

Central United States Earthquake Consortium

CAPSTONE 2014 Event Overview

11 December 2014



Overview

CAPSTONE



2014



CUSEC & PARTNERS



Capstone Discussion Agenda

- **Introductions and Welcome**
- **Background**
- **Regional Exercise and State Exercise**
- **Exercise Scope – Catastrophic**
- **Overarching CUSEC Exercise Goals - Process and Procedures, Tactics and Techniques**
- **CUSEC Regional Objectives**
- **Exercise Design and Framing injects**
- **Partnerships & Stakeholders**
- **National Guard Objectives Discussion**



Background

- **Real World Threat**
- **FEMA Supported Catastrophic Planning Effort**
- **National Level Exercise 2011 Highlights**
- **CUSEC AAR**
- **Discussions with FEMA Administrator Fugate**
- **CAPSTONE 2014**



Earthquakes in the Central US: New Madrid Seismic Zone

**During the winter of 1811-1812,
the central Mississippi Valley was
struck by three (3) of the most
powerful earthquakes in U.S.
history.**

Dec 16, 1811

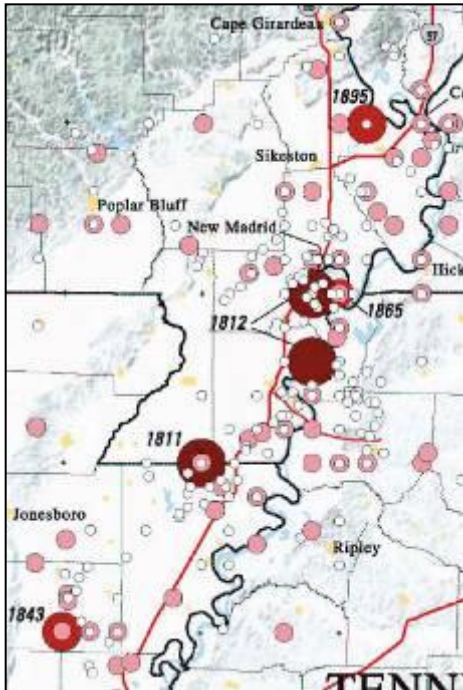
Jan 23, 1812

Feb 7, 1812

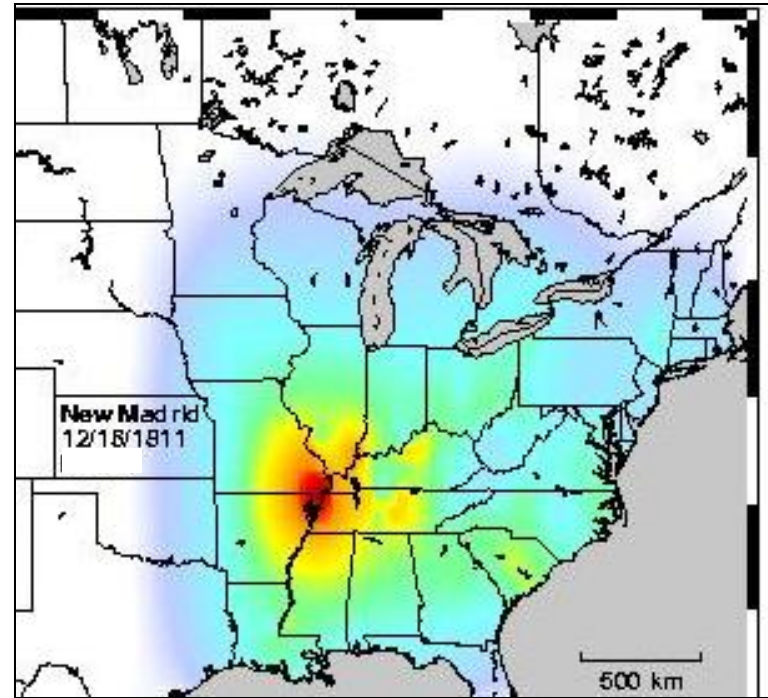
**All three earthquakes have been estimated to
be between M7.5 and M8.0.**



Danger in the Central US: New Madrid Seismic Zone The 1811-1812 Quakes



Winter of 1811-12: the New Madrid area was shaken by a series of the strongest earthquakes in U.S. history of the lower 48 states (magnitudes between 7 to 8).



Damage reported as far away as Charleston, SC, and Washington, D.C.

Shaking was felt across ~2 million sq. mi.

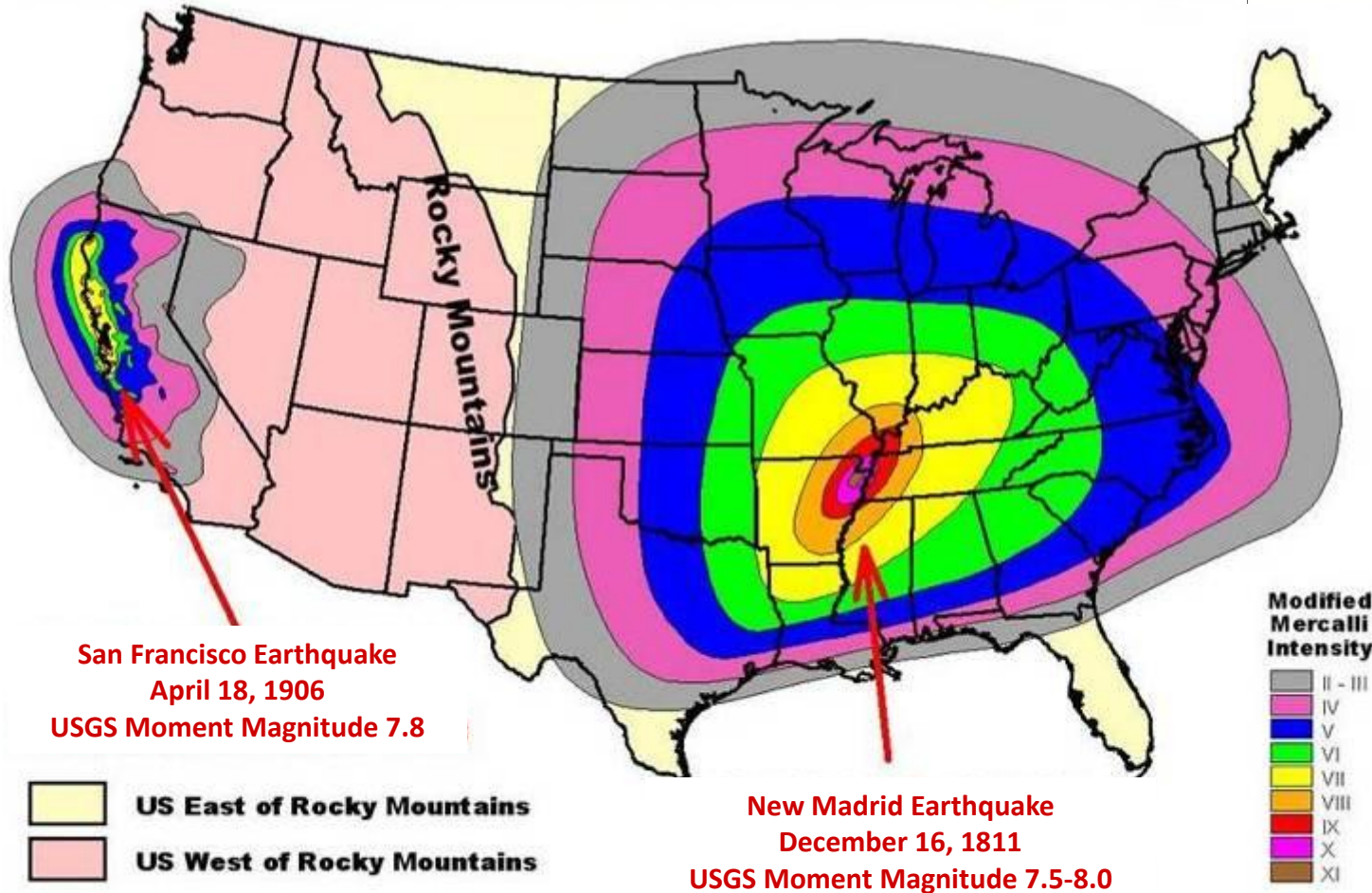
Rang bells in Charleston and rattled furniture in the White House.

PERCEIVED SHAKING	Not felt	Weak	Light	Moderate	Strong	Very strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	none	none	none	Very light	Light	Moderate	Moderate/Heavy	Heavy	Very Heavy
PEAK ACC.(%g)	<.17	.17-1.4	1.4-3.9	3.9-9.2	9.2-18	18-34	34-65	65-124	>124
PEAK VEL.(cm/s)	<0.1	0.1-1.1	1.1-3.4	3.4-8.1	8.1-16	16-31	31-60	60-116	>116
INSTRUMENTAL INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+



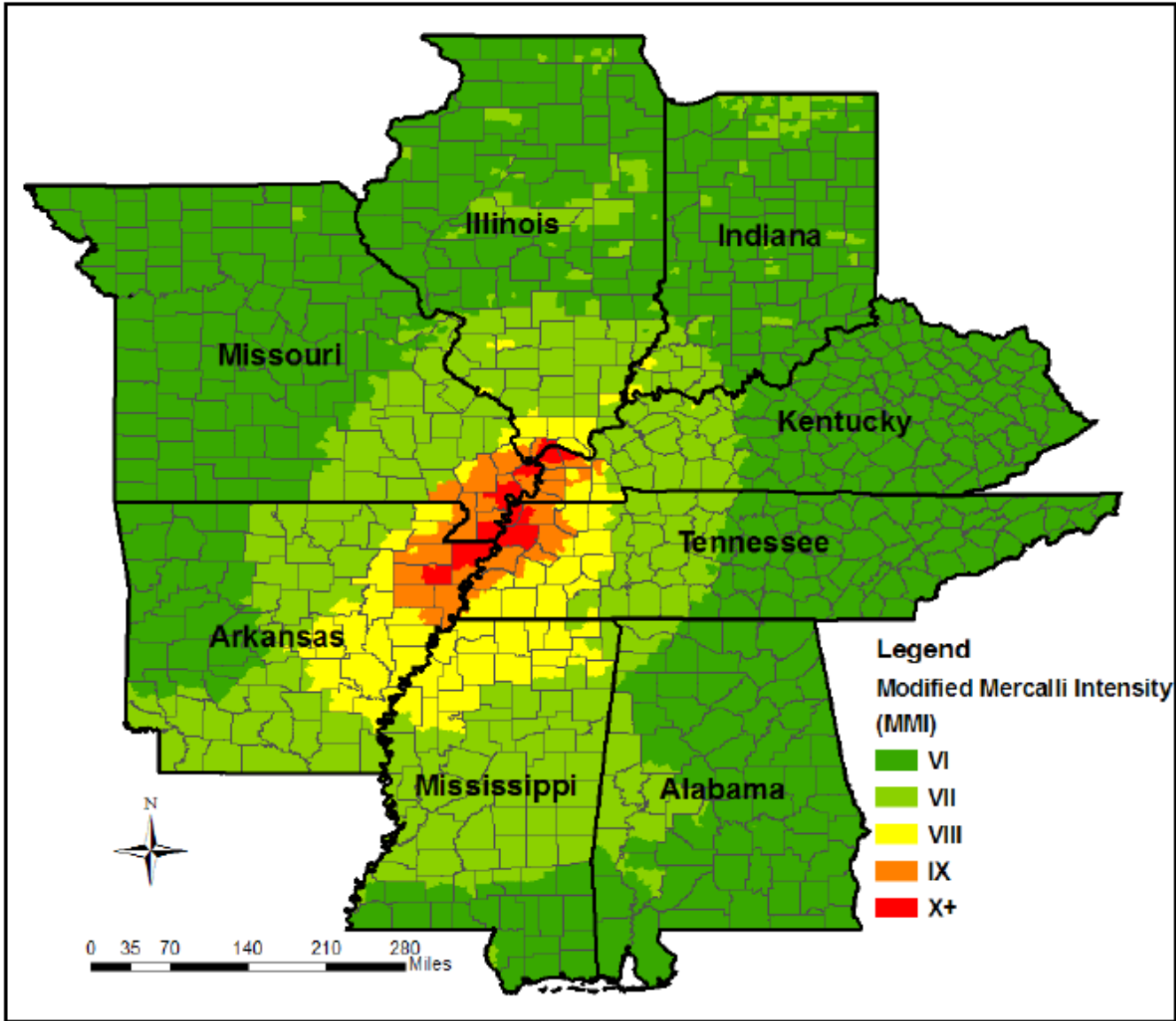


Effects of Shaking: East vs West



Amplitudes of earthquake waves die out as they move away from the epicenter. Wave energy decreases much more slowly in the Eastern U.S. than in the West. For the same size earthquake, this leads to greater shaking over larger areas in the Eastern U.S. than in the Western U.S.

Regional Ground Shaking – Earthquake Intensity¹



¹ An explanation on earthquake intensity can be found on page 6.



Estimated 8 State Impact

Casualties

Injuries	85,000
Fatalities	3,500

Infrastructure Damages

Buildings Damaged	715,000
Buildings Collapsed	32,000
Bridge Damage	3500
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



CAPSTONE 2014 Goals

- Test the improvements to the states plans based on the NLE 2011 Exercise
- Improve Regional Response to the NMSZ threat through collaborative solutions
- Form stronger partnerships and relationships at the Regional and National levels
- Solve Real World Problems and Extend the National Dialog (Private Sector and Information Sharing)



Exercise Conduct 16-20 June 2014



- The Exercise is based on Catastrophic Event impacting all 8 States.
- Damages do not extend beyond the 8 States.
- Each day begins and ends with standard Framing Injects distributed across the Region.
- Each day is an advanced continuation of the scenario.
- Regional objectives are prioritized in concert with each State's objectives.
- Regional objective injects will be shared across all 8 states injected into the State EOC.
- Regional and Higher Headquarters responses will be generated from real work reactions to injects and state response plans.



Exercise Assumptions

- Each state will conduct their own internal exercise using internal resources for exercise administration.
- States will maximize the use of existing materials and concepts from NLE 2011 to maximize efforts, synchronize activities and minimize costs.
- Each states exercise will focus on their own list of learning objectives and remain coordinated with the overall Major Focus Areas each Day.
- CUSEC may look at using a central site to serve as the overall inject manager or white cell for message play into the State EOC, Regional EOC or FEMA Region.
- All other message play will be integrated or executed via real response to the exercise scenario.
- CUSEC will encourage and integrate associate states into the mutual aid/EMAC portion of the exercise.



Exercise Major Focus Areas by Day



Day	Major Event	Notes
Monday, 16 June	Alert Notification, Develop Situational Awareness	Develop U-COP and Full Call Down, Cabinet Meetings
Tuesday, 17 June	Mobilization, Response	SAR, EMAC, Trans, Air Space, Building Inspectors
Wednesday, 18 June	Medical Surge and Evacuation	EMAC, NDMS
Thursday, 19 June	Mass Care	VOAD, Donations Management
Friday, 20 June	Demobilization, Recovery – Catastrophic Housing TTX	Recovery to focus on the Catastrophic Housing Mission



CUSEC Associate States

Georgia	Ohio	Virginia
South Carolina	Nebraska	Louisiana
North Carolina	Iowa	West Virginia
Oklahoma	Kansas	Wisconsin
Michigan	Maryland	District of Columbia



Projected CUSEC Working Timeline of Events

Projected Dates	Event
11 -12 Feb 2013	CUSEC Board of Directors Meeting with Regional Administrators
13 Feb 2013	Concept and Objective Meeting – Alabama w/Exercise Officers
4-5 Mar 2013	IT /GIS Situational Awareness Workgroup
6 Mar 2013	Pre-Post Mitigation Building Assessment Lane Workshop (ATC 154)
29 Apr-3 May 2013	National Program Manager Meeting
3-4 Jun 2013	CUSEC Board of Directors Meeting
5 Jun 2013	CAPSTONE 2014 IPC
6 Jun 2013	CUSEC/CAPSTONE Planning Session (Half Day)
12-15 Aug 2013	CUSEC Board of Directors Meeting with FEMA Leadership –Program Update
21-22 Oct 2013	Regional Transportation Workshop
23 Oct 2013	Regional Communications Workshop
24 Oct 2013	Regional Situational Awareness/COP – GIS



Projected CUSEC Working Timeline of Events Continued

Projected Dates	Event
4-7 Nov 2013	Regional and Associated States EMAC Workshop (Pre-RAW/MASS)- Packaging
9-10 Dec 2013	CUSEC Board of Directors – Program Review Session/Corporate Sponsors
11 Dec 2013	CAPSTONE 2014 MPC
12 Dec 2013	Pre-Post Mitigation Building Assessment Lane Workshop (ATC 154)
10-11 Feb 2014	CUSEC Board of Directors Meeting with Regional Administrators
12-13 Feb 2014	Resource Allocation/MASS Workshop II
4-5 Mar 2014	CAPSTONE 2014 FPC
6-7 Mar 2014	Private Sector CAPSTONE Integration Workshop
6-7 Mar 2014	IT /GIS Situational Awareness Workgroup
19 May 2014	Board Conference Call and Rehearsal of Concept
16-20 Jun 2014	CAPSTONE Multi-Day Regional Exercise
4-8 Aug 2014	CUSEC Board of Directors Meeting and AAR – Meeting with FEMA Administrator and Key Staff & Program Workshop



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Priorities

- Regional Communications (Interstate, FEMA Region, Interregional, National)
- Regional Shared Situational Awareness (User Defined Common Operating Picture V2)
- Regional Transportation and Air Space Management Coordination
- Private Sector Integration
- Regional and National Resource Allocation
- DOD, NG-Mobilization Support to Civilian Authorities, DCO, SCO



Regional Transportation and Aviation

- Injects to report open and closed avenues of approach and airspace
- Close Major Ground Transportation Avenues
- Open Ground Transportation Avenues to Response Only
- Communicate Air Mobility Operations
- Feed Situational Awareness via ESF-1



Regional Situational Awareness

- Develop and Communicate a Regional Common Operating Picture
- Develop and Display 25 elements of Essential Emergency Management Items to include Emergency Management, Military Forces Status and Health Status that build over time in accordance with the event scenario



Regional User Defined Common Operating Picture V2

- Standard and Agreed Upon Tools
- Identified and Agreed Upon Data Elements
- Published Common Operational Report Picture
- 25 Shared Standard Data Lanes (COP Picture)
 - 15 - Emergency Management
 - 5 - Health and Human Services
 - 5 - Military Support



Regional Communications



- Advancing communications link up on all likely communications paths crossing state boundaries, to the Region
- Coordinated IPAWS test
- Establish and Test Communications across the Region
 - EOC to EOC
 - JTF to JTF
 - County to County
 - EOC to Region
 - Region to Region
- Multi-state VTC in support of SEO and POTUS



Regional Resource Management

- Published Phased Sync Matrix – Planning Goal
- Conduct Resource Allocation Workshop II focusing on the Mutual Aid Support System and Mission Ready Packaging
- Conduct Resource Allocation Workshop III with Associate States and Federal Emergency Support Functions
- Integrate State level Mutual Aid
- Integrate Emergency Management Assistance Compact execution (Day 2-4) Mobilization through De-Mobilization
- Include Associate States in Exercise Inject Play via real world request and TTX execution
- On a State by State basis - Expand to include JRSOI - reception and check point execution
- Integrate Private Sector response



Regional Private Sector Integration

- Develop usable solutions to fully integrate for Private Sector capacity and capabilities
- Implement and Test an Access Control Concept
- Implement and Test a Vehicle/Convoy Placarding Solution
- Implementation of standard Virtual Business Emergency Operations Concept
- Post Business Centric Situational Awareness Information
- Post Mission support requests



Military Support Integration



- Establish the initial Military Support within each state via deployment or functional TTX in accordance with the State Response Plan
- Mission Ready Package Critical Guard Elements
- Establish and report the JTF Command
- Identify and Request EMAC Title 32 or SAD Forces
- Request and receive Title 10 support through the Regions
- Request and Integrate State Reserve Forces



Capstone 2014 Exercise

Teleconference Planning Dates

2013 Dates

- January 7
- February 25th
- *March 4th and 5th **
- April 8th
- May 6th
- June 17th
- July 22nd
- August 26th
- September 23rd
- October 14th
- December 16th

2014 Dates

- January 6
- February 24th
- March 24th
- April 21st
- May 19th
- June 2 June

Calls will start at 1400 EST and the GIS/IT Workgroup calls will follow



Questions and Discussion

