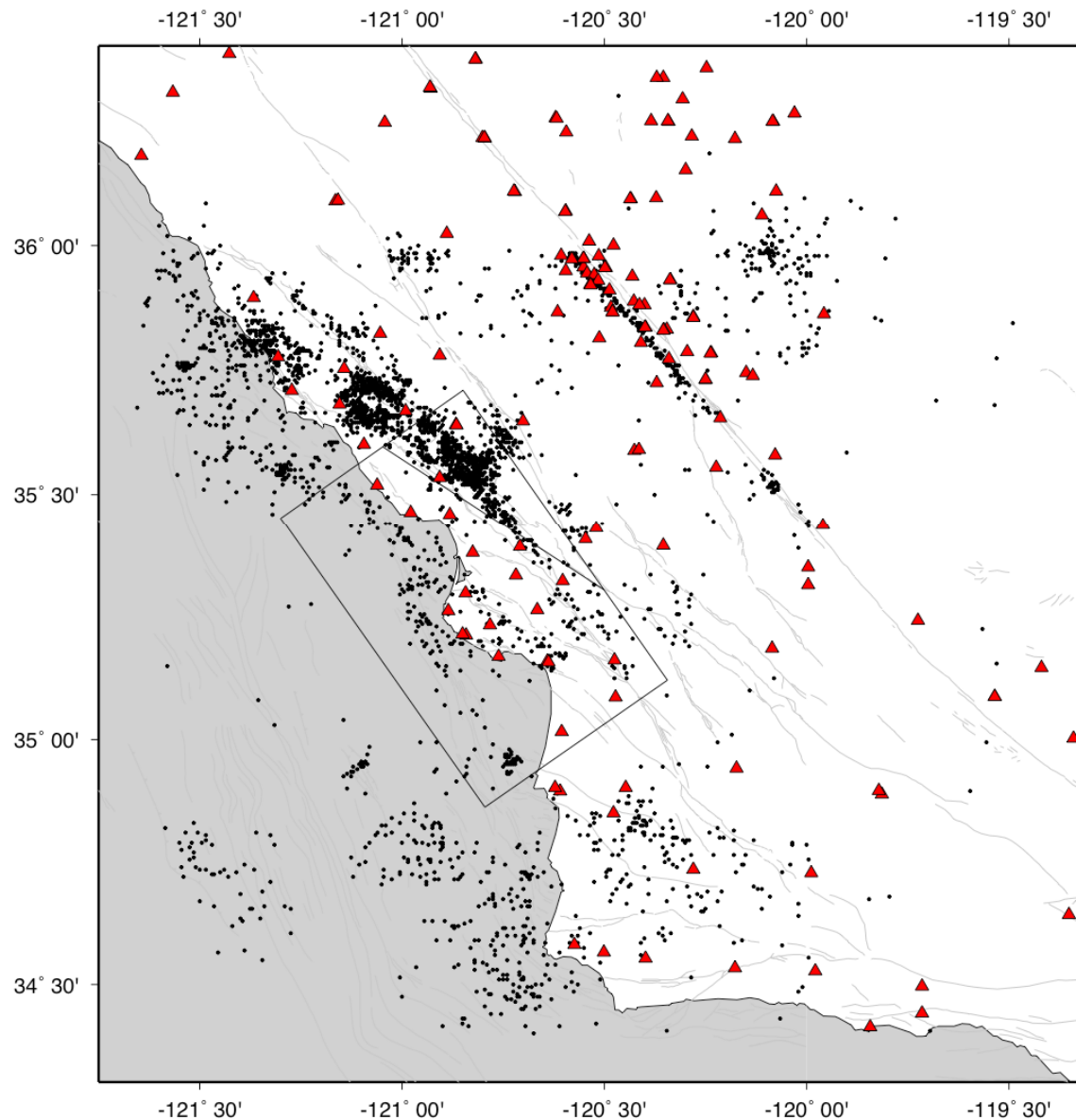


Summary of Preliminary Findings from the USGS/PG&E hazard studies for the Central Coastal California Region

Seismicity data from the USGS: J. Hardebeck,
Aero-magnetic data from V. Langenheim,
Marine-magnetic data from J. Watt

Regional Seismicity Based on Local Velocity Model



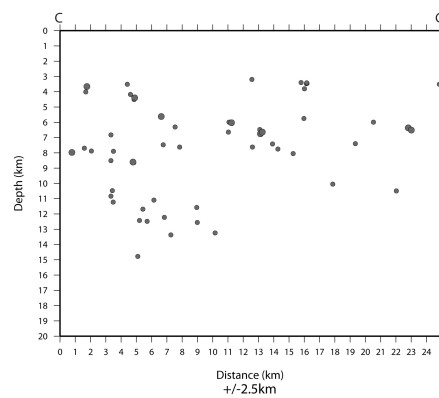
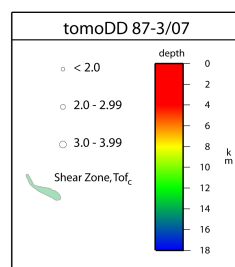
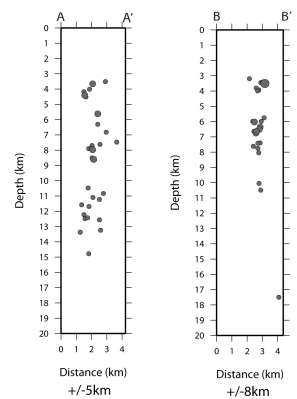
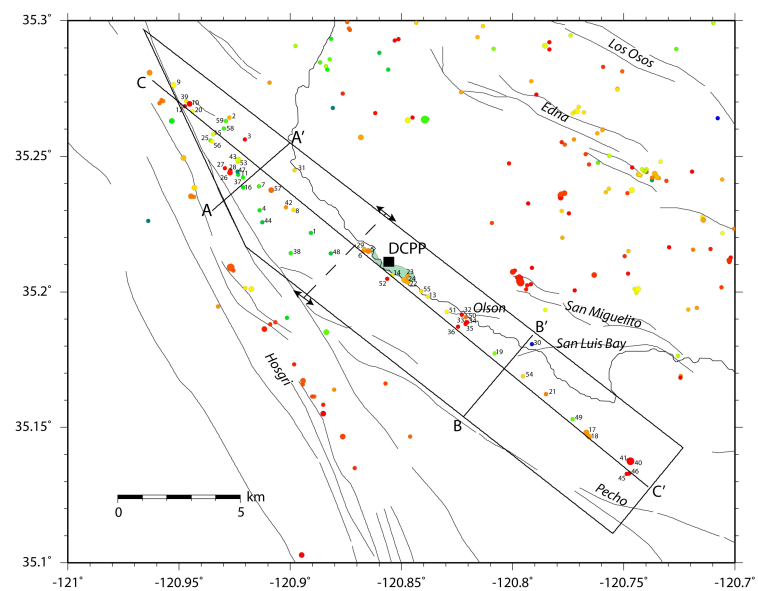
Double-difference Tomography (tomoDD):

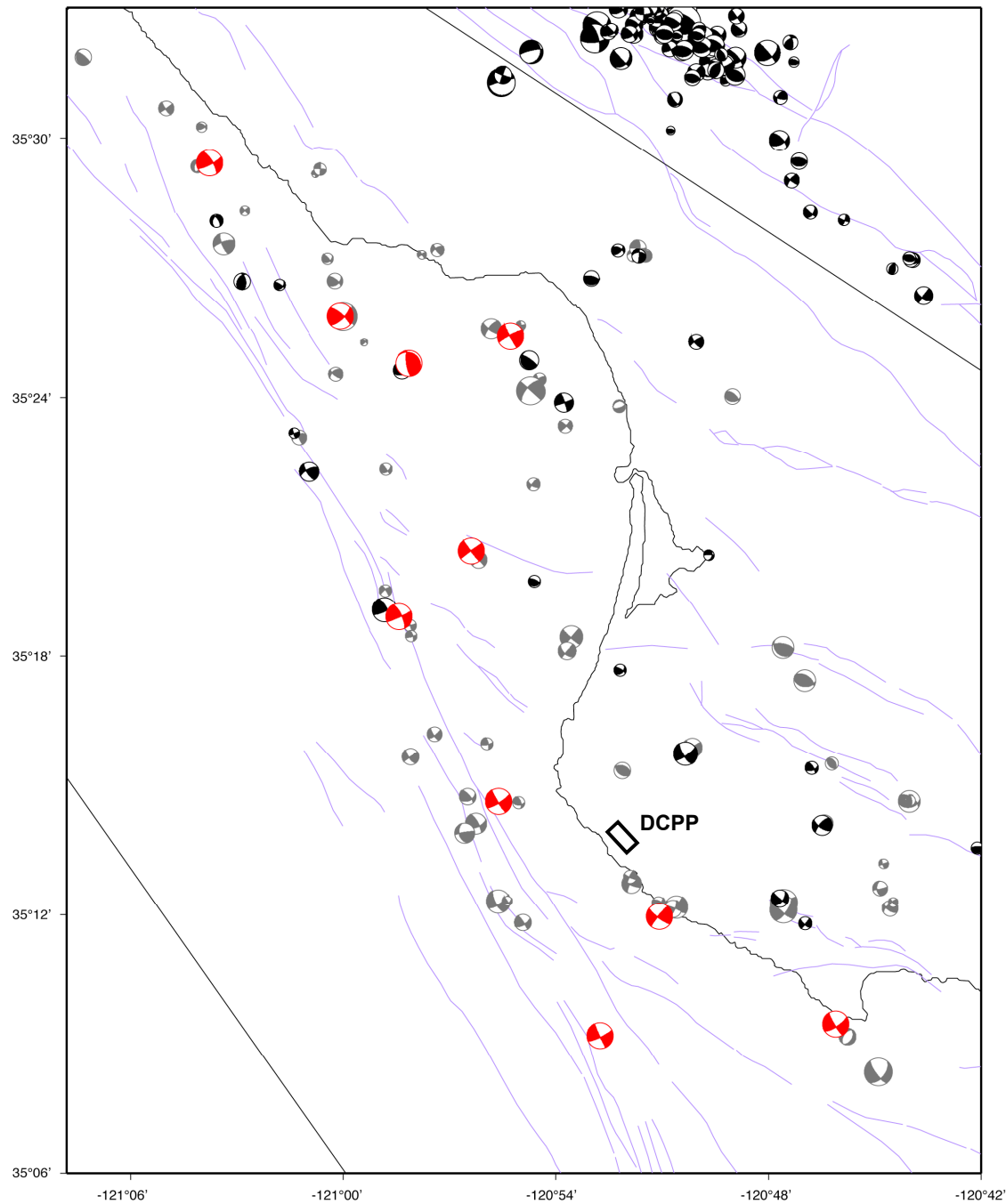
- solves jointly for velocity model and earthquake locations
- absolute and relative arrival times
- improves both absolute and relative earthquake locations

Earthquake Data:

- ~1400 earthquakes (exclude San Simeon aftershocks)
- ~26,000 P-wave and ~3000 S-wave absolute arrival times
- ~11,000 P-wave and ~5000 S-wave relative arrival times from waveform cross-correlation

10/1987 - 3/2007 Seismicity; Relative Locations Using tomoDD





Focal Mechanisms

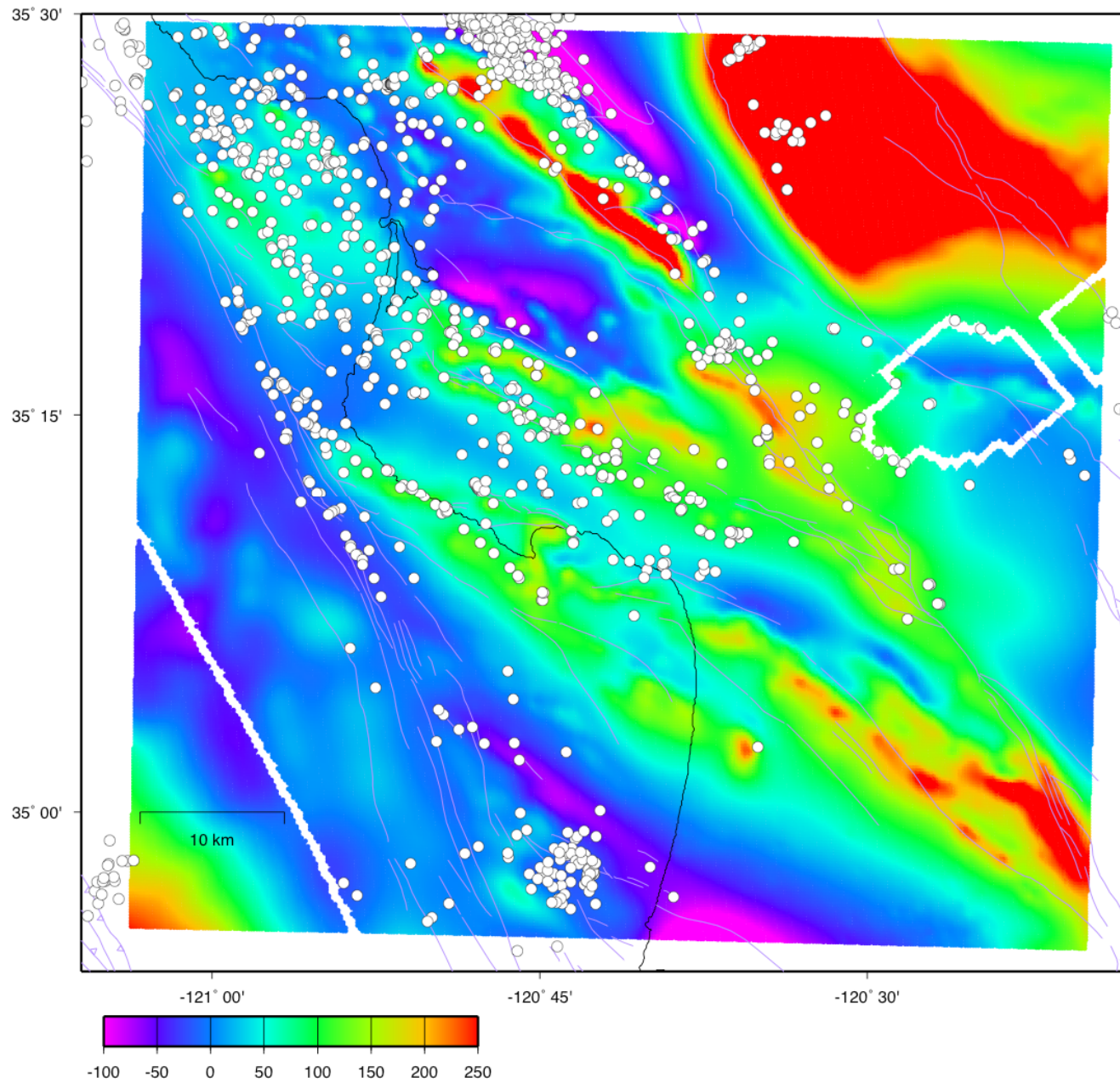
Ray tracing in 3D velocity model.

Black: good quality (A-C of Hardebeck & Shearer) single-event mechanisms.

Grey: lower quality single-event mechanisms, checked for reasonableness.

Red: composite mechanisms.

Seismicity Comparison with raw (unprocessed) aeromagnetic data



Seismicity Comparison with raw (unprocessed) Marine Magnetic Data

