Achieving Total and True Commonality with Collaboration Across Stakeholder Common Operating Pictures (COPs)

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June 3, 2014

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Challenges (Systems & Data)

"We can't access and display their information because we can't get it into our system."

Maryland Emergency Management Agency

"Every state's systems are different which makes it difficult to share information."

All Hazards Consortium

The National Weather Service's (NWS) new mission is to provide Impact-based Decision Support Services (IDSS) to its partners…to shift from product focused service to interpretation and consultation. Deliver information in a way that conveys its potential impact to support good decision-making and planning.

National Weather Service Roadmap v2.0

US Coast Guard Report released April 3, 2014 found:
Shell Was Underprepared for Ill-Fated Tow Across Gulf of Alaska…."inadequate assessment and management of risks" was the biggest cause of the Kulluk grounding.

US Coast Guard Report April 3, 2014

Challenges

"After Sandy it became very obvious that a sustained dialogue is critical to build trust and achieve common objectives."

"…and joint development of data sharing products to improve situational awareness and decision-making."

REGIONAL FLEET MOVEMENT COORDINATION INITIATIVE

The Regional Fleet Movement Coordination Initiative was the result of an aggressive goal to share information faster between states and the electric sector in order to expedite power restoration efforts across a wide geographic region.

Challenges

224 pages

2.2.1 Authoritative Data

For the purpose of the GeoCONOPS, authoritative data owned and/or produced by the federal entities supporting the NRF is defined as follows:

- **Rational Authority.** Government agencies are by default the "authoritative" sources for data or services that they produce, or have a statutory responsibility for.
- **Expert Authority.** Scientifically authoritative data is defined in the realm of the various professions under which the standards and methodology for data are created.

These classifications provide clarity beyond the frequent notion that an authoritative data source is simply the entity trusted because of a subjective belief that it is the "best" or "most accurate" source for a specific data theme. The owner or authoritative source of any geospatial data is responsible for defining the business rules for the access and sharing of that information across the stakeholder community. The data provider should identify restrictions that may inhibit the mission at For Official Use Only (FOUO) level, and establish classification at lowest level possible. Data users should abide by the established rules to ensure seamless coordination.

Appendix B of the GeoCONOPS provides a detailed list of Authoritative Data.

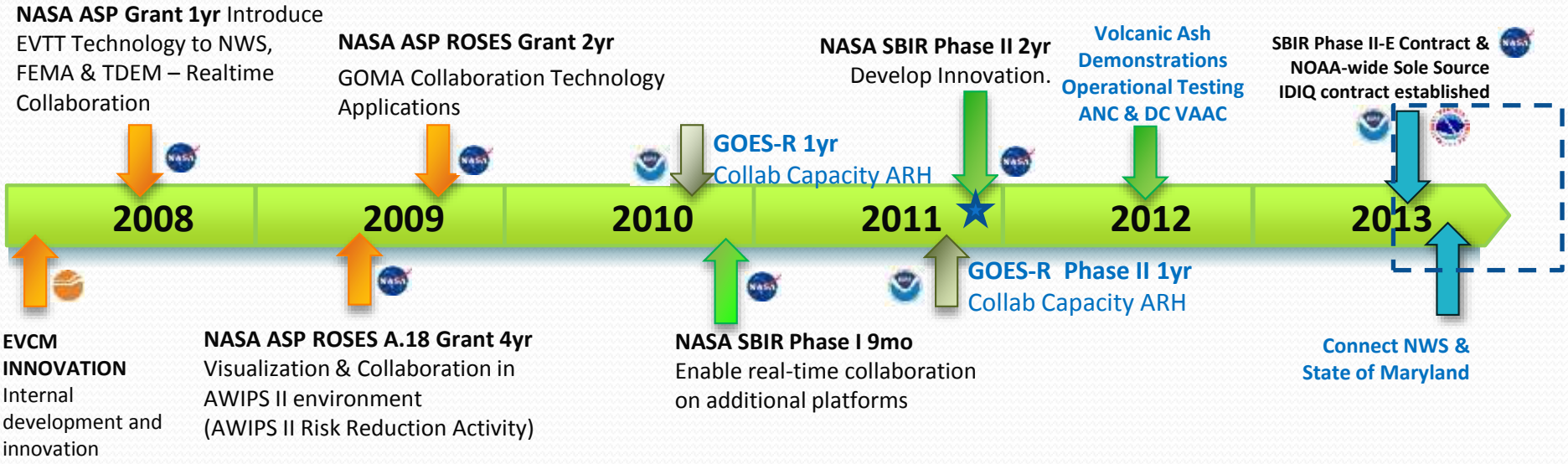
2.6 Information Sharing and Data Dissemination

Pre- and post-event information is shared across the geospatial community through multiple tools and systems. The individuals involved are aware of the information requirements of the situation and the data that is available to them. Ideally, our data management systems should be sharing this information in near real-time; however, data sharing frequently occurs at the human-to-human level. As technologies supporting information sharing and data dissemination evolve, our requirements to share information through email and portable media should continue to diminish.

"…Ideally, our data management system should be sharing this information in near real-time, however, data sharing frequently occurs at the human-to-human level. As technologies supporting information sharing evolve….our requirements to share information through e-mail and portable media should continue to diminish."

StormCenter Geospatial Collaboration Technology Evolution 2008-2013

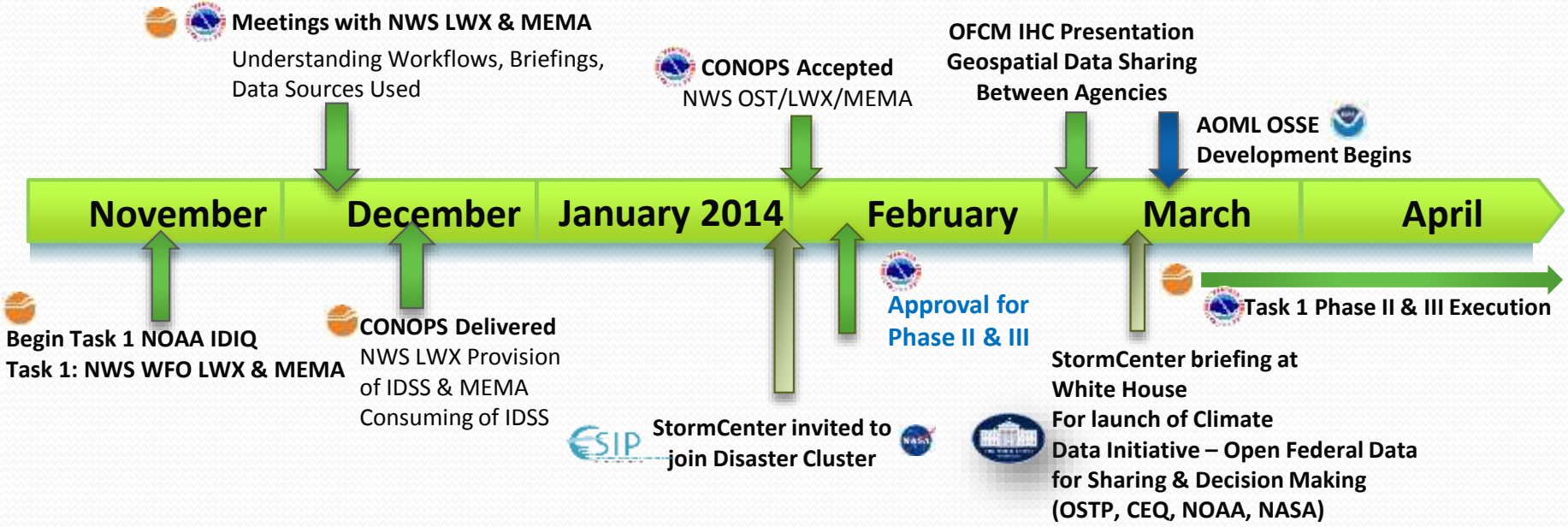
Transition of Innovation to Operations



★ Down-selected to Federal Government-wide sole source contract vehicle (NNX12CA85C)

StormCenter Geospatial Collaboration Technology Evolution 2013-2014

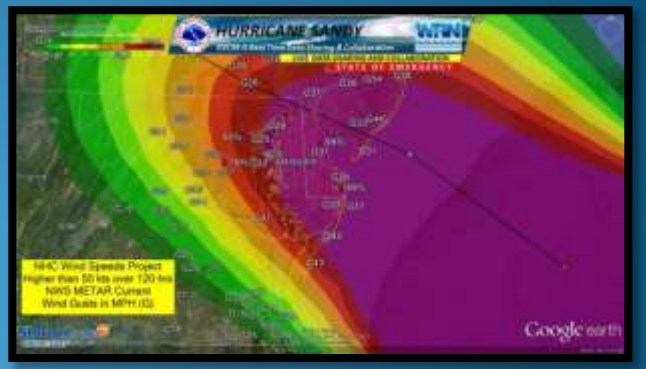
NOAA-wide sole source IDIQ contract DG133W-13-CQ-0041

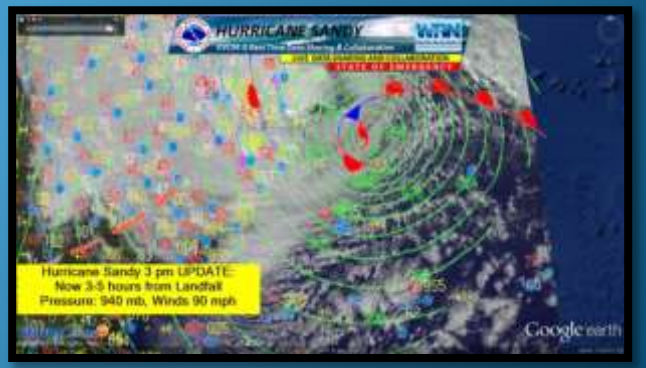


NWS Task – Connecting Federal & State Agencies

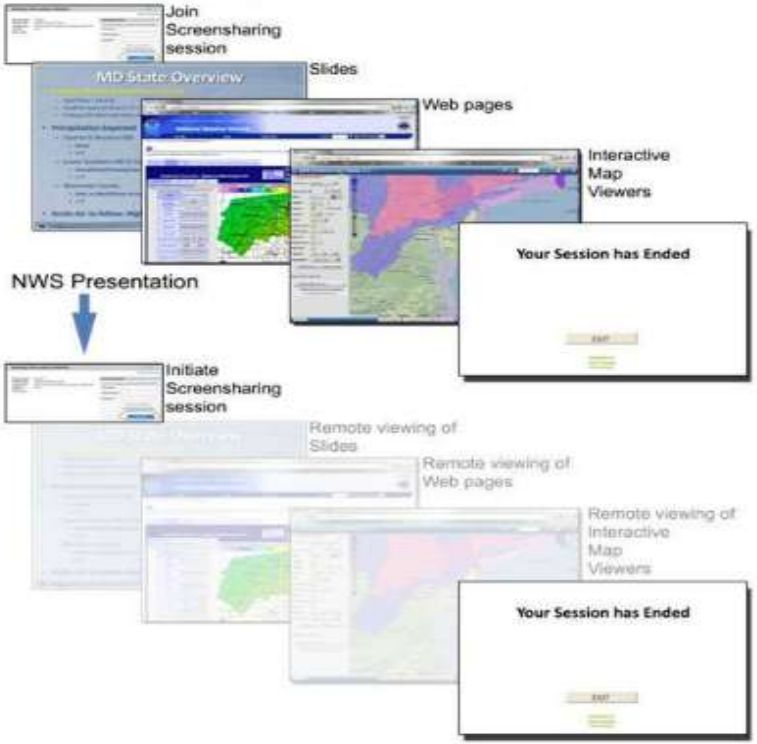
Sandy Supplemental Appropriation

- Geospatial Data Sharing & Collaboration
  - NWS Eastern Region – Sterling WFO
  - Maryland State EOC - MEMA
  - Enabling NWS to share geospatial data products directly from their AWIPS Thin Client
  - MEMA receives products in real-time via EXISTING OSPREY system
  - LIVE updates from NWS to MEMA
  - Connecting Disparate COPs
  - Addresses PEO 13653 (Eric Letvin spoke about earlier)





Connecting Federal & State Agencies



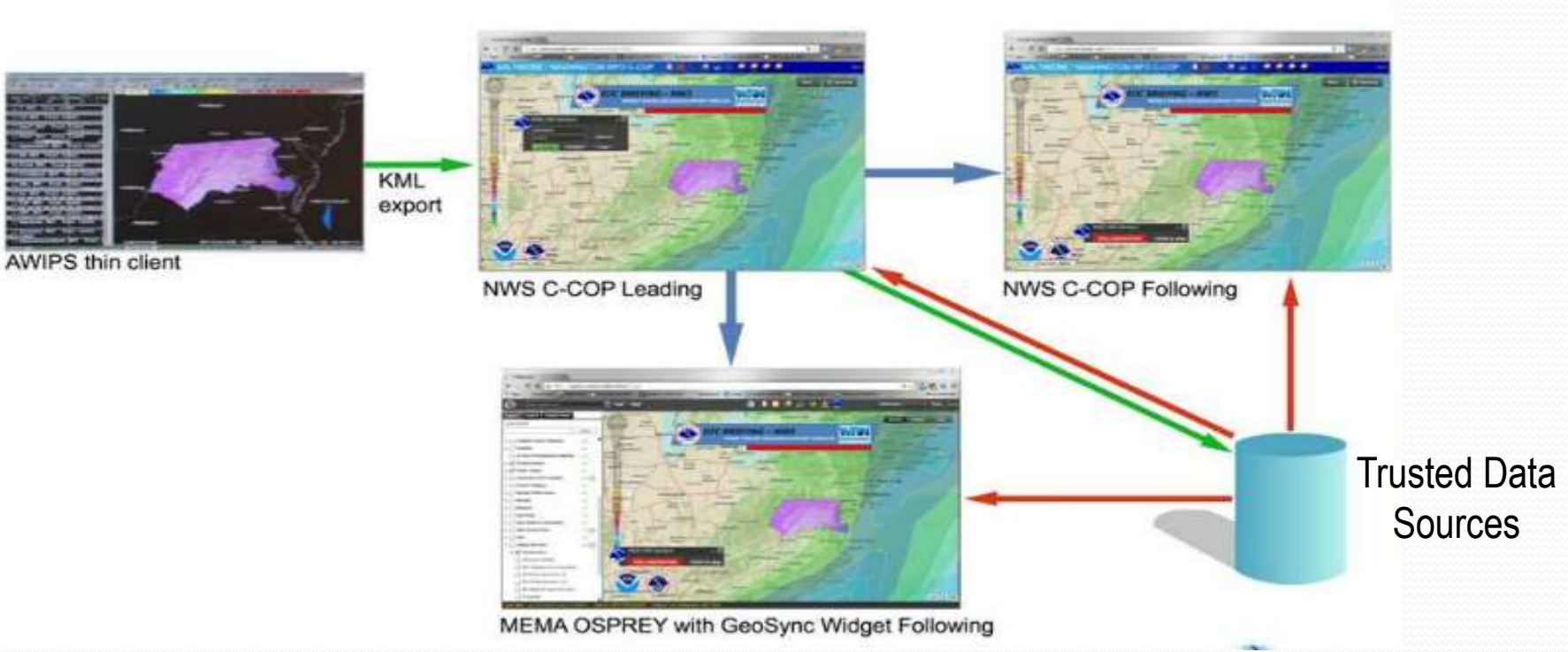
Current Screen-Sharing Technologies:

- Web-Ex, G2M, Adobe Connect, etc.

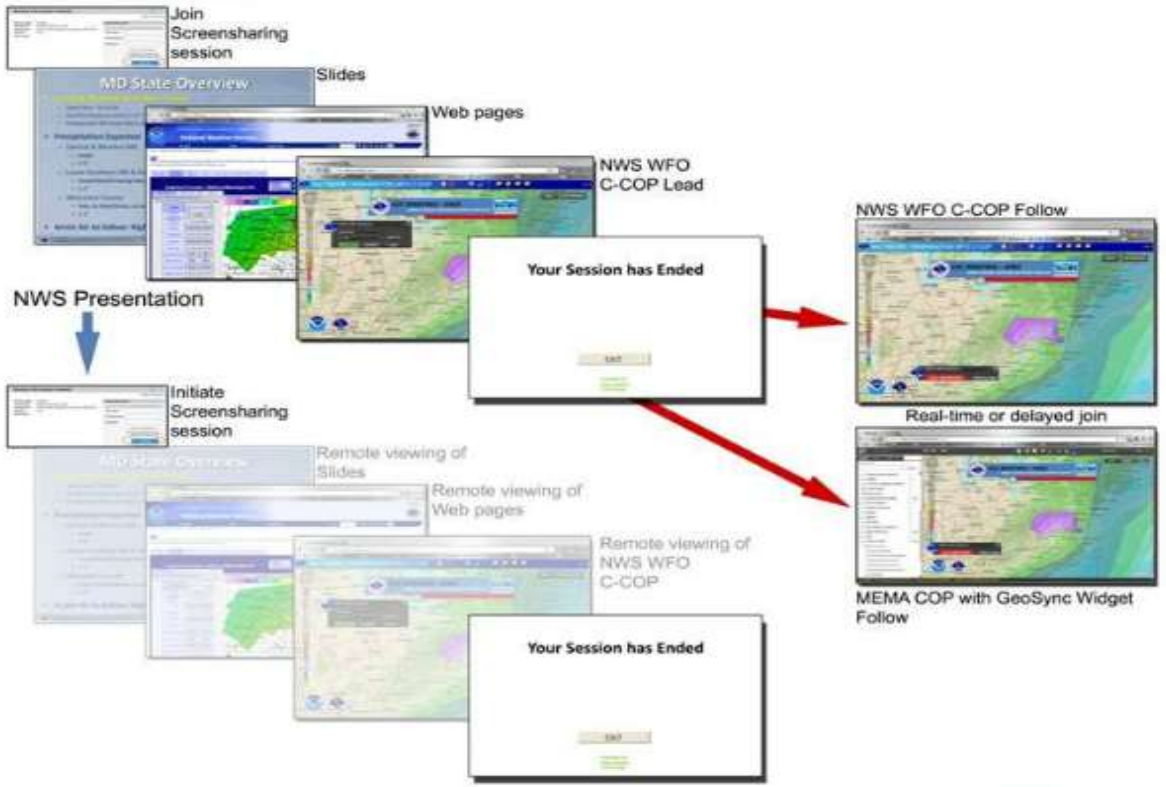
Limitations

- When screen sharing session Ends
- "Your Session has Ended"
- No further information
- Presentation content must be downloaded from somewhere or e-mailed (if file size is manageable)

Connecting Federal & State Agencies



Connecting Federal & State Agencies



StormCenter Geospatial Data Sharing Technologies:

- GeoSync – One to Many
- GeoCollaborate – Exchange Leadership
- GeoSession – Session Based

Limitations of Screen Sharing

- When screen sharing session Ends
- "Your Session has Ended"
- No further information
- Presentation content must be downloaded from somewhere or e-mailed (if file size is manageable)

Connecting Federal & State Agencies

Geospatial Data Sharing & Collaboration:

- Continuity of Operations
- Leveraging Agency Datasets
- Promotes Open Government

Benefits of
Collaborative Decision Making (CDM):

- Same Map at the Same Time
- Shared Data Across Platforms
- Accelerates Situational Awareness
- Accelerates Decision Making
- Leverages Common Operating Pictures already in use
- BIG DATA put to use across agencies and partner organizations

Tech Surge – Old Dominion University, Hampton Roads, VA
Geospatial Data Sharing & Collaboration Technology to Build Resilient Communities

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Connecting Federal & State Agencies

Geospatial Data Sharing & Collaboration:

- Enabling Provision of IDSS
- Leveraging Authoritative Agency Datasets
- Promotes Open Government

Benefits of Collaborative Decision Making:

- Unified Modeling, Mapping & Integration
- Same Map at the Same Time
- Shared Data Across Existing Platforms
- Accelerates Decision Making
- Leverages Common Operating Pictures already in use
- BIG DATA put to use across agencies and partner organizations

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As Awareness Increases…

HAMPTON ROADS MILITARY AND FEDERAL FACILITIES ALLIANCE

NOAA

Inside Business
The Hampton Roads Business Journal

DAMAGE CONTROL Feds to do pilot study in Hampton Roads on sea level rise

View | Repeats

Updated: May 16, 2014 - 3:36 pm
Posted: May 16, 2014

By Lydia Wheeler
lydia.wheeler@insidebiz.com

We have the attention of the White House.

Thanks to the president's executive order on climate change last November and grassroots efforts locally to address sea level rise, the federal government has decided to do a pilot study in Hampton Roads to monitor the changing water levels, determine how it will impact our Navy bases and waterfront communities, and find ways to adapt. Old Dominion University and the Hampton Roads Planning District Commission are leading the charge.

A car is stranded in a flooded Colley Avenue underpass in Norfolk on Friday morning. [Bill Tiernan/ The Virginian-Pilot]

The Washington Post

In Norfolk, evidence of climate change is in the streets at high tide

View Photo Gallery — Norfolk wrestles with rising waters, sinking options: Effects of climate change are visible every high tide, but federal help for costly fixes is hard to come by.

By Lori Montgomery, Published: May 31 E-mail the writer

Tech Surge – Old Dominion University, Hampton Roads, VA
Geospatial Data Sharing & Collaboration Technology to Build Resilient Communities

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Cross-Alliance Coordination

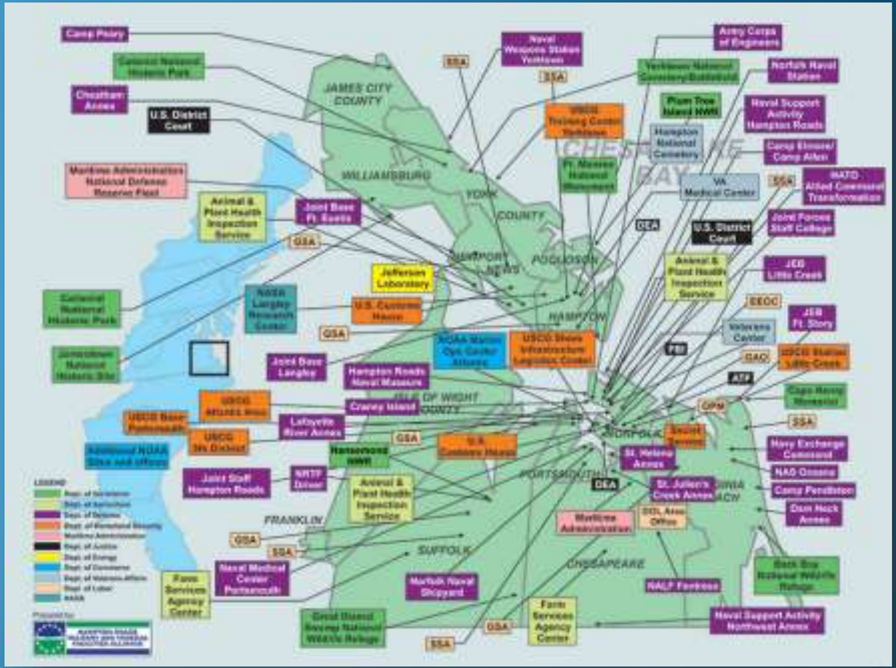
HAMPTON ROADS MILITARY AND FEDERAL FACILITIES ALLIANCE

NOAA

Real-Time Collaborative Environment

Desired Outcomes of Tech Surge

- Existing Tools to Support Coastal Resiliency
- New tools to be developed with partners
- Identify lacking technology and a plan to seek opportunities and development



Unified Modeling, Mapping & Integration

Connecting Federal + State + Local Agencies

Platform Independence Means

- Continuity of Government & Operations (Their COPs)
- Cross-State Data Sharing & Virtual Training
- Federal to State to Local Coordination
- ‘Shared Federal Briefing’
- Multi-State Fleet Response
- Geospatial Data Sharing
- Adapts to “Mobile Society”
- Building A Resiliency Foundation

Everyone on the Same Map at the Same Time

Tech Surge – Old Dominion University, Hampton Roads, VA
Geospatial Data Sharing & Collaboration Technology to Build Resilient Communities

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Connecting Federal & State Agencies (A Vision of the Future)

Selected as Federal Government's Preferred provider of Geospatial Data Sharing & Collaboration Technologies

Tech Surge – Old Dominion University, Hampton Roads, VA

Geospatial Data Sharing & Collaboration Technology to Build Resilient Communities

Maryland's 2012 Technology Incubator
Company of the Year for Cyber and Homeland Security

StormCenter COMMUNICATIONS, INC.

Summary

- Sea Levels are Rising and Threatening Coastal Communities
- Data Sharing and Real-Time Collaboration has not been available
- Whole of Government Approach including community is essential

- Now: Common Operating Pictures (COPs) can be connected (currently stovepipes)
- Now: Secure Data can remain secure and reach specific credentialed participants
- Now: Existing COPs remain – and become collaborative
- Technology will change the way planning and exercises are conducted, data is shared, platforms used & operational decisions are made
- Technology addresses PEOs, OSTP memo on Data Sharing, Open Data Initiative, PPD-8, DHS GeoCONOPS, Nat. Response Framework (NRF) and Stafford Act Requirements

Summary

- Virginia Tidewater Communities can be connected, share data and build resilience collaboratively including utilities and emergency management agencies
- Storm Preparation can happen across entire area on a common map
- Technology evolution through small business innovation can benefit everyone
- Tech Surge success results in widespread adoption of technologies
- Be happy to demonstrate the technology