

Interdisciplinary Studies Report-out



Modeling of the ecosystem dynamics in the Alaskan Arctic Ocean

Page #	Break-out	Title	Rank
HQ 31		An Integrated Scientific Approach to Arctic Sustainability: the ArcSEES partnership	
HQ 35		Modeling of the ecosystem dynamics in the Alaskan Arctic Ocean	
HQ 39		Ecosystem Dynamics and Monitoring of the Alaskan Arctic Ocean	
GOM 35		Workshop on future Directions in understanding physical-biological oceanographic interactions in mid to deep water in the GOM	
GOM 61		Workshop on monitoring the long term effects of offshore oil and gas activities in the GOM	
Handout		Mississippi Delta baseline mud-flow hazard maps	
PAC 21		Using ongoing activities as surrogates to predict potential ecological impacts from marine renewable energy	
PAC 31		Biogeographic assessment on main HI Islands	
AK 41		Chukchi Acoustic, oceanographic and zooplankton study: Hanna Shoal (Ext. of CHAOZ)	
<p>**PO = Physical Oceanography FE = Fate & Effect BIO = Biology PS = Protected Species SE = Social & Economic OT = Other</p>			



- **Committee Notes:**

- Strongly recommend participation
- Win-Win at this point (no funding obligated, good opportunity for innovative science)
 - Also good opportunity to expand pool of people and ideas
- Opportunity for BOEM to take on a project that included socio-ecological systems
- BOEM should look into having a staff member on the initial review panel

- **Committee Notes**

- Overall proposal lacks focus
 - Unclear what BOEM needs actually are. Clarify tie to decision-making.
- Need more specifics on what constitutes “interdisciplinary”
 - What topics does BOEM want/need addressed?
 - PhysO? ChemO? Other?
- HQ/Region disconnect seems apparent in this and companion study. How does this tie to regional needs and decision making?
- Define study region.
- What are the drivers of change of concern?

- **Committee Notes**

- What research question is being asked, and how is it linked to the decision making process?
- Recommend a small-scale pilot effort for the combined effort
 - Fund at lower level to test concepts in modeling and monitoring
- Don't over-reach with what data will be able to be collected by gliders (processes, etc...)
 - How does this address resilience/sensitivity?
- Gliders not proven in these conditions (under ice)
- Still unclear how these two studies need to move forward (together, separately, which first?)
- Recommendation is that these two studies need to move forward as a single study
 - Will need to be an iterative process

- **Committee Notes**

- Really a conference as described
- Recommend funding, but whatever moves forward must take into account recent research conferences on this topic (DWH, GOMRI...)
 - Don't duplicate efforts
- Scale this down to a workshop, versus a conference
 - Limit to small number of relevant scientists
 - Create straw-man list of recommendations/questions
 - Use ITM to help develop “guiding questions/topics” by presenting most recent BOEM funded research
 - Use to generate specific “roadmap” for future directions
- To Focus this workshop:
 - Deep water may be the area that this meeting could have a significant impact.
 - Should include international deep-ocean observation working group
 - Also INDEEP (Maria Baker)

- **Committee Notes**

- No strong feelings
- Lacks specific focus
- Same general concerns as other workshop
- Lower priority than other workshop
- Might be more worthwhile after data from new baseline studies are available

- **Committee Notes**

- Recommend pursuit as a Joint Industry Project
- Committee is unclear on what the actual focus and need is for this study
 - Cannot provide significant comment until this is better defined
- Needs clarification on whether the fluidity of the sediments (high gas content) is what is driving the differences in flow characteristics?
- Not necessarily “interdisciplinary”
- Is this really a relevant issue for study? Will BOEM produce a risk analysis different than what the industry does?

- **Committee Notes**

- Effective use of funds to repurpose existing data
- Too open-ended as an RFP
 - BOEM needs to define the types of impacts that it is trying to find analogous structures for. As examples:
 - loose cables vs taut – entanglement vs abrasion
 - Electrical cable types
 - Similarly, other impacts must be specific and relevant to renewable energy systems
- Need to examine European experience and describe why it is or is not valid for application to Pacific
- Define regions and species of interest

- **Committee Notes**

- Like the general idea, but would like to see it more clearly defined and re-presented to the Committee
- Project seems very broad, risks “reinventing the wheel”
 - Goal of study is undefined as written
 - How does this build on the 2003 NOAA study and other earlier work?
- Need to identify the available data sets first, then describe how to move forward

General Comments

- BOEM “Interdisciplinary” is not state-of-the-art
 - Missing many components
 - Ecosystem economics
 - Valuation of services,
 - seafloor and water column
- Monitoring protocols should be standardized to the extent possible, particularly for renewable energy projects & conventional energy
 - Responsible party for monitoring needs to be identified
- Defined risk framework linked to adaptive monitoring practices

General Comments

- Broader context of societal effects needs greater focus
 - Social sciences and cultural resource components need to be included in more interdisciplinary projects
 - Scenario modeling, structured decision making...
- Support continued expansion of integrating climate change impacts
- Support continued expansion of international collaborations
- Incorporate lessons from European research