amended, are hereby incorporated by reference into this Agreement. If applicable, failure of the Contractor to comply with this subtitle shall constitute a material breach of this Agreement and shall entitle the BPD to terminate this Agreement immediately upon delivery of written notice of termination to the Contractor. The Contractor will make good faith efforts to utilize minority and women's business enterprises and maintain records reasonably necessary for monitoring compliance with this subtitle. *(See Art. 5, § 28-54, Baltimore BPD Code)*

19.3. Conflict of Interest. No elected official of the City, nor other officer, employee or agent of the City or BPD who exercises any functions or responsibilities in connection with this Agreement, shall have any personal interest, direct or indirect, in this Agreement or be an employee of or otherwise engaged by the Contractor. By executing this Agreement, the Contractor asserts that it has not engaged in any practice or entered into any past or ongoing agreement that would be considered a conflict of interest with this Agreement. The Contractor agrees to refrain from entering into all such practices or agreements during the Term of this Agreement (and any extensions thereto) that could give rise to a conflict of interest. Furthermore, the Contractor asserts that it has fully disclosed to BPD any and all practices and/or agreements of whatever nature or duration that could give rise to a conflict of interest and will continue to do so during the Term of this Agreement and any extensions thereto.

20. STATE REQUIREMENTS:

20.1. Political Contribution Disclosure. The Contractor is aware of and will comply with all applicable provisions of the Maryland Annotated Code, Election Law Article, §14-101 et seq., “Disclosure By Persons Doing Public Business”, (“Election Law”). The Contractor certifies, in accordance with §14-107 of the Election Law, that it has filed the statement required under §14-104(b)(1) of the Election Law.

21. MISCELLANEOUS PROVISIONS:

21.1. No Waiver. A Party’s failure to insist on compliance or enforcement of any provision of this Agreement shall not affect its validity or enforceability or constitute a waiver of future enforcement of that provision or of any other provision of this Agreement.

21.2. Severability. Each provision of this Agreement shall be deemed to be a separate, severable, and independently enforceable provision. The invalidity or breach of any provision shall not cause the invalidity or breach of the remaining provisions or of this Agreement, which shall remain in full force and effect.

21.3. Governance.

21.3.1. This Agreement is made in the State of Maryland and shall be governed by the laws of the State of Maryland, including the applicable statute of limitations, without regard to the conflict of law rules.

21.3.2. The legal venue of this Agreement and any disputes arising from it shall be in Baltimore City, Maryland. The Contractor hereby irrevocably waives any objections and any right to immunity on the ground of venue or the convenience of the forum, or to the jurisdiction of such courts or from the execution of judgments resulting therefrom.

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21.4. Successors and Assigns. This Agreement shall be binding upon and inure to the benefit of the respective personal and legal representatives, successors, guardians, heirs and permitted assigns of the Parties hereto and all persons claiming by and through them. The Contractor shall not assign, transfer, or subcontract any part of this Agreement without the prior written consent of the BPD, which shall may be withheld in BPD's sole discretion.

21.5. Notice.

21.5.1. All notices, requests, claims, demands and other communications required or permitted under this Agreement (collectively, "Notices") shall be in writing and be given (i) by delivery in person, (ii) by a nationally recognized next day courier service, (iii) by registered or certified mail, postage prepaid, to the address of the Party specified in this Agreement or such other address as either Party may specify in writing to the following:

FOR THE BPD:

Police Commissioner
Baltimore Police Department
242 W 29th St
Baltimore, MD 21211

FOR THE CONTRACTOR:

Persistent Surveillance Systems,
LLC
Attn: Ross T. McNutt, President
140 North Valley Road
Xenia OH 45385

with copy to:

Chief, Police Legal Affairs
Baltimore City Department of Law
City Hall, Suite 101
100 Holliday Street
Baltimore, MD 21201

FOR ARNOLD VENTURES:

Arnold Ventures LLC
1717 West Loop South, Suite 1800
Houston, Texas 77027
Attention: General Counsel

**FOR THE ABELL
FOUNDATION:**

111 S Calvert St
Baltimore, MD 21202
Attention: President

21.5.2. All Notices shall be effective upon receipt by the Party to which notice is given.

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- 21.6. Headings.** Any heading of the paragraphs in this Agreement is inserted for convenience and reference only and shall be disregarded in construing and/or interpreting this Agreement.
- 21.7. Recitals.** The recitals are hereby incorporated as part of this Agreement.
- 21.8. Survival.** The representations, warranties, covenants, promises, and agreements contained in this Agreement shall survive the execution and consummation of this Agreement, and shall continue until the applicable statute of limitations shall have barred any claims thereon.
- 21.9. Interpretation.** Intentionally Deleted.
- 21.10. Remedies Cumulative.** The rights and remedies provided by this Agreement are cumulative and the use of any one right or remedy by any Party shall not preclude or waive the right to use any or all other remedies. Said rights and remedies are given in addition to any other rights the Parties may have by law, statute, ordinance or otherwise.
- 21.11. Independent Contractor.**
- 21.11.1.** It is agreed by the Parties that at all times and for all purposes hereunder that the Contractor is not an employee, representative or agent of the BPD. No statement contained in this Agreement shall be construed so as to find the Contractor or any of its employees, subcontractors, servants, or agents to be employees, representatives or agents of the BPD, and they shall be entitled to none of the rights, privileges, or benefits of employees of the BPD.
- 21.11.2.** The Contractor warrants that individual(s) performing work under this Agreement shall be employee(s) of the Contractor for all purposes, including but not limited to unemployment insurance, tax withholdings, workers compensation coverage as required by applicable federal and state law.
- 21.12. Force Majeure.** Neither Party will be liable for its non-performance or delayed performance if caused by a "Force Majeure" which means an event, circumstance, or act of a third party that is beyond a Party's reasonable control, such as an act of God, an act of the public enemy, an act of a government entity, strikes or other labor disturbances, hurricanes, earthquakes, fires, floods, epidemics, embargoes, war, or any other similar cause. Each Party will notify the other if it becomes aware of any Force Majeure that will significantly delay performance. The notifying Party will give such notice promptly (but in no event later than fifteen (15) calendar days) after it discovers the Force Majeure. If a Force Majeure occurs, the Parties may modify this Agreement in accordance with the requirements herein.
- 21.13. Entire Agreement.** This Agreement constitutes the entire, full and final understanding between the Parties hereto and neither Party shall be bound by any representations, statements, promises or agreements not expressly set forth herein.

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21.14. Null and Void. Should this Agreement not be approved by the Board of Estimates, it shall be considered null and void.

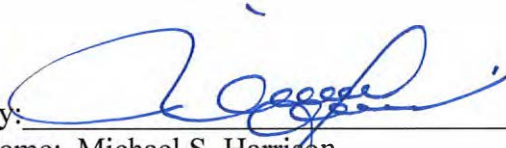
*THE REMAINDER OF THIS PAGE IS BLANK;
SIGNATURE PAGE FOLLOWS.*

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IN WITNESS WHEREOF, the Parties hereto have executed this Agreement as of the date first above written.

ATTEST: **POLICE DEPARTMENT OF BALTIMORE CITY**

Custodian of the City Seal


By: 

Name: Michael S. Harrison
Title: Police Commissioner

WITNESS: **PERSISTENT SURVEILLANCE SYSTEMS, LLC**




Nancy Brock

By: 

Name: Ross T. McNutt, PhD
Title: President

**APPROVED AS TO FORM
AND LEGAL SUFFICIENCY**

APPROVED BY THE BOARD OF ESTIMATES



Mark Dewire, Chief Solicitor

Clerk Date

Exhibit A
Scope of Services
Pilot Project to Test Aerial Investigation Research (“AIR”)

Overview

Contractor will conduct a 6-month pilot project (the “Project”) using experimental aerial investigation research technology and analytics (the “Activities”) to assist BPD investigate certain crimes in Baltimore City. The Parties acknowledge that this technology has not been implemented in any US City and its effect on crime has not been analyzed and is unknown at this time. The Project is designed to determine whether AIR is effective to accomplish Project goals (the “Goals”). The Project Goals include (i) increasing the solvability of crimes, (ii) improving clearance rates, (iii) improving police community relations, and (iv) deterring criminal activity. The Project is an initiative of BPD to develop effective, evidenced based policing strategies to improve public safety and police community relations. The Project will be independently evaluated as described in Exhibit C and independently validated as described in Exhibit D. The Pilot Project and the related Independent Evaluation and Independent Validation will be funded by Arnold Ventures and The Abell Foundation, third party philanthropists and will not require any funding by BPD or the City.

During this experimental pilot Project, Contractor’s imagery data will be used by BPD to investigate only the following reported crimes (the “Target Crimes”):

- Homicides and Attempted Murder
- Shootings with Injury
- Armed Robbery
- Car Jacking

In addition to these Target Crimes, BPD may request Contractor’s technology and analytical support in extraordinary and exigent circumstances, on a case by case basis, **only** as identified and specifically approved in writing by the Baltimore Police Commissioner. Exigent cases may include for example, cases involving imminent danger or loss of life, a kidnapping, chemical spill or train derailment.

This Scope of Services is subject to change based upon BPD operational requirements.

2020 Project Schedule

March	Set up Analysis Center and Analyst Training Technical set up and integration and test flights
April	Projected start of Independent Oversight Organization Start of Contractor support and analysis operations
April – October	Contractor AIR operations in support of BPD

Operations

During the term, Contractor will fly three (3) aircraft over Baltimore City to collect imagery data of major portions of Baltimore City. Weather permitting, each aircraft will fly a minimum of forty hours per week and use its Hawkeye Wide Area Imaging System to capture up to 32 square miles of the City per image every second. The resolution is limited to 1 pixel per person and therefore individuals and vehicles are shown as a single dot and these dots are tracked from a crime scene. At a resolution of one pixel per person or vehicle, it is not possible to determine any identifiable characteristic including an individual's ethnicity, sex, or clothing or a vehicle color, make, model or license plate. The system will not differentiate between police or non-police personnel or vehicles. Contractor's system will not use infrared or night vision technology. Contractor's camera systems are sensitive enough to capture images at night with ambient City lighting. Contractor will not track individuals or vehicles in real time.

Contractor data is transmitted from the aircraft to Contractor's ground stations where Contractor analysts use imagery data to locate crimes, track individuals and vehicles from a crime scene and extract information to assist BPD in the investigation of Target Crimes. During the Project, only Target Crimes will be investigated using AIR investigation except in exigent circumstances as described above.

Contractor will analyze Target Crimes upon specific request by BPD or based on alerts from BPD's Computer Aided Dispatch ("CAD") system or Shot Spotter alerts that relate to the approved Target Crimes. Contractor analysts will document their work product in writing and present it to BPD during investigative briefings and in written reports. In cases where these briefings and reports result in an arrest that is based in whole or in part on Contractor's briefings or reports, copies of these briefings and reports will be provided to prosecutors and defense attorneys in the ordinary course of BPD's operations and in fulfillment of any *Brady* or *Giglio* obligations. Prosecutors and defense counsel may request and Contractor will provide additional analysis from Contractor in furtherance of criminal prosecutions and defense of those cases.

Contractor, at its sole expense, will provide all personnel, planes, equipment, pilots, mechanics and logistical support required to fly the planes, collect the data, analyze the data and provide BPD, prosecutors and defense counsel with briefings and reports, and project reports.

Contractor expects to hire between 15 and 25 analysts for this Project. Analysts will work in two shifts per day, seven days per week in support of this effort. Contractor will hire and train analysts from the Baltimore region. Contractor analysts will develop the investigation briefings and reports to be presented to BPD investigators. Upon request of BPD, prosecutors or defense counsel, Contractor will brief and provide AIR reports on specific cases.

Contractor analysts will be located at a Contractor office located in Baltimore, Maryland. In addition, one or more Contractor analysts may be located in BPD's Watch Center to be teamed with a BPD sworn officer or BPD analyst. Additional Contractor analysts will be located at Contractor's Dayton, Ohio headquarters to provide quality control of the investigation briefings, project reports and augmenting analysis as needed.

Contractor may integrate its imagery data analysis with BPD systems to aid in the investigation process. Contractor will provide program management support for integration efforts as may be determined by BPD. These BPD systems include:

Computer Aided Dispatch (CAD) System: Contractor analysts will monitor BPD's CAD system from monitors in BPD facilities to identify Target Crimes.

CitiWatch Ground Based Cameras Integration: In its briefings and reports, Contractor analysts will track individuals and vehicles that pass the Baltimore CitiWatch CCTV cameras noting the time the vehicles pass the cameras. Contractor analysts will access or request CitiWatch camera information to provide more detailed descriptions of the vehicles and include that information in the investigation briefings.

Shot Spotter Gun Shot Detection System: Contractor will use the Shot Spotter Acoustic Gunshot Detection System to speed the identification of the location of active gun shots within the imagery. Contractor has integrated the Shot Spotter Gun Shot Detection System into its iView Software allowing analysts to quickly identify the location and time of gunshots. This assists analysts and allows more rapid support to the citizens and responding officers.

License Plate Readers – Contractor will provide time and location of the vehicles that are tracked from the crime scene pass license plate readers allowing the vehicles to be identified.

In accordance with written authorization from technology vendors, Contractor may integrate its iView software to accept and utilize the CAD, the CitiWatch system, the Shot Spotter Gunshot Detection System, and the License Plate readers to help make all of the systems work together to enhance their ability to help solve and deter crimes.

Investigation Briefings and Reports: As quickly as possible and within eighteen (18) hours of Contractor's notice of a Target Crime on the CAD System monitors or BPD's request to Contractor to analyze a Target Crime, Contractor will provide BPD an investigative briefing that details the information associated with a reported Target Crime to assist BPD in its investigations. The briefing will include the results of the imagery analysis, the location and timing of a crime, the observable actions at the crime scene, the tracks of vehicles and people to and from the crime scene, the location the vehicles and people from the crime scene visited after and before the crime. Contractor investigation briefings will include observations of driving patterns and driving behaviors of vehicles from the crime scene prior to and after a crime.

Contractor will provide a detailed Investigation Briefing Report (the "Report") on a Target Crime within three days (72 hours) of Contractor's observation of or BPD's request to Contractor to analyze a Target Crime. The Report will include the imagery of the crime scene, tracks of vehicles and people who were at the scene of the crime as potential suspects or witnesses prior to and after the crime, locations the vehicles and people visited prior to and after the crime, ground-based camera video made available to Contractor by BPD including but not limited to CitiWatch camera video images of the vehicles and people tracked from the crime

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scene for the cameras they pass on the way to and from the crime scene. The Report will also include tracks of people and vehicles that met with people who were tracked from the crime scene and the locations they came from and went to. Contractor will work with BPD investigators to identify information helpful to solving their cases. BPD intends to use the imagery, reports, and briefings provided by Contractor only for the purpose of investigating the Target Crime for which it was requested.

If Contractor's Briefings or Reports are used in connection with an arrest related to a Target Crime, Contractor's Briefings and Reports will be provided to prosecutors when they are assigned to a case. Prosecutors will provide the Briefings and Reports to defense attorneys once a suspect has been arrested for a Target Crime. In providing this information to prosecutors and defense attorneys Contractor will follow the procedures outlined in BPD Policy 1014 Video Surveillance Procedures as is done with the CitiWatch system.

Real Time Support: Contractor will not provide BPD real time support except in exigent circumstances and only at the written request of the BPD Police Commissioner.

Project Reports. Contractor will provide BPD and the Independent Evaluators and Arnold Ventures with the following reports on a weekly, monthly and quarterly basis:

Dates, times and area flown covered by Contractor imagery

Number of discrete Briefing Reports

Number of Discrete Investigative Reports

Total Number of Number of Target Crimes that use AIR investigative resources

Total Exigent Cases with categories

Court Orders related to AIR received

Expert Testimony related to AIR provided

Other appropriate details as agreed by the Parties

Contractor will include details provided by BPD on the

Arrests that resulted from use of AIR analysis

Convictions or pleas that result from AIR analysis

The above reports will not include any personally identifiable information.

Expert Witness Service

Upon request of BPD or any prosecuting agency, Contractor will provide an expert to testify in legal proceedings, free of charge, regarding the Contractor's surveillance technology and services and on issues related to security, chain of custody and other matters related to the Contractor's technology and work product. The requesting agency will provide Contractor reasonable notice of the need for this testimony. This covenant will survive the expiration or termination of this Agreement and these services will be provided at no cost or expense to the BPD or Baltimore City.

Ownership of Contractor Data; Use Limitation Contractor's imagery data shall be owned and controlled by Contractor and not BPD. Contractor may use its imagery data for the sole and

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limited purpose of assisting BPD with the Activities, and as provided above to prosecuting agencies and defense counsel in specific cases. In addition, Contractor may provide imagery data to the Independent Evaluators and Validators in support of the activities described in Exhibits C and D. Contractor will not use the data for any other purpose. Contractor will not disclose or otherwise sell or convey any imagery data from the Project and will not allow anyone else to use the data for any other purpose, except as provided in this Agreement. Contractor will comply with any court orders related to production of its imagery. In addition, at the sole cost and expense of defense counsel, Contractor may provide analytic support and review of imagery within its retention period to assist defense counsel in specific criminal cases involving its clients.

Data Retention Program and Policies Contractor will retain the AIR imagery data for forty-five (45) days. Investigative briefings and Reports used in the prosecution of Target Crimes, including related AIR imagery will be maintained by Contractor for a longer duration in accordance with applicable law until legal proceedings and appeals are complete and until the statute of limitations expires. Contractor will institute physical, technical and policy systems to ensure the integrity of the data it records in its surveillance and analysis. The Parties acknowledge that if the Pilot Program is successful and is extended, the Parties may revisit the data retention period for AIR imagery that is not used in furtherance of criminal prosecutions.

Privacy Protection Program

Contractor will institute a program to protect individual privacy. These measures include (i) limits on crimes and other activities that may be analyzed, (ii) limited use of AIR imagery and data, (iii) limits on locations Contractor may analyze, (iv) limits on the individuals and vehicles that may be analyzed, (v) limits on the allowed resolution of imagery, and (vi) the recording, review, oversight and reporting processes associated with the Project.

Contractor will track and report all use of AIR data. All use of the data will be documented and annotated as to the purpose, justification, and use of the information provided. Detailed records of each investigation and support effort will be documented and maintained.

Contractor analysts and personnel will sign into the system and log their work against an approved investigation or support effort.

Tracks of individuals to and from crime scenes form the basis of the analysis. Each track must be assigned to a BPD approved investigation. Each track is documented as to the investigation supported and the analyst creating the track. Each track point is documented as to the time created and the analyst who created it. While non-useful tracks and track points can be hidden from the analyst's screens, no track points or tracks can be deleted from the system. All tracks and track points can be reviewed by Contractor managers and audit organizations to ensure that only authorized tracks are created and that the system is not misused.

Security videos will be taken of the Vendor's analysis center and stored for use in the event that unauthorized use of the AIR technology system occurs to determine the circumstances of the misuse.

Contractor will have both internal and external reviews oversight of its actions during the Project.

Internal review: Contractor provides internal review of its analysts to ensure that only authorized use of the system occurs. Any detected unauthorized use of the system will be self-reported by Contractor and included in the weekly, monthly and quarterly reports.

Independent Verification and Validation: This effort will also include an external organization to ensure that only authorized use of the AIR system occurs. BPD will identify an appropriate audit organization which will be paid for by an outside entity to ensure its independence. The outside audit organization will report monthly as to the compliance of Contractor with its privacy protection program and authorized use of the data. The external auditor will flag any unauthorized use of the data.

Public Education

BPD and Contractor intend that there is full transparency and public awareness of its Project and its results. Contractor and BPD believe that full awareness will increase public support for the program and help deter people from committing crimes. Contractor will support program

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awareness, subject to Section 15, as directed and approved by BPD , and will support BPD request for media and public awareness support.

Media Access and Briefings. Contractor will support BPD efforts to enhance public awareness of the program. Contractor will, subject to Section 15, provide support and allow access to media only as directed and approved by BPD.

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Exhibit B
AIR Budget for Pilot Program

Organization Name: Persistent Surveillance Solutions, LLC
Total Project Budget: \$3,690,667

EXPENSE DESCRIPTION			Total 03/01/20 - 12/01/20
PROJECT PERSONNEL¹			
Name or Position, Job Title	Hrs:	P I	9 mo.
Chief Pilot			68,000
Pilots (\$38.40/hr)	4200		161,280
Trackers (15) (\$25.90/hr)	19197		497,199
Analysts (4) (\$40.45/hr)	5120		207,114
Deployed Analysts (\$55.01/hr)	1280		70,410
Perdiem - Deployed Analysts	255		16,560
IT Installation and Setup (3) (\$69.56/hr)	960		66,782
IT Maintenance and Support (2) (\$46.27/hr)	2801		129,593
IT Integration Effort with BPD Systems (2) (\$69.56/hr)	2880		200,345
Shift Manager (3) (\$55.01/hr)	4080		224,433
Site Manager (\$88.04/hr)	1440		126,777
Program Director (\$109.03/hr)	1440		157,009
Office Manager (\$67.04/hr)	1440		96,545
Public Awareness - Briefing Teams (\$40.45/hr) ²	3040		122,974
PERSONNEL SUBTOTAL			\$ 2,145,020
OTHER PROJECT EXPENSES			
Airborne Camera System (usage only):			
HawkEye II/III Sensor Units: 27 months; \$8,222 per month			222,000
Image Processing Units: 27 months; \$788 per month			21,264
Airborne Data Links: 32 months; \$216 per month			5,826
Airborne User Control Station: 27 months; \$73 per month			1,958
Hawkeye III: components and costs			299,000
Hourly Flight Costs: 200 hrs/month per aircraft, \$187 per hour (3-4 aircrafts in orbit)			786,399
Hangars			9,450
Airport Office			9,000
Facilities Operational Costs: office rent, parking, utilities, supplies			95,100
Delivery Disk Drives: Uber package delivery disk drives			5,250
Facilities Setup: modifications/upgrades, security cameras, furniture			17,700
Analyst Stations: server disk drives and 10 workstations at \$1,000 each			20,800
Switches and IT Equipment: projectors and screens, data links, and printers			8,900

¹ Hourly amounts represent fully loaded personnel rates inclusive of 28% fringe.

² Release of funding for Public Awareness personnel and support materials is contingent upon review and approval of BPD written confirmation to proceed with a written plan for Grantee's Public Awareness activities.

Public Awareness Support Materials ²	43,000
<i>OTHER EXPENSES SUBTOTAL</i>	\$ 1,545,647
TOTAL FUNDING REQUEST	\$ 3,690,667

Exhibit C
Independent Evaluation of the Pilot Project

Arnold Ventures intends to provide grants to the following Independent Evaluators to objectively evaluate the Pilot Project, subject to mutual agreement of Arnold Ventures and such Independent Evaluators as to grant terms and conditions and the Independent Evaluators' compliance with those terms and conditions. Arnold Ventures may adjust or supplement these evaluations as needed to objectively assess the Pilot Project.

Contractor will provide full support to the Independent Evaluators and their efforts. Contractor shall provide the Independent Evaluators with access to personnel, offices, documentation, and information as are reasonably required for the Independent Evaluators to conduct the evaluations. Contractor will promptly execute any necessary data sharing and confidentiality agreements with the Independent Evaluators and provide all data requested by the Independent Evaluators as needed to conduct their evaluations.

BPD Support: BPD will provide full support to the Independent Evaluators. BPD shall provide the Independent Evaluators with access to personnel, offices, documentation, and information as are reasonably required for the Independent Evaluators to conduct the evaluations. BPD will promptly execute any necessary data sharing and confidentiality agreements with the Independent Evaluators and provide all data requested by the Independent Evaluators as needed to conduct their evaluations, subject to compliance with BPD policies and in accordance with applicable law.

Evaluation of the Causal Impact of Technology on Police Activity and Crime, RAND Corporation, Estimated Grant of \$900,000

RAND proposes to conduct a mixed method evaluation of the Pilot Project that evaluates how often the Pilot Project is accessed and used by criminal investigators, how often the information provided by the Pilot Project provides evidence that is useful to the investigator, and how the Pilot Project affects crime rates, clearance rates, and prosecution success in Baltimore.

RAND's evaluation is designed to answer three primary questions:

1. What did the Pilot Project consist of, and how was it implemented in practice?
2. How often were Pilot Project data available and useful for target crimes that occurred during coverage periods?
3. Did the Pilot Project produce improved policing outcomes as measured by increased clearance rates and reduced crime rates for targeted crimes?

To answer the three primary research questions, the proposed evaluation includes five complementary tasks:

1. a detailed description of the Pilot Project as implemented to understand key aspects of the Pilot Project and how it may have changed over time;
2. an audit examining the frequency with which the Pilot Project delivers useable surveillance data for targeted crimes committed during coverage periods to understand the extent to which data were available and used by police investigators;

3. a detective survey of Baltimore Police Department (BPD) investigators inquiring about their assessment of the Pilot Project, the value it provides in solving crimes, and how it could be improved;
4. a causal analysis of the effects of the Pilot Project on crime, arrests, clearance rates, and prosecutions to understand the extent to which it is leading to intended benefits over the short and longer term; and
5. coordination with the other research partners – University of Baltimore and the New York University Law school – who are executing complementary evaluation efforts.

Two primary research products will result from the evaluation, as well as ongoing crime trend reporting to BPD. The research team will produce in interim report shortly after the Pilot ends, to provide BPD and the public with initial data and evidence on the possible value of the Pilot Project as a crime solving tool. The second and final report would describe the Pilot Project's effects on crime and clearance rates in Baltimore and would be completed by spring 2022.

Assessment of Technology on Resident Perceptions, University of Baltimore, Estimated Grant of \$175,000

To understand whether and the extent to which the AIR technology is related to residents' perceptions, the Schaefer Center for Public Policy is proposing to conduct two waves of residents surveys in a sample of Baltimore neighborhoods. The proposed research is intended to complement the larger effort to evaluate the Pilot Project. Specifically, the research is designed to answer the following research questions:

1. What are residents' perceptions of their neighborhood conditions, police and police legitimacy, and the effectiveness of the program over a period of sustained implementation of the Pilot Project?
2. What are residents' perceptions of the effectiveness of program over a period of sustained implementation?
3. How do attitudes about police legitimacy and effectiveness relate to perceptions of the technology?
4. What are residents' concerns about the technology and how are those concerns addressed by the police department?

The Schaefer Center's proposed methodology includes: documentation of the questions raised by community members during BPD's planned community meetings and two waves of surveys with residents living in neighborhoods most expected to benefit from the Pilot Project (e.g., residents in neighborhoods with high concentrations of crime and poverty). The Schaefer Center will produce an interim report on its documentation of the community survey meetings and a final report on the findings of the community survey data by spring 2021.

Civil Rights and Civil Liberties Evaluation of the Pilot Project, Policing Project at New York University School of Law, Estimated Grant of \$80,000

The Policing Project proposes to conduct a civil rights and civil liberties audit of the Pilot Project in Baltimore. The audit will:

1. Gather information by reviewing documents about the technology and operations, attending the various community meetings organized by the police department and the Contractor, and conducting interviews with the Contractor, BPD, and select civil liberties and civil rights leaders in Baltimore;
2. Examine how BPD is using the technology's data and assistance and integrating the technology into operations;
3. Evaluate potential civil rights and civil liberties concerns, such as disparate racial impacts, privacy concerns, constitutional risks, evidentiary and trial risk, and risk of increased criminalization; and
4. Make recommendations for possible improvements to the technology partner and BPD.

Based on previous experience conducting similar audits of technology for police departments, the recommendations to BPD and the technology partner will focus on the technological design, internal corporate operations, and use of the technology by BPD. The Policing Project team will then work closely with Contractor and BPD to implement those changes. The project will complement the other research activities and conclude in early 2021.

Exhibit D
Independent Verification and Validation (“IV&V”) of the Pilot Project

The Abell Foundation, Inc. (“Abell”) intends to provide funding support to an IV&V firm to verify that the aerial imagery is used solely for the limited purposes intended under the Pilot Program, subject to mutual agreement of Abell and such IV&V firm as to grant terms and conditions and the IV&V firm’s compliance with those terms and conditions.

Contractor will provide full support to the IV&V firm and its efforts. Contractor shall provide the IV&V firm and its personnel with access to personnel, offices, documentation, and information as are reasonably required to conduct the verification and validation. Contractor will promptly execute any necessary data sharing agreements with the IV&V firm and provide all data requested by the IV&V firm as needed to conduct their evaluations.

BPD Support: BPD will provide full support to the IV&V firm. BPD shall provide the Independent Evaluators with access to personnel, offices, documentation, and information as are reasonably required for the IV&V firm to conduct the evaluations. BPD will promptly execute any necessary data sharing agreements with the IV&V firm and provide all data requested by the IV&V firm as needed to conduct their evaluations, subject to compliance with BPD policies and in accordance with applicable law.

The IV&V firm will provide periodic to BPD, the Contractor, the Independent Evaluators and also make certain reports publicly available.

Exhibit C

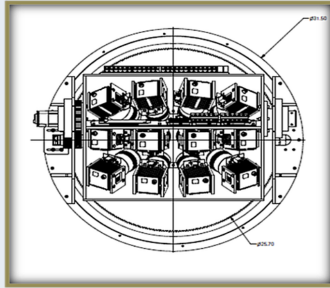
Part 1 of 2



The HawkEye II Wide Area Surveillance system is a highly capable, full color, highly configurable, airborne sensor.

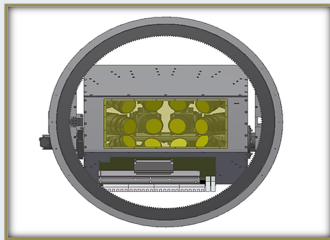
Previous

Next



The HawkEye II Wide Area Surveillance sensor is highly capable system. The base configuration consists of twelve, full color cameras, an Inertial Measurement Unit, and a two axis Universal Mount. This system is designed to look out from a planes baggage door.

The POD variant (sensor designs are above and below) has been developed to be placed in a pod, in a look down orientation. This system provides the same capability as the Universal system but at a much lower weight cost. The HawkEye II Pod system comes in at 87 lbs vs the 227 lbs of the Universal Mount.



HawkEye II™ Specifications	
Weight	137 lbs / 62 kg
Power Consumption	800 - 1200 Watts
Voltage	28 VDC
Total Resolution	192 megapixels
Gimbal	wo-axis Rotating Gimbal
Number of Cameras	12
Frame Rate	1 Hz
CCD Specifications	
Resolution	16 megapixels
Sensor Type	Bayer CCD - Shutterless
Pixel Size	7.4 um
Active Rows	3,218
Active Pixels/Row	4,872
Detector Size	24 x 36 mm
Post Processing Projection Resolution	
Real-Time Projection	12,000 x 12,000 pixels
Forensic Projection	12,000 x 12,000 pixels
Re-processed	up to 16,000 x 16,000
On-Board Analysis Station	
CPU	Dual Processor
Operating System	Windows 7 +
On Board Data Storage	Up to 8 TB SSDs
On Board Image Server	8 TB
On-Board Software	
Image Processing	iMake™ (1 User License per payload)
Camera Control	CamLink™ (1 User license per payload)
GUI (Graphical User Interface)	iView™ (1 User license per payload)
Compression Type	Multi-Resolution JPEG Compression
Payload Coverage (Continuous)	
4,000' AGL	6 km²
7,000' AGL	16 km²
12,000 AGL	36 km²
15,000 AGL	64 km²
Pixel Size (AGL)	
4,000' AGL	~ 4 square miles
7,000' AGL	~ 9 square miles
12,000 AGL	~ 25 square miles
15,000 AGL	~36 square miles
Environmental Considerations	
Temperature Range for Operation	32 F to 95 F / 0 C to 35 C
Optimal Operating Conditions	Clear or High Scattered
Temperature Range for Storage	20 F to 110 F / -6.6 to 43

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Capability

HawkEye II Wide Area Surveillance brings a new capability to First Responders, Public Safety, Homeland Security, and City Planners by giving them the ability to *monitor multiple areas of interest - simultaneously.*

Previous

Next

HawkEye II is a 192 million pixel, full color, geo and ortho rectified airborne wide area surveillance sensor. When coupled with PSS's 300 mbps Data Link, Image Presentation & Storage Server, and iView - PSS's image exploitation software, it gives users a near realtime ability (up to 3 second delay) to view all events occurring in an areas up to 64 square kilometers.

To put this in perspective, think in terms of how much more efficient an emergency response to a major disaster would be if the entire extent of the damage could be seen in one, unified view. Critical, limited assets could be vectored to areas of need more efficiently, saving minutes or hours for victims needing critical attention.

HawkEyeII can monitor multiple areas of interest simultaneously.



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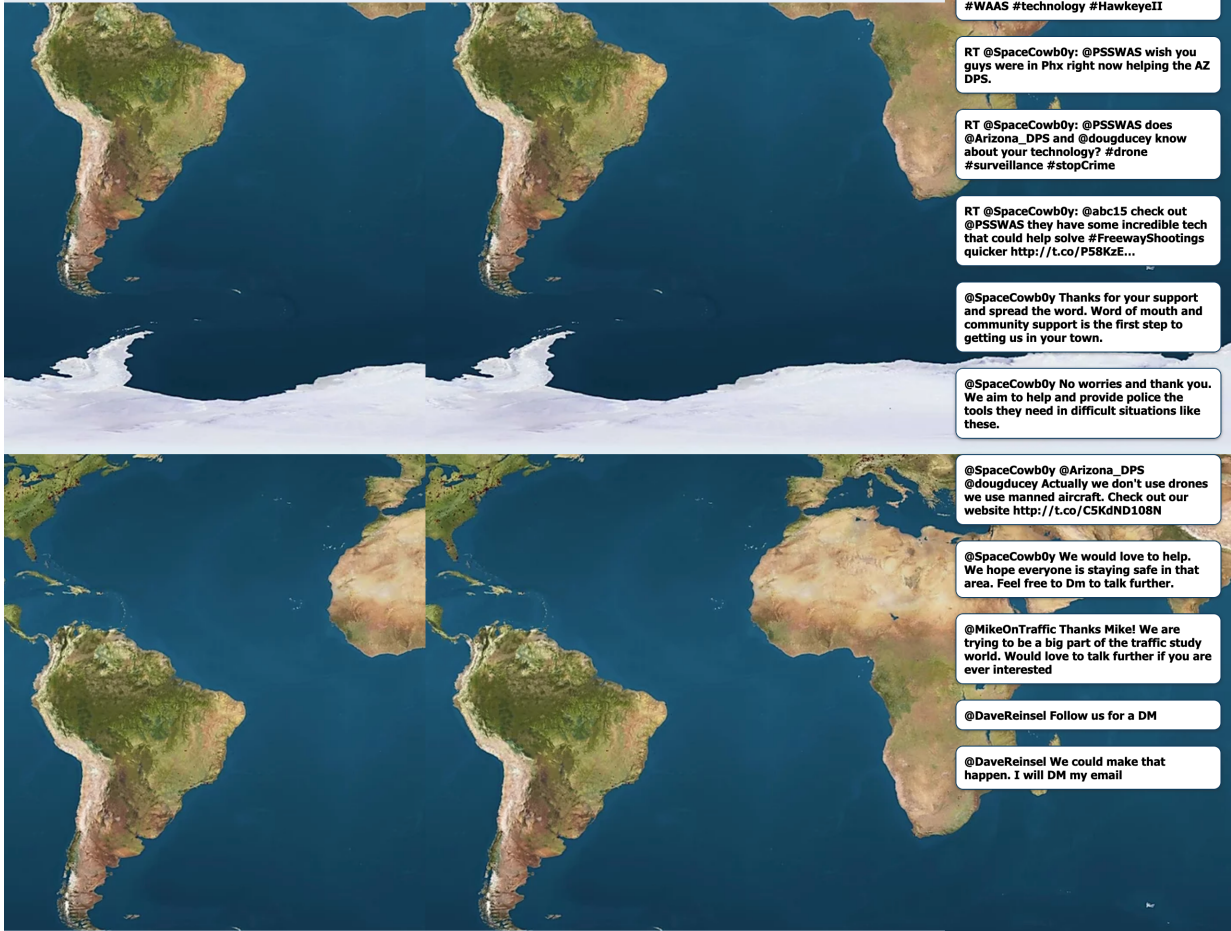


Exhibit C

Part 2 of 2

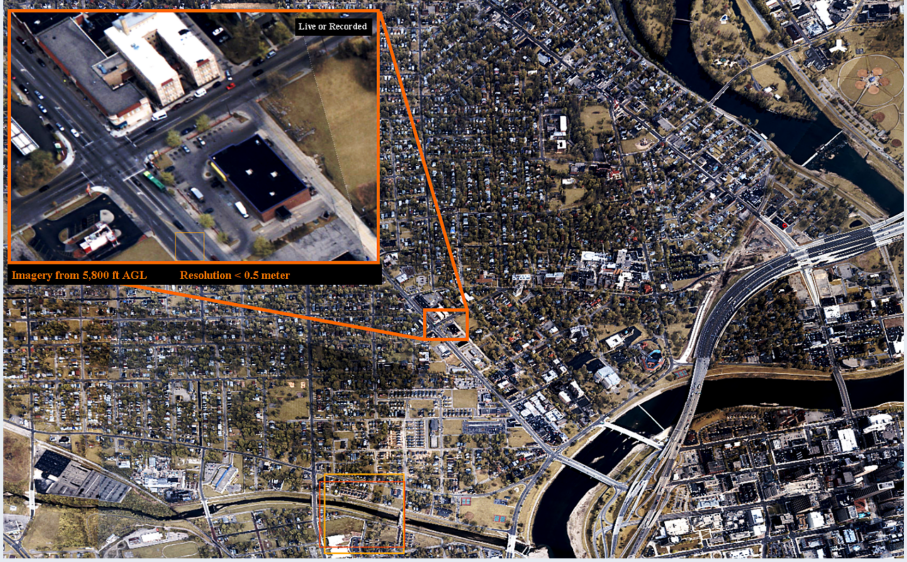


HawkEye II Wide Area Surveillance provides 1/2 meter resolution throughout its 64 square kilometer coverage area. That allows analysts to monitor vehicles and people anywhere within an area of interest.

Previous

Next

Resolution matters. Without it, the value of a Wide Area Surveillance system diminishes rapidly. With it, the ability to provide real-time support and enhance successful outcomes improves dramatically. HawkEye II has 1/2 meter resolution throughout its 64 square kilometer coverage area. This gives your team the ability monitor events on the ground wherever they are in the imagery.



HawkEye II is intended to see expansive areas with resolutions that allow users to detect movements of people and vehicles. It does not provide the ability to detect gender, ethnicity, age, hair color, nor can it be used for facial recognition. This is an inherent limit to Wide Area Motion Imagery. If cameras get better - and they will - the same resolution limits will remain in place, the change will be in the size of the coverage area.

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Exhibit D



Unique in the Crowd: The privacy bounds of human mobility

Yves-Alexandre de Montjoye^{1,2}, César A. Hidalgo^{1,3,4}, Michel Verleysen² & Vincent D. Blondel^{2,5}

SUBJECT AREAS:

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APPLIED MATHEMATICS

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COMPUTATIONAL SCIENCE

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We study fifteen months of human mobility data for one and a half million individuals and find that human mobility traces are highly unique. In fact, in a dataset where the location of an individual is specified hourly, and with a spatial resolution equal to that given by the carrier's antennas, four spatio-temporal points are enough to uniquely identify 95% of the individuals. We coarsen the data spatially and temporally to find a formula for the uniqueness of human mobility traces given their resolution and the available outside information. This formula shows that the uniqueness of mobility traces decays approximately as the 1/10 power of their resolution. Hence, even coarse datasets provide little anonymity. These findings represent fundamental constraints to an individual's privacy and have important implications for the design of frameworks and institutions dedicated to protect the privacy of individuals.

Derived from the Latin *Privatus*, meaning “withdraw from public life,” the notion of privacy has been foundational to the development of our diverse societies, forming the basis for individuals' rights such as free speech and religious freedom¹. Despite its importance, privacy has mainly relied on informal protection mechanisms. For instance, tracking individuals' movements has been historically difficult, making them de-facto private. For centuries, information technologies have challenged these informal protection mechanisms. In 1086, William I of England commissioned the creation of the Domesday book, a written record of major property holdings in England containing individual information collected for tax and draft purposes². In the late 19th century, de-facto privacy was similarly threatened by photographs and yellow journalism. This resulted in one of the first publications advocating privacy in the U.S. in which Samuel Warren and Louis Brandeis argued that privacy law must evolve in response to technological changes³.

Modern information technologies such as the Internet and mobile phones, however, magnify the uniqueness of individuals, further enhancing the traditional challenges to privacy. Mobility data is among the most sensitive data currently being collected. Mobility data contains the approximate whereabouts of individuals and can be used to reconstruct individuals' movements across space and time. Individual mobility traces T [Fig. 1A–B] have been used in the past for research purposes^{4–18} and to provide personalized services to users¹⁹. A list of potentially sensitive professional and personal information that could be inferred about an individual knowing only his mobility trace was published recently by the Electronic Frontier Foundation²⁰. These include the movements of a competitor sales force, attendance of a particular church or an individual's presence in a motel or at an abortion clinic.

While in the past, mobility traces were only available to mobile phone carriers, the advent of smartphones and other means of data collection has made these broadly available. For example, Apple® recently updated its privacy policy to allow sharing the spatio-temporal location of their users with “partners and licensees”²¹. 65.5B geo-tagged payments are made per year in the US²² while Skyhook wireless is resolving 400 M user's WiFi location every day²³. Furthermore, it is estimated that a third of the 25B copies of applications available on Apple's App StoreSM access a user's geographic location^{24,25}, and that the geo-location of ~50% of all iOS and Android traffic is available to ad networks²⁶. All these are fuelling the ubiquity of simply anonymized mobility datasets and are giving room to privacy concerns.

A simply anonymized dataset does not contain name, home address, phone number or other obvious identifier. Yet, if individual's patterns are unique enough, outside information can be used to link the data back to an individual. For instance, in one study, a medical database was successfully combined with a voters list to extract

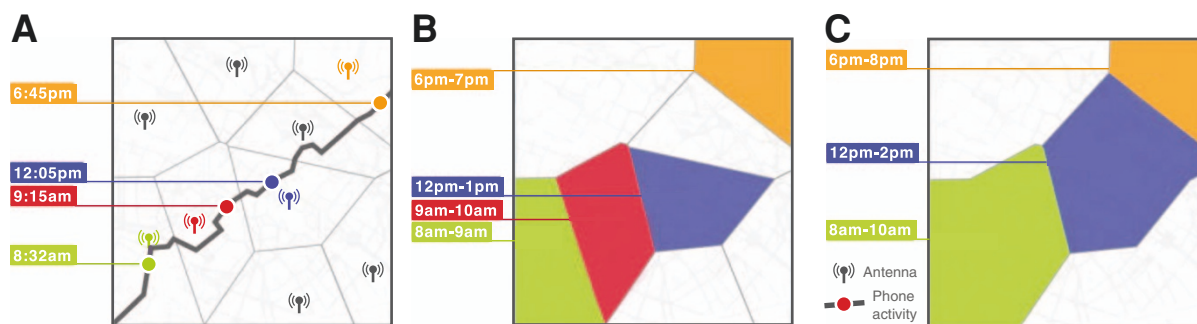


Figure 1 | (A) Trace of an anonymized mobile phone user during a day. The dots represent the times and locations where the user made or received a call. Every time the user has such an interaction, the closest antenna that routes the call is recorded. (B) The same user's trace as recorded in a mobility database. The Voronoi lattice, represented by the grey lines, are an approximation of the antennas reception areas, the most precise location information available to us. The user's interaction times are here recorded with a precision of one hour. (C) The same individual's trace when we lower the resolution of our dataset through spatial and temporal aggregation. Antennas are aggregated in clusters of size two and their associated regions are merged. The user's interaction are recorded with a precision of two hours. Such spatial and temporal aggregation render the 8:32 am and 9:15 am interactions indistinguishable.

the health record of the governor of Massachusetts²⁷. In another, mobile phone data have been re-identified using users' top locations²⁸. Finally, part of the Netflix challenge dataset was re-identified using outside information from The Internet Movie Database²⁹.

All together, the ubiquity of mobility datasets, the uniqueness of human traces, and the information that can be inferred from them highlight the importance of understanding the privacy bounds of human mobility. We show that the uniqueness of human mobility traces is high and that mobility datasets are likely to be re-identifiable using information only on a few outside locations. Finally, we show that one formula determines the uniqueness of mobility traces providing mathematical bounds to the privacy of mobility data. The uniqueness of traces is found to decrease according to a power function with an exponent that scales linearly with the number of known spatio-temporal points. This implies that even coarse datasets provide little anonymity.

Results

Uniqueness of human mobility. In 1930, Edmond Locard showed that 12 points are needed to uniquely identify a fingerprint³⁰. Our unicity test estimates the number of points p needed to uniquely identify the mobility trace of an individual. The fewer points needed, the more unique the traces are and the easier they would be to re-identify using outside information. For re-identification purposes, outside observations could come from any publicly available information, such as an individual's home address, workplace address, or geo-localized tweets or pictures. To the best of our knowledge, this is the first quantification of the uniqueness of human mobility traces with random points in a sparse, simply anonymized mobility dataset of the scale of a small country.

Given I_p , a set of spatio-temporal points, and D , a simply anonymized mobility dataset, we evaluate ϵ , the uniqueness of traces, by extracting from D the subset of trajectories $S(I_p)$ that match the p points composing I_p [See Methods]. A trace is unique if $|S(I_p)| = 1$, containing only one trace. For example, in Fig. 2A, we evaluate the uniqueness of traces given $I_{p=2}$. The two spatio-temporal points contained in $I_{p=2}$ are zone I from 9am to 10am and zone II from 12pm to 1pm. The red and the green traces both satisfy $I_{p=2}$, making them not unique. However, we can also evaluate the uniqueness of traces knowing $I_{p=3}$, adding as a third point zone III between 3pm and 4pm. In this case $|S(I_{p=3})| = 1$, uniquely characterize the green trace. A lower bound on the risk of deductive disclosure of a user's identity is given by the uniqueness of his mobility trace, the likelihood of this brute force characterization to succeed.

Our dataset contains 15 months of mobility data for 1.5 M people, a significant and representative part of the population of a small European country, and roughly the same number of users as the

location-based service Foursquare^{®31}. Just as with smartphone applications or electronic payments, the mobile phone operator records the interactions of the user with his phone. This creates a comparable longitudinally sparse and discrete database [Fig. 3]. On average, 114 interactions per user per month for the nearly 6500 antennas are recorded. Antennas in our database are distributed throughout the country and serve, on average, ~ 2000 inhabitants each, covering areas ranging from 0.15 km² in cities to 15 km² in rural areas. The number of antennas is strongly correlated with population density ($R^2 = .6426$) [Fig. 3C]. The same is expected from businesses, places in location-based social networks, or WiFi hotspots.

Fig. 2B shows the fraction of unique traces (ϵ) as a function of the number of available points p . Four randomly chosen points are enough to uniquely characterize 95% of the users ($\epsilon > .95$), whereas two randomly chosen points still uniquely characterize more than 50% of the users ($\epsilon > .5$). This shows that mobility traces are highly unique, and can therefore be re-identified using little outside information.

Scaling properties. Nonetheless, ϵ depends on the spatial and temporal resolution of the dataset. Here, we determine this dependence by lowering the resolution of our dataset through spatial and temporal aggregation [Fig. 1C]. We do this by increasing the size of a region, aggregating neighbouring cells into clusters of v cells, or by reducing the dataset's temporal resolution, increasing the length of the observation time window to h hours [see Methods]. Both of these aggregations are bound to decrease ϵ , and therefore, make re-identification harder.

Fig. 4A shows how the uniqueness of mobility traces ϵ depends on the spatial and temporal resolution of the data. This reduction, however, is quite gradual. Given four points ($p=4$), we find that $\epsilon > .5$ when using a resolution of $h = 5$ hours and $v = 5$ antennas.

Statistically, we find that traces are more unique when coarse on one dimension and fine along another than when they are medium-grained along both dimensions. Indeed, given four points, $\epsilon > .6$ in a dataset with a temporal resolution of $h = 15$ hours or a spatial resolution of $v = 15$ antennas while $\epsilon > .4$ in a dataset with a temporal resolution of $h = 7$ hours and a spatial resolution of $v = 7$ antennas [Fig. 4A].

Next, we show that it is possible to find one formula to estimate the uniqueness of traces given both, the spatial and temporal resolution of the data, and the number of points available to an outside observer. Fig. 4B and 4C show that the uniqueness of a trace decreases as the power function $\epsilon = \alpha - x^\beta$, for decreases in both the spatial and temporal resolution (x), and for all considered $p = 4, 6, 8$ and 10 (see Table S1). The uniqueness of human mobility can thus be expressed using the single formula: $\epsilon = \alpha - (vh)^\beta$. We find that this power

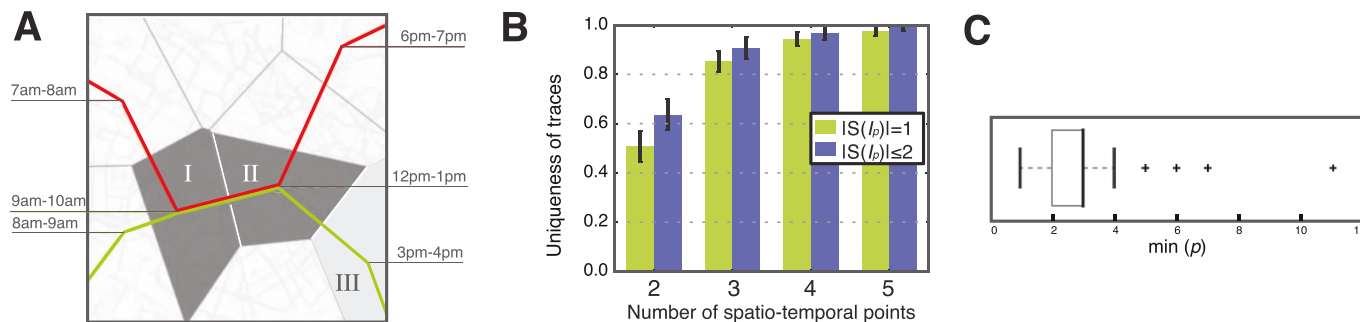


Figure 2 | (A) $I_{p=2}$ means that the information available to the attacker consist of two 7am-8am spatio-temporal points (I and II). In this case, the target was in zone I between 9am to 10am and in zone II between 12pm to 1pm. In this example, the traces of two anonymized users (red and green) are compatible with the constraints defined by $I_{p=2}$. The subset $S(I_{p=2})$ contains more than one trace and is therefore not unique. However, the green trace would be uniquely characterized if a third point, zone III between 3pm and 4pm, is added ($I_{p=3}$). (B) The uniqueness of traces with respect to the number p of given spatio-temporal points (I_p). The green bars represent the fraction of unique traces, i.e. $|S(I_p)| = 1$. The blue bars represent the fraction of $|S(I_p)| \leq 2$. Therefore knowing as few as four spatio-temporal points taken at random ($I_{p=4}$) is enough to uniquely characterize 95% of the traces amongst 1.5 M users. (C) Box-plot of the minimum number of spatio-temporal points needed to uniquely characterize every trace on the non-aggregated database. At most eleven points are enough to uniquely characterize all considered traces.

function fits the data better than other two-parameters functions such as $\alpha - \exp(\lambda x)$, a stretched exponential $\alpha - \exp x^\beta$, or a standard linear function $\alpha - \beta x$ (see Table S1). Both estimators for α and β are highly significant ($p < 0.001$)³², and the mean pseudo- R^2 is 0.98 for the $I_{p=4}$ case and the $I_{p=10}$ case. The fit is good at all levels of spatial and temporal aggregation [Fig. S3A–B].

The power-law dependency of ϵ means that, on average, each time the spatial or temporal resolution of the traces is divided by two, their uniqueness decreases by a constant factor $\sim (2)^{-\beta}$. This implies that privacy is increasingly hard to gain by lowering the resolution of a dataset.

Fig. 2B shows that, as expected, ϵ increases with p . The mitigating effect of p on ϵ is mediated by the exponent β which decays linearly with p : $\beta = 0.157 - 0.007p$ [Fig. 4E]. The dependence of β on p implies that a few additional points might be all that is needed to identify an individual in a dataset with a lower resolution. In fact, given four points, a two-fold decrease in spatial or temporal resolution makes it 9.3% less likely to identify an individual, while given ten points, the same two-fold decrease results in a reduction of only 6.2% (see Table S1).

Because of the functional dependency of ϵ on p through the exponent β , mobility datasets are likely to be re-identifiable using information on only a few outside locations.

Discussion

Our ability to generalize these results to other mobility datasets depends on the sensitivity of our analysis to extensions of the data

to larger populations, or geographies. An increase in population density will tend to decrease ϵ . Yet, it will also be accompanied by an increase in the number of antennas, businesses or WiFi hotspots used for localizations. These effects run opposite to each other, and therefore, suggest that our results should generalize to higher population densities.

Extensions of the geographical range of observation are also unlikely to affect the results as human mobility is known to be highly circumscribed. In fact, 94% of the individuals move within an average radius of less than 100 km¹⁷. This implies that geographical extensions of the dataset will stay locally equivalent to our observations, making the results robust to changes in geographical range.

From an inference perspective, it is worth noticing that the spatio-temporal points do not equally increase the likelihood of uniquely identifying a trace. Furthermore, the information added by a point is highly dependent from the points already known. The amount of information gained by knowing one more point can be defined as the reduction of the cardinality of $S(I_p)$ associated with this extra point. The larger the decrease, the more useful the piece of information is. Intuitively, a point on the MIT campus at 3AM is more likely to make a trace unique than a point in downtown Boston on a Friday evening.

This study is likely to underestimate ϵ , and therefore the ease of re-identification, as the spatio-temporal points are drawn at random from users' mobility traces. Our I_p are thus subject to the user's spatial and temporal distributions. Spatially, it has been shown that the uncertainty of a typical user's whereabouts measured by its

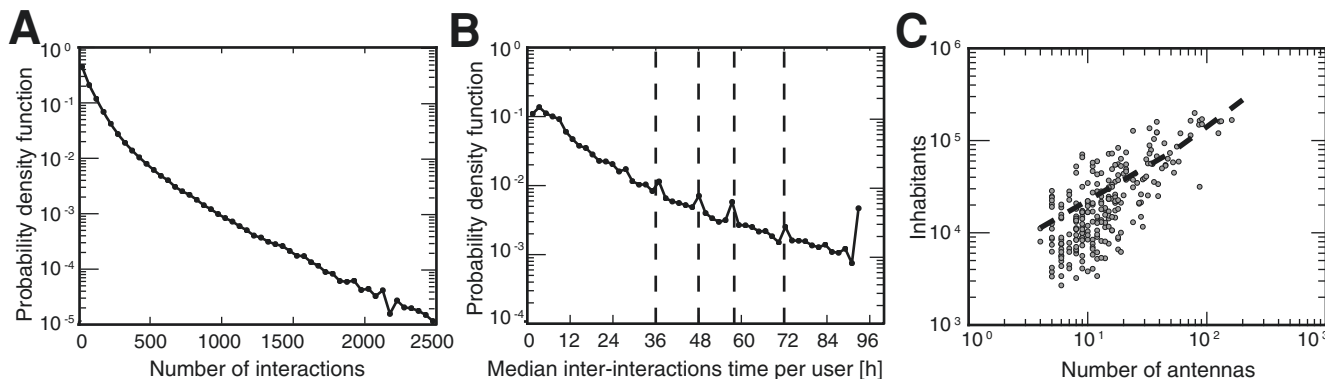


Figure 3 | (A) Probability density function of the amount of recorded spatio-temporal points per user during a month. (B) Probability density function of the median inter-interaction time with the service. (C) The number of antennas per region is correlated with its population ($R^2 = .6426$). These plots strongly emphasize the discrete character of our dataset and its similarities with datasets such as the one collected by smartphone apps.

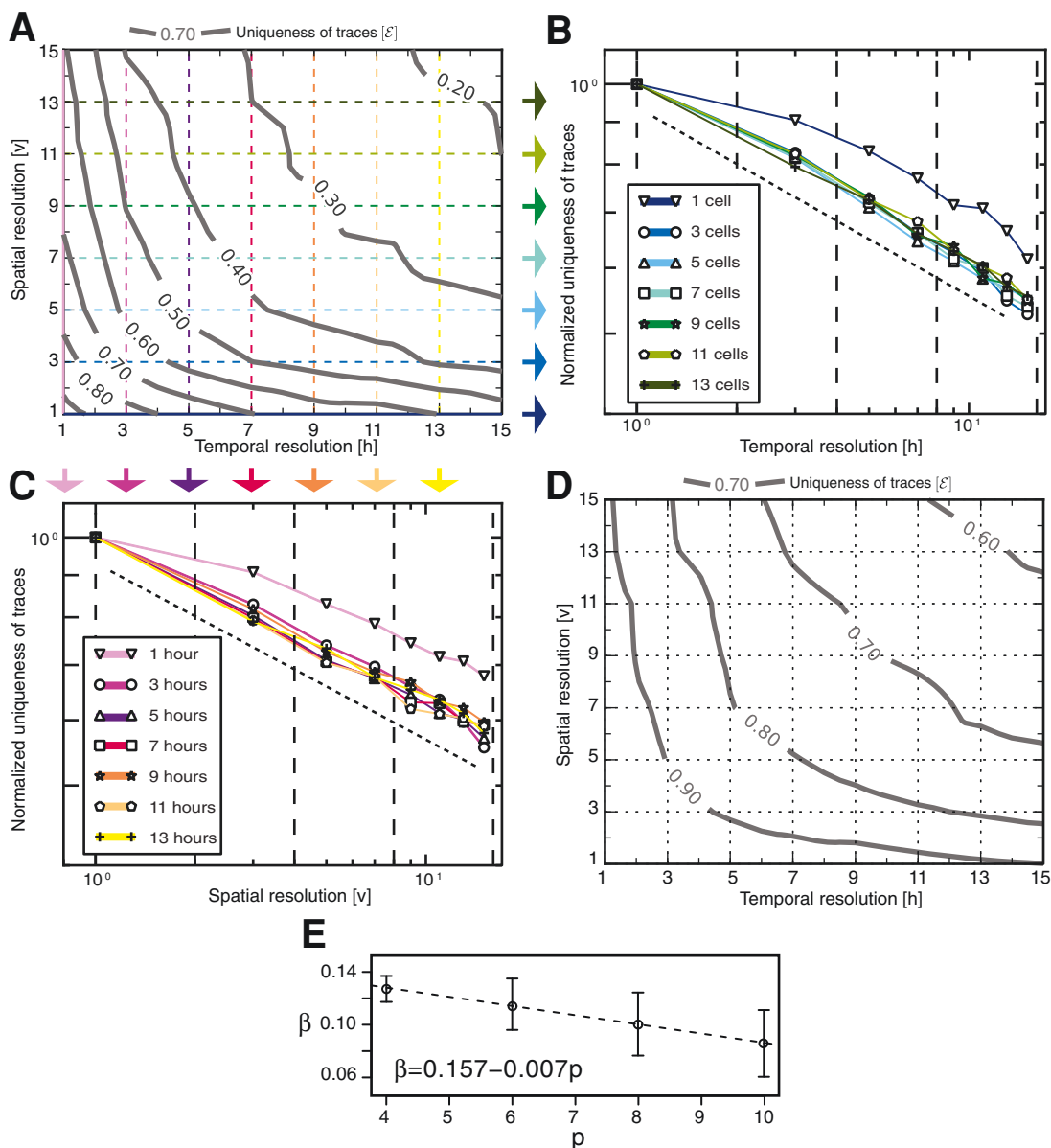


Figure 4 | Uniqueness of traces $[\epsilon]$ when we lower the resolution of the dataset with (A) $p = 4$ and (D) $p = 10$ points. It is easier to attack a dataset that is coarse on one dimension and fine along another than a medium-grained dataset along both dimensions. Given four spatio-temporal points, more than 60% of the traces are uniquely characterized in a dataset with an $h = 15$ -hours temporal resolution while less than 40% of the traces are uniquely characterized in a dataset with a temporal resolution of $h = 7$ hours and with clusters of $v = 7$ antennas. The region covered by an antenna ranges from 0.15 km² in urban areas to 15 km² in rural areas. (B–C) When lowering the temporal or the spatial resolution of the dataset, the uniqueness of traces decrease as a power function $\epsilon = \alpha - x^\beta$. (E) While ϵ decreases according to a power function, its exponent β decreases linearly with the number of points p . Accordingly, a few additional points might be all that is needed to identify an individual in a dataset with a lower resolution.

entropy is 1.74, less than two locations¹⁸. This makes our random choices of points likely to pick the user’s top locations (typically “home” and “office”). Temporally, the distribution of calls during the week is far from uniform [Fig. S1] which makes our random choice more likely to pick a point at 4PM than at 3AM. However, even in this case, the traces we considered that are most difficult to identify can be uniquely identified knowing only 11 locations [Fig. 2C].

For the purpose of re-identification, more sophisticated approaches could collect points that are more likely to reduce the uncertainty, exploit irregularities in an individual’s behaviour, or implicitly take into account information such as home and workplace or travels abroad^{29,33}. Such approaches are likely to reduce the number of locations required to identify an individual, vis-à-vis the average uniqueness of traces.

We showed that the uniqueness of human mobility traces is high, thereby emphasizing the importance of the idiosyncrasy of human movements for individual privacy. Indeed, this uniqueness means that little outside information is needed to re-identify the trace of a targeted individual even in a sparse, large-scale, and coarse mobility dataset. Given the amount of information that can be inferred from mobility data, as well as the potentially large number of simply anonymized mobility datasets available, this is a growing concern. We further showed that while $\epsilon \sim (vh)^\beta$, $\beta \sim -p/100$. Together, these determine the uniqueness of human mobility traces given the traces’ resolution and the available outside information. These results should inform future thinking in the collection, use, and protection of mobility data. Going forward, the importance of location data will only increase³⁴ and knowing the bounds of individual’s privacy will



be crucial in the design of both future policies and information technologies.

Methods

The dataset. This work was performed using an anonymized mobile phone dataset that contains call information for ~ 1.5 M users of a mobile phone operator. The data collection took place from April 2006 to June 2007 in a western country. Each time a user interacts with the mobile phone operator network by initiating or receiving a call or a text message, the location of the connecting antenna is recorded [Fig. 1A]. The dataset's intrinsic spatial resolution is thus the maximal half-distance between antennas. The dataset's intrinsic temporal resolution is one hour [Fig. 1B].

Unicity test and the likelihood of deductive disclosure. The considered dataset contains one trace T for each user. The traces spatio-temporal points contain the region in which the user was and the time of the interaction. We evaluate the uniqueness of a trace given a set I_p of p randomly chosen spatio-temporal points. A trace is said to be compatible with I_p if $I_p \subseteq T$ [Fig. 2A]. Note that this notion of compatibility can easily be extended to noisier or richer data. A brute force characterization is performed by extracting from the entire dataset of 1.5 M users $S(I_p)$, the set of users whose mobility traces T are compatible with I_p . All mobility traces in the dataset T are successively tested for compatibility with I_p . A trace is characterized "out of x ", if the set of traces that are compatible with the points contains at most x users: $|S(I_p)| \leq x$. A trace is uniquely characterized if the set contains exactly one trace: $|S(I_p)| = 1$. The uniqueness of traces is estimated as the percentage of 2500 random traces that are unique given p spatio-temporal points. The p points composing I_p are taken at random among all the interactions the user had with the service. As discussed, we do not apply any constraints regarding the choice of I_p .

Minimum number of spatio-temporal location needed to uniquely characterize every trace. Fig. 2B shows that $.95 < \varepsilon < 1$ given $I_{p=4}$. Fig. 2C evaluates the minimum p needed to uniquely characterize every trace in a given set. This set contains a random sample of 1000 heavy-users, i.e. users that used their phone at least 75 times per month as their randomly chosen points might make their trace less unique.

Spatial aggregation. Spatial aggregation is achieved by increasing the size of the regions in which the user is known to be during his interactions with the service. In the case of discrete data, a bijective relation exists between antennas (known in this case as centroids) and the region defined by the Voronoi tessellation. The tessellation is defined so that every point in a region is closer to the region's antenna than to any other antenna. In order to increase the region's area, one should group antennas into clusters of a given size v . While the problem of optimally grouping places in a 2D space into groups of given sizes v is non trivial, it can be approximated through clustering methods. The canonical clustering methods focus on minimizing the within-cluster sum of squares rather than producing balanced clusters. This drawback can be controlled by the use of a Frequency Sensitive Competitive Learning scheme³⁵. Fig. S2 shows the resulting group size histogram optimized for clusters of size 4. Once antennas are aggregated into groups, their associated regions are merged.

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Author contributions

Y.-A. de M. designed and performed experiments, analyzed data and wrote the paper; C.A.H. designed experiments, developed analytic tools and wrote the paper; M.V. and V.D.B. designed experiments and wrote the paper.

Additional information

Supplementary information accompanies this paper at <http://www.nature.com/scientificreports>

Competing financial interests: The authors declare no competing financial interests.

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Exhibit E



NightHawk II provides affordable nighttime, wide area surveillance capability with persistent coverage of areas as large as 4 square kilometers.

NightHawk II

The NightHawk II Wide Area Surveillance system integrates seamlessly with all HawkEye II components including Image Processor, Data Links, Image Presentation and Storage Server, and IView.

In its base form, NightHawk II provides coverage of 2 X 2 km with ground resolution of 1/2 meter throughout the image.

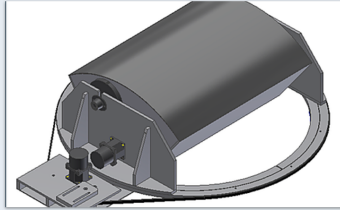
Images are processed in real-time with image stitching, geo and ortho rectification, and preparation for data communications transport to analysts on the ground.

Multi-Spectral Capability

NightHawk II can be configured as a multi-spectral imager. Users can opt for a system configured with EO, SWIR, and NIR capabilities.

Contact PSS

NightHawk II SWIR



The NightHawk / HawkEye family of sensors bring a 24 hour monitoring capability to Wide Area Surveillance.

Analysts can easily switch from one sensor to another using the same tools and techniques.

SWIR Sensor

- Capability for 100% duty cycle across entire illumination spectrum
- High sensitivity in 0.9 to 1.7um spectrum; NIR/SWIR, from 0.7 to 1.7um
- Partial moonlight to day time imaging
- All solid-state InGaAs imager
- On-board, real-time non-uniformity corrections
- Automatic Gain Control (AGC)
- Operation from -40 to +70 degrees C
- Tested to MIL-STD-810G fro functional shock, vibration, thermal shock, storage temperature, altitude, humidity

Price

You'd be surprised. Like HawkEye II, the base unit is competitively priced with camera balls.

What's better, is the base unit can be upgraded over time with out having to replace the entire unit. That's great engineering!

SWIR IMAGE GALLERY



@koza1 @RichardsonTX_PD @DallasPD @ArlingtonPD We would love to help in any way or services can be useful

@marafilms @Radiolab Media has covered it pretty extensively. Any major news will be released by BPD or PSS

@tygera We would love to be apart of the wonderful work being done in our National Parks

@drivesupplement Currently, FAA regulation does not allow large drone use over populated areas. It's prohibitively... https://t.co/kej7d6nJQg

@SkycarDude We would love to have that conversation.

@TheJoby Privacy concerns are taken very seriously at PSS we have released our privacy policy on our website. Our o... https://t.co/8qWSFmmcRj

@burrben @elonmusk Thanks for the mention. We are always ready to help anywhere our services can be useful

For information on our technology and to find out what HawkEyeII can do for you check out our website https://t.co/zyz2Yrn1F

@d_p_collins We are a Wide Area Airborne Surveillance provider, we currently do not install or sell any CCTV's

@d_p_collins Not quite sure what you are referring to

@Marcham93 Drones are actually far more expensive and heavily restricted. It's not impossible for us to use but not as cost effective

@HaydenVernon Please DM a good email address and PSS personnel will be in touch

Check out some updates to the PSS website at https://t.co/8XRZ7czEes #WAAS #technology #HawkeyeII

RT @SpaceCowb0y: @PSSWAS wish you guys were in Phx right now helping the AZ DPS.

RT @SpaceCowb0y: @PSSWAS does @Arizona_DPS and @dougyducey know about your technology? #drone #surveillance #stopCrime

RT @SpaceCowb0y: @abc15 check out @PSSWAS they have some incredible tech that could help solve #FreewayShootings quicker http://t.co/P58KzE...

@SpaceCowb0y Thanks for your support and spread the word. Word of mouth and community support is the first step to getting us in your town.

@SpaceCowb0y No worries and thank you. We aim to help and provide police the tools they need in difficult situations like these.

@SpaceCowb0y @Arizona_DPS @dougyducey Actually we don't use drones we use manned aircraft. Check out our website http://t.co/CSKdND108N

@SpaceCowb0y We would love to help. We hope everyone is staying safe in that area. Feel free to Dm to talk further.

@MikeOnTraffic Thanks Mike! We are trying to be a big part of the traffic study world. Would love to talk further if you are ever interested

@DaveReinsel Follow us for a DM

@DaveReinsel We could make that happen. I will DM my email

**UNITED STATES DISTRICT COURT
DISTRICT OF MARYLAND**

LEADERS OF A BEAUTIFUL STRUGGLE

et al.,

Plaintiffs,

v.

BALTIMORE POLICE DEPARTMENT

et al.,

Defendants.

Civil Action No. 20-929

DECLARATION OF DAYVON LOVE

I, Dayvon Love, declare:

1. I am a resident of Baltimore, Maryland, and I am over the age of eighteen. I have personal knowledge of the facts stated in this declaration and if called to testify I could and would testify competently thereto. I am providing this declaration in my capacity as Director of Public Policy at Leaders of a Beautiful Struggle (“LBS”).

2. I am currently the Director of Public Policy at LBS, a position I have held since I co-founded the organization in 2010. I am also a co-author of several publications including *The Black Book: Reflections from the Baltimore Grassroots*, a collection of essays that describe important issues facing grassroots activists and organizers in Baltimore, and *When Baltimore Awakes: An Analysis of the Human & Social Service Sector in Baltimore City*, a critique of the human/social service sector in Baltimore. I am a second-generation resident of Baltimore and I have long been involved in the

community. Prior to starting LBS, I was a Baltimore high school teacher, a legislative aide at City Hall, a community center volunteer, and a debate coach.

3. My work as Director of Public Policy at LBS primarily involves engaging with elected officials, organizing community stakeholders, producing materials to help in our advocacy work, and generally navigating the political terrain in Baltimore. My day-to-day work varies greatly. I focus some days on researching and tracking political dynamics, which includes identifying what policies elected officials and major institutions plan on proposing or implementing. This research informs my development of long-term strategies to advance LBS's policy goals and advocacy campaigns. Other days are spent attending community meetings and talking one-on-one with individuals to get a sense of what people in Baltimore are doing and thinking. I also often meet with and advise local organizations, such as the Baltimore City Children and Youth Fund. And, when the Maryland General Assembly is in session, my role shifts to focus on more direct political advocacy and lobbying.

I. Background

4. LBS is a Baltimore-based grassroots think-tank founded in 2010 that advances the public policy interests of Black people in the city, through youth leadership development, political advocacy, and autonomous intellectual innovation. LBS is currently organized as a limited liability company, and has a leadership team consisting of a Chief Executive Officer, a Chief Operating Officer, a Director of Public Policy, a Director of Research, a Cultural Curator, an Events and Projects Manager, and a Bookkeeper. We are a Black independent group of concerned leaders engaging the public

policy arena, and we are beholden to any foundation, nonprofit, or political party. LBS seeks to radically change the discourse around local and regional politics by injecting community voices into political conversations through policy research, advocacy, and community organizing from a grassroots perspective.

5. LBS is a public policy entity positioned to effectively address the complex issues facing Black Baltimore residents in every arena of civil society. LBS is also a Black research institution that combines academic rigor, tactical vision, accessible communication, and a Black Power framework. Additionally, LBS organizes and facilitates youth leadership programming that connects policy debate and social justice to the development of positive self-identity for Black youth.

6. LBS has 360 sustainers who donate monthly to our organization, an email list with approximately 10,000 names, and a Facebook page with approximately 11,000 followers.

7. A central focus of LBS's work is addressing historic and structural impediments to Black people's quality of life, including poverty, violence, and white supremacy in the American political and socio-economic order. To this end, we have been heavily involved in policing reform and have spearheaded numerous legislative efforts aimed at policing accountability. For example, we helped pass Christopher's Law, which requires police officers to be trained in CPR, cultural sensitivity, the proper use of force, and interacting with the physically and mentally disabled. During the 2019 Maryland General Assembly, we vigorously fought the creation of a private police force at Johns Hopkins University.

And during the 2020 Maryland General Assembly, we supported bills focused on restricting police use of force, reforming Maryland's Law Enforcement Officer Bill of Rights to increase police accountability, and amending Maryland's public records law to increase transparency and accountability in how departments address police misconduct.

8. Related to our work on policing reform, LBS has frequently voiced concerns about the use of surveillance technologies against Black communities. Following the police violence and protests in Ferguson, Missouri, LBS cautioned against deploying body cameras as a mechanism of policing reform and transparency, and encouraged discourse about how body cameras can be abused. In 2016, LBS was a prominent critic of the Baltimore Community Foundation's decision to serve as a conduit to fund the secret aerial surveillance trial in Baltimore. LBS has also spoken out against the BPD's use of persistent aerial surveillance. And LBS has organized public presentations to inform community members and activists about surveillance technologies.

9. In addition to our direct political activity, LBS also strives to support activists within our community. Our Malcolm X Talks draw significant attention throughout the year and we are tremendously proud of our collaborations and continued partnerships with local leaders and institutions. We also teach future activists through our civic engagement trainings and our past Eddie Conway Debate Institute. As a result, we have cultivated an extensive network of activists in Baltimore who are now leading their own work within the Baltimore community. We also regularly hold Black Power Happy Hours

which are social gatherings to network with our supporters at Black-owned establishments.

II. The Impact of the AIR Program's Wide-Area Aerial Surveillance on LBS

10. The BPD's wide-area aerial surveillance system (the "AIR program") threatens LBS's ability to associate with others and organize politically, free from unwarranted government scrutiny. As an organization, we have been very outspoken in our criticism of Baltimore law enforcement practices. We suspect that our public events are already subject to BPD monitoring, and we worry about a new surveillance system that would give the BPD more tools to surveil our activities, as well as the individuals and groups with whom we associate.

11. Additionally, LBS is gravely concerned about the historic role surveillance has played in enabling the government apparatus to target and harm organizations with our sensibilities. Federal agencies have worked in collaboration with local law enforcement to surveil political dissenters throughout our country's history. The FBI's COINTELPRO is but one harrowing example of how surveillance has been used by the government to harm and silence outspoken individuals like us. We are adamantly opposed to a program that gives law enforcement new and improved tools to watch and potentially harm people who challenge the dominant social order and power structure.

12. If the AIR program is permitted to proceed, it will undermine and significantly burden LBS's work. An important component of our work is maintaining close proximity to the communities we represent in order to prioritize the needs of the community in our

agenda-setting. This requires LBS staff to travel throughout Baltimore by foot, by bus, and by car.

13. Although our connection to the Baltimore community is one that is highly and mutually beneficial and productive, the AIR program will necessitate a tempering of that connection and will affect how we move about in the community. By capturing information about everywhere LBS staff go, the AIR program will capture extensive information about LBS's activities and associations. We will have to be more cognizant of the individuals and groups with whom we associate because many of our relationships are private and sensitive. The nature and extent of these relationships are also private and sensitive. Knowing that our movements are being recorded every time we move about in public would force us to change our behavior in order to maintain the privacy of our relationships, including by altering the means by which we travel and the timing of certain meetings in which we take part. This effort will divert time and staff resources from other LBS work. We would not wish to disclose any such relationships to law enforcement or the government for fear of retaliation against our community members based on their vocal dissent or criticism. We do not want to put other people at risk by revealing to the government that they are working or associating with a group like ours.

14. Additionally, we expect that some of our present and future partners will decide not to engage with us or be around us because the government will always be watching. Sadly, in certain political arenas, an association with LBS is a professional death sentence. Many people will not want to subject themselves to the scrutiny and risks that

accompany being associated with our organization, which is why we keep many of our associations and relationships private.

15. The BPD's AIR program will not only disrupt our work, but it will also generate information that could be weaponized against us in the future. We constantly worry about the way our activities might be used against us. And we worry that the AIR program will increase opportunities for that to happen.

16. The BPD's AIR program will have a tremendous chilling effect on individuals and organizations in the Baltimore community, including LBS. Already, we know that many people are frightened of the implications of challenging the status quo in our city. Increased, pervasive surveillance would amplify the challenges we already encounter in organizing people to take the political steps necessary to achieve progress.

17. Additionally, if this technology becomes permanently adopted by the BPD, LBS is concerned by the AIR Program's lack of oversight and accountability mechanisms. One only needs to look to the BPD's brief, secret aerial surveillance trial with Persistent Surveillance Systems in 2016 to see how the program can be misused. For example, the most common offense the secret trial was used to identify was traffic accidents—not the violent crime that the BPD publicly claims as the justification for aerial surveillance. Likewise, the planes were deployed during the Freddie Gray trials to monitor protest activity because the City and the BPD were concerned the trial verdicts would lead to unrest.

18. Not only does the AIR Program present the risk of misuse, it would also supercharge the tools that already contribute to the racial disparities that exist in Baltimore with respect to policing. The wide-area aerial surveillance program is linked to existing surveillance systems, such as CitiWatch surveillance cameras and automatic license plate readers, to monitor and identify people. These existing systems are overwhelmingly located in Black neighborhoods in Baltimore and the Downtown Business District. Because the BPD will grant PSS access to these systems in conjunction with the AIR program and link data between all of them, the BPD's new aerial surveillance system will disproportionately affect these areas. LBS believes the wide-area aerial surveillance program will only further exacerbate the tensions and lack of trust that exists in Baltimore between marginalized communities and law enforcement.

I declare under penalty of perjury that the foregoing is true and correct. Executed on this
___7 day of April, 2020.



Dayvon Love

**UNITED STATES DISTRICT COURT
DISTRICT OF MARYLAND**

LEADERS OF A BEAUTIFUL STRUGGLE
et al.,

Plaintiffs,

v.

BALTIMORE POLICE DEPARTMENT
et al.,

Defendants.

Civil Action No. 20-929

DECLARATION OF ERRICKA BRIDGEFORD

I, Erricka Bridgeford, declare:

1. I am a resident of Catonsville in Baltimore County, Maryland, and I am over the age of eighteen. I have personal knowledge of the facts stated in this declaration and if called to testify I could and would testify competently thereto.

I. Background

2. I was born in Baltimore City, grew up there, raised my children there, and lived there until 2009. My stepson still lives in Baltimore City with his three children.

3. Currently, I work full-time as the Director of Training for Community Mediation Maryland (“CMM”). CMM advances collaborative conflict resolution in Maryland through educating the public, providing training and quality assurance, conducting research, and creatively applying mediation to social challenges. In my capacity as Director of Training, I provide training to the 18 community mediation centers in Maryland, as well as to state agencies and organizations. I am deeply committed to the principles and processes of mediation.

Mediation can help prevent conflicts from escalating to violence—something I have devoted my time as an activist and organizer to preventing.

4. In my spare time, I am committed to serving the Baltimore community. I have been an involved community activist since the late 1990s, and I have focused on a range of social justice issues, in particular abolishing the death penalty and supporting survivors of homicide victims. Presently, I am a co-organizer of Baltimore Ceasefire 365 (“Ceasefire”), an organization and movement I co-founded in 2017. Throughout the year, this movement serves as a hub for organizations and citizens to support one another, work together, and share resources with the goal of seeing an end to murder in Baltimore City. We also sponsor the Ceasefire Ambassadors program, through which youths or adults help us give Baltimoreans clear information about our movement and inspire them to join it.

5. I started Ceasefire in 2017 as a city-wide call asking Baltimore residents to avoid having any murders over a single weekend—from Friday, August 4th, through Sunday, August 6th. It was also a city-wide call asking Baltimore residents to celebrate life during the ceasefire by joining with others to plan and participate in what we call life-affirming events. The August 2017 Baltimore Ceasefire/Baltimore Peace Challenge was historic for Baltimore City. There were over 50 events; countless residents received help from multiple organizations working with us throughout the weekend, including help getting records expunged, meals, legal advice, entry to addiction recovery programs, assistance with resumes, and assistance with job placement; and there was no murder in the city for a total of 67 out of the 72 hours. At a time when Baltimoreans were statistically living through one murder every nineteen hours, the beginning of the August 2017 ceasefire saw 41 continuous hours without murder.

6. The ultimate goal of Ceasefire is for everyone in the city to commit to zero murders. Four times per year, we call for ceasefire weekends, where we ask everyone to be peaceful and celebrate life. In doing the outreach for ceasefire weekends, Baltimoreans are helping each other get the resources they need in their lives; having conversations with each other about how to handle conflict differently; and making commitments to one another to be non-violent in thoughts, words, and deeds, for at least the ceasefire weekend. By agreeing to sacred weekends without murder, and by receiving the resources needed to help us avoid violent encounters, we all will eventually agree to honor the sacredness of every day and put an end to murder.

7. In my capacity as co-organizer of Ceasefire, I conduct significant community outreach in neighborhoods throughout Baltimore City. I talk with individuals who are affected by violence in their communities and help them identify and access resources that are necessary to reduce violence in their community. A significant portion of this work involves visiting every murder site in the city within two weeks of the crime occurring. During ceasefire weekends, we visit the scene within a few hours of the crime occurring, and certainly within 24 hours. I visit these sites, bless them, and spend time with affected community members discussing how violence has impacted their lives and communities as well as how we can stop ongoing violence.

8. As a Ceasefire co-organizer, I also host presentations and workshops about violence. Within these spaces, I teach community members about emotional intelligence and conflict management. Additionally, I organize events and rallies in partnerships with Baltimore community leaders and organizations to raise awareness about community violence.

9. I am known as the “murder lady” throughout Baltimore City. Even when I am not out in a neighborhood in my official capacity as co-organizer of Ceasefire, people will stop me

on the street to talk with me about instances of violence that have occurred in their lives or communities. People in the Baltimore community look to me as someone who can help—not only by listening but also by connecting them to resources to support themselves and their communities during their struggles with violence.

II. The Impact of the AIR Program’s Wide-Area Aerial Surveillance

10. Under the Baltimore Police Department’s (“BPD’s”) wide-area surveillance program (the “AIR program”), the BPD has broad power to develop specific reports on people who merely meet others who are in the vicinity of the four target crime scenes (murder, non-fatal shooting, armed robbery, or car-jacking). As part of my community organizing and engagement, I often visit and speak with people in high-crime neighborhoods. The very nature of my work involves visiting murder scenes and talking with people who are processing the trauma associated with being in the vicinity of a murder. Accordingly, if the AIR program is permitted to go forward, I believe it is likely that the BPD will generate an individualized report about me.

11. The BPD’s AIR program threatens my ability to effectively conduct the work I do for Ceasefire. I drive from neighborhood to neighborhood throughout Baltimore to engage with communities affected by violence. Once in a neighborhood, I spend two to three hours walking along public streets and parks to interact with community members. I often have conversations with people where I meet them in public spaces. I also sometimes walk with people I meet back to their homes to meet their family members and continue our conversation. Under the AIR program, I will now have to be far more cognizant of who I associate with in public, out of concern that each and every association will be captured by the AIR program, and that those associations will subject me to additional unjustified BPD scrutiny.

12. The AIR program will also burden my effectiveness within communities because some people will likely no longer feel comfortable having private and sensitive conversations with me, given that the very fact of our meeting will be captured by the BPD's blanket aerial surveillance. I am known in Baltimore communities as someone people can trust; however, because people will know definitively that they will be subject to aerial surveillance when associating with me in public or inviting me into their home—and for that reason linked to every other person I meet with—the AIR program will likely undermine my role as a safe resource within the communities I try to serve.

13. Because of the nature of Ceasefire's work, much of our initial community interactions necessarily and unavoidably happen in public. The AIR program undermines the safe spaces I try to create within communities. How can I make the people who are the most vulnerable and most traumatized feel safe speaking with me amidst the constant threat of surveillance? It is very likely that I will not be able to convince people to have private conversations with me or to risk associating with me.

14. Furthermore, I cannot change the timing of my outreach work to avoid surveillance without compromising my effectiveness. If I were to only conduct community outreach when the planes are not flying (perhaps at night or during bad weather), I would encounter far less foot traffic on the streets. I would also have far less time in each neighborhood because I cannot feasibly work every night and all night long.

15. The AIR program presents a huge new barrier to the work I do. I will have to change the way I interact with people in communities. I anticipate I will have to shift most of my outreach and conversations to be over the phone, over social media, or over email, which will

severely impact the nature and quality of the inherently personal and sensitive work I do through Ceasefire.

16. Additionally, the BPD's AIR program undermines and burdens the work I do because the knowledge that people are being surveilled from above will discourage them from volunteering and joining me in the streets to work with Ceasefire. When I am recruiting people, I will feel obligated to warn them about the risks the AIR program poses. It is likely the program will chill people from participating in our anti-violence advocacy. And it is very likely the program will cause parents to be so concerned about the surveillance of their children that parents will not allow their children to be Ceasefire Ambassadors (and to associate themselves publicly with work in high-crime areas).

17. I am also deeply worried by the effect the AIR program will have on the relationship between the Baltimore community and the BPD. In my view, the BPD's implementation of the AIR program is a lazy and hypocritical strategy. Through my work as a community activist, I've often had conversations with law enforcement officers. Far too often, many of us who work in Baltimore hear from officers that they feel that they are over-worked and they lack the resources to support the communities they police. Rather than investing time and energy in surveillance, the City of Baltimore and the BPD should invest in programs to address the root causes of violence. The best way to reduce violence is not through military-grade surveillance programs but through community building and healing strategies. In

fact, one study showed that during our ceasefire weekends, there was a 52% reduction in gun violence in Baltimore, and no evidence of any “postponement effect” over the following three days or three-day weekend.¹

I declare under penalty of perjury that the foregoing is true and correct. Executed on this 7th day of April, 2020.



Erricka Bridgeford

¹ See Peter Phaylen, et al., *Baltimore Ceasefire 365: Estimated Impact of a Recurring Community-Led Ceasefire on Gun Violence*, 110 Am. J. Pub. Health 554, 554 (2020), <https://ajph.aphapublications.org/doi/pdf/10.2105/AJPH.2019.305513>.

**UNITED STATES DISTRICT COURT
DISTRICT OF MARYLAND**

LEADERS OF A BEAUTIFUL STRUGGLE
et al.,

Plaintiffs,

v.

BALTIMORE POLICE DEPARTMENT
et al.,

Defendants.

Civil Action No. 20-929

DECLARATION OF KEVIN JAMES

I, Kevin James, declare:

1. I am a resident of Baltimore, Maryland, and I am over the age of eighteen. I have personal knowledge of the facts stated in this declaration and if called to testify I could and would testify competently thereto.

I. Background

2. I have lived in Baltimore County and City for nineteen years. I moved to Baltimore in 2001 to teach at one of the local city high schools through Teach for America. After my time with Teach for America, I decided to stay in Baltimore and have since become deeply involved in the community. I have been a committed activist and community organizer since that time. I volunteered for many years with the Baltimore Algebra Project to advocate for a number of issues that face Baltimore youth, such as increasing funding for schools and extending the hours students could use bus passes. I have also been involved with many grassroots movements in Baltimore, and I have worked with organizations such the Baltimore Algebra Project, the United Workers, and the Right to Housing Alliance in Baltimore. Additionally, I am a former trained paramedic and have periodically volunteered as an Emergency Medical Technician in

Baltimore County. During the Baltimore Uprising in 2015, I volunteered as a street medic during the protests.

3. Currently, I work full-time for an IT company and, in my spare time, I remain committed to serving the Baltimore community. I have focused recently on advocating and educating the Baltimore community about mental health and racial justice issues. I and fellow advocates organize meetings and workshops to educate community members about mental health issues and create opportunities to reduce the associated stigma. I am also involved in advocacy and protests to call for equitable and fair treatment of immigrants and marginalized groups within our community.

4. Additionally, I am the hip-hop artist known as Son of Nun. My music is an opportunity for me to convey messages about power, freedom, racism, and community. Through my songs, I try to hold Baltimore institutions accountable and empower the Baltimore community. I have released two albums, *The Art of the Struggle* and *Blood and Fire*, and I am currently working on my third. I have a committed following of listeners within the Baltimore community. Over the last 17 years, I have had the privilege of performing at numerous local events that showcased various social justice issues, such as obtaining equitable pay for workers, increasing policing accountability, and abolishing the death penalty. I have also shared the stage with activists, such as exonerated former death row inmates Shujaa Graham and Darby Tillis, Black Lives Matter student leader Makayla Gilliam-Price, and the late historian Howard Zinn. My commitment to organizing and improving the Baltimore community influences and shapes my music. At the most basic level, I try to convey through my art that everyone should have access to justice and equality; there is no reason to deny people access to such treatment based on their nationality or any other arbitrary descriptor.

II. The Impact of the AIR Program's Wide-Area Aerial Surveillance

5. The BPD's wide-area aerial surveillance system (the "AIR program") threatens my ability to move about in public, associate with others, and organize politically, free from unwarranted government scrutiny. Ordinarily, most days I am out of the house by 7:00 am and I spend the day in public, driving along public roads to my job, meeting friends to get dinner in neighborhoods like Charles Village or Montebello, and visiting the Tubman House community garden. I also spend time each day in the front yard and the area immediately behind my home. And I frequently participate in protests and community events throughout Baltimore that necessarily require me to leave my home. I cannot avoid leaving my home, nor should I have to make that choice to remain free from unjustified government surveillance.

6. Under the AIR program, the BPD has broad power to develop specific reports on people who merely meet others who are in the vicinity of the four target crime scenes (i.e., murder, non-fatal shooting, armed robbery, or car-jacking). Ordinarily, as part of my community organizing and engagement, I often visit and speak with people in Tubman House and the Gilmore Homes. Given the high rate of violent crime in these areas, I believe that, during the operation of the program, I will be in the vicinity of a crime scene involving one of the four target crimes, or I will meet with individuals who were in the vicinity of one such crime scene. Accordingly, if the AIR program is permitted to go forward, I believe that the program will generate an individualized report about me.

7. I am personally concerned by the AIR program's Orwellian nature. The City and the BPD may claim that if you are not doing anything wrong, you do not have anything to worry about. But that claim is clearly disproven by the countless historic examples where the government used surveillance to oppress politically threatening groups. I am troubled by the BPD being given this extremely powerful new tool with which they can harass people. As a

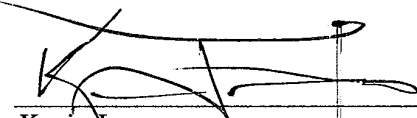
result, the implementation of the program will certainly give me pause, make me hyper-cognizant of my movements, and make me feel less free. It is disquieting to know someone is watching you all the time—it is dark, sinister, and unjust.

8. Additionally, if the BPD's wide-area aerial surveillance program is permitted to proceed, it will undermine and significantly burden my political advocacy and organizing. I will have to be more aware of and deliberate about whom I meet and associate with, whether in my home or elsewhere, because all of my associations will be captured by the BPD. I will have to spend time deliberating about whether those associations could result in unwarranted government scrutiny. And as I recruit individuals to participate in community events, protests, and rallies, I will be obligated to tell them about the AIR program and explain the risks the program poses. Typically, when I talk with individuals about participating in community or political events, we have only a limited amount of time to discuss the event or issue. The time I spend explaining the AIR program will often reduce the time available for our substantive discussion. In addition, I believe the AIR program will result in fewer people being willing to participate in several of the community events, protests, and rallies for which I'm recruiting them, and that people will be more hesitant to participate in political dissent.

9. I am also deeply worried by the effect the AIR program will have on the already-frayed relationship between the Baltimore community and the BPD. Surveilling everyone, all day, every day, is not going to help that relationship at all. Commissioners and officers should be standing up to this and recognizing that this will undermine the relationships they are trying to build. The answer to improving community relationship with law enforcement is not more surveillance, but building actual relationships and creating actual accountability for abuses by police. Rather than investing in surveillance, the City of Baltimore should be investing in schools and healthcare—for the people of Baltimore.

I declare under penalty of perjury that the foregoing is true and correct. Executed on this

31 day of April, 2020.



Kevin James

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MARYLAND**

LEADERS OF A BEAUTIFUL
STRUGGLE, *et al.*

*

Plaintiffs,

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v.

*

Civil Action No. RDB-20-0929

BALTIMORE POLICE
DEPARTMENT, *et al.*,

*

Defendants.

*

* * * * *

MEMORANDUM ORDER

Today, April 9, 2020, Plaintiffs Leaders of a Beautiful Struggle, Erricka Bridgeford, and Kevin James (collectively, “Plaintiffs”) commenced this lawsuit against the Baltimore Police Department and Baltimore Police Commissioner Michael S. Harrison (collectively, “Defendants”) alleging that the Defendants’ Aerial Investigation Research (“AIR”) program violates their rights under the First and Fourth Amendments to the United States Constitution. The Plaintiffs contemporaneously filed a Motion for a Temporary Restraining Order and Preliminary Injunction (ECF No. 2), in which they seek an injunction prohibiting the Baltimore Police Department from collecting or accessing any images of Baltimoreans through the AIR program.

This Court promptly scheduled a telephone conference with counsel for the parties at 2:30 p.m. today to discuss a preliminary agreement between the parties and the scheduling of a Preliminary Injunction Hearing. Accordingly, it is **HEREBY ORDERED** this 9th day of April, 2020, that:

1. Pending a decision of this Court on the Plaintiffs' Motion for a Preliminary Injunction (ECF No. 2), Defendants and their agents, employees, successors, and all others acting in concert with them may undertake preparatory activities related to the AIR program that is the subject of this litigation, provided that no flights to collect, retain, or access any photographic imagery are permitted whatsoever.
2. The Defendants shall respond to Plaintiffs' Motion by Wednesday, April 15, 2020 at 4:00 p.m.;
3. The Plaintiffs shall file a reply by Friday, April 17, 2020 at 4:00 p.m.;
4. This Court will conduct a Preliminary Injunction Hearing on Tuesday, April 21, 2020 at 11:00 a.m.;
5. This Court shall issue a decision on the Plaintiffs' Motion (ECF No. 2) by Friday, April 24, 2020 at 5:00 p.m.;
6. The Clerk of Court shall transmit copies of this Memorandum Order to counsel.

_____/s/_____

Richard D. Bennett
United States District Judge

EXHIBIT A

**IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MARYLAND**

LEADERS OF A BEAUTIFUL
STRUGGLE, *et al.*

Plaintiffs,

v.

BALTIMORE POLICE DEPARTMENT,
et al.,

Defendants.

Case No. RDB-20-0929

STATE OF OHIO)
COUNTY OF GREENE) SS:

**DECLARATION OF ROSS T. MCNUTT, PhD. PRESIDENT OF
PERSISTENT SURVEILLANCE SYSTEMS, LLC**

I declare under penalty of perjury that the foregoing statements are true and correct to the best of my ability.

1. My name is Ross T. McNutt, PhD. I am competent and of sound mind and have personal knowledge of all the facts attested to herein. I am the president and founder of Persistent Surveillance Systems, LLC (hereinafter "PSS"). PSS's mission is to assist law enforcement and public safety departments in reducing crime.
2. PSS has developed an aerial investigation research system (hereinafter "AIR") designed to assist law enforcement and communities. I serve as PSS's primary point of contact and its technical lead for the AIR pilot program.

3. PSS entered into an agreement to conduct a six month pilot program agreement with the Baltimore Police Department (hereinafter “BPD”) to provide aerial surveillance using its AIR technology. The purpose of the pilot program is for BPD to evaluate the extent to which AIR may assist BPD in solving and closing some of the most violent crimes in Baltimore City – murders, shootings, and armed robberies (including carjackings). During this experimental pilot program, PSS imagery will only be used to investigate the listed target crimes unless extraordinary and exigent circumstances exist and approved in writing by the Police Commissioner. The AIR program will also support defense attorneys and public defenders.
4. PSS is prohibited from using data collected during the AIR pilot for any purpose other than facilitating investigations as described in the Agreement and assisting prosecutors and defense counsel in criminal prosecutions.
5. During the six month pilot program, PSS will fly up to three aircrafts over major portions of Baltimore City collecting imagery data up to approximately 12 hours per day, during daylight hours. No zoom, telephoto, infrared or night vision technology will be used and the ability to capture usable data will be weather dependent.
6. The PSS aircraft will take wide-angle photographs at a resolution limited to one pixel per person and therefore individuals shown as a single dot and vehicles appear as a tic tac. Both vehicles and people are tracked from a reported crime scene forwards and backwards in time.
7. At this resolution, the system cannot determine any personally identifiable characteristic, including a person’s ethnicity, gender, or clothing, nor specific features

of vehicles. The system cannot differentiate between police or non-police personnel or vehicles.

8. PSS will not track individuals or vehicles in real time.
9. Once the photographs are collected, images will be transmitted from the aircraft to ground stations operated by the contractor. These facilities are staffed by roughly 35 employees, most residents of the Baltimore area, who have been trained as analysts or support the program in other capacities.
10. The data is then accessed only after receiving an incident number or other notification related to a murder, non-fatal shooting, armed robbery, or carjacking.
11. AIR technology categorically will not be used to seek out criminal activity not directly related to a previously approved investigation involving murder, shooting, or armed robbery to include carjackings.
12. Analysts will examine the images and “tag” vehicles or individuals that were at or near the crime scene at or near the time of the crime. Analysts will then manually track the “tagged” moving dots (which represent individuals and vehicles) to and from the incident location, including over sidewalks and roads in public places. A person or vehicle’s movements to or from a crime scene can therefore be reduced to a track on a map. This tracking is labor intensive and takes 1 hour to track a single vehicle for 2 hours. This limits the number of vehicles and people who can be tracked and limits the number of investigations that can be supported. These tracks of people to and from the crime scene generate leads for investigators to follow to identify potential suspects or witnesses to help them solve crimes.

13. Because of the system's manner of operation, certain information is unknowable. For example, if a dot representing a person enters a structure and subsequently a dot representing a person leaves that structure, it is not possible to know from our data whether both dots represented the same person. Similarly, it would be possible to observe cars leaving a parking garage, but not possible to know which of several cars departing was the one observed earlier entering the garage after leaving the scene of a crime.
14. Relatedly, the system is not capable of monitoring a particular individual reliably over a period of multiple days. The system's ability to reliably track an individual is dependent on continuity of imagery data. During the gaps in data between imagery collection flights, subjects may have departed a last known location. Likewise, a vehicle appearing to be in the same location last seen may not have moved, or it may have departed and returned (with or without the same occupants), or it may have departed and been replaced by an entirely different vehicle.
15. AIR will provide detectives investigating a target crime with an investigative briefing within 18 hours, which includes imagery analysis, the location and timing of the crime, the observable actions at the crime scene, the tracks of vehicles and people to and from a crime scene and locations visited before and after the crime. PSS will provide BPD a more detailed report within 72 hours, which will include information regarding relevant ground-based cameras (for example, Citiwatch and license plate readers) along the routes taken to or from the crime scene and video images of people or vehicles taken as they passed by, if available.
16. BPD will not have direct access the raw photographic data.

17. Any imagery not identified as relevant to a criminal investigation and used to support an evidentiary packet will be deleted after 45 days consistent with the Services Agreement.
18. PSS maintains strict privacy policies. These policies have been developed with input from a wide range of organizations including the ACLU. All analysts are trained and agree to follow these privacy policies. As part of our privacy program, PSS provides internal oversight of its analysts and will report weekly, monthly, and quarterly their activities and their findings of any unauthorized activity. PSS records and tracks every location our analysts have viewed. Every track that is created must be assigned to an authorized investigation. PSS analyzes the locations viewed and tracks made by all analysts for unauthorized viewing activity. PSS also provides these tools to Baltimore Police Department and outside independent oversight organizations for their review, oversight, and comment.
19. AIR Pilot Program will receive oversight from an independent verification and validation consultant who is responsible for verifying that the aerial imagery collected is used solely in accordance with the procedures set forth in the Agreement. PSS and BPD also agreed to provide full support to multiple independent research partners to evaluate various aspects of the AIR program's functioning.

Further Affiant sayeth naught.

Date: 15 April 2020



Ross T. McNutt, PhD
President
Community Support Program
Persistent Surveillance Systems, LLC

NOTARIAL CERTIFICATE

Sworn to and subscribed before me in my presence on this 15th day of April, 2020.



NANCY BROCK, Notary Public
In and for the State of Ohio
My Commission Expires July 7, 2024

Nancy Brock
Notary Public

EXHIBIT B

Rev. Dr. Cleveland T. A. Mason, 2nd
President / CEO

Rev. Domanic A. Smith
First Vice President / CAO

Rev. Dr. Dean Jones-Evans
Second Vice President / COO



Rev. Dr. Samuel Blow
Third Vice President / CFO

Mrs. Elizabeth Tedford-Miller
Acting Executive Secretary

Rev. M. Jamal Foster
Treasurer

The United Baptist Missionary Convention

& AUXILIARIES OF THE STATE OF MARYLAND, INC.

2516 Edmondson Avenue • Baltimore, Maryland 21223

Voice: 410.523.2950 • Fax: 410.523.0258

Website: www.ubmcofmd.org

March 30, 2020

Commissioner Michael Harrison
Baltimore City Police Department
601 East Fayette Street
Baltimore, MD 21202

Dear Commissioner Harrison:

The United Baptist Missionary Convention & Auxiliaries of the State of Maryland, Inc. is comprised of more than 100 churches across the state. The communities surrounding many of our churches are impacted by violent crime that impedes the quality of life of our members and its residents. We are aware of the desire of the Baltimore City Police Department to become the first department in America to research the efficacy of aerial surveillance. Therefore, pending before the Board of Estimates is a request to adopt Aerial Investigative Research (AIR) promoted and funded by the Arnold Foundation. We, and the undersigned faith-based leaders, support the research and fact-finding test of AIR under the condition that Morgan State University has an independent research role in evaluating the program.

Sincerely,

Dr. Cleveland T. A. Mason, 2nd
President

Imam Earl El-Amin
Bishop Dennis V. Proctor
Bishop James L. Carter
Dr. Alvin C. Hathaway, Sr.
Rev. Dr. Beryl Whipple
Rev. Dr. Harold A. Carter, Jr.
Rev. Dr. Terris King
Rev. Dr. Reginald Thomas
Rev. Duane Simmons

On that same day, this Court conducted a telephone conference and issued an Order which effectuated a temporary agreement reached by the parties pursuant to which the BPD agreed that no surveillance flights would occur until this Court issued a decision on the preliminary injunction motion. On April 21, 2020, this Court conducted a public telephone conference and heard arguments on the motion.¹

The Plaintiffs contend that the technology in the AIR program will be so precise as to invade the individual liberties of Baltimore citizens. The BPD contends that, though a potentially useful investigative tool, the AIR pilot program has significant limitations. The Defendants contend that the program cannot provide real-time surveillance and that images captured by the program will depict individuals as a single pixel—essentially, a dot on the map. Accordingly, the Defendants contend that individual physical characteristics will not be observable. The resolution of this factual dispute must await discovery in this case.

Plaintiffs have not met their heavy burden to show that they are entitled to a preliminary injunction in this matter. The United States Supreme Court and the United States Court of Appeals for the Fourth Circuit have long upheld the use of far more intrusive warrantless surveillance techniques than the AIR program. The Plaintiffs place great reliance on the United States Supreme Court's recent opinion in *United States v. Carpenter*, 138 S. Ct. 2206 (2018), which addressed the use of historical cell site location information. The Supreme Court in that case specifically stated that its opinion did not “call into question conventional

¹ Pursuant to Standing Order 2020-07 of this Court, normal court operations have been postponed and continued through June 5, 2020. The parties agreed to proceed with the hearing on the Motion for a Preliminary Injunction by way of a teleconference which was made accessible to the public.

surveillance techniques and tools, such as security cameras.” *Id.* at 2220. Accordingly, for the reasons set forth below, Plaintiffs’ Motion for a Preliminary Injunction (ECF No. 2) is DENIED and the AIR pilot program may proceed.

BACKGROUND

Plaintiffs seek a preliminary injunction prohibiting the operation of an aerial surveillance project known as the Aerial Investigation Research (“AIR”) pilot program. The program is to be conducted by the Baltimore Police Department (“BPD”) with the assistance of Persistent Surveillance Systems (“PSS”), an Ohio-based private contractor. The AIR pilot program has been the subject of public discourse for some time. In August 2016, news reports revealed that the BPD had collaborated with PSS to conduct aerial surveillance over the City of Baltimore for several months.² Ultimately, this initial program was discontinued. In December 2019, Commissioner Harrison announced that the City would resume its collaboration with PSS after holding a series of community meetings to inform the public about the program.³

In March 2020, the Baltimore Police Department conducted three public meetings to discuss how the AIR pilot program would operate.⁴ As a result of the exigent circumstances presented by the COVID-19 Pandemic, two of these meetings were conducted through

² Monte Reel, *Secret Cameras Record Baltimore’s Every Move From Above*, Bloomberg Businessweek, Aug. 23, 2016, <https://www.bloomberg.com/features/2016-baltimore-secretsurveillance>; Kevin Rector & Luke Bridgewater, *Report of Aerial Surveillance by Baltimore Prompts Questions, Outrage*, Balt. Sun, Aug. 24, 2016, <https://www.baltimoresun.com/maryland/baltimore-city/bs-md-ci-secret-surveillance-20160824-story.html>.

³ Justin Fenton & Talia Richman, *Baltimore Police Back Pilot Program for Surveillance Planes, Reviving Controversial Program*, Balt. Sun, Dec. 20, 2019, <https://www.baltimoresun.com/news/crime/bs-md-ci-cr-baltimore-police-support-surveillance-plane-20191220-zfhd5ndt1bdurlj5xfr6xhoe2i-story.html>.

⁴ See Eddie Kadhim, *Baltimore Police met with the community to give insight on pilot program*, WMAR, Mar. 11, 2020, <https://www.wmar2news.com/spyplane>.

Facebook Live.⁵ Consistent with the BPD's obligations under a Consent Decree issued in *United States v. Baltimore Police Dep't, et al.* (JKB-17-0099), the BPD announced the AIR pilot program on its website, which provided public educational materials describing the AIR program's objectives.⁶ On April 1, 2020, the Baltimore City Board of Estimates authorized the execution of a Professional Services Agreement between the Baltimore Police Department and Persistent Surveillance Systems for the purpose of implementing the AIR pilot program. (Professional Services Agreement ("PSA"), ECF No. 3-2.)

Pursuant to the Professional Services Agreement, Persistent Surveillance Systems will fly three aircraft over Baltimore City using the "Hawkeye Wide Area Imaging System." (*Id.* at 22.) The planes will cover about 90 percent of the City, capturing about 32 square miles of the City per image every second. (*Id.*; Community Education Presentation, ECF No. 3-1.) Each of the three planes will fly for a "minimum" of forty hours per week, resulting in total coverage of about 12 hours per day for a period of six months, weather permitting. (PSA 22; Decl. of Ross McNutt, Ph.D ¶ 5, ECF No. 30-1.) The Baltimore Police Department hopes to use these images to solve violent crimes, specifically: homicides and attempted murder, shootings resulting in injury, armed robbery, and carjacking (the "Target Crimes"). (PSA 21.)

The AIR program's observational capabilities are limited. PSS cannot provide real-time surveillance. (McNutt Decl. ¶ 8; PSA 22-24.) The on-board technology does not have

⁵ March 11 meeting available at <https://www.facebook.com/BaltimoreCityPolice/videos/1062399994125598/>; March 23 meeting available at <https://www.facebook.com/BaltimoreCityPolice/videos/3400646286628872/>; March 30 meeting available at <https://www.facebook.com/BaltimoreCityPolice/videos/212014970074066/>.

⁶ Baltimore Police Department, New Technology Initiatives, <https://www.baltimorepolice.org/transparency/newtechnologyinitiatives>.

zoom, telephoto, night vision, or infrared capabilities. (McNutt Decl. ¶ 5; PSA 22.) The imagery is limited to “1 pixel per person”—essentially, a single dot on the map. (PSA 22.) Accordingly, an individual’s characteristics are not observable in the images. (*Id.*) As the planes will not fly at night or during inclement weather, significant gaps in the imagery data will emerge. (McNutt Decl. ¶ 14.) These gaps in the record prevent the monitoring of a person’s movements over the course of multiple days. (*Id.*)

Images collected by the aircraft will be transmitted to ground stations operated by Persistent Surveillance Systems and stored in its servers. (PSA 22; ECF No. 3-1 at 13.) Unanalyzed data will be stored for up to 45 days during the pilot program. (PSA 25.) Data that is analyzed in connection with a crime will be compiled into packets and become a permanent part of the case file. (Letter from Michael S. Harrison to the Honorable President and Members of the Board of Estimates, dated Mar. 17, 2020, ECF No. 3-2.) PSS analysts will only access the data after “receiving an incident number or other notification related to a murder, non-fatal shooting, armed robbery, or car jacking.” (McNutt Decl. ¶ 10.) In those circumstances, the PSS analysts will use the imagery data “to locate crimes, track individuals and vehicles from a crime scene and extract information to assist BPD in the investigation of target crimes.” (PSA 22.) This is a labor-intensive process. Analysts must “tag” the individuals and vehicles appearing in the images, which appear as dots, and manually track the tagged dots to and from the incident location. (McNutt Decl. ¶ 12.) Using this process, PSS analysts will require about 1 hour to track 2 hours’ worth of movements made by a single vehicle. (*Id.*)

According to the Professional Services Agreement, Persistent Surveillance Systems will be permitted to integrate its services with existing BPD technologies, including the Computer Aided Dispatch System, CitiWatch Ground-Based Cameras, the Shot Spotter Gun Shot Detection System, and License Plate Readers. Persistent Surveillance Systems is permitted to integrate its “iView software” with these systems “to help make all the systems work together to enhance their ability to help solve and deter crimes.” (PSA 23.) PSS will use the integrated services to provide reports to the BPD. In ordinary circumstances, Persistent Surveillance Systems will provide an investigative briefing to the BPD within eighteen hours of PSS’s “notice of a Target Crime on the CAD System monitors or BPD’s request . . . to analyze a Target crime.” (*Id.*) The briefing will include “imagery analysis” as well as “driving behaviors of vehicles from the crime scene prior to and after a crime.” (*Id.*) Within 72 hours, PSS will provide a more detailed Investigation Briefing Report, which will include ground-based camera video (including CitiWatch video) and the tracked movements of people who met with individuals at the crime scene. (*Id.* at 24.) Persistent Surveillance Systems will provide “real time support” to the BPD “in exigent circumstances and only at the written request of the BPD Police Commissioner.” (*Id.* at 23.)

The AIR pilot program will be subject to extensive evaluations and oversight. Morgan State University has been asked to assess the program’s efficacy in fighting crime. The RAND Corporation will conduct a similar analysis, focusing on whether the program produces higher clearance rates and reduces crime. (PSA 31.) The public’s perception of the program will be studied by the University of Baltimore. (*Id.* at 32.) The New York University School of Law will conduct a “civil rights and civil liberties audit” of the AIR pilot program. (*Id.* at 32-33.)

The record reflects significant public support for the AIR pilot program. The United Baptist Ministry Convention, comprised of more than 100 Maryland churches, submitted a letter to Commissioner Harrison expressing support for the AIR program. (Letter from Dr. Cleveland T. A. Mason, 2nd to Commissioner Michael Harrison (Mar. 30, 2020), ECF No. 30-2.) The Greater Baltimore Committee, the leading business advocacy organization in Baltimore, has also urged the adoption of the AIR program.⁷

Support is not completely unanimous, however. Plaintiffs Leaders of a Beautiful Struggle, Erricka Bridgeford, and Kevin James (collectively, “Plaintiffs”) seek a preliminary injunction which would prohibit the operation of the AIR program. The Plaintiffs, all three of whom contribute to various Baltimore-based public advocacy initiatives, argue that the program violates their rights under the First and Fourth Amendments to the United States Constitution. On April 9, 2020, Plaintiffs commenced this lawsuit against the BPD and Michael S. Harrison, in his official capacity as the Baltimore Police Commissioner (collectively, “Defendants”), and filed a Motion for a Temporary Restraining Order & a Preliminary Injunction (ECF No. 2). The Plaintiffs’ Complaint contains two Counts: a Fourth Amendment claim (Count I) and First Amendment claim (Count II), both brought pursuant to 42 U.S.C. § 1983.

On that same day, this Court conducted a telephone conference and issued an Order which effectuated a temporary agreement reached by the parties pursuant to which the BPD agreed that no surveillance flights would occur until this Court issued a decision on the

⁷ Position Statement on Public Safety in Baltimore and Support of the Use of Aerial Surveillance in Baltimore, Oct. 15, 2019, <https://gbc.org/statement-on-public-safety-in-baltimore-and-support-for-the-use-of-aerial-surveillance/>.

preliminary injunction motion. On April 21, 2020, this Court conducted a public telephone conference and heard arguments on the motion.

STANDARD OF REVIEW

A preliminary injunction is an “extraordinary remed[y] involving the exercise of very far-reaching power to be granted only sparingly and in limited circumstances.” *MicroStrategy Inc. v. Motorola, Inc.*, 245 F.3d 335, 339 (4th Cir. 2001). In determining whether to issue a preliminary injunction, the Court must follow the test set forth by the Supreme Court in *Winter v. Natural Res. Def. Council, Inc.*, 555 U.S. 7, 20, 129 S. Ct. 365 (2008) which requires a showing that: (1) the movant is likely to succeed on the merits; (2) the movant is likely to suffer irreparable harm absent preliminary relief; (3) the balance of equities favors the movant; and (4) that an injunction is in the public interest. 555 U.S. at 20; *accord. Roe v. Dep’t of Def.*, 947 F.3d 207, 219 (4th Cir. 2020); *League of Women Voters of N.C. v. N.C.*, 769 F.3d 224, 236 (4th Cir. 2014);

The movant must show more than a “grave or serious question for litigation”; instead, it bears the “heavy burden” of making a “clear showing that [it] is likely to succeed at trial on the merits.” *Real Truth About Obama, Inc. v. Fed. Election Comm’n*, 575 F.3d 342, 346 (4th Cir. 2009); *Int’l Brotherhood of Teamsters v. Airgas, Inc.*, 239 F. Supp. 3d 906, 912 (D. Md. 2017) (“Because a preliminary injunction is ‘an extraordinary remedy,’ it ‘may only be awarded upon a clear showing that the plaintiff is entitled to such relief.’” (quoting *Winter*, 555 U.S. at 22, 129 S. Ct. 386)). Still, an injunction “is not granted as a matter of course, and whether to grant the injunction still remains in the equitable discretion of the [district] court even when a

plaintiff has made the requisite showing.” *Bethesda Softworks, L.L.C. v. Interplay Entm’t Corp.*, 452 F. App’x 351, 353 (4th Cir. 2011) (internal citations omitted).

ANALYSIS

Plaintiffs have failed to satisfy their heavy burden of showing that they are entitled to a preliminary injunction. Given the expedited nature of preliminary injunction proceedings, this Court must make a decision based on “evidence that is less complete than in a trial on the merits.” *Univ. of Texas v. Camenisch*, 451 U.S. 390, 395, 101 S. Ct. 1830, 68 L. Ed. 2d 175 (1981). In reaching its ruling, “[t]he court may consider otherwise inadmissible evidence.” *Mancía v. Mayflower Textile Servs. Co.*, CCB-08-273, 2008 WL 4735344, at *4 (D. Md. Oct. 14, 2008) (citation omitted). Findings of fact made at the preliminary injunction stage are not binding at trial. *Bartels by & through Bartels v. Saber Healthcare Grp., LLC*, 880 F.3d 668, 682 n.7 (4th Cir. 2018) (citing *Camenisch*, 451 U.S. at 395).

The record presently before this Court indicates that images produced by the AIR pilot program will only depict individuals as miniscule dots moving about a city landscape. The movement of these dots cannot be tracked without significant labor. Gaps in the imagery data foreclose the tracking of a single person over the course of several days. This limited form of aerial surveillance does not constitute a “search” under the Fourth Amendment, nor does it burden First Amendment speech activities. In a City plagued with violent crime and clamoring for police protections, this Court is loath to take the “extraordinary” step of stopping the AIR program before it even begins. *MicroStrategy Inc. v. Motorola, Inc.*, 245 F.3d 335, 339 (4th Cir. 2001).

I. Nature of the Claims.

This is a civil case. The Plaintiffs are suing the Baltimore Police Department and Michael S. Harrison, in his official capacity, pursuant to 42 U.S.C. § 1983. Section 1983 provides that “[e]very person,” who, under color of state law causes the violation of another’s federal rights, shall be liable to the party injured by his conduct. *See* 42 U.S.C. § 1983. In *Monell v. New York City Department of Social Services*, 436 U.S. 658, 690, 98 S. Ct. 2018 (1978), the Supreme Court held that a municipality or other local government may be subject to suit under § 1983 when its official policies or customs result in constitutional rights deprivations. *Burley v. Baltimore Police Dep’t*, 422 F. Supp. 3d 986, 1014 (D. Md. 2019).

The Defendants do not raise any arguments concerning whether they may be sued under § 1983 or a *Monell* theory of liability, and instead focus on the preliminary injunction standard, the issue of standing, and the merits of the Plaintiffs’ Fourth Amendment challenge. However, in some recent cases, the Baltimore Police Department has taken the position that it is not subject to liability under § 1983 or *Monell*. *See, e.g., Johnson v. Baltimore Police Dep’t*, SAG-18-2375, 2020 WL 1694349 (D. Md. Apr. 7, 2020). As Judge Gallagher of this Court has recently explained, this contention has been rejected and the issue is currently before the Fourth Circuit. *Id.* at *9 (citing *Burley v. Balt. Police Dep’t*, 422 F. Supp. 3d 986 (D. Md. Nov. 22, 2019), *appeal docketed and consolidated*, No. 19-2029 (4th Cir. Sept. 27, 2019); *Lucero v. Early*, No. GLR-13-1036, 2019 WL 4673448, at *3-5 (D. Md. Sept. 25, 2019), *appeal docketed*, No. 19-2072 (4th Cir. Oct. 4, 2019); Order, *Parks v. Balt. Police Dep’t*, No. TDC-18-3092 (D. Md. Sept. 9, 2019), ECF 86, *appeal docketed and consolidated*, No. 19-2029 (4th Cir. Sept. 27, 2019)). This

Court adopts the rationale of these cases, and holds that the Baltimore Police Department and Harrison, in his official capacity, may be subject to suit under § 1983 and *Monell*.

Nevertheless, Defendants suggest that the actions of Persistent Surveillance Systems, as a private contractor, cannot be attributable to the Baltimore Police Department for purposes of assessing the Plaintiffs' § 1983 claims. Liability arises under § 1983 when "the conduct allegedly causing the deprivation of [the plaintiffs' rights is] fairly attributable to the State," or, in the case of a *Monell* action, to a policy of a local government entity. *Conner v. Donnelly*, 42 F.3d 220, 223 (4th Cir. 1994) (quoting *Lugar v. Edmondson Oil Co.*, 457 U.S. 922, 937, 102 S. Ct. 2744, 2753 (1982)); *Semple v. City of Moundsville*, 195 F.3d 708, 712 (4th Cir. 1999). A private entity may be held liable under § 1983 when it "has exercised powers that are traditionally the exclusive prerogative of the state." *Conner*, 42 F.3d at 224 (quoting *Blum v. Yaretsky*, 457 U.S. 991, 1005, 102 S. Ct. 2777 (1982)).

In this case, Persistent Surveillance System's actions may be attributable to the Baltimore Police Department for purposes of assessing the Plaintiffs' § 1983 claims. The Baltimore Police Department and Persistent Surveillance Systems have entered into a Professional Services Agreement, ratified by the Baltimore City Board of Estimates, to conduct aerial surveillance over Baltimore. As Defendants conceded during the Preliminary Injunction Hearing, Persistent Surveillance Systems would be exercising powers which are traditionally within the exclusive domain of the BPD when undertaking the actions authorized by the Professional Services Agreement. Accordingly, the capture and analysis of imagery data by Persistent Surveillance Systems is attributable to the Baltimore Police Department for purposes of the Plaintiffs' § 1983 claims.

II. Standing.

Before proceeding to the merits, this Court must determine whether the Plaintiffs have standing to sue the Defendants for First and Fourth Amendment violations. “Standing is an ‘essential and unchanging part’ of Article III’s case or controversy requirement.” James M. Wagstaffe, *Federal Civil Procedure Before Trial* § 24-III (2019) (quoting *Vt. Agency of Nat. Res. v. United States ex rel. Stevens*, 529 U.S. 765, 771 (2000)). To establish Article III standing, a plaintiff must (1) show an injury in fact, (2) demonstrate a causal connection between the defendants’ actions and the alleged injury, and (3) show that the injury will likely be redressed by a favorable outcome. *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 560-61, 112 S. Ct. 2130 (1995). An injury in fact must be “concrete, particularized, and actual or imminent.” *Monsanto Co. v. Geertson Seed Farms*, 561 U.S. 139, 149, 130 S. Ct. 2743 (2010). “Allegations of possible future injury” are not sufficient. *Clapper v. Amnesty Int’l*, 568 U.S. 398, 409, 133 S. Ct. 1138, 1147 (2013) (quoting *Whitmore v. Arkansas*, 495 U.S. 149, 158, 110 S. Ct. 1717 (1990)).

In this case, only the “injury-in-fact” requirement is in dispute. The Defendants advance distinct standing arguments with respect to the Plaintiffs’ claims. As to their Fourth Amendment claims, Defendants contend that the Plaintiffs’ standing is contingent upon the potential, future review of the imagery data by the Baltimore Police Department. With respect to the First Amendment claims, Defendants argue that the Plaintiffs’ “subjective expectation of a chilling effect on their associations” does not constitute an injury-in-fact sufficient to confer standing to bring a First Amendment claim. These arguments are addressed in turn.

The collection of imagery data associated with the Plaintiffs is an “injury-in-fact” sufficient to support standing to bring a Fourth Amendment claim. As the United States

Court of Appeals for the Second Circuit held in *ACLU v. Clapper*, 785 F.3d 787 (2d Cir. 2015), data collection alone can confer standing to bring a Fourth Amendment claim. In that case, several non-profit civil rights organizations brought First and Fourth Amendment challenges to the National Security Administration’s bulk telephone metadata collection program. 785 F.3d at 792. The plaintiffs had established that their call records were among those collected under the program. *Id.* at 801. The Defendants, a collection of federal government entities and officials, argued that Plaintiffs’ injury-in-fact could only arise if the government reviewed this data. *Id.* at 800. The Second Circuit explained that the Defendants had misapprehended “what is required to establish standing in a case such as this one.” *Id.* at 801. The Court held that, regardless of whether the Plaintiffs’ claims ultimately prevailed, they nevertheless had standing “to allege injury from the collection, and maintenance in a government database, of records related to them.” *Id.* As further discussed *infra*, following the Second Circuit’s decision in *Clapper*, the United States Court of Appeals for the Fourth Circuit held that the interception and copying of communications sufficed to confer standing to bring Fourth Amendment claims. *Wikimedia Found. v. NSA*, 857 F.3d 193, 210 (4th Cir. 2017).

In this case, Plaintiffs have standing to challenge the collection and retention of data associated with them. There is no dispute that Plaintiffs’ images—albeit in the form of a pixel-sized dot—will be captured by the airplanes deployed by Persistent Surveillance Systems and that those images will be preserved in a server it maintains. All Plaintiffs engage in public advocacy initiatives in Baltimore City, which requires them to traverse the city on foot, by bus, or by car. (Declaration of Dayvon Love ¶¶ 3, 12, ECF No. 4; Declaration of Erricka Bridgeford ¶¶ 7, 14, ECF No. 5; Declaration of Kevin James ¶¶ 2, 5, ECF No. 6.) Operating

roughly 12 hours per day in agreeable weather conditions and capturing 32-square miles of the city every second, the PSS planes will certainly capture individual imagery, even if only in the form of miniscule dots, as individuals move about Baltimore. Although PSS is not a Defendant in this matter, its activity is attributable to the Defendants as an exercise of the powers delegated to it by contract, which otherwise would be reserved to the Baltimore Police Department. Furthermore, as the Second Circuit explained in *Clapper*, it matters not that the BPD may never review the “dots” associated with these Plaintiffs. The collection of this data is alone sufficient to confer standing under Article III.

The Plaintiffs’ anticipated efforts to modify their speech activity to avoid surveillance under the AIR pilot program constitutes an “injury-in-fact” in the First Amendment context. As the Fourth Circuit has recognized, “‘standing requirements are somewhat relaxed in First Amendment cases,’ particularly regarding the injury-in-fact requirement.” *Davison v. Randall*, 912 F.3d 666, 678 (4th Cir. 2019) (quoting *Cooksey v. Futrell*, 721 F.3d 226, 235 (4th Cir. 2013); see also *Lopez v. Candaele*, 630 F.3d 775, 781 (9th Cir. 2010) (“First Amendment cases raise unique standing considerations that tilt dramatically toward a finding of standing.” (internal quotation marks and citations omitted)). In the First Amendment context, “the injury-in-fact element is commonly satisfied by a sufficient showing of ‘self-censorship, which occurs when a claimant is chilled from exercising his right to free expression.’” *Cooksey*, 721 F.3d at 235 (*Benham v. City of Charlotte*, 635 F.3d 129, 135 (4th Cir. 2011)).

Measures taken to avoid data collection may suffice as an injury-in-fact supporting standing to bring First Amendment claims. In *Wikimedia Found. v. Nat’l Sec. Agency*, 857 F.3d 193 (4th Cir. 2017), educational, legal, human rights, and media organizations brought First

and Fourth Amendment claims against the National Security Agency (“NSA”) and other government entities related to the NSA’s interception, collection, and review of text-based communications. *Id.* at 202. In response to these communication intercepts, Wikimedia Foundation alleged that it had taken “burdensome steps to protect the privacy of its communications and the confidentiality of the information it thereby receives” and had “self-censored communications or forgone electronic communications altogether.” *Id.* at 204. Citing the rule articulated in *Cooksey, supra*, the United States Court of Appeals for the Fourth Circuit held that Wikimedia had standing to sue on First Amendment grounds because it had “self-censored its speech and sometimes forgone electronic communications.” 857 F.3d at 211.

In this case, the Plaintiffs have clearly articulated how they will respond to the AIR program’s implementation. Leaders of a Beautiful Struggle will “alter[] the means by which [they] travel” and the “timing of certain meetings.” (Love Decl. ¶ 13.) James avers that he will “be more aware of and deliberate about whom [he] meet[s] and associate[s] with,” and feel obliged to explain the risks he associates with the AIR program to people he recruits to participate in protest activity. (James Decl. ¶ 8.) Bridgeford will “shift most of [her] outreach and conversations to be over the phone, over social media, or over email, which will severely impact the nature and quality of the inherently personal and sensitive work” that she does through Ceasefire. (Bridgeford Decl. ¶ 15.) These actions present the mirror image of those at issue in *Wikimedia*: in response to electronic surveillance, Wikimedia took its communications offline and made efforts to shield its online work; in response to real-world surveillance, Plaintiffs in this case will attempt to conceal their movements around Baltimore

and will move their communications online. These efforts, like the parallel efforts made in *Wikimedia*, are sufficient to confer standing to bring a First Amendment claim.

Relying on *Laird v. Tatum*, 408 U.S. 1, 92 S. Ct. 2318 (1972) and *Donohoe v. Duling*, 465 F.2d 196 (4th Cir. 1972), Defendants argue that Plaintiffs' proffered injuries are too vague or speculative to satisfy Article III's injury-in-fact requirement. In *Laird*, the Supreme Court held that an alleged chilling effect on the exercise of First Amendment rights caused by "the mere existence . . . of a governmental investigative and data-gathering activity" does not suffice to establish Article III standing. *Laird*, 408 U.S. at 3, 92 S. Ct. 2318. The *Laird* Court reached its decision in part based on the Plaintiffs' failure to clarify the nature of their purported injury. This ambiguity caused the Court to speculate that the alleged chill "may perhaps be seen as arising from respondents' very perception of the system as inappropriate to the Army's role under our form of government . . . [or] speculative apprehensiveness that the Army may at some future date misuse the information in some way that would cause direct harm to respondents." *Id.* at 13. The Court further remarked that the plaintiffs "cast considerable doubt on whether they themselves are in fact suffering from" a First Amendment chill. *Id.* at 13 n.7. Following *Laird*, the Fourth Circuit likewise held that the "mere existence" of intelligence gathering cannot satisfy Article III's requirements. *Donohoe v. Duling*, 465 F.2d 196, 202 (4th Cir. 1972) (quoting *Laird*, 408 U.S. at 10, 92 S. Ct. 2324).

In this case, Plaintiffs have done far more than express vague concerns about the "mere existence" of information-gathering. Rather, Plaintiffs have shown that they will be subject to surveillance under the AIR program. Their Article III injuries stem from the fact that their movements will be captured in the imagery data obtained by Persistent Surveillance Systems,

and that they will need to take burdensome steps to avoid surveillance. These injuries are far more concrete and imminent than the vague concerns voiced in *Laird* and *Donohoe*.

Finally, Defendants cite *Clapper v. Amnesty Int'l. USA*, 568 U.S. 398, 133 S. Ct. 1138 (2013) for the proposition that changing practices to avoid surveillance is “categorically insufficient” to support standing. This reading of *Amnesty* is much too broad. In *Amnesty*, attorneys and various organizations brought, *inter alia*, a First Amendment challenge to Section 702 of the Foreign Intelligence Surveillance Act of 1978 (“FISA”), 50 U.S.C. § 1881a. *Amnesty*, 568 U.S. at 401, 133 S. Ct. 1138. Plaintiffs alleged that they worked closely with likely FISA targets and, in some cases, needed to exchange privileged communications with them. *Id.* at 406, 133 S. Ct. 1138. In response to expanded intelligence gathering authority effectuated by the FISA Amendments Act of 2008, Plaintiffs alleged that they had “ceased engaging” in certain electronic communications to avoid FISA surveillance and anticipated traveling abroad to conduct in-person conversations. *Id.* at 406-07.

The United States Supreme Court held that these purported injuries were insufficient to support Article III standing. *Id.* at 410. The Court reasoned that the Plaintiffs’ theory of standing “relie[d] on a highly attenuated chain of possibilities,” the first of which was the “highly speculative” proposition that the Government would target non-U.S. persons in communication with the Plaintiffs. *Id.* The Court further observed that the Plaintiffs had “no actual knowledge” of the Government’s surveillance practices under § 1881a. *Id.* at 411. Accordingly, any efforts taken by the Plaintiffs to avoid the interception of their communications were “simply the product of their fear of surveillance.” *Id.* at 417.

This is a very different case. The Plaintiffs in this case, unlike those in *Amnesty*, have benefitted from the BPD's transparency and have reached a fair understanding of the AIR pilot program. The BPD has clearly indicated that Persistent Surveillance Systems will surveil Baltimore for roughly 12 hours per day, capturing images of about 90 percent of the city. Should the Plaintiffs venture outside at all during this period—a near certainty—they will appear as one pixel in the PSS airplanes' wide-area photographs. Their efforts to avoid this surveillance are not at all the product of baseless fears or cascading contingencies, but rooted in an understanding of the program's straightforward objectives.

In summary, Plaintiffs have standing to bring their First and Fourth Amendment claims. The Plaintiffs' have established—at this early stage in the proceedings—that they will appear in imagery data collected by PSS. The collection of this data, and the efforts Plaintiffs will take to avoid appearing in PSS images, is an “injury-in-fact” sufficient to support Article III standing. The mere fact that the Plaintiffs have standing to present these claims, however, does not mean that the Plaintiffs are likely to prevail on them. *See Overbey v. Mayor of Baltimore*, 930 F.3d 215 (4th Cir. 2019) (“[S]tanding in no way depends on the merits of the plaintiff's contention that particular conduct is illegal.” (citing *Warth v. Seldin*, 422 U.S. 490, 500, 95 S. Ct. 2197 (1975))).

III. The Preliminary Injunction Standard.

To obtain a preliminary injunction, the Plaintiffs must show that (1) they are likely to succeed on the merits; (2) they are likely to suffer irreparable harm absent preliminary relief; (3) the balance of equities favors them; and (4) that an injunction is in the public interest. 555

U.S. at 20; *accord. Roe v. Dep't of Def.*, 947 F.3d 207, 219 (4th Cir. 2020). This Court addresses these requirements *serialim*.

A. Likelihood of Success on the Merits – Fourth Amendment Claim.

The Fourth Amendment guarantees “[t]he right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures” by governmental actors. U.S. Const. amend. IV. In *Katz v. United States*, 389 U.S. 347 (1967), the Supreme Court held that a “search” occurs under the Fourth Amendment when the Government intrudes upon an individual’s reasonable expectation of privacy. As Justice Harlan famously explained in his *Katz* concurrence, “a Fourth Amendment search occurs when the government violates a subjective expectation of privacy that society recognizes as reasonable.” *Kyllo v. United States*, 533 U.S. 27, 33, 121 S. Ct. 2038 (2001) (quoting *Katz*, 389 U.S. at 361 (Harlan, J., concurring)).

In Count I of their Complaint, Plaintiffs claim that the imagery data captured by the AIR pilot program violates the Fourth Amendment to the United States Constitution. They argue that the program violates their reasonable expectation of privacy in their “long-term physical movements.” (ECF No. 2-1 at 22.) The Plaintiffs’ assertion warrants discussion of prior Fourth Amendment challenges to aerial surveillance techniques, widely-accepted pole camera surveillance, and various technological means of tracking a person’s movements.

1. Aerial Surveillance and the Fourth Amendment.

Following *Katz*, the Supreme Court rejected three Fourth Amendment challenges to aerial surveillance methods. These cases involved far more intrusive means of aerial surveillance than the program presented in this case. First, in *Dow Chemical Co. v. United States*,

476 U.S. 227 (1986), the Supreme Court held that the Environmental Protection Agency (“EPA”) did not conduct a “search” within the meaning of the Fourth Amendment when it flew an airplane equipped with a “standard, floor-mounted, aerial mapping camera” to take photographs of a Dow Chemical facility. *Id.* at 229. The plane made at least 6 passes over the plant at an altitude of 12,000, 3,000, and 1,200 feet, snapping about 75 photographs. *Dow Chemical Co v. United States*, 536 F. Supp. 1355, 1357 (1982). At the time, the camera represented the “finest precision aerial camera available,” and permitted the EPA to capture “a great deal more than the human eye could ever see.” 476 U.S. at 230. As the District Court observed, the camera “was capable of taking several photographs in precise and rapid succession,” facilitating stereoscopic examination, which permits depth perception. *Id.* at 242 n.4 (Powell, J., concurring in part).

Despite the relative sophistication of the camera at issue, the Court determined that the fly-overs did not constitute a “search” within the meaning of the Fourth Amendment. The Court reached this decision in part based on long-standing Supreme Court doctrines which limited Fourth Amendment protections accorded to “open fields,” but also considered whether the flights invaded a protected privacy interest. The Court held that the images produced by the camera “are not so revealing of intimate details as to raise constitutional concerns.” *Id.* As a counterexample, the Court mused that “[a]n electronic device to penetrate walls or windows so as to hear and record confidential discussions . . . would raise very different and far more serious questions.” *Id.* at 239. Such “highly sophisticated surveillance equipment” might raise Fourth Amendment concerns, but the equipment at issue in *Dow* did not.

On the same day that the Court decided *Dow*, it also issued an opinion in *California v. Ciraolo*, 476 U.S. 207 (1986). In *Ciraolo*, police officers flew a helicopter 1,000 feet over a defendant's home and, using only the naked eye, were able to observe marijuana growing in his enclosed backyard. *Id.* at 209. The Supreme Court held that, although the marijuana plants fell within the curtilage of the home—traditionally protected by the Fourth Amendment—the defendant nevertheless had no objectively reasonable expectation of privacy in the officer's surveillance because it took place in “navigable airspace” and “in a physically non-intrusive manner.” *Id.* at 215.

Finally, in *Florida v. Riley*, 488 U.S. 445 (1989) the United States Supreme Court once again upheld the use of aerial surveillance. In *Riley*, a police officer circled twice above the Defendant's greenhouse in a helicopter and at the close-range of 400 feet. *Id.* at 448. From this distance, the officer observed marijuana growing through openings in the greenhouse's roof and sides. *Id.* In a plurality opinion, Justice White found that the Defendant had no reasonable expectation of privacy against surveillance of his greenhouse conducted by an aircraft flying within navigable airspace and in accordance with applicable flight regulations. *Id.* at 451. As in *Dow*, the plurality opinion emphasized that officers on-board the helicopter did not observe “intimate details” connected with the Defendant's use of his home. *Id.* at 452. In a concurrence, Justice O'Connor wrote to express her view that the inquiry should focus not on whether the helicopter had followed flight regulations, but whether it “was flying at an altitude at which members of the public travel with significant regularity.” *Riley*, 488 U.S. at 454, 109 S. Ct. 693 (O'Connor, J., concurring).

The United States Court of Appeals for the Fourth Circuit has considered Fourth Amendment challenges to aerial surveillance on two occasions. In *United States v. Breza*, 308 F.3d 430, 432, 434-35 (4th Cir. 2002), the Court held that the aerial observation of landscaped area surrounding defendant's house on his 92-acre farm by law enforcement officers in a helicopter at altitude of 200 feet did not violate defendant's Fourth Amendment rights. Borrowing from both Justice White and Justice O'Connor in *Riley*, the Fourth Circuit held that the surveillance was not a "search" because the helicopter complied with FAA regulations and such flights were a "regular occurrence" in the area. *Id.* at 434. Additionally, in *Giancola v. State of W. Va. Dep't of Pub. Safety*, 830 F.2d 547, 551 (4th Cir. 1987), the Fourth Circuit held that helicopter surveillance conducted at 100 feet over personal property of Plaintiffs was "reasonable" under the Fourth Amendment because it comported with FAA regulations.

Common strands emerge from these aerial surveillance cases. Chief among these is that the Supreme Court and the Fourth Circuit have generally upheld warrantless aerial surveillance. Fourth Amendment concerns are unlikely to be implicated so long as the surveillance occurs within navigable or regularly traveled airspace, *see Riley*, 488 U.S. at 451; *Id.* at 454 (O'Connor, J., concurring); *Ciraolo*, 476 U.S. at 215, and the flight does not permit the visual observation of "intimate details" associated with a person's home, *see Riley*, 488 U.S. at 452; *Dow*, 476 U.S. at 238, or disturb the use of a person's property by means of "wind, dust, or threat of injury," *Ciraolo*, 476 U.S. at 215; *Riley*, 488 U.S. at 452. Employing these principles, the Supreme Court has permitted police helicopters to approach so closely as to permit the unassisted identification of marijuana plants, and to employ cutting-edge camera technology to document industrial facilities.

The AIR pilot program is far less invasive than the feats of aerial surveillance permitted in *Riley*, *Ciraolo*, and *Dow*. There is no question that the PSS planes will fly in navigable airspace and will not present any risk of property damage or injury to the public. There is no indication in the record that the planes will attempt to descend to low altitudes and permit naked-eye observations of suspected crimes or contraband, as the Supreme Court permitted in *Ciraolo* and *Riley*. The planes cannot offer glimpses of “intimate details” involving the use of the home, as the Supreme Court has intimated would be impermissible. The program will only capture the Plaintiffs in this case as a series of anonymous dots traversing a map of Baltimore. What the Plaintiffs do in the privacy of their homes will not be observable and cannot be reconstructed through the AIR pilot program—even if imagery data is cross-referenced with existing police tools, like CitiWatch cameras. Although the Supreme Court has cautioned against “highly sophisticated surveillance equipment” capable of penetrating windows or recording conversations, see *Dow Chemical Co. v. United States*, 476 U.S. 227 (1986), the AIR program is a far cry from such Orwellian gadgets.

2. Pole Cameras and the Fourth Amendment.

Guided by the Supreme Court’s decision in *Katz*, *Ciraolo*, *Dow*, and other cases, numerous federal Courts of Appeals—including the Fourth Circuit—have upheld the warrantless use of pole cameras to observe activities within a given radius. These pole cameras present a highly invasive means of surveillance, capable of observing a person’s facial features and bodily movements as they navigate their habitual environs. See *United States v. Vankesteren*, 553 F.3d 286, 291 (4th Cir. 2009) (upholding warrantless placement of a motion-activated camera in an open field owned by the plaintiff, where he felt “comfortable enough to relieve

himself,” to observe him killing endangered birds); *see also United States v. Houston*, 813 F.3d 282, 285-86 (6th Cir. 2016) (upholding warrantless use of pole camera installed 200 yards away from Defendant’s farm which “could move left and right and had a zoom function,” was trained on the Defendant’s trailer and barn, where he spent most of his time, and was used to record 10 weeks of footage); *United States v. Bucci*, 582 F.3d 108, 116-17 (1st Cir. 2009) (upholding warrantless use of video camera installed on utility pole across the street from the defendant’s house, which police used to observe his activities for eight months); *United States v. Jackson*, 213 F.3d 1269, 1276, 1280-81 (10th Cir.), *vacated on other grounds*, 531 U.S. 1033, 121 S. Ct. 621 (2000) (upholding warrantless use of pole cameras capable of zooming in to read individual license plates and to observe residential area). *But see United States v. Cuevas-Sanchez*, 821 F.2d 248 (5th Cir. 1987) (finding that extended, warrantless use of pole camera to capture drug-related activities occurring behind a 10-foot fence bordering defendant’s backyard constituted a Fourth Amendment “search”).

The AIR pilot program does not approach the surveillance capabilities of a pole camera. The imagery data collected by PSS planes cannot capture a suspect’s bodily movements, observe facial expressions, record in real-time, zoom-in on suspicious activities, or record illegal activities near the curtilage of the home or even in open fields. The AIR pilot program has a limited capacity to track the movements of unique “dots” across a cityscape and to integrate this capability with existing police tools. Even when fully integrated with existing BPD surveillance tools, the AIR pilot program could not capture a host of private activities ordinarily subject to pole camera surveillance. To the extent that warrantless pole

camera surveillance is permissible under Fourth Amendment jurisprudence, so too is the AIR pilot program.

3. Application of *Carpenter v. United States*.

Plaintiffs seek to extend the Supreme Court's recent holding in *Carpenter v. United States*, 138 S. Ct. 2206 (2018) to the facts of this case. In *Carpenter*, the Supreme Court held that individuals have "a legitimate expectation of privacy in the record of [their] physical movements as captured through [cell site location information]." *Carpenter*, 138 S. Ct. at 2217. The Supreme Court cautioned that its holding was "narrow" and did not "call into question conventional surveillance techniques and tools, such as security cameras." *Id.* at 2220. Accordingly, *Carpenter* does not implicate the AIR pilot program.

A rudimentary understanding of historical cell site location information ("CSLI") is required to apprehend the applicability of *Carpenter* to the facts of this case. Cell phones perform a variety of functions by connecting to radio antennas called "cell sites." *Carpenter*, 138 S. Ct. at 2211. These cell sites may be located on towers and a host of common urban fixtures, including "light posts, flagpoles, church steeples, or the sides of buildings." *Id.* Cell phones continuously scan their environment for the best signal—usually from the closest cell site—even when it is not in use. *Id.* Each time a cell phone connects to a cell site, it generates a time-stamped record known as cell-site location information. *Id.* Cell phone service provides store these records, resulting in a log of "historical" CSLI. *Id.* at 2212.

In *Carpenter*, prosecutors applied for court orders under the Stored Communications Act to obtain CSLI phone records related to Defendant Timothy Carpenter ("Carpenter").

Carpenter, 138 S. Ct. at 2212. The first order sought 152-days of cell site records from MetroPCS, which produced records spanning 127 days. *Id.* The second sought seven days of CSLI from Sprint, but yielded two days' of data. *Id.* At trial, FBI Agent Christopher Hess utilized this data to produce maps that placed Carpenter's phone near four alleged robberies. *Id.* at 2213. More specifically, the CSLI could place Carpenter "within a wedge-shaped sector ranging from one-eighth to four square miles." *Id.* at 2218.

The Court held that the Government's acquisition of CSLI constituted a "search" under the Fourth Amendment. As the Court acknowledged, a majority of the Justices had already recognized that "individuals have a reasonable expectation of privacy in the whole of their physical movements." *Carpenter*, 138 S. Ct. at 2217 (citing *United States v. Jones*, 565 U.S. 400, 430, 132 S. Ct. 945 (2012) (Alito, J., concurring); *id.* at 415, 132 S. Ct. 945 (Sotomayor, J. concurring)). The use of CSLI contravened this expectation in part because it could expose the "privacies of life." *Carpenter*, 138 S. Ct. 2217 (citing *Riley v. California*, 573 U.S. 373, 403, 134 S. Ct. 2473 (2014)). The Court observed that Americans carry their cell phones not just in public, but "into private residences" and even into the shower—all the while leaving a "detailed log of [their] movements over several years." *Id.* at 2218, 2222. The Court's opinion was based squarely on the technology at hand: logging a suspect's movements using CSLI was "remarkably easy, cheap, and efficient" and could be achieved "[w]ith just a click of a button." *Id.* at 2218. Reinforcing this notion, the Supreme Court cautioned that its holding was "narrow" and did not "call into question conventional surveillance techniques and tools." *Id.* at 2220.

Carpenter simply does not reach this case because CSLI offers a far more intrusive, efficient, and reliable method of tracking a person's whereabouts than the AIR pilot program. Unlike CSLI, the AIR pilot program cannot produce a running log of the Plaintiffs' whereabouts or catalogue the "whole of their physical movements." *Carpenter*, 138 S. Ct. at 2217. Unlike a cell phone which relays location data "several times a minute" so long as its signal can reach a cell tower, the AIR pilot program has limited location-tracking abilities. As the Persistent Surveillance System airplanes will not fly at night and cannot capture images in inclement weather, gaps in the data will prohibit the tracking of individuals over the course of multiple days, much less "years," "127 days," or "7 days"—the time frames at issue in *Carpenter*. Tracking individuals using the AIR pilot program is not the "remarkably easy" exercise described in *Carpenter*. 138 S. Ct. at 2218. Tracking using imagery data requires time-intensive analyses—about 1 hour of labor to track two hours' of a vehicle's movements. Finally, and critically, the program cannot expose the "privacies of life." *Carpenter*, 138 S. Ct. 2217 (citing *Riley*, 573 U.S. at 403, 134 S. Ct. 2473). Unlike a cell phone, the AIR pilot program cannot follow the "dots" it observes into a person's home, shower, *see Carpenter*, 138 S. Ct. at 2218, or "daily sauna and bath." *Kyllo v. United States*, 533 U.S. at 38, 121 S. Ct. 203.

Plaintiffs advance several arguments in an effort to liken the collection of CSLI data to the capture of imagery data. First, Plaintiffs attempt to minimize the efforts required to track a person using the AIR pilot program, likening the work to reconstructing a person's movements using CSLI. They explain that, in one study, "authors concluded that using cell-phone location data, just four points were enough to identify an individual based on their pattern of movements." (ECF No. 2-1 at 26.) It is not at all clear that the same results would

obtain in this context. The Plaintiffs have not proffered any evidence suggesting that the same analysis applicable to cell-phone location data may be grafted on to the imagery data produced by the AIR pilot program.

Next, Plaintiffs argue that “it matters not under the Fourth Amendment that some degree of additional legwork may be required” to match a “dot” observed by the PSS planes with a particular individual on the ground and to collect information about that person’s community activities or associations. They note that the Professional Services Agreement expressly contemplates the integration of the AIR pilot program technology with existing BPD resources, including CitiWatch cameras and license plate readers. (PSA 23.) In *Carpenter*, the Supreme Court once again rejected the notion that “inferences insulate a search,” *Carpenter*, 138 S. Ct. at 2218 (citing *Kyllo*, 533 U.S. at 36, 121 S. Ct. 2038), and noted that CSLI must be combined “with other information” to reliably track a person’s movements. *Carpenter*, 138 S. Ct. at 2218.

The Plaintiffs’ argument, seeking to lump together discrete surveillance activities as one Fourth Amendment “search,” is simply without merit. Using a combination of resources and activities—including police interviews, CitiWatch cameras, license plate readers, and public records—the Baltimore Police Department may be able to reconstruct a detailed account of a person’s activities and associations. The addition of one more investigative tool—in this case, aerial surveillance—does not render the total investigatory effort a Fourth Amendment “search.” In *Carpenter*, the Supreme Court focused on the acquisition of CSLI and its extraordinary qualities; it did not draw significant attention to ancillary investigative tools used

to corroborate or interpret information obtained through CSLI. Accordingly, *Carpenter* does not grant license to define a Fourth Amendment “search” so broadly that it encompasses several steps in the total investigatory effort.

In a final appeal, Plaintiffs caution that this Court “must take account of more sophisticated systems that are already in use or in development,” *Carpenter*, 138 S. Ct. at 2218 (citing *Kyllo*, 533 U.S. at 36, 121 S. Ct. 2038). They warn that far more sophisticated camera technology—such as the NightHawk II—is merely an upgrade away. (ECF No. 2-1 at 28.) A preliminary injunction simply cannot issue on the basis of conjecture and projections of future technological developments. In this case, the Defendants will implement a program that captures images of Baltimore on a sporadic basis—during daylight hours and in fair weather—and registers individuals as a single pixel. On these facts, the Plaintiffs have not established a likelihood of success on the merits of their Fourth Amendment claim.

B. Likelihood of Success on the Merits – First Amendment Claim.

In Count II of their Complaint, Plaintiffs allege that the AIR program violates the First Amendment to the United States Constitution “because it infringes on Plaintiffs’ exercise of associational freedoms through constant and inescapable monitoring by the BPD.” (Compl. ¶ 72, ECF No. 1.) In its Response to the Plaintiffs’ Motion for a Preliminary Injunction, Defendants argued only that Plaintiffs lacked standing to bring a First Amendment challenge and chose not to present arguments concerning the merits of the Plaintiffs’ claim. Despite Plaintiffs’ contention that Defendants have “effectively conceded” (ECF No. 31 at 17) the likelihood that Plaintiffs will prevail on their First Amendment claim, the moving party always

shoulders the “heavy burden” of demonstrating a likelihood of success on the merits. *Real Truth*, 575 F.3d at 346. The Plaintiffs have not satisfied that burden.

The First Amendment guarantees the freedom of speech, to worship, and to petition the government for the redress of grievances. U.S. Const., amend. I. The Supreme Court has “long understood as implicit in the right to engage in activities protected by the First Amendment a corresponding right to associate with others in pursuit of a wide variety of political, social, economic, educational, religious, and cultural ends. *Roberts v. U.S. Jaycees*, 468 U.S. 609, 622, 104 S. Ct. 3244 (1984). Government action which “directly and substantially” interfere[s]” with this freedom of association violates the First Amendment. *Lyng v. Int’l Union*, 485 U.S. 360, 367, 108 S. Ct. 1184 (1988).

Plaintiffs rely on a series of cases involving the compelled disclosure of memberships and associations, principally *Shelton v. Tucker*, 364 U.S. 479, 81 S. Ct. 247 (1960). In *Shelton*, the Supreme Court considered whether an Arkansas statute which “compel[led] every teacher, as a condition of employment in a state-supported school or college, to file annually an affidavit listing without limitation every organization to which he has belonged or regularly contributed within the preceding five years.” *Id.* at 248. The Supreme Court found the statute unconstitutional because its “unlimited and indiscriminate sweep” required the disclosure of information which had absolutely no bearing on the state’s interest in ensuring its teacher’s occupational health and fitness. *Id.* at 490. Plaintiffs contend that the AIR pilot program’s surveillance capabilities will permit the Defendants to compile a comprehensive log of the Plaintiffs’ associations—essentially producing the same unlawful result as the Arkansas statute in *Shelton*.

This argument is neither supported by the law or the record. *Shelton* falls within a larger corpus of Supreme Court precedents which hold that the First Amendment “protects against the compelled disclosure of political associations and beliefs.” *Brown v. Socialist Workers '74 Campaign Comm.*, 459 U.S. 87, 91, 103 S. Ct. 416 (1982) (citing, *inter alia*, *Shelton*, 364 U.S. at 479). These cases with respect to potential associations have no applicability to the issue of surveillance techniques which in no way compel or imperil speech. The record indicates that the AIR pilot program’s surveillance capabilities are quite limited and cannot produce a comprehensive log of a person’s associations. Accordingly, the Plaintiffs have failed to establish a likelihood of success on their First Amendment claims.

C. Irreparable Harm.

The parties agree that the “irreparable harm” in this case would be a violation of the Plaintiffs’ constitutional rights. *See, e.g., WV Ass’n of Club Owners & Fraternal Servs., Inc. v. Musgrave*, 553 F.3d 292, 298 (4th Cir. 2009) (“[I]n the context of an alleged violation of First Amendment rights, a plaintiff’s claimed irreparable harm is ‘inseparably linked’ to the likelihood of success on the merits of plaintiff’s First Amendment claim.”). Having concluded that the Plaintiffs are not likely to succeed on the merits of their constitutional claims, this Court finds that the Plaintiffs have likewise failed to demonstrate “irreparable harm.”

D. Balance of the Equities.

Plaintiffs argue that the equities favor them, because prohibiting the AIR pilot program will cost the Defendants nothing—at worst, they argue, they will be prohibited from engaging

in an unconstitutional practice. (ECF No. 2-1 at 42-43.) Defendants counter that the AIR pilot program is slated to be fully funded by a philanthropic organization known as Arnold Ventures, and that further delays in the program's implementation may inhibit this source of funding. (ECF No. 30 at 32.) This prospect is within the realm of the possible. The Plaintiffs, on the other hand, stand neither to lose nor gain much of anything by the imposition or withholding of a preliminary injunction because they have not shown that the AIR program does not violate the Constitution. Accordingly, this Court finds that the balance of the equities favors the Defendants and thereby prohibits the issuance of a preliminary injunction.

E. Public Interest.

Plaintiffs correctly note that “upholding constitutional rights surely serves the public interest.” *Giovani Carandola, Ltd. v. Bason*, 303 F.3d 507, 521 (4th Cir. 2002). In this case, the proposition is of limited relevance because the Plaintiffs are unlikely to establish a constitutional violation. For their part, the Defendants have introduced statements made in support of the AIR pilot program by various community leaders and organizations. The United Baptist Ministry Convention has written in support of the program. (Letter from Dr. Cleveland T. A. Mason, 2nd to Commissioner Michael Harrison (Mar. 30, 2020), ECF No. 30-2.) So too has the Greater Baltimore Committee.⁸ Maryland Governor Larry Hogan has also indicated his support.⁹ Defendants readily confess that the “public interest” factor is not

⁸ Position Statement on Public Safety in Baltimore and Support of the Use of Aerial Surveillance in Baltimore, Oct. 15, 2019, <https://gbc.org/statement-on-public-safety-in-baltimore-and-support-for-the-use-of-aerial-surveillance/>.

⁹ Justin Fenton and Talia Richman, *Baltimore Police Back Pilot Program for Surveillance Planes*, *Balt. Sun*, Dec. 20, 2019, <http://www.baltimoresun.com/news/crime/bs-md-ci-cr-baltimore-police-support-surveillance-plane-20191220-zfhd5ndtbdurlj5xf6xhoe2i-story.html>.

a popularity contest. (ECF No. 30 at 31.) Nevertheless, the fact that representatives of the Baltimore City community have expressed support for the program is a relevant consideration under this factor.

Another highly relevant consideration is the level of violence afflicting the City of Baltimore, which in 2019 recorded 348 homicides despite maintaining a population of roughly 600,000 people.¹⁰ Despite stay-at-home orders and emergency declarations designed to combat the spread of COVID-19, the homicides have continued.¹¹ As of April 8, 2020, it has been reported that the homicide rate in Baltimore is outpacing last year's rate. On April 8, 2019, Baltimore had recorded 71 homicides. By the same date this year, 75 homicides had occurred.¹² In a city plagued by violent crime and desperately in need of police protections, the public interest clearly does not favor the imposition of a preliminary injunction blocking constitutionally sound police programs.

CONCLUSION

The Plaintiffs have failed to meet their heavy burden to establish their entitlement to a preliminary injunction. Accordingly, Plaintiffs' Motion for a Preliminary Injunction (ECF No. 2) is DENIED, and the AIR pilot program may proceed.

¹⁰ Tim Prudente, *2019 closes with 348 homicides, second-deadliest year on record*, Balt. Sun, Jan 1, 2020, <http://www.baltimoresun.com/news/crime/bs-md-ci-cr-2019-homicide-final-count-20200101-jnauuumukbdh3edsyppspm3he-story.html>; Justin Fenton, *USA Today names Baltimore 'the nation's most dangerous city'*, Balt. Sun., Feb. 19, 2018 <http://www.baltimoresun.com/news/crime/bs-md-ci-usa-today-homicides-20180219-story.html>.

¹¹ See Justin Fenton, *Baltimore crime during coronavirus: Property crime plummets, gun violence continues*, Balt. Sun, Apr. 4, 2020, <https://www.baltimoresun.com/news/crime/bs-md-ci-cr-baltimore-crime-coronavirus-20200404-4yjfurpd4jcfvogxssaut232ty-story.html>.

¹² Baltimore City Homicide Rate is Currently Ahead of Last Year's, WJZ 13, Apr. 8, 2020, <https://baltimore.cbslocal.com/2020/04/08/baltimore-city-homicide-rate-is-currently-ahead-of-last-years>.

A separate Order follows.

Dated: April 24, 2020


Richard D. Bennett
United States District Judge

**UNITED STATES DISTRICT COURT
DISTRICT OF MARYLAND**

LEADERS OF A BEAUTIFUL STRUGGLE
et al.,

Plaintiffs,

v.

BALTIMORE POLICE DEPARTMENT
et al.,

Defendants.

No. 20-cv-929-RDB

NOTICE OF APPEAL

NOTICE IS HEREBY GIVEN that Plaintiffs in the above-captioned case, Leaders of a Beautiful Struggle, Erricka Bridgeford, and Kevin James, hereby appeal to the United States Court of Appeals for the Fourth Circuit from the Court's memorandum opinion and order, entered on April 24, 2020, denying Plaintiffs' motion for a preliminary injunction. *See* ECF Nos. 32–33.

April 24, 2020

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CERTIFICATE OF SERVICE

I hereby certify that on the 24th day of April, 2020, I electronically filed the foregoing Plaintiffs' Notice of Appeal with the clerk of the Court by using the CM/ECF system, which will send a notice of electronic filing.

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