



**CIVIL AIR PATROL**  
U.S. AIR FORCE AUXILIARY

# **Mission**

# **Capabilities Briefing**

**Dr. Bob Ditch, EdD, CEM**  
**Director of Emergency Services**  
**Rocky Mountain Region**

**18 July 2023**



# Agenda

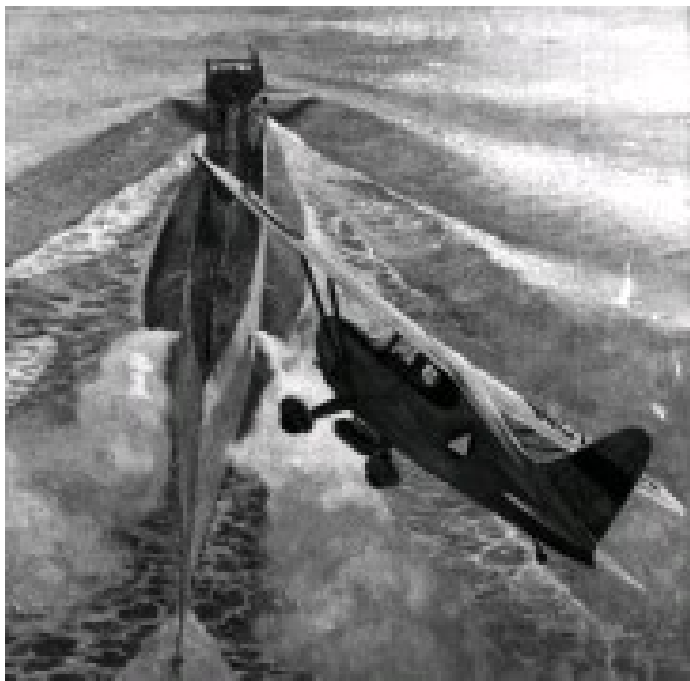


- History
- Missions
- Authorities
- Resources
- Capabilities & Technologies
- DSCA and Request for Forces

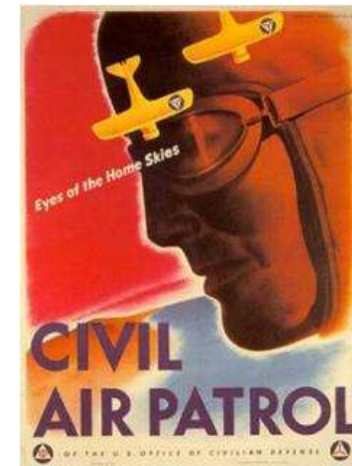
Most core WWII missions are still CAP's core missions today!



# Performing Missions for America since December 1<sup>st</sup>, 1941



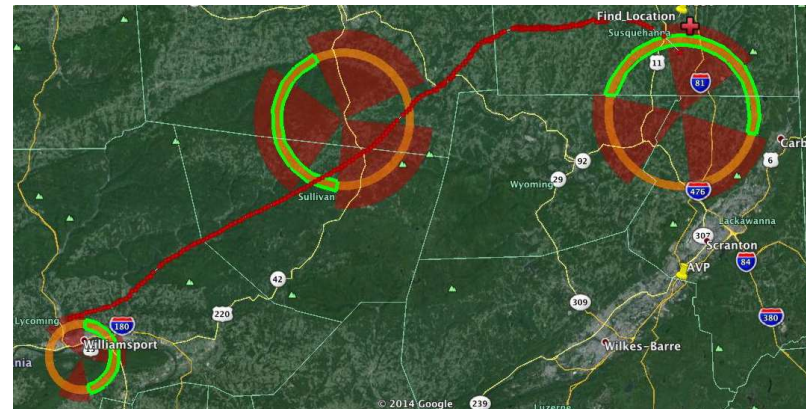
- World War II Missions
  - Coastal Patrol including anti-submarine combat
  - Homeland Security
  - Search and rescue and natural disaster support
  - Emergency transport of personnel and cargo
  - Border patrol
  - Air defense (targets for AA, aircraft, search light)
  - Observation training support for Army units
  - Forest fire spotting
  - Flight training
  - Cadet programs and aerospace education
- 1946: Incorporated Non-Profit (Public Law 476)
- 1948: Became Auxiliary of the USAF (Public Law 557)



Most core WWII missions are still CAP's core missions today!



# Search & Rescue



**CAP was credited with 151 lives saved in FY22 and 34 so far in FY23**



# Disaster Relief





# CAP doesn't just support SAR & DR





# Operational Missions



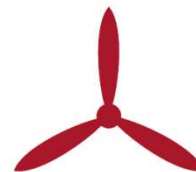
- CAP's AOR is border-to-border and coast-to-coast within the CONUS, Alaska, Hawaii, Puerto Rico, and the U.S. Virgin Islands
- May only support Federal agencies in its capacity as AF Auxiliary
- AF Component Commanders task and approve CAP missions
- Flies 60-80% of 1 AF/AFNORTH's daily sorties
- CAP flies about 80,000 hours/year on AF Assigned Missions, 15,000 to 20,000 hours in direct customer support.



# Congressional Charter



**Emergency Services**



**SAR & Disaster Relief  
Homeland Security  
Drug Interdiction  
AFROTC Flights  
AFJROTC Flights**



**Cadet Programs**

**Leadership  
Character Development  
Aerospace Education  
Physical Fitness**



**Aerospace Education**

**CAP Members  
AE Members / Teachers  
General Public  
STEM Activities**





# Legal Authority



## Title 36, USC 40301 – Federally Chartered Corporation

Serving our communities while not under federal response.

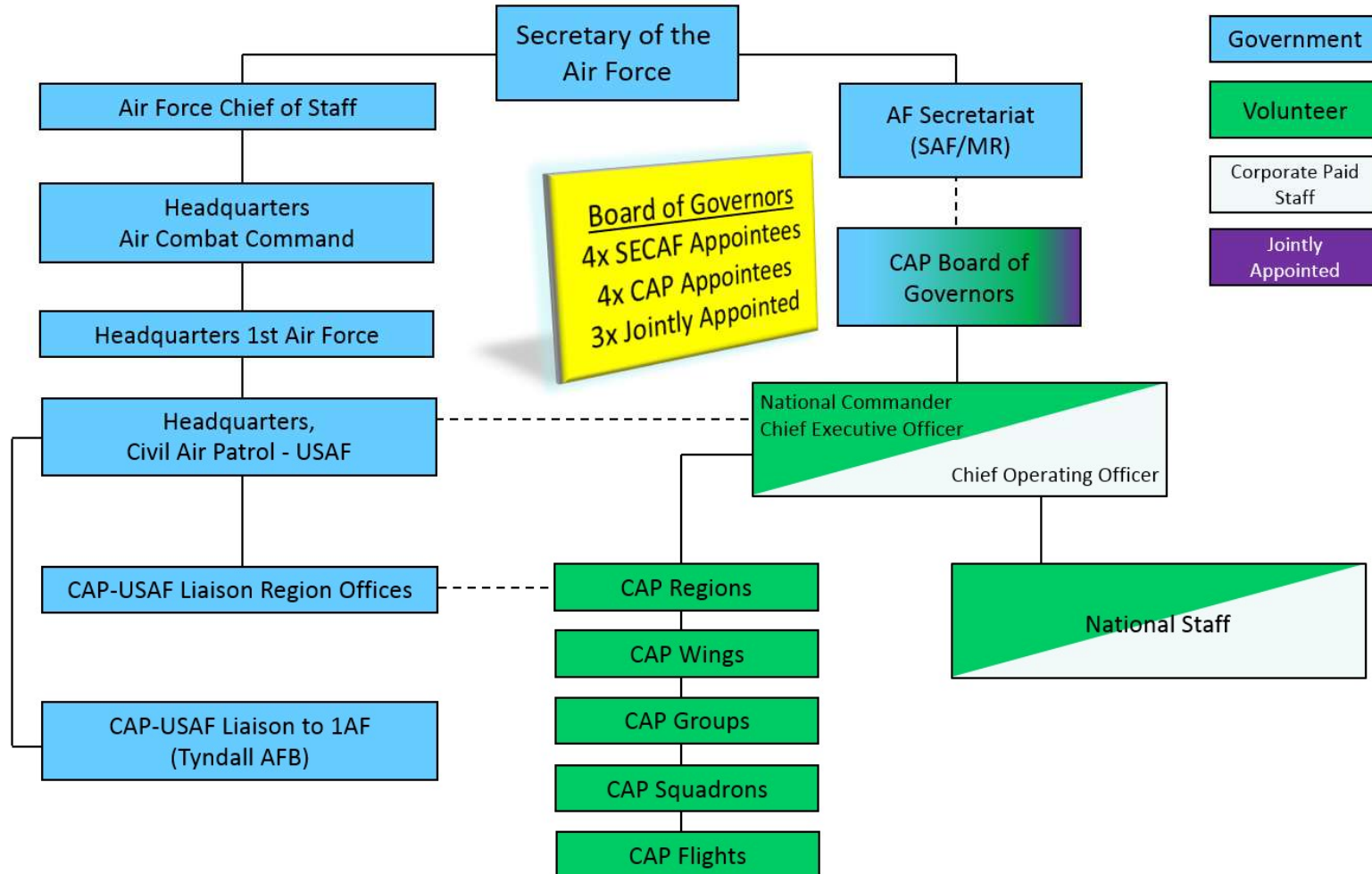
## Title 10, USC 9442 – Volunteer Civilian Auxiliary of the Air Force

Volunteer Civilian Auxiliary when the services of the Civil Air Patrol are used by any department or agency in any branch of the Federal Government.

The Civil Air Patrol shall be deemed to be an instrumentality of the United States with respect to any act or omission of the Civil Air Patrol, including any member of the Civil Air Patrol, in carrying out a mission assigned by the Secretary of the Air Force.



# Organizational Chart



**Government**

**Volunteer**

Corporate Paid Staff

Jointly Appointed



# Membership and Resources



## 2023 Statistics

### Membership

Adult Members	36,216
Cadets	28,113
Total	64,329

### Units

NHQ, Region, Wings, Units	1,407
---------------------------	-------

### Equipment

Aircraft	538
Gliders	45
Hot Air Balloons	2
Vehicles	1,045
sUAS	2,594
VHF LMR Radios	12,886
VHF Repeaters	727





# CAP Units

## 1,407 CAP Units Nationwide

- 8 Regions
- 52 Wings
- 136 Groups
- 742 Composite Squadrons
- 212 Senior Squadrons
- 208 Cadet Squadrons
- 49 Flights



# Mission Qualified Personnel

## (RMR)



- 600+ (58) incident commanders
- 2,800+ (112) pilots flying missions
- 5,600+ (743) other aircrew members
- 745+ (46) ground team leaders
- 19,000+ (256) communication network operators
- 140+ (8) chaplains and 120+ (13) chaplain support specialists
- 800+ (5) personnel have additional law enforcement screening



# CAP Aircraft

## 585 Aircraft Owned By CAP

- 538 (44) Powered Aircraft
- 45 (2) Gliders
- 2 Hot Air Balloons



# Active Powered Aircraft

(44 in RMR)



Cessna 182 (292)/**33**



Cessna 172 (188)/**5**



Gippsland GA-8 (16)/**1**

- Operate from 2500' runway
- VHF AM and FM radio



Cessna 206 (38)/**5**

- Cruise speed 110-135 knots
- Range 520-730 NM



# Vehicle Fleet



**11/12 Passenger Van (26)  
Minivan (8)**



**Pickup (12)  
SUV (9)**



**CUV (8)  
Communications Trailer (2)**

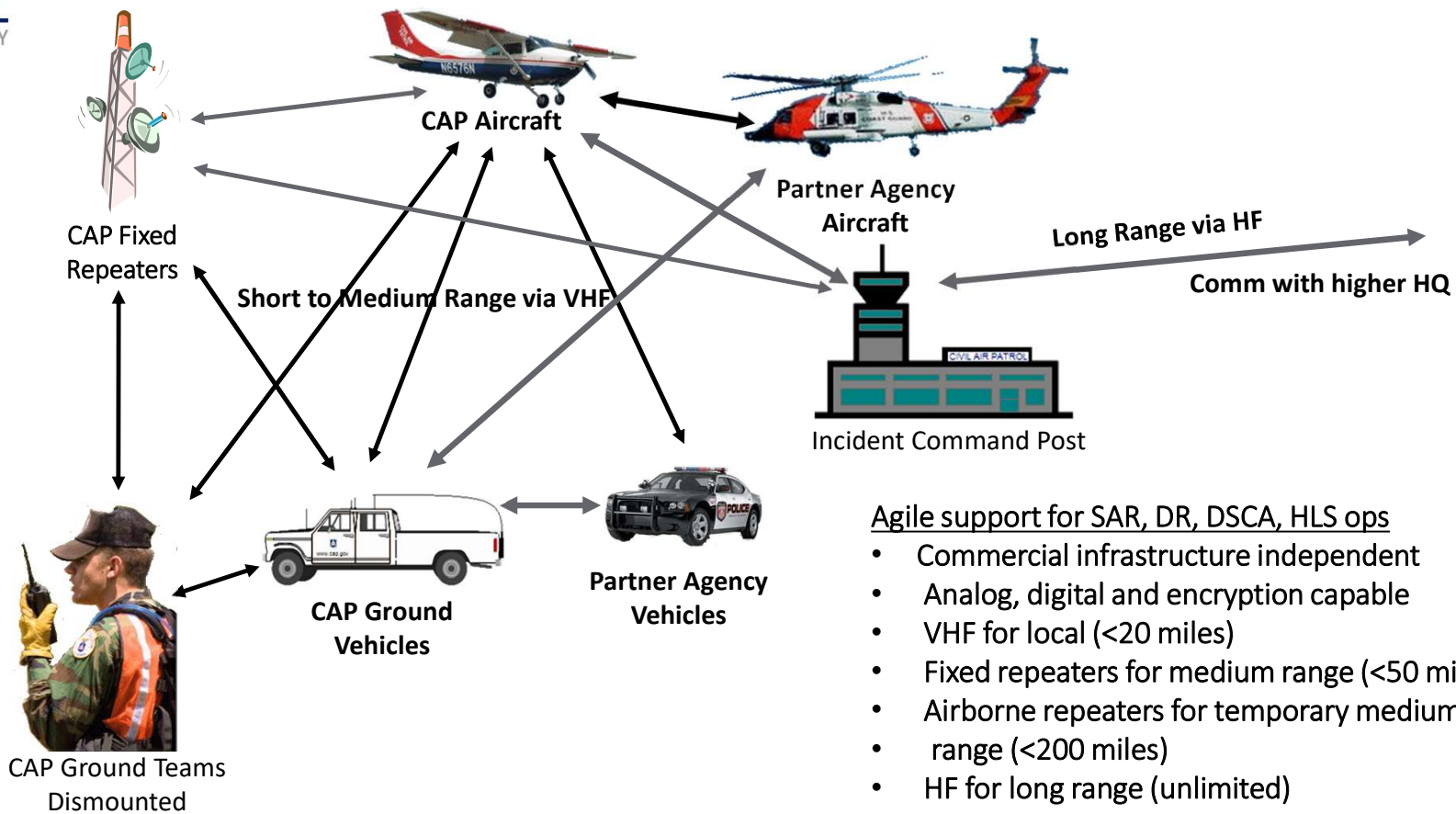






CIVIL AIR PATROL  
U.S. AIR FORCE AUXILIARY

# CAP Communications System



## Agile support for SAR, DR, DSCA, HLS ops

- Commercial infrastructure independent
- Analog, digital and encryption capable
- VHF for local (<20 miles)
- Fixed repeaters for medium range (<50 miles)
- Airborne repeaters for temporary medium range (<200 miles)
- HF for long range (unlimited)
- Fully interoperable with all partner agencies



CIVIL AIR PATROL  
U.S. AIR FORCE AUXILIARY

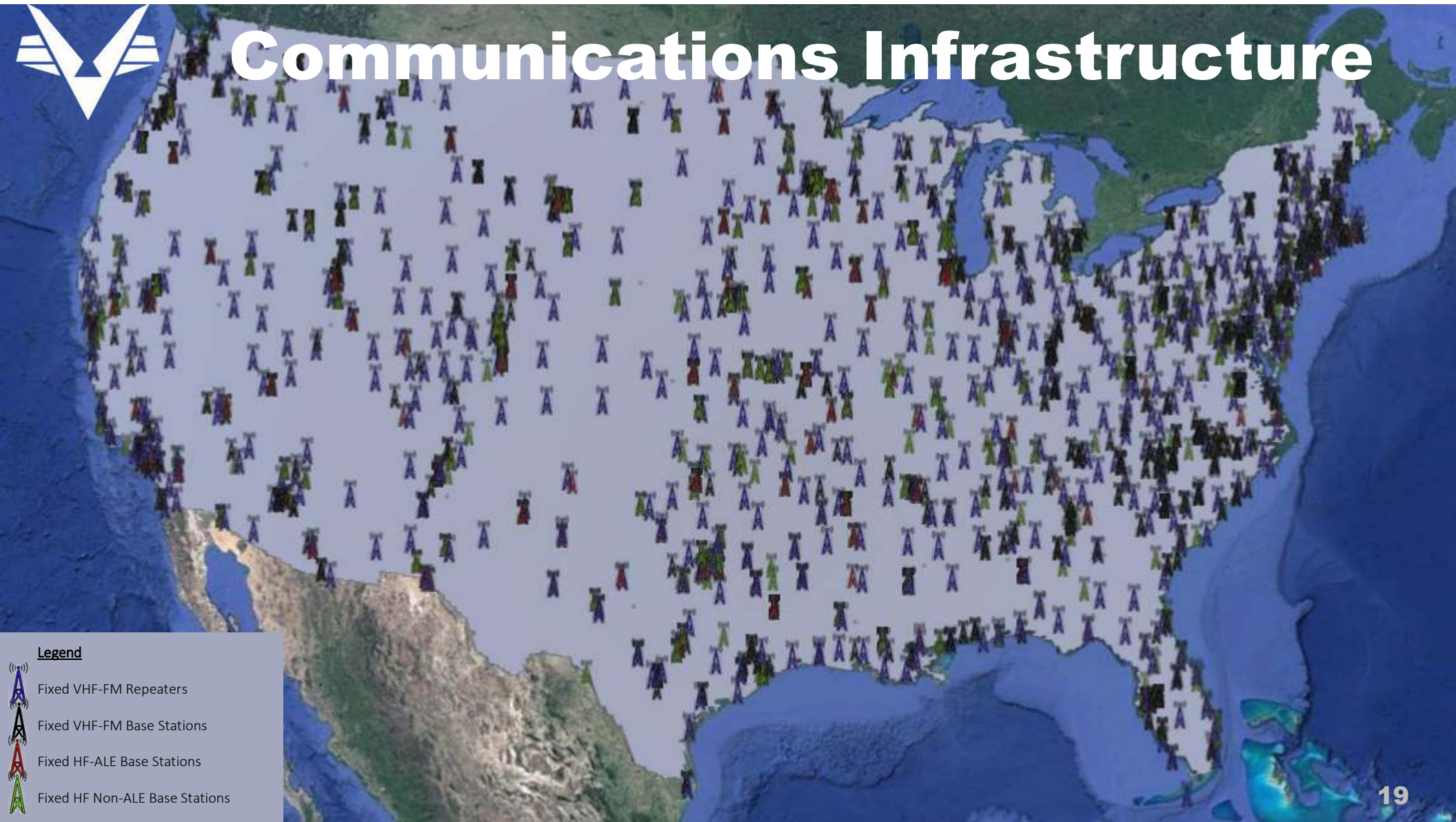
# VHF-FM & HF Resources



- 572 Fixed VHF-FM Repeaters
- 154 Tactical VHF-FM Repeaters
- 2,070 VHF-FM Base stations
- 5,077 VHF-FM Mobile radios
- 5,640 VHF-FM Portable radios
- 768 HF-ALE Base Stations
- 722 HF Non-ALE Base Stations
- 320 HF ALE Mobile Stations

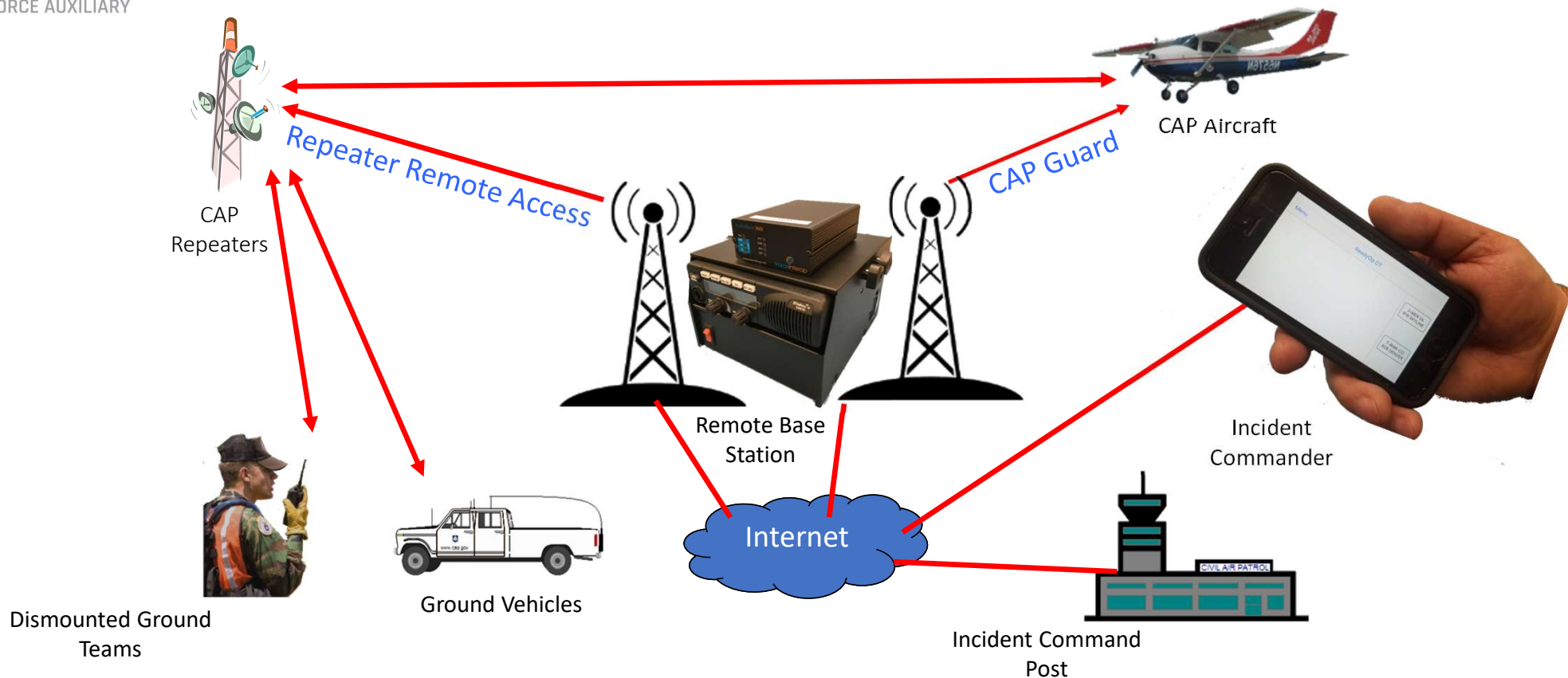


# Communications Infrastructure





# Distributive Options (ReadyOp)





# Logistics Movement and Support





# Point of Distribution (POD) Support





# COTS Handheld Camera Packages



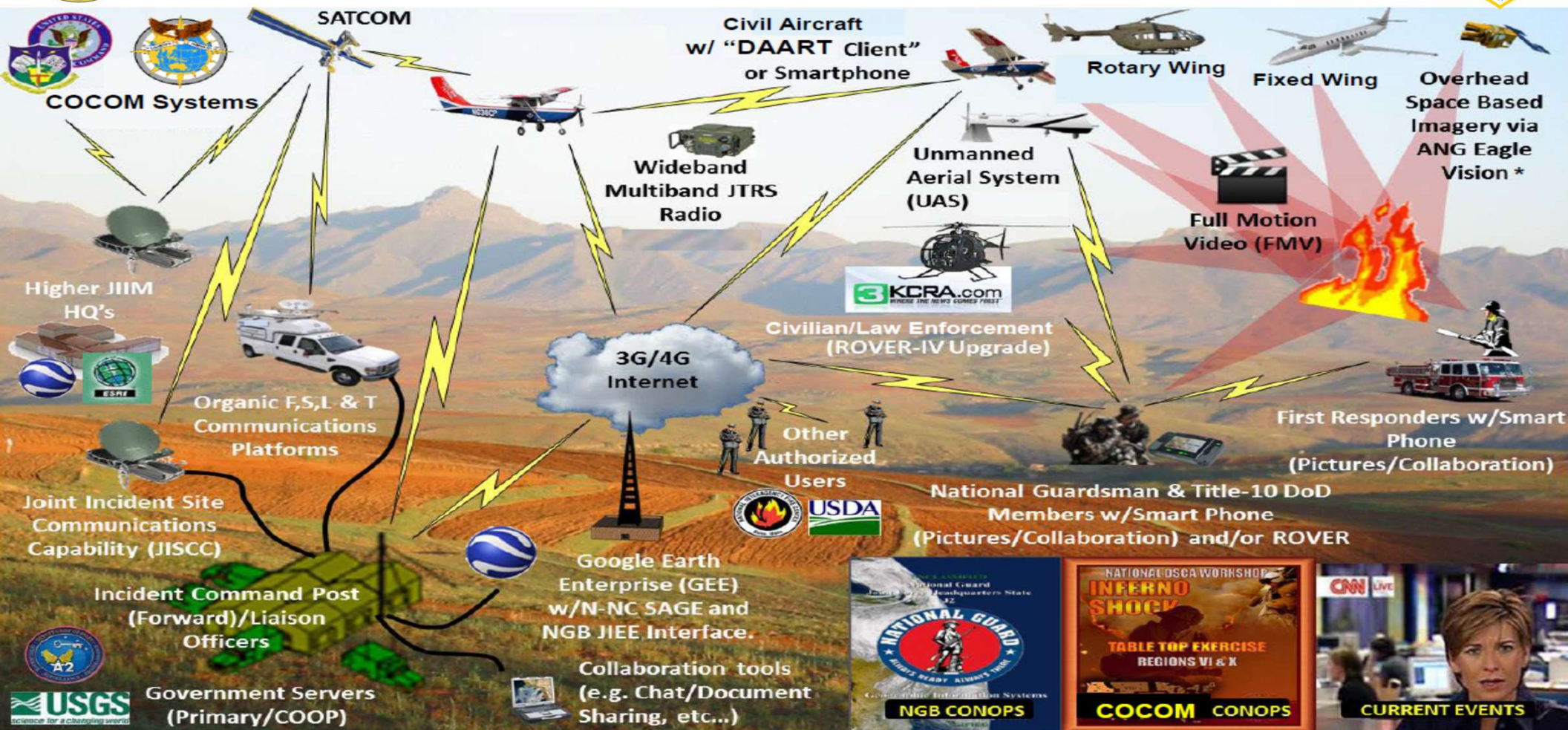
- Carry Aboard Cameras (Nikon Pro Quality) for each powered aircraft
- Garmin Virb Elite & Go Pro Hero Wing Mounts
- DAART: Domestic Operations Awareness & Assessment Response Tool





# DAART

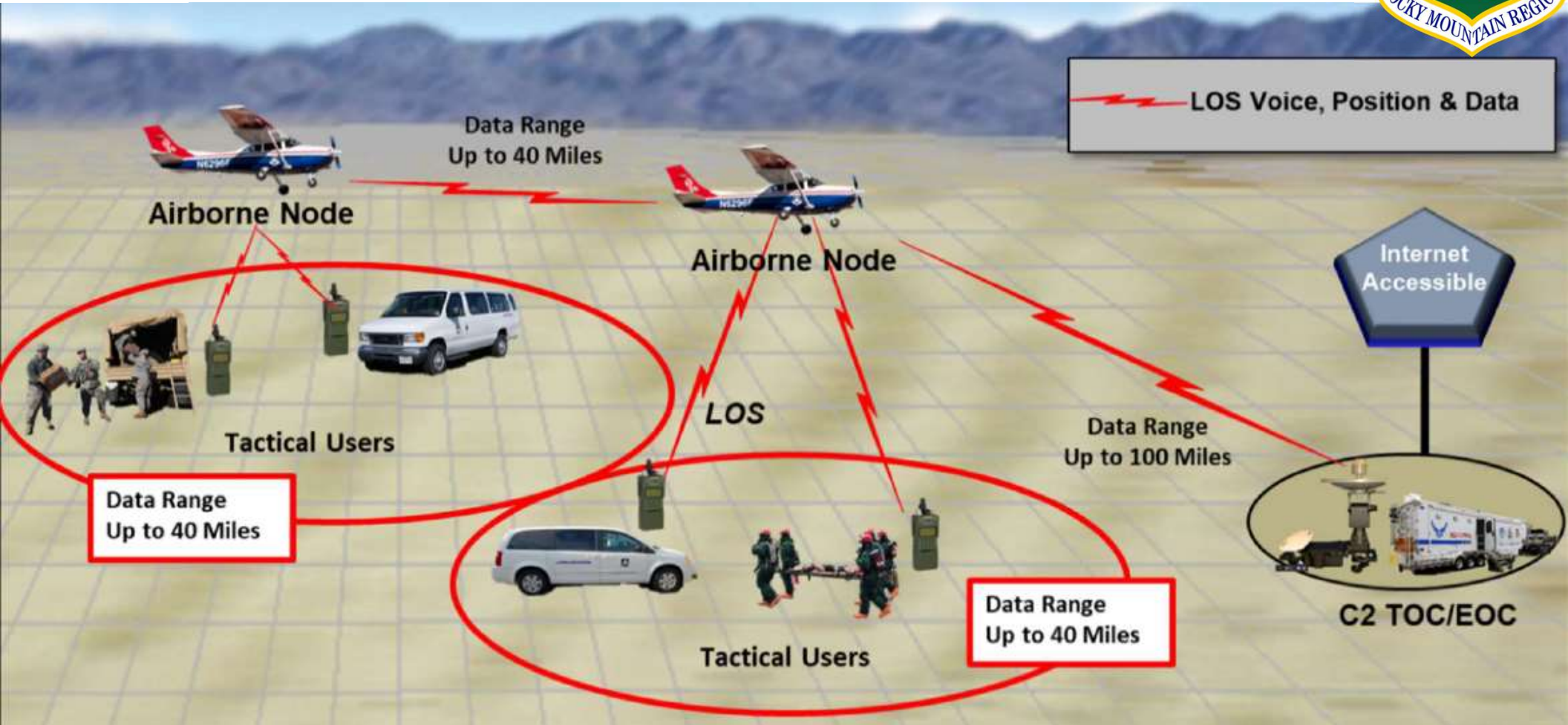
## Domestic Operations Awareness & Assessment







# Airborne Extensible Relay Over-the-Horizon Network (AERONet)





# Waldo Air XCAM Sensors





# WALDO

## High Resolution Collection





CIVIL AIR PATROL  
U.S. AIR FORCE AUXILIARY

# Sensor Equipped Aircraft



Goal is to field 24 to 30 mid-range  
FLIR Talon MMS Sensors  
4 fielded and 8 more to be  
installed this spring



2 Cessna T206Hs for Green Flag and  
DSCA Support with higher end Wescam  
MX-15 Hdi Sensors & 2 older 182Qs  
with analog MX-15s





**CIVIL AIR PATROL**  
U.S. AIR FORCE AUXILIARY



**DJI Phantom 3  
& 4 Pros**



**Skydio 2 Pro**



**Skydio X2D**



**Event 38 E384s & E386s**



**Quantix Recon**



# **Inexpensive Small UAS Applications**



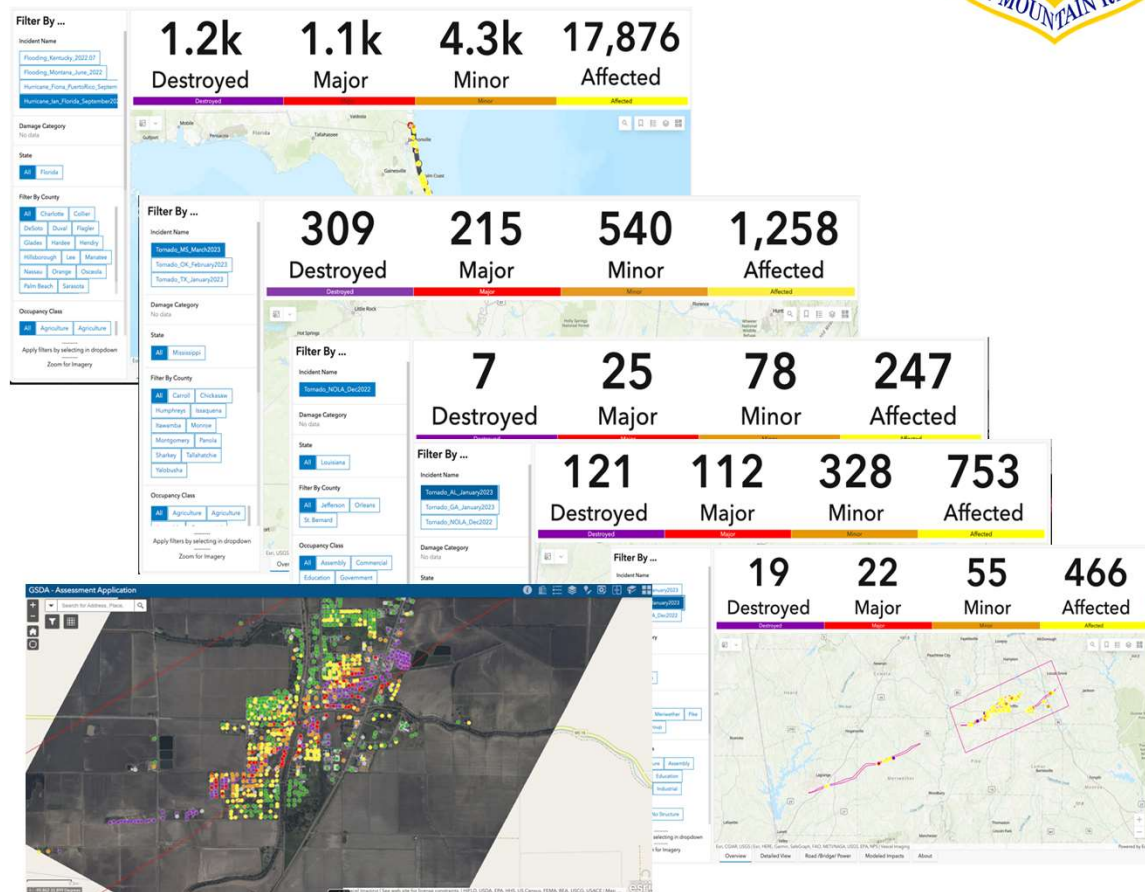


**CIVIL AIR PATROL**  
U.S. AIR FORCE AUXILIARY

# CAP Geospatial Program



- 273 Qualified Damage Assessor/Analysts
- 28 Supported disasters since 2019:
  - Hurricanes: 9, seven states/territories (Guam)
  - Tornadoes: 15 events i.e. quad state & mid-west tornado outbreaks, 15 states
  - Wildfires: 1, one state
  - Flooding: 2, two states
  - Earthquakes: 1, Puerto Rico
- 6 Search & Rescue: Imagery support
- 1.1K damage assessment points in 2022
- Cost advantage: No cost for assessment
- Meets FEMA's 72hr assessment needs



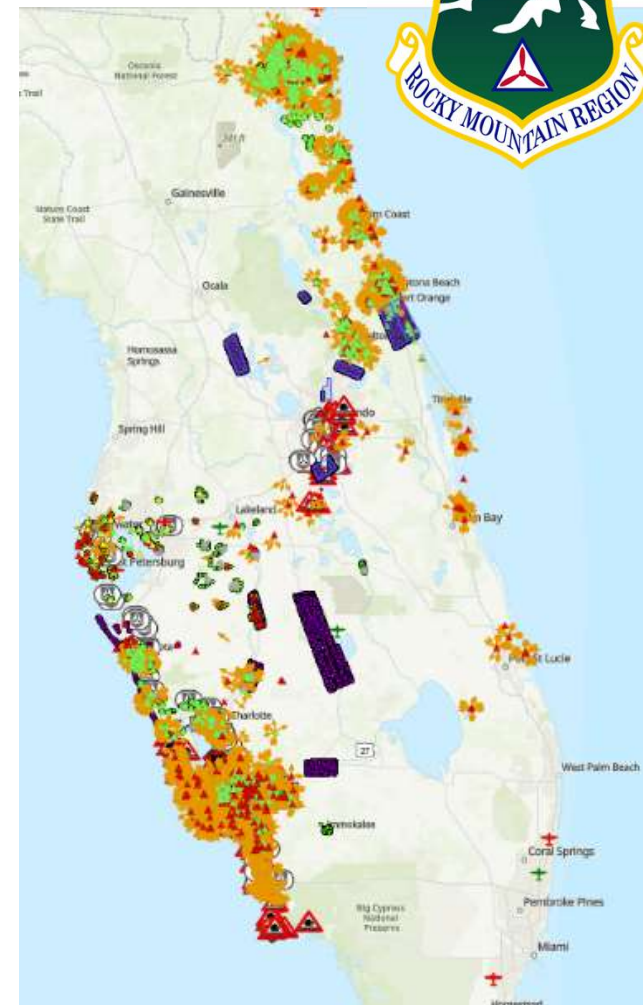
Volunteers Serving America's Communities, Saving Lives, and Shaping Futures.



# Hurricane Ian

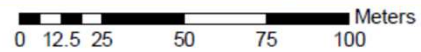
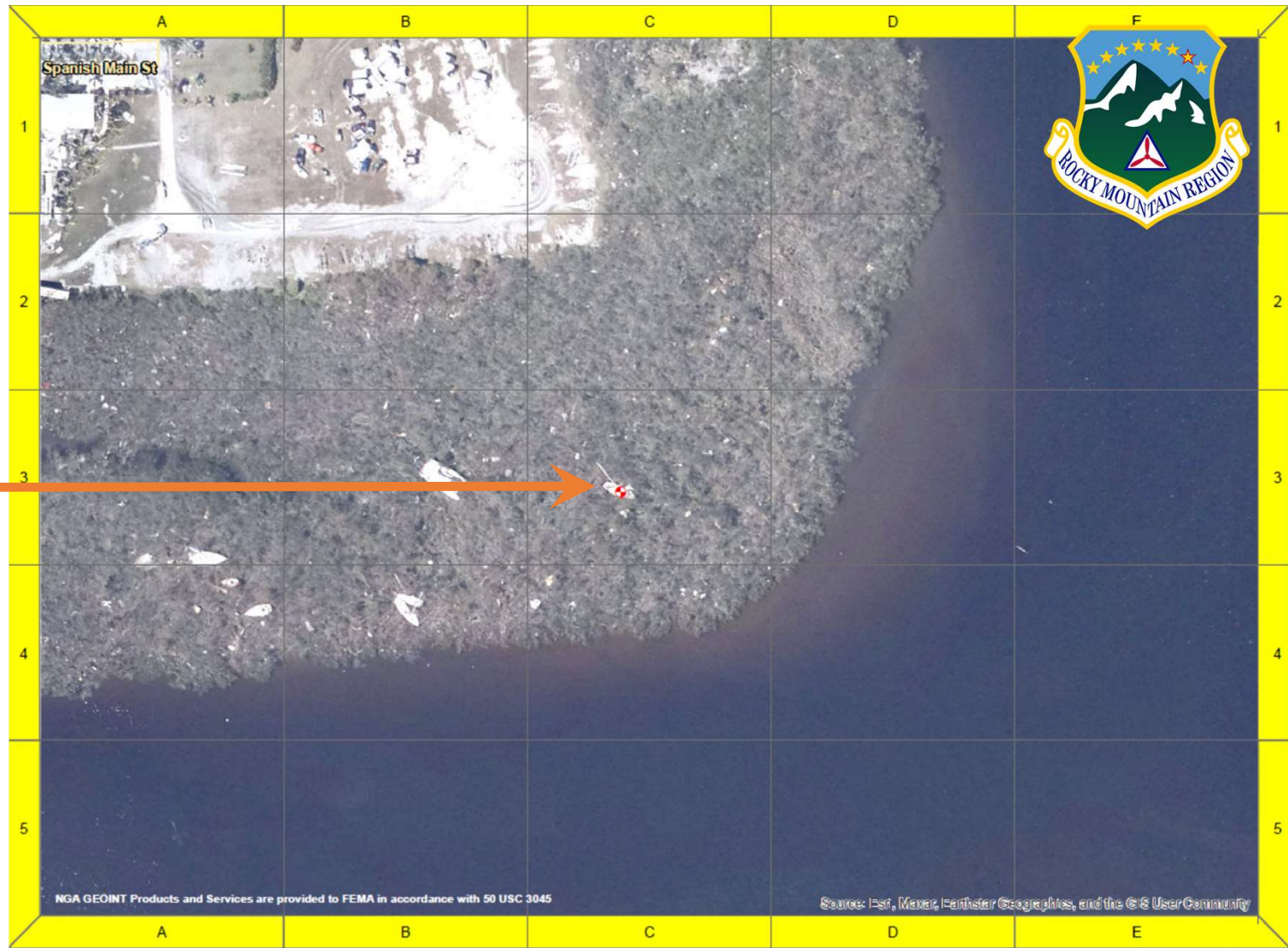


- Damage points
-  Wires Down
  -  Debris
  -  Other
  -  Flood Boundary
  -  Structure Damage
  -  Highwater Mark
  -  Road Obstruction
  -  Clue
  -  DF Reading
  -  Emergency
  -  Field Note
  -  Position Report (CAP)
  -  Position Report (Other)





**1 Life Saved**



Boat Wreckage Close Up (Ft Myers Beach)







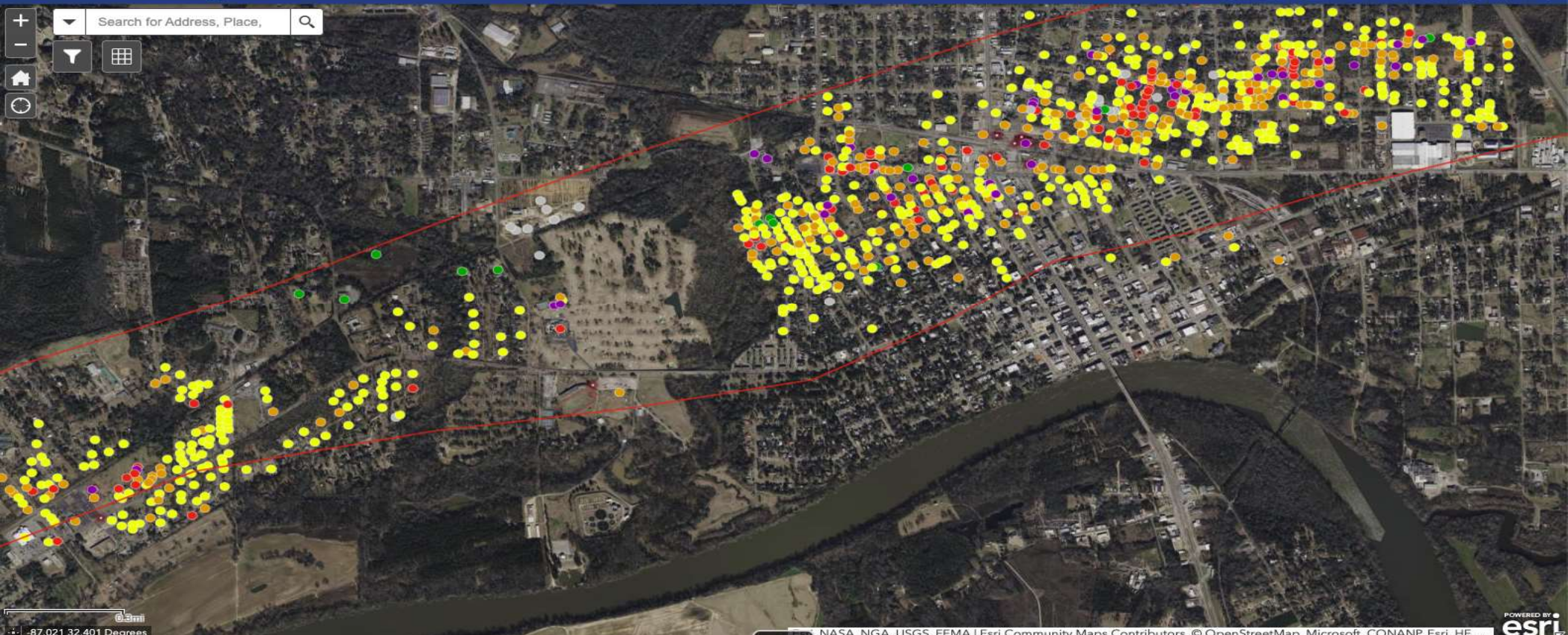
# CAP Geospatial Team Supports FEMA Geospatial Assessments

## Tornado - Selma, AL

### 16 January 2023



GSDA - Assessment Application

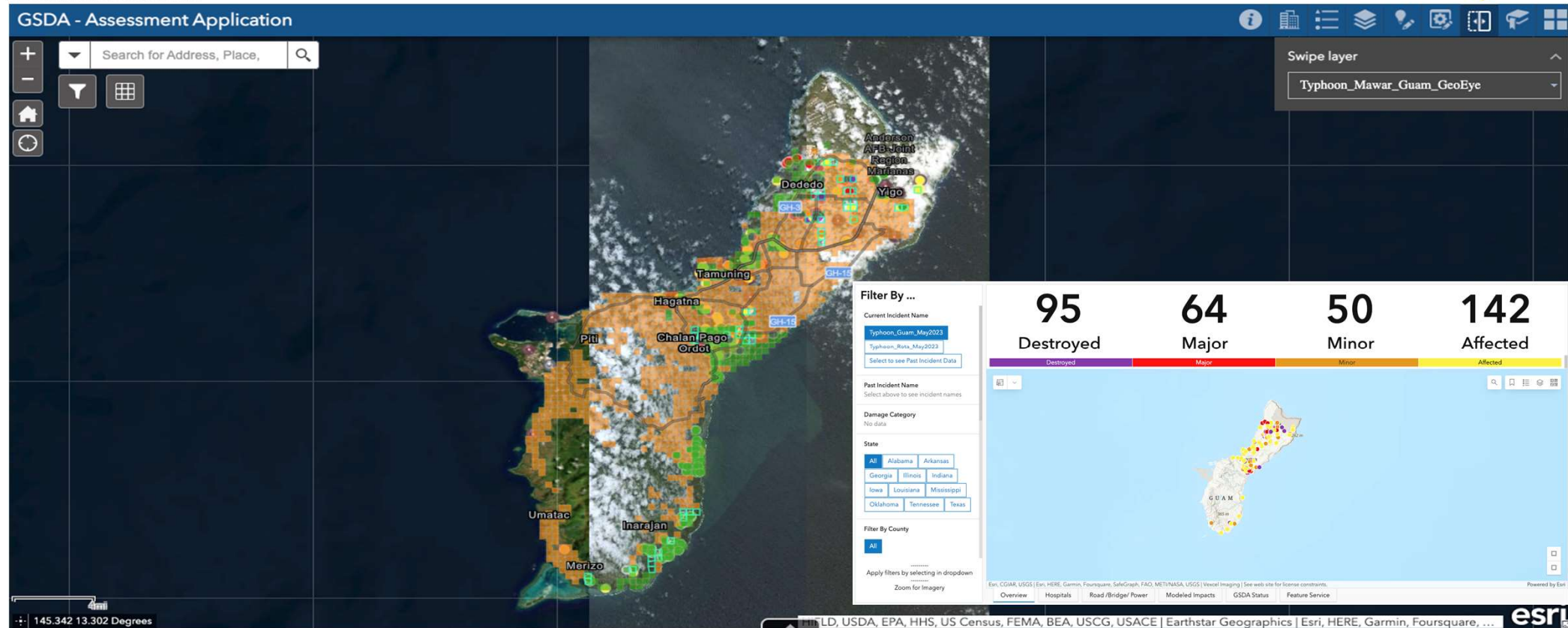




# CAP Geospatial Team Supports FEMA Geospatial Assessments

## Super Typhoon Mawar – Guam

### 26-27 May 2023

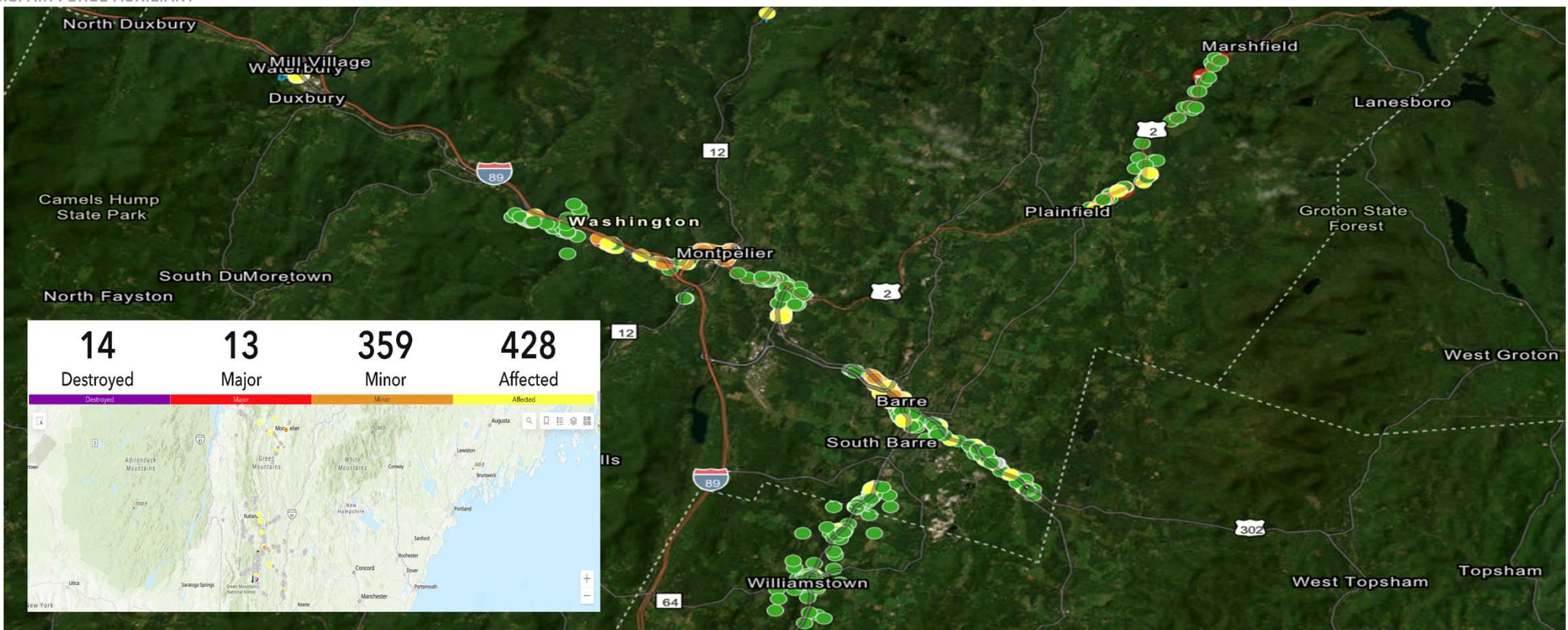


Volunteers Serving America's Communities, Saving Lives, and Shaping Futures.



CIVIL AIR PATROL  
U.S. AIR FORCE AUXILIARY

# CAP Geospatial Team Supports FEMA Geospatial Assessments Flooding – Vermont



*Volunteers Serving America's Communities, Saving Lives, and Shaping Futures.*



# Cell Phone Forensics

## Provides:

- 24/7 - 365 day/year support.
- Directed by Air Force Rescue Coordination Center at Headquarters 1<sup>st</sup> Air Force.
- Supports local, county, state, and federal public safety agencies including the National Park Service and the Coast Guard.
- Since 2006 team has supported 2779 missions credited with 1379 "finds" and 841 "saves."





CIVIL AIR PATROL  
U.S. AIR FORCE AUXILIARY

# Point of Distribution (POD) Support



ONE CIVIL AIR PATROL | EXCELLING IN SERVICE TO OUR NATION AND OUR MEMBERS



# Logistics Movement and Support





# Blood Support Mission

## *Operation Pulse Lift*



Provides:

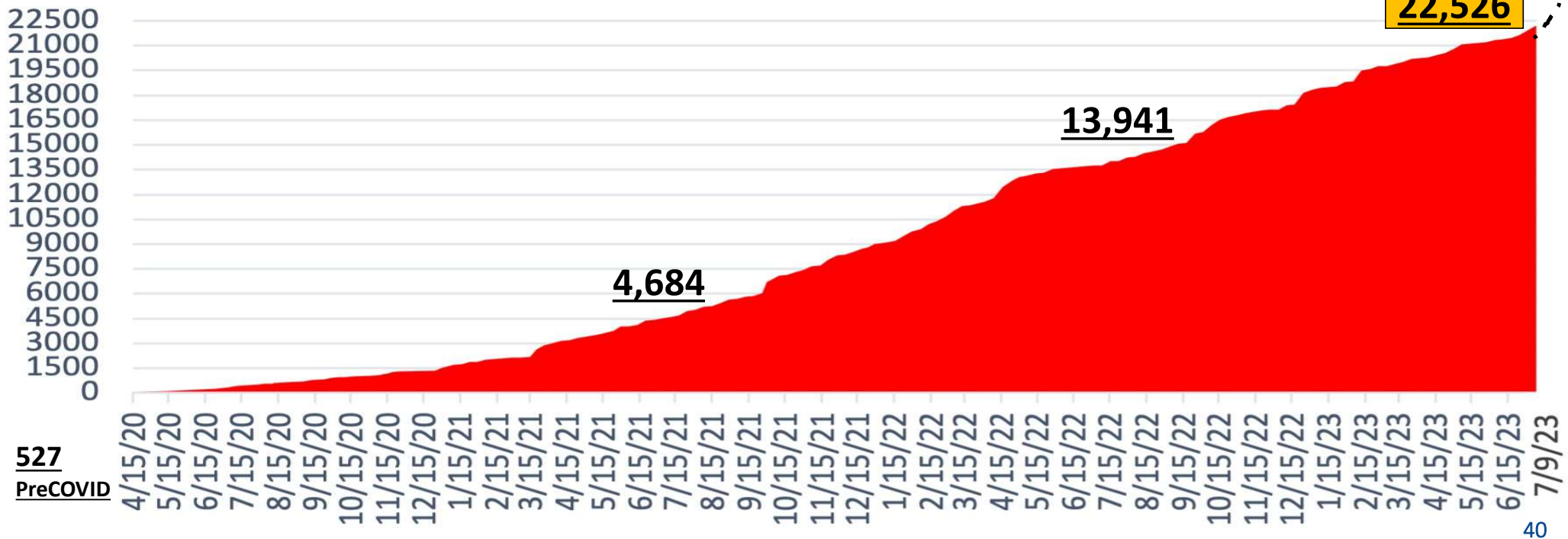
- Facilities and trained Blood Support Teams (BST) to set up and operate temporary CAP Blood Donor Centers (BDC) (AL, AZ, CO, IA, KY, NC, IL, IN, NY, OK, PR, TN, TX, SC, VA, and WY).
- A nation-wide walking blood bank of donor/members
- Air & ground transport support for the Armed Services Blood Program, the American Red Cross, and other blood management agencies.
- Augmentation at Air Force/Army/Navy blood collection sites
- Augmentation of American Red Cross and other blood collection sites





# Operation Pulse Lift Blood Units Donated

Mission Goal Date: 31 Dec 2023  
Goal: **25,000** Units of Blood







CIVIL AIR PATROL  
U.S. AIR FORCE AUXILIARY

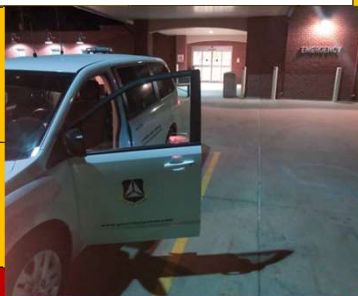
# *Operation Pulse Lift*

## What Else Have We Supported?



Hundreds of Blood Transports

Wildfires in CA & OR  
2020 & 2021



Quad-State Tornado Outbreak  
Dec 2022



NY Snow Storms



Winter Storms in OK & TX  
2021



Hurricanes Laura in TX & LA - 2022  
Ian and Nicole in FL - 2022



Emergency Blood for Kabul  
Airport Attack Casualties  
August 2021

COVID-19 Response Across nation  
2020-2023





# Posse Comitatus Act

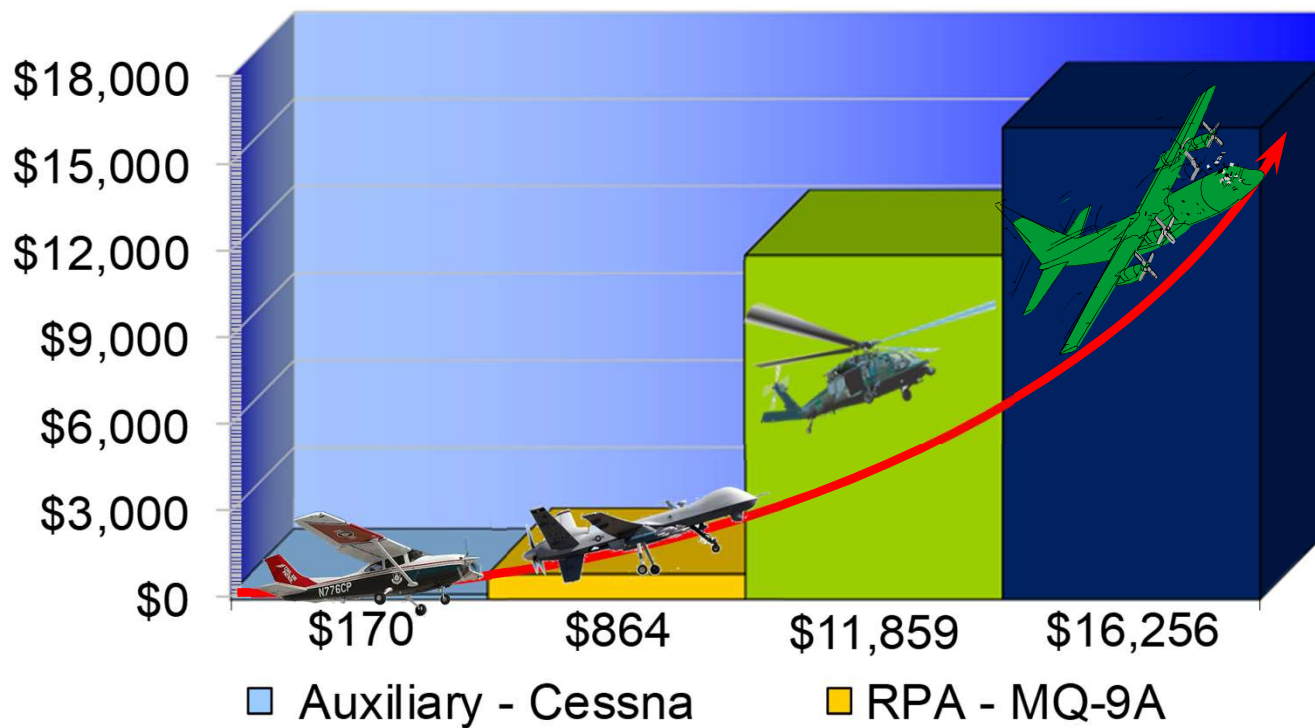


Cannot:

- Search individuals/vehicles
- Seize
- Arrest
- Interrogate
- Direct Law Enforcement Activities



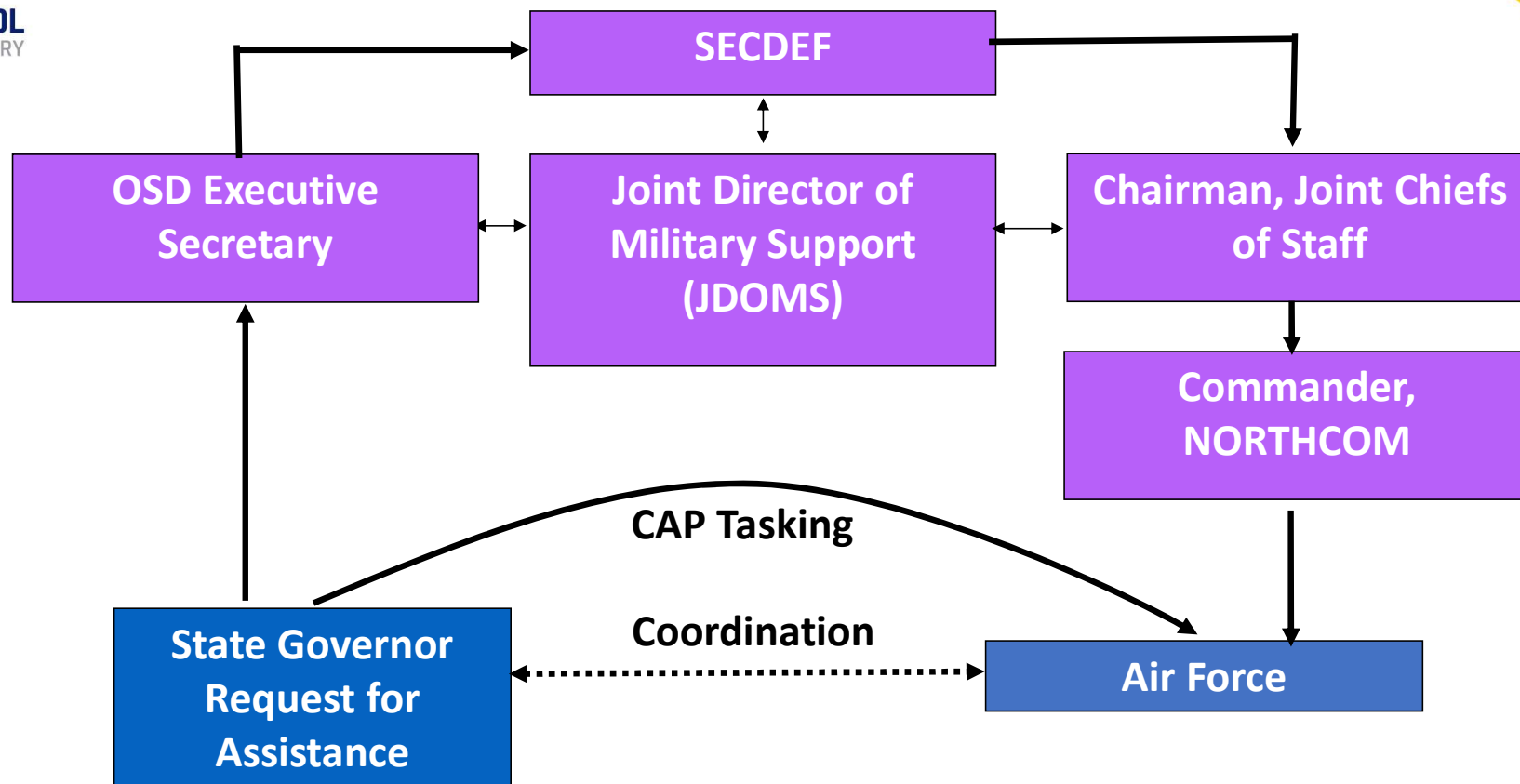
# Cost Effective Force Multiplier



Notes: Chart shows average cost per flying hour  
CAP normally receives agency mission funding via a MIPR

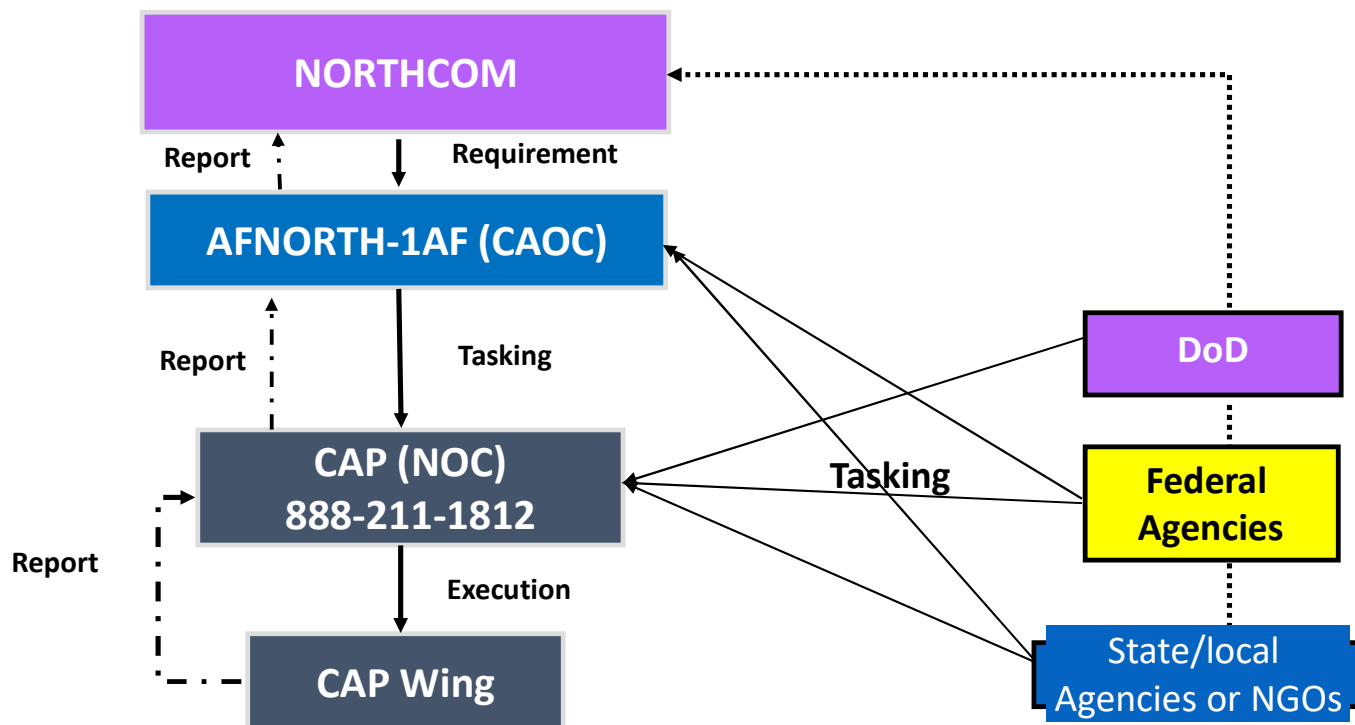


# Defense Support to Civil Authorities CAP Advantage





# Request for Forces



**CAP Remains Under Military Operational Control**



# Bottom Line



- CAP is ready, willing and able to assist
- CAP volunteers are trained professionals who will work to meet your requirements
  - Airborne Reconnaissance & Imagery
  - Blood Transport and Team Augmentation
  - Chaplain Services
  - Communications Support
  - Disaster Mental Health Response Teams
  - Operations Center Staffing/Augmentation
  - Shelter & PODs Management
- CAP is a cost-effective force multiplier

# QUESTIONS?



**CIVIL AIR PATROL**  
U.S. AIR FORCE AUXILIARY



**CIVIL AIR PATROL**  
U.S. AIR FORCE AUXILIARY

# **Mission**

# **Capabilities Briefing**

**Dr. Bob Ditch, CEM**  
**Director of Emergency Services**  
**Rocky Mountain Region**

**18 July 2023**





# Backup Slides



**CIVIL AIR PATROL**  
U.S. AIR FORCE AUXILIARY



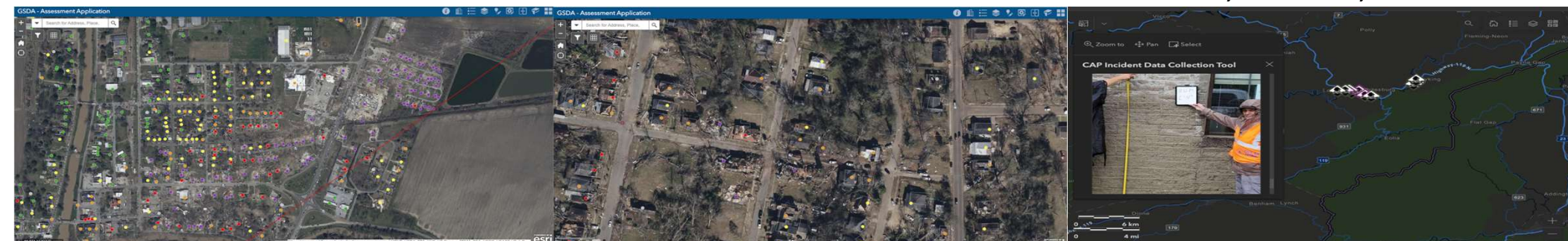
**CIVIL AIR PATROL**  
U.S. AIR FORCE AUXILIARY

# CAP Geospatial Program

Geospatial Damage Assessments  
Events since Sep - 2022



Event	Start Date	End Date	Wings Involved	# CAP Members Involved	Total Days	Total Hours	# of Assessments	# of Grids Completed	Presidentially Declared
Hurricane Ian	9/28/22	10/6/22	36	119	9	1217.9	23,800	42,324	Yes
Hurricane Nicole	11/13/22	11/15/22	24	42	2	239.4	5,959	5,712	Yes
New Orleans Tornado	12/16/22	12/16/22	2	3	1	16	594	409	No
Selma AL Tornado	1/12/23	1/15/23	2	3	2	44	1,489	663	Yes
GA Tornado	1/12/23	1/15/23	2	3	1		2,138	2,094	Yes
Houston Tornado	1/24/23	1/26/23	1	2	3	20	3,810	565	No
Mississippi Tornado	3/25/23	3/28/23	8	11	2	96	5,526	865	Yes
Midwest Tornadoes	3/31/23	4/3/23	26	42	4	289.4	14,014	2,078	Yes
Oklahoma Tornadoes	4/20/23	4/22/23	1	2	3	17.5	2,267	313	Yes
<b>Totals</b>						<b>1956.2</b>	<b>282,128</b>	<b>91,464</b>	

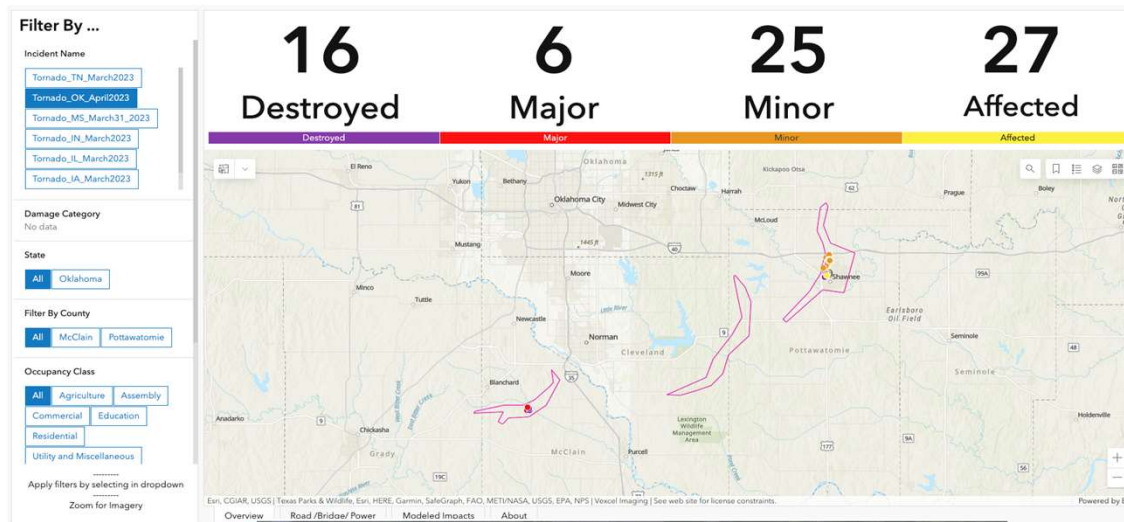




CIVIL AIR PATROL  
U.S. AIR FORCE AUXILIARY

# CAP Geospatial Team Supports FEMA Geospatial Assessments

## 20 April 2023 Oklahoma Tornadoes



Volunteers Serving America's Communities, Saving Lives, and Shaping Futures.



CIVIL AIR PATROL  
U.S. AIR FORCE AUXILIARY

# Blood Stats

## Operation Pulse Lift



- ❑ 12 April 2017 – 31 December 2019: **527 Blood Units**
- ❑ 15 April - 31 December 2020: **1,530 Units**
- ❑ 1 January – 31 December 2021: **7,493 Units**
- ❑ 1 January – 31 December 2022: **8,783 Units**
- ❑ 1 January – 11 May 2023: **2,785 Units**
- ❑ 12 May – 31 December 2023: **1,408 Units**
- ❑ Total Units Collected: **22,526 Units**

COVID  
Response

- ❑ CAP COVID Donor Center Events:

**329**

- ❑ Wings Participating **52+NHQ**
- ❑ Blood Transports: **402**
- ❑ Collection Centers Supported: **45**



**TXWG Cadets  
Joint Base – San Antonio**



**AERONet-Connected Command & Control**

**Multi-Domain Mission Execution**

**US Air Force Chief of Staff:**

Rapidly build and demonstrate a tactical network that is  
Exportable | Affordable | Secure

**Exportable**

- US gov-developed TAK software
- TAK internationally releasable
- Commercial security
- Internationally used radios
- COTS tablets, smart phones, WiFi

**Affordable**

- No integration into avionics of weapon systems or aircraft systems
- Individually scalable
- Prototype will be priced based on scale of interest

**Secure**

- Commercial encryption
- AES 256 (Bank-level security)
- No field keys to guard/secure
- 'Chattermark' capability
- Compromised nodes can be turned off/disabled

**Mission Employment**

- Accelerates information flow
- Increases precision of ops
- Reduces workload by mission info push into tablets
- Connectivity ensures currency



**Platform-Independent Prototype**



**Aircraft Rapid Prototype Package**



**Intuitive Interface  
Personal Common Operating Picture**



**Dismount Kit**



**Airborne Extensible Relay Over-horizon Network (AERONet) is a tactical network that provides Live, Shared Situational Awareness**



**Independent Platform Integration  
Carry Tablet from Intel Brief to Mission, with Live Intel**