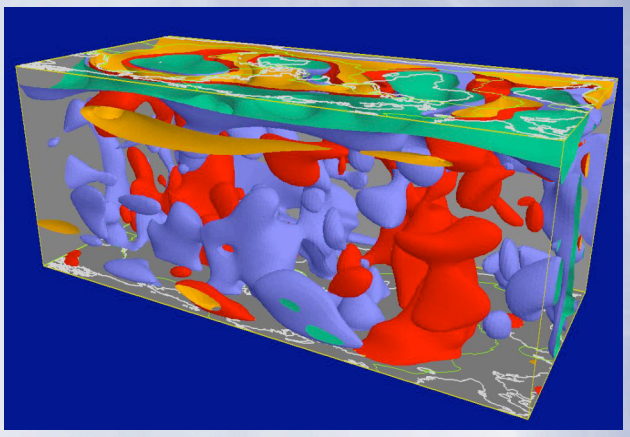
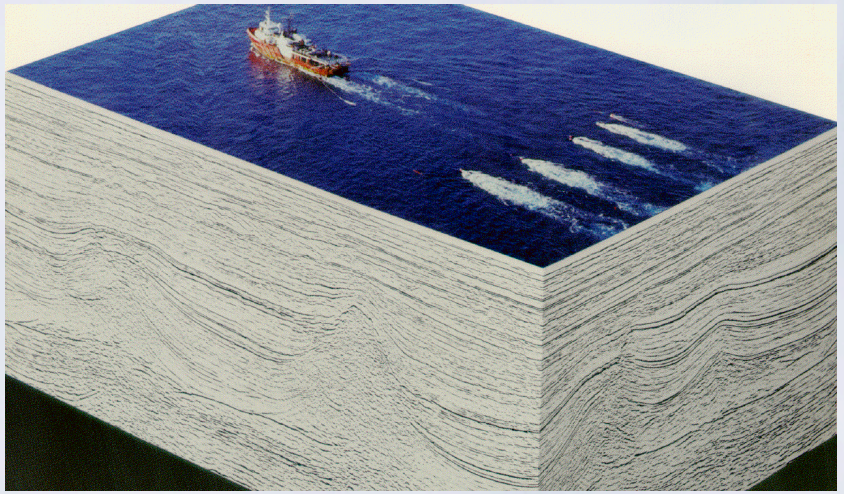
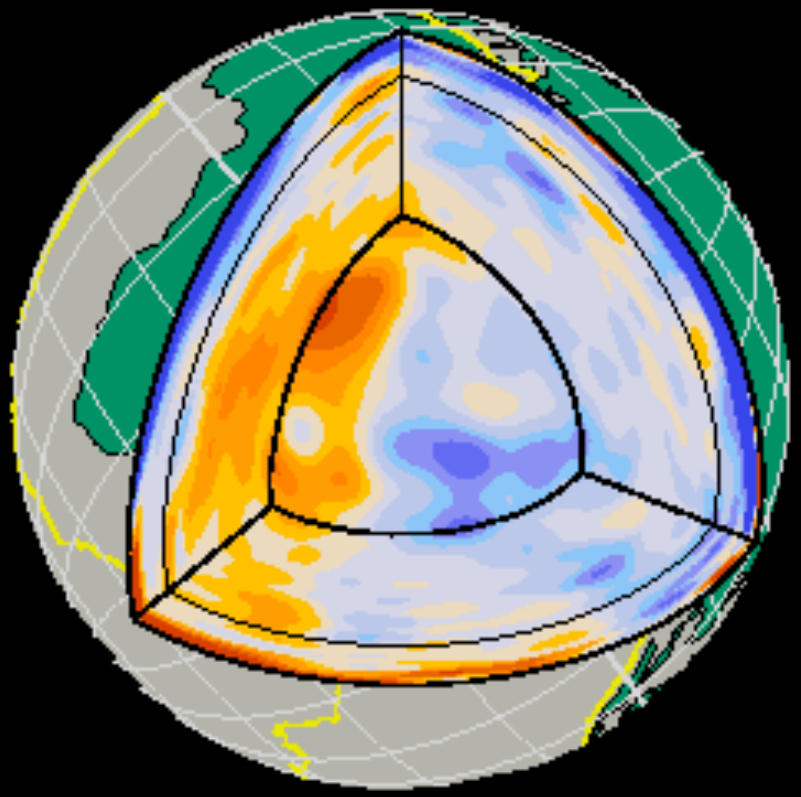


Long Range Science Plan for Seismology





NSF Tasking:

The IRIS Consortium will consult broadly with the research community to develop a new long-range science plan for global seismology that will guide potential future improvements and enhancements to the IRIS facilities.

Note: “global” means the entire discipline, not just deep Earth

LRSPS Process

- IRIS Board Selected Tri-Chairs

  Rick Aster, Don Forsyth, Barbara Romanowicz

- Tri-Chairs Selected LRSPS Writing Committee:

  Thorne Lay (Editor), Richard Allen, Vernon Cormier, Joan Gomberg, John Hole, Guy Masters, Derek Schutt, Anne Sheehan, Jeroen Tromp, Michale Wysession and the Tri-Chairs

- This Workshop Defines the Plan Content
- Plan Written and Reviewed by Community
- Delivery to NSF by December 2008……

Tentative LRSPS Structure

Goal is a 30-40 page document that will include:

(1) Brief overview perspective of seismology as a discipline with many important scientific roles and key intersections with other disciplines

(2) ~10 Hot Topical Research Areas - Define the scientific problems seismological contribution/challenges/facilities

e.g.,

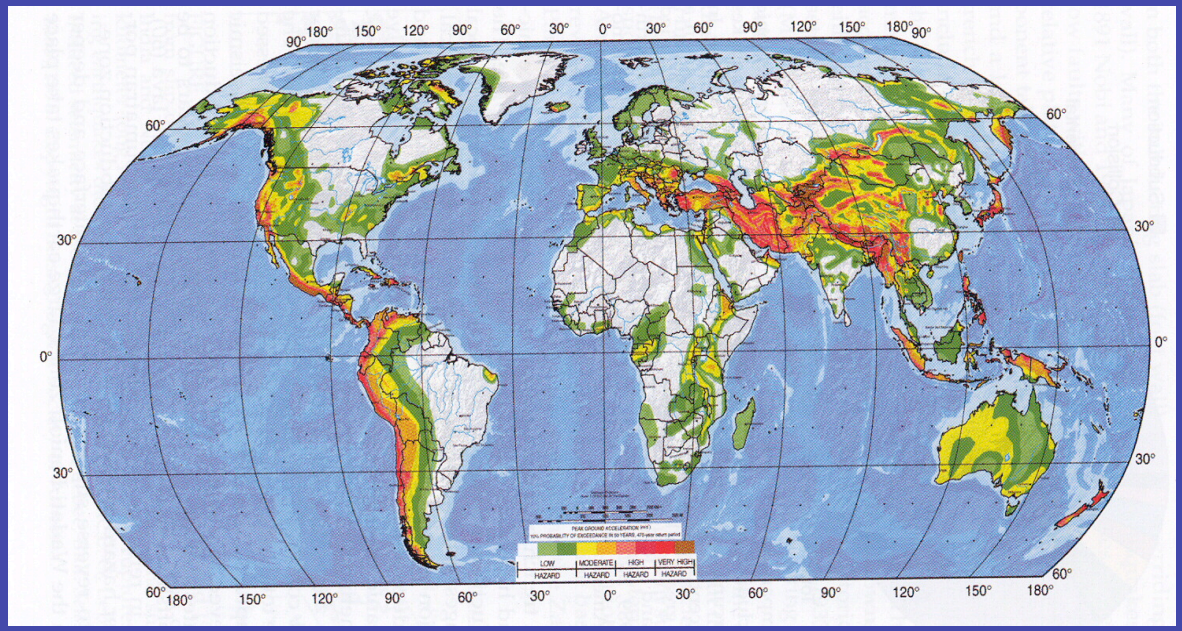
- Quantifying the spectrum of fault motion processes from super-shear to creep
- Real-time warning of ground shaking, tsunami, volcanic eruptions
- Quantifying thermal versus chemical heterogeneity in the mantle

Etc., this workshop should identify the examples

(3) ~8 Side-bars on societally relevant seismological applications

e.g., nuclear monitoring, oil exploration, earthquake hazard, ground water monitoring, exotic seismic sources, planetary seismology, etc.

Seismological contributions/challenges/facilities



(4) Summary

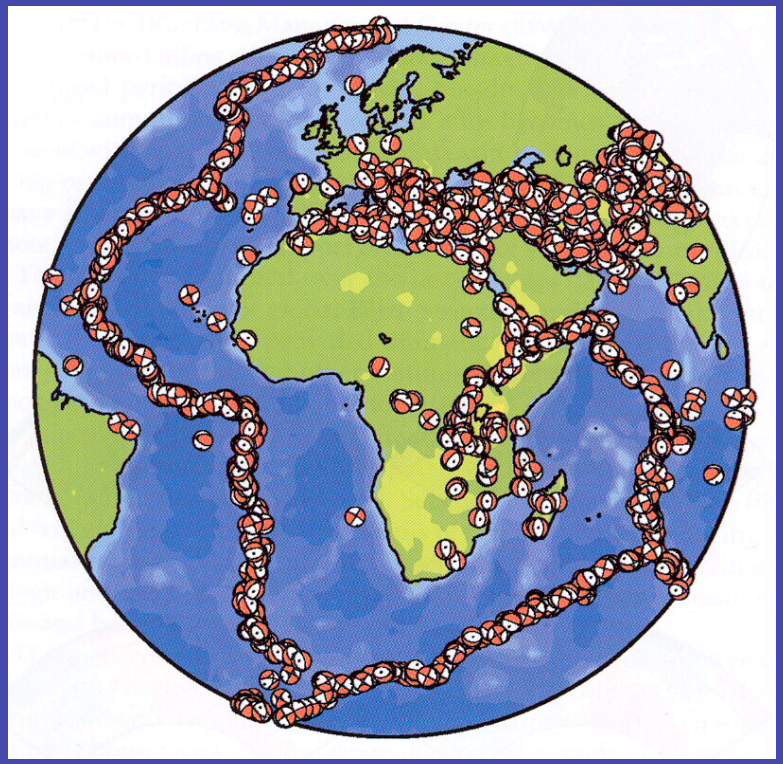
Diversity and centrality of the discipline - major research frontiers

Balance of Large/Small research activities

Personpower/training issues

Community organization

Open Data Access



What is needed for this LRSPS Workshop to succeed?

- Broad, inclusive, and forward-thinking about the discipline and exciting scientific potential of the discipline

- Attractive and understandable GRAPHICS to make visually compelling arguments (Figure captions!, Attribution!)

- Your input on topics to include and emphasize and the nature of facilities that must be sustained or create to achieve the scientific goals

- All contributions will be posted on the Workshop website