NOAA Ocean Observing and Monitoring Division
10th OOMD Community Workshop
NOAA Science Center, Silver Spring, MD
9-11 May 2017 – Plenary/Breakout
11 May 2017 – COSC Meeting

Please join my meeting from your computer, tablet or smartphone.
https://global.gotomeeting.com/join/397987989
You can also dial in using your phone.
United States: +1 (224) 501-3412
Access Code: 397-987-989
First GoToMeeting? Try a test session: https://care.citrixonline.com/g2m/getready

Road to Ocean Obs ‘19: FOO-ward Progress
Building the observing system to be more responsive to users and stakeholders

Workshop Goals:
1. Inform community about NOAA/OAR/CPO/OOMD programmatic progress/plans/goals
2. Assess requirements, identify challenges, and foster coordination between our stakeholders and observational programs
3. Develop concept goals for OceanObs ‘19.
4. Assess current data usage by stakeholders including national and international modeling centers

Agenda

Tuesday 9 May 2017
All plenary sessions will take place in the Science Center Auditorium.
Posters should be displayed in the science center
Coffee/tea, morning refreshments will be served in the lobby.

8:00  Registration and poster set-up

Session 1: Welcome and overview
Chair: Emily Smith

8:30  General Welcome (5 min)
8:35  OAR update (20 min)  David Legler
8:55  Observations and Monitoring at CPO (20 min)  Ko Barrett
9:15  Introductory OOMD talk (20 min)  Wayne Higgins
9:35  Workshop goals and Logistics (5 min)  David Legler
9:40  Q&A (30 min)  Emily Smith

10:10 Break (refreshments in the lobby) (30 min)

Session 2: GOOS and EOV Progress
Chair: LCDR Megan Raymond

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<tr>
<th>Time</th>
<th>Session</th>
<th>Presenter(s)</th>
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<tbody>
<tr>
<td>10:40</td>
<td>Overview of GOOS and FOO (20 min)</td>
<td>Katy Hill</td>
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<td>11:00</td>
<td>Advancements of the BGC EOVs (20 min)</td>
<td>Rik Wanninkof</td>
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<td>11:20</td>
<td>Advancing measurements of Biological EOVs (20 min)</td>
<td>Patricia Miloslavich (remote)</td>
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<tr>
<td>11:40</td>
<td>Discussion and Q&amp;A (25 min)</td>
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12-1:30 pm Lunch (on your own)

**Keynote:**
1:30   Imperatives and challenges for sustained ocean observing and their utilization (20 min)  

**Session 3: Societal Challenge #1 Regional and Global Sea Level Change and Impacts**  
Chair: Phil Thompson

2:00 Lightning talks--What are the prospects for utilizing global (including Arctic) ocean observations for regional ocean sea level knowledge?
1-Dean Roemmich  
2-Tim Boyer  
3-William Sweet  
4-Phil Thompson

2:30 Panel:
- What are the priorities and research questions that we need to address to understand and predict sea level change?  
- In your experience, how does sea level change impact research/products/industry? How do we serve those areas?  
- What are emerging needs from decision makers that would guide the evolution of the observing system (e.g. next 5 years), desired new capabilities, and product development?  
- What feedback are decision makers offering to improve currently used data?

Panelists:
- **Eric Leuliette**, NOAA/NESDIS/STAR, Acting Ocean Physics Branch Chief  
- **Gary Mitchum**, Univ. of South Florida, GLOSS Chair  
- **Paul Goddard**, University of Arizona  
- **William Sweet**, NOAA/NOS

3:30 Break (30 min)

**Session 4: Societal Challenge #2 Ocean Extremes**  
Chair: Adrienne Sutton
4:00 Lightning talks--What new technologies or approaches can be applied to improve our monitoring and ultimately prediction of ocean extremes and their impacts?
   1-Meghan Cronin
   2-Dick Feely
   3-Gustavo Goni
   4-Adrienne Sutton

4:30 Panel:
**Phenomena to focus:** marine heat waves (“blob”), ocean carbon uptake, impacts to stakeholders (Arctic, fisheries, and coral reefs, OA)

- What are the needed observing capabilities to monitor and detect extremes (regional- and large-scale) that can help us better understand and predict future extremes and their impacts? (i.e. early warning system)
- What are the key/acceptable methodological procedures for analyzing extremes in observations and models?
- In your experience, how do extreme events impact research/products/stakeholders? How do we serve those communities?
- What data and information products are needed for stakeholders and decision makers?

Panelists:
**Eric Bjorkstedt,** NOAA/NMFS/SWFSC
**Jessica Cross,** NOAA/PMEL, Research Associate
**Mark Eakin,** NOAA/NESDIS, Coral Reef Specialist
**Galen McKinley,** University of Wisconsin – Madison, Professor of Atmospheric and Oceanic Sciences and Bryson Professor, Center for Climatic Research
**Mark Ohman,** Scripps Inst. of Oceanography, Professor of Biological Oceanography

5:30 *Poster session*--latest and greatest! (1.5 hours)
Wednesday 10 May 2017

8:30-9:00   Coffee and refreshments (lobby of science center)

9:00 OceanObs ‘19 (15 min)     Eric Lindstrom

Session 5: Break out groups

9:15-Charges to Breakout groups (auditorium)     Shannon Louie

9:15 Breakout groups:
Break out groups
1. Sea Level
2. Ocean Extremes

- Charge to groups:
  - Summarize in a sentence for the new NOAA administrator the takeaway message for your topic
  - What is OOMD’s unique role in your topic?
  - What is OOMD’s contribution, including new and emerging technologies, to other LO in NOAA and other agencies?
  - What significant advancements have been made since Ocean Obs’09?
  - How can we build on these advancements to launch us into the next decade of ocean observing (OO ‘19)?

10:45 Break (30 min)

Session 6: Break out group reports

11:15—Group reports (60 min)     Jamie Shambaugh

12:15-1:30  Lunch (on your own) (75 min)

Session 7: Harnessing Oceans of Data
Chair: Jennifer Saleem Arrigo

1:30 Harnessing Oceans of Data: Data Management and Cyberinfrastructure that enhances the value, discoverability, and use of our observations (90 min)

1:30 OOMD approach to NOAA Data Directives - how and why?     Jennifer Saleem Arrigo
1:40 ERDDAP services for data sharing and integration     Kevin O’Brien
2:00 IOOS National Data Portals and OOMD data     IOOS
2:20 NOAA OneStop - Better Discovery     Ken Casey
2:40 Community Discussion - Q&A with Panel, Issues and Opportunities
For the community discussions, in addition to questions that may be generated by the speakers, please bring your thoughts on:

1. Issues and challenges you have had meeting NOAA directives
2. Success stories - does your community handle DM uniquely well? How?
3. Attribution - have you thought about how you would like to see “your” data show up in a third party application? This is an emerging issue in the era of “Open Data.”

3:00 break (30 min)

Session 8: Valuing the system
Chair: Krisa Arzayus

3:30 How does one assess the economic value of the ocean observing system?  Hauke Kite-Powell
3:50 What can data assimilation tools tell us about the observing system?  Jim Cummings
4:10 Upcoming advancements in ocean data assimilation at NCEP  Steve Penny
4:30 Performance and metrics  Jennifer Saleem Arrigo
4:50 Q &A (30 min)

6:30 Optional Group Dinner----Mi Rancho
Thursday 11 May 2017

8-8:30 Coffee and refreshments (lobby of science center)

**Session 9: Regional Foci**  
*Chair: Janet Sprintall*

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<tr>
<td>8:30</td>
<td>TPOS (30 min)</td>
<td>Billy Kessler</td>
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<td>9:00</td>
<td>Atlantic (20 min)</td>
<td>Molly Baringer</td>
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<td>9:20</td>
<td>Arctic Ocean (30 min)</td>
<td>Craig Lee</td>
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10:05 Break (25 min)

**Session 10: Strategic Priorities: Progress and forward looking (e.g. Ocean Obs ‘19)**  
*Chair: Meghan Cronin*

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<tr>
<td>10:30</td>
<td>BGC-Argo (15 min)</td>
<td>Todd Martz</td>
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<td>10:45</td>
<td>Arctic observing (15 min)</td>
<td>Chris Meinig</td>
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<td>11:00</td>
<td>Deep Ocean (15 min)</td>
<td>Nathalie Zilberman</td>
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<td>11:15</td>
<td>Boundary Currents (plans, more global focus) (15 min)</td>
<td>Renelllys Perez</td>
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11:45 Looking ahead  

COSC Executive Session 12-3