



STAFF REPORT

SAUSALITO CITY COUNCIL

MEETING DATE: January 28, 2020

AGENDA TITLE: Planned Deployment of SMFD Drone Program

LEAD DEPARTMENT: Southern Marin Fire District, Fire Chief Chris Tubbs

RECOMMENDED MOTION: Move to Receive Report

SUMMARY

Over the past three years SMFD Staff have been conducting extensive research on the rapidly evolving drone technology, and community impacts and benefits from various public safety deployment programs. SMFD Staff has been working to develop a public safety program that meets the unique needs and sensitivities, as well as regulatory requirements, of these types of aerial technologies as applied to the service needs and areas of the Southern Marin Fire District.

The Board of Directors has communicated its keen interest and desire to leverage the values of this kind of technology to the fire and rescue environments, while also sensitive to public concerns expressed relative to these types of tools and programs. The purpose of this staff report is to introduce the Sausalito City Council to this evolving initiative, and to solicit feedback from the Council and Community.

BACKGROUND

For several years, the Southern Marin Fire Protection District's Board of Directors has envisioned a drone program that captures the advantages of this rapidly changing technology. With the ability to enhance real time situational awareness to fireground commanders and the ability to view both emergency scenes and everyday calls from a new perspective. The time has arrived for the implementation of our program, and staff is excited to announce what our future holds.

Through research and development with leaders in the industries of both public safety and software companies, our drone development team has done a thorough job of vetting the challenges we face on a daily basis to determine our needs. Required FAA

authorizations have been secured to operate in the District's airspace. Training and certification of several members in the areas of mapping, photography, thermal imaging, and program creation and management have occurred and we have one certified FAA Part 107 pilot already. Through the adopted budget, we have established our drone development team and are preparing to begin purchasing equipment.

Through the early development stages the potential benefits of a drone program became increasingly clear and diverse and our drone development team began to partner with software professionals who will be working closely with SMFD staff to better develop prevention-based platforms to expedite vegetation inspections with great accuracy. Through the use of these programs, we will be doing revolutionary trials and development which will ideally establish Southern Marin Fire as an industry leader in the realm of dual-purpose drone programs.

Operationally, we will be able to use aerial thermal cameras to search for hot spots on structures and lost hikers. We can also augment our social media and website images with new pictures taken from vantage points that were previously impossible to reach. We can document training evolutions, document and inspect critical infrastructure and facilities, and provide a lookout in a dangerous situation.

The Marin County Sheriff's Office deployed drones for the slide in Sausalito in February 2019. The imagery provided critical and unique views that assisted the incident commander with ensuring life safety and incident stabilization. Drones could have provided information regarding the volume of slide material, which would have provided additional value to the incident commander but were not available the early morning hours of the incident.

Prevention is an area unexplored by the industry but clearly offers a whole separate world of possibilities, including video media for preplans of commercial buildings, streamlined vegetation inspections and documentation, and progress reports of current and future Measure U funded fuel reduction projects.

The Southern Marin Fire District will soon begin an initial six-month pre-deployment / public education phase of the program. This phase is designed to ensure all aspects of the program are fully functional and effective prior to the full deployment.

Our main objective is to improve the excellent service we already deliver to the public while maintaining their support. Prior to actual missions beginning, our drone development team and public information folks will be conducting an expansive public outreach and education campaign to answer questions about privacy, digital media handling, and what the public can expect to see us doing with these aircraft. Our mission is to be transparent from day one.

DISCUSSION/ANALYSIS

It is clear that there are extensive benefits associated with the deployment of this kind of technology. Experience from other agencies has demonstrated an excellent return on investment (ROI) and is limited only by the ways in which the program is leveraged.

The Southern Marin Fire District is planning to take advantage of this technology to improve both internal and external services, and our drone development team has done remarkable work in getting our agency to this stage. The next phase will be a six-month evaluation trial where further refinements can be made. It will also include, as previously noted, the vitally important outreach and education campaign to our community.

Our next steps include initiating a public outreach and education campaign soliciting feedback from the community. Staff will also present the program to the Sausalito Community Safety and Disaster Preparedness Committee. Staff will return to Council in the next few months with a video presentation of the capabilities of the drone program, as well as an update on the education and outreach efforts.

ALTERNATIVES

None

FISCAL IMPACT

None

STAFF RECOMMENDATIONS

Staff Recommends Move to Receive the Planned Deployment of Southern Marin Fire District Drone Program Report.

ATTACHMENTS

None.

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