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## RECOGNITION OF OUTSTANDING DRONE PROGRAM

**Name of Department/Agency:** *Chula Vista Police Department*

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**How long program in operation?** *January 2016*

**How many aircraft in program?** *15*

**What types of aircraft in fleet?**

*3 M-210 V.2*

*2 M-200 V.2*

*4 Mavic Enterprise*

*4 Skydio2*

*1 Inspire 2 with Pix4d for outdoor crime scene and collision mapping*

**How many remote pilots in program?**

*15*

**Do you operate with COA, Part 107 or both?**

*Both*

## **How has your drone program been innovative for your department?**

*The Chula Vista Police Department established its Small Unmanned Aerial Systems (sUAS or Drone) program in 2016 and has steadily increased its operations over the past few years. Most significantly, CVPD conceived of and pioneered the concept of Drone as a First Responder (DFR) in 2018. Under the concept of DFR, remotely operated drones are deployed at fixed launch sites ready to respond to emergency calls. When an emergency call is received, the closest drone is launched with the goal of arriving on scene first to live stream video to first responders. Since October 2018, CVPD DFR drones have flown over 2,400 missions and have assisted in 312 arrests.*

*In addition to DFR, which operates 70 hours a week over 17 square miles, CVPD has fifteen officers in patrol who are licensed drone pilots (FAA Part 107 licensed). These pilots can deploy a drone from their car when a DFR drone is not available or out of range. CVPD also deploys a drone equipped with photogrammetry software for collision and crime scene mapping. CVPD envisions drone deployment strategies:*

- *DFR is proactive since it is deployed ahead of patrol when possible and is fully integrated into the emergency response system*
- *Part 107 field deployments are reactive because officer/pilots still need to drive to a scene, deploy the drone and fly the support mission*
- *Part 107 post incident flights are investigative because they use drones to map outdoor crime and collision scenes (post-incident documentation). Mapping using drones is far faster than traditional survey techniques and helps re-open scenes and more quickly restores communities to normal.*

*During the Covid emergency, CVPD's drones became force multipliers in support of patrol operations in each of these areas. Public safety drones give unprecedented situational awareness to first responders which helps with better emergency call outcomes.*

*In the case of DFR, a teleoperator (an experienced sworn officer) maneuvers the drone and acts as an incident commander in support of ground units, much like a traditional police helicopter observer. The teleoperator flies the drone to the scene, directs the 30x zoom camera and communicates with officers and dispatch via the primary radio. CVPD flies DFR operations 10 hours a day, 7 days a week from 2 launch sites with an average response time of 150 seconds. CVPD officers, supervisors and managers can watch the live streamed video and plan appropriate response tactics unique to each incident.*

*DFR provides unprecedented real-time intelligence on many routine calls, even calls where a police helicopter would never be considered because of response times and operating costs. This is especially valuable on mental-health calls, disturbance calls and potentially dangerous calls with limited information for responding officers. Real-time intelligence integrated into the initial response protocols means that officers and supervisors can approach more safely and bring the right tools, tactics and resources to bear on an incident to resolve it safely. In a policing environment where de-escalation is becoming increasingly important, DFR is a powerful new tool for officers to bend the curve in their favor.*

*While CVPD has not tracked COVID-19 specific drone responses, DFR has helped officers on hundreds of calls during the emergency. On average, CVPD DFR drones respond to 10-15 calls a day in support of ground units. DFR gives police and fire personnel real-time information and situational awareness that is even more important during the pandemic. CVPD and CVFD personnel, like all first responders, are at heightened risk for exposure in the field and any intelligence advantage can be helpful while responding to emergencies. Over time, CVPD has also shown that an experienced DFR operator can clear an average of 23% of the calls for service without the need to dispatch ground units. This preserves ground units for higher priority calls and helps them avoid unnecessary personal contact and the potential for exposure to the virus.*

*While DFR has been CVPD's workhorse drone strategy, field deployments by officers are also important. CVPD officer/pilots routinely deploy drones during backyard searches, searching large areas, searching roofs and scouting ahead on gun calls to name a few. More uniquely, CVPD was one of the first agencies in the nation to deploy speaker equipped drones for outreach to the homeless population in difficult to reach urban canyons. CVPD's homeless outreach*

*missions covered miles of territory and reached dozens of people in about a quarter of the time it would have taken on foot.*

*It is important to note, that while drones are a powerful new tool in policing, they are no replacement for officers on the ground. At their best, drones can provide real-time intelligence in support of experienced officers, who still need to make decisions on the best way to handle a given incident. Also, agencies must be aware of community concerns and have strong policies and protocols in effect. Transparency, open communication and engaging community leaders and stakeholders is critical to address concerns over privacy and allegations of police overreach.*

*Done properly, a police drone program provides actionable intelligence that makes communities safer, officers safer and even suspects safer. In this time of limited budgets and stress on organizations, CVPD's drone program has helped officers on the ground plan and effect better call outcomes, even during one of the most challenging times in our organization's collective memory. For more information about CVPD's drone program, please visit <https://www.chulavistaca.gov/departments/police-department/programs/uas-drone-program>.*

### **How has your drone program enhanced safety for your department?**

As noted above, DFR has been fully integrated into routine emergency response protocols from the moment a 911 call is received. Giving first responders real-time actionable intelligence allows for better response planning to bring the right tactics tools and resources to bear for each incident. CVPD's DFR program has collected video evidence of many felony crimes and aided in the arrest of suspects.

This year, CVPD invited the Chula Vista Fire Department to co-locate a light duty member in our DFR flight ops room and we shared the flight observation application with Fire Captains and Battalion Chiefs. Since then, fire personnel have used real-time intelligence from DFR drones to plan their response to a variety of incidents like structure fires, brush fires and collisions. The data provided by DFR better informs fire personnel on the situation on the ground so they can better plan deployment tactics and fire attack strategies. CVPD continues to work alongside CVFD to refine how DFR can be used for police and fire operations as a joint public safety tool.

### **How has your drone program improved operational effectiveness?**

*DFR and other drone uses help give officers, supervisors and managers real-time situational awareness. Better intelligence means that first responders can approach emergencies with the appropriate tactics, tools and resources. This helps officers de-escalate incidents which keeps the community safer, officers safer and even suspects safer. DFR allows CVPD to clear about 23% of calls without having to send ground units. This keeps field officers in service for higher priority calls.*

*CVPD currently launches from two sites that cover about 33% of the city. CVPD has submitted a request via the FAA IPP team to modify its CONOPS to allow 100% coverage of the 52 square mile city by adding 2-3 more launch sites. DFR provides real-time situational awareness at a fraction of the cost of the equipment and hourly operating costs of manned helicopter units. There are over 18,000 state, local, territorial and tribal police departments in the United States and around 26,000 fire departments. Only about 200 police departments have manned helicopter units because they are very expensive to operate. DFR opens up the benefits of aerial intelligence to the remaining police and fire agencies and is already causing a paradigm shift in operational response.*

**If you have news stories of success of your program or missions, please provide links to stories (More than one link is OK):**

<https://www.chulavistaca.gov/departments/police-department/programs/uas-drone-program>

<https://www.nbcsandiego.com/news/coronavirus/a-voice-from-a-drone-offers-help-from-above/2312654/>

<https://www.nbcsandiego.com/news/local/pilot-program-lets-cvdp-officers-listen-to-live-911-calls/2274367/>