

Fault rupture observations from the most recent and prior events along
New Zealand's Alpine Fault and Greendale Fault

Greg dePascal (University of Chile)

Constraining Co- and Post-Seismic Shallow Fault Slip with Near-Field
Geodesy and Mechanical Modeling

Ben Brooks (USGS)

11:45 – 12:00 Discussion of Issues Raised

12:00 – 13:30 *Lunch and collaborative informal discussions*

**Session II: Observational data for the Surface Rupture during Earthquakes (SURE)
Database**

13:30 – 15:00

Introduction to Session II – Perspectives from California

Tim Dawson (California Geological Survey)

Issues associated with setback distance from active fault in China: What
we have learned from the 2008 Wenchuan Earthquake

Xiwei Xu (China Earthquake Administration)

Quantifying Co-seismic Distributed Deformation Using Optical Image
Correlation: Implications for Empirical Earthquake Scaling Laws and
Safeguarding the Built Environment

Chris Milliner (U.C. Berkeley)

A new technique to measure 3D slip vectors from high-resolution
topography, applied to photogrammetry of historic ruptures

Austin Elliot (COMET/ University of Oxford)

Discussion

15:00 – 15:15

Break

**Session II: Observational data for the Surface Rupture during Earthquakes (SURE)
Database (Continued)**

15:15 – 16:15 50 or 500? Current Issues in Estimating Fault Rupture Length

David Schwartz (USGS)

Towards a unified database of Surface Ruptures (SURE): Objectives and perspectives

Stéphane Baize / Johann Champenois (IRSN)

16:15 – 17:00 Discussion

17:00 – 18:00 **Last minute addition:** Briefing on the 2016 Kaikoura, New Zealand Earthquake

Pilar Villamor (GNS Science)

18:00 Adjourn

(See next page for Day 2)

Fault Displacement Hazard Analysis Workshop Day 2

December 9, 2016

Menlo Park City Council Chambers

701 Laurel St. Menlo Park, CA

8:30 – 9:00 Workshop Registration
9:00 – 9:15 Overview/Observations from Day 1

Session III: Application and Advances in Deterministic and Probabilistic Fault Displacement Hazard Analysis

9:15 – 10:35

Fault displacement hazard at natural gas storage fields-a future research and regulatory direction

Thom Davis

U.S. criteria for assessing tectonic surface fault rupture and deformation at nuclear facilities

Ivan Wong (Lettis Consultants International)

Surface Rupture Data and Location Uncertainty in Probabilistic Fault Displacement Hazard Analyses

Mark Petersen (USGS) and Rui Chen (CGS)

Deterministic and probabilistic fault displacement hazard methodologies for gas pipeline crossings in California: applications and data needs

Steve Thompson (Lettis Consultants International)

10:35 – 10:50 *Break*

Session III: Application and Advances in Deterministic and Probabilistic Fault Displacement Hazard Analysis (Continued)

10:50 – 11:30

Risk Characterization and Dam Safety Modifications to Address Active Fault Rupture Beneath an Embankment Dam

Keith Kelson (U.S. Army Corps of Engineers)

Framework of probabilistic and deterministic methods for evaluating near-fault displacement

Naoto Inoue (Geo-Research Institute – Japan)

11:30 – 12:00

“Flash Talks”

Attendees are asked to present their top lessons learned in the applications of FDHA and the most pressing user needs in 1-2 slides, in about 2 minutes each. Sign-up sheet will be available at the Workshop (limited slots, first-come, first served!).

12:00 – 13:30

Lunch (On your own, see list of local restaurants and lunch options)

13:30 – 15:00

Application or Mis-Application of PFDHA. What Relationships are Appropriate and Is the Displacement Result Reasonable?

Donald Wells (Amec – Foster Wheeler)

Performance-Based PFDHA Using the Third Uniform California Earthquake Rupture Forecast

Glenn Biasi (University of Nevada, Reno)

Earthquake surface rupture (fault displacement) assessment using dynamic rupture models: Case study of the 1999 Chi-chi Taiwan earthquake

Luis Dalguer (Swiss Nuclear)

Engineering Implementation of the Results of a Fault Displacement Hazards Analysis

Jonathan Bray (U.C. Berkeley)

Discussion

15:00 – 15:15 *Break*

Session IV: Moving Forward

15:15 – 16:15

The Path Forward: Research Directions and Plans for a PEER Research Project

Norm Abrahamson (Pacific Gas and Electric)

Collaborative Opportunities and Coordination of Research Efforts

Jeff Bachhuber (PG&E), Yousef Bozorgnia (PEER)

16:15 – 17:00 Workshop Discussion and Wrap-up

17:00 *Adjourn*