



**City of Dallas**

# **Overview of the Gun Shot Detection System**

**Public Safety Committee  
December 8, 2025**

Yancey Nelson, Major of Police,  
Dallas Police Department  
City of Dallas

# System Highlights



## FireFly by Crime Gun Intelligence Technologies (CGIT):

- Was first developed to assist U.S. personnel in Afghanistan
- Vendor provided training on how to mount system devices and conduct a site survey
- We own all equipment and pay an annual per sensor subscription fee
- FireFly has solar power as an option which eliminates the need to hard wire



# System Highlights



- Self-calibrating sensors allow for ease and speed of re-deployment with minimal effort by trained personnel
- Onboard GPS provides automated sensor location
- Real-time processing unit analyzes sound looking for transients that have the same frequency as a Gunshot
- Sensors contain microphones and recording electronics



# System Highlights



## How the system works:

- The system utilizes a series of sensors that are networked together in a specific geographical area.
- When multiple sensors detect a potential gun-shot the system determines the area of where the gun-shot came from and sends an alert
- The user can assess the recording of the suspected gun-shot and if appropriate tag the alert as gunfire
- Easily deployed, recalled and redeployed by DPD Officers without intervention by the vendor



# Cities using Firefly



## FireFly by Crime Gun Intelligence Technologies (CGIT):

Current or previous clients of CGIT

- Colorado Springs, Colorado
- Phoenix, Arizona
- El Paso, Texas
- Selma, Alabama
- Denver International Airport
- Tucson, Arizona





# Highlights of the Selected System



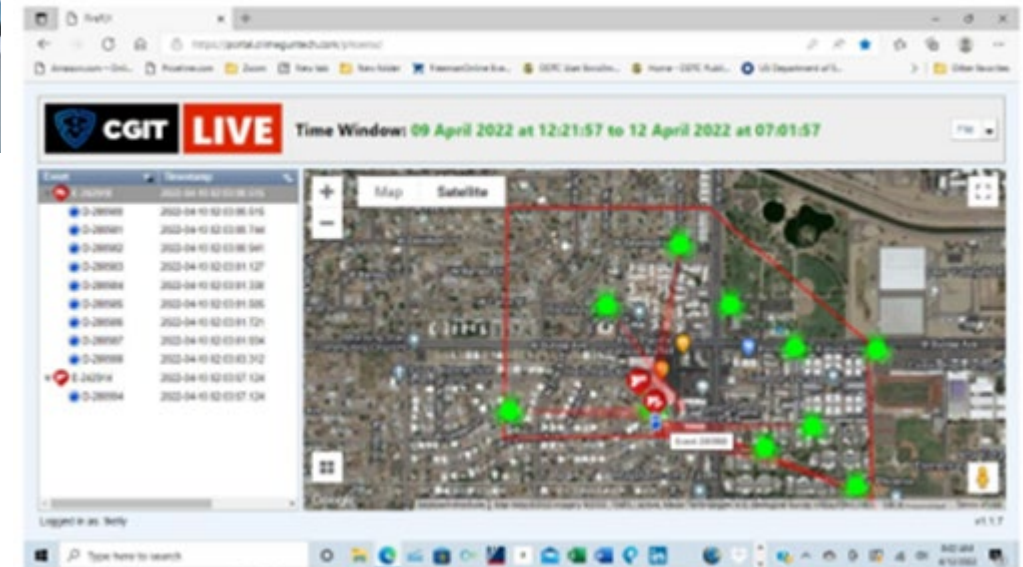
## FireFly by Crime Gun Intelligence Technologies (CGIT):



### SMALL FOOTPRINT

**Dimensions:** 9.25in. x 16.5in. x 19in.

**Weight:** 16 lbs. Base / 24 lbs.  
With Battery Configuration



# Sensor Security



- Sensor communications are protected through strict application of Firewall policies on each sensor.
- Sensor data transmission is done utilizing secure, reliable end to end communication protocols.



# Next Steps



- Layered Approach
- Technology leveraged approach: LPR, Cameras, Drones, Pilots, Deployment and implementation strategy
- 150 GSD activations lessons
- Successful activation investigation leads to arrest







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