Oakland Police Department
Surveillance Impact Report:
Aircraft Mounted Camera (AMC)/Downlink

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1. Information describing the Aircraft Mounted Camera/downlink technology and how it works.

Wescam MX-15

The WESCAM MX-15 does not contain any software, technology, or programs that use Facial Recognition, gait analysis, or Automated License Plate Reader (ALPR) technology.

The WESCAM MX-15 is an advanced, industry-leading stabilized multi-sensor, multi-spectral imaging system that is renowned for high performance, operator ease-of-use, and reliability. It is ideal for a wide range of objectives, including, Emergency Services, airborne law enforcement, and search and rescue. The system provides cameras for optimal performance in a wide range of conditions such as bright sunlight, overcast/dusk, smoke, and complete darkness. The platform is supported by a suite of advanced image processing algorithms for noise reduction, sharpening, and local area contrast enhancement that aid in object recognition (Object recognition is the ability to detect people, vehicles or objects in relation to their surroundings (i.e., how well you can see something). Superior stabilization is the key to achieving the maximum object detection, recognition, and identification range performance from the cameras.

The WESCAM MX-15 aircraft mounted camera (AMC) comes equipped with technology that allows for easy image tracking and stabilization, regardless of what the aircraft is doing, this allows the officer to focus on what is happening on the other side of the camera, instead of worrying about how to effectively use the camera.

FLIR 8500

The FLIR 8500 camera does not contain any software, technology, or programs that use Facial Recognition, gait analysis, or Automated License Plate Reader (ALPR) technology.

The FLIR 8500 camera is a stabilized multi-sensor, imaging system that has been utilized by the department for over 15 years. The cameras are able to provide SD images during daylight and low light operations. The IR camera is able to provide IR images to the operator when activated. The FLIR 8500 technology is heavily outdated but is the equipment currently owned and

operated by the department. The FLIR 8500 is equipped on both department patrol helicopters but is rarely used due to the image quality.

VISLINK DOWNLINK

The Vislink Downlink System will provide the Oakland Police Department with a state-of-the-art airborne video downlink transmit & receive solution that will provide real-time, high quality high-definition airborne images from the aircraft, operating simultaneously, to both fixed and mobile ground receive locations.

This high-quality encrypted/secure video downlink solution will provide real-time actionable video images to both command staff and remote users, allowing for critical decision making, enhancement of officer safety and better allocation of resources.

2. Proposed Purpose

At the direction of the Oakland City Council, Oakland Public Safety Committee, Reimagining Public Safety Task Force and the Oakland Police Department, the Air Support Unit has explored numerous alternatives to the current methods and equipment utilized by the Air Unit. After careful consideration to include, product testing/evaluation, fiscal analysis, stakeholder input, and industry standards, the Department has requested that a fixed wing aircraft be purchased for use by the Air Support Unit. The proposed camera technology which will be installed on the aircraft will allow the Flight Observer (FO) to observe in real time what is occurring on the ground prior to ground units arriving on scene. The fixed wing aircraft which will fly at a much higher altitude than the current aircraft, (3000+ ft above ground level (AGL) vs. 500-700 ft. AGL that the helicopters fly at). This will immediately reduce noise/light pollution as well as the emotional trauma incurred by the citizens of Oakland who have a negative association with the OPD helicopters. A byproduct of this higher altitude is that FO's can no longer look out the window to observe what is occurring below and must rely on a high-definition camera to make their observations. This Camera and any subsequently purchased aircraft mounted cameras will need to be utilized throughout the entirety of the flight while responding to dispatched calls as well as to proactively be on the lookout for criminal activity much as an officer would look out their vehicle window while on routine patrol. Aircraft mounted cameras have existed on the OPD helicopters for over two decades. This technology however is outdated and ineffective to perform the tasks that the Air Support Unit is currently tasked with. While the camera will be utilized throughout the entirety of the flight the recording capabilities will only be employed under the circumstances specified below and the data that is to be recorded and stored will be required to meet the associated requirements.

The downlink component of the system allows the video and pictures captured by the AMC to be streamed via a secure wireless connection to those devices authorized and approved by the department. Utilizing downlink will provide Commanders, Officers, City Leaders and other Emergency Responders a greater overall picture of what is occurring. Downlink can be utilized during natural disasters, earthquakes, fires, flooding etc.) to allow Emergency personnel to

assess evacuation routes, direct responders, and coordinate emergency efforts. The downlink can also be used to ensure the efficiency and accountability of officers on the ground. Additional uses of the downlink include utilization during protests to reduce the need of officers being in direct contact with suspects concealing themselves within the crowd, report on direction of travel, and create greater standoff distance with those peacefully protesting. Downlink may also improve situational awareness of unlawful sideshows. This increased situational awareness can be used to assist in de-escalation efforts of various critical instances.

Until the department is able to acquire new equipment like the fixed wing aircraft the department continues to utilize the helicopters as its sole air support platform. The Flight Observes continue to primarily use binoculars and naked eye observations but there are instances where the camera is utilized during low light or long distance observations. These uses will be governed by the Aircraft Mounted Camera Use Policy (I-29).

3. Location:

OPD aircraft equipped with the WESCAM MX-15 or FLIR 8500 and VISLINK downlink system may be deployed within the city of Oakland in accordance with the Air Support Unit Deployment Plan as directed by the Chief of Police or their designees. The OPD helicopters and airplane serve as a patrol unit in the sky and may respond anywhere within the jurisdiction of the Oakland Police Department. The OPD Air Support Unit is occasionally requested to assist with investigations in neighboring jurisdictions and would respond as available to assist with those in accordance with mutual-aid policies and MOU's currently in place. All policies for the use of the associated equipment would be in effect as stated in the Aircraft Mounted Camera Use Policy (DGO I-29).

4. Impact:

The AMC that is currently proposed is able to obtain high definition images that can be used to identify individuals, vehicles or other information that may not be visible to the naked eye at the altitudes the aircraft will be operated within. Additionally because the aircraft is able to see from an overhead view, it does allow the camera operator to view into areas not commonly visible to the public (back yards, between buildings, terrain etc.) These images provide information that may not be available without these technologies. The mitigations discussed in section 5 below as well as the AMC Use Policy (I-29) identify when the camera may be intentionally utilized to obtain a specific image and also directs users to not intentionally record or transmit non pertinent information. All use of the camera falls under the AMC use policy which expressly prohibits use of the camera in a discriminatory or biased manner. See section 5 and the AMC Use Policy. The Baltimore Police Department was subject to litigation in 2020 related to a contract with an airborne surveillance company which obtained data that was later determined to be in violation of the plaintiffs 4th amendment rights. The analytical software employed by that agency is not being utilized by the department and would be subject to approval by the City of Oakland Privacy Advisory Committee. The Courts further addressed the "injury" that occurred to the complainants by the persistent surveillance utilized by the agency.

The data obtained by the particular contractor in this case was indiscriminately obtained, utilized recording constantly and images captured were of the entire city for an extended period of time. All of the data obtained was retained for a period 45 days and often longer without cause. This type of data collection is not utilized by the department and would not fall under the associated policies.

5. Mitigations:

Random audits will be conducted by the department at their discretion to ensure that members are in compliance with the AMC use policy (DGO I-29). The ASU Supervisor will also be responsible for ensuring that each member authorized to operate the AMC and downlink equipment has been properly trained in the authorized and prohibited uses of such equipment. Training shall be documented with the appropriate records and forms as designated by the department.

AMC Operators shall not intentionally record or transmit images of any location where a person would have a reasonable expectation of privacy (e.g. residence, enclosed yard, enclosure) unless actively searching for a victim, suspect, or evidence related to a crime etc. When OPD Aircraft are being flown and the AMC is being utilized, operators will take steps to ensure the camera is focused on the areas necessary to the task and to minimize the inadvertent collection of data about uninvolved persons or places. Operators and observers shall take reasonable precautions, such as turning imaging devices away, to avoid inadvertently recording or transmitting images of areas where there is a reasonable expectation of privacy.

Retention periods are specified within the AMC use policy and largely follow that of the department's current Body Worn Camera (BWC) retention policy which is largely governed by legal requirements for evidentiary retention. Notable exceptions are the deletion of videos not meeting evidentiary standards or other documented reasons for retention will be deleted after a 6 month period. All video stored within the Axon data storage platform will be held to the same restrictions as BWC video and the viewing of such files will be under the same restrictions as the BWC policy Departmental General Order DGO (I-15.1).

The fixed wing aircraft is further restricted in its use and locations to be flown by Federal Aviation Regulations (FAR) part 91.991 which states

"Except when necessary for takeoff or landing, no person may operate an aircraft below the following altitudes:

(a) ***Anywhere.*** An altitude allowing, if a power unit fails, an emergency landing without undue hazard to persons or property on the surface.

(b) ***Over congested areas.*** Over any congested area of a city, town, or settlement, or over any open air assembly of persons, an altitude of 1,000 feet above the highest obstacle within a horizontal radius of 2,000 feet of the aircraft.

(c) ***Over other than congested areas.*** An altitude of 500 feet above the surface, except over open water or sparsely populated areas. In those cases, the aircraft may not be operated closer than 500 feet to any person, vessel, vehicle, or structure."

These altitude restrictions will ensure that the aircraft is flying a safe distance above the ground and they will also increase the distance from the camera to the ground, thereby decreasing the level of detail in photos that members of the public may believe to be infringing upon privacy interests.

Although the camera will be turned on during low level flight at takeoff and landing there are very few instances when any recording or observations will actually take place. Due to the departure procedures in effect at the Oakland International Airport where the aircraft will be based, the airplane will often be at over 1000 feet above ground level prior to flying over the city of Oakland. Additionally, due to the angle observed by the camera at lower altitudes it is ineffective for the camera operator to utilize the camera at these low altitudes due to terrain, buildings and other obscuration.

While these altitude restrictions do not apply to helicopters, due to the outdated nature of the helicopter camera the image quality observed from the helicopter at 700 feet AGL is lower than that of the MX-15 being operated above 3,000 feet AGL. There is no increased level of intrusion to the residents and visitors of Oakland due to the helicopters operation and camera utilization.

6. Data Types and Sources:

The AMC will record using industry standard file types: JPEG, mov, mp4, wav, or RAW. Such files may contain standard color photographs, standard color video, or other imaging technology, such as thermal. The AMC does not record or transmit audio in any way.

7. Data Security:

All AMC data storage devices (SD Card, Flash Drive, Portable Hard Drive) will be secured in a manner (e.g. lockbox) only accessible to Air Support Unit (ASU) personnel. All evidence from ASU data devices shall be uploaded to the EVIDENCE.COM server and then immediately removed from the drive. See Attachment 4 for OPD Data Retention Policy Time Frames

8. Fiscal Cost:

The FLIR 8500 Cameras were purchased outright and have no upfront costs. Because they are no longer being serviced by FLIR their ongoing maintenance costs are minimal and are funded by the Air Support Units maintenance budget.

The Wescam MX-15 camera and the Vislink Downlink equipment was included in a RFQ for the aircraft and mission equipment. See Oakland City RFQ.

MX-15- $724,881.00

Vislink Downlink system – $265,000.00

There will be no costs associated with training the operators of the AMC as training documents are provided at no cost to the Department. All other training is conducted in house at no cost. Maintenance costs are minimal to include cleaning and cable replacement cannot be determined ahead of time. Routine software updates are included in the cost of the camera.

The purchase of the aircraft will be funded within the departmental budget as allocated by the city council, or with a Loan taken on by the city/department for the purchase of the airplane and associated equipment.

9. Third Party Dependence:

All data collected by the technology to include video recording will be stored in the EVIDENCE.COM server (currently utilized for all BWC data storage). This is not anticipated to increase the cost or decrease the effectiveness of the city's current data storage capabilities.

10. Alternatives:

The Aircraft Mounted Camera SUP (***Attachment A),*** Section 1, "Alternatives Considered", explains that "OPD could continue the status quo of utilizing the OPD Helicopter with the FLIR 8500 Series camera as well as gyro stabilized binoculars to monitor activities occurring on the ground. Continuing in this manner will require the air asset to fly at an altitude considerably lower causing increased sound/light pollution and trauma associated with the helicopter to the citizens of Oakland.

The Alternatives section also considers drone usage. While drones play an integral part in the protection of Oakland residents and visitors, they are limited in their capabilities. The current flight time for drones is approximately 25-30 minutes and speeds of 25 mph. Drones are limited to line of sight and cannot operate in an area greater than 2-3 blocks. Drones are currently not capable of assisting during vehicle pursuits that exceed these speeds or distances as stated above. Due to the busy airspace surrounding the Oakland International Airport, UAV's are extremely limited to the locations, altitudes and ranges that they can fly. UAV's are also limited in their deployment availability. Drones require approval prior to each deployment. Once approval is obtained, the operator must acquire the equipment, respond to the scene, wait for approval from the FAA and then launch the drone. By this time an incident has likely evolved greatly and may have already concluded prior to the utilization of the drone. OPD aircraft typically fly for 1-2 hours and with the purchase of a fixed wing aircraft will have greater flight capabilities with response times frequently of under 1 minute from dispatch to scene arrival.

OPD does have access to outside agency air assets equipped with cameras such as CHP and ACSO. However, OPD must request those agencies to respond for each incident. This creates a significant delay in response times as each of those agencies are located outside of the city of

Oakland (CHP operates from the Napa County Airport 30 NM away and ACSO 19 NM). This process can take a significant amount of time which could negatively impact the outcome of a critical incident. Additionally, these neighboring agencies are responsible for large areas of land outside of Oakland (CHP Golden Gate Division covers nearly 7,000 sq miles and ACSO 739 sq. miles). Due to the unique weather patterns experienced by the City of Oakland, weather frequently prohibits neighboring agencies from responding to the city of Oakland for assistance. OPD can better respond to dangerous situations by equipping our own aircraft with cameras capable of the same level of service provided by neighboring agency aircraft and responding in a timely manner.

11. Track Record:

During previous critical incidents the Oakland Police Department has relied on outside agencies to include the California Highway Patrol, Alameda County Sheriff's Office, and Contra Costa Sheriff's office to provide recordings of critical incidents that have involved officers of the Oakland Police Department.

During the George Floyd Demonstrations in 2020, CHP was again requested to provide assistance to the City of Oakland. CHP in addition to the Oakland Air Support Unit provided updates to command and city leaders on the ground. CHP however was able to provide real time video from overhead to the Emergency Operations Center with City officials such as the Mayor, City Administrator, Police, Fire and Emergency Services Personnel. This Downlink technology was specifically requested by city leaders for events such as this and has been used successfully on many occasions.

In 2020, Contra Costa Sheriff's office captured an Officer involved shooting involving Richmond and Oakland Police Officers. CCCSO was overhead and recording when an armed murder suspect intentionally rammed several Oakland police vehicles in the city of Richmond. The entire shooting was captured by the Sheriff's helicopter and the video was used by the respective investigative bodies after the incident.

In November 2021, Oakland Officers were fired upon by a carjacking suspect. The vehicle was tracked for an extended time by ground and air resources. While attempting to detain the subject, CHP air was overhead recording with their aircraft mounted camera. Video showed the subject ramming multiple patrol cars and later engaging several officers. This incident led to an officer involved shooting that was captured by both BWC and the aircrafts camera. This video was critical to the subsequent investigations by the Criminal Investigations Division, Internal Affairs as well as the Community Police Review Agency.

Attachments

1 AMC/Downlink Surveillance Use Policy
2 Wescam Documents/Images
3 Downlink Documents