

Future Developments of the CSEP Testing Centers

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CSEP Version 11.1.0

- **New evaluation tests**
 - Residual analysis and goodness of fit test by R. Clements et al. (UCLA and USC)
 - Classical t-paired statistic (T-Test) and Wilcoxon signed-rank (W-Test) tests by David Rhoades et al. (GNS, ETH, NIED and USC)

CSEP Version 11.1.0

- Enhancements to current Testing Centers results viewer
 - Results hosted by SCEC
 - Web service to query data products



The screenshot shows the CSEP (Collaboratory for the Study of Earthquake Predictability) website. The header features the CSEP logo and a world map. A navigation bar includes links for Home, CSEP Tests, Documents, News, People, Results, Testing Centers, and Software. The main content area is titled "Testing Results" and lists two testing centers: GNS Testing Center and SCEC Testing Center. Below this, a paragraph states that results are restricted to CSEP web members and should be used for scientific purposes only. A list of three research questions follows. At the bottom, a note specifies that member accounts are for geophysical science-related business only. A sidebar on the right contains sections for "Testing Centers" (listing ERI, ETH, GNS, and SCEC), "Testing Regions" (listing California, Italy, Japan, Northwest Pacific, Southwest Pacific, New Zealand, and Global), and "CSEP Tests" (listing N(umber)-test, L(ikelihood)-test, The likelihood R(atio)-test, and The Molchan-test).

CSEP
Collaboratory for the Study of
Earthquake Predictability

Home CSEP Tests Documents News People Results Testing Centers Software

Home » Results

Testing Results

- GNS Testing Center
- SCEC Testing Center

Results generated from any of the testing centers are restricted to CSEP web members only and should be used for scientific-related purposes only. CSEP and SCEC do not promote these results or models as accurate predictions of actual events. Rather, they are utilized to help us understand our mission statement:

1. How should scientific earthquake predictions be conducted and evaluated?
2. What is the intrinsic predictability of the earthquake rupture process?
3. Can knowledge of large-earthquake predictability be deployed as useful predictions; i.e., reliable advance warning of potentially destructive events?

Member accounts are for CSEP geophysical science-related business only. CSEP accounts used inappropriately will be removed immediately.

Testing Centers

- ERI, Japan
- ETH, Switzerland
- GNS, New Zealand
- SCEC, United States

Testing Regions

- California
- Italy
- Japan
- Northwest Pacific
- Southwest Pacific
- New Zealand
- Global

CSEP Tests

- The N(umber)-test
- The L(ikelihood)-test
- The likelihood R(atio)-test
- The Molchan-test

Future CSEP Software Development

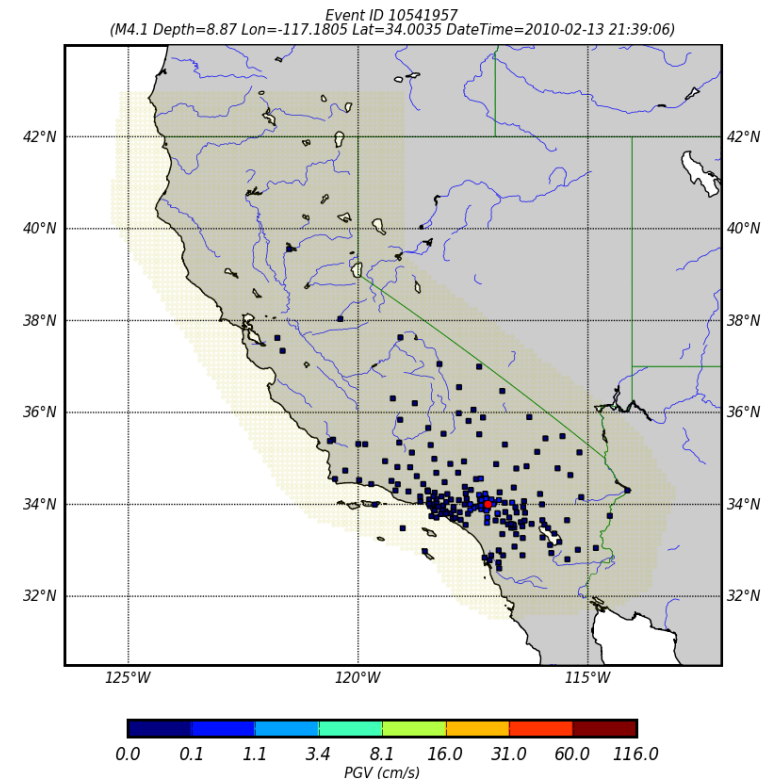
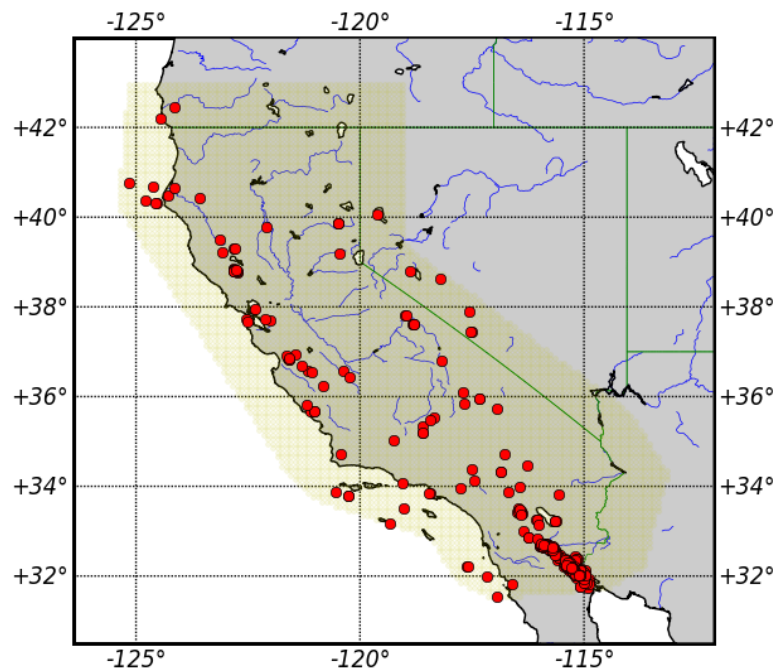
- Alarm-based tests should support comparison of alarm-based and rate-based forecasts
- Generate forecasts maps using Python's basemap package of matplotlib instead of GMT
- Running CSEP within VirtualBox
- Upgrade Python to 2.6

CSEP Future Testing Regions

- **SCEC Testing Center**
 - High resolution Global testing region
- **Testing Center in Beijing**
 - North-South seismic belt region
 - China
- **Japan Testing Center**
 - Japan Mainland testing region
 - Kanto testing region
- **EU Testing Center**
 - Greece testing region

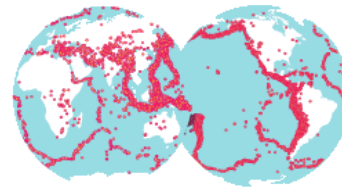
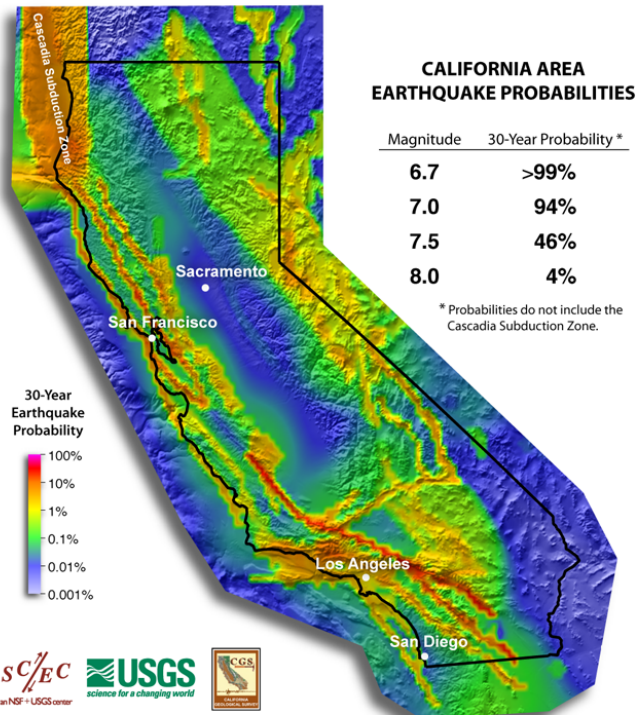
CSEP Future Applications

- Earthquake Early Warning (EEW) Testing Center at SCEC



CSEP Future Applications

- Global Earthquake Model (GEM) Testing Center
- Evaluation of Uniform California Earthquake Rupture Forecast (UCERF), Version 3



GEM
GLOBAL EARTHQUAKE MODEL

Summary

- New features for generic CSEP distribution
- Expand testing regions
- Adopt CSEP testing center software by other projects