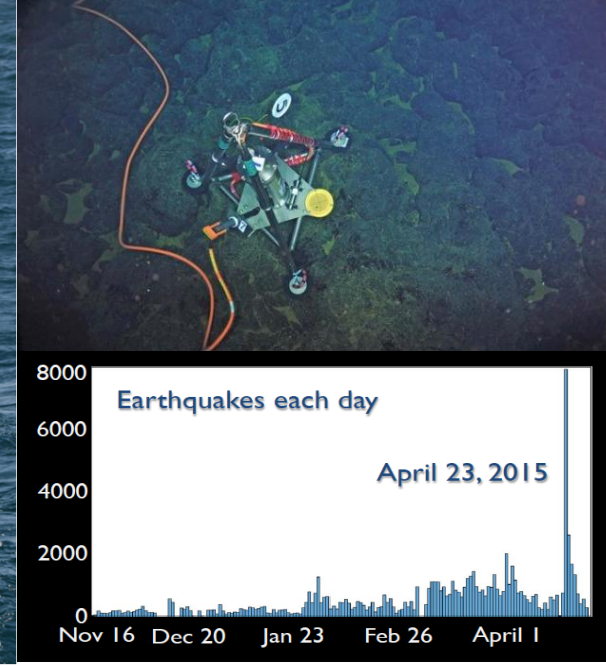
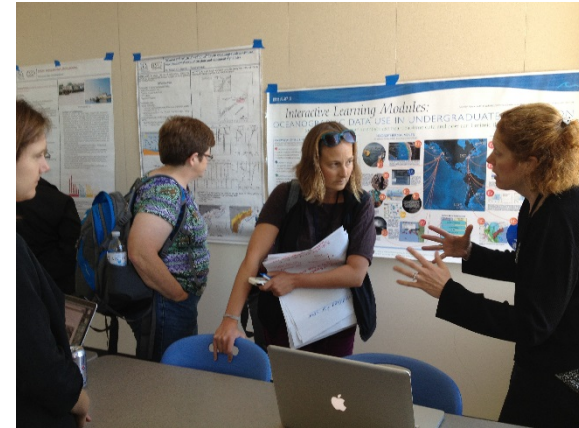
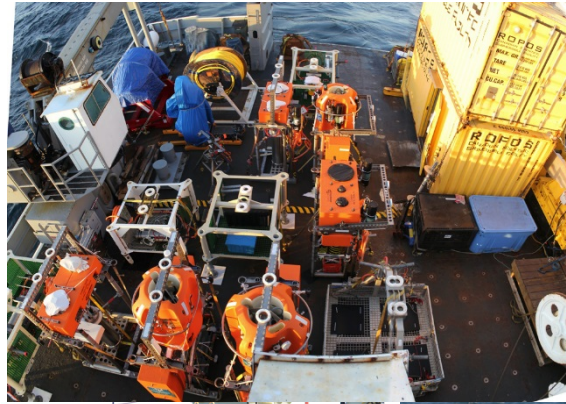




Ocean Observatories Initiative Update UNOLs Meeting - December 2015



OOI – Project Locations & Scope



Four Global high latitude sites

Station Papa
Irminger Sea
Argentine Basin
Southern Ocean

Two Coastal Arrays

Endurance Array
Pioneer Array

Cabled Array

Meso-scale,
Plate Scale network

CyberInfrastructure
Acquisition, Storage, Processing,
and Distribution of Data

Deployed Scope of OOI (over 800 instruments distributed over all moorings, benthic packages, seafloor nodes, gliders and AUVs)

Global Arrays

Subsystems	Components	Instruments	Service Frequency
Global Arrays			
Station Papa	1 Subsurface Hybrid Profiler Mooring 2 Flanking Moorings 5 Gliders	12 32 9	Yearly
Irminger Sea	1 Surface Mooring 1 Subsurface Hybrid Profiler Mooring 2 Flanking Moorings 5 Gliders	23 12 32 9	Yearly
Southern Ocean	1 Surface Mooring 1 Subsurface Hybrid Profiler 2 Flanking Moorings 35 Gliders	23 12 32 9	Yearly
Argentine Basin	1 Surface Mooring 1 Subsurface Hybrid Profiler 2 Flanking Moorings 5 Gliders	23 12 32 9	Yearly

Coastal Arrays

Subsystems	Components	Instruments	Service Frequency
Coastal Arrays			
Pioneer	3 Surface Moorings 2 Surface-Piercing Profilers Moorings 5 Profiler Moorings 3 AUVs 6 Gliders	60 18 29 18 30	Twice a year
Endurance (Oregon Line)	3 Surface Moorings 2 Surface-Piercing Profilers Moorings 1 Hybrid Profiler Mooring 1 Benthic Experiment Package 1 Multi-Function Nodes	50 18 16 10 8	Twice a year
Endurance (Washington Line)	3 Surface Moorings 2 Surface-Piercing Profilers Moorings 1 Profiler Mooring 6 Gliders	68 18 5 30	Twice a year

Cabled Arrays

Subsystems	Components	Instruments	Service Frequency
Regional Scale Nodes			
Hydrate Ridge	Seafloor: Primary and Secondary Profiler – Winched Profiler – Wire crawler Midwater Platform @ 200m Bottom Instrument Package	16 10 5 8 6	Yearly
Axial Seamount	Seafloor: Primary and Secondary Profiler – Winched Profiler – Wire crawler Midwater Platform @ 200m Bottom Instrument Package	26 10 5 8 6	Yearly

Connected by 880km of seafloor cable, with 10KW power, internet connectivity between 7 primary nodes, multiple secondary nodes, and all distributed instrumentation

Cyberinfrastructure

Computing platforms, software applications, storage, and high speed network equipment

Cyber Points of Presence (CyberPoPs)

Acquisition Points

Distribution Points

Integrated Observatory Network – OOI Net

Hardware / Software

Redundant computing environment

Extensive details about each component can be found on the OOI website (<http://oceanobservatories.org>)

OOI – Status Update Summary

Construction:

Construction is complete! A SEVEN year effort.

42 moorings

Over 800 instruments

880km cable with multiple nodes

32 gliders for in-water with 100% spares, 64 glider fleet

2 AUVs

Website Launch: December 7, 2015 www.oceanobservatories.org

Operations & Maintenance Phase – December 1, 2015

- DATA DISTRIBUTION via the website
- User & Community Engagement
 - 2 Workshops Planned
- Data Management – fundamental challenge!
- Builds for first turns – new technical data package, refurb instruments
- Cyberinfrastructure Maturity

OOI – Seismometer User Statistics

January 2015 – October 2015 (IRIS is streaming the Cabled Seismometers)

Total Unique Addresses to Visit the Site and Download Data: **510**

Total Gigabytes Downloaded: **1,758 GB (Avg / Month ~189 GB)**

Avg Unique Addresses to Visit the Site and Download Data per Month: **75**

Repeat Customers to Date : **90**
(customers to visit the site and download data in multiple months)

Actual & Planned Ship time for OOI

2015 Shiptime

Atlantis	137
Oceanus	24
Thompson	59
Palmer	54 + port days
Total	274

2016 Planned Ship Days

N. Armstrong	73
Sikuliaq	38
Thompson	19
Palmer	54 + port days
Ron Brown	22
UK ship	19 (for Endurance Array – Fall)
Total	225

Jason 38

Community Outreach

Ocean Observing Science Committee (UNOLs)

- User Workshop – January 2016
- Active participation in Alpha 1, Alpha 2 and Beta testing
 - Many fantastic comments and inputs
 - Many more on the way
- THANKS to Larry Atkinson & Annette DiSilva for unending support

Science Oversight Committee – up and running!

- Ocean Leadership PI – Jim Kelly
- OOSC - Atkinson
- OOI Project Scientists (Barth, Kelley, Weller, Plueddemann)
- CI, Data & Outreach (Glenn, Schofield, Parashar, Vardaro)
- NSF (Clough, McGovern)