



EDEN TOWNSHIP SUBSTATION

DRONE FIRST RESPONDER (DFR) PROGRAM



Alameda County Sheriff's Office





ACSO DRONE HISTORY

ACSO is a leader in the UAS/Drone space and has been recognized nationally for our public safety UAS program.

ACSO HAS BEEN USING DRONES FOR OVER 10 YEARS





ACSO DRONE HISTORY

UAV teams in action: Alameda County Sheriff's Office

This California drone team has become a critical resource that supports search and rescue, law enforcement and fire department operations

August 30, 2021 05:17 PM • Charles Werner





WHAT IS DFR – HOW IS IT DIFFERENT?

Currently drones are deployed from patrol vehicles after the call has occurred.

DFR launches drones from a pre-designated sites to calls for service providing real time video and information to first responders prior to their arrival





DFR IS THE FUTURE

DRONES ENHANCE PUBLIC SAFETY

Rapid response that provides real-time aerial footage





DFR IS THE FUTURE

The DFR program increases public safety through better situational awareness, ultimately providing a higher level of service to the community.



- Crimes in Progress
- Wildland Fires
- Car Accidents

- Search and Rescue

- Active Shooter
- Structure Fires
- Missing Persons



HOW DFR WORKS

- 911 Call Received





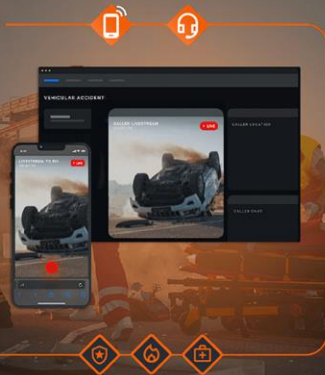
HOW DFR WORKS

- Real Time Information Center Listens To 911 Call Live



PREPARED

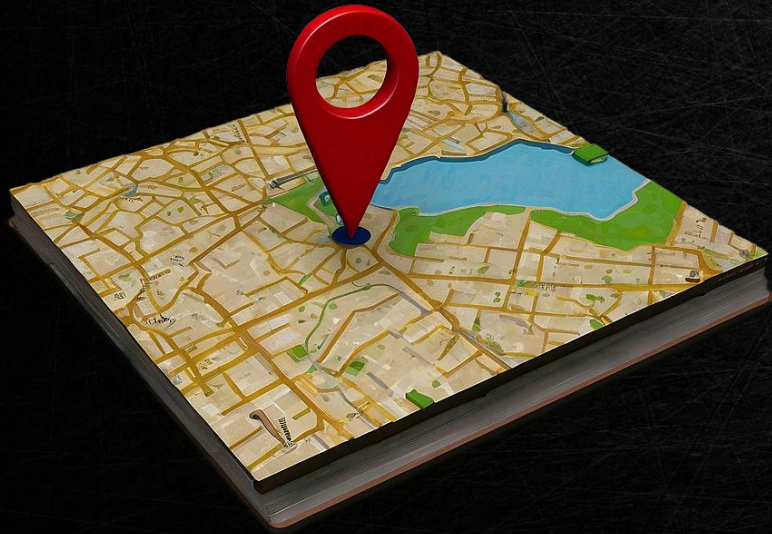
Bringing Clarity to
Emergency Response





HOW DFR WORKS

- Launch Drone
- Respond To Call
- Provide Updates





INTEGRATED RADAR





RESOURCE MANAGEMENT

DFR may respond to any call for service and has proven to save time and resources with the ability to assess the need for a patrol response in some limited situations.

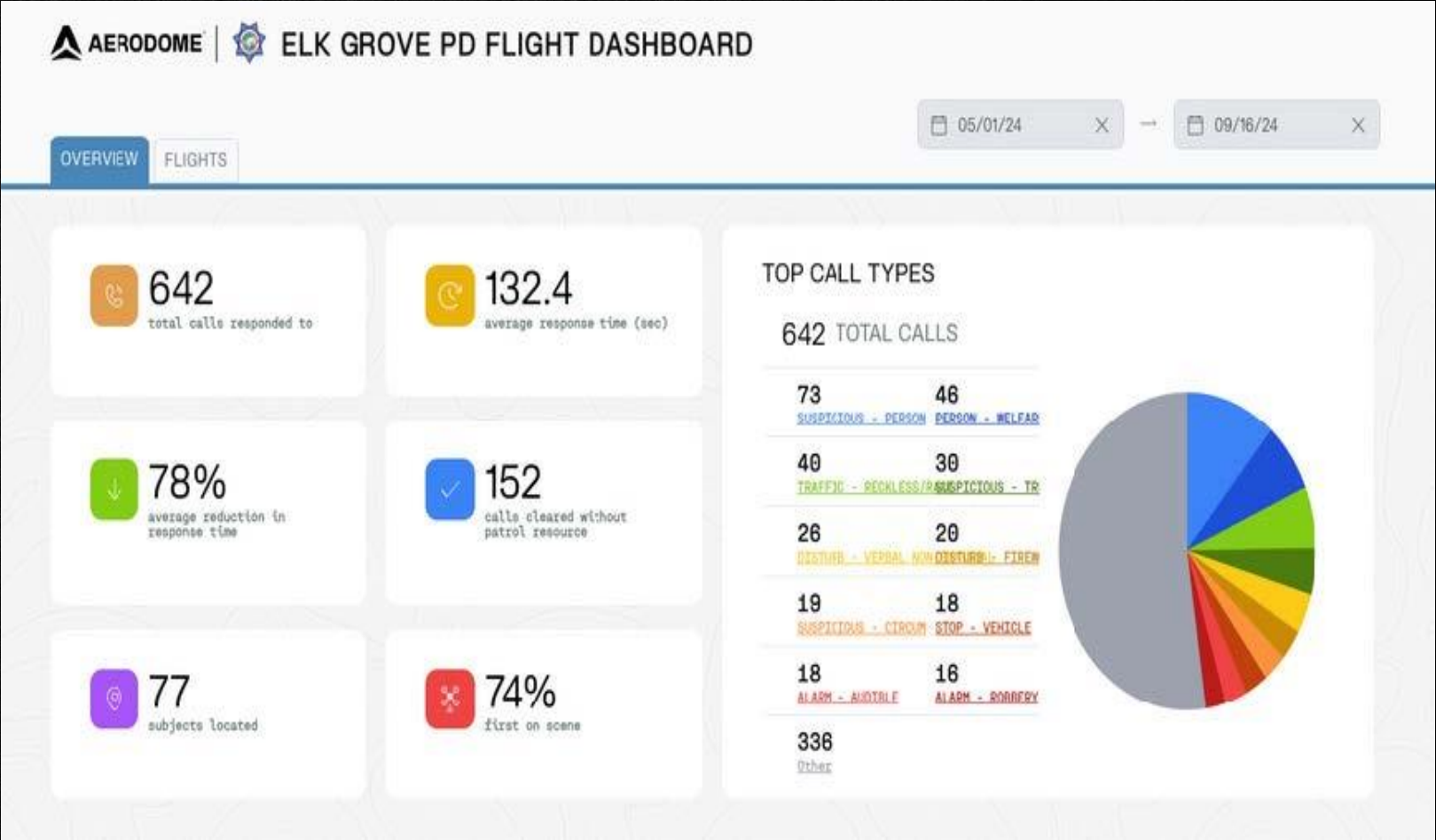




RESOURCE MANAGEMENT

CLEAR CALLS FOR SERVICE

Clear an average of
24% of calls-for-service
without using patrol
resources

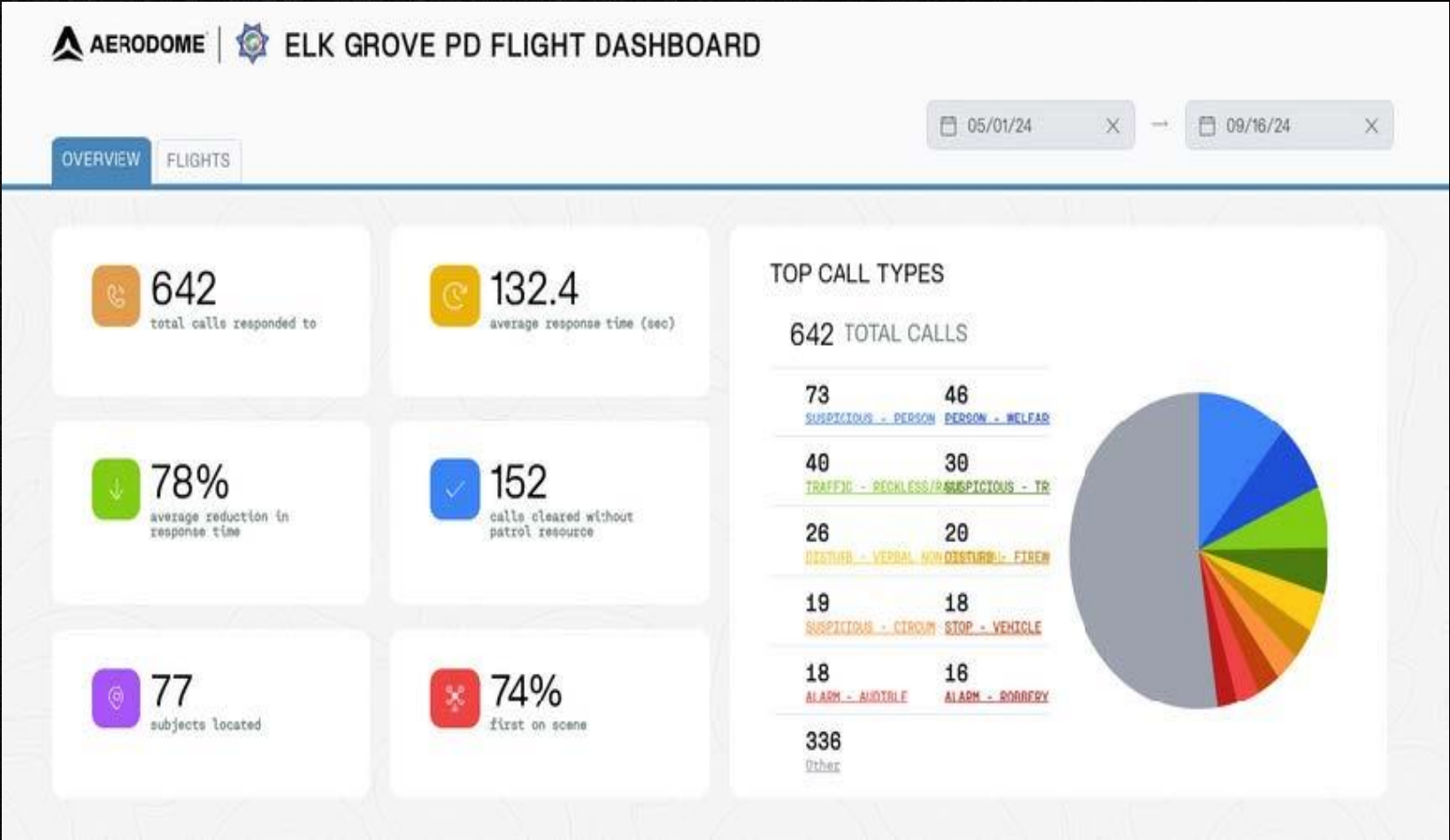




RESOURCE MANAGEMENT

REDUCE RESPONSE TIMES

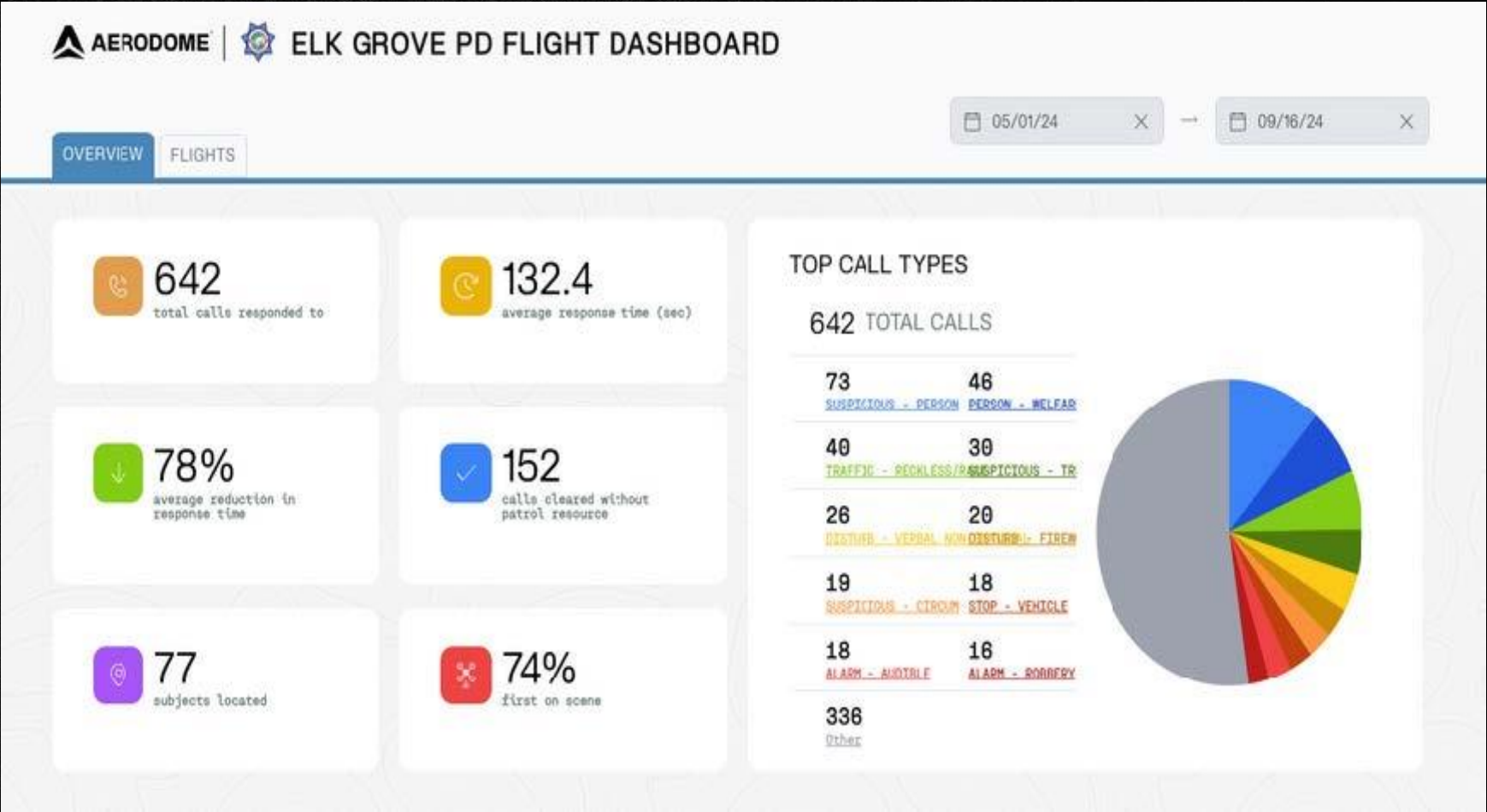
Drone is on first on scene
on average of 74%





RESOURCE MANAGEMENT

Suspects Located
89% Increase in
Locating Subjects





DFR SITE VISITS





DFR SITE VISITS





DFR SITE VISITS



San Francisco PD



NASA

Law Enforcement NASA / DFR working group



NASA invited ACSO UAV to discuss drone use and air safety.



PRIVACY CONCERNS

The ACSO sUAS Unit has a long-standing practice of meeting with the community to prioritize the protection of civil liberties and the expectation of privacy before drone deployment.

ASCO reviewed our policy with privacy advocacy organizations to ensure compliance with Fourth Amendment protections enshrined in the United States Constitution and Article 1 protections in the California Constitution



ACSO has a comprehensive policy in place and always considers the protection of civil rights and the expectation of privacy before drone deployment



PRIVACY CONCERNS

sUAS General Order 6.15 can be reviewed by visiting:

<https://www.alamedasheriff.gov/about-us/transparency>

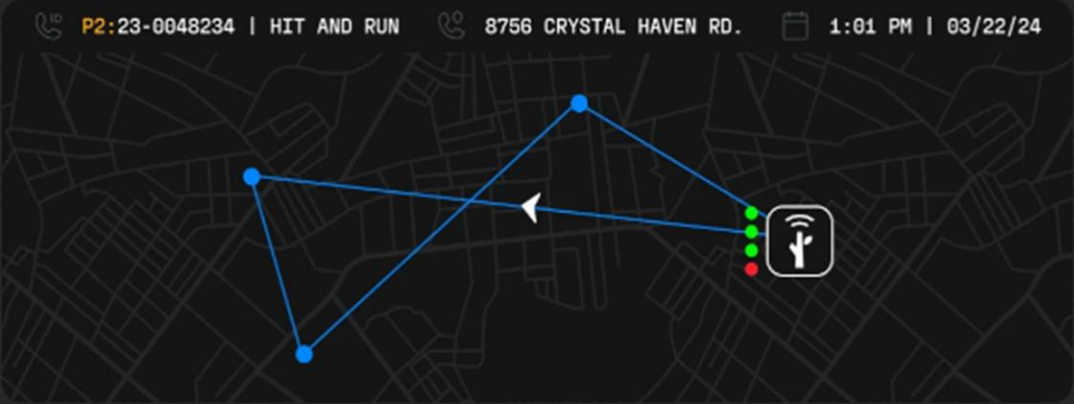
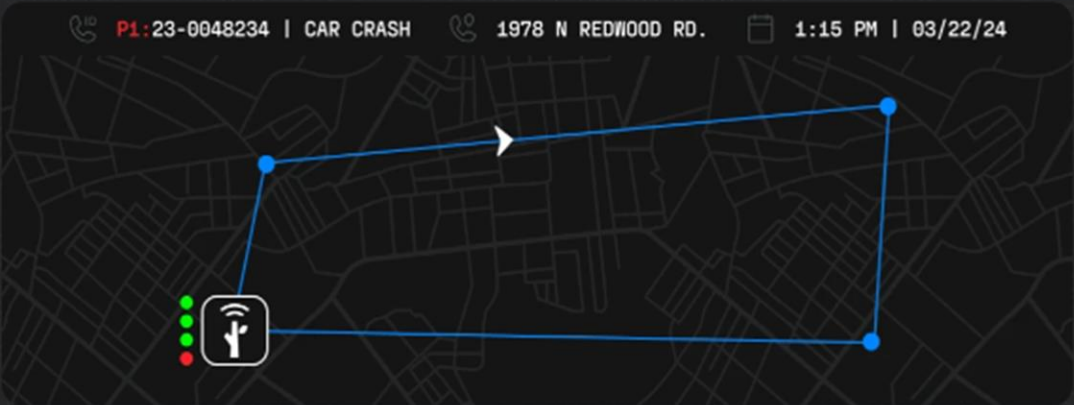
Navigate to “Sheriff’s Office Written Directives.”



TRANSPARENCY PORTAL

Community Transparency

Realtime flight metrics and redacted flight logs are automatically uploaded to a public-facing dashboard for effortless transparency.



FLIGHT ACTIVITY | YTD

DFR Calls Responded To	12,544
DFR First on Scene	11,764
DFR Located Subjects	2,512
Calls Cleared For Patrol	4,187
AVG. Response Times	87.1 s



CAMERA VIEW

DFR camera angle responding to call





DFR TRIALS AT ETS





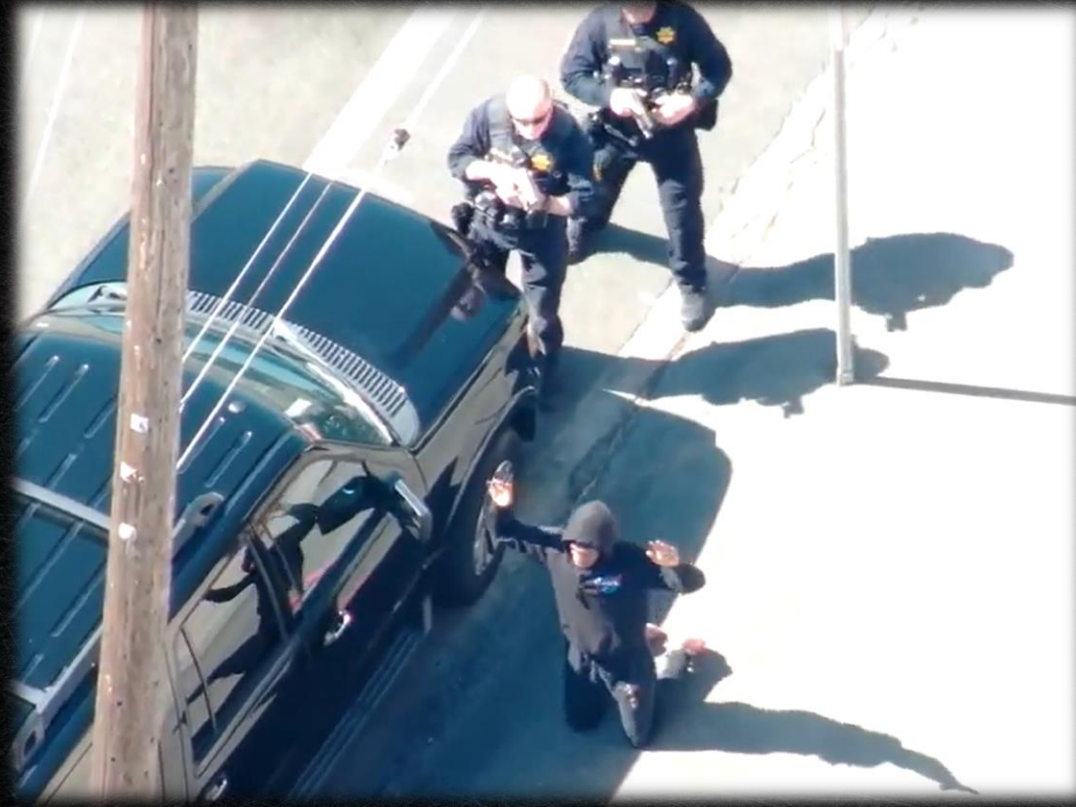
RISK MITIGATION / TACTICS

- Mitigate risk
- Reduces liability
- Obtain real-time information that can be used by responding units and supervisors for tactical decision-making.





REDUCE USE OF FORCE

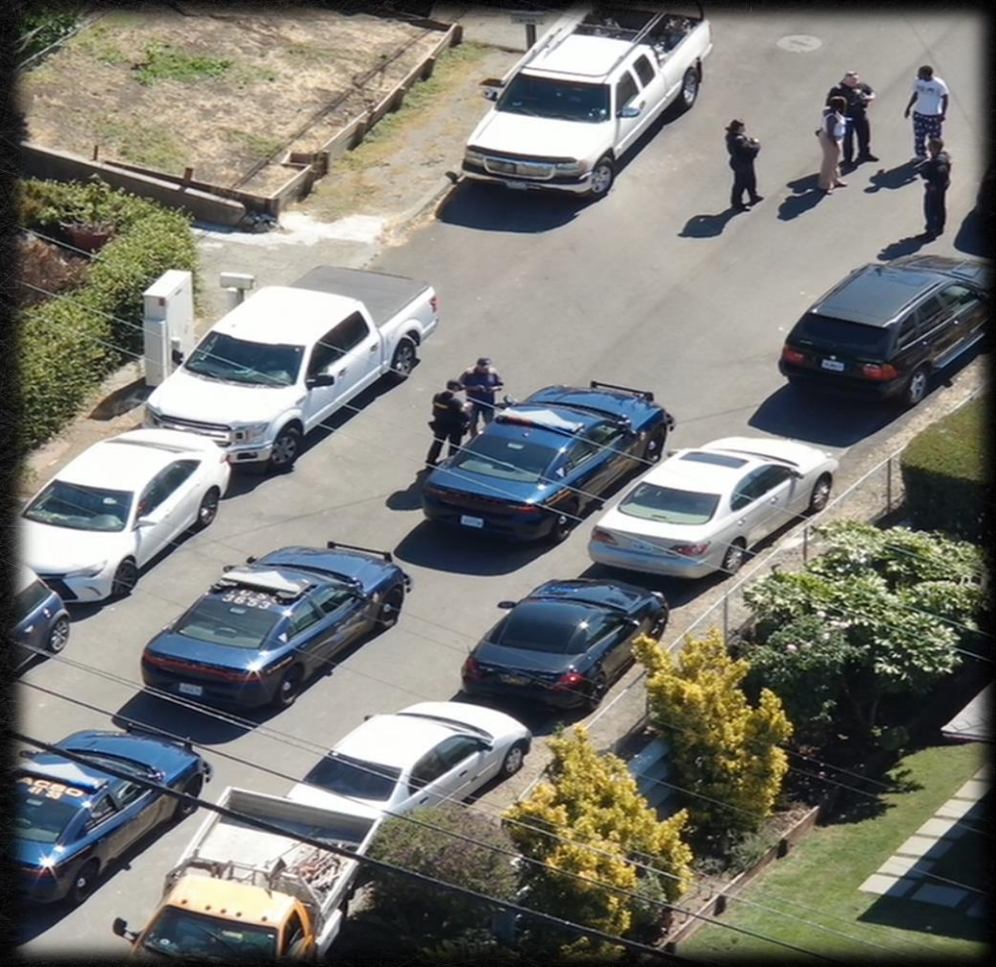


Reducing use-of-force by providing real-time information
for better decision making



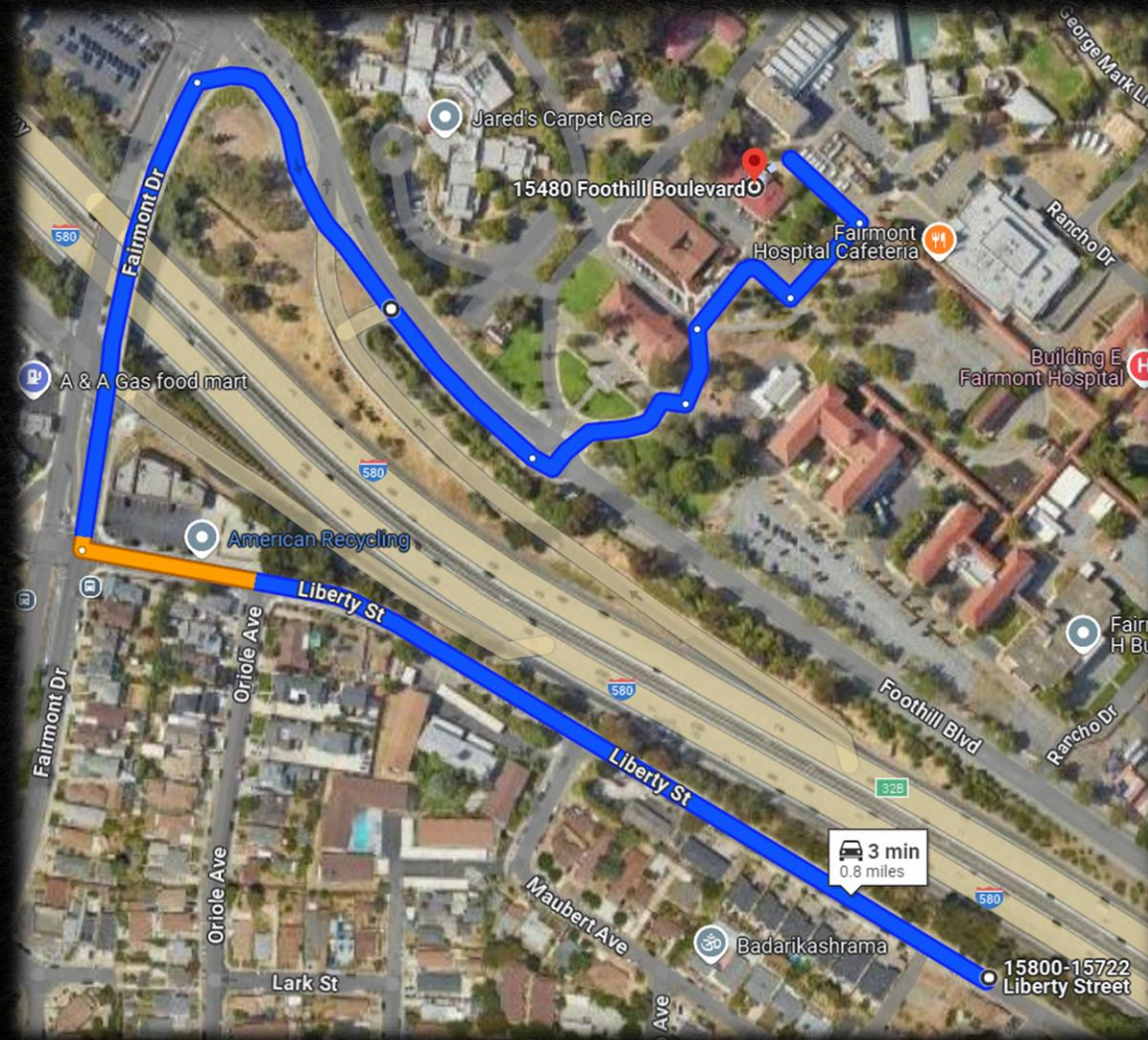
INVALUABLE INFORMATION

- Weapons?
- Description?
- Best Access?
- Perimeter?
- Associates?





REAL-TIME INFORMATION



DFR increases the
chance of criminal
apprehension



LOCATE SUSPECTS

- TRO Violation
- RAVEN First On Scene
- Locates Suspect and Provides Updates
- Coordinates Responding Units





LOCATE SUSPECTS

UAS located suspect and set perimeter as deputies began to arrive on scene





LOCATE VEHICLES

Vehicles can be located,
and monitored until
ground units arrive.





LOCATE VEHICLES



Stolen Trailer



UAS Located Vehicle



Updated Location to Patrol

RTIC, DFR, and Patrol working together



NON-CRIMINAL RESPONSES



- Car Accidents
- Fires
- Missing Persons
- Mental Health Incidents





NEXT STEPS

ACSO will seek Board of Supervisors approval of a contract with Aerodome for the DFR Program at the first available meeting in July.

DFR enhances public safety, increases efficiency and provides additional layers of officer safety.



ACSO CONTACTS

Sergeant Fenton Culley
RTIC Supervisor



Sergeant Justin Brannon
sUAS Supervisor

