

# FEMA Update – ACEHR Committee Meeting March 2011

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FEMA



# Outline

- Who We Are – Updates
- FY 2010 Accomplishments
- FY 2011 Budget and Staffing
- FY 2011 Planned Accomplishments
- Proposed FY 2012 Budget
- Coordination with DHS S&T
- Challenges and Opportunities

# Who We Are – FEMA NEHRP HQ

**Edward Laatsch, P.E.** – Branch  
Chief

**Mike Mahoney** – Codes/Special  
Projects (PBSD, R Factors,  
Tsunami, etc)

**Vice-Franzen** – Management  
Analyst/Consortia - Frozen

**Mai Tong** – New Buildings  
Guidance/Building Science

**Claudette Fetterman** – EQ State  
Assistance/NETAP/Training/  
Implementation

**Erin Walsh** – Guidance  
Development/Code Adoption  
Tracking

**Wendy Phillips** – State  
Consortia/Implementation &  
Outreach

# Who We Are - Regional EQ Program Managers



# FY 2010 Accomplishments

- Guidance and Tools Development
- Training
- Buildings Codes and Standards
- Implementation/Outreach

# Guidance & Tools Development

## **Updated Catalog of FEMA Earthquake Resources –**

- Completed an in-house update of this catalog (FEMA P-736A). Improvements included listing of several new publications, listing of training resources, and development of a CD version that includes several of our most requested non-technical publications.

## **Seismic Rehabilitation Training for One and Two Family Dwellings**

- FEMA 593CD contains PowerPoint slide presentations, Instructional Guide and speaker's notes for training of contractors, code officials and others in the seismic retrofitting of light frame dwellings.

# Chile Earthquake

## EERI Chile Earthquake Reconnaissance

- The February 2010 M8.8 Chile earthquake provided an excellent opportunity to evaluate the performance of building codes and construction practices similar to the US. FEMA staff participated in the EERI LFE Hospital Team.
- This event provided a valuable opportunity to document the performance of structures built in a manner similar to the US.
- We plan to work with the other NEHRP agencies to document our findings and translate them into lessons for the US.

# ROVER Partnership

## Rapid Observation of Vulnerability and Estimation of Risk

- Partnered with Utah on a pilot project of 80 schools to analyze risk. Screened ~ 10% of the public schools in the Wasach Front. Intended to lead to a complete inventory of schools in the area.
- FEMA provided funding, training, and technical assistance to 20 volunteer local engineers who did the work in Sept. 2010.
- [FEMA 154 Rapid Visual Screening of Buildings for Potential Earthquake Damage](#) and also tested the ROVER tool to digitize its data collection and building assessment inventory.



## FY 2010 Training

- Under National EQ Technical Assistance Program (NETAP), FEMA offered multiple training courses in 2011.
- FEMA P-593, Seismic Rehabilitation Training for One and Two Family Dwellings, which contains training program and slide presentations for existing wood-frame houses. FEMA 593 also used by ICC for training webinars.
- FEMA P-767, Earthquake Mitigation for Hospitals Workshop, includes an overview of risks to buildings and non-structural elements with a focus on hospital and healthcare facilities.
- Courses were also held on FEMA 154, Rapid Visual Screening of Buildings for Potential Seismic Hazards.

# FY 2011 Training

## **Puerto Rico Seismic Code Training –**

- Conducted 3 seminars on building codes for Puerto Rico, as Puerto Rico recent adopted the 2009 *International Building Code (IBC)* and *International Residential Code (IRC)* in December 2010. Seminars were co-sponsored by the Puerto Rico Institute of Civil Engineers and Land Surveyors in the three localities and Puerto Rico Planning Board.

## **National Earthquake Technical Assistance Program (NETAP) –**

- Offered 4 training courses, approximately 150 trained in first quarter (this is expected to increase to 600+ by 2nd quarter).

# FY 2011 Training

## **EERI Technical Seminar of FEMA Techniques for Seismic Rehabilitation of Existing Buildings (FEMA 547)**

- EERI, under their cooperative agreement with FEMA, developed and conducted 4 seminars on Techniques for Seismic Rehabilitation of Existing Buildings (FEMA 547). The seminars were held in San Francisco, Los Angeles, Seattle and Salt Lake City during late October and early November. The total number of attendees to all four sessions was 235. The seminar was recorded and will be put on the EERI website for further training.

## FY 2010 Building Codes

- ICC Code Change and Final Action Hearings for the *International Building Code, International Existing Building Code and International Residential Code*.
- Submitted and defended important changes including:
  - Approval of new seismic design maps for the IBC and IRC developed under the 2009 *NEHRP Provisions and* adopted by ASCE/SEI 7-10 (S97)
  - Improved special inspection requirements for steel frame construction, originally developed under the FEMA/SAC Steel Moment Frame Guidelines Project and published by FEMA in FEMA-353 (S121)
  - Improved IRC provisions for braced wall systems (RB 105 and 106)
  - Provided testimony on 24 propose code changes, both in support of changes we favored as well as in opposition of changes that weakened the code.

# Implementation & Outreach

*Enhanced Awareness through:*

- *Partner Development*
  - *Documents, CD's, e-documents*
  - *Training*
  - *Presentations, Papers and Articles*
  - *Website and eMail Updates*
  - *Demonstration Projects*
  - *EQ State Assistance*
- Over 2,000 trained, completed 8 publications in FY 10
  - Distribute 300,000 guides, CD's, and other materials annually
  - Tens of thousands of downloads annually
  - Maintain over 100 separate earthquake publications

# QuakeSmart

- QuakeSmart is a private-sector partnership initiative to increase mitigation by training and working with businesses on how to identify risks, make a plan, and take mitigation actions.
- In 2010, FEMA did the following under QuakeSmart:
  - Conducted awareness activities and identified regional and national partnership opportunities.
  - Partnered with Service Master for Preparedness Month.
  - Working with Home Depot on Saturday in-store training.
  - FEMA & PRC staff working to solidify activities with companies like *Home Depot and ServiceMaster*.

## FY 2011 Budget

- \$10.213M identified in FY 2011 DHS Appropriations Report for EQ Program
  - \$8.977M in program funding – same as FY 2010
  - Remaining funds support Salaries and Benefits – called out specifically in FY 2011
- Agency reductions in M&A budget resulted in \$1.2M cut for EQ Program (13%)
  - \$7.79M program funding
  - Later reduction in S&B froze 1 HQ and 1 Regional position (vice-Franzen & R9)

# FY 2011 Budget Impacts

- Program reduction resulted in significant cuts to FEMA NEHRP activities:
  - \$500K cut to EQ State Assistance
    - Reduction to risk portion of formula
    - Base level funding to 33 states unchanged
  - \$500K cut eliminated Performance Based Design – Phase 2 new contract
  - \$180K cut (90%) to FIMA support for Natural Hazard Center

# FY 2011 Budget Impacts

- **Earthquake State Assistance Program**
  - Provides funding to 33 States/Territories using a two-part formula; base level plus risk-based funding using FEMA 366.
  - Goal is to equip our State partners with the funding to support and enhance EQ risk reduction efforts.
  - Base level funding of \$46K/State maintained - \$500K reduction (\$2.3M to \$1.79M) taken from risk-based funding, leaving <\$300K for risk-based distribution.
  - California received 60% + cut to risk-based funding along with significant cuts to all high-risk States.
  - These reductions will significantly impact the States' ability to prepare for and mitigate the effects of the next major event.

# FY 2011 Budget Impacts

- **Performance-Based Seismic Design Guidelines – Phase 2**
  - Project required under the NEHRP reauthorization and continues to be a NEHRP strategic priorities.
  - PBSD Guidelines will allow an owner to specify the level of performance they want from their building in an earthquake.
  - Will better allow critical facilities to remain operational.
  - Phase 2 to develop guidelines on using PBSD to meet performance goals and understanding benefits of PBSD.
  - After investing almost \$10 million in developing PBSD assessment methodology, this cuts the last phase of this important technology and the possibility of achieving our ultimate loss reduction goal.

## FY 2011 Staffing

- One position at HQ frozen/lost due to agency reductions in S&B
- One Regional position frozen/lost to agency reductions in S&B
- Two regional EQ Program manager positions remain vacant

## FY 2011 Priorities

- Continue emphasis on program implementation and outreach with targeted staff focus (Fetterman and Phillips)
- Systematically review/evaluate current publications inventory
- Enhance involvement and visibility of Regional EQ Program Managers

# NLE 11 FEMA Activities

## National Level Exercise (NLE)

- **NLE11 Scenario:** 7.7 Earthquake in NMSZ, affecting 8 States.
- **NLE11 Response Exercise (May 16-20, 2011):** Test the EQ Catastrophic Plan and response capacity of NMSZ States.
- **NLE11 Recovery Table Top (Sep 2011):** Test the National Disaster Recovery Framework and the coordination of resources.
- **NEHRP Messaging for NLE11:** ShakeOut (Drop, Cover, Hold on Drill), Structural and Non-Structural Mitigation, and Codes

# FY 2011 Planned Accomplishments

- Provide training, outreach and technical support for the NLE 11 exercise to State and local emergency managers and local officials
- Increase design guidance by completing the following: ROVER tool, FEMA E-74 Reducing the Risk of Non-Structural Earthquake Damage, FEMA 439B Blast Resistance Benefits of Seismic Design, FEMA P-752 Design Examples for the NEHRP Seismic Provisions, FEMA P-753 Training Materials for the NEHRP Seismic Provisions, FEMA P-795 Quantification of Building Seismic Performance Factors-Component Equivalency Methodology, and FEMA P-807 Cost Effective Seismic Retrofit of Soft-Story Wood-Frame Buildings.
- Evaluate I-Codes to develop proposed changes to the 2015 edition.

# Proposed FY 2012 Budget

- Additional budget reduction of \$1.4M planned.
- This will result in cuts to following areas –
  - Regional EQ Consortia
  - Reduce/eliminate guidance projects
  - Limit HQ and Regional travel levels
- This would put FEMA NEHRP back to historic lows in terms of resources and staffing
  - \$6.4M budget and 5 HQ staff

# Proposed FY 2012 Accomplishments

- Develop and or update the following publications: FEMA Performance Based Assessment Methodology, FEMA Identification and Mitigation of Non-Ductile Concrete Buildings, and FEMA Simplified Seismic Design Guide.
- Submit proposed changes to the International Building and International Residential Codes for the 2015 edition.
- Develop and execute high-profile earthquake awareness and education programs with national partners including national retailers and entertainment groups.

## Coordination with DHS S&T

- Our goal has been to hold quarterly meetings with S&T staff to discuss coordination of activities.
- Ongoing collaboration related to the Risk Management Series (RMS).
- FEMA NEHRP provides a list of proposed research topics and project needs to S&T annually.

# Challenges and Opportunities

## Challenges:

- Trying to maintain a viable and effective earthquake program in an environment of ongoing budget and staff reductions.

## Opportunities:

- Earthquakes and earthquake loss reduction continues to be a field where there are many areas to improve our nation's resiliency.

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