Joint Keynote Address:

- Major General William Reddel, New Hampshire National Guard
- Jonathon Monken, Vice-President US Operations, Electric Infrastructure Security Council
Maj. Gen. Bill Reddel,
The Adjutant General of the NHNG
Jonathon Monken
Goals of the Summit

In partnership with the US Department of Homeland Security and state/local agencies, the Summit will convene public safety practitioners and GIS responders from across the Nation – to forge collaboration, enhance (shared) situational awareness capabilities, solve information sharing challenges, and discuss ways to better apply location-enabled decision support tools in planning and operations.
- forge collaboration

“Collaboration Is the New Competition” for Shared Situational Awareness
Form Partnerships:

Tribal Partners, Local, State, Federal

Private Sector

International
enhance (shared) situational awareness capabilities,
Knowledge Management

Allows for vast amounts of **DATA** from diverse sources to be put into **CONTEXT** and transforms it into **ACTIONABLE INFORMATION**
Knowledge Management

Knowledge Management Focus
- Apply
- Decide
- Create
- Assess Risk

Information Management Focus
- Store
- Display
- Protect
- Disseminate
- Process
- Collect

Do we operate above or below the RED line

Under-standing
- Judgment
- Cognition

Knowledge
- UNDERSTANDING

Information
- KNOWLEDGE
- INFORMATION

DATA

- Based judgment & experience
  - what must I decide
  - when must I decide
  - what should the decision be
Geospatial Knowledge Management Path to Decision Making

Knowledge Management Focus
- Shared Understanding
- Identified Threats / Opportunities
- Integrated Perspectives
- Actionable Knowledge

Information Management Focus
- Store / Access
- Display / Analyze
- Consume / Share
- Disseminate
- Process
- Collect

Geospatial Analytical Tools

Decision Making Process
- Problem Solving and Synchronization
- Operations Plans
- Development
- Orders Creation
- Directives
- Response Action

Value Added Data
Rest Services
Map Layers
Situational Awareness

Shared Situational Awareness

Sense Making

Geospatial layers

Civil-Military Cooperation for Domestic Operations Role of the National Guard

- DoD Title 10
- DHS/FEMA
- State National Guard
- State Emergency Management and Response Agencies
- Inter-Community Mutual Aid
- Local Communities, First Responders

Frequency
Severity

Information Sharing/SSA
Limit the Impact
Improve the Response
Save Lives and Protect Property
Kick Start the Recovery
solve **information sharing** challenges,
Challenges

- Policies – This is not an IT problem, it’s a governance problem so establish a common set of policy or ground rules for information sharing

- Firewalls (hiding data that does not need to be hidden)

- Integration of all GIS solutions – Don’t focus on standardizing platforms, standardize data


- Recognition that all incidents occur locally. Detailed data is needed by locals more than it’s needed at high levels so push up and down

- Social Media – Don’t be afraid of imperfect data! Time is more important than 100% accuracy.
We can solve the **Challenges** but how can we institutionalize the solution?
and discuss ways to better apply location-enabled decision support tools in planning and operations.

Emerging Technologies
What problems are we trying to solve?

Ground truth

Resource Allocation

Impact Assessment

Predictive Modeling
CUSEC - AAR: Technology

The Central U.S. Earthquake Consortium (CUSEC) was established in 1983 with funding support from the National Earthquake Hazards Reduction Program, the U.S. Geological Survey, and the Federal Emergency Management Agency. CUSEC’s primary mission is to "reduce the effects of seismic hazards on the people of the United States," particularly in the Central United States. CUSEC is a collaborative effort of federal, state, and local governments, as well as universities and other organizations.

This site was developed in partnership with the National Seismic Hazard Mapping Project (NSHMP) of the U.S. Geological Survey (USGS) and is also part of the Virtual USGS Program (vUSGS). The site has been designed to support research and short-term seismic hazard mapping in the United States.

This purpose of the site is to facilitate access to earthquake hazard data, including seismic hazard maps, historical earthquake data, and other relevant information. The site also provides a platform for users to contribute to and share earthquake hazard data.
We have an open-first, web-first strategy, so content can be discovered, accessed, and integrated to its highest potential. As just a first tangible step of embracing our role as an enterprise service provider, last week, two legacy portals closed. The DIA Portal and the NGA GeoWhereHouse Portal were shut down. And GEOINT users have been directed to our ArcGIS Portal.
Each Silo of Excellence had its own COP

Individual efforts are transformed...
Portal Technology

...to collaborative sharing.
For CAPSTONE 14 G&H Partnered with 8 States around the response to an earthquake in the New Madrid Seismic Zone. For the exercise 18 EEI’s were tracked.
Essential Elements of Information – Initial List

Two simple questions:
1) What information do you need most?
2) What information do you own that someone else answered on #1?

Council of Governors: 8
Homeland Security GeoCONOPS: 12
DoD: 3
FEMA: 3
States Public Capability Essential Elements of Information: 18
States National Guard (Planning and Capability Data): 9

Identified 53 essential elements of information requirements that are the foundation of a Homeland Security / Domestic Operations information sharing collaboration
Processes that Streamline Mutual Aid

Don’t forget the “left of boom” work!

Threat, Hazards and Risk Assessment
Response Plans (e.g. earthquake)
Pre-Scripted Mission Assignments
Defining Mission Ready Packages
Request and Acquisition of Mutual Aid
Tracking Missions

Note: The holistic approach integrates planning, operations and local GIS systems
November 17th, 2013 IL Tornado Outbreak

- 25 confirmed touchdowns over 325 miles
- Identify immediate needs
  - Search and rescue
  - Medical Surge
  - Debris Removal
  - Law enforcement
- Locate critical assets to determine availability
  - Location? Status? Response time? Cost?

MRPs
Analytics for Decision-Making

• Don’t just tell me the power is out
• Critical Infrastructure?
• Vulnerable population?
• Restoration estimates to drive decisions on generators, fuel, priorities
• Feed to industry for their decisions
• Overlay with transportation data, etc.
The Canada U.S. Enhanced Resiliency Experiment, or CAUSE, is a series of collaborative efforts to validate through scenarios that enabling multi-agency and cross-border situational awareness technologies greatly enhances regional resiliency.
Access to social media

- Chatter = Crowd Noise Filtered by VOST
- GeoForm = Official VOST Report to EMA
- EMAs only see official VOST reports
- Request for Debris Removal Team
- Debris Removal Team MRP Assigned
**Enhanced NG Response Essential Elements of Information**

Simulated data that can be produced by each state JOC:

- State National Response Framework Phase
- Emergency Declarations
- State SITREP
- Event Trending
- NG Activated?
- NG Operations Phase
- Dual Status Cmdr?
- Nbr of Missions
- Total NG Pers
- Total T10 Pers
Constantly updated event specific information roll-up via NG Executive Dashboard with interactive map
CUB Current Operations and Field Intelligence Virtually Shared with NG, State EOC, FEMA, NGB

Capability to conduct National Guard field situation posting with photos

Embedded TV Clips
Location enabled decision support

- Is a rapidly maturing practice that CHANGES THE WAY WE SEE OUR WORLD and HOW WE INTERACT WITH IT

- Is a UNIFIER and ENABLER in PREPARING, MONITORING and CHANGING OUTCOMES

- Builds a HOLISTIC and SYNERGISTIC APPROACH to solving issues
Location enabled decision support

- Is MULTI-LINGUAL
- Is CROSS GENERATIONAL
- Is a FORCE MULTIPLIER

- The “Geospatial Thinking Revolution has begun and Geospatial Thinking: Is both a SCIENCE and an ART”

- With the right technology & location enabled data at the right time to the right people, Geospatial Thinking is fast, agile, reliable, interoperable, easy to use and understand, and actionable
Because at the end of the day...

The American people will judge you by three things

Did you...

Save my life

Reduce Human Suffering

Protect my Property

“We are all in this together” – Chris Johnson, GeoHuntsville