

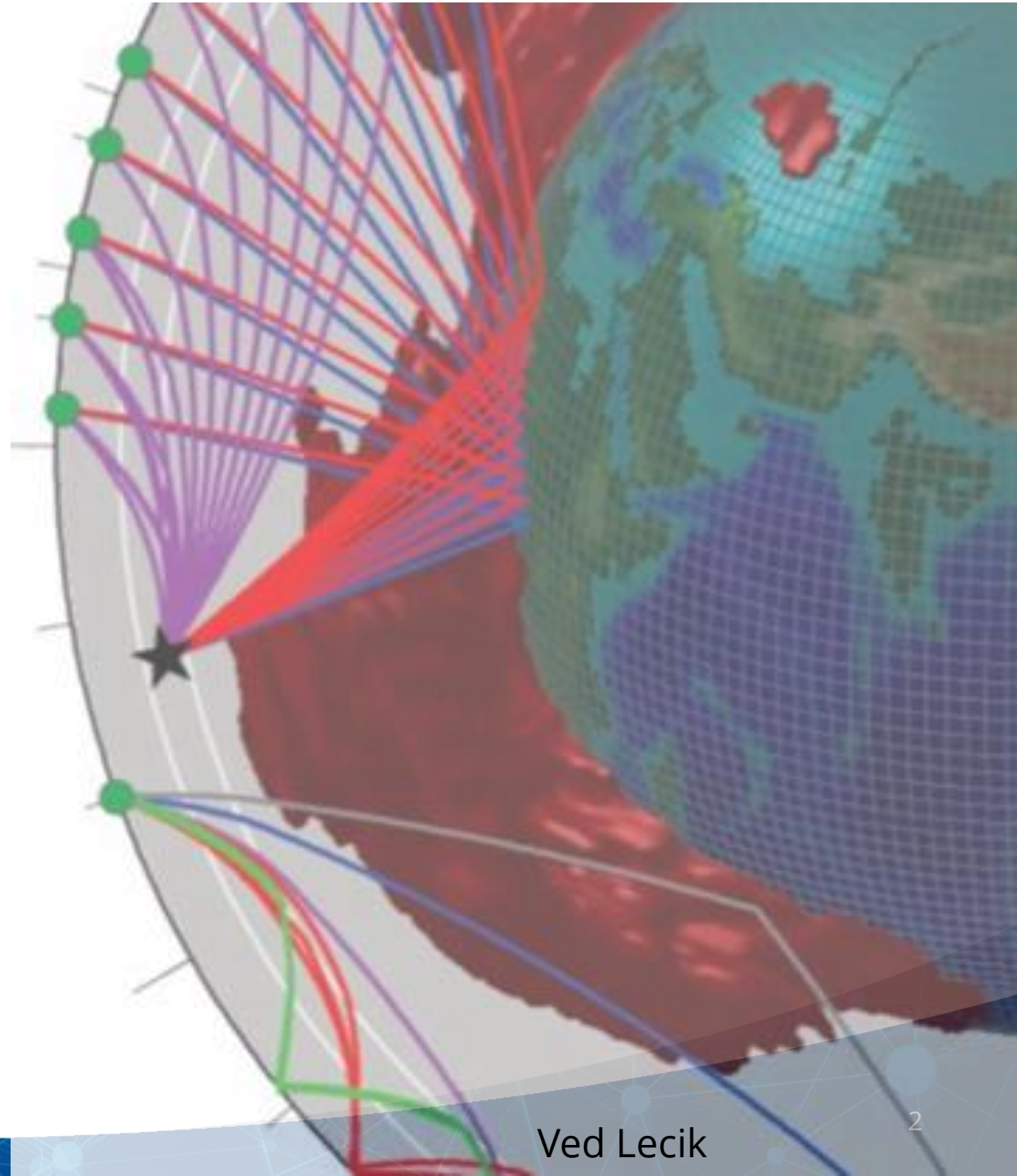


Overview of NSF's Next Geophysical Facility Competition

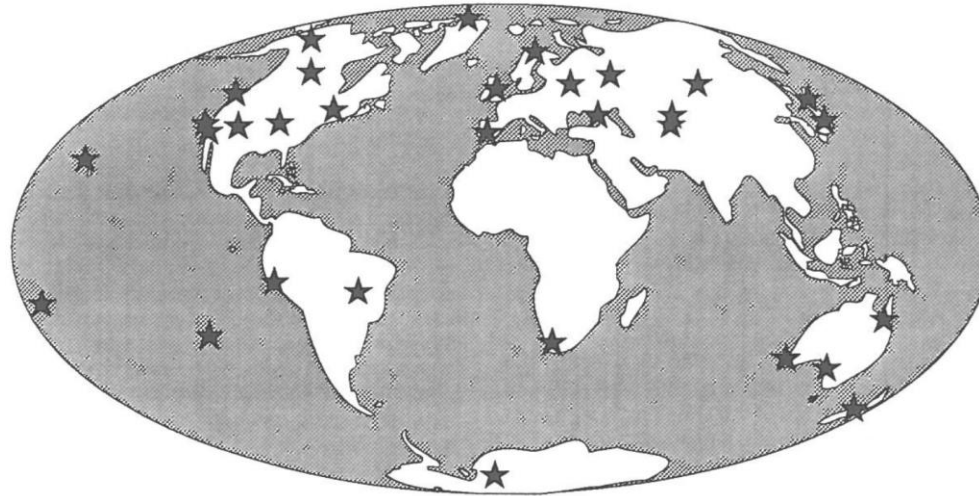
Dr. Margaret H. Benoit
Division of Earth Science
Directorate for Geosciences

Outline

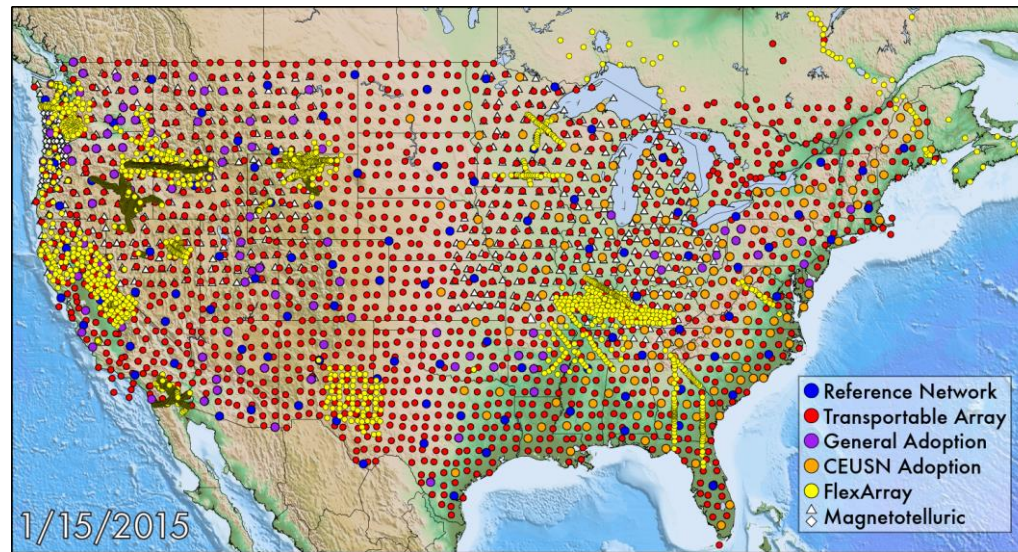
- History
- Scientific vision and facility capabilities
- Timeline
- Review Process



History



Global Seismographic Network 1990



USArray 2015

SAGE and GAGE



**Seismological Facility for the
Advancement of GEoscience**

\$23.3 million/yr



**Geodetic Facility for the
Advancement of GEoscience**

\$14.6 million/year

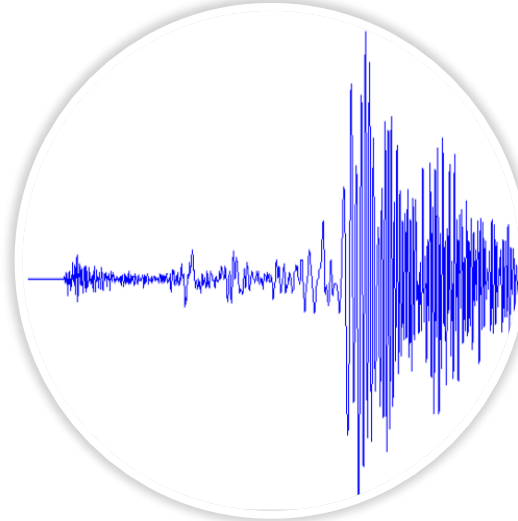
SAGE and GAGE Overview, 2018-2025



Sensor Network
Operation



Sensor Access



Data and Data
Products

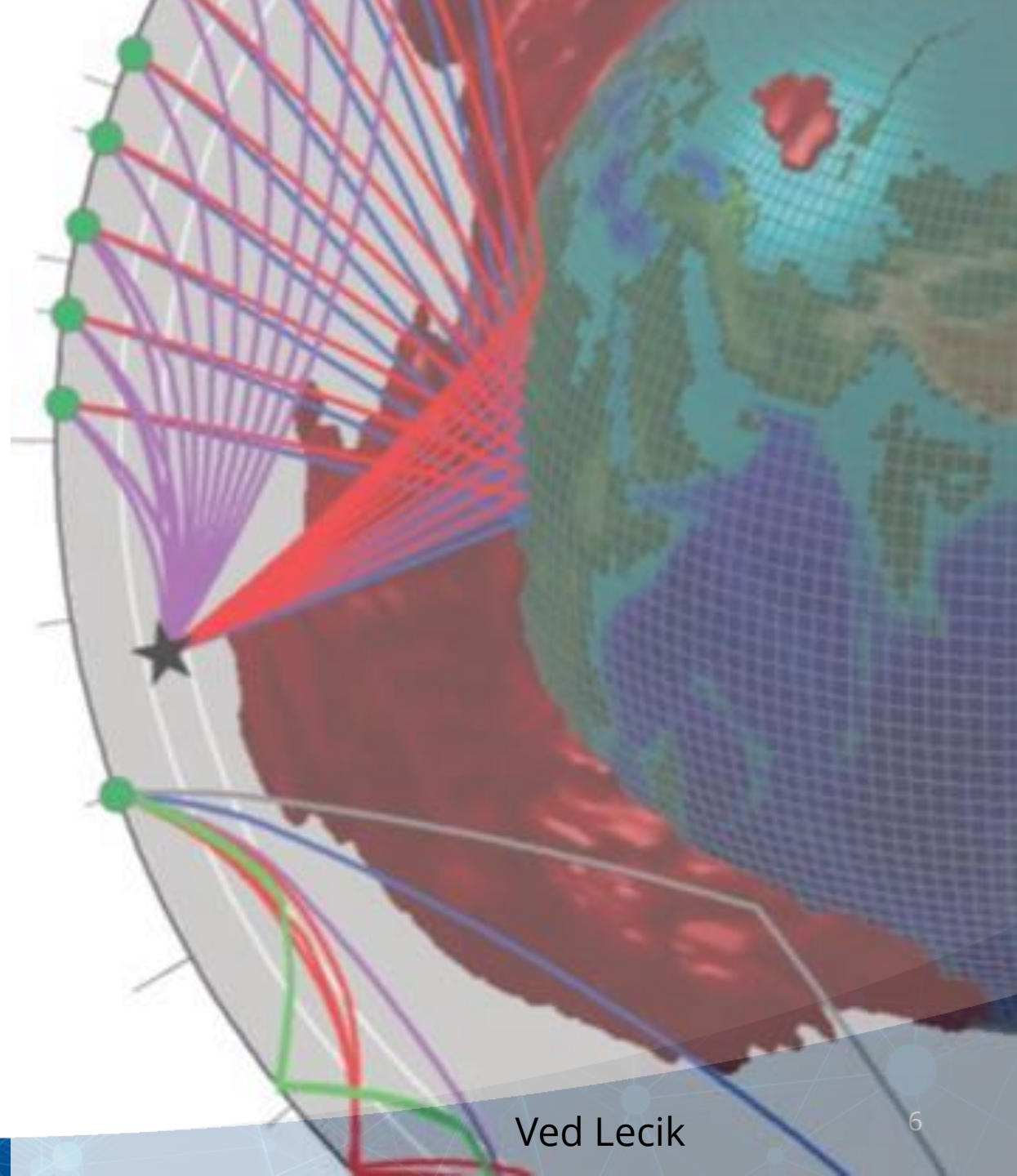


Education and
Outreach

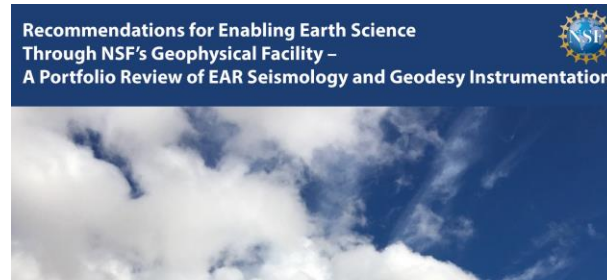
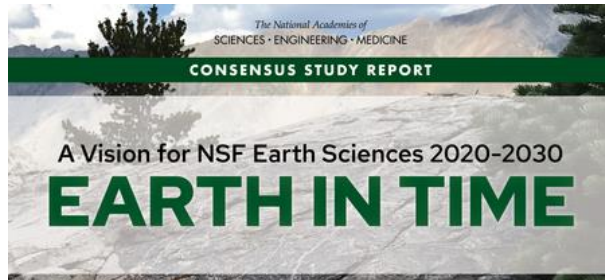


Facility Consolidation

- In 2020, NSF announced (NSF 20-037) future consolidation of SAGE and GAGE into a single facility, with a single operator in next competition
- Consolidation will streamline management and operations and improve science support

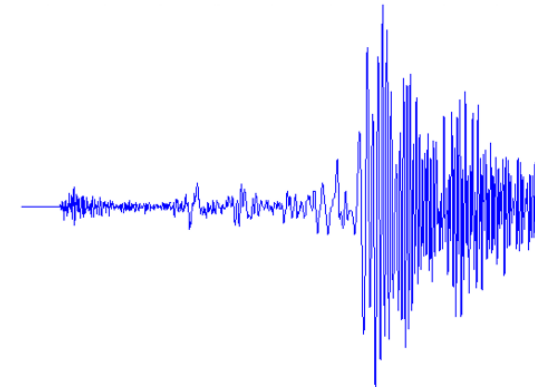


Community Priorities for the future



Major areas of innovation

- Near-surface geophysics instrumentation
- Support for amphibious geophysics
- Next-generation instrumentation
- Cutting-edge data services and cyberinfrastructure
- Structural change that enhances justice, equity, diversity, and inclusion in the Geophysics



Scope components

- Instrumentation Services
 - Portable Instrumentation
 - Sensor Network O&M
 - Seafloor Geodetic Services
- Data Services and Cyberinfrastructure
- Education, Outreach, Workforce development, and Engagement



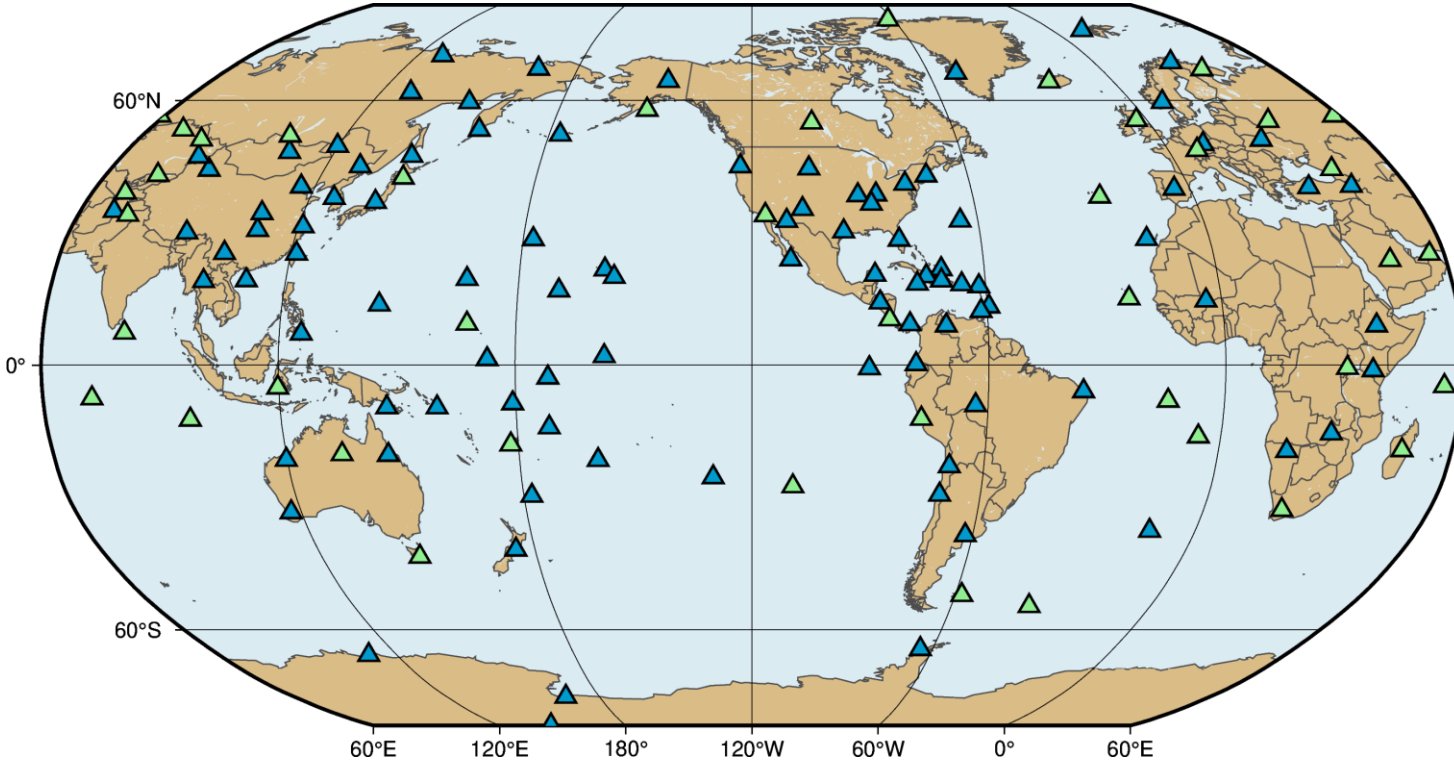
Instrumentation Services: Portable Instrumentation



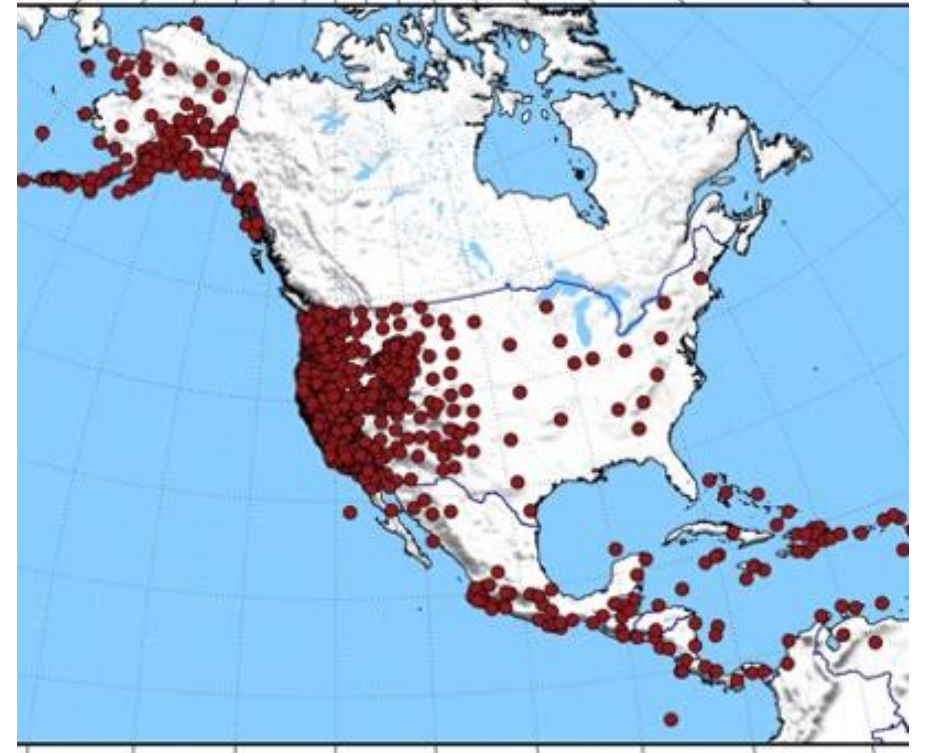
SAGE Portable Instrument Center



Instrumentation Services: Sensor Network O&M



Global Seismographic Network (GSN)

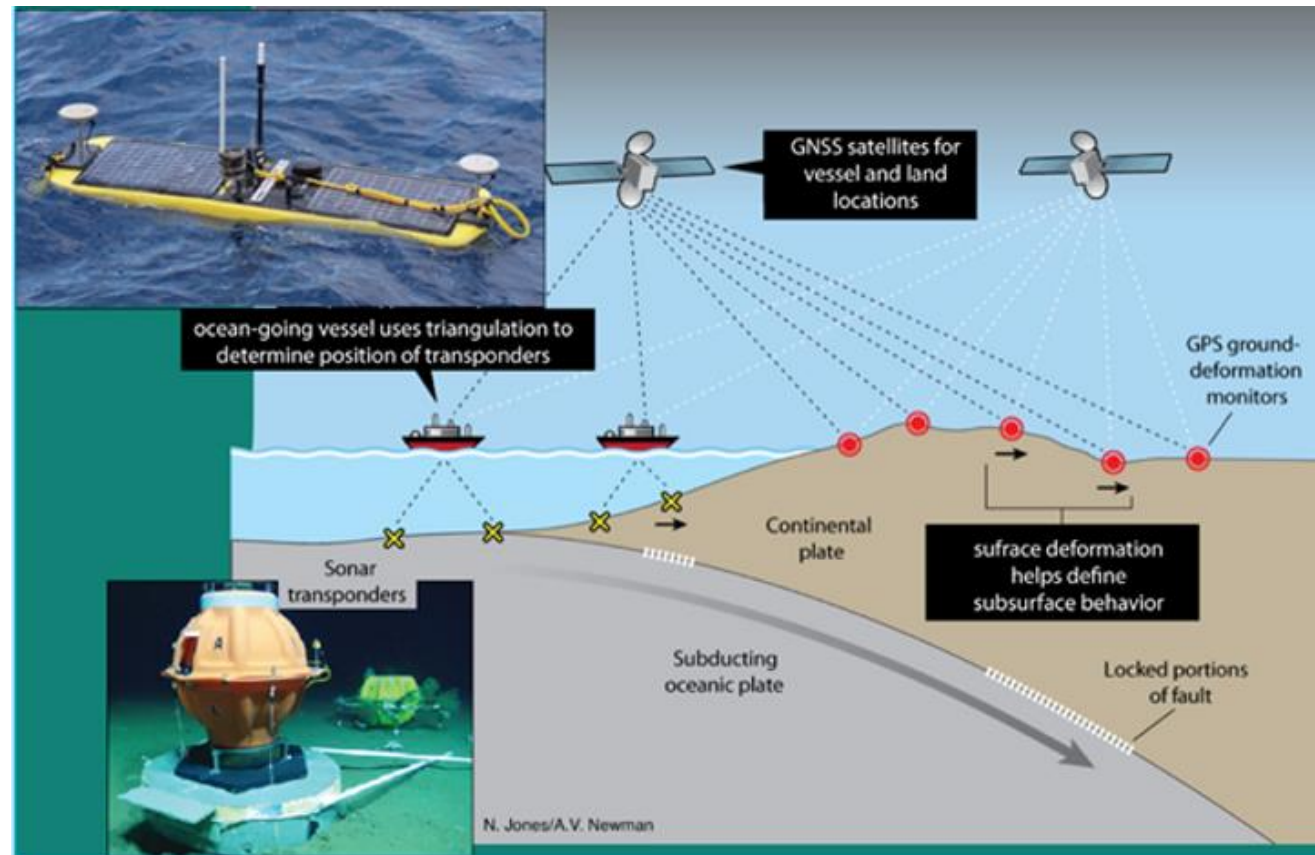


Network of the Americas (NOTA)
GPS/GNSS



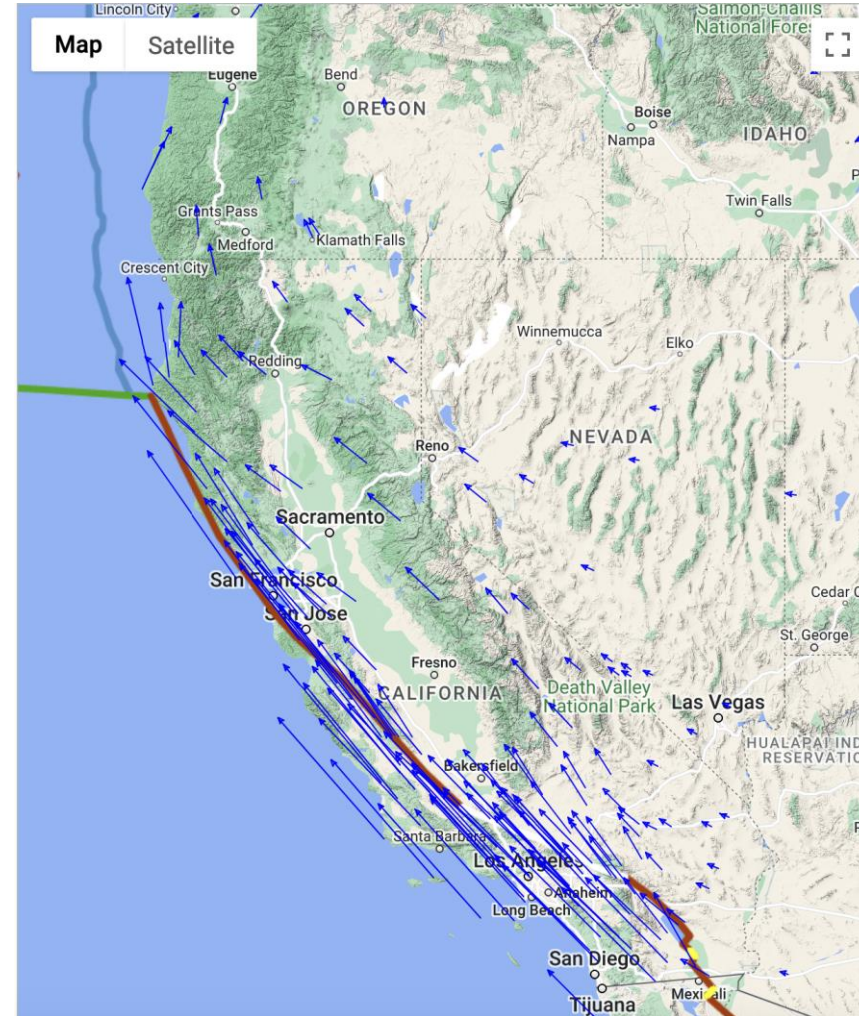
Instrumentation Services: Seafloor Geodetic Services

In Partnership with the Division of Ocean Sciences



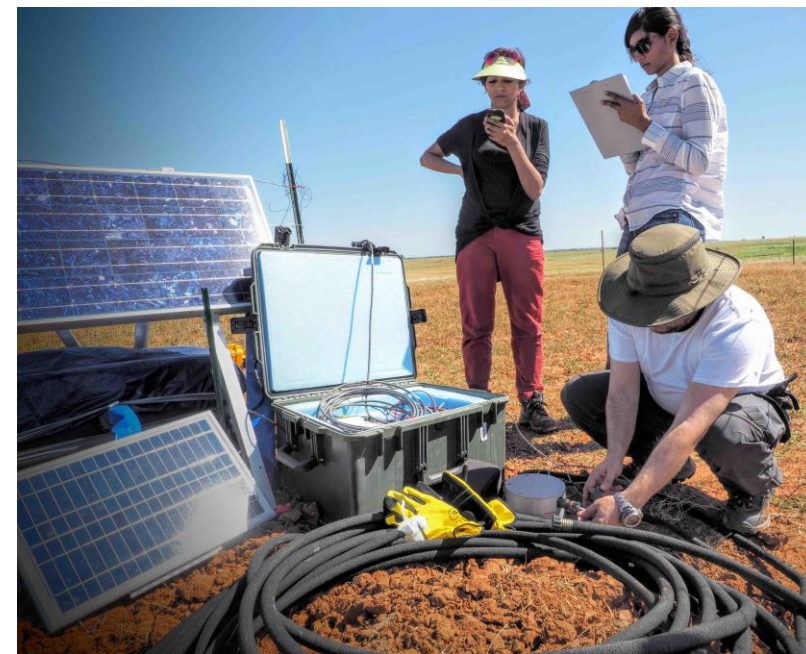
Data Services and Cyberinfrastructure

- Cloud-based data management and access
- Data products development and distribution
- Software support
- Specialized training



Example data product

Education, Outreach, Workforce Development, and Community Engagement



Management and Operations

- Core facility management
- Facility innovation, recapitalization, and lifecycle management
- Solicitation will describe specific duties of the managing organization



Interagency Partnerships



Earthquake & Volcano
Monitoring



Space Navigation &
Ground Truthing



Interagency engagement



Tsunami warning
and navigation
support



Workforce
Development



Instrumentation and
Data Services



Instrumentation and
Data Services

About the competition

- Letters of Intent will be required
- Full Proposal Project Description will be limited to 75 pages
- Budgets will need to be provided in both NSF 1030 and Work Breakdown Structure formats

Who can submit proposals?

- Institutions of Higher Education
- Non-profit, non-academic organizations



GAGE NOTA site

Proposal review



Standard NSF Merit
Review apply



Solicitation specific review
criteria focused on ability
to operate and maintain
facility components

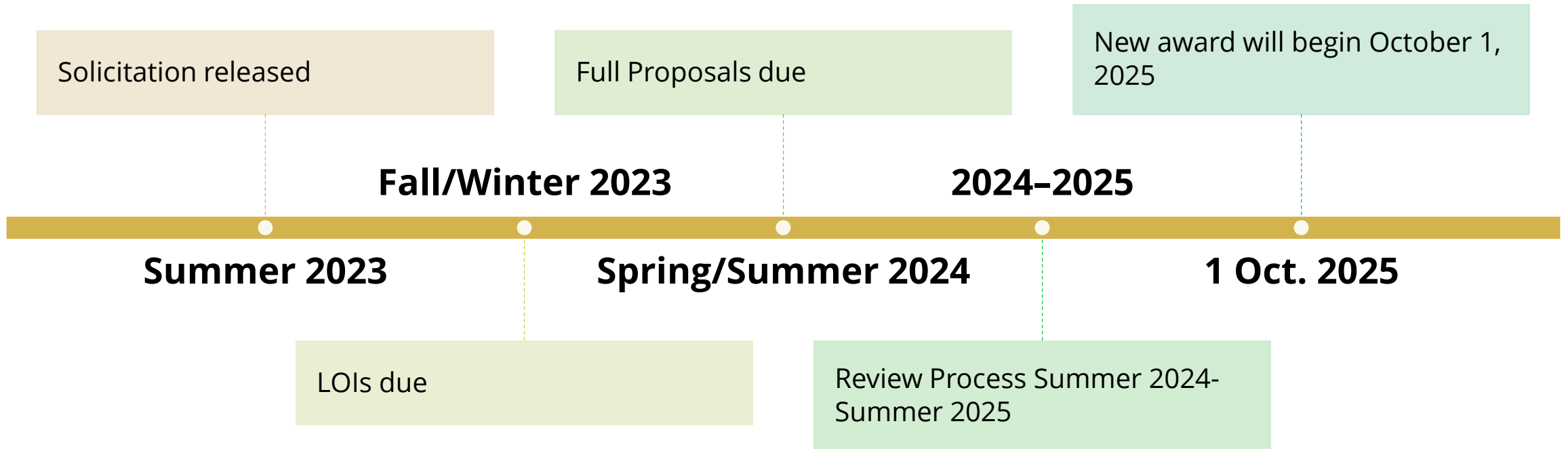


Mail, Panel, and Reverse
Site Visit review



NSB authorization
required to make an
award

Estimated Timeline



Questions?



GAGE interns



