

Scientific Earthquake Studies Advisory Committee

Lloyd S. Cluff, Chairman
33 Mountain Spring Avenue
San Francisco, CA 94114
415-564-9371
lloydcluff@aol.com

November 23, 2005

Committee Members

Lloyd S. Cluff

Director
Geosciences
Department, Pacific
Gas and Electric
Company
San Francisco,
California

Ronald T. Eguchi

President
ImageCat, Inc.
Long Beach, California

Thomas H. Jordan

W. M. Keck Professor of
Earth Sciences
University of Southern
California
Los Angeles, California

Jonathan G. Price

Director/State Geologist
Nevada Bureau of
Mines and Geology,
University of Nevada
Reno, Nevada

Paul Segall

Department of
Geophysics
Stanford University
Stanford, California

Robert B. Smith

Department of Geology
and Geophysics
University of Utah
Salt Lake City, Utah

Sharon L. Wood

Ferguson Structural
Engineering Laboratory
University of Texas
Austin, Texas

Dr. Patrick Leahy
Acting Director, U.S. Geological Survey
Mail Stop 100
12201 Sunrise Valley Drive
Reston, VA 20192

Dear Dr. Leahy:

Subject: 2005 Annual Report of the Scientific Earthquake Studies
Advisory Committee

Enclosed is our fourth committee report on the USGS Earthquake Hazards Program for submission to Congress and other interested parties, particularly the NEHRP Advisory Committee.

The committee met three times in 2005, and identified many challenges, opportunities, and recommendations that are included throughout our report. However, we believe there are three especially important, high-priority recommendations, discussed in detail in the report, for the USGS Earthquake Hazards Program at this time.

1. The SESAC strongly encourages the USGS, the Secretary of the Interior, the Office of Management and Budget, and Congress to move forward vigorously with the Natural Hazards Initiative in the USGS fiscal year 2007 budget. Recent events have spotlighted natural hazards, and the Committee believes the USGS, through its Natural Hazards Initiative, has a major growth opportunity to take the leadership in creating a disaster-resistant country. We recommend the USGS undertake a complete analysis of the consequences of catastrophic earthquakes in the San Francisco Bay Area and in Southern California and integrate the complete picture, from rupture on the fault, wave propagation into buildings and other structures, the response of all levels of our infrastructure, the emergency response, and continuing to the full recovery of our society. The purpose of this exercise would be to identify where and when the breaking points for an extreme earthquake disaster in

California will be. The lessons learned in this demonstration project would be applicable to all national extreme disasters.

2. In support of the above recommendation, the Committee continues to strongly recommend to the Director of the USGS that full funding of the ANSS at the level authorized in the current NEHRP legislation be appropriated. The USGS must make a commitment to work through the Department of the Interior and the Office of Management and Budget to ensure this objective is met. Full deployment of the ANSS offers the potential to substantially reduce earthquake losses and their consequences by providing critical information for land-use planning, building design, insurance, warnings, and emergency preparedness and response. A 2005 report by the National Research Council reiterates that the potential benefits far exceed the costs
3. The Committee reemphasizes the USGS must reestablish the National Earthquake Prediction Evaluation Council to serve as the forum to review predictions and resolve scientific debate prior to public controversy or misrepresentation, so decision makers are not misled by unfounded short-term earthquake predictions. The Committee encourages the USGS to support an active NEPEC equipped with adequate resources to perform this role.

We recommend that a joint meeting of the SESAC and the NEHRP Advisory Committee be held soon after the formation of the new committee. Representatives of the SESAC should be considered for appointment to the NEHRP Advisory Committee.

We look forward to continued involvement in this important program.

Sincerely,



Lloyd S. Cluff
Chairman

cc: Committee members
David Applegate, USGS Reston
Mike Blanpied, USGS, Reston
William Leith, USGS, Reston
William Ellsworth, USGS, Menlo Park
Jill McCarthy, USGS, Golden