



Developing realistic proposals and hypotheses
to carry forward deep ocean observations on
the OOI Cabled Array and broader NE Pacific.

OOI Deep Ocean Observing Workshop

27-29 August 2018

Seattle, Washington

Courtyard by Marriott Seattle

925 Westlake Ave N

Seattle, WA 98109

DAY 1 OBJECTIVE: Provide background information to guide the creation of a set of science questions that can be addressed using the OOI and surrounding observatories.

Time	Agenda Item	Person	Time
8:00	Continental Breakfast (<i>provided</i>)		
8:30	I. Welcome		
	a. Opening Remarks/Housekeeping	<i>Leslie Smith</i>	5 min
	b. Welcome from the National Science Foundation	<i>Lisa Clough</i>	5 min
8:40	II. Workshop Participant Introductions	<i>ALL</i>	20 min
9:00	III. Outline of Workshop Goals and Objectives	<i>Kristen Yarincik</i>	15 min
9:15	IV. The Ocean Observatories Initiative		
	a. Overview & Deep Assets in the NE Pacific	<i>Kendra Daly</i>	15 min
	b. Introduction to the Cabled Array	<i>Deb Kelley</i>	30 min
10:00	I. The Deep Ocean Observing Strategy		
	a. Introduction to GOOS	<i>Andrea McCurdy</i>	10 min
	b. Introduction to DOOS & DOOS Projects	<i>Lisa Levin</i>	20 min
10:30	Break		
11:00	II. NE Pacific Regional Observatories		
	a. Ocean Networks Canada	<i>Kim Juniper</i>	15min/each
b. NANOOS	<i>Jan Newton</i>		
11:30	III. Essential Ocean Variables		
	a. Introduction to concept of EOVs	<i>Henry Ruhl</i>	5 min
	b. Update on Deep Ocean EOVs		10 mins/each
	i. Biology	<i>Henry Ruhl</i>	
	ii. Biogeochemistry	<i>Felix Janssen</i>	
iii. Physics	<i>Bruce Howe</i>		
iv. Solid Earth	<i>Bruce Howe</i>		
c. Connection between OOI and the EOVs	<i>Leslie Smith</i>		
12:30	Lunch (<i>provided</i>) – <i>Lightning Talks</i>		

1:30	I. DOOS Science Questions	<i>Felix Janssen</i>	15 min
1:45	II. Discussion of working group topics	<i>Henry Ruhl & Felix Janssen</i>	75 min
	<p>Goal: This discussion will center around determining the key, cross-discipline science questions for each of the 4 initial working groups. Questions will focus on aspects of the deep ocean that can be addressed by the OOI and neighboring observatories in the NE Pacific. Going into the break, folks will be divided into their *preliminary* groups and will reconvene at their working group meeting location.</p>		
3:00	Break		
3:30	III. Individual Working Groups		45 min
	<p>Goal: Groups explore their science questions in more detail. The aim is to come up with a brief description of how your questions can be addressed using the OOI and nearby NE Pacific observatories. Make sure to focus on the types of measurements needed (what is available and what would need to be added).</p>		
4:15	IV. Working Group Report Out	<i>Group Reps</i>	45 min
	<p>Goal: Groups present their ideas to receive feedback (10 min each group). This report out will provide a look at how questions have evolved. Questions that have become very similar (e.g. similar measurement needs) may seek to merge and groups with split interest may wish to separate. Additionally, these presentations will give participants the opportunity to see if the focus of another group better fits their interest. After this report out, questions will be solidified for the remainder of the workshop.</p>		
5:00	V. Day 1 Wrap-Up & Day 2 Look Ahead	<i>Leslie Smith</i>	15 min
5:15	Working Dinner (provided) until 8pm at Art Marble 21 with Data Demo (by Mike Vardaro)		

DAY 2 OBJECTIVE: Solidify working groups surrounding these questions and craft the details of how to address them.

Time	Agenda Item	Person	Time
8:00	Continental Breakfast <i>(provided)</i>		
8:30	I. Hello and Objectives for Day 2 a. Brief review of final group themes/topics	Leslie Smith	15 min
8:45	II. OOI Data	Mike Vardaro	15 min
9:00	III. Individual Working Groups		90 min
	<p>Note: Participants may switch to a new group now but must stay there for the duration.</p> <p>Goal: Draft a brief 10-minute presentation about your group's key science questions and how to address them. In your discussion/presentation, focus on addressing whether existing OOI & nearby regional observatories fully address these questions and if not, what modifications would be needed.</p>		
10:30	Break		
11:00	IV. Working Group Report Out	Group Reps	20 min each
12:30	Lunch <i>(provided)</i> – Lightning Talks		
1:30	VI. Modelling – what data are available to the region	Chris Edwards	15 min
1:45	VII. Deep Ocean Sensors & Technology a. Scalable Methods and Approaches b. Cabled Array Technology	Henry Ruhl & Dana Manalang Orest Kawka	15 min each
2:15	V. Discussion – Deep Ocean Sensors & Technology	Bruce Howe	45 min
	<p>Goal: The discussion will address the following topics...</p> <ul style="list-style-type: none"> • Difference in sensor technology for global vs regional observational purposes • Variation in platform needs (cabled junction box vs float) • New sensors in development (prototype vs mature) and sensor readiness testing protocols 		
3:00	Break		
3:30	VI. Individual Working Groups		80 min
	<p>Goals: (1) Re-group after receiving comments from presentations and finalize group slide set (deliverable). (2) Technology and Sensor needs for you question(s) and respective readiness levels.</p>		
4:50	VII. Day 2 Wrap-Up & Day 3 Look Ahead	Leslie Smith	10 min
5:00	Adjourn		

Day 3 Objective: Create a road map to a project proposal

Time	Agenda Item	Person	Time
8:00	Continental Breakfast <i>(provided)</i>		
8:30	I. Hello and Objectives for Day 3	<i>Leslie Smith</i>	15 min
8:45	II. Proposing to use the OOI (data, adding infrastructure, etc)	<i>Leslie Smith</i> <i>Deb Kelley</i>	20 min 10 min
	a. Overview of Science Change Request Process		
	b. Cabled Array Specific Changes		
9:15	III. Discussion – Adding Infrastructure	<i>Deb Kelley & Paul Snelgrove</i>	45 min
	<p>Goal: Discussion of what infrastructure would need to be added to the OOI in order to more fully address these NE Pacific projects. Discussion will include:</p> <ol style="list-style-type: none"> 1) If infrastructure needs to be added, what would leverage best across working groups? 2) Does this infrastructure currently exist or is it still in development? 3) What pre-proposals are coming down the pipe in the next few years? 		
10:00	IV. Discussion – Potential Funding Sources	<i>Lisa Clough</i>	30 min
	Goal: Discuss the potential funding sources that may be able to fund projects like these.		
10:30	Break		
11:00	V. Individual Working Groups		90 min
	Goal: Discussion of infrastructure additions (instruments, platforms) and potential funding sources.		
12:30	Lunch <i>(provided)</i> – Lightning Talks		
1:30	VI. Individual Working Groups		90 min
	<p>Goals: Discussion of writing process to formalize plans for each project</p> <ol style="list-style-type: none"> 1) Outline a process for drafting a project plan and a timeline for steps ahead 2) Solidify level of commitment from working group members; identify key leadership individuals 3) Discuss mechanisms to continue momentum – Slack Channel, Gdrive folder, upcoming gatherings 		
3:00	Break		
3:30	VII. Final Working Group Report Out	<i>Group Reps</i>	20 min each
	Goal: Describe progress, plan moving forward, and any remaining questions/comments for feedback.		
4:50	Workshop Wrap up & Farewell	<i>Leslie Smith</i>	10 min
5:00	Workshop Concludes		