



CITY OF KIRKLAND
Fire Department
123 Fifth Avenue, Kirkland, WA 98033
425.587.3650 www.kirklandwa.gov

MEMORANDUM

To: Kurt Triplett, City Manager

From: Heather Kelly, Emergency Manager
Joe Sanford, Fire Chief
Cherie Harris, Police Chief
Julie Underwood, Public Works Director

Date: April 6, 2023

Subject: UNMANNED AIRCRAFT SYSTEM TEST PROGRAM UPDATE

RECOMMENDATION:

It is recommended that the City Council review the program status update for the City of Kirkland ("City") Test Unmanned Aircraft System ("UAS") program.

BACKGROUND DISCUSSION:

The Council initially approved development of a one-year UAS test program to improve public safety as part of the 2019-2020 budget. Due in part to the COVID-19 pandemic, development of the pilot program was delayed, however, and the Council's \$55,000 budget appropriation was carried over to 2021-2022.

Through Resolution R-5529, the Council approved City-wide and department specific administrative policies for UAS use by the Fire, Police, and Public Works departments.

The Emergency Manager was appointed by the City Manager to lead the implementation of the test program. A UAS workgroup was established in September of 2022, consisting of representatives from Fire, Police, Public Works, and Information Technology departments, in addition to participation from the City Attorney's Office and the City Manager's Office Communications team. The workgroup established an implementation strategy and plan to move the City UAS test program from concept to operations.

The workgroup identified the program compliance requirements, operational aircraft specifications, pilot eligibility and training guidelines, public outreach methodology, and program sustainment.

The intent is to complete programmatic requirements and training to have pilots and aircraft ready for deployment to emergent incidents by May 1, 2023. The program is currently within the allocated budget.

The program has implemented all Federal Aviation Administration (FAA) requirements, including documentation, pilot licensing, and registration of aircraft. The City is in the process of completing the FAA Certificate of Authorization (COA) documentation to facilitate flight operations. Coordination with key airspace partners has occurred, specifically with Evergreen Hospital Medical Center and Lake Washington seaplane operations. Additionally, coordination is occurring for approval to conduct flights in and over King County parks and Washington State parks for both training and emergent needs.

The workgroup identified aircraft specifications and completed a procurement process, and the City has entered into a service agreement for the purchase of aircraft, accessories, and software licensing to support flight operations, documentation, and records retention. Currently the City has four aircraft for the purposes of training and operations.

Emergent aircraft – DJI Mavic 30, intended for emergency response and public safety operations.

Planned aircraft – DJI Mavic 3, intended for planned flights for training, project status updates, and public outreach efforts.

Training aircraft – DJI Mini (2 each), intended for initial pilot flight training prior to operating larger high-cost aircraft.

A total of fifteen pilots were selected, licensed, and trained to support the program. Pilots include six each from Police and Fire and three from Public Works. Pilots are all FAA licensed and must provide skill proficiency through an internal training protocol facilitated by three lead pilots. Training consists of a combination of policy compliance, record and documentation management, flight skills, and obtaining and storing of imaging. Image retention will be managed through the secure limited access storage program (Evidence.com) currently used by Police as part of the body-worn camera program.

The public outreach plan includes the use of general awareness communications and the establishment of a public website for sharing of program information. The website includes a flight log and the ability to share imaging obtained during flights, as appropriate. This site will be made visible when the program moves from implementation and training to actual operations.

NEXT STEPS:

Implementation next steps include pilot training using a graduated approach to qualification for each aircraft, documentation of operational protocols, delivery of public messaging, publishing of the UAS website, and coordination with NORCOM for dispatch of the aircraft during emergent response. In addition, data collection will be occurring, including, but not limited to, tracking of the types of missions, flight outcomes, missed flight opportunities, and public engagement.

The program has been designed with the intention of ongoing sustainment past the one-year test period, as the workgroup feels confident that the benefits of visual imagining to support public safety response and community education will be clearly demonstrated.