



Administrative Report

H.9., File # 24-1276

Meeting Date: 10/1/2024

To: MAYOR AND CITY COUNCIL
From: JOE HOFFMAN, CHIEF OF POLICE

TITLE

APPROVE AN AGREEMENT WITH AERODOME, INC. FOR UNMANNED AERIAL SUPPORT SERVICES FOR AN AMOUNT NOT TO EXCEED \$180,000 FOR THE TERM OCTOBER 1, 2024 TO JUNE 30, 2025 AND TWO ADDITIONAL ONE-YEAR TERMS, FOR AN AMOUNT NOT TO EXCEED \$275,000 ANNUALLY, IF AERODOME IS ABLE TO SECURE THE FAA WAIVER NEEDED TO ALLOW FOR ADVANCED DRONE OPERATIONS

EXECUTIVE SUMMARY

The Police Department conducted a Request for Information (RFI) process for Law Enforcement Drone services in May and June of 2024. After evaluating the service options provided by six RFI respondents, the Police Department selected Aerodome, Inc. to continue its Drone as a First Responder (DFR) program. Aerodome was chosen for its innovative features, platform performance, cost efficiency, and commitment to securing FAA waivers for advanced operations. Aerodome's DFR program has delivered significant improvements in operational capability for the Police Department while enhancing response efficiency by leveraging advanced unmanned aerial support (UAS) technology.

BACKGROUND

The Police Department has utilized UAS drones for law enforcement since April 2017, logging thousands of successful flights. In an effort to continue to provide the best service within the available budgetary resources, an RFI was published on April 30, 2024, and closed on May 24, 2024 resulting in responses from six vendors: Motorola Solutions, Inc., Skydio, Inc., BRINC Drones, Inc., 3XTHESHOOTER PHOTOGRAPHY, Axon Enterprises, Inc., and Aerodome, Inc. After evaluating the submittals, Aerodome was selected based on its advanced technological offerings and cost efficiency. Aerodome provides superior capabilities and proven platform performance at a lower cost than comparable firms.

The RFI outlined specific performance measures and functionalities expected from the UAS solutions with the eventual goal of automated flight operations. Aerodome excelled in various areas, including BVLS operation, collision avoidance, localized air traffic control, autonomous launch and response, API accessibility, range-finding technology, autonomous battery management, and customizable workflows. The system also offers automated monthly flight reports, handles FAA Certificates of Waiver or Authorization (COA), and can automate the transfer video footage to the Police Department's evidence management software without the physical transfer of media. Additionally, the system can automate the publication of flight log information on the City's website and allow staff

to configure reports that are run and delivered via e-mail at specified intervals.

Aerodome's platform integrates with Microsoft Active Directory, includes role-based user security profiles, regularly remediates security vulnerabilities, archives security-related events, meets industry-standard security protocols, while being controllable with common office equipment.

Aerodome is also committed to pursuing a Certificate of Waiver (CoW) for Code of Federal Regulations (14 CFR) part 107.31 for "beyond visual line of sight" (BVLS) operation. Approval will allow for drone operation by a single Remote Pilot in Command (RPIC) instead of the current two-person team. Since January 2024, Aerodome has flown to more than 500 calls for service including robberies, burglaries, DUIs, brandished weapons, assaults, alarms, missing people, thefts, and family disturbances. The use of their UAS platform has helped locate more than 50 individuals suspected to be involved in crimes. The ability to provide an ariel view and provide pre-arrival intelligence to first responders has resulted in positive feedback from both the members of our community and personnel in the Police Department.

To enhance public accountability, the "Redondo Beach Police Department Flight Dashboard" was added to the Police Department's website. This feature allows the public to review map-based information and flight paths associated with each response. The success of the program has inspired the Police Department to continue leveraging small UAS technology to ensure enhanced operational efficiency and response capabilities. The Aerodome system also successfully aided in the arrest of armed students at Redondo Union High School. This was a high-stakes scenario which showcases the ability of DFR technology to deliver an effective real-time response that enhances situational awareness and can lead to the swift disposition of potentially life-threatening situations.

Aerodome utilizes a robotic docking station to change drone batteries and an array of sensors, including radar, to avoid conflicts in active flight paths. The DFR system integrates augmented reality and laser rangefinders to identify locations and objects in video feeds and incorporates geofile address information to enhance situational awareness for both flight personnel and first responders on the ground. The system provides high-definition video streaming and immediate data sharing capabilities, significantly improving operational effectiveness for personnel with verified access.

Additionally, Aerodome is actively pursuing FAA Code of Federal Regulations (14 CFR) part 107.31 BVLS waivers, which would allow single-operator drone missions, reducing staffing requirements, and eventually lowering costs. The waiver application process is robust and requires operators to gather sufficient operational and performance data to develop a comprehensive record of flight operations to design a plan for the safe operation under the waiver. Obtaining FAA waivers to automate flights and reduce the personnel required to operate the DFR program is central to Aerodome's business model.

The term for the Agreement is from October 1, 2024 to June 30, 2025, with automatic renewals for two additional one-year terms, unless cancelled by either party in advance. Until the FAA Code of Federal Regulations (14 CFR) part 107.31 BVLS waiver is obtained, the annual cost is \$180,000 per year. Following receipt of the specified FAA waiver, the cost will increase to an amount not to exceed \$275,000 annually. The increase will also be coupled with the possible implementation of enhanced system capabilities, subject to mutual agreement. Funding is available in the Police Department's FY 2024-25 operating budget, using General Fund and Supplemental Law Enforcement Services Fund allocations, to cover the cost of the agreement. The City's cost for these services is considerably

discounted as compared to the market. The savings are made possible by the Police Departments unique fit for Aerodome as an ideal test and evaluation site for their evolving DFR operational program. In addition to the benefit of a discounted price, the agreement positions Redondo Beach at the forefront of improvements to Aerodome's DFR platform and uses an existing facility use license with Beach Cities Health District as the launch point for drone operations.

The continued use of Aerodome as the City's UAS provider supports the Police Department's goals of enhancing response capabilities and operational efficiency through the strategic use of technology. Aerodome's advanced technology, cost-effectiveness, and commitment to pursue critical FAA waivers make it the optimal choice to serve as the Police Department's UAS services partner. Approval of this Agreement will enable the Police Department to maintain and expand the City's DFR program in order to provide enhanced safety and service for the community.

COORDINATION

The Police Department coordinated this report with the City Attorney's Office and Risk Management Division. The City Attorney's Office approved the agreement as to form.

FISCAL IMPACT

Funding for the Agreement is available in the Police Department's annual operating budget through General Fund and Supplemental Law Enforcement Fund allocations.

APPROVED BY:

Mike Witzansky, City Manager

ATTACHMENTS

- Agmt - Aerodome, Inc.
- Insurance - Aerodome, Inc.