Overview of the OOI Science Change Request Process

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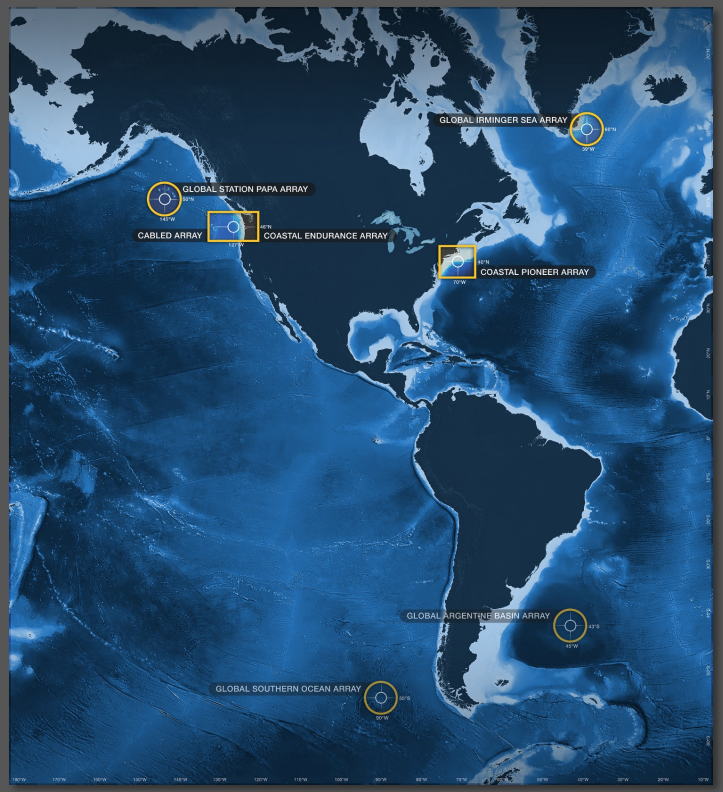

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Ways to Engage with the OOI

Science Change Request Process

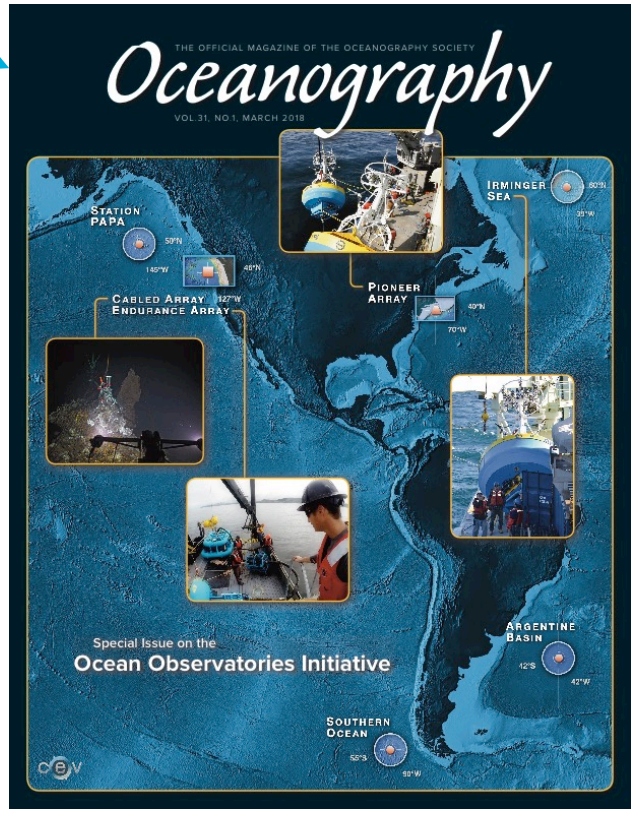
- Use OOI Data
- Create and Share a Community Tool
- Request an unused water/sediment sample
- Conduct additional work during normally scheduled OOI cruises
- Modify sampling rates on existing instrumentation
- Deploy equipment near an array
- Connect new instruments/platforms to the observatory network

oceanobservatories.org/information-for-researchers/

Use OOI Data

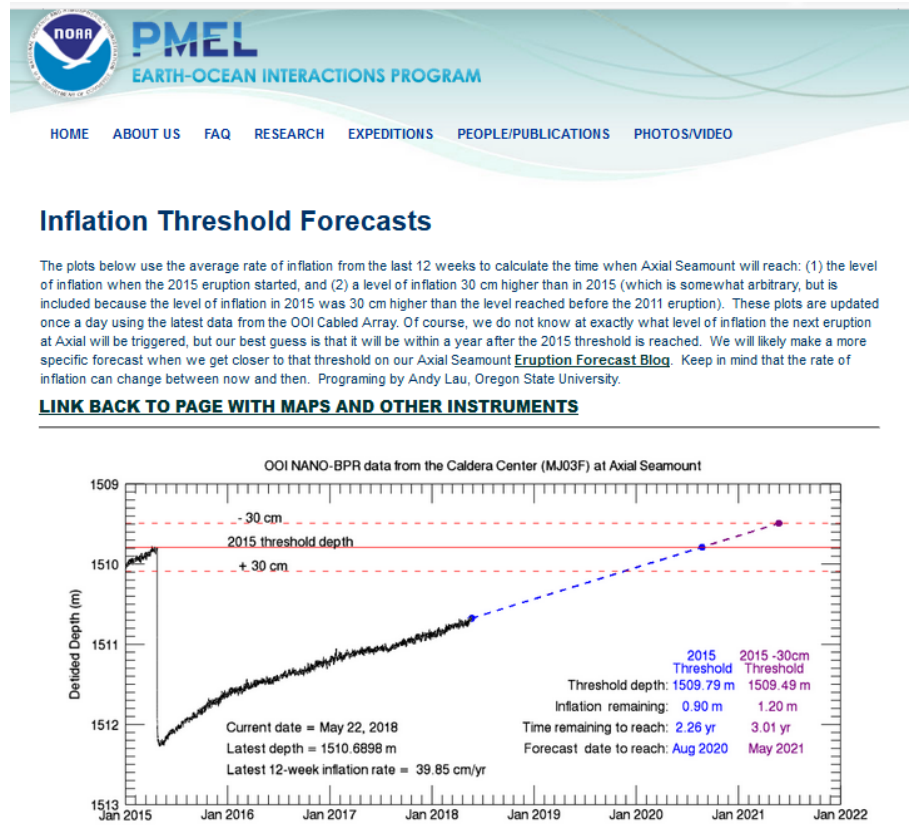
OOI Data in action!

- OOI data are free, anyone can use them!
- All we ask is that you attribute the data to the OOI
- NSF is welcoming proposals to fund research using OOI data to answer a specific scientific question
- Best Practices:
  - Send a note to the Help Desk to connect with the Data Team and Project Scientists to ensure data availability and a full understanding of instrumentation and metadata.
  - Provide text/graphics within the the body of your proposal to assure reviewers the data exists. Do not include a URL.



Community Tools

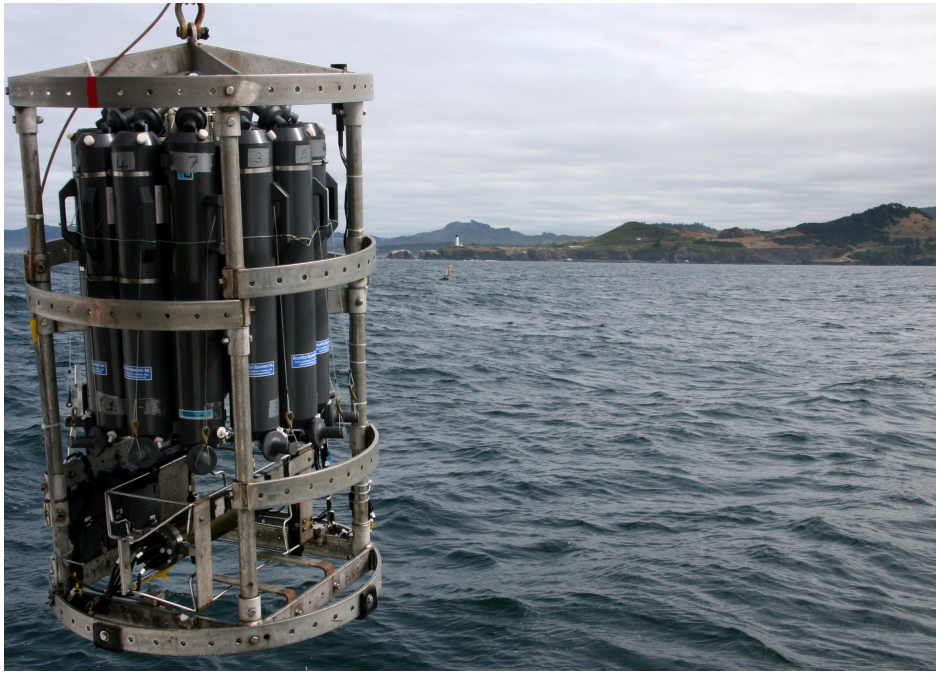
- Repository for community generated tools external to the OOI Cyberinfrastructure team
- These tools include:
  - Quality Control Testing Repository
  - Download & plotting tools
  - M2M Tutorials
  - Tilt Meter Plots
  - Python modules for CAMHD & HYDBB
  - Time-Lapse Videos & Axial Biology Catalog
  - IOOS Glider DAC
  - Seismometer data on IRIS
  - Axial Earthquake Catalog
  - Inflation Threshold Forecast



oceanobservatories.org/community-tools/

Request Unused Water/Sediment Sample

- Water from hydrographic casts during maintenance cruises
- Sediment collected from Cabled Array
- Note: Preservation type can be accommodated ”as practicable”
  - Requester must supply bottles, bags, and preservatives
  - Water samples that require freezing may be limited due to freezer space



Cruise Berths & Water Samples

- Conducting additional work on normally scheduled OOI Cruises
  - Occupying extra berths as available
  - Additional activities must fit into the existing cruise schedule
  - Subject to vessel size & safety restrictions

- Hydrographic casts at each site prior to deployment or after recovery
  - Often there is sufficient water to support additional assays

Array	Location	Frequency	Timing
Pioneer	Cape Cod, MA	2x per year	Spring (May/June) Fall (Oct/Nov)
Endurance	Oregon and Washington	2x per year	Spring (April) Fall (October)
Cabled	Axial Seamount, Oregon Continental Slope and Coast	1x per year	Summer (July/Aug)
Irminger Sea	NW Atlantic, off Greenland	1x per year	Summer (July/Aug)
Station Papa	NE Pacific, off Alaska	1x per year	Summer (July)

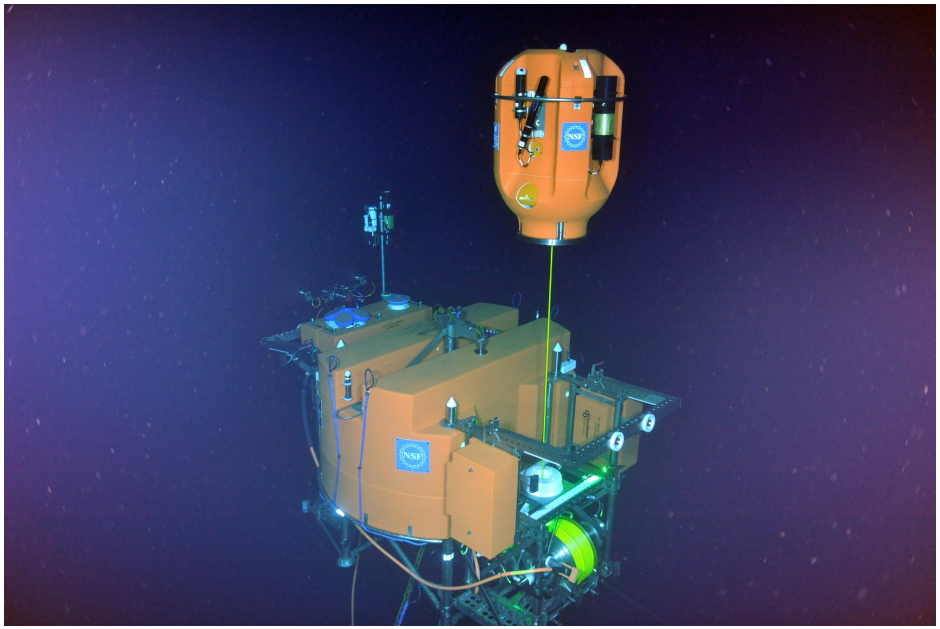
**Staff Consultation needed to ensure does not affect cruise schedule

Sampling Rate Modification

- OOI instruments sample at “As Deployed” rates - i.e. at or above “Baseline Sampling” rates needed to address sampling requirements.

- Researchers can propose to modify sampling rates
  - Rates can not go below “Baseline” Sampling
  - Changes must be timed with deployment cycles

**Staff Consultation needed to ensure does not impact baseline

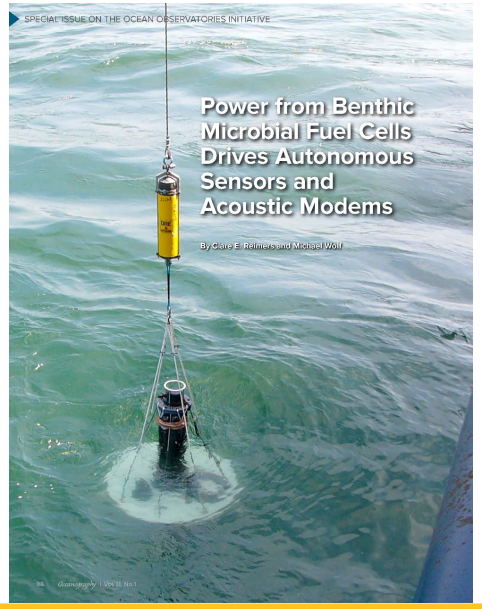


Deploy Equipment Near an OOI Array

- Deployment of self-contained platforms or instrumentation near OOI site
- Deploy via OOI Maintenance Cruise

**Staff Consultation needed –

- Operational considerations
- Permit/Environmental Compliance if within an OOI permitted site



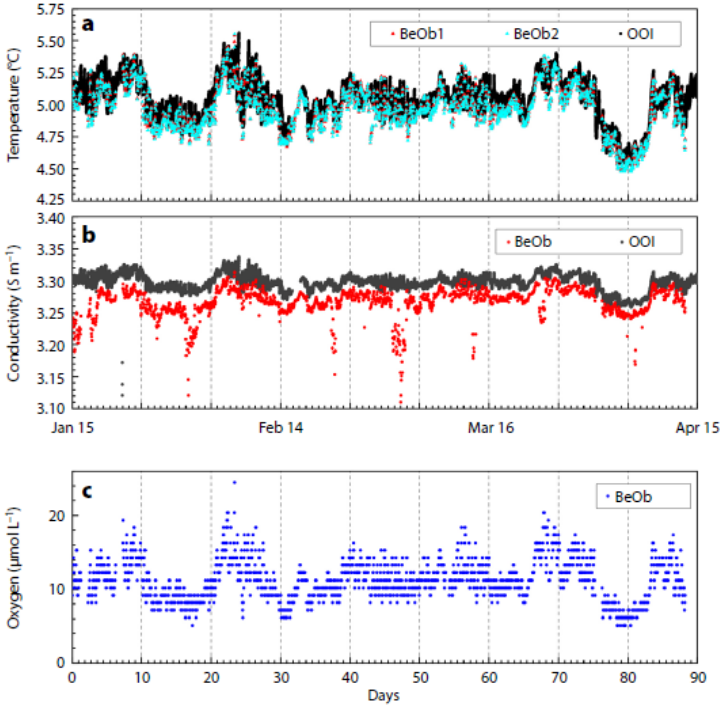
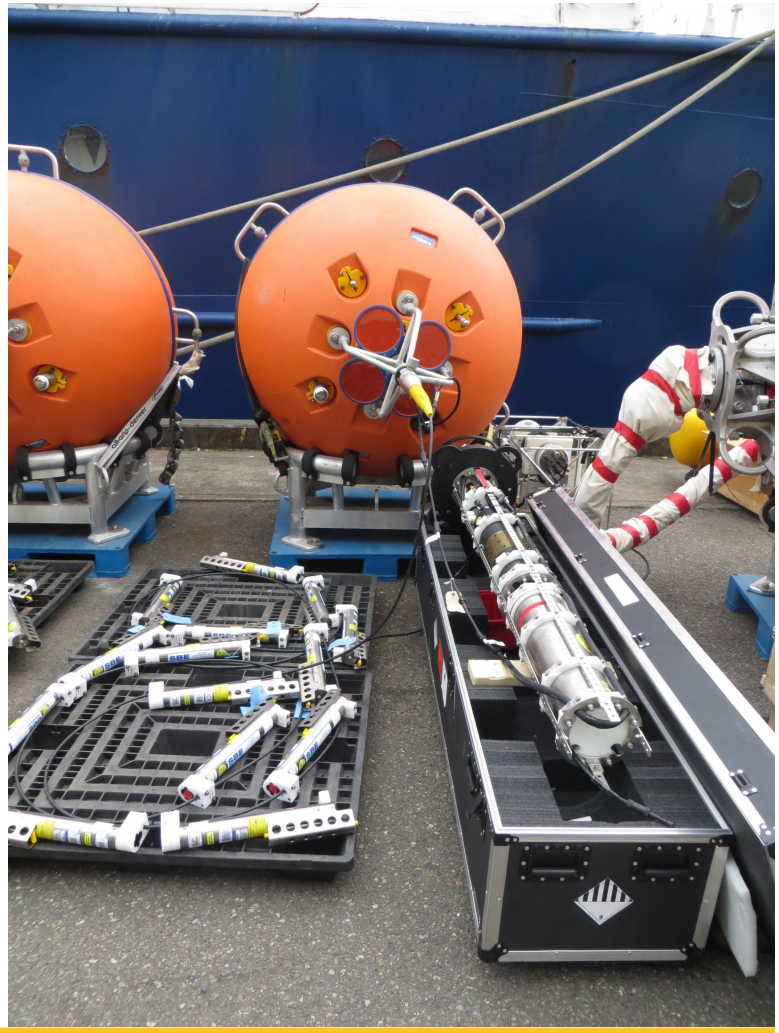


FIGURE 3. Comparative sensor data from the Benthic Observer and the OOI Oregon Slope Benthic Experiment Package (CE04OSBP). These time series were measured from January 15, 2017, to April 15, 2017, which was 154–244 days after the Benthic Observer deployment on the seafloor. OOI temperature and conductivity data are reduced to from 1 Hz to 1-minute averages in plots (a) and (b). No properly calibrated oxygen data were available from the OOI database to include in (c).

Connecting Instrumentation

- CGSN - Connect self-powered, self-logging instruments
- Cabled Array can connect instruments to fiber-optic cable for power and bandwidth
- Data from PI instruments will be incorporated into the OOI CI and made public through the OOI website.
- Data may be embargoed for a year to insure that the infrastructure is operating properly and of acceptable quality. After one year all data must become public.

**Staff Consultation needed to ensure technical feasibility, discuss data storage & delivery and environmental compliance.



Science Change Request Process

- Key things..
  - Ensuring change will not impact baseline OOI sampling or core science objectives
  - Ensuring technical feasibility
  - Ensures environmental compliance/permitting are addressed
  - Ensuring data storage and delivery feasibility

- Currently updating processes to streamline these requests…stay tuned!

Environmental Compliance

- May include local, state, and/or federal permitting and NEPA/Environmental Compliance
- Start these discussions early with the OOI and your funding agency to ensure authorizations are in order prior to deployment

How to Get Started

Step 1…Tell us about your idea!

- Send a note to the Help Desk
  - help@oceanobservatories.org
- Sign up for a Staff Consultation

Coming soon!

Online Form

Still working on your idea? Attend a webinar to learn more about the system.

oceanobservatories.org/staff-consultations/

Staff Consultations

- Consultations are highly recommended for anyone seeking to make a change to existing OOI infrastructure or operation procedures in order to ensure compatibility of the proposal within the constraints of the system.

- Webinars are offered 1-2 times a year for Cabled and Uncabled OOI infrastructure
  - Overview of deployed infrastructure, engineering specifics, power & communication capabilities, testing procedures, and general timeline.
  - Recordings & PDF of slides posted online

- Sign up for staff consultations during webinars or anytime using the help desk

oceanobservatories.org/staff-consultations/

NSF Proposals*

- OOI-related proposals are now being accepted by NSF through the core science and technology programs.
- For more information on the NSF proposal process, contact the most relevant NSF program officer for their science or technology program.
- For OOI program-specific proposal questions, contact the NSF OOI representatives - ooi-science@nsf.gov

*Funding from additional US-sources as well as international may be used to fund additions or modifications to the OOI.

Adding an Instrument to the OOI

Questions?

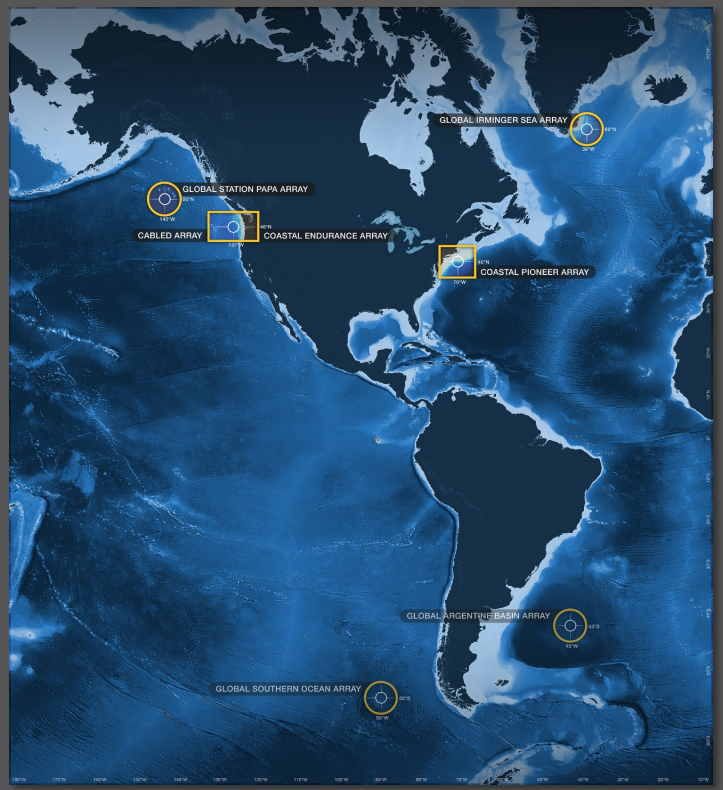
For more information please check out our website:

oceanobservatories.org

And visit the OOI Data Portal

Data Portal - ooinet.oceanobservatories.org

Ask the Help Desk – help@oceanobservatories.org



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