



**1 North San Antonio Road
Los Altos, California 94022-3087**

M E M O R A N D U M

DATE: February 7, 2024

TO: City Council

FROM: Angela Averiett, Chief of Police

Joe Ledoux, Police Captain

SUBJECT: Request for the acquisition of drones (UAS) pursuant to AB481

Honorable Mayor and City Council,

Pursuant to Assembly Bill 481 the Los Altos Police Department is respectfully bringing forward an acquisition report seeking to acquire drones (UAS). Attached is an ethical and purposeful proposal for acquiring drones for specific and prescribed uses. Los Altos Police Department is only seeking the use of drones in a purpose-driven manner while being hyper-sensitive to the civil liberty concerns of our community.

In 2021, the State of California passed AB 481, which requires local agencies to seek permission from their respective governing bodies to approve the use of 'military equipment'. In compliance with AB 481, the Los Altos Police Department seeks to acquire four drones, two for exterior and two specifically designed for interior usage; further details about each model are contained in the attached acquisition report.

The below detail acquisition report thoroughly articulates the specified uses. Any video captured during any non-evidentiary use will be deleted in 30 days.

I respectfully request the City Council review and consider approving this request to enhance further and strengthen our abilities organizationally, especially regarding de-escalation and disaster response.

Please feel free to contact me if you need any additional information.

UNMANNED AERIAL SYSTEM (UAS)

A. DESCRIPTION

An Unmanned Aerial System (UAS) is an unmanned aircraft of any type that is capable of sustaining directed flight, whether pre-programmed or remotely controlled and all of the supporting or attached components designed for gathering information through imaging, recording, or any other means. Generally, a UAS consists of:

- An unmanned aircraft which consists of the chassis with several propellers for flight, radio frequency and antenna equipment to communicate with a remote-control unit, control propellers and other flight stabilization technology (e.g. accelerometer, a gyroscope), a computer chip for technology control, a camera for recording, and a digital image/video storage system for recording onto a secure digital card (SD card);
- A remote-control unit that communicates with the unmanned aircraft via radio frequency; and
- A battery charging equipment for the aircraft and remote control.

UAS are controlled from a remote-control unit (similar to a tablet computer). Wireless connectivity lets pilots view the UAS and its surroundings from a bird's-eye perspective. UAS have cameras so the UAS pilot can view the aerial perspective. UAS record image and video data onto a secure digital (SD) memory cards. SD cards can be removed from UAS after flights to input into a computer for evidence.

B. PURPOSE

UAS offer to significantly improve the capacity of law enforcement (LE) to provide a variety of foundational police services. This technology has already been used with many law enforcement agencies to save lives and help capture dangerous criminal suspects. UAS can support first responders in hazardous incidents that would benefit from an aerial perspective.

Responding to violent crime in Los Altos often requires officers to face risks to their safety – in addition to the clear risks faced by members of the public when violent crime is present.

Technology such as UAS can play a vital role in mitigating these omnipresent dangers, by providing a greater view into the immediate surroundings of crime scenes and active pursuits. The use of a UAS is also in line with the Department's philosophy around de-escalation, as this tool can provide greater time and distance, which are the critical components in offering officers the greatest likelihood of a peaceful, or less violent resolution.

Searches for armed and dangerous suspects are more effective and controlled with UAS support; an armed suspect can be hiding in a tree or on a roof. Law Enforcement Officers can respond accordingly and more safely when provided with this critical information (see Section #10 below "Alternatives Considered" for more information on

how UAS compares to alternatives for situational awareness). More informed responses also lead to less injury and less uses of force.

LE agencies have successfully used UAS to locate missing persons, especially in more remote areas – as well as for rescue missions. UAS is also being used during disasters and during any hazardous material releases. The situational awareness UAS provides has also become an important tool for large events (e.g. sport events, parades, and festivals); the aerial view provides information that would otherwise require a much larger deployment of LE personnel to maintain the same level of public safety support. Furthermore, smaller UAS can be equipped with a loud speaker to communicate (e.g. hostage situations/providing verbal commands and directions to the subject).

The use of UAS could also be beneficial for collaborative work with Public Works Department while inspecting the City's utility infrastructure including but not limited to sewer, water, and other critical infrastructure.

C. LOCATION

LAPD proposes to use UAS as outlined in proposed policy 611- Unmanned Aerial System (UAS).

UAS may only be requested for the following specified situations:

- a. Mass casualty incidents (e.g. large structure fires with numerous casualties, mass shootings involving multiple deaths or injuries);
- b. Disaster response and damage assessment;
- c. Missing or lost persons;
- d. Hazardous material releases;
- e. Identifying, locating and apprehending non-compliant, threatening or combative persons who pose a threat of injury or death to themselves, others or officers;
- f. Suspected explosive devices;
- g. Video/photographic documentation of crime scenes or collision locations;
- h. Reconnaissance of incident locations that are inaccessible for fire apparatus;
- i. Response to fires or post-fire investigations;
- j. Sideshow events where many vehicles and reckless driving is present;
- k. Rescue operations;
- l. Conduct inspections of the City's utility infrastructure (e.g. electric, fiber, water, sewer, etc.) to detect leaks or stressed assets, and aid in general public works inspections.
- m. Training flights as required to meet FAA and Department certification standards;
- n. Hazardous situations which present a high risk to officer and/or public safety,

to include:

- i. Barricaded suspects;
- ii. Hostage situations;
- iii. Armed suicidal persons;
- o. Arrest of armed and/or dangerous persons
- p. Service of high-risk search and arrest warrants involving armed and/or dangerous persons
- q. Other unforeseen exigent circumstances

Unmanned Aerial Systems shall only be used for legitimate law enforcement purposes or to aid in other City divisions as guided by the above permissions.

Potentially, UAS could be deployed in any location in the City of Los Altos where one or more of the above situations occur and where the proper authorizations are provided. Fortunately, several of these situations rarely occur – but some do occur, such as arresting armed/dangerous persons. LAPD occasionally arrests individuals for violent crimes– UAS can provide situational awareness in all of these critical incidents to provide a greater level of safety for officers, as well as for nearby civilians.

D. IMPACT

LAPD recognizes that the use of UAS raises privacy concerns. UAS are becoming ubiquitous in the United States, and there is a growing concern that people can be surveilled without notice or reason. There is concern that UAS can be utilized to observe people in places, public or private, where there is an expectation of privacy. The level of potential privacy impact depends upon factors such as flight elevation and camera zoom magnitude, as well as where the UAS is flown.

The results of the research study titled, “Mission-based citizen views on UAV usage and privacy: an affective perspective¹,” published in February 2016 found that people’s perceptions of how UAS impacts privacy relate to use type. The researchers from College of Aeronautics, Florida Institute of Technology, and the Aeronautical Science at Embry-Riddle Aeronautical University (ERAU), College of Aviation UAS Lab found that people tend to be less concerned about police UAS use when the technology is only used for specific uses - “concerns for privacy were less in the condition where the UAV was only used for a specific mission than when it was operated continuously.” Policy 611 provide strict acceptable guidelines, and Authorized Uses which explains when LAPD personnel can request the use of a UAS for specific missions.

E. MITIGATION

LAPD’s policy 611 restricts LAPD’s use of UAS in several ways to promote greater privacy protections.

¹ <https://www.nrcresearchpress.com/doi/abs/10.1139/juvs-2015-0031#.XkHEAWWhKiUI>

LAPD will only request use of the UAS for specific missions rather than operating continuously, mitigating concerns raised in the February 2016 study cited above.

Policy 611. Authorized Use lists the only allowable uses of UAS (e.g. mass casualty incidents, disaster response and damage assessment, missing or lost persons, hazardous material releases, Identifying, locating and apprehending non-compliant, threatening or combative persons who pose a threat of injury or death to themselves, others or officers, suspected explosive devices, video or photographic documentation of crime scenes or collision locations, reconnaissance of incident locations that are inaccessible for fire apparatus, response to fires or post-fire investigations, sideshow events where many vehicles and reckless driving is present, rescue operations, training, Conduct inspections of the City's utility infrastructure (e.g. electric, fiber, water, sewer, etc.) to detect leaks or stressed assets and aid in general public works inspections, training flights as required to meet FAA and Department certification standards, hazardous situations which present a high risk to officer and/or public safety to included: armed suicidal persons, hostage situations, barricaded suspects, arrest of armed and/or dangerous persons, service of high-risk search and arrest warrants involving armed and/or dangerous persons, and other unforeseen exigent circumstances). Policy 611 also articulates the Request Process, which indicates the approval must come from the Watch Commander or Officer in Charge via the Chain of Command for all use approvals.

The Federal Aviation Administration (FAA) sets strict flight regulations for all UAS users, including for law enforcement. The FAA provides two law enforcement options for creating acceptable UAS under 14 Code of Federal Regulation (CFR) part 107, subpart E, Special Rule for Model Aircraft; the agency can designate individual members to earn FAA drone pilot certificates and fly under the rules for small UAS, or receive a FAA certificate to function as a "public aircraft operator" to self-certify agency drone pilots and drones. Either way, these options allow for LAPD to use systems under 55 pounds, for flying at or below 400 feet above ground level. Absent an emergency situation warranting a FAA COA/Part 107 waiver- permitted law enforcement response, law enforcement is also restricted from using UAS to fly over or near the following locations:

- Stadiums and Sporting Events;
- Near Airports; and
- Emergency and Rescue Operations (wildfires and hurricanes).

Policy 611 "Privacy Considerations," outlines several other protocols for mitigating against privacy abuse:

LAPD UAS personnel must adhere to FAA altitude guidelines – flying below 400 feet helps to ensure that UAS is not used for surveilling overly large geographic areas; LAPD will use UAS to focus on specific areas.

LAPD UAS operators shall not intentionally record or transmit images of any location where a person would have a reasonable expectation of privacy (e.g. residence, yard, enclosure, place of worship, medical provider’s office).

LAPD 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.

Policy 611 “Prohibited Use” explains that:

UAS shall not be used for the following activities:

- To conduct random surveillance activities.
- To target a person based solely on individual characteristics, such as, but not limited to race, ethnicity, national origin, religion, disability, gender or sexual orientation when not connected to actual information about specific individuals related to criminal investigations;
- For the purpose of harassing, intimidating, or discriminating against any individual or group; or
- To conduct personal business of any type.

LAPD is prohibited from weaponizing any UAS.

F. DATA TYPES AND SOURCES

UAS will record using industry standard file types such as (e.g. jpeg, mov, mp4, wav or RAW). Such files may contain standard color photograph, standard color video, or other imaging technology such as thermal. Although UAS can transmit one-way audio from the operator, the UAS technology available today does not currently record sound.

G. DATA SECURITY

LAPD takes data security seriously and safeguards UAS data by both procedural and technological means. The video recording function of the UAS shall be activated whenever the UAS is deployed. Video data will be recorded onto Secure Digital (SD) Cards. Any data collected by the use of a UAS should be kept by LAPD minimally for 30 days. The data should be uploaded into LAPD’s evidence database and kept pursuant to the established retention guidelines set forth in policy 810-Records Maintenance and Release.

H. FISCAL COST

The costs are approximate and will be sought in the upcoming budget. LAPD will seek to acquire two (2) DJI Matrice 30T drones with thermal cameras at a cost of approximately \$44,576 and two (2) Aardvark Loki Mk2 drones for indoor operations at a cost of

approximately \$13,693. Additionally, the cost will require staff time for certification and training, which will be borne by the Department through its continuous training.

I. THIRD-PARTY DEPENDENCE AND ACCESS

Currently, LAPD is completely reliant upon surrounding agencies if an UAS requests is sought.

LAPD proposes that any data collected from the UAS may be shared with the following:

The District Attorney's Office for use as evidence to aid in prosecution, in accordance with laws governing evidence;

Other law enforcement personnel as part of an active criminal investigation;

Other City divisions as it directly relate to the prescribed permissions in section C;

Other third parties, pursuant to a Court Order or Search Warrant.

J. ALTERNATIVES

In some instances, the LAPD could rely on requesting the assistance of an outside agency's helicopter, which causes significant carbon emissions, especially when considering the footprint of a UAS.

Another alternative is the deployment of additional police resources. The inherent problem with this alternative is that it may be counterproductive to the Department's philosophy on de-escalation as it reduces the Department's ability to leverage time and distance to reduce the likeliness of a physical or violent confrontation.

K. EXPERIENCE OF OTHER ENTITIES

Currently, in Santa Clara County, the following cities have UAS programs: Campbell Police, Mountain View Police, Palo Alto Police, San Jose Police, Santa Clara Police, Santa Clara Sheriff's Office, and Sunnyvale DPS.