Subduction Zone Observatory

An international multi-disciplinary observatory along a subduction zone plate boundary (ies?)

"subduction collaboratory"

Why Subduction Zones?

Subduction zones contain the globe's tremendous earthquakes, tsunamis, volcanic eruptions, and landslides.

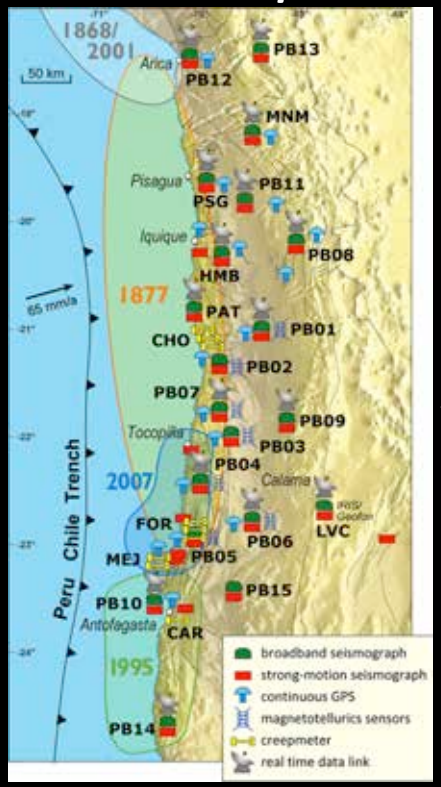
Their impacts are stimulating research and data-collection investments worldwide, yielding savings of lives and dollars.

NSF: Earthscope, GeoPrisms, Cascadia Initiative, OOI Cabled Array, Seafloor Geodesy

GeoPRISMs gas sampling at Katmai volcano, Alaska

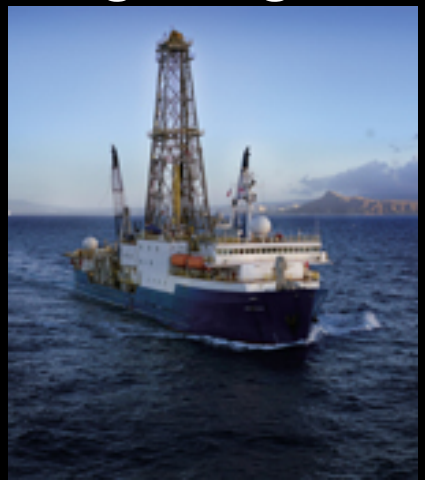
Ocean Observatories Canada: Neptune

BIG investments



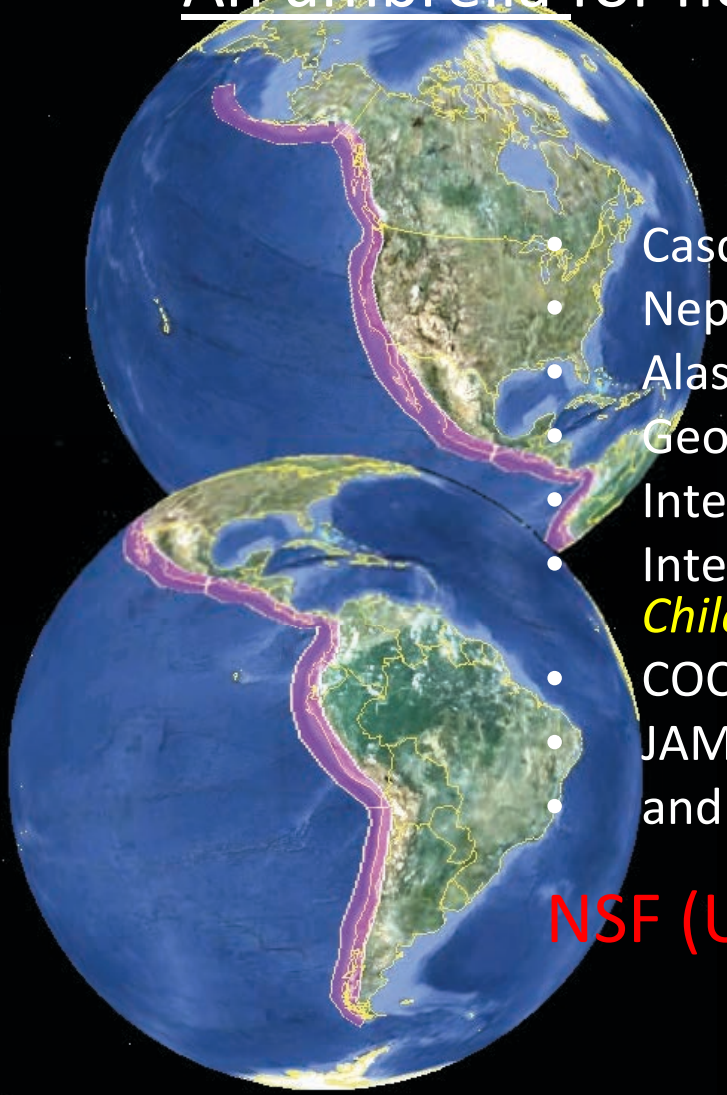
Integrated Plate Boundary Observatory, Chile

International Ocean Drilling Program



A multi-disciplinary, international Subduction Zone Observatory

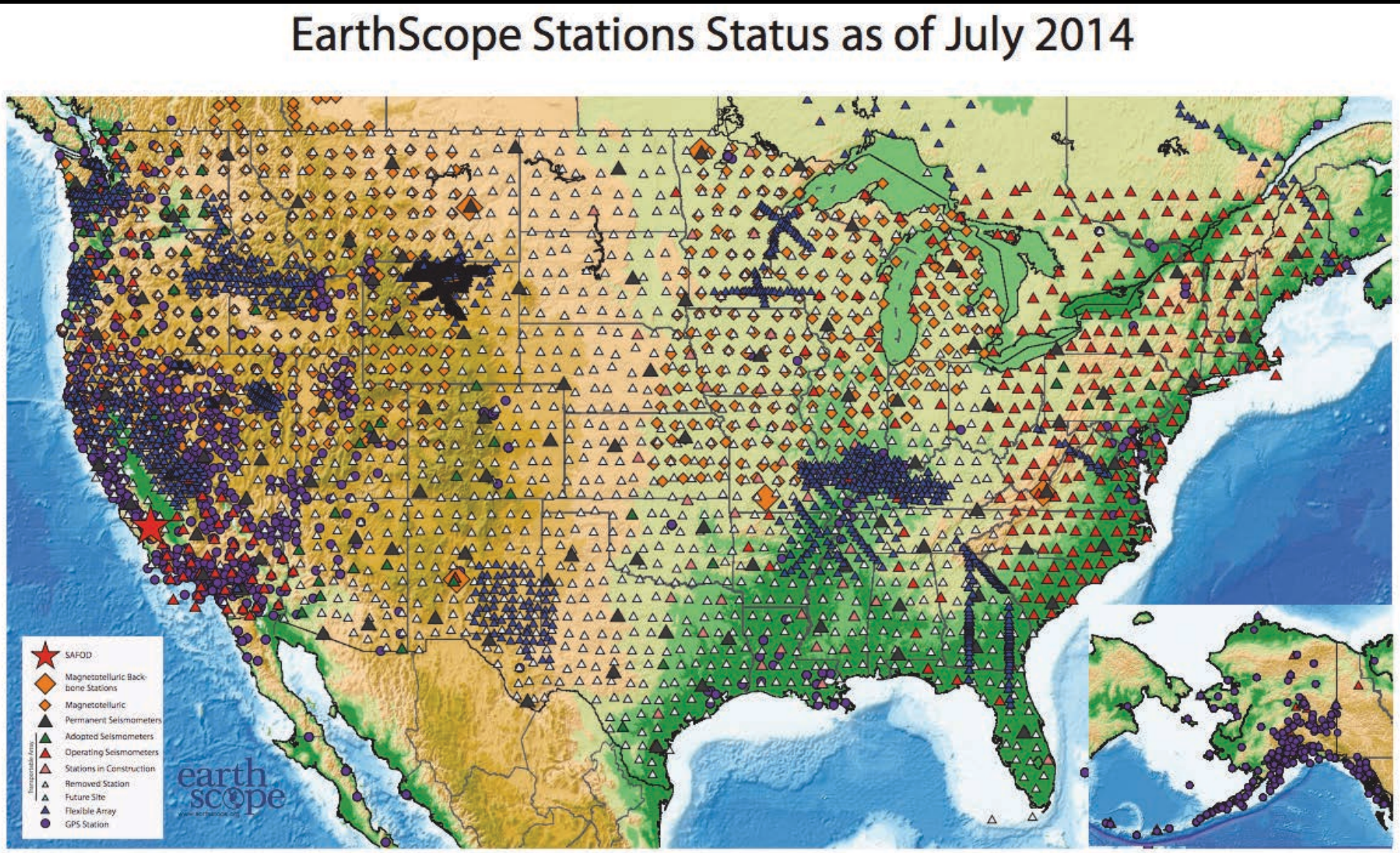
An umbrella for new & current initiatives and activities.



- Cascadia Initiative – *US, Canada, and Japan*
- Neptune & OOI cabled observatories – *US, Canada*
- Alaska EarthScope - *US*
- GeoPrisms – *US, international*
- International Ocean Drilling Program– *international*
- Integrated Plate Boundary Observatory Chile – *US, France, Chile*
- COCONet – *Caribbean, Central America, US*
- JAMSTEC & ERI - *Japan*
- and more…

NSF (USGS) Workshop likely in Spring 2016.

EarthScope Beyond 2018



"The #1 most epic project in the universe" – Popular Science

A SZO must have:

- Transformational & high impact science
- Societal relevance (**hazards focus – USGS partner**)
- International collaboration
- Multi-disciplinary components
- On-shore/off-shore
- New technologies
- New high quality data
- Strong integration with modeling

Questions for Today!

- What are major scientific questions?
- What observations, tools, structures are needed to solve the big science problems?
- What are major geographic targets?
- How to organize a SZO (centralized or distributed, community or individual experiments)?
- Who are partners, nationally and internationally?