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# A NEW APPROACH TO MENTALLY ILL CALLS FOR SERVICE IN CHULA VISTA, CA

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Herman Goldstein Award Submission 2020



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## **A New Approach to Mentally Ill Calls for Service in Chula Vista, CA: Summary**

### Scanning

Since 2015, check a person's well-being, disturbance (person) and psychological evaluations accounted for three of the top five call for service (CFS) in the City of Chula Vista. The Chula Vista Police Department sought innovated ways to address these CFS proactively by providing "Decision Quality Data" (DQD) to responding officers to increase officer and community safety and reduce overall response times.

### Analysis

The need to re-think law enforcement response to mentally ill and "common" calls for service have become apparent. The national discussion about police use of force and de-escalation skills has spurred discussions about the necessity to seek pioneering ways of providing information to responding officers before they encounter a subject potentially having a mental health crisis. Many times, these calls require officers to view or witness the behavior in order to provide appropriate assistance.

### Response

In late 2018, the Chula Vista Police Department began a unique concept of operations (CONOPS) by deploying drones from the rooftop of two locations in the city to respond to 9-1-1 calls and other reports of emergency incidents. CVPD is a member of the FAA's Integration Pilot Project (IPP), (San Diego IPP Team) and has flown approximately 2500 drone missions providing live high-definition video feed to the cellphones and computers of first responders in the field. A teleoperator (police officer) is in the police department monitoring incoming 9-1-1 calls and the computer aided dispatch (CAD) for emergencies. The Teleoperator can proactively launch a drone from the closest launch location to the emergency call and is often on scene before the officers on the ground even realize the incident is occurring. The strategic and tactical value of the groundbreaking concept of the "Drone as a First Responder" (DFR) has become a paradigm shift for law enforcement response to "routine" calls.

### Assessment

The primary incidents that DFR has been utilized includes responding to a person causing a disturbance (36.85%) and for psychological evaluations (15.76%). These two types of calls account for over half (52.56%) of all DFR deployments. Of the approximately 2500 CFS, DFR assisted in 322 arrests and more importantly, DFR deployment avoided dispatching patrol unit(s) on 589 of those calls with an average response time of 148 seconds.

## **Project Description**

### **A New Approach to Mentally Ill Calls for Service in Chula Vista, CA**

#### **SCANNING**

In September 2016, a tragic situation occurred in a nearby city where an officer was involved in the shooting death of a man during a mental health call for service. The shooting spurred days of protests and near-riots. Coupled with the context of national discussions about police use of force and de-escalation, the incident spurred discussions about how the Chula Vista Police Department (CVPD) and other law enforcement agencies typically handle calls to check on the well-being involving a person causing a disturbance and to conduct a psychological evaluation. CVPD thought about what changes could be made to provide more intel to officers so they could plan better tactics in dealing with people suffering through a mental health crisis. CVPD's leadership team decided to seek innovative ways to get more information to officers on routine calls so they could use the best tools and tactics for better outcomes.

CVPD contemplated what would change if drones could arrive before officers on routine calls, (including mental health evaluations) and provide real-time video. Real-time video would allow officers to better consider tactics, tools, and resources while enroute to the scene. This concept has worked for decades with police helicopters but had not been attempted proactively on routine calls using drones.

The City of Chula Vista, California, is in San Diego County, with a population of 267,418 and is served by 249 sworn officers. Chula Vista is approximately 52 square miles in size and consists of low rolling hills stretching from the San Diego Bay to low foothills. There are relatively few tall buildings, which provide for few obstacles in the airspace. There are no

airports within the city, and CVPD relies on larger allied agencies to provide air support on critical incidents.

The San Diego Police Department and San Diego Sheriff's Department are the two nearest agencies with air support units. While both agencies are generous with their air assets for emergency calls, they are not always available. With airframe costs in the millions, along with operating expenses of roughly \$1,000 an hour, a helicopter program is cost-prohibitive for Chula Vista, as it is for most small to mid-size agencies.

The benefits of air support have been apparent for decades. Live video and radio assistance from trained aerial observers provide critical information to ground units, resulting in safer tactics and better public safety outcomes. Facing the reality that CVPD could never afford manned air support, its leaders re-imagined how air support could be provided by using drones. CVPD realized by leveraging emerging drone technology, any size agency could gain many of the benefits of traditional manned air support at a fraction of the price.

While researching drone technology, CVPD contacted Cape Aerial Telepresence (now Motorola Solutions), a technology company that provides a software platform for remote drone operation. This technology allows a virtual pilot, or teleoperator (T.O.), to fly a drone located anywhere in the world using cloud-based software and a remote desktop computer. CVPD envisioned using a remotely operated drone to respond to routine calls including people causing disturbances (CVPD number one call for service), checking on a person's well-being, and to assist in psychological evaluations, (observing a subject's behavior from a distance before officers make contact). A drone could be launched from one of several strategically located launch sites and teleoperated by a trained police officer. This fully integrated approach would

proactively provide aerial support with decision quality data via a live video and observer support to officers at a fraction of the cost of a helicopter program.

## **ANALYSIS**

Since 2015, there have been 238,363 calls for service from the community requesting police assistance in contacting a person causing a disturbance, check a person's well-being, and for a psychological evaluation (Appendix A). All these calls occurred in an area where CVPD sought to implement UAS operations to provide quicker response and decision quality data to First Responders. Many times, these calls require officers to view or witness the behavior in order to provide appropriate assistance.

Challenges currently confronting law enforcement agencies is the increase calls for service involving persons having a psychological episode and causing a disturbance (i.e. check their well-being). Additionally, staffing shortages, the on-going need to improve de-escalation skills, and lack of access to live-stream high quality video of an on-going incident add to the challenge. Most agencies do not have police helicopters which are expensive and only available for serious calls for service. Drone response is a fraction of the cost and can be used for "routine" calls where video streaming can be used to safely resolve an incident.

The innovative policing strategy the Chula Vista Police Department was proposing was the use of small remotely operated Unmanned Aerial Systems (UAS), also commonly referred to as drones, as an efficient and effective way of providing police officers critical information in responding to CFS and emergency situations. The methodology is to increase UAS operations, to provide airborne support to police operations to improve response times and increase situational awareness when responding to subjects causing disturbances, checking a person's well-being and

assisting in psychological evaluations. Many of these situations require officers to use enhanced de-escalation skills to avoid a violent confrontation.

Prior to implementing its UAS Program, CVPD discussed its plan for UAS operations in the media, in public forums, and in posted information about the project on the CVPD website (Appendix B). This outreach included a mechanism for the public to contact or email the UAS Team to comment on CVPD's UAS policy, or to express concerns or provide feedback. It is important to note that, out of respect for civil liberties and personal privacy, CVPD's UAS Policy specifically prohibits the use of UAS Systems for general surveillance or general patrol operations. After exhaustive planning and research, CVPD activated its Drones as a First Responder (DFR) Program on October 22, 2018 to support patrol operations for CVPD first responders.

## **RESPONSE**

At the end of 2018, with strong support from the community, the Chula Vista Police Department began deploying drones from the rooftop of the Police Department Headquarters to 9-1-1 calls and other reports of emergency incidents such as crimes in progress, check the welfare, disturbances, psychological evaluation, fires, traffic accidents, and reports of dangerous subjects. This unique concept of operations (CONOPS) for drones was developed as part of the San Diego IPP Team, which was selected as one of only 10 teams among hundreds of applicants as part of the FAA's Integration Pilot Project (IPP). The IPP is a federal initiative designed to help integrate drones into the National Air Space (NAS). CVPD's CONOPS is the "Drone as a First Responder" (DFR) program and has become a transformational method of policing that has demonstrated the ability to increase officer and community safety and reduce overall police response times.

DFR provides the ability to see what is going on at an incident before emergency personnel arrive on scene. In addition to the overhead perspective that traditional air support has always provided, DFR allows a trained incident commander to “virtually” arrive on scene first, sometimes minutes before officers are in harm’s way. The drone has a powerful on-board camera that streams high-definition video back to the department’s real-time crime center. The Teleoperator, who is a trained critical incident manager, not only controls the drone remotely, but communicates with the units in the field giving them information and tactical intelligence about what they are responding to and the behavior of the identified subject to be contacted. The system also streams the video feed to the cell phones or mobile computers of the first responders, supervisors, and command staff so they too can see exactly what the drone is seeing prior to arriving on-scene.

In August of 2019, CVPD partnered with Paradise Valley Hospital to add an additional launch site. The site is about 2 miles south of the police department and provides the ability to cover the entire west portion of the City. This area is roughly 30% of the geographic area of the City but, due to its density and commercial activity, is responsible for about 70% of the priority calls for service. CVPD is currently seeking funding to expand to two more locations in the eastern part of the city to provide almost 100% geographic coverage of the city. The DFR program continues to increase its capabilities and desires to expand to provide the ability to respond to any location in the city within minutes. The quick deployment of a drone will provide critical information to officers responding to a person having a psychological episode, check on their well-being, and/or identify the nature of disturbance prior to officers arriving on-scene.

DFR has quickly become the new paradigm in public safety. Some early successes involved disturbances involving persons in psychological distress. These types of unpredictable

calls often require a cautious approach and the coordination of additional resources for a successful resolution. On these incidents, the teleoperator who is a police officer, can get a drone on scene before officers arrive and provide critical information necessary for effective de-escalation and safe resolution of the call. An example for the need of DFR to address people causing disturbances, checking on a person's well-being, and to assist in psychological evaluations, is this real-world example that occurred when DFR was utilized to assist officers in evaluating a suspicious subject holding what was identified as possibly a gun.

The 911 caller was calm, considering he was reporting that a man with an object that looked like a gun was acting strangely outside the taco shop. The caller noted that the man was waving the pistol-shaped object around and frightening people. The caller said he thought the object could be a lighter, but patrons were scared. As the dispatcher questioned the caller, officers had no indication a dangerous call was developing nearby. Precious seconds ticked by as the dispatcher gathered information from the caller to share with responding officers. Any other time, the dispatcher and caller would run through critical questions before the first police officer knew of the call via their computer or radio. Fortunately, the Chula Vista Police Department is testing and evaluating innovative technology that will directly impact the safe resolution of this incident.

During this incident, the teleoperator immediately recognized this call could end tragically if responding officers did not have appropriate information of the location, description and the subject's behavior. The teleoperator (police officer) immediately launched the drone from one of two strategically located launch platforms. Precious seconds were saved because the officer already knew the nature and location of the call and the range from the nearest drone launch site.



Using a standard desktop computer, the officer was able to remotely launch the drone, which was already primed for flight on the roof of the police station at a moment's notice. The drone flew about a half a mile to the call and fed live video to responding officers and supervisors. The time it took from the initial 911 call until the UAS was overhead providing live video feed of the suspect to responding officers was 84 seconds, a full five minutes before officers arrived on scene.

Once overhead, the teleoperator was able to scan the scene using a powerful 30x zoom camera and identified the suspect seated at a table in front of the shop, and several people gathered nearby. The teleoperator was able to broadcast via police radio the layout of the parking lot, the building, and the actions of the people in the area. He also zoomed in and could see a black pistol-shaped object in the suspect's hand.

Officers used the added time to stage nearby, watch the live video, and request different views to plan approach tactics. The drone went unnoticed by the suspect and patrons due to its small size and relatively quiet operation. The teleoperator watched as the suspect used the gun-shaped object to light a cigarette, thereby confirming with near certainty that it was not a gun. The officers moved in with this critical new information and were able to detain the suspect safely.

The resulting investigation determined the object was not a gun but a lighter. The suspect was subsequently arrested for being under the influence of narcotics. The call could have ended tragically if officers with less information and less experience had rushed to the scene and confronted the man in public with a gun-shaped object. In this incident, the pro-active use of a drone provided critical information to responding officers and supervisors, thereby improving officer safety, public safety, and even suspect safety.

## ASSESSMENT

Some early successes involved disturbances involving persons in psychological distress. These types of unpredictable calls often require a cautious approach and the coordination of additional resources for a successful resolution. On these incidents, the teleoperator who can get a drone on scene before officers arrive and provide critical information necessary for effective de-escalation and safe resolution of the call. The teleoperator is able to convey critical information to officers, such as the location of the subject and whether they were an immediate threat to others. The teleoperator, acting as a quasi-incident commander, can also provide an accurate description, location, direction of travel, and zoom in to see if subjects possess a weapon.

As an experienced police officer, the teleoperator is not only tasked with flying the drone and operating the camera but radios critical information to responding officers and advises them of the best approach and tactics. Sometimes this allows officers to slow the call down if the subject is not an immediate threat to themselves or others. Driven by the need for de-escalation tools, CVPD has proven that DFR provides critical “Decision Quality Data” (DQD) to responding officers, so they have the right information to plan better tactics and achieve better call outcomes.

The CVPD believes DFR is a policing innovation that can be replicated and scaled to almost any law enforcement agency. The inherent advantage of teleoperation is not only the ability to share DQD, but the enabling of highly specialized field personnel to focus on higher-level public safety tasks at hand. CVPD’s DFR program has demonstrated that highly automated and intelligently integrated drone ecosystems may be used to supplement and enhance field operations and improve public safety for all law enforcement agencies.

To date, CVPD has flown approximately 2500 DFR flights in response to calls for service, contributing to 322 arrests. Moreover, the drone is first to arrive on scene on almost half of calls within its range, and its average response time is just under two and a half minutes. Perhaps most surprising is the teleoperator was able to respond and clear 589 calls without dispatching ground units, thereby keeping key ground resources available. Most agencies require a minimum of a two-officer response involving persons causing a disturbance or in need of a psychological evaluation. CVPD's efforts, and the work of its technology partners with the FAA, has demonstrated that DFR is a groundbreaking new concept to improve public safety, promote de-escalation by streaming live-video to first responders, and clear calls without having to utilize ground units thus becoming a force-multiplier.

To achieve public transparency and provide information and updates about the DFR program, CVPD disseminates data via the Department website and informational dashboard. The Chula Vista Police Department's DFR program staff have an ongoing partnership with the Research & Analysis unit and have already developed a dashboard to track critical intelligence information associated with the program. The intelligence being gathered and analyzed will allow robust impact analysis of the success and possible expansion of this program.

The DFR public dashboard includes the total number of calls responded to, assists in arrests, the number of deployments that avoided dispatching a patrol unit, and response times. The call data is obtained from the Computer Aided Dispatch system (CAD) and specifically includes the type of calls that DFR was utilized including "Disturbance – Person" and "Psychological Evaluation."

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

The primary incidents that DFR has been utilized is responding to a person causing a disturbance (36.85%) and for psychological evaluations (15.76%). These two types of calls account for over half (52.56%) of all DFR deployments. The initial and immediate success of the Drone as a First Responder program has created a desire and need to expand the program to the other areas of the city where DFR does not exist. A review of the calls for service (CFS) in these areas shows the number one type of citizen-initiated call requesting police response is for a person causing a disturbance. Additionally, two more significant CFS include “check a person’s well-being,” and for a “psychological evaluation.”

CVPD has shown the benefits to other law enforcement agencies, including how DFR improves de-escalation abilities, which may be found to result in fewer violent encounters. Additionally, DFR has proven to be a force multiplier by being able to clear CFS without having to send ground units. For example, a fight in a park would require a minimum two-officer response. If the drone is overhead and determines the fight has ended and everyone has dispersed, there is no need for officers to respond. The scale has tipped in favor of public safety integration of drones into routine operations, and it will only accelerate until fully evolved into an entirely new paradigm of public safety service delivery.

CVPD began the Drone as a First Responder program in October 2018. The humble beginnings included launching a drone from the rooftop of the Police Department 40 hours a week, within a 1-mile radius. Over the last 19 months, CVPD has expand DFR operations to a second location, received FAA approval to fly up to a 3-mile radius from either location, and now operates seven days a week (70 hours). The program has two dedicated full-time police officers who are the teleoperators for the program, and a drone vendor who provides the pilot-in-command (PIC) for the rooftops.

CVPD has applied for FAA essential waivers to expand the program to 100% coverage of the City of Chula Vista. Once granted, new drones and equipment will be purchased and the two new sites will be staffed by Part 107 certified drone pilots, seven days a week for 10 hours per day (70 hours per week). Our current teleoperator will continue to monitor calls for service, focusing on people who are causing a disturbance, need a psychological evaluation, or to check on a person's well-being. Once overhead, the drone will provide live streaming video and incident coordination to field resources providing officers with critical information to safely resolve the incident.

Executive and Command Staff support for DFR operations and proposed expansion has been outstanding. Chief Roxana Kennedy and Captain Vern Sallee have been an integral part of DFR from the beginning. Chief Kennedy and Captain Sallee have presented at major national and international police and UAS conferences on public safety use of drones and serve on the DOJ/PERF SLTT UAS Working Group. Both recently testified as subject matter experts on police use of drones to the President's Commission on Law Enforcement and the Administration of Justice in April 2020 (Appendix C).

While still in its inception, the DFR concept can eventually be considered for all-hazards response and integrated into local government operations as a single shared asset to save costs. While DFR may be prioritized for police, fire, and other emergency response operations, the costs are largely fixed once the program is up and running. Police, fire and other first responders are often assigned to the same incidents and could use the same DQD to share live video and coordinate responses. Since costs are fixed once the launch points and teleoperator are staffed, the cost to expand DFR from police operations to all-hazards operations is negligible, which brings cost-saving economies of scale to local government.

## Appendix A

The total citizen-initiated, non-cancelled calls for each calendar year since 2015:

	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>Grand Total</b>
<b>Count</b>	<b>42839</b>	<b>45958</b>	<b>44085</b>	<b>43904</b>	<b>44210</b>	<b>17367</b>	<b>238363</b>

The total citizen-initiated, non-cancelled call for Welfare Check, Psychological Evaluation, and Person Causing a Disturbance:

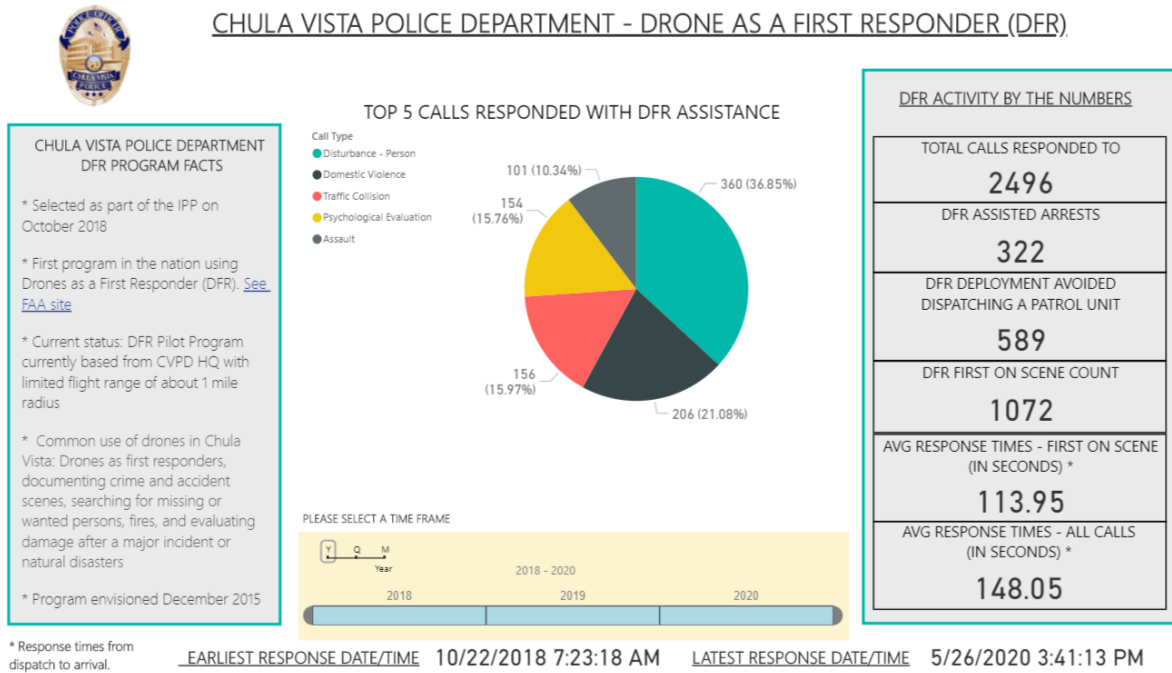
<b>Category</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>Grand Total</b>
Check a Person's Well Being	2061	2116	2139	2120	2174	884	11494
Disturbance - Person	4452	4824	4466	4423	4409	2028	24602
Psychological Evaluation	1479	1822	1786	1776	1648	756	9267
<b>Grand Total</b>	<b>7992</b>	<b>8762</b>	<b>8391</b>	<b>8319</b>	<b>8231</b>	<b>3668</b>	<b>45363</b>

Rank among all categories for each calendar year:

<b>Rank</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>Overall</b>
Check a Person's Well Being	3	3	3	4	4	3	3
Disturbance - Person	1	1	1	1	1	1	1
Psychological Evaluation	6	5	5	5	6	4	5

## Appendix B

Chula Vista Police Department Drone as a First Responder dashboard on Department website. Dashboard is updated daily.



## Appendix C

### Media Coverage

March 31, 2020

<https://www.ft.com/content/6c1611be-732b-11ea-ad98-044200cb277f>

March 2020

<https://www.policechiefmagazine.org/drone-as-a-first-responder/>

February 10, 2020

<https://patch.com/california/san-diego/chula-vista-911-drone-cops-test-pilot-emergency-response-sky>

February 11, 2020

<https://www.governing.com/now/First-Responder-Drones-Improve-Police-Response-and-Efficiency.html>

February 2, 2020

<https://www.sandiegouniontribune.com/communities/south-county/chula-vista/story/2020-02-10/chula-vista-police-expand-drone-program>

December 7, 2019

<https://www.kusi.com/chula-vista-police-department-drone-demonstration/>

February 19, 2019

<https://venturebeat.com/2019/02/18/drones-are-changing-the-way-police-respond-to-911-calls/>

February 15, 2019

[https://www.aopa.org/news-and-media/all-news/2019/february/15/these-police-drones-are-first-on-the-scene?utm\\_source=drone&utm\\_medium=email&utm\\_campaign=190219drone](https://www.aopa.org/news-and-media/all-news/2019/february/15/these-police-drones-are-first-on-the-scene?utm_source=drone&utm_medium=email&utm_campaign=190219drone)



February 4, 2019

<https://unmanned-aerial.com/chula-vista-police-continue-transparency-efforts-on-drone-use>

February 3, 2019

<https://www.nbcsandiego.com/news/local/chula-vista-police-evaluate-drones-as-first-responders-initiative/3624/>

January 29, 2019

<https://www.cbs8.com/article/news/chula-vista-police-department-will-use-drones-as-first-responders/509-76cebb37-9876-4218-8197-2e257dd55624>

January 28, 2019

<https://www.sandiegouniontribune.com/news/public-safety/sd-me-chula-vista-police-drones-20190128-story.html>

January 15, 2019

<https://www.commercialuavnews.com/public-safety/chula-vista-police-department-drones-first-responders>

October 29, 2018

<https://www.govtech.com/products/In-Chula-Vista-Calif-Drones-Now-Respond-to-911-Calls.html>

October 28, 2018

<https://www.sandiegouniontribune.com/communities/south-county/sd-se-chula-vista-drones-20181025-story.html?amp=true>

October 25, 2018

<https://www.kpbs.org/news/2018/oct/25/chula-vista-police-using-drones-respond-9-1-1-call/?amp=amp>