

Civil Air Patrol



CAP Geographic Information Systems (CAP GIS)

Capt Scott Kaplan
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Why GIS?



Tasked by CAP/DO to explore FEMA requirement

- FEMA requested CAP provide GIS support for natural disasters
- Support IC's in the field to improve situational awareness
- Provide a new skill set for Senior Members and Cadets to support external and internal CAP GIS

The screenshot shows the homepage of the "Disasters.GeoPlatform.Gov" website. At the top, the text "DISSEMINATION: DISASTERS.GEOPLATFORM.GOV" is displayed in green and black. Below this is a header image of a satellite view of a hurricane with the word "Disasters" and the subtitle "Geospatial Information for Disaster Response". A "Learn More" button is visible. Underneath is a "Featured" section with three main tiles: "California & Nevada Flooding" (showing a bridge over a river), "Carr Wildfire" (showing a large fire at night), and "Damage Assessments" (showing destroyed buildings). Below these are smaller thumbnails for "Hurricane Incident" and a city skyline.



What We Traditionally Provide

“We worked with FEMA who now hosts all of our publicly available imagery as part of their [GEOPlatform](#). We took close to half a million photos for hurricane season alone last year.” John Desmarais – CAP Director of Operations



Recent CAP Images

FEMA

2,023 Photos In Display

Page: << 1 of 85 >>

Sort By: Nearest

Sort By: Nearest

Sort By: Nearest

Sort By: Nearest

POWERED BY esri

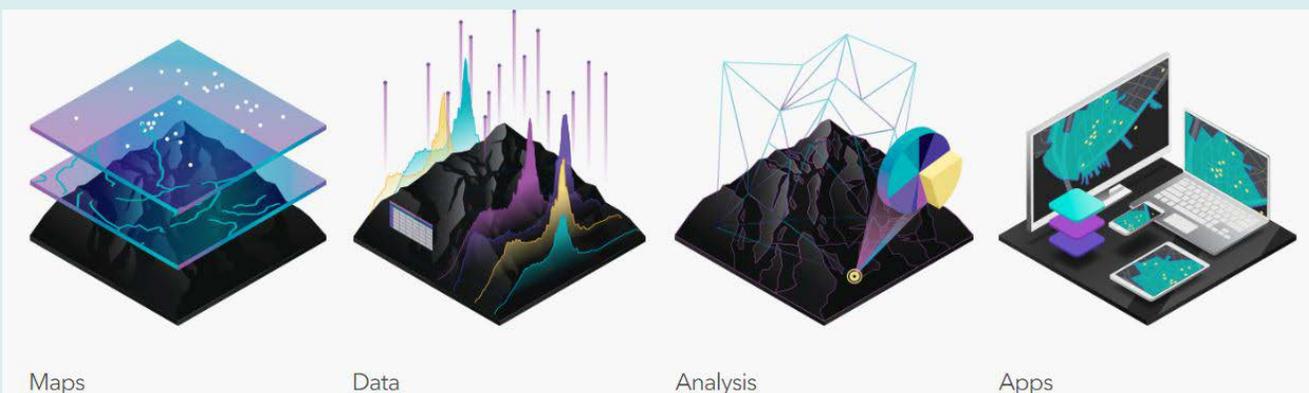
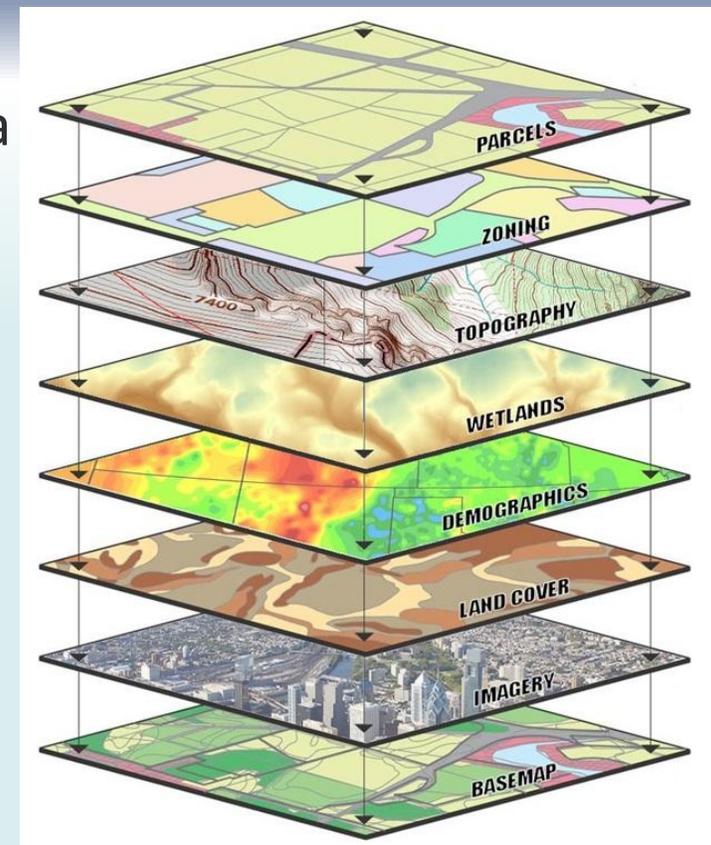
Earthstar Geographics | Esri, HERE, Garmin, FAO, NOAA, USGS, EPA

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GIS Defined



- Geographic Information Systems (GIS):
 - Evaluate geospatial data—imagery, maps, geographical data
 - A framework for gathering, managing, and analyzing data
 - Rooted in the science of geography, GIS reveals deeper insights into data, such as patterns, relationships, and situations—helping users make smarter decisions



Maps

Data

Analysis

Apps

GIS Strategic Plan for CAP



- CAP GIS will support FEMA during disasters
 - We will continue imaging operations, exploit imagery from CAP and other agencies and will conduct damage assessments from imagery
 - Support FEMA personnel with story maps, studies, estimates, and reporting
- Internal to CAP:
 - Support visualization of CAP assets and readiness
 - During an incident, GIS analysis provides insight for SAR/DR operations
- Story Map example: <https://arcg.is/iv8in>

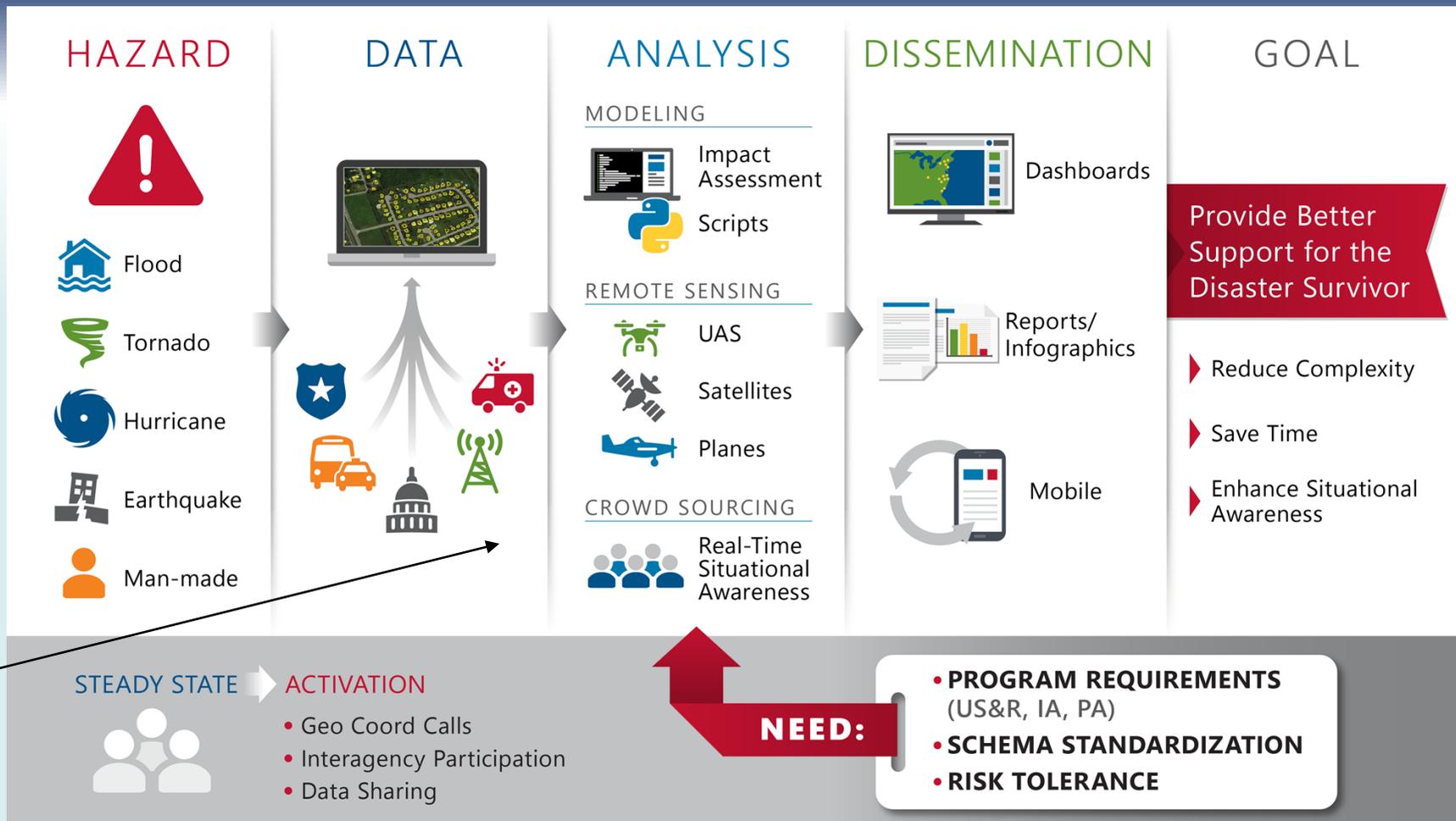


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Future GIS



- Support CAP during normal operations and FEMA during Disaster Events



Training



- Provide a path for Senior Members and Cadets to gain GIS skills, a high in-demand career path
- Follow FEMA National Qualification System for SQTRs
- Standards for training and accreditation
- Develop skills in ArcGIS and Open Source GIS products

Incident Support	Required Training	Required FQS Experience	Minimum Required Deployment History	Demonstrate Behavior
Geographic Information System Specialists (GISP)	<ul style="list-style-type: none"> ▪ E/L/B 190 ArcGIS for Emergency Managers ▪ IS-103 Geospatial Information Systems Specialist ▪ IS-922 Applications of Geospatial Information System (GIS) for Emergency Management ▪ E/L/B 313 Basic HAZUS - Multi-Hazards (MH) 	None	Not Defined	<ul style="list-style-type: none"> ▪ Operate specialized hardware and software applications ▪ Generate geospatial products ▪ Manage geospatial data ▪ Comply with established policy and protocols ▪ Provide geospatial coordination and customer service



Course of Actions

Strategic Focus

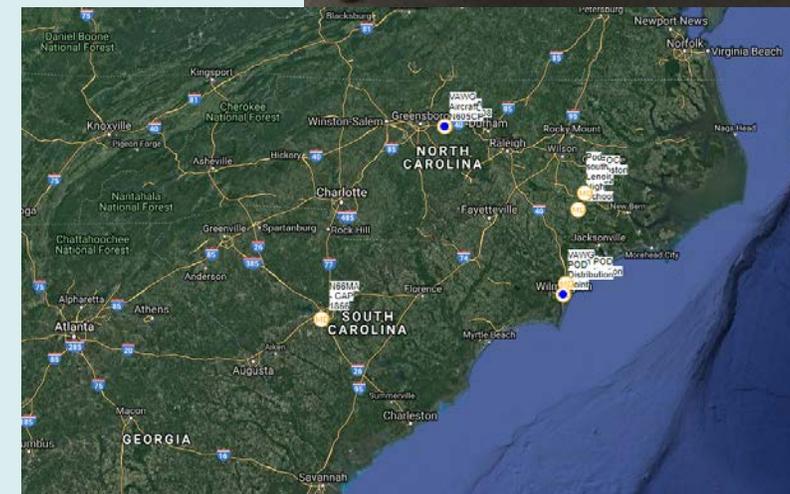
- Focus externally on FEMA and internal to CAP
- Conduct small group pilots to demonstrate examples of each scenario

Technical

- CAP looks at using ESRI software as financials permit, as well as Open-Source Software; i.e. NOME

Training

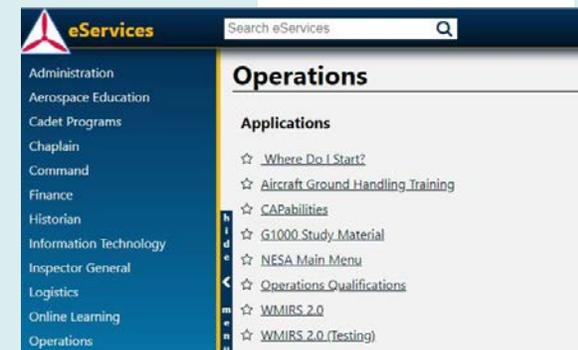
- Create a GIS Ops Qual
- Leverage FEMA National Qualification System



What Next

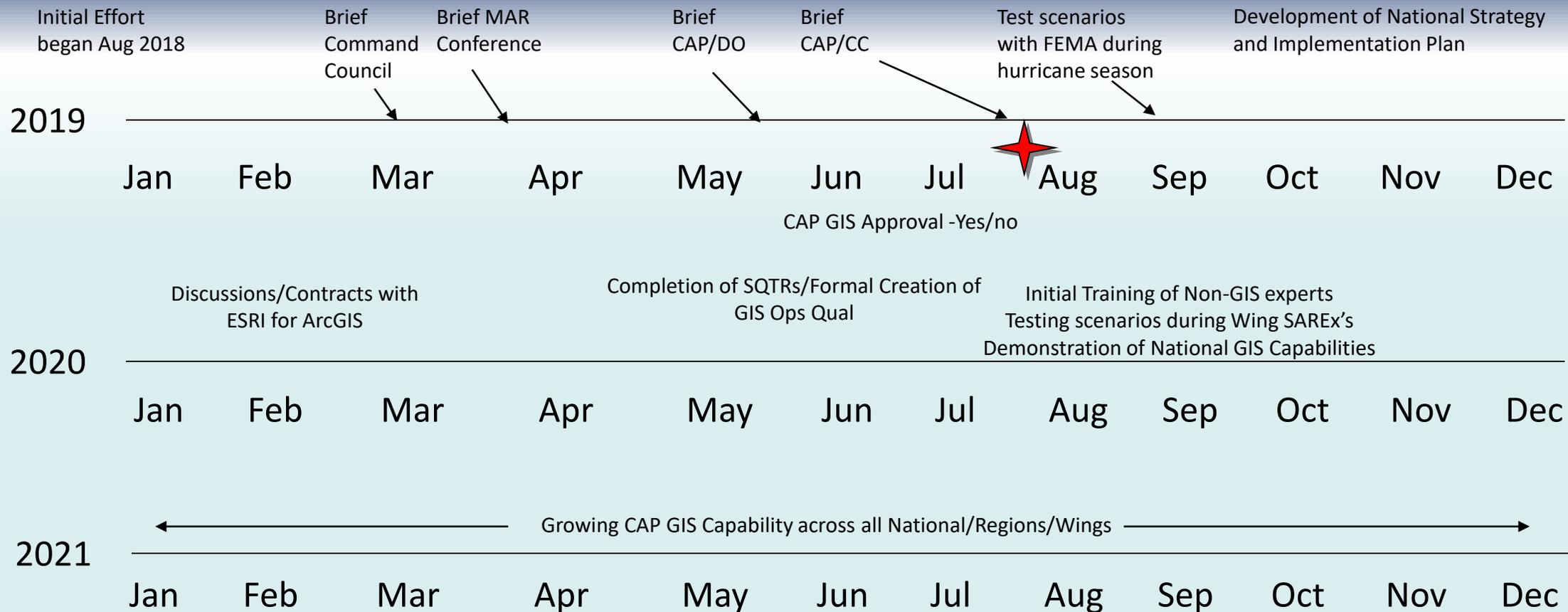


- Presented CAP GIS to Command Council, 1-2 Mar 19
- Brief to MAR Conference, 30 Mar 19
- Brief to CAP/DO, 14 May 19
- Decision by CAP/CC - approved CAP GIS Operations Track and National CAP GIS effort
- We need feedback...who is already doing GIS...join our community – reach out to all Wings
- Current CAP GIS Team Members – VA, MD, PA, NATCAP, PR, GA, TX and NJ Wings; vetting additional members





CAP GIS Development Schedule





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Current CAP GIS Team

Senior Advisor for Cyber and Geospatial

- Bruce Heinlein, Col, MAR

CAP GIS Development Lead

- Scott Kaplan, Capt, MAR-VA Wing

Mid-Atlantic Region

- Mike Zabetakis, Maj, MD Wing
- Cole Brown, Capt, MD Wing
- Thomas Litant, Capt, VA Wing
- Chris Deforge, VA Wing
- Sarah Nutbrown, Capt, VA Wing
- Robert Nicholson, Capt, NatCap Wing

Northeast Region

- Nik Hawley, 1st Lt, PA Wing
- Brian Cuce, Lt Col, PA-Wing
- Michael Carter, Lt Col, NJ-Wing
- Shy Rotem, Capt, NJ-Wing

Southeast Region

- Juan Rodriguez, Lt Col, PR Wing
- Daniel Routier, Lt Col, GA Wing

Southwest Region

- Scott Wylie, Maj, TX Wing

External Support

- Mr. Chris Vaughan, FEMA GIS Lead
- Mr. Glen Russell
- Ms. Catherine Bohn
- Mr. Carl Anderson