

Minutes
16th Meeting of the Ocean Exploration Advisory Board
May 27-28, 2020, Virtual

Notification and Availability of Meeting Materials

The 16th meeting of the Ocean Exploration Advisory Board (OEAB) was announced to the public through the *Federal Register* and on the [OEAB website](#). Background materials and presentations prepared for this meeting are posted on the OEAB website.

Ocean Exploration Advisory Board Members in Attendance

Ambassador Cameron Hume, Consultant (Acting Chair)

Amanda Demopoulos, U.S. Geological Survey
Jacqueline Eaby Dixon, University of South Florida
Christopher R. German, Woods Hole Oceanographic Institution
David Lang, Sofar Ocean Technologies
Nicolette Nye
Richard Rikoski, Hadal, Inc.
Dominique Rissolo, University of California at San Diego
Lance Towers, Boeing, Inc. (ret.)

David McKinnie, Designated Federal Officer for the OEAB

Office of Ocean Exploration and Research

Alan Leonardi, Director
Frank Cantelas, Science and Technology Division Lead
Rachel Medley, Expeditions and Exploration Division Lead
Jamie Austin
Christa Rabenold
Adrienne Copeland
Katherine Egan
Joanne Flanders
Rachel Gulbraa
Steve Hammond
Susan Haynes
Matthew King
Jennifer Le
Phoebe Lease
Amanda Netburn
Alexandra Puritz

NOAA

RDML Tim Gallaudet, Assistant Secretary of Commerce for Oceans and Atmosphere and Deputy NOAA Administrator
Craig McLean, Assistant Administrator for Oceanic and Atmospheric Research

Invited Speakers

John R. Kreider, OEAB Blue Economy Subcommittee
Brian Midson, National Science Foundation
Peter Girguis, Harvard University - for presentation
Dijanna Figeroa, St. Matthews Parish School
John Grunsfeld, former NASA Chief Scientist

Observers

A number of individuals from NOAA and other organizations observed the meeting at various points.¹

1. **Meeting Opening.** Designated Federal Officer (DFO) David McKinnie opened the meeting on May 27, 2020. This meeting was held virtually given the COVID-19 pandemic.
2. **Chair Opening Remarks.** Acting Chair Ambassador Cameron Hume reviewed the [agenda](#) for the meeting.
3. **Approval of Minutes.** Jacqueline Dixon made a motion to approve the [minutes from the 15th OEAB meeting](#), held virtually. Lance Towers seconded, and the board approved the minutes.
4. **OEAB Membership.** DFO David McKinnie shared that applications from the latest solicitation for new members had been received and efforts were underway to accelerate the process of bringing new members on board. An issue with quorum is not anticipated should votes be needed after current members depart (end of June) and before new members are brought on.
5. **Annual Review of OER's Competitive Grants Program.** Under law, the OEAB is required to conduct an annual review of OER's implementation of its competitive grants program and ensure that it is competitive. OER Science and Technology Division Lead Frank Cantelas presented an overview of the process and a summary of the program from 2014 to 2020. The OEAB endorsed OER's process to the NOAA administrator, but noted that future reviews would be improved if information on the selection process included data on reductions in awards from amounts requested. [[Presentation](#)]
6. **OER Updates.** OER Director Alan Leonardi provided a brief update on the revised expedition plan and schedule for NOAA Ship *Okeanos Explorer* in 2020 and other office activities in response to COVID-19. He emphasized the importance of resuming operations safely and the value of telepresence that is being further realized during the pandemic (i.e., minimizing the number of people on a ship).
7. **Blue Economy Subcommittee Report.** OEAB Blue Economy Subcommittee Chair John Kreider presented the subcommittee's [interim report](#) to NOAA leadership for feedback from the OEAB. The OEAB commended the subcommittee on a thorough, well-organized report and suggested a few minor changes. For the final report due in November, the board requested that the subcommittee delve more deeply into issues of data and data stewardship and the important role NOAA and other federal agencies play in validating data quality and making data and information available to various stakeholders in the Blue Economy and consider the tourism and recreation sector, including the cruise ship industry, as an important contributor to the Blue Economy. [[Presentation](#)]
8. **Public Comment Period.** Katie Fillingham from the Consortium of Ocean Leadership (COL) and OER's Jamie Austin provided an update on alternate plans for the OER/COL Workshop to Identify National Ocean Exploration Priorities in the Pacific. They will hold a virtual plenary in July and breakout sessions in mid-July/August. They are hoping to have an in-person concluding event September 16-17 in Washington, DC (will be virtual if necessary). [White papers from participants and the community](#) are available on the COL website.
9. **Panel Discussion: Full Ocean Depth Exploration.** A [panel of experts](#) (Peter Girguis, Harvard University; Brian Midson, National Science Foundation; Dijanna Figeroa, St. Matthew's Parish School; and John Grunsfeld, former NASA chief scientist) spoke about full ocean depth exploration and discussed the value of such a capability to NOAA and its ocean exploration goals and responsibilities. This was in response to a request from Assistant Secretary of Commerce for Oceans and Atmosphere and Deputy Administrator RDML Tim Gallaudet for advice on the requirements for full ocean depth exploration, the technologies appropriate for such exploration, and considerations of

¹ Given the nature of the virtual meeting, it was difficult to tell who was participating and when. Thus, this list may not be complete.

which NOAA should be mindful when making decisions about full ocean depth exploration.

Key takeaways from the panel include the notion that all exploration is human exploration, regardless of the technology used, the importance of engaging the public in all ocean exploration, and the need to consider the ocean in a holistic manner. Importantly, it was noted that the deepest parts of the ocean represent only a small percent of the ocean; and that there remains much in the shallower reaches of the deep ocean, and within the U.S. Exclusive Economic Zone, that we have yet to explore.

- 10. OEAB Discussion: Full Ocean Depth Requirements.** The OEAB concluded that NOAA focus on lower cost robotics, including robotics capable of full ocean depth exploration, while encouraging and guiding ocean exploration using the human occupied *Alvin* and developing innovative ways to engage the public, regardless of the technology used, while planning and executing expeditions and decided to prepare a letter to the NOAA Administrator with these and other recommendations.
- 11. Recognition of Outgoing OEAB Members.** RDML Tim Gallaudet joined the meeting to lead the thanks and praise for six departing members: Jacqueline Dixon, John Kreider, David Lang, Nicolette Nye, Rick Rikoski, and Lance Towers. He thanked them all for their contributions to the “greatest advances of any FAC at NOAA.” Assistant Administrator for Oceanic and Atmospheric Research Craig McLean and Alan Leonardi also offered their thanks and acknowledged the board’s role in elevating ocean exploration at the national level. [\[Presentation\]](#)
- 12. Next Meeting.** The board agreed the next meeting would be in September, in person or virtual remains to be determined.
- 13. Meeting Close.** The DFO closed the meeting at approximately 5:30 p.m. EDT on May 28, 2020.