



Chula Vista Police Department Drone as First Responder (DFR)

Integrating UAS Air Support into Routine Operations

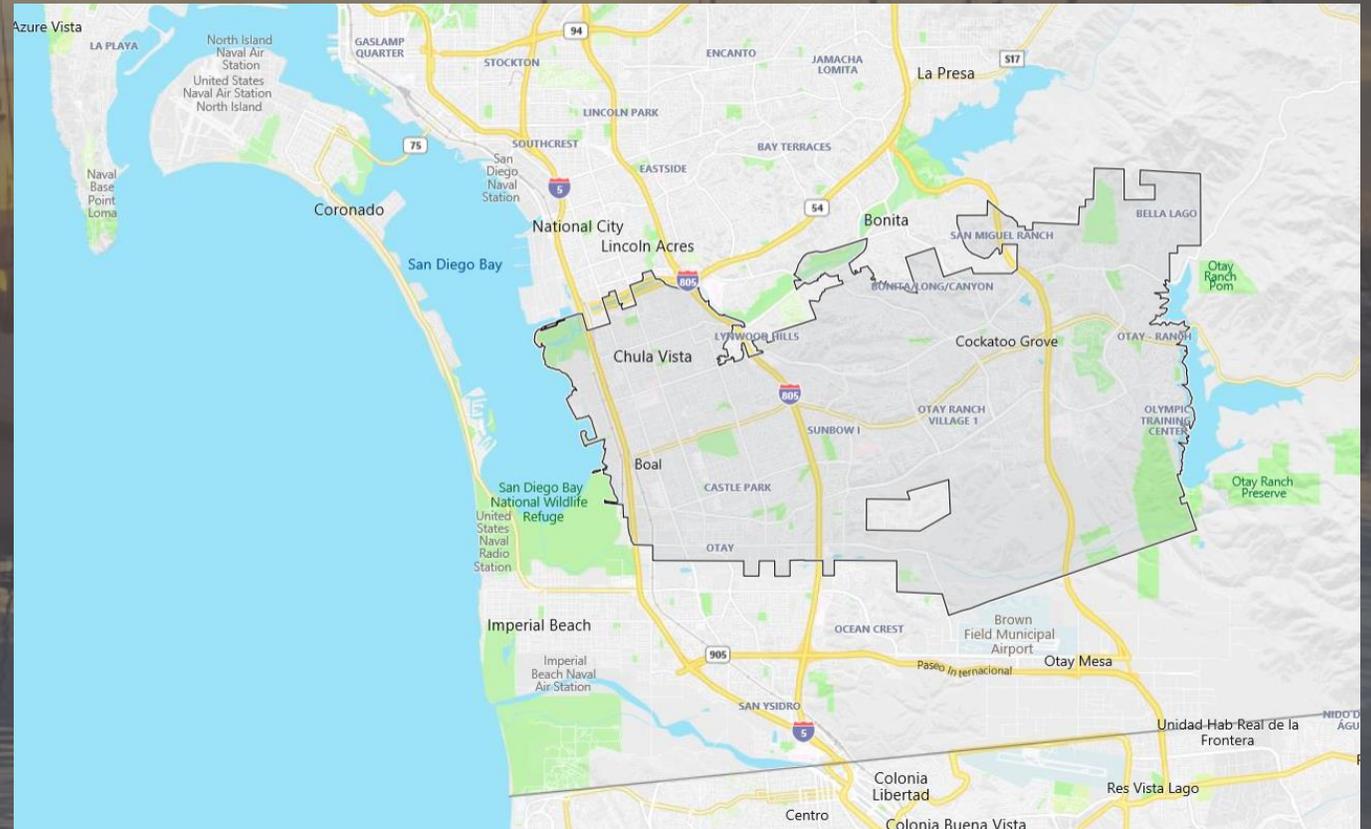
Speaker: Sergeant Dustin Bruzee

UAS / DFR Supervisor

Chula Vista Police Department

Chula Vista, California

- Suburb of San Diego
- 2nd largest City in San Diego County
- 285,511 population
- 52 Square Miles
- 281 sworn officers
- No helicopter unit
- Class G Airspace



Deployment Methods:

- Tactical
- Indoor
- Mapping & Scene Diagramming
- Nesting (DFR)





Drone as First Responder (DFR)



IN THE BEGINNING...

- **October 2017, President Trump signed a directive to establish the UAS IPP**
- **May 2018, Chula Vista Police was selected as a member of 10 UAS testing sites nationally**
- **October 2018, the Chula Vista Police launched first DFR mission**



UAS INTEGRATION PILOT PROGRAM



U.S. Department of Transportation
Federal Aviation Administration

San Diego IPP Partners



PROGRESS

2018

- **1 launch location (CVPD HQ's)**
- **Limited availability**
- **PIC's staffed rooftop**
- **1 Mile line-of-sight**
- **Video livestreamed via CAPE**
- **Flight data manually tracked**



PROGRESS

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Today

- **City-wide (4 locations)
7-days / week**
- **Pilots "teleoperate"**
- **Flying Lion provides PIC's**
- **3 Miles BVLOS Waiver**
- **1-to-2 Waiver**
- **Video livestreamed via CAPE**
- **Flight data managed by AirData**

DFR IS PROACTIVE

- Drone prepared to respond immediately to any emergency within geofenced flight area
- Drone operated remotely by Teleoperator (an experienced sworn officer)
- Flight Safety ensured by automation, geofencing and a Visual Observers (V.O.) in the field
- Teleoperator can choose launch site nearest to incident
- Teleoperator can assist with coordination via radio

Privacy Concerns

According to surveys conducted by the Police Executive Research Forum, the most significant concern about drones expressed by community members is that of **privacy**.



Agencies should make strong efforts to educate the community about drone policies, especially those involving the use of cameras.

Transparency



Transparency



Chula Vista Police



Drone Program
Historical Flight Data

- Apr 2022 (361)
- Mar 2022 (643)
- Feb 2022 (472)
- Jan 2022 (434)
- Dec 2021 (322)
- Nov 2021 (388)
- Oct 2021 (428)
- Sep 2021 (455)
- Aug 2021 (564)
- Jul 2021 (603)
- Jun 2021 (437)
- May 2021 (448)
- Apr 2021 (467)

Search by address



Large Map

Date	Time	Case/Incident	Location	Summary
4-20-22	6:10pm	CVL31991	100 I St.	Suspicious Vehicle

Date	Time	Case/Incident	Location	Summary
4-20-22	6:02pm	CVL32008	200 Guava Ave.	Traffic Hazard

Date	Time	Case/Incident	Location	Summary
4-20-22	5:00pm	CVL32007	800 Dorothy St.	Welfare Check

Date	Time	Case/Incident	Location	Summary
4-20-22	4:06pm	CVL31962	00 Oaklawn Ave.	Unknown Problem

Transparency



CHULA VISTA POLICE DEPARTMENT - DRONE AS FIRST RESPONDER (DFR)

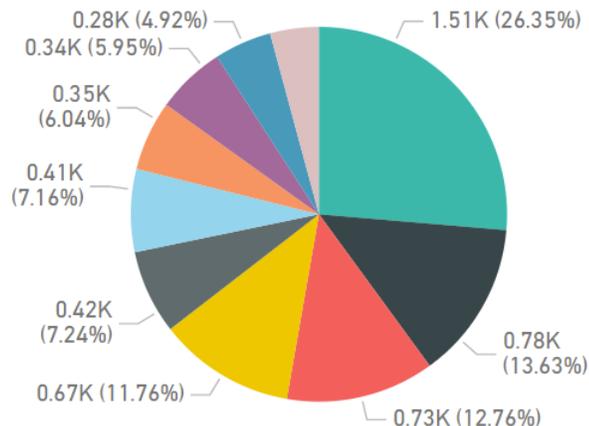
CHULA VISTA POLICE DEPARTMENT DFR PROGRAM FACTS

- * Selected as part of the IPP on October 2018
- * First program in the nation using Drones as a First Responder (DFR). [See FAA site](#)
- * Current status: DFR Pilot Program currently based from CVPD HQ with limited flight range of about 1 mile radius
- * Common use of drones in Chula Vista: Drones as first responders, documenting crime and accident scenes, searching for missing or wanted persons, fires, and evaluating damage after a major incident or natural disasters
- * Program envisioned December 2015

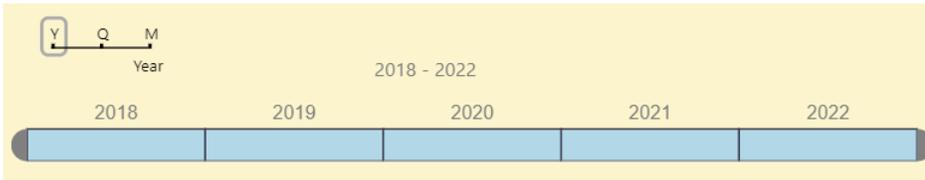
TOP 10 CALLS RESPONDED WITH DFR ASSISTANCE

Call Type

- Disturbance - Person
- Domestic Violence
- Traffic Collision
- Psychological Evaluation
- Assault
- Check a Person's Well Being
- Person Down
- Suspicious Person
- Unknown Problem
- Check The Area



PLEASE SELECT A TIME FRAME



DFR ACTIVITY BY THE NUMBERS

TOTAL CALLS RESPONDED TO	10718
DFR ASSISTED ARRESTS	1240
DFR DEPLOYMENT AVOIDED DISPATCHING A PATROL UNIT	2708
DFR FIRST ON SCENE COUNT	5951
AVG RESPONSE TIMES - FIRST ON SCENE (IN SECONDS) *	100.51
AVG RESPONSE TIMES - ALL CALLS (IN SECONDS) *	164.53

* Response times from dispatch to arrival.

EARLIEST RESPONSE DATE/TIME 10/22/2018 7:23:18 AM LATEST RESPONSE DATE/TIME 4/20/2022 6:40:21 PM

Transparency



CHULA VISTA POLICE DEPARTMENT - DRONE AS FIRST RESPONDER (DFR)

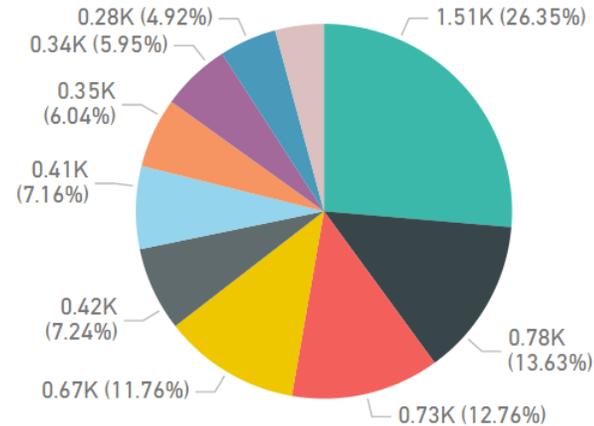
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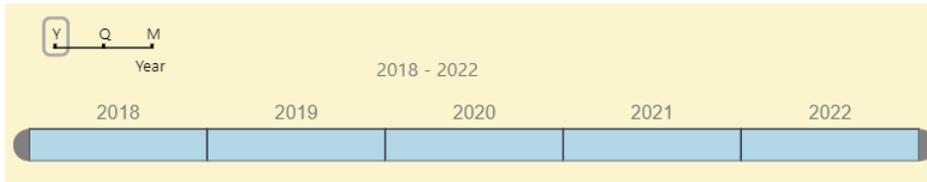
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Transparency

FILTER  

Calendar Year

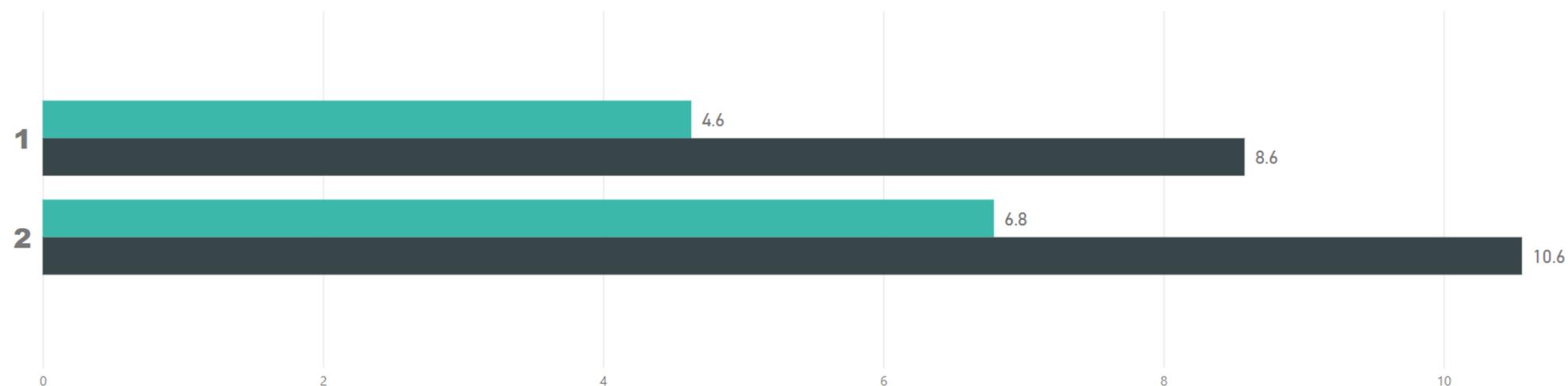
- 2022
- 2021
- 2020
- 2019

CHULA VISTA POLICE DEPARTMENT - DRONE AS FIRST RESPONDER (DFR) average response times



Priority 1 and Priority 2 Average Response Times - in minutes
UAS vs 1st Patrol Unit on scene (same incident)
in minutes comparison*

● Drone ● Patrol Unit



* Response times are measured from the time the call is received to the time units arrived.

What DFR Does....

- **Provides real-time, valuable intel to responding first responders**
- **De-Escalates rapidly evolving situations**
- **Confirms, dispels, or expands on the first information received**
- **Reallocates valuable resources**
- **Provides a “birds-eye view” to supervisors and command staff**
- **Makes our first responders and community safer!!!**

What DFR Doesn't do....

- **Conduct random surveillance on the community**
- **Will never be weaponized**
- **Automated license plate readings**
- **Facial Recognition**
- **Put the community at risk**
- **Cost too much**
- **Share information with China or other outside governments**

Closing the Gap



- **First Responders can hear 911 call in “real-time”**
- **First Responders can hear updates while driving to the call**
- **Call location immediately identified**
- **First Responders can hear information not entered into CAD by the 911 call taker**



LIVE 911

Monitor

Welcome, CA

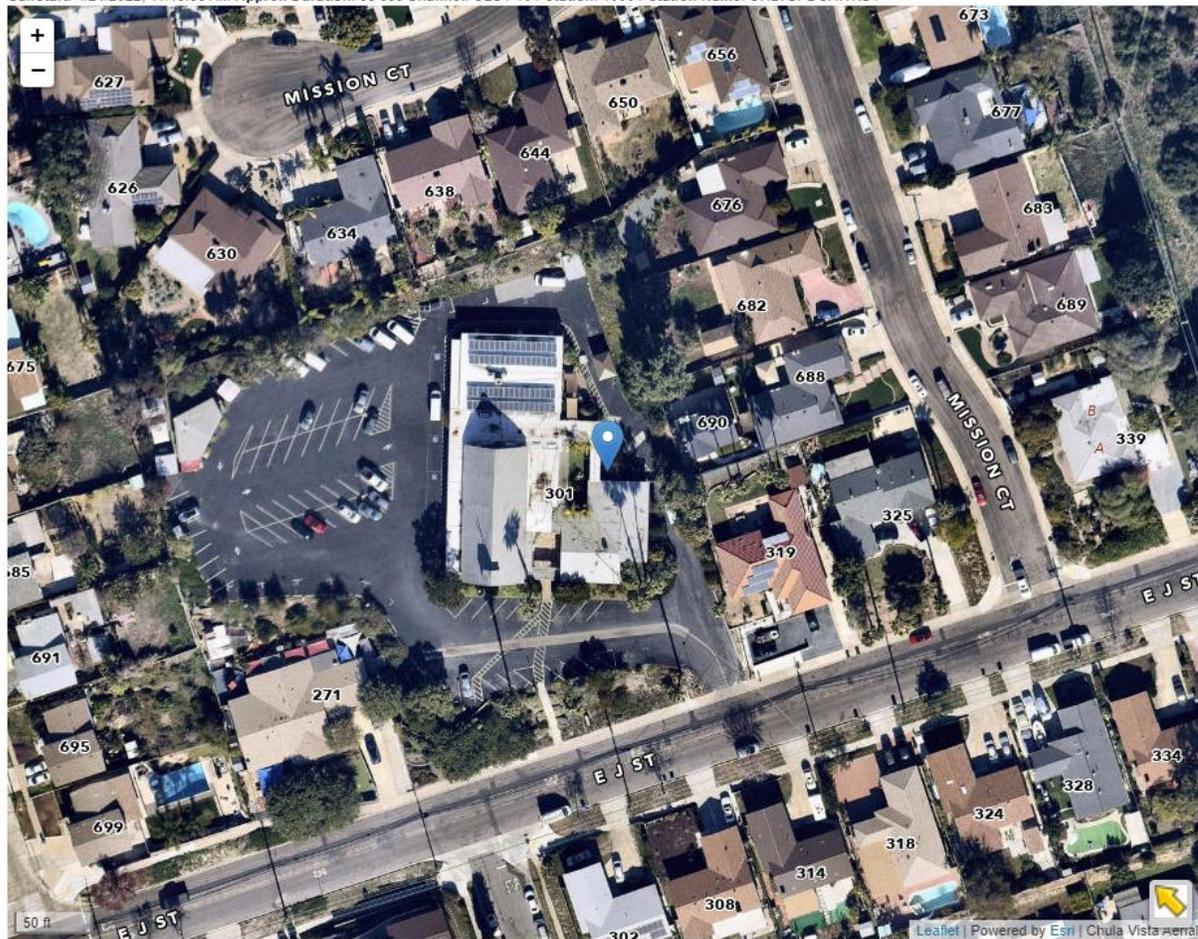
UnMute Soft Loud Max Stop Player Move To Start 0:39

Dismiss	Location	Caller ID	Station	Call Start Time	Attachments
X	Chula Vista	[REDACTED]	10004	04/21/2022 11:13:36 AM	Phone [REDACTED]

Current Current

Chula Vista

CallStart: 4/21/2022, 11:13:36 AM Approx Duration: 33 sec Channel: CLU1-104 Station: 10004 Station Name: CHLVSPDCAWKS4



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DRONE AS FIRST RESPONDER

FLYING LION - A TRUSTED PARTNER

- Public/Private Partnership that manages professional pilots at a significantly reduced cost
- DFR support since April 2020
- Flying Lion also provides:
 - FAA consulting
 - UAS equipment
 - Software testing
 - Part 107, DFR & Flight Training

Barry Brennan
bb@flyinglioninc.com
(310)722-1550



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Chula Vista in the Media



Chula Vista in the Media

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Chula Vista Drone Program Lauded For Accountability, Transparency

🕒 November 5, 2021 👤 [Smart Cities Connect](#) 📁 [Uncategorized](#)



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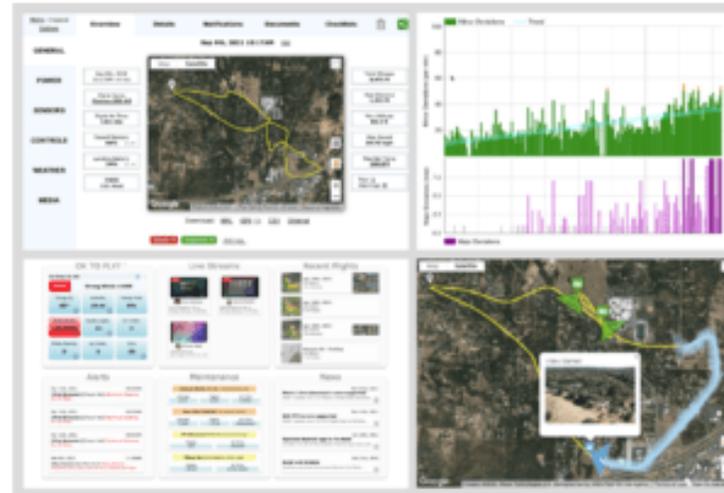
Chula Vista Drone Program Accountability, Transparency

November 5, 2021 Smart Cities Connect Uncategorized



Chula Vista PD Drone Program Uses AirData to Provide Full Transparency to Community

Posted By: Miriam McNabb on: October 07, 2021



Chula Vista PD Drone Program Enlists AirData to Provide Community Transparency

by DRONELIFE Staff Writer Ian M. Crosby

Chula Vista Police Department's nationally recognized drone program has enlisted the aid of drone fleet management industry leader AirData

UAV in order to help provide drone flight transparency to the public. AirData now enables Chula Vista residents to view and understand the exact location, flight path, and purpose behind each police drone deployment.

Chula Vista in the Media

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NBC News

May 26, 2021

California border city using drones for policing

Police in Chula Vista, California, are raising some privacy concerns from residents after getting an FAA clearance to surveil the city by using a drone. NBC News' Simone Boyce reports.

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How Chula Vista became one of the most surveilled cities in the country

By [Amita Sharma](#) / Investigative Reporter
Contributors: [Roland Lizarondo](#)
Published December 9, 2021 at 3:24 PM PST



▶ LISTEN • 4:30



Part 1: How Chula Vista became one of the most surveilled cities in the country

Watch later Share

Watch on YouTube

Privacy advocates say Chula Vista is now one of the most surveilled cities in the country. As KPBS's Amita Sharma reports, the city is developing an oversight committee to try to win over skeptical community members.

Uses AirData to Community

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Chula Vista in the Media

Police Drone Footage Is Off Limits – Unless This Legal Challenge Takes Flight

by Sofia Mejías Pascoe May 5, 2021



A drone sits idle at the rooftop of the Chula Vista Police headquarters. / Photo by Adriana Heldiz

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NBC News

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Chula Vista in the Media

Chula Vista Police Drone as First Responder Program expands citywide

Posted: March 23, 2021 by KUSI Newsroom



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Posted: March 23, 2021 by



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Watch on  YouTube

The Official Journal of the Airborne Public Safety Association

AIRBEAT

March-April 2022



FLY-TECH: UNMANNED SYSTEMS TECHNOLOGY LEAPS FORWARD

APSA AWARDS & SCHOLARSHIPS
DETAILS INSIDE

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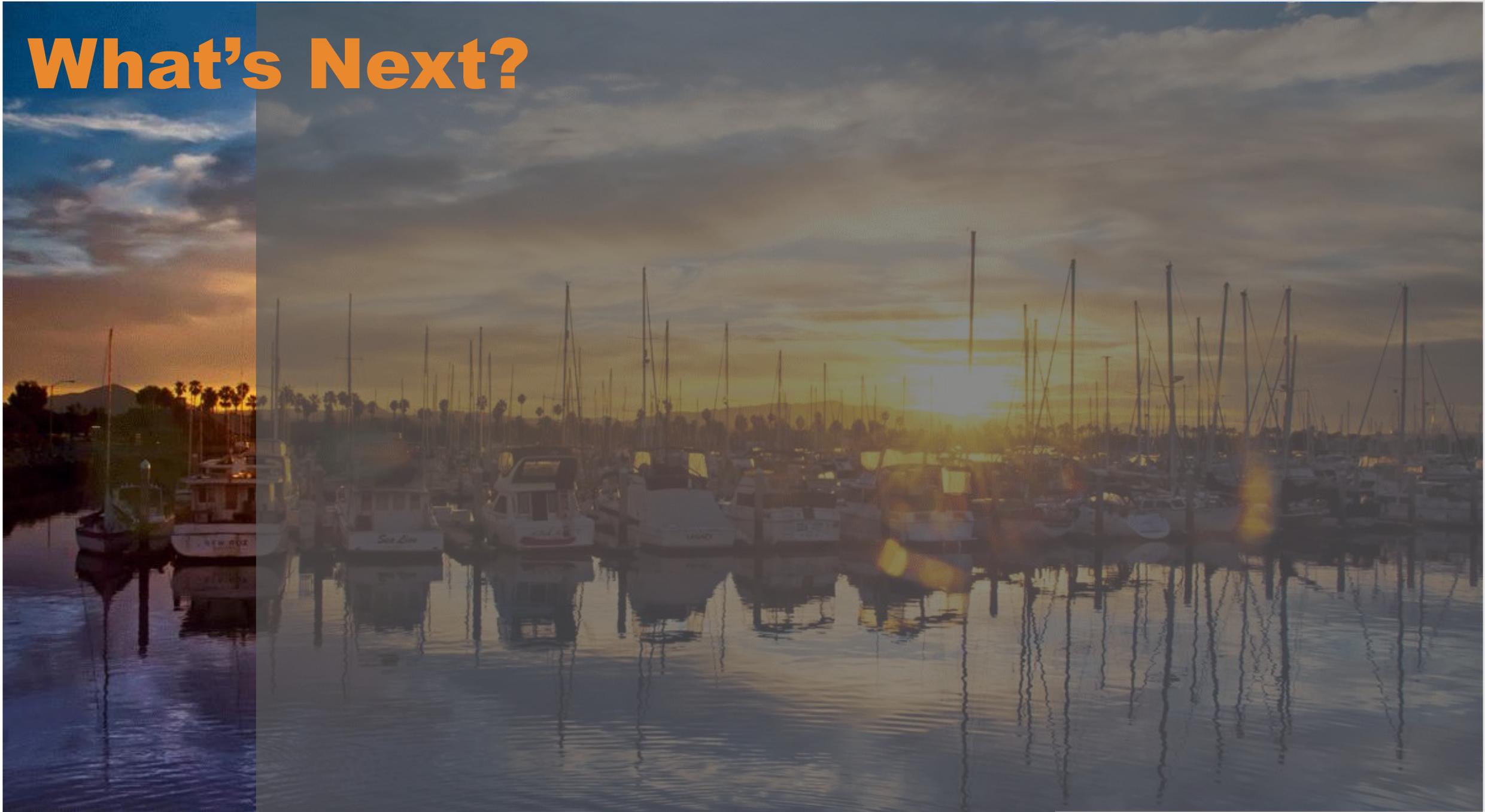
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What's Next?



What's Next?

- **Stronger US drone presence**
- **Fully automated flights and self-docking/charging drones**
- **Remove the need for a PIC**
- **Drones integrated into all emergency responses**
- **Regulations keep pace with technology**



TAKE HOME MESSAGE

- **DFR de-escalates**
- **Transparency**
- **DFR will make EVERYONE safer**

Thank You

Sergeant Dustin Bruzee

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