



PUBLIC SAFETY • SITUATIONAL AWARENESS

# (TAK) Team Awareness Kit

In Public Safety

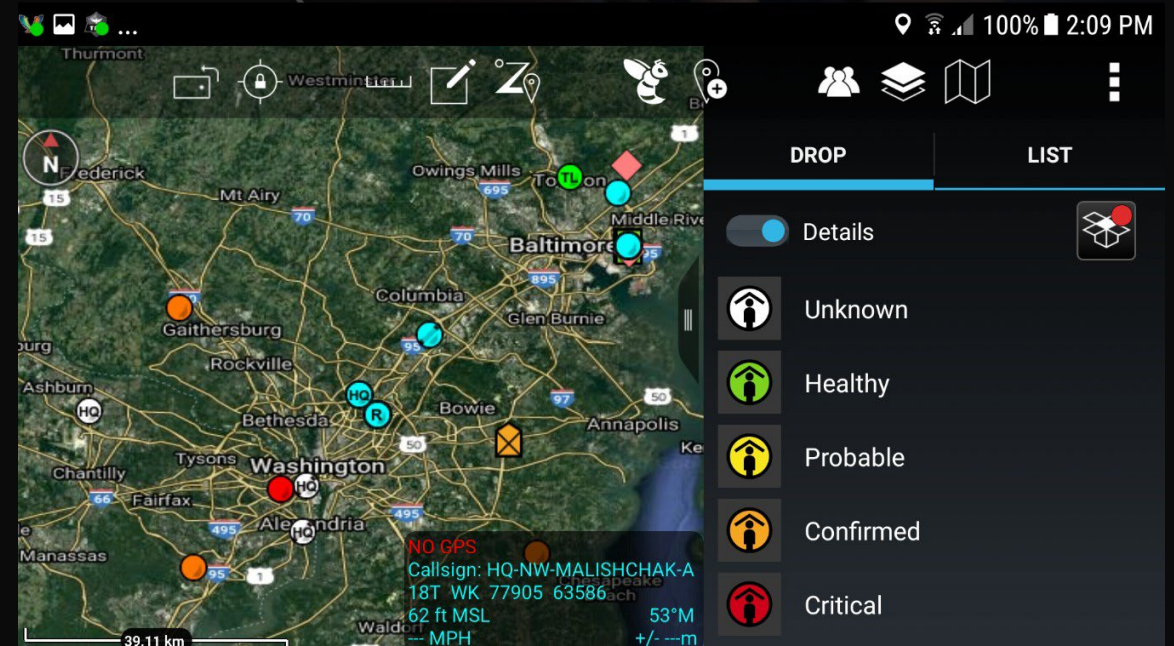
**Jason Esterline – N4BOZ**

Jason@helpnowproject.org



# What is TAK?

A shared map for teams that need to know where people, assets, hazards, and objectives are — **in real time.**



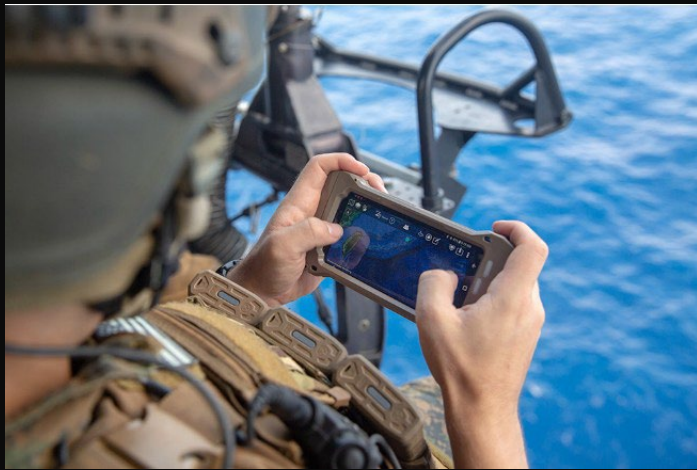
- Geospatial situational awareness
- Real-time team location and encrypted messaging
- Routes, overlays, points, imagery, and incident data
- Elevation Data, Line-of-Sight, Viewshed Data
- Useful with or without full cellular coverage

- Answers Common Questions
  - Where am I?
  - Where is my team?
  - Where is \_\_\_\_\_?

## Videos (Optional)



# From Military Origins to Public Safety Tool



## ORIGINS

Developed by the Air Force Research Lab beginning in 2010 at a cost of more than \$500M to solve a real coordination problem:

Teams were moving fast, but information was fragmented. TAK evolved from tactical mapping and communication work into a common platform for federal, state, local, and public safety partners.

The civilian/public safety value is the same: safer coordination under pressure. It now has more than 300,000 users worldwide.

It is a platform providing a single pane of glass for stakeholders to see what is happening in real-time.

Best of ALL, the only cost to it is Implementation.

**Training takeaway: TAK is not “military-only”; its strongest civilian value is interoperability.**

# Where TAK Runs

## PLATFORMS

### ATAK

Android / rugged mobile devices

### TAK Aware iTAK

iPhone and iPad

### WinTAK

Windows workstations and command posts

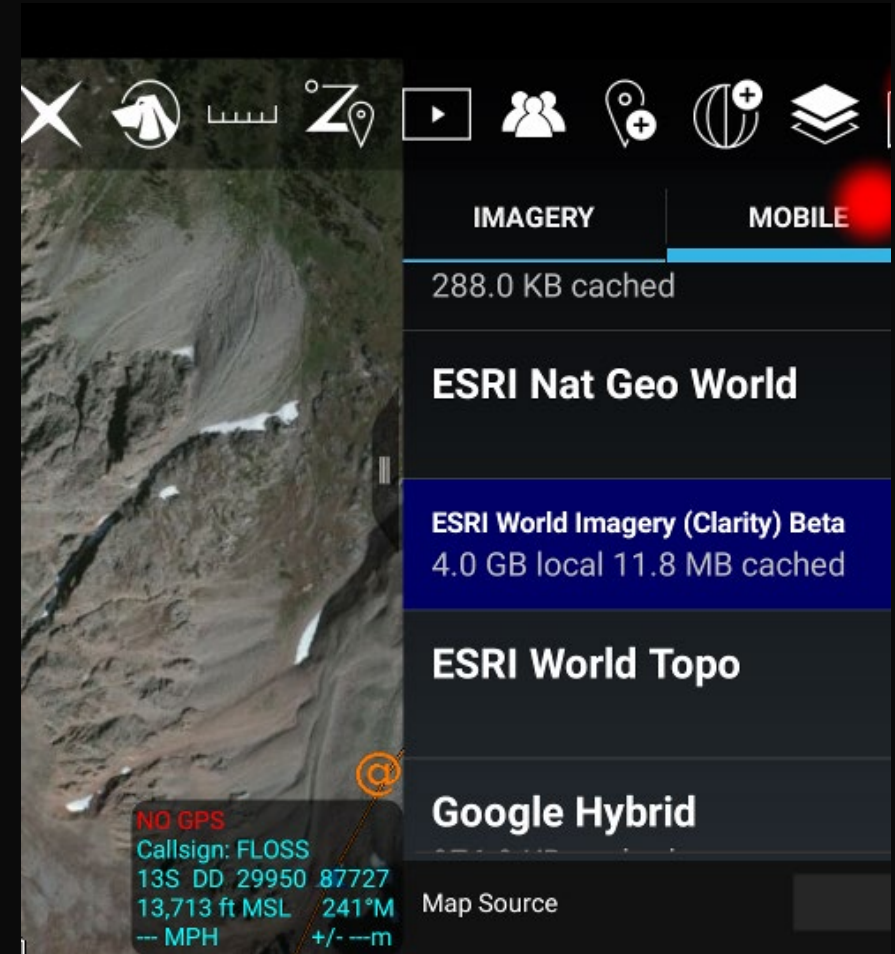
### WebTAK / CloudTAK

Browser-based access to TAK Server data

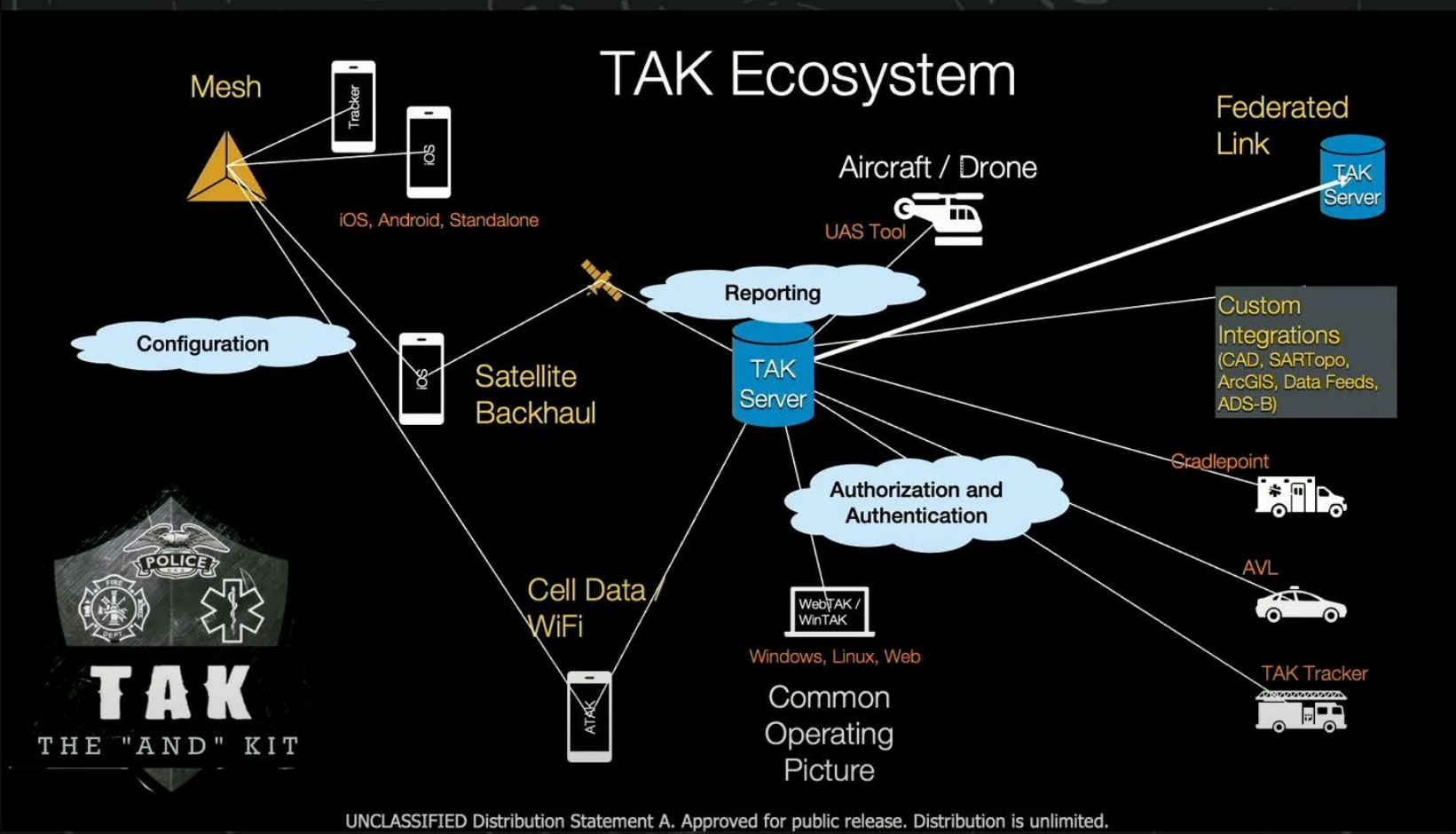
### TAK Server

Broker, store, secure, federate, and share data

Use the device that matches the role: field mobile, command desktop, or browser view.

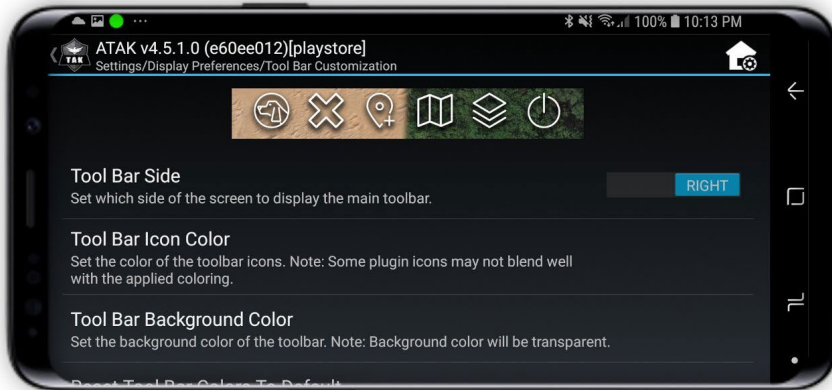


# How TAK Works: From Field Data to Shared Awareness



Field-ready architecture: direct peer-to-peer where possible; server-enabled sharing when broader coordination is needed.

# ATAK Interface: What Users See



Map & imagery layers

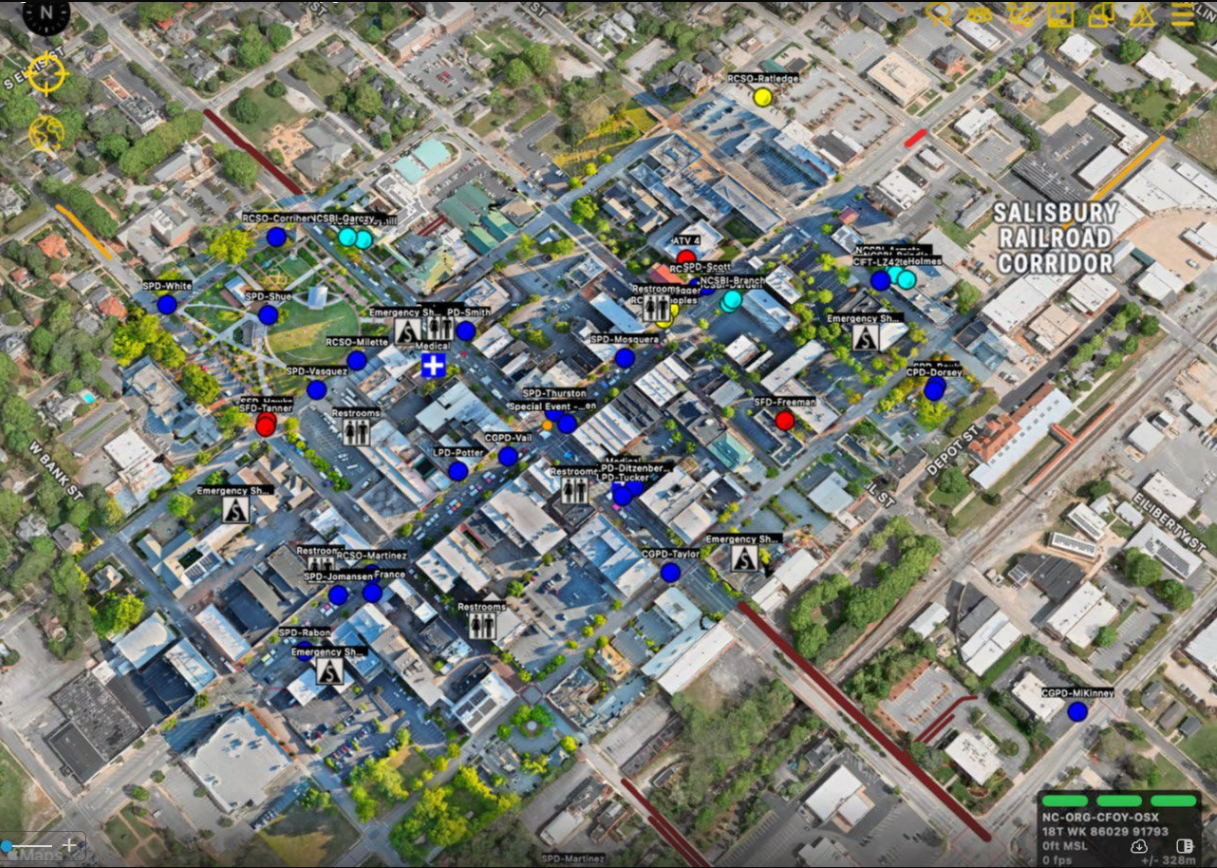
Tool bar / plugins

Media & sensor views

User positions / callsigns

Live Data Feeds (UAS, ADS-B, and more)

# Common Operating Picture (COP)

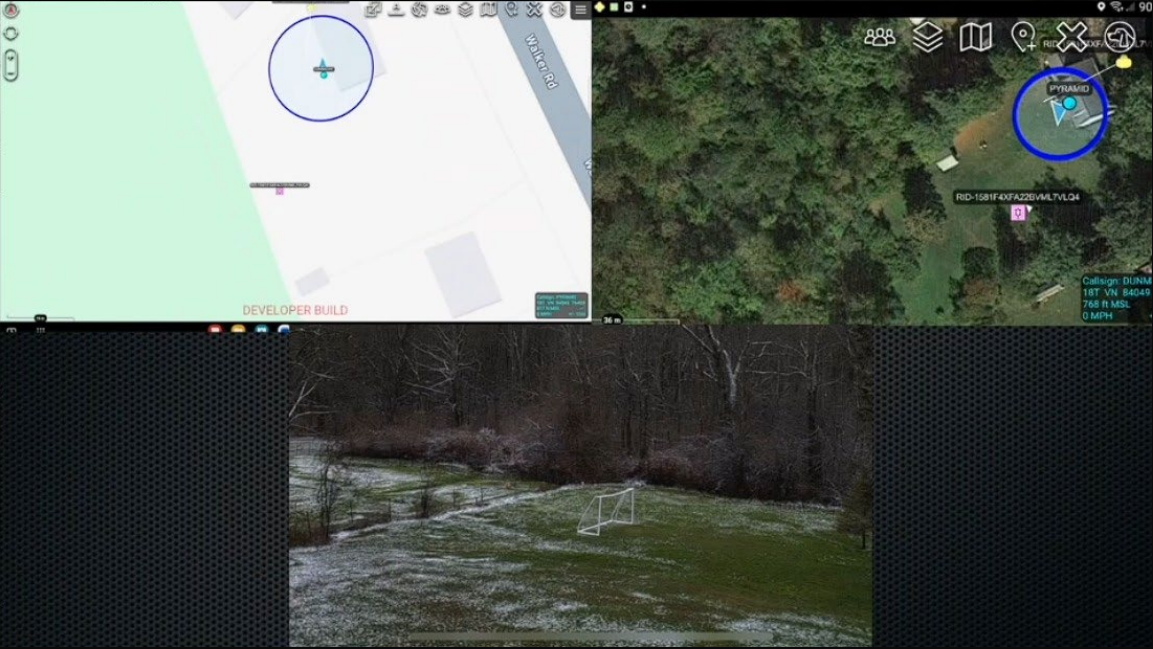


Personnel accountability

Shared overlays

Command + field visibility

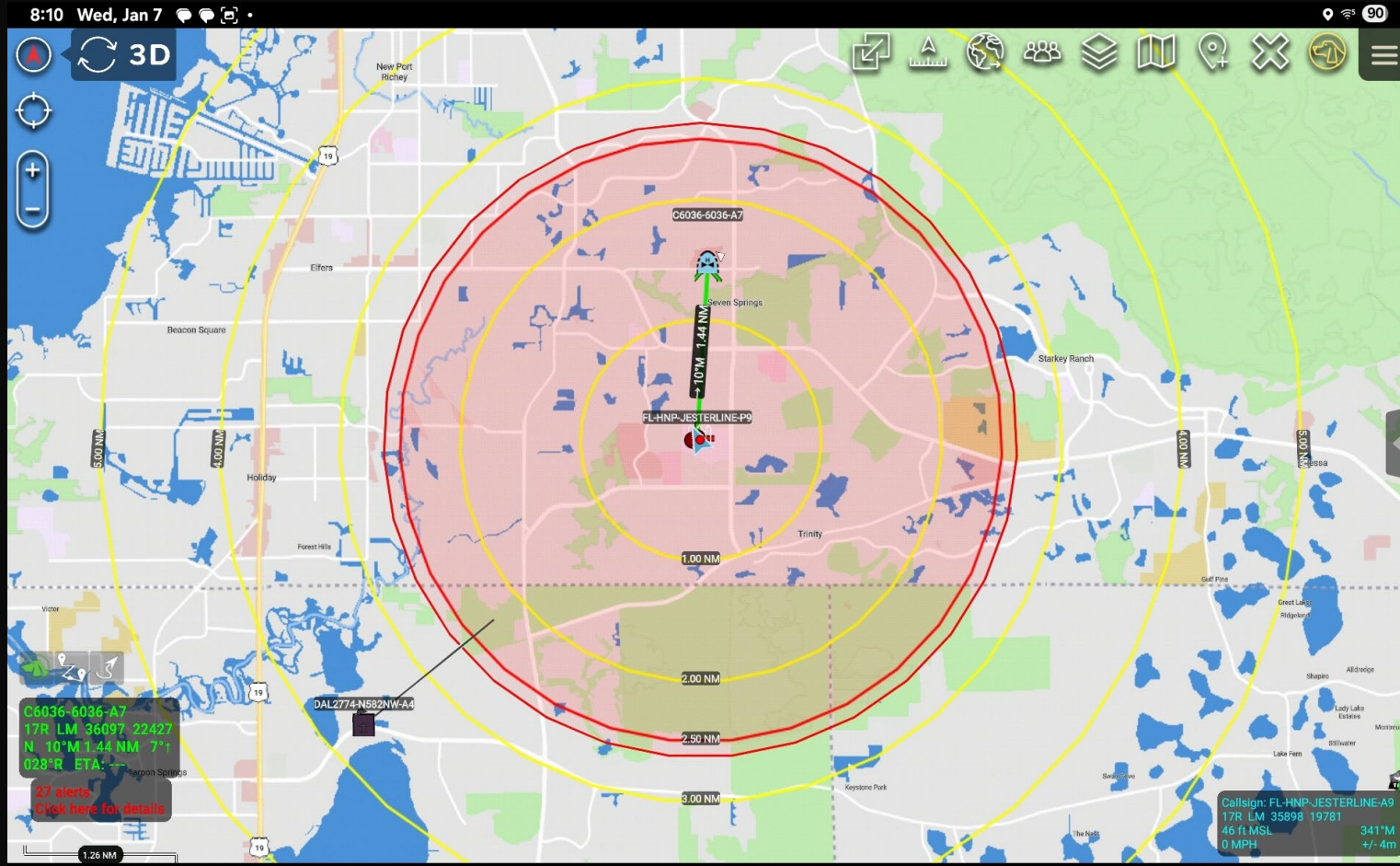
# Drone / UAS & Sensor Integration



**View live feeds, locations, and map overlays in context.**

Aerial overwatch  
Thermal/search support  
Manned + unmanned aviation coordination  
Sensor feeds delivered to field and command

# Example: JW Mitchell HS – USCG JayHawk Flyover



- Local UAS Sensor (RemotID) used to alert us of any UAS in the vicinity
- Using the field as a center point, established a perimeter out 5nm (Yellow)
- (Red) Inner geofence started at 2.5nm Ceiling set at 3000ft
- Used “Bloodhound” tool to live track the incoming USCG MH-60 JayHawk with accuracy
- We were able to pick him up on ADSB while he was over Brooksville
- Complete airspace awareness was achieved

**Note: We didn't act as ATC, we just provided SA – eyes and ears on the ground for safety of all involved.**

# Why Public Safety Uses TAK



## Responder safety

Know where crews are and where hazards are moving.

## Interoperability

Share awareness across agencies that normally use different systems.

## Speed

Turn voice-only updates into map-based operational decisions.

## Accountability

Track teams, assets, routes, and assignments during the incident.

# Publicly Documented Organization Examples

**FBI / FEMA / DHS/ CBP** Federal public safety users / non-DOD agencies using TAK.

**Texas DPS** Uses TAK for field personnel tracking and interagency coordination; DPS also supports TAK server access.

**Colorado CoE / COTAK** Statewide real-time location service for Colorado public safety agencies.

**Tennessee examples** Upper-East TN and local emergency management examples use TAK for all-discipline first response and operational planning.

**Wildland Fire / WFTAK** Common operating picture for wildland firefighters and incident responders.

**Note: adoption details vary by agency. This deck cites public sources only and avoids operationally sensitive claims.**

# Law Enforcement: Unified Situational Awareness

## OPERATIONAL OBJECTIVES



- Know who is where during a crisis
- Reduce communication gaps between tactical, aviation, dispatch, and command roles
- Use TAK Server as a central hub for shared data
- Integrate plug-ins for mission-specific tools

# Example: Texas Department of Public Safety



**DOCUMENTED PUBLIC SAFETY USE**

Texas DPS uses TAK to track public safety personnel in the field, provide situational awareness, and enhance interagency tactical coordination.

Texas interoperability planning also notes a DPS TAK server agencies can join and TAK as a no-cost situational awareness option.

**Training scenario: aviation/UAS + ground users share target/incident data in real time.**

# Example: Colorado CoE / COTAK



## COTAK: By The Numbers

**5,727**

**COTAK USERS**

Users include law enforcement, firefighters, search and rescue, and other public safety agencies.

**443**

**ACTIVE AGENCIES**

COTAK serves public safety agencies of varying sizes based in Colorado.

**790**

**COTAK CHANNELS**

Channels are used to customize the information needs of agencies displayed on the COTAK application.

*The numbers above are shown in real-time and may fluctuate daily*

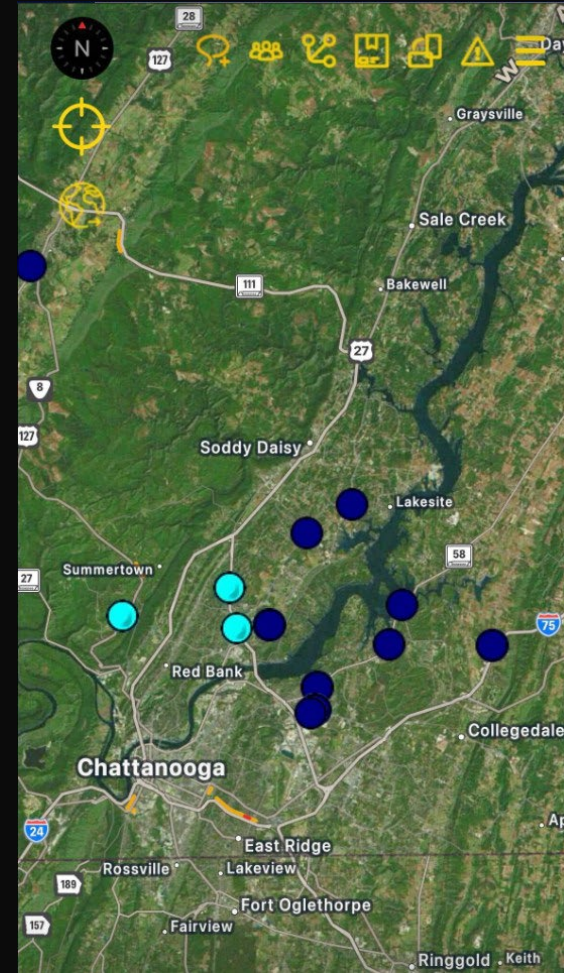


COTAK provides real-time location and mission-critical data to emergency responders via mobile devices. COTAK is available at no cost to Colorado public safety agencies.

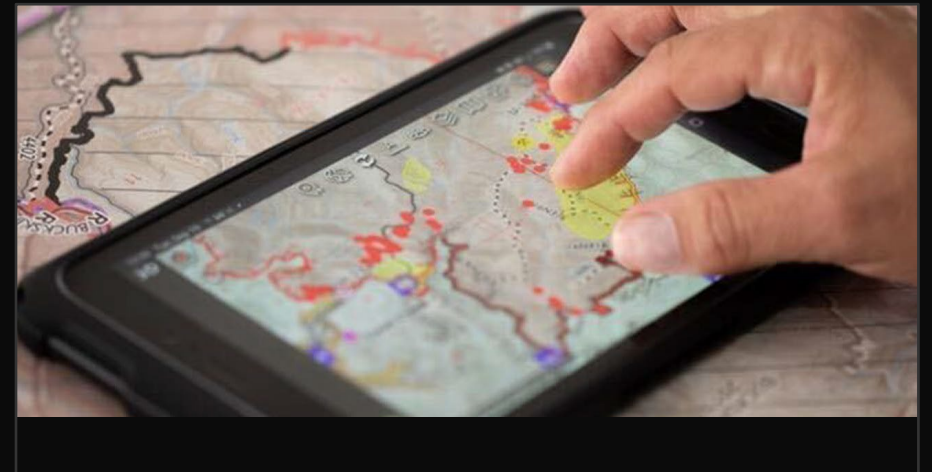


## Example: Tennessee Public Safety Implementations

- Upper-East Tennessee regional users have implemented TAK as a situational awareness tool for all first-response disciplines.
- Spring Hill, Tennessee Emergency Operations have implemented a TAK server infrastructure for georeferenced imagery and secure communications between local, state, and federal agencies.
- Use case themes: regional interoperability, public events, emergency operations, and responder accountability.



# Fire, Wildland & Disaster Response



- Track crews and vehicles
- View fire lines, safety zones, and hazards
- Share map layers and mission updates
- Support field and office incident roles

**Wildland Fire TAK (WFTAK) was developed for incident responders in field and office environments.**

# Key Takeaways



## **TAK creates a shared map**

A common operating picture reduces guesswork.

## **TAK is cross-platform**

Field phones, command desktops, and browser users can participate.

## **Public safety is a core use case**

Fire, EMS, law enforcement, disaster response, and aviation all benefit.

## **Interoperability is the win**

Use TAK to bridge agencies, disciplines, and data feeds.

**Bottom line: TAK turns “Where is everyone?” into a shared, live answer.**

# TAK in Public Safety – Where it's headed...



## Final Report

The President's Council to Assess the Federal  
Emergency Management Agency

May 7, 2026

5. **Fund and Promote Interoperable Systems:** Federal policy should promote and incentivize shared investments in interoperable communications, data-sharing platforms, and information systems that enable real-time coordination across all levels of government and partner organizations. Open data standards should be established and promoted by federal policy to ensure interoperability, consistency, and reliability of information exchange during incident response and recovery.

# Public Sources

## Primary / official sources used for factual claims and imagery:

DHS Science & Technology — Team Awareness Kit fact sheet / ST-TAK pages

TAK.gov — Products, Law Enforcement, and public safety solution pages

USDA/USFS — Wildland Fire Team Awareness Kit (WFTAK)

Colorado Center of Excellence for Advanced Technology Aerial Firefighting / COTAK

Texas DPS — Homeland Security Strategic Plan 2026–2030 and Statewide Communication Interoperability Plan

IACP — Texas DPS award summary mentioning TAK implementation

FireRescue1 / EMS1 / T-Mobile — upper-East Tennessee TAK public safety examples

Supplemental public screenshots/images: TAK.gov, WFTAK, COTAK, Coptrz, Medium screenshot of ATAK map sources