

*Applications Session:*  
**Rapid Response**

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# Homeland Security Presidential Directive/HSPD-5

- Feb. 28, 2003
- <http://www.fas.org/irp/offdocs/nspd/hspd-5.html>
- **Purpose**

To enhance the ability of the United States to manage domestic incidents by establishing a single, comprehensive national incident management system
- Federal agencies led by DHS/FEMA all organized by the NRF and use NIMS & ICS
- Local/State/Federal “assets” ready for response
- ICS reverses the top-down; requests go up instead (ARF’s and MA’s at State EOC’s & FEMA RRCC’s)

# How is imagery used in ICS?

- GIS Unit, including IMAT (mobile)
- Situation Unit (ESF #5) – EOC std. config
- Off-site geospatial intelligence via IRSCC (HSIN portal, USGS EROS DC HDDS, other portals)
- Note: Challenges of on-site vs. off-site; telemetry and on-site capability (computers, skills, access)

# ICS examples

- GIS Unit & Situation Unit – real-world & exercise at two very different locations
  - NR 1994; 2003 & 2007 Wildfires in SoCal
  - Station Fire: large table w/ paper topo maps and acetate layer using markers (plus mobile GIS unit with digital mapping and Tachyon for comm's)
  - NLE 11 at Region VI RRCC: all digital but with limitations and impacted communications and slow computers (large files causing problems)

# Station Fire Incident



Situation Unit

# Station Fire Incident



Mobile GIS Unit

# Station Fire Incident



Morning Briefing by Incident Commander

# National Level Exercise 2011 (NLE 11)



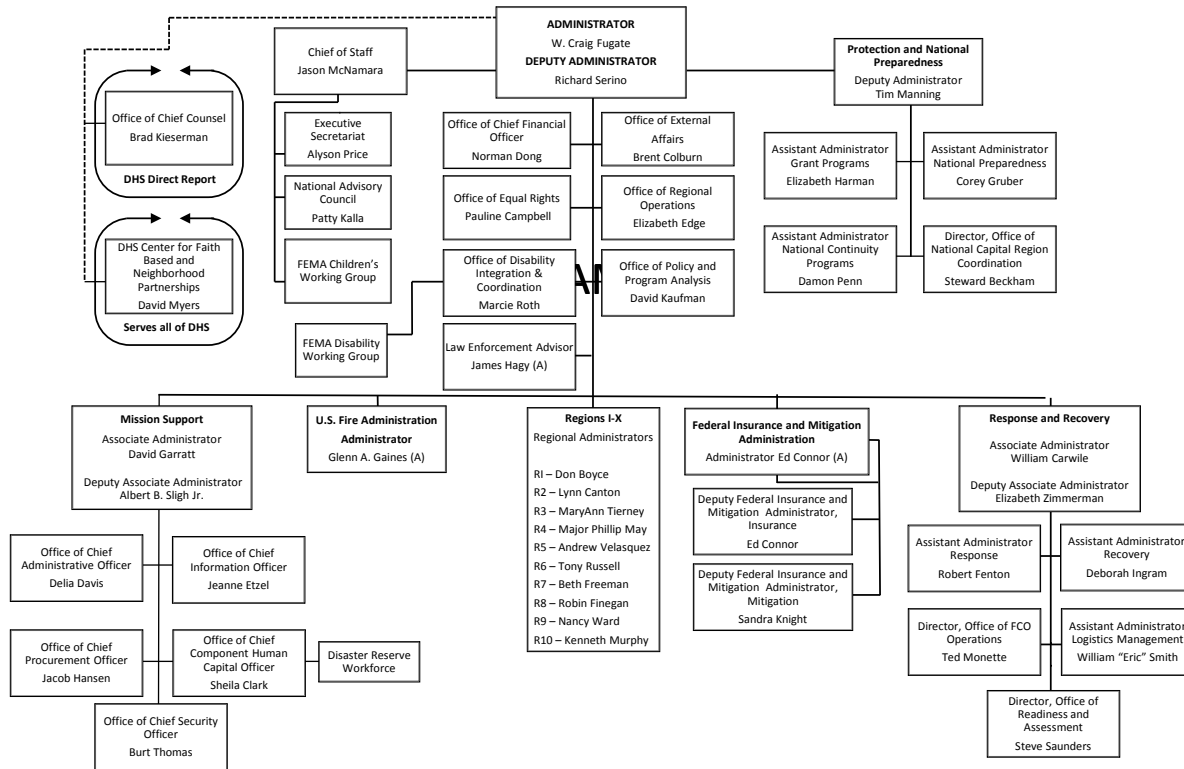


# National Level Exercise 2011 (NLE 11)



**FEMA**

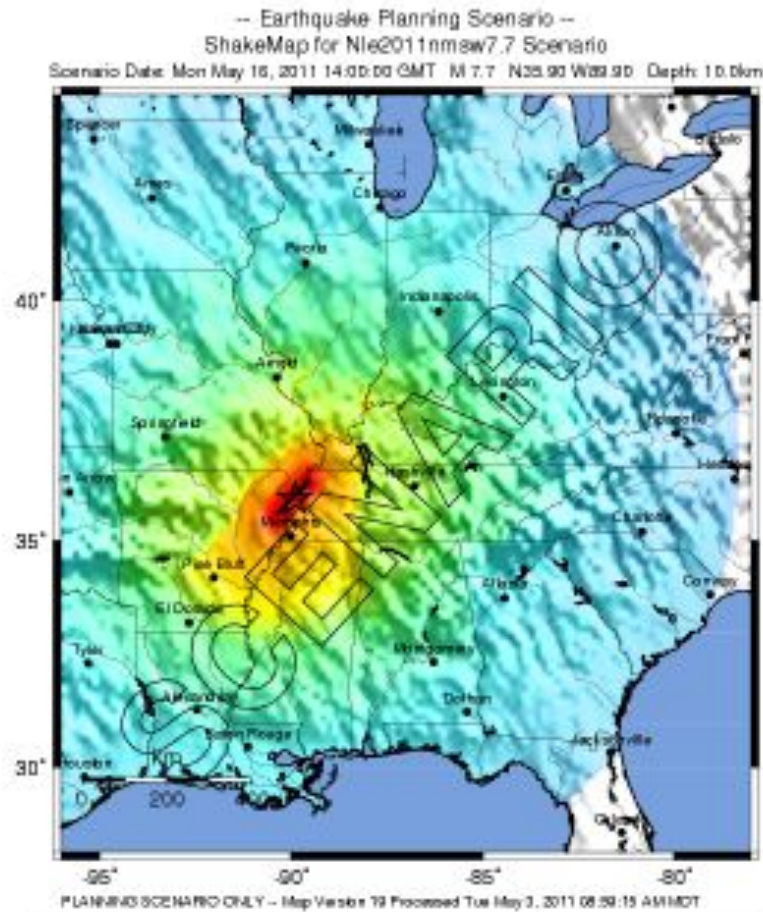
## US Department of Homeland Security/FEMA



Effective 2/28/2011

(A) Denotes acting incumbent

# National Level Exercise 2011 (NLE 11)



PERCEIVED SHAKE	Not felt	Weak	Light	Moderate	Strong	Very strong	Severe	Violent	Extreme
DOMESTIC SHAKE	none	none	very light	light	moderate	heavy	very heavy	very heavy	very heavy
PEAK ACC (mg)	<.17	.17-1.4	1.4-3.9	3.9-9.2	9.2-18	18-34	34-65	65-124	>124
PEAK VEL (mm)	<0.1	0.1-1.1	1.1-3.4	3.4-8.1	8.1-18	18-37	37-63	63-115	>115
INTERNATIONAL SHAKE	I	II	III	IV	V	VI	VII	VIII	IX

# National Level Exercise 2011 (NLE 11)



# National Level Exercise 2011 (NLE 11)



# National Level Exercise 2011 (NLE 11)

The screenshot displays the HSIN (Interagency Remote Sensing Coordination Cell) website. The header includes the HSIN logo and navigation links: Home, Collaborations/Current, Current Operations, Geospace, Plans, Request for Information, Resolution Coordination, and Virtual Situation Room. The main content area is titled "Interagency Remote Sensing Coordination Cell" and features two sections: "Announcements" and "Documents of Interest".

**Announcements**

- NLE 11 GIS products uploaded** (5/26/2011 3:56 PM)  
by Kenneth Hudnut  
GIS products from NLE 11 are now available in NLE11/geospatial-products and include: 1) levee, 2) liquefaction, 3) food & water PODs, 4) damage, 5) time to reach hospital. For questions contact hudnut@usgs.gov (626)672-6295.
- Joplin, MO Imagery Added to Geospace** (5/26/2011 10:42 AM)  
by Byron Cody  
Imagery taken by NOAA and the Missouri Civil Air Patrol has been added to Geospace. More imagery will be added as it becomes available.

**Documents of Interest**

Type	Name	Modified By
ESCC Contacts		Byron Cody
Joplin Missouri Tornado		Matthew Long
National Level Exercise 2011		Matthew Long
2011 SE Region Severe Weather		Matthew Long
Lower Midwest Flooding Spring 2011		Byron Cody
DHS Daily Open Source Infrastructure Report		Matthew Long
FDNA Daily Operations Brief		Matthew Long
FDNA National Situation Reports		Matthew Long
Daily Situation Brief		Byron Cody
Spring 2011 Northern Plains Flooding		Byron Cody
Google Earth Keyhole Markup Files		Byron Cody
DI Sets		Mark Lauver1
March 2011 Japan Earthquake and Related Events		Byron Cody

**Links**

- All Partners Access Network
- UN-SPIDER Knowledge Portal
- GeoEye EyeQ
- National Weather Service Pacific Tsunami Warning Center
- National Geospatial-Intelligence Agency Web-based Access and Retrieval Portal (WARP)
- United States Geological Survey Hazards Data Distribution Service
- GEOINT Online
- https://palanterra.nga.mil/
- NASA MODIS Near-Real-Time Imagery - Lower Mississippi (USA7)
- NASA MODIS Near-Real-Time Imagery - Upper Mississippi (USA3)

# ShakeOut '08, '09, '10, '11, '12

## TTX's and in case of a real event

- For SoCal earthquakes, USGS has federal Stafford Act role and will respond in ICS mode; we're in ESF #5 and responsible for earthquake EEI's (essential elements of info)
  - Situation Unit at USGS Pasadena (event time until Clearinghouse is up)
  - Clearinghouse with CGS & CalEMA (about 24-48 hrs. after event)
  - JFO (after declaration, set up several days after event)
- Opportunities for NASA/JPL/Caltech involvement with CalEMA, FEMA, USGS in future TTX's
- What needs to be done to get imagery products like UAVSAR actually used in ICS for future real-world events?
  - Emphasis on rapid and actionable geospatial intelligence
    - CAP, FMV, RAMS
    - In 2007 wildfires, LiDAR & hyperspectral not MA'd ('too slow')

# Questions?

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