OOI 2.0 PMO Update and Community Engagement Activities

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OOI Facilities Board Meeting

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Systems & Activities

- Seven interdisciplinary marine arrays at three scales:
  - Regional Cabled
  - Coastal Endurance
  - Coastal Pioneer
  - Global Irminger Sea and Station Papa (ongoing)
  - Global Argentine Basin and Southern Ocean (suspended)
- Cyberinfrastructure & Data Delivery
- Community Engagement
Marine Operations

- Eight major cruises in AWP for PYII (Oct 2019 thru Sep 2020):
  - Fall ‘19 Pioneer
  - Winter ‘20 Southern Ocean
- Spring ‘20 Endurance & Pioneer
- Summer ‘20 Regional Cabled & Papa
- Fall ‘20 Endurance
- Continuous glider operation
- Refurbishment
- Details in upcoming MIO presentations
Cyberinfrastructure & Data Delivery

- Ongoing operation of existing systems
- New data discovery tool (Keryx)
- Continued QARTOD implementation
- New PI & upgrade for hardware/network:
  - Risks brought forward by Rutgers
  - RFP released to UW, OSU, Axiom
  - Proposals due June 2020
  - Review panel with external expertise & OOIFB representation
- Target new sub-awardee 10/2020
- Implementation in PYIII with parallel operation before shut-down of existing system
- Details in upcoming presentations
Ocean Sciences Meeting

Stocking, staffing, and scheduling
Making OOI More Visible

- Regular web posts
- Newsletter
- Social media
- New branding
- New website
New website

Sustained data to power your research

› Access Data  › Watch Live Video  › See What’s New
New Data Discovery Tool

OOI Data Discovery Tool

Welcome to the Ocean Observatories Initiative Data Discovery Tool, where you can:

Search and download cabled, uncabled, and recovered data for
THE OCEAN OBSERVATORIES INITIATIVE

Our Blue Planet by the Numbers | By Daniel Heinz

The ocean covers 70 percent of the Earth’s surface, contains 97 percent of its water, and is crucial to regulating climate. With funding from the National Science Foundation, the Ocean Observatories Initiative (OOI), led by Falmouth’s Oceanographic Institution, has plunged the ocean at an unprecedented scale. OOI is a 23-year, science-driven observation network that provides real-time data about our ocean and makes it publicly available. With this information, we can illuminate the effects of far-reaching phenomena like climate change and ocean acidification. The program comprises two coastal arrays named Pioneer and Endurance, (operated by WHOI and Oregon State University), two global arrays, Iminger and Station Papa, (operated by WHOI), a Regional Cabled Array (operated by University of Washington), and a cyberinfrastructure operated by Rutgers University. These five arrays have amassed millions of data points, each telling the story of our changing blue planet.

EXPEDITIONS & EXPERTS

49 Missions
159 scientists, engineers, data experts, and staff

REGIONAL Cabled ARRAY

1.5 Gigabytes of data sent per second
571 MILES OF SUBMARINE CABLE INSTALLED enough cable to stretch to the International Space Station and back
TWELVE M I L L I O N meters (7.465 miles) that profilers have traveled along moorings

GLIDERS

245 Glider deployments
THE EQUIVALENT OF FIFTY years of data collected
194,489 MILES COVERED
- Global: 72,080 miles
- Pioneer: 54,680 miles
- Endurance: 67,729 miles

DATA

73 billion ROWS OF DATA STORED
36 TRILLION Terabytes of data provided
189 MILLION DOWNLOAD REQUESTS
SIX Years of data (and growing)

INSTRUMENTS

THIRTY-SIX Different types of instruments
80 PLATFORMS Total instruments
800 Different parameters of the ocean being measured
1,682,880 Pounds of equipment moved for just one (Pioneer) array! That’s the weight of 30 humpback whales

HARSH ENVIRONMENT

Some arrays are deliberately set in the middle of some of the harshest seas on Earth. That’s where the ocean has some interesting things to tell us.

EQUIPMENT WORKING AT DEPTH

Temps as low as 35°F and up to 662°F
AVERAGE WINDS UP TO 45 MPH SWELLS AS LARGE AS 50 FEET

This is an example of a platform, which typically consists of instruments equipped moorings and autonomous underwater vehicles.
Community Engagement moving forward

• Goals of Community Engagement Plan:
  • Optimize the OOI
  • Build a robust user community
  • Cultivate new users

• Metrics:
  ✓ Publications, Citations & Funding
  • Abstracts
  • Google analytics
  • Newsletter subscribers
  • Social media engagement
  • Conferences & workshops
  • Media coverage

• Challenge:
  • “We’d like to see metrics on how OOI data used by the community is changing the way Ocean Science and Education is being done.”
  • Three-legged stool: OOI Program, OOIFB, OCE Education Portfolio
Questions?