

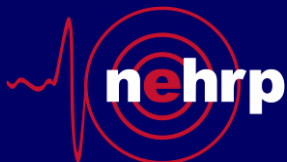
National Earthquake Hazards Reduction Program

... a research and implementation partnership

Program Overview

Advisory Committee on Earthquake Hazards Reduction

3-4 March 2016



FEMA

NIST
National Institute of
Standards and Technology



USGS
science for a changing world

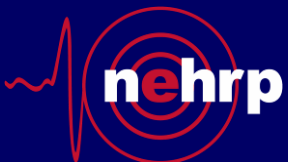
national earthquake hazards reduction program

Outline

- ACEHR
- Budgets
- Legislation status
- Annual report
- Related activities
- Executive Order 13717

This presentation provides NEHRP-wide & Secretariat updates.

Each agency will provide details on its activities.



ACEHR Update

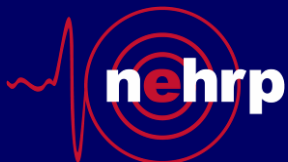


Continuing members:

Ralph Archuleta
Jane Bullock
Craig Davis
John Gillengerten
Jim Goltz
Nathan Gould
Bob Herrmann
Laurie Johnson (Chair)
Ron Lynn
Lisa Ludwig
Peter May
Jack Moehle
Lori Peek

ACEHR last met face-to-face on 9-10 April 2015 at NIST.

The April meeting was followed by several teleconference calls addressing the preparation of the 2015 biennial report.

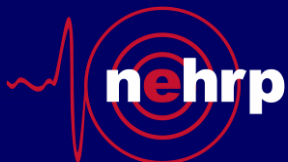


2005-2010 NEHRP Agency Budgets

Enacted Agency NEHRP Budgets (\$M) ¹					
FY	FEMA ²	NIST ³	NSF ⁴	USGS ⁵	NEHRP Total
2005	14.7	0.9	53.1	58.3	127.0
2006	9.5	0.9	53.8	54.5	118.7
2007	7.2	1.7	54.2	55.1	118.2
2008	6.1	1.7	53.6	58.1	119.5
2009	9.1	4.1	56.0	61.2	130.4
2010	9.0	4.1	55.0	62.8	130.9

Notes:

1. USGS budget reflects amount appropriated for USGS NEHRP activities. FEMA, NIST, & NSF budgets reflect agency allocations for NEHRP activities from total agency appropriations. Budgets shown were reported by agencies as of 02/29/16. 2009 ARRA funds are not included in totals. Amounts are reported to nearest \$0.1M.
2. FEMA 2005 enacted NEHRP budget included program activities and employee salaries & expenses (S&E). FEMA 2005-2009 NEHRP budgets excluded state grants. FEMA 2006-2015 NEHRP budgets cover all program activities, excluding S&E costs.
3. NIST NEHRP budget supports expenses for both NEHRP Secretariat (Lead Agency) and NIST Earthquake Risk Reduction in Buildings & Infrastructure R&D Program.
4. NSF NEHRP budget supports program activities, excluding Agency Operations and Award Management (AOAM) costs. NSF FY 2005-2014 NEHRP budget included support for George E. Brown, Jr. Network for Earthquake Engineering Simulation (NEES) and Global Seismographic Network (GSN), but excluding *EarthScope* activities. NSF FY 2015-2016 budgets include support for the GSN and the earthquake engineering portion of the Natural Hazards Engineering Research Infrastructure (NHERI), but excludes *Earthscope* activities.
5. USGS budget supports program activities, including the USGS Earthquake Hazards Program (EHP) and the USGS portion of the GSN.

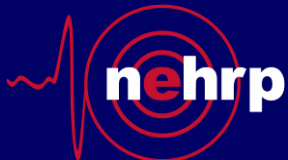


2011-2016 NEHRP Agency Budgets

Enacted Agency NEHRP Budgets (\$M) ¹					
FY	FEMA ²	NIST ³	NSF ⁴	USGS ⁵	NEHRP Total
2011	7.8	4.1	55.3	61.4	128.6
2012	7.8	4.1	53.2	59.0	124.1
2013	7.8	3.9	52.2	55.6	119.5
2014	7.5	3.9	42.0	58.7	112.1
2015	7.5	3.9	52.2	64.4	128.0
2016	8.5	3.9	54.2	67.0	133.6

Notes:

1. USGS budget reflects amount appropriated for USGS NEHRP activities. FEMA, NIST, & NSF budgets reflect agency allocations for NEHRP activities from total agency appropriations. Budgets shown were reported by agencies as of 02/29/16. 2009 ARRA funds are not included in totals. Amounts are reported to nearest \$0.1M.
2. FEMA 2005 enacted NEHRP budget included program activities and employee salaries & expenses (S&E). FEMA 2005-2009 NEHRP budgets excluded state grants. FEMA 2006-2016 NEHRP budgets cover all program activities, excluding S&E costs.
3. NIST NEHRP budget supports expenses for both NEHRP Secretariat (Lead Agency) and NIST Earthquake Risk Reduction in Buildings & Infrastructure R&D Program. NIST 2016 enacted NEHRP budget allocation has not been finalized as of 02/29/16 – previously approved baseline allocations are shown.
4. NSF NEHRP budget supports program activities, excluding Agency Operations and Award Management (AOAM) costs. NSF FY 2005-2014 NEHRP budget included support for George E. Brown, Jr. Network for Earthquake Engineering Simulation (NEES) and Global Seismographic Network (GSN), but excluding *EarthScope* activities. NSF FY 2015-2016 budgets include support for the GSN and the earthquake engineering portion of the Natural Hazards Engineering Research Infrastructure (NHERI), but excludes *Earthscope* activities.
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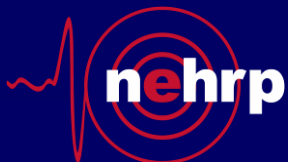


2017 Administration-Requested NEHRP Agency Budgets

Requested Agency NEHRP Budgets (\$M) ¹					
FY	FEMA ²	NIST ³	NSF ⁴	USGS ⁵	NEHRP Total
2017	8.5	3.9	54.2	69.5	136.1

Notes:

1. USGS budget reflects amount requested for USGS NEHRP activities. FEMA, NIST, & NSF budgets reflect planned agency allocations for NEHRP activities from total requested agency appropriations. Budgets shown were reported by agencies as of 02/29/16. Amounts reported to nearest \$0.1M.
2. FEMA planned NEHRP budget includes program activities, excluding employee salaries & expenses (S&E).
3. NIST planned NEHRP budget supports expenses for both NEHRP Secretariat (Lead Agency) and NIST Earthquake Risk Reduction in Buildings & Infrastructure R&D Program. NIST 2017 requested NEHRP budget allocation has not been finalized as of 02/29/16 – previously approved baseline allocations are shown.
4. NSF planned NEHRP budget supports program activities, excluding Agency Operations and Award Management (AOAM) costs. Budget includes support for the Global Seismographic Network (GSN) and the earthquake engineering portion of the Natural Hazards Research Infrastructure (NHERI), but excludes *EarthScope* activities.
5. USGS requested budget supports program activities, including the USGS Earthquake Hazards Program (EHP) the USGS portion of the GSN(\$7.3M).



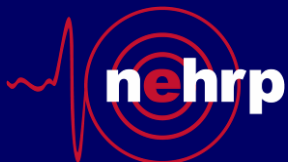
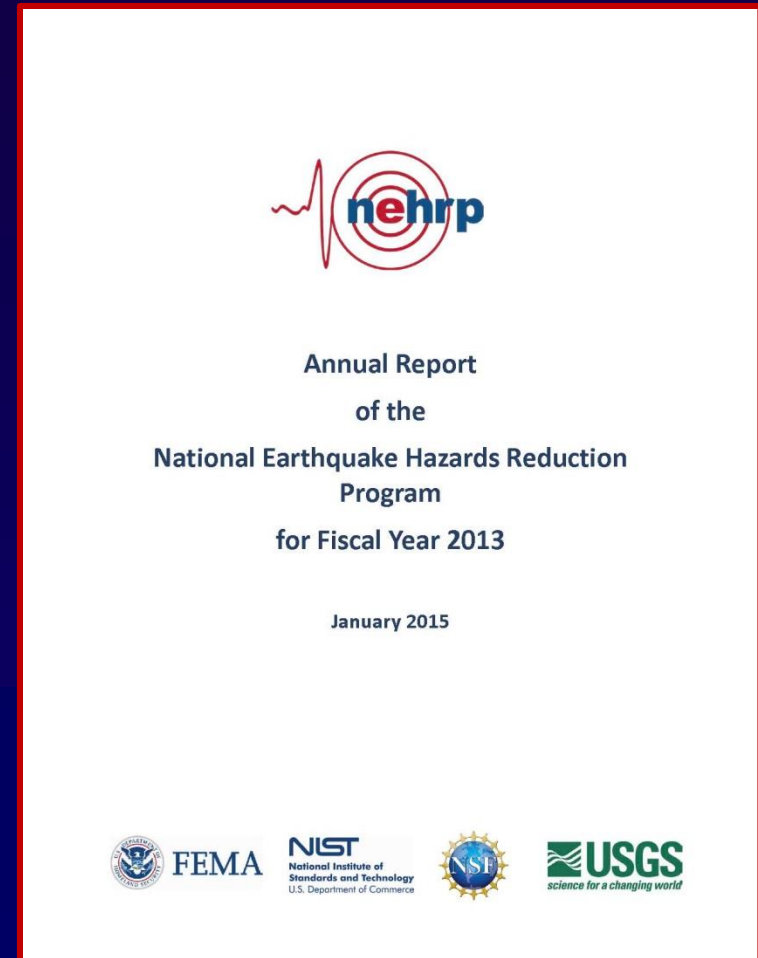
Legislation Status

- Unchanged since 2014 ...
- PL 108-360, *National Earthquake Hazards Reduction Program Reauthorization Act of 2004*, remains in effect (though budget authorizations expired 30 September 2009)
- Agencies continuing their ongoing activities since budget authorizations expired
- Last reauthorization hearing conducted by Technology & Innovation Subcommittee of House Science, Space, & Technology Committee on 7 April 2011
- Review hearing conducted by Research & Technology Subcommittee of House Science, Space, & Technology Committee on 29 July 2014



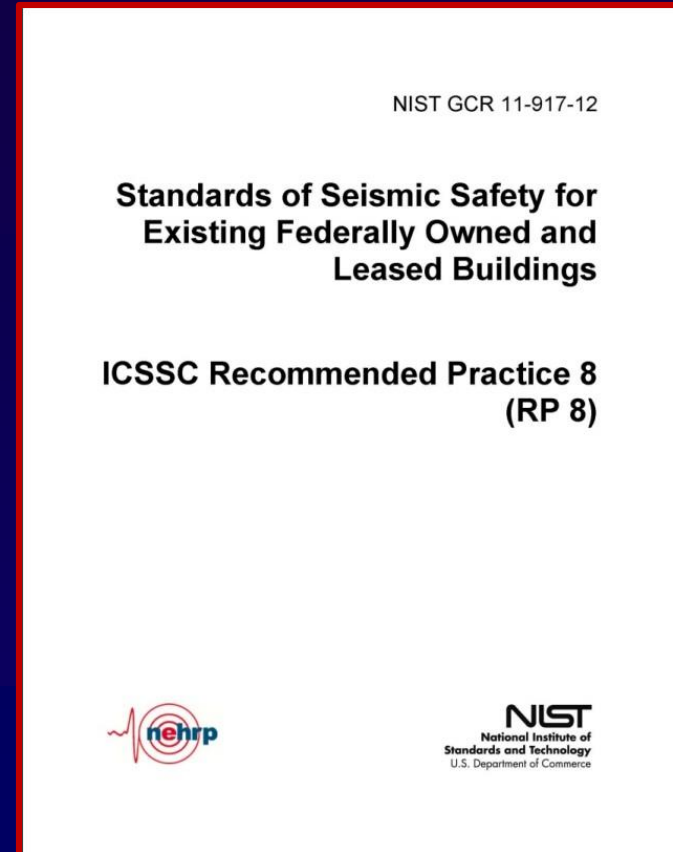
Annual Report

- Annual report covering FY 2014 activities is in final stages of editing prior to publication/release
- New report on FY 2015 activities is starting to be prepared and will then undergo interagency review



Related Activity

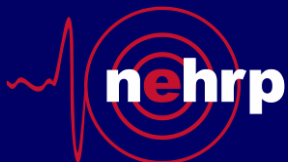
Interagency Committee on
Seismic Safety in Construction
(ICSSC) RP-8, *Standards of
Seismic Safety for Existing
Federally Owned or Leased
Buildings* – now being updated
via task order with Applied
Technology Council and should
be available before end of CY
2016.



Executive Order 13717

Establishing a Federal Earthquake Risk Management Standard

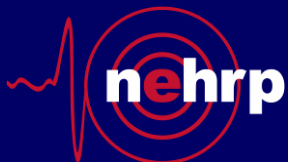
- Background: Follows a lengthy study by the Mitigation Framework Leadership Group (MitFLG) that resulted in actions recommended to Executive Office of the President.
- Revokes old EO's 12699 and 12941.
- Policy/Philosophy:
 - Strengthen national security and resilience for the earthquake hazard – promote public safety, economic strength, & national security.
 - Recognizes that consensus codes and standards focus on life safety and encourages agencies to “go beyond” codes and standards requirements to achieve resilience.



Executive Order 13717

Establishing a Federal Earthquake Risk Management Standard

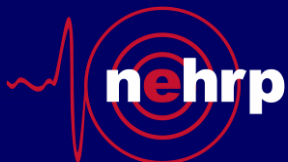
- Basic requirements for **new** Federal buildings:
 - **Owned Buildings:** Agencies **shall** adhere to requirements of the 2015 International Building Code (IBC), and all associated references (e.g. ASCE 7), as well as adopting future updated editions of IBC (subject to agency determination that each updated edition is a nationally recognized building code).
 - **Leased Buildings:** For new buildings being constructed for a Federal agency, same procedures as those for owned buildings **shall** apply, to the extent permitted by law.
 - **Federally Assisted or Regulated Buildings:** Agencies **shall consider** applying same procedures as those for owned buildings.



Executive Order 13717

Establishing a Federal Earthquake Risk Management Standard

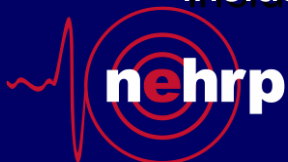
- Basic requirements for **existing** Federal buildings:
 - **Owned Buildings:** Agencies **shall** adhere to the requirements of ICSSC RP 8, *Standards of Seismic Safety for Existing Federally Owned and Leased Buildings*, and its successors.
 - **Leased Buildings:** ICSSC RP 8 and its successors **shall** be applied. Note: RP 8 provides exemptions for situations involving small Federally leased spaces in larger buildings, depending on seismicity.
 - **Federally Assisted or Regulated Buildings:** No specific requirements.



Executive Order 13717

Establishing a Federal Earthquake Risk Management Standard

- Agency & committee responsibilities:
 - Recognizes ICSSC as leadership body to address earthquake issues in Federal building construction, with NEHRP Lead Agency responsible for leading ICSSC and developing guidelines.
 - Agencies **shall** designate Seismic Safety Coordinators to NIST (*de facto* ICSSC members) within **30 days of date of EO**.
 - NIST **shall** issue implementing guidelines for the EO, **within 8 months of date of EO**, and assist agencies in interpreting the guidelines.
 - NIST **shall** support the ICSSC, and the ICSSC shall update the RP 8 Standards **at least once per 6 years**.
 - Agencies **shall** report their progress in implementing the EO to NIST, for inclusion in NEHRP report to Congress, on a biennial basis.



Executive Order 13717

Establishing a Federal Earthquake Risk Management Standard

- Other general provisions:
 - Implementation of EO is responsibility of each individual agency.
 - Agencies are free to require higher-than-code performance levels for any of their buildings.
 - Agency heads may exempt a building from the EO provisions if the head determines that the building is substantially related to an important law enforcement purpose or exemption is needed to address extraordinary circumstance related to national security or public safety (OMB Director must be notified).

