# **USGS Post-EQ Reconnaissance**

#### **Past Activities and Future Perspectives**

Roger D. Borcherdt

Geotechnical Engineering Earthquake Reconnaissance (GEER)

NSF Sponsored Joint Advisory and Working Group Meeting

October 7 & 8, 2004

Richmond, CA



## **Outline**

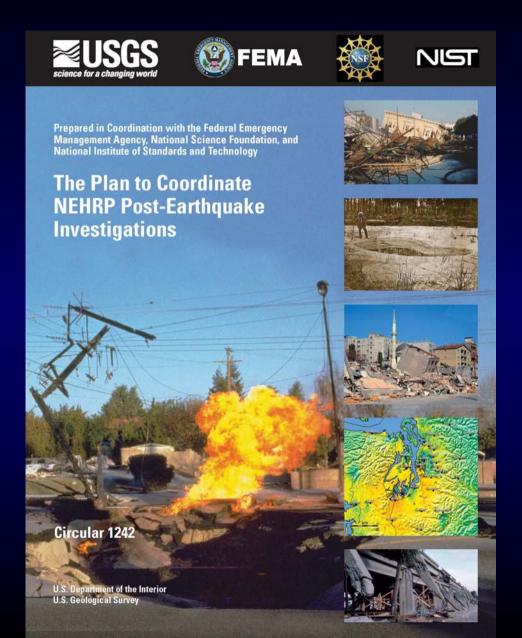
• USGS Post Eqk. Reconnaissance –

Re: "The Plan to Coordinate NEHRP Post-Earthquake Investigations" (Holzer, et al., 2003)

USGS Past and Future Activities -

Re: "USGS Draft Plan for Post Earthquake Investigations" (Mortensen, et al., last draft, 2001)

# The Plan to Coordinate NEHRP Post-Eqk. Investigations



This plan was developed with the assistance of the Applied Technology Council (ATC) of Redwood City, California, under USGS cooperative agreement 1434-WR-97-AG-00015, ATC-35, Input for the plan was solicited at a workshop that was co-sponsored by the Earthquake Engineering Research Institute (EERI).





#### **Oversight Committee**

Daniel Abrams, Mid-America Earthquake Engineering Research Center Jonathan Bray, Pacific Earthquake Engineering Research Center James Davis, Association of American State Geologists Richard Eisner, California Office of Emergency Services Willliam Elliott, American Society of Civil Engineers, Technical Council on Lifeline Earthquake Engineering Richard Fragaszy, National Science Foundation, Division of Civil and Mechanical Systems, Arlington Edward Fratto, Northeast States Emergency Consortium Robert Hendershot, Structural Engineers Association of California Leigh House, National Science Foundation, Division of Earth Sciences Thomas Jordan, Southern California Earthquake Center George Lee, Multidisciplinary Center for Earthquake Engineering Research Jill McCarthy, U.S. Geological Survey Rawn Nelson, National Council of Structural Engineers Associations Timothy Sheckler, Federal Emergency Management Agency S. Shvam Sunder, National Institute of Standards and Technology Susan K. Tubbesing, Earthquake Engineering Research Institute Frank Vernon, Incorporated Research Institutions for Seismology James Wilkinson, Jr., Central United States Earthquake Consortium Phillip Yen, Federal Highway Administration

Cover photograph: Broken gas line, Balboa Boulevard, Los Angeles, California, 1994 Northridge earthquake (photograph by M. Rymer)

Collapsed building, Marina District, San Francisco California, 1989 Loma Prieta earthquake (Photograph by C.E. Meyer, USGS) Crater formed by liquefaction near Ten Mile Hill, South Carolina, 1886 Charleston earthquake (Photograph credit: USGS 9th Annual Report, plate XXX Damaged buildings in Korlez, Turkey, 1999 Kocaeli earthquake (Photograph by C. Mueller, USGS) USGS rapid instrumental intensity map of 2001 Nisqually, Washington, earthquake (http://quake.usgs.gov/shakemap) Cypress Viaduct collapse, Oakland, California, 1989 Loma Prieta earthquake. (Photograph by H. G. Wilshire, USGS)

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U.S. Department of the Interior U.S. Geological Survey

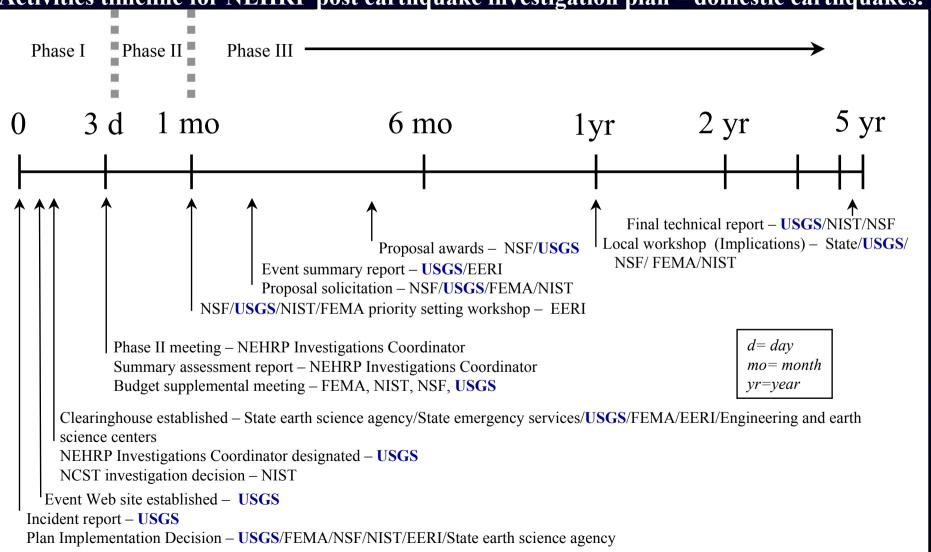
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#### **USGS Role-** Domestic Earthquakes

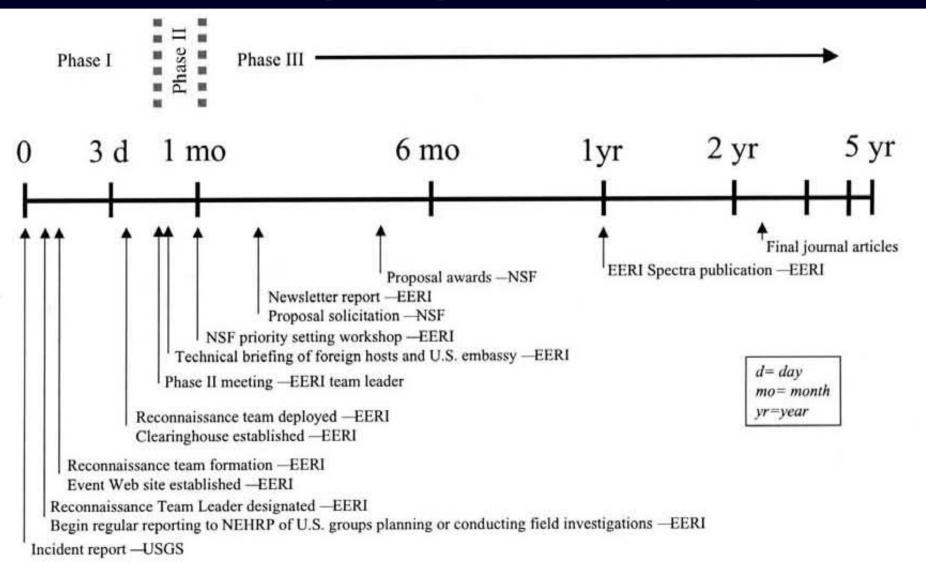
## from "Plan to Coordinate NEHRP Post-Eqk. Reconnaissance"

Activities timeline for NEHRP post earthquake investigation plan – domestic earthquakes.



## **USGS** Role- Foreign Earthquakes

from "Plan to Coordinate NEHRP Post-Eqk. Reconnaissance" Activities timeline for EERI post-earthquake activities – foreign earthquakes.



# **USGS Draft Plan for Post Earthquake Investigations**

(Mortenson, et al. 2001)

## United States Geological Survey Plan for Postearthquake Investigations

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#### **EXECUTIVE SUMMARY**

This Plan serves to coordinate the U.S. Geological Survey response to future significant earthquakes. It gives primary emphasis to field investigations of U.S. earthquakes, but also includes a general outline of coordination of USGS response to foreign earthquakes. Because of the mutual dependence of some kinds of USGS field investigations and emergency management actions taken by other governmental agencies, parts of the Plan address coordination between USGS response and responses by other agencies. Elements of the Plan that pertain to post-earthquake information dissemination are intended to be compatible with the Proposed National USGS Post-Earthquake Media Response Plan of the Media Response Working Group (Steve Kirby, Leader).

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