

New Madrid Catastrophic Event - Missouri

WFO Memphis All Hazards Workshop

February 9, 2010

State Emergency Management Agency

Cape Girardeau, MO

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Hurricane Katrina – August 2005



Credit: USA Today



Credit: NOAA

Catastrophic Planning Discussion Begins in Missouri

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Basis for Assumption:

A recurrence of the 1811-12 great New Madrid earthquakes in the present day would be Missouri's – and possibly other states' – potentially most catastrophic event.

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Key Milestones in this Project:

- Development of Annex Y
 - Local Planning Workshops
 - State Planning Workshop
 - Follow-up Local Workshops
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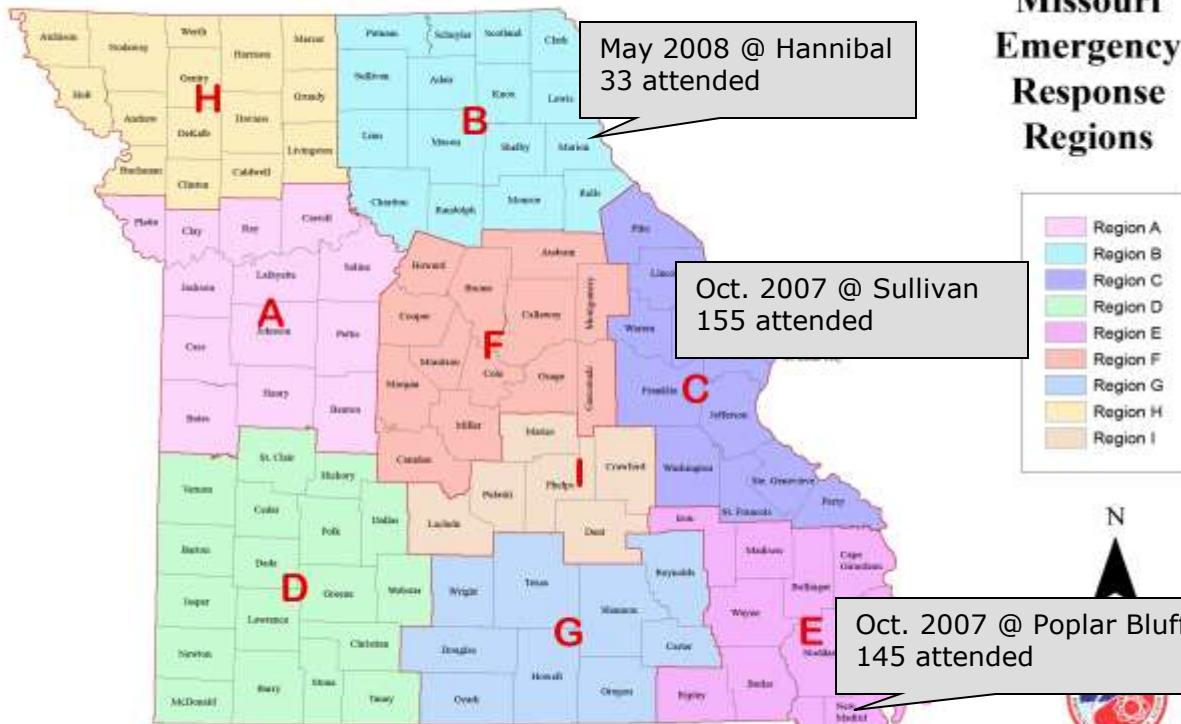
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Annex Y

- Annex developed for State's Emergency Operations Plan
 - Did not require re-write of SEOP
 - SEMA is Primary Agency
 - All other state departments, agencies and organizations are Support Agencies
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Local Planning Workshops

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Local Planning Workshops

- ❑ To introduce Annex Y to locals
 - ❑ To introduce planning template that locals could use (Annex O)
 - ❑ To get local-level information that could be of use for the State (capabilities, needs, etc.)
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State Planning Workshop

- ❑ Held May 2008 in Jefferson City
 - ❑ 176 attended
 - ❑ Designed primarily to bring state-level partners together to review Annex Y, discuss items from the local planning workshops, and to assess local and state gaps/shortages which might be met at the federal level.
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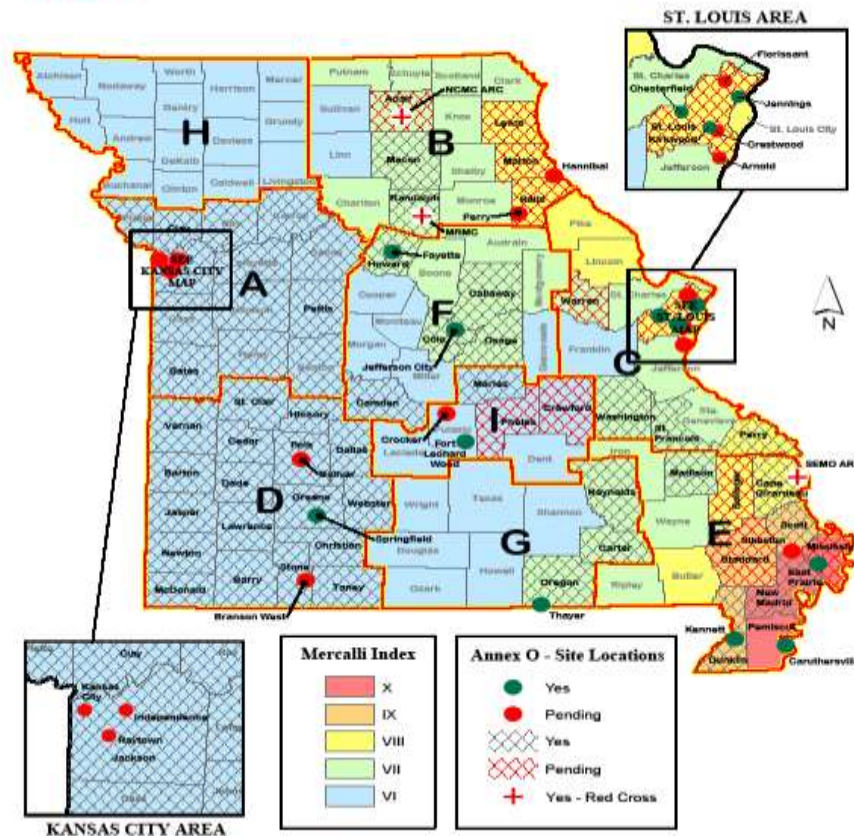
Follow-up Local Planning Workshops (with Greg Reed, IEM)

- Held in Jefferson City and southeast MO during 2008:
 - 26-28 August 5 of 7 Area "F" Counties
 - 3 September 3 of 3 Area "G" Counties
 - 23-25 September 6 of 9 Area "C" Counties
 - 1-2 October 4 of 7 Area "B" Counties
 - 14-15 October 3 of 7 Area "B" Counties
 - 28-29 October At Area "E" Counties
 - 3 November At Area "E" Counties
 - 18-19 November Make-Up Dates - All Areas
 - 2-4 December Area's A, D, G, H & I
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Catastrophic Planning Final as of March 2009



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Beyond the Workshops

- Ready to work with local jurisdictions, as needed, on their catastrophic event annexes
 - Available to work with State partners on updates and revisions to plans, including Annex Y
 - Preparing to exercise our Plans again!
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Planning Shouldn't Just Be About a Document



China EQ
May 2008



Credit: China Today



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Eastern Sichuan, China event

- ❑ Earthquake measured 7.9 Mg
- ❑ More than 5 million buildings collapsed
- ❑ More than 69,000 killed
- ❑ More than 5,300 of the dead were students

NMSZ Scenario Loss Estimates

Basis is 2006 HAZUS report on a 7.7 Mg (historical) EQ occurring at depth of 10 km

- 43,681 buildings with at least moderate damage
 - 19,211 buildings destroyed
 - 177 Highway Bridges completely damaged
- Three wastewater and two potable water systems with complete damage
- Two million tons of debris will be generated
 - 23,000 households will be displaced

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1811-12 New Madrid events

- Earthquakes measured 7.0 to 8.0 Mg
- Extensive damage to some buildings
- Felt over wide area
- Exact number of fatalities unknown

Source: USGS

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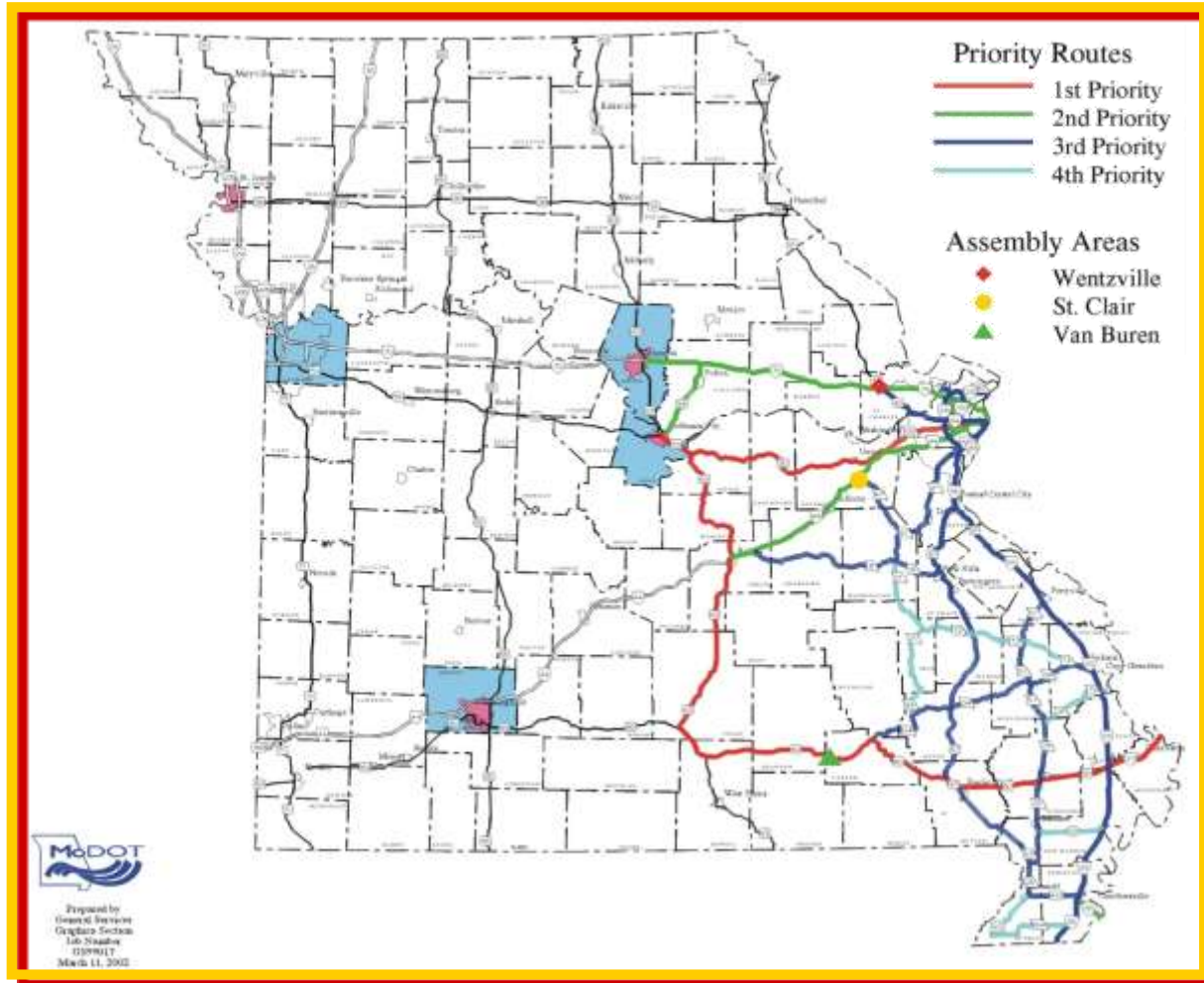


“The houses of brick, stone and log are torn to pieces and those of frame thrown on their sides. The ground near that place for 100 acres has sunk so low that the tops of the tallest trees can hardly be seen above the water... The citizens have fled to the mountains...it is said they are nearly one-thousand in number! Merciful God! What a horrid situation.”

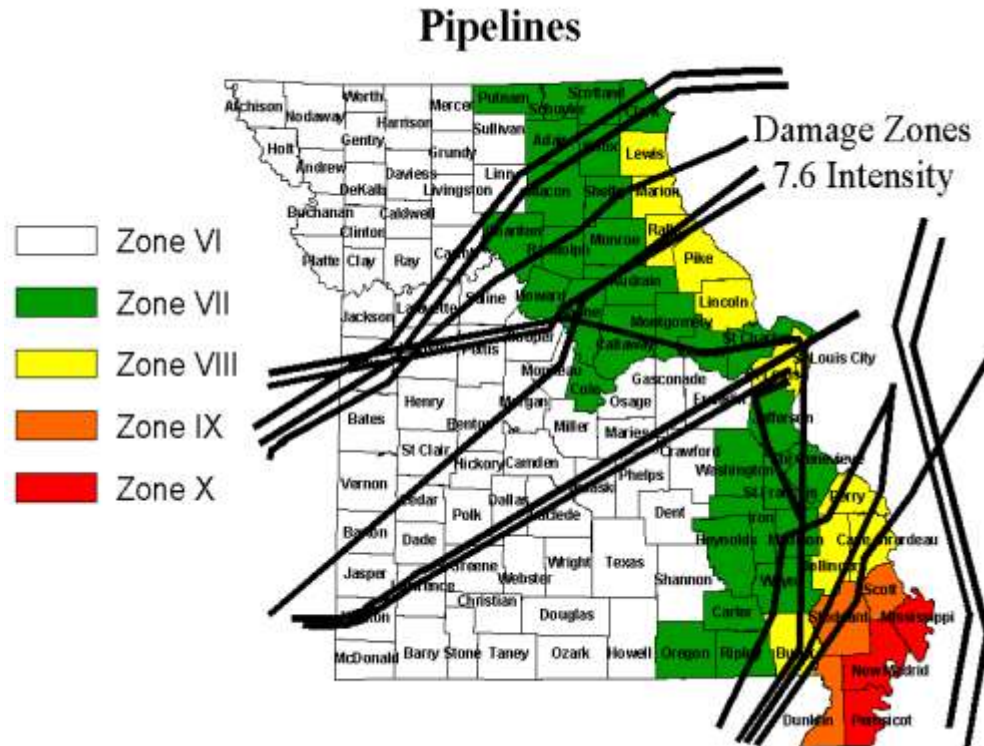
New York Evening Post
March 11, 1812

From “The New Madrid Earthquakes”, James Lal Penick Jr.

Emergency Highway Routes



Pipelines Crossing Missouri



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Weather information

Forecasts

Immediate

Mid-term

Long-range

Temperatures

Winds

Flood potential

E-Spotter information

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Infrastructure challenges

Transportation routes - roads &
bridges

Power grid

Phone

Transmission lines/pipelines

Housing/sheltering

Logistics – food & water

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Communications challenges

Equipment
Power
Accessibility

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Missouri – Present Day



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Thank You!

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