



DATE: July 13, 2021

TO: Mayor and City Council

FROM: Chief of Police

SUBJECT: Adopt a Resolution Authorizing the Purchase and Adoption of an Unmanned Aerial Systems (UAS or “Drones”) Program for the Hayward Police Department

RECOMMENDATION

That the Council adopts a resolution (Attachment II) authorizing the purchase and adoption of an Unmanned Aerial System Program for the Hayward Police Department.

SUMMARY

Technology is rapidly changing the face of modern policing. The ever-developing Unmanned Aerial Systems (UAS) technology, often referred to as a “drone,” is poised to transform law enforcement operations at a level not seen since the introduction of body-worn cameras. UAS are a portable and easy-to-learn technology being utilized by law enforcement agencies across the country to improve operational efficiency, as well as officer and community safety.

The Police Department proposes to expand the City’s existing UAS capabilities in order to complete tasks and provide service to the public more efficiently and safely. Currently, a City of Hayward Information Technology employee operates a UAS for the purpose of GIS mapping and holds the only Certificate of Authority (COA) to operate a UAS within City limits. The Police Department would like to expand the City’s UAS program by securing its own COA and UAS for public safety use. The utilization of UAS by local governments and public agencies is no longer considered new technology and the City is surrounded by municipalities and law enforcement agencies that use UAS technology as part of their regular service provision and operations. The Hayward Police Department periodically calls upon other police agencies to have their UAS team deploy for Hayward incidents. Having a locally controlled UAS program would ensure City oversight and controls of the program.

Importantly, as with other law enforcement technology, the use of UAS is governed by the privacy rights provided to all community members under the Fourth Amendment and the associated Police Department policy (Attachment III). Thus, UAS will not be used for

random surveillance or interception of any protected communications. Moreover, UAS will not be used as a weapons platform.

BACKGROUND

Technology is rapidly changing the face of modern policing. The ever-developing UAS technology, often referred to as a “drone”, is poised to transform law enforcement operations at a level not seen since the introduction of body-worn cameras. UAS are a portable and easy-to-learn technology being utilized by law enforcement agencies across the country to improve operational efficiency¹ as well as officer and community safety².

UAS are small, unmanned aircrafts, operated by a ground-based pilot who maintains line-of-sight contact with the UAS. They are an affordable alternative to utilizing a fixed-wing airplane and/or a helicopter for air support. UAS offer a safe, effective, and affordable option for enhancing a wide variety of law enforcement operations, such as search and rescue missions, accident scene investigations, and crime scene reconstructions. Moreover, use of UAS provide protection for officers, offenders, and witnesses/community members in high-risk situations, such as high-risk warrant service, response to active shooting incidents, or even pursuing fleeing vehicles or offenders on foot. The use of UAS allows officers to respond to high-risk situations without having to physically place officers at the scene or in positions that would compromise their safety, the safety of offenders, or the safety of witness/community members. Doing so greatly reduces the chance of officer involved shootings and injury to responding officers, offenders, or witnesses/community members.

Importantly, as with other law enforcement technology, the use of UAS is governed by the privacy rights provided to all community members under the Fourth Amendment, as further discussed in this staff report and the associated Police Department policy. Thus, UAS will not be used for random surveillance or interception of any protected communications. Moreover, UAS will not be used as a weapons platform.

In 2015, approximately 147 agencies in the United States had an operating UAS program. In 2018, over 900 agencies had an operating UAS program and, in 2021, that number is on pace to grow exponentially. Locally, the Alameda County Sheriff's Office (ACSO) has been operating a UAS program since 2015 and the Fremont Police Department (FPD) started their own program in 2018. In 2018, Union City PD and Newark PD each created and are now operating a UAS program. The Hayward Police Department periodically calls upon other police agencies to have their UAS team deploy for Hayward incidents. Having a locally controlled UAS program would ensure City oversight and controls of the program.

DISCUSSION

¹ [How police are using UAS devices | PoliceOne.com \(police1.com\)](#)

² [5 ways drones can help cops fight crime \(police1.com\)](#)

Today, more than ever, law enforcement agencies are seeking ways to leverage developing technologies and community partnerships to address public safety issues. While developing technologies are sometimes viewed with suspicion, their introduction can also strengthen partnerships that promote safe communities. UAS provide several possible crime control capabilities and have the potential to improve both community and officer safety, while decreasing the cost of improved operations. It allows officers to slow down and evaluate situations with the goal of reaching peaceful resolutions for the benefit and safety of all.

De-escalation. The use of UAS will have a positive and safe impact on rapidly unfolding incidents in the field. Rather than rushing into a scene, officers will have the ability to slow their response down and create time and distance, which will allow valuable information to be gathered and will drastically increase the safety of everyone involved. Using UAS is a non-threatening means to evaluate the safety of members of the public and responding officers. UAS will improve our response and provide de-escalation options when addressing critical incidents. UAS will help resolve incidents and reduce the likelihood of the need to use force. An example of such an incident occurred on August 7, 2020. Around 2 am, officers responded to a report of a man in his house firing a high-powered rifle. Instead of sending officers to his door, HPD secured a UAS from ASCO and ACSO sent it into the home based upon exigent circumstances. Officers were able to communicate with the man and safely de-escalate the situation using the UAS. The man safely surrendered without any harm to anyone involved, including officers and community members.

Improving Search and Rescue Operations. The ability of UAS to maneuver in relatively small and difficult-to-access areas makes it an important technology to assist with search and rescue operations. In 2016, FPD used the ACSO UAS to search for and document the location of body parts associated with a homicide investigation, evidence which may not have been found had the UAS not been utilized. Recently, ACSO used their UAS to search for the driver of a vehicle that crashed into the water in Niles Canyon, to search for a missing kayaker in the San Francisco Bay, and to search along the jagged cliffs near Highway 1 for a man who was thought to have fallen over the edge. In late 2019, HPD used the ACSO UAS to find a distressed female who was threatening to kill herself. Based on the City's location in relation to the Hayward Fault Line, UAS would be an invaluable search and rescue tool should an earthquake or other major disaster occur.

Accident and Crime Scene Investigations. An aerial survey by a UAS, particularly one equipped with GIS mapping software, can save hours in follow-up investigations, saving officers valuable time and tax-payer money. This technology can speed up accident and crime scene investigations, to the benefit of the community, by reducing the amount of time roadways are closed for scene investigation and diagramming, which would otherwise take several hours. HPD has used the ACSO UAS to effectively map out critical incident scenes, homicides, and fatal motor vehicle accidents with great success.

Support and Coordination with Fire/EMS. UAS can improve coordination between police and fire personnel during response to incidents in the field. In addition to providing officer safety, UAS can improve firefighter safety by surveying roof damage during a fire, to locate

“hot spots” that need to be controlled, to locate and assess victims in need of rescue, to monitor the integrity of burning buildings, to account for firefighting personnel on the fire ground, for natural disaster monitoring, fire-mapping, training, and other uses. Moreover, the use of UAS can eliminate the need for HPD to request an HFD response for equipment (e.g., ladder) to assist in the search of high areas (e.g., rooftops). This will allow HFD to remain available to respond to medical or fire related calls for service and removes the great potential danger to officers from the equation as they investigate these types of incidents. For example, Fremont Fire Department used their UAS to investigate a hazardous material spill and to assist with their response at several large structure fires, without having to place fire and police personnel in harm’s way during these investigations.

Disaster Management and Recovery. UAS can survey damage in flooded or inaccessible areas quickly, saving first responders vital time and protecting their safety. Relief workers used UAS to assess remote villages in the Philippines after a series of typhoons hit the country and were also used to determine the stability of buildings after a devastating earthquake in Haiti. UAS can also be used to deliver water, radios, and other equipment to first responders or others who may find themselves in locations that are difficult or impossible to access without the use of UAS. The City’s location in relation to the Hayward Fault Line makes the City and the region particularly susceptible to a large earthquake. In the aftermath of an earthquake, a UAS can be used to search for missing people, identify infrastructure damage, and identify those in dire need of medical care in places where access or investigation by personnel on foot may be impossible.

Protecting Officer Safety. Some departments use UAS to get a better look at suspicious packages or locate hidden (and possibly dangerous) offenders while reducing risk to officers. For high-risk arrest and search warrants, UAS are being used to provide overhead views of properties and improve officer safety by allowing the observance of fleeing or hiding offenders, tracking directions of flight, and helping determine whether offenders may be armed. In July of 2018, UCPD utilized their UAS during a foot pursuit of a potentially dangerous offender. The suspect was surrounded in his home. While officers were still arriving, the UAS was deployed and captured the suspect throwing a gun and package into a neighboring yard. The UAS helped officers locate both items. HPD has also borrowed UAS for use in similar circumstances. In May 2020, officers responded to a shooting incident at a music studio where four individuals were shot and well over 100 rounds of ammunition were fired from multiple weapons. A UAS allowed officers to visually clear most of the interior of the music studio prior to physically making entry. This allowed officers to determine who was in the studio, including potential victims and whether those in the studio were still armed prior to entry. This provided HPD with the ability to consider tactics prior to entering, which lessened the chances force would be necessary. The UAS was also used to document this crime scene, which took two days. In another incident, an offender, who fled into a neighborhood after a vehicle pursuit, was located hiding in a backyard using a UAS. Officers were able to locate the offender, provide him with instructions via the UAS, and safely take him into custody without having to put officers or a police canine into the backyard. The use of UAS greatly lessened the chances force would be necessary and directly contributed to the safe resolution of this incident.

Hayward UAS Policy Updates. A draft HPD UAS policy, which would apply to all uses of UAS by HPD personnel, has been included as Attachment III to this staff report to bring transparency to deployment criteria and operations. This policy also addresses key elements of data privacy and data retention.

Data Retention. Video and audio footage collected by UAS will be retained according to existing department policy consistent with other programs, including the HPD's Body Worn Camera program. The City Attorney's Office has reviewed the draft policy and provided an analysis of the current privacy laws with consideration for the community's right to be free from unwarranted privacy intrusions.

PUBLIC OUTREACH

While the benefits of UAS use by law enforcement are numerous, challenges also exist. HPD understands the need for UAS program transparency. As part of this outreach, Department personnel met with residents and local stakeholders in person to answer questions and listen to concerns and suggestions by conducting the following meetings:

- November 6, 2019: Conducted a presentation to all Neighborhood Watch Group members throughout the City
- December 11, 2019: Community outreach at North Resource Center
- December 12, 2019: Community outreach at Glad Tidings Church

Each member of the Community Advisory Panel (CAP) was invited to attend the public outreach meetings. The program was discussed, including the details of a draft policy governing UAS usage. Staff explained how and why the UAS can and cannot be used, including prohibitions of UAS usage for random surveillance, intercepting electronic or other communications, or as a weapons platform.

Council Infrastructure Committee (CIC)

The UAS Program was presented to the CIC in September 2019. While support for the UAS program was expressed, CIC requested the City of Hayward adopt a data retention policy. The HPD maintains data retention policies for other existing programs, including data collected as a part of the Body Worn Camera program, which was implemented in 2015. Data retention collected by the UAS program would fall under the same policy guidelines as indicated above. Additionally, the City is in the process of creating an independent Surveillance and Data Retention policy, which would also apply to the use of UAS by the City and which is discussed in more detail in the companion report to this item (LB 21-036).

The second request by the CIC was to conduct further outreach and allow the Community Advisory Panel (CAP) to provide input on the UAS program. Scheduling delays and other operational challenges (e.g., COVID-19 pandemic) proved difficult to navigate, however additional outreach and input by the CAP are outlined below.

Community Advisory Panel (CAP) Review

On December 15, 2020 and January 26, 2021, the Chief and members of the HPD Command Staff met with the CAP to discuss the UAS program and address concerns. Prior to the initial meeting, the UAS proposal and draft policy were sent to each member to review. The following were some concerns the CAP identified:

- 1. Concerns regarding the ability to redact images of uninvolved persons or properties.**

The Police Department currently has the ability to redact these images and do so as a part of the Body Worn Camera program. The City would only release portions of video relevant to a PRA request or in response to discovery as a part of a legal proceeding.

- 2. Concerns expressed regarding security of data and 3rd party auditing of stored videos.**

Evidence.com incorporates access based on individual user identity and audit trails are built into the software. All data would be HPD property and would not be shared with anyone else except for legitimate law enforcement purposes. Axon, the owner of Evidence.com, maintains a publicly available website which outlines their data compliance, security assurances, and certifications to demonstrate the controls that have been put in place to secure data stored in Evidence.com. As of the publication of this report, some of the most recognizable certifications have been achieved which include but are not limited to: ISO/IEC 27001:2013 Information Security Management Standard certified, ISO/IEC 27018:2014 Code of Practice for Protecting Personal Data in the Cloud certified, FBI CJIS certified, and SOC 2+ Reporting. To achieve these certifications, the vendor is evaluated by 3rd parties against a set of specific controls or principles and will not achieve certification unless the requirements of the standard are met. To maintain these levels of certification, the vendor coordinates directly with 3rd parties to conduct audits and demonstrate their compliance with each certification.

The companion report to this item (LB 21-036) discusses data privacy and protection concerns in more detail.

- 3. Concerns expressed regarding draft policy, including vague or ambiguous language, inclusion of language explicitly identifying when UAS will or will not be used, and requests to include language prohibiting the use of facial recognition or wiretap technology.**

Policy modifications were made based upon CAP feedback, including removal of some vague language and inclusion of language that prohibits the use of facial recognition technology.

- 4. Concerns expressed regarding use of data and Fourth Amendment issues.**

UAS will be used only in circumstances where reasonable suspicion, probable cause, or exigent circumstances exist or pursuant to a valid warrant.

5. Concerns expressed about UAS usage during protests or demonstrations.

Mass gatherings of any kind remain a concern as they are targets for extremists/terrorist. UAS will not be used for routine surveillance of protests or demonstrations, but could be deployed in circumstances where security concerns exist or criminal activity is occurring (e.g. vandalism, looting, rioting, assaults on officers, etc.).

6. Concerns about oversight of the UAS program.

The HPD will share data, information, and address concerns regarding the program to City Council and the Community Advisory Panel during periodic updates. Data and information could include flight plans, UAS usage, UAS training, written reports, or redacted video examples of UAS usage in the field.

Some members of the CAP felt strongly that policies governing the use of technology, including UAS, should not be established and maintained by the Police Department. Instead, they should be established and maintained by the City. One CAP member recommended the City develop and adopt an ordinance governing the use of technology, including UAS, and that the expansion of the City's UAS program be vetted publicly. The presentation of this program for Council review and approval at this meeting addresses the concern about public vetting of the program.

FISCAL IMPACT

This proposal would require the purchase of equipment and special training for personnel. The total initial cost of the required equipment (4 UAS aircraft, cameras, and other equipment) with tax included, is estimated to be \$14,000. The total initial cost for training and certification of eight pilots is estimated to be \$4,700 (based on over time, price would go down on any adjusted time). The total initial cost to begin this program is estimated to be \$18,700.

According to local agencies, they expect to replace their UAS units every two to three years to keep up with developing and improving technology. This request does not require an increased appropriation. The City currently has the funds for this within the HPD's operating budget.

NEXT STEPS

Upon City Council approval, HPD will proceed to purchase the UAS units and initiate training of staff on the new policies and program.

Prepared by: Mark Ormsby, Lieutenant

Recommended by: Toney Chaplin, Chief of Police

Approved by:

A handwritten signature in black ink, appearing to read "K. McAdoo". The signature is fluid and cursive, with a long horizontal stroke at the end.

Kelly McAdoo, City Manager