

Esri National Security Summit

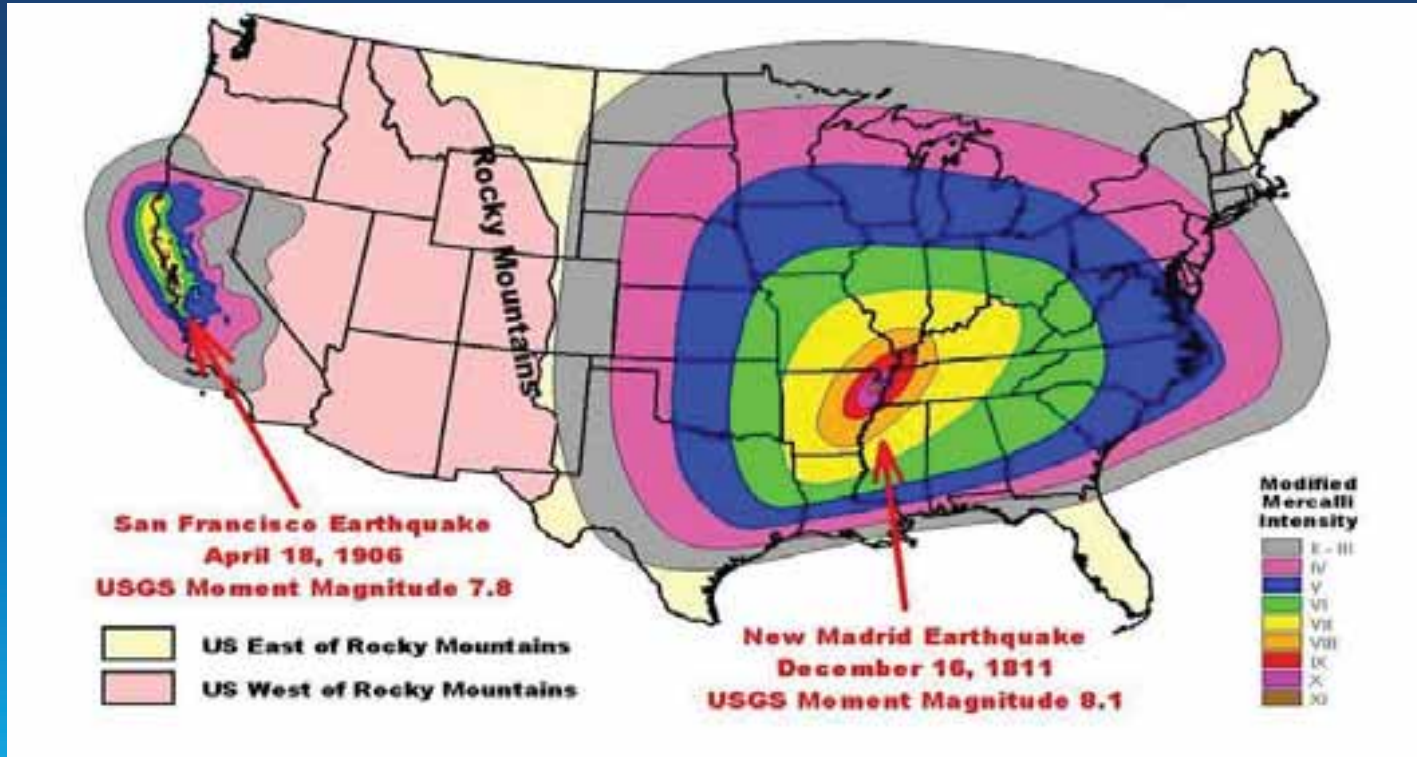
July 12–15, 2014 | San Diego, CA



CAPSTONE-14 Outcomes of the Central U.S. Earthquake Consortium's Multistate Exercise

*Jonathon Monken, Director, Illinois Emergency
Management Agency*

Effects of Shaking: East vs West



Estimated 8 State Impact



Casualties

Injuries	85,000
Fatalities	3,500

Infrastructure Damages

Buildings Damaged	715,000
Buildings Collapsed	32,000
Bridge Damage	3,500
Airport Facility Damage	140
Port Damage	230
Railway Bridge Damage	30
Damage to Dams	325
Damage to Levees	100
Hazmat Facility Damage	253
Debris Generated (tons)	50M

Critical Facility Damages

Hospital	130
Schools	1300
Fire Stations	725
Police Stations	375

Impacts (Day 1)

Households w/out Power	2.4M
Households w/out Water	1M

Economic Losses

Buildings	\$113 B
Transportation	\$11 B
Utilities	\$172 B
Total	\$296 B

99 Problems...

- **No such thing as multi-state visibility**
 - How are adjudication decisions made?
- **How to leverage huge quantities of local and state resources**
 - National Resource database
- **Cross-sector visibility**
 - Integration with the private sector

Essential Elements of Information (EElS)

- Electricity grid
- Natural Gas grid
- Public water grid
- Road Status (including bridges)
- Rail network (including bridges)
- Navigable waterways
- Air Transportation Infrastructure
- Area Command Locations
- Staging Areas
- Points of Distribution JRSOI
- Evacuation Orders
- Injuries and Fatalities
- Shelters
- Private Sector Infrastructure
- US Geological Survey Data
- Communications (Public Safety and General Public)
- Hospital Status

Red Counties

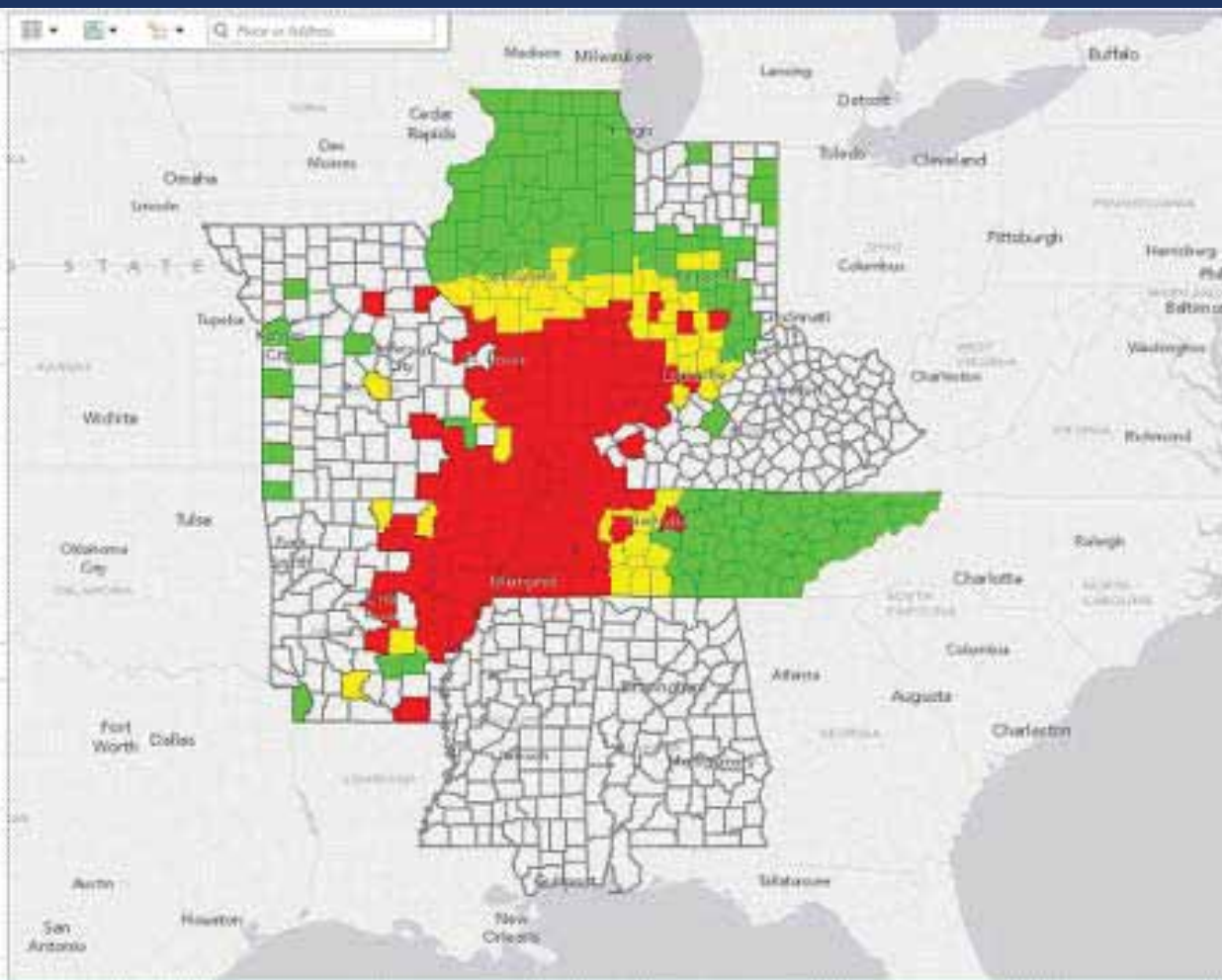
135

Yellow Counties

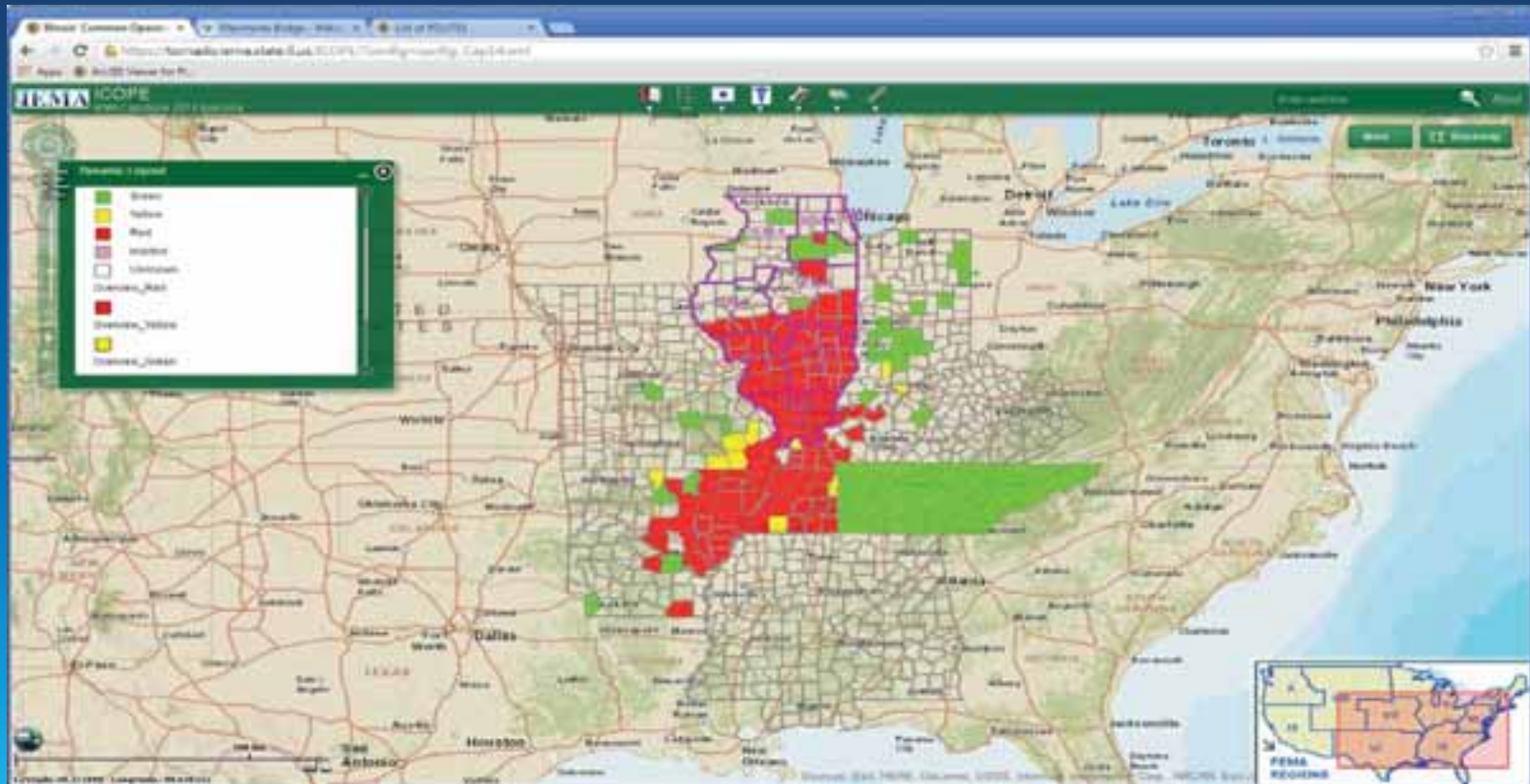
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Green Counties

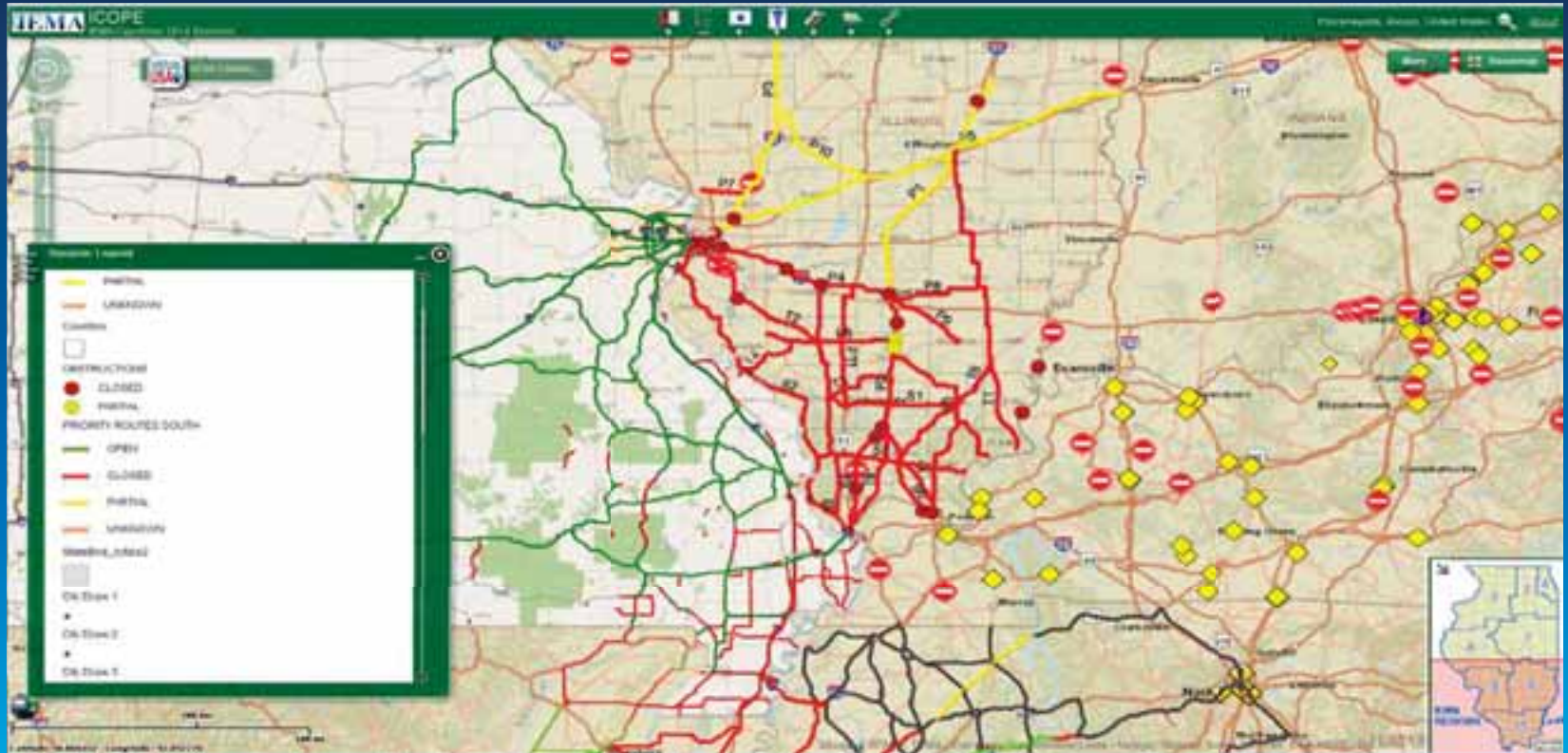
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Real-time Power Data



Road Status



Mission Ready Packages

- **Search and Rescue**
 - USAR-caliber, Technical Rescue Teams, Non-technical SAR
- **Incident Management Teams**
 - Type III, Type II, Type I
- **EOC Management Team**
- **EMAC A-Team**
- **Building Inspection Teams**
- **Bridge Inspection Team**
- **HAZMAT Team**
- **Medical Strike Team**
 - Ambulance, Field Hospital
- **Water Rescue Team**
 - Swift water and standard
- **Communications Strike Team**
- **Debris Removal Team**
- **Law Enforcement Strike Team**
- **Law Enforcement Crowd Control Team**

Currently Operating

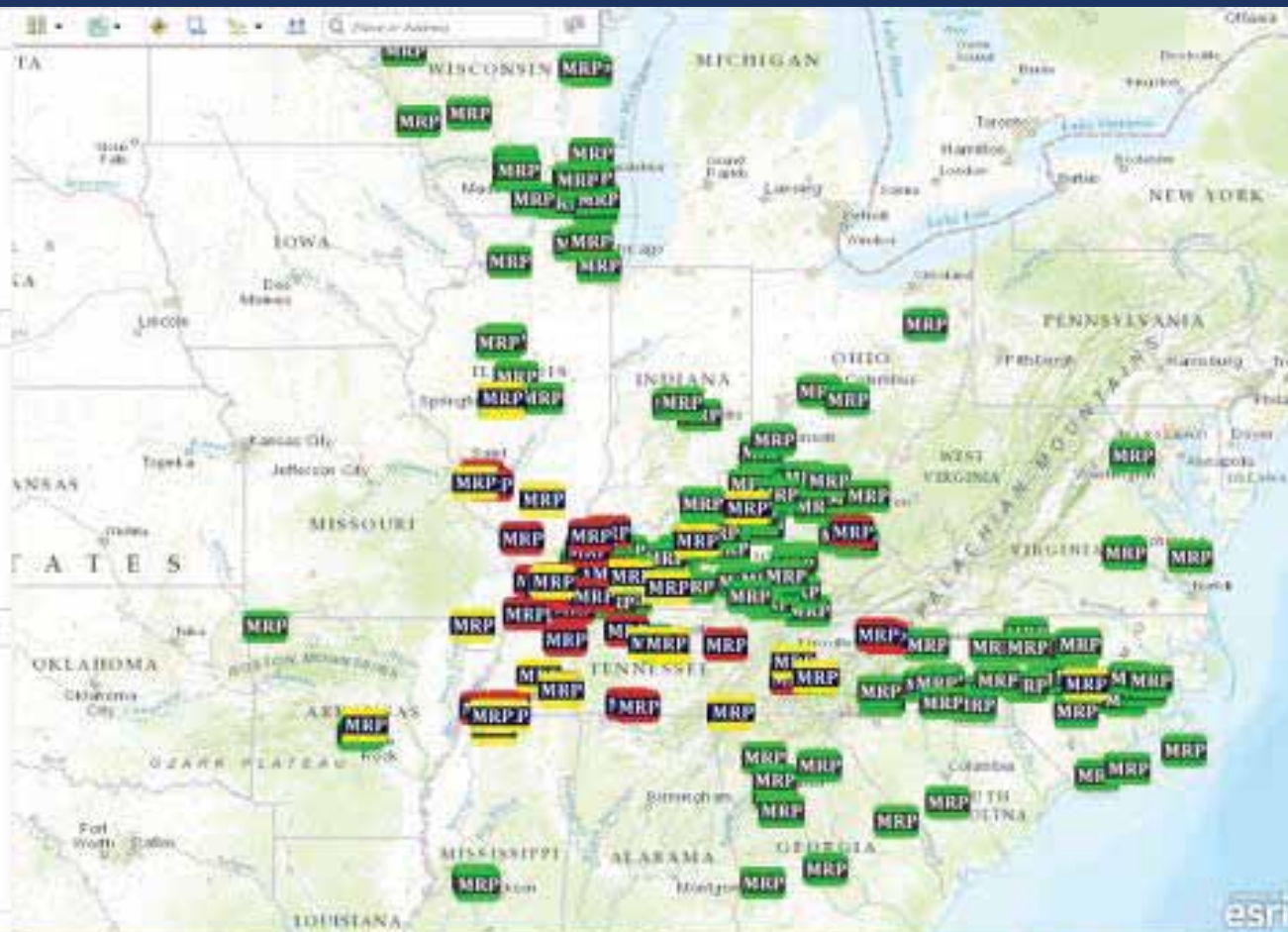
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Available

367

Not Available

36



How'd it go?

- **2,500 participants from 20 states**
- **13,000 exercise injects**
- **450 counties in 7 states reported live status of the 18 EEIs**
- **13,104 EEI status updates were provided**
- **Share 2,000+ data layers**
- **Deployed 143 MRPs**

vBEOC

The screenshot displays the vBEOC web application interface. At the top, the IEMA logo is visible, along with the text "IEMA Kentucky Emergency Management Association". The main navigation bar includes "Community Dashboard Capstone 14" and "Page Sets". Below this, a secondary navigation bar lists various categories: "Capstone 14 Info", "CUSEC Maps", "WestEOC", "VOAD", "IEMA", "Transportation", "Retail Status", "Power Utilities", and "Social Media Map".

The "Retail Status" section is active, featuring a description of store closures: "Description of store closures map" and "This map displays the open or closed status of retail stores due to incidents. Please click the checkboxes on the right side of the map to activate the layer." Below this is a "Walmart Status" map showing a network of Walmart stores across Kentucky, with many marked as closed (red icons). A "Walmart Status" map is also present, showing a network of Walmart stores across Kentucky, with many marked as closed (red icons).

On the right side, there are several panels:

- Retail Announcements:** A search bar and a list of announcements, including "KY Retail Federation - Capstone 14" and "Yesterday in Kentucky".
- Walmart Selected Store List:** A search bar and a list of selected Walmart stores, including "Walmart - PADUCAH KY", "Walmart - FLORENCE MO", "Walmart - BONNE TERRE MO", "Walmart - SAINT LOUIS MO", "Walmart - SAINT LOUIS MO", and "Walmart - SAINT LOUIS MO".
- Store Status Chat:** A chat interface for discussing store status.

The right sidebar contains navigation options for "Community Dashboard" and "Personal Dashboard".

It comes down to data

- **Platform standardization is less important than data standardization**
- **No need to change collection process**
- **It's not technology problem, it's a governance problem**

Where do we go from here?

- **Analytics**
 - Transition from no information too much unsorted information
 - Create ESF, task, company-specific triggers
- **Not just information, decision-making**
 - Objective, comparative impact
- **Persistent situational awareness**
 - Automated, 24/7/365



Questions?