

Board Participants in Attendance: Todd Callaghan, Steve Couture, Janet Freedman, Jon Grant, Steve Lohrenz, Regina Lyons, Rhonda Moniz, Todd Morrison, Andy Pershing, Tom Pham, Joe Salisbury, Tom Taylor, John Trowbridge, Philip Trowbridge, and Chris Williams
Calling in: Dave Hebert, Anthony Kirincich, and Mike Whitney **Other Attendees:** Rob Cardeiro, Carl Gouldman, Jackie Motyka, Julianna Mullen, Jim O'Donnell, Neal Pettigrew, Tom Shyka, Emily Silva, Heather Stoffel, and Josie Quintrell

Steve Lohrenz commenced the meeting at 9:05 AM.

Approval of the Minutes

John Trowbridge motioned to approve the August board minutes, seconded by Philip Trowbridge. The August 22, 2019 board meeting meetings were unanimously approved.

Eastern Canadian Observing Initiatives

Jon Grant provided an update of Canadian efforts. A new buoy has been in the water since spring 2019 and Dalhousie University is working with GMRI to get the data integrated into the NERACOOS system, as well as looking for funding opportunities for a second buoy in the Bay of Fundy (input on location is welcomed). Dalhousie is also looking into making the buoy data accessible to local residents in a mobile phone app. An initiative with Dalhousie and [DeepSense](#) is set to manage and interpret the data from this and future buoys.

NERACOOS Operations Update

The NERACOOS Operations Update was provided by the NERACOOS Staff; Jackie Motyka, Tom Shyka, Rob Cardeiro, Emily Silva, and Julianna Mullen.

Understand & Meet Stakeholder Needs. Cape Cod Physical Oceanographic Real-Time System (CC PORTS) is a partnership with NERACOOS, NOAA Center for Operational Oceanographic Products and Services (CO-OPS), and the Massachusetts Department of Environmental Protection (Mass DEP). Currently, there is a wave buoy in Cape Cod Bay, funded by Mass DEP. An Acoustic Doppler Current Profiler (ADCP) will be added to the Massachusetts Maritime Academy (MMA) pier for safer navigation through the Cape Cod Canal. Woods Hole Group (WHG) is installing this system within the next week. The data will be made available through NOAA PORTS and eventually on the NERACOOS website. A second wave buoy has been requested by stakeholders in Buzzards Bay, discussions about this potential new asset are underway.

The Coastal Ocean Modeling Testbed (COMT) project, which is funded by the Integrated Ocean Observing System (IOOS) program, couples the University of New Hampshire's Water Balance Model (WBM) and the University of Massachusetts Dartmouth's Northeast Coastal Ocean Forecast System (NECOFS). The project partners are also working with NOAA's National Water Model, assimilating U.S. Geological Survey (USGS) tide gauge data. NERACOOS is facilitating stakeholder outreach with the U.S. Coast Guard, National Weather Service, and others which will help to prioritize model and forecast needs.

Ocean Acidification (OA) Thresholds is a project funded by NOAA Ocean Acidification Program (OAP) and NOAA National Centers for Coastal Ocean Science (NCCOS). This

cooperative award will add biogeochemistry parameters to NECOFS, as well as seek stakeholder input regarding critical OA thresholds. This project was heavily descope and currently the model is only working in hindcast mode, with the intention that it could be fully operational with additional funds. Todd Callaghan suggested that NERACOOS and the project partners connect with Massachusetts Institute of Technology (MIT) as they are working on a similar project and efforts could be combined or leveraged.

Marine Biodiversity Observing Network (MBON) will initiate biological sampling efforts at two stations in the Gulf of Maine. These observations will then be included into a model to predict potential feeding grounds of the North Atlantic right whale. Jeff Runge, University of Maine/Gulf of Maine Research Institute, is leading this effort which officially started in September 2019. This project will support the goals and mission of the Integrated Sentinel Monitoring Network (ISMN), which is a regional initiative, co-lead with the Northeast Regional Ocean Council (NROC) to bring together monitoring efforts and identify ecosystem changes in the region. The ISMN Oversight Committee held its first meeting in July and will continue to increase efforts in 2020. As part of this initiative Julianna Mullen has created a new logo and brand for ISMN.

The Ocean Acidification Information Exchange (OAIE) is growing and has almost 1,000 members. A new funding initiative from NOAA OAP provided the opportunity to offer micro-grants to the OAIE members, which will be announced in the coming weeks.

NECAN is continuing efforts. Earlier this year, on August 22nd, the NECAN Education and Outreach Working Group, along with many other partners, hosted Shell Day, a single-day monitoring event which took place from Long Island Sound to the Gulf of Maine. Citizen science groups who participated in Shell Day took water measurements and samples which were analyzed by partnered laboratories. The data from each sample site were collected and are currently being compiled into a single datasheet. The results will then be analyzed and interpreted. This was a huge effort with support from NOAA OAP and others and a great opportunity for public engagement.

The Gulf of Maine 2050 International Symposium was a five-day event held in Portland, ME in November hosted by Gulf of Maine Research Institute (GMRI) and Gulf of Maine Council of the Marine Environment. The goal of this meeting was to discuss, collaborate and respond to expected changes in the Gulf of Maine over the next thirty years, due to three drivers of change, warming waters, ocean acidification, and sea-level rise and precipitation. NERACOOS was a member of the planning committee and was actively involved in activities throughout the week, including: presenting posters for OA Thresholds, OAIE, ISMN, NECAN, and NERACOOS observing needs; Matt Liebman provided a panel presentation for NECAN; Julianna Mullen gave a lightning talk for the OAIE; and Shayla Fitzsimmons, of the Canadian Integrated Ocean Observing System (CIOOS) Atlantic gave a lightning talk on the current and future state of the collaborative observing system in the Gulf of Maine. At the end of the week, it was announced that NERACOOS successfully competed for a collaborative action grant, which will generate a report and analysis of various datasets in the Gulf of Maine.

Branding & Communications. In August, NERACOOS did a partial roll-out of a new logo. The implementation of this effort is still moving forward, and the website will be updated next. Julianna is also working on creating new webpages for non-data product information on the NERACOOS website. The NERACOOS newsletter is ongoing, social media outreach is going well with a lot of new engagement.

Diversify Funding and Support. A list of submitted, successful, and upcoming proposals were shown to the board and more information on these are available upon request from the NERACOOS staff. The next IOOS five-year award process will begin soon. NERACOOS will be reviewing regional efforts, asset replacement, stakeholder needs, and critical observing gaps.

Jackie Motyka provided information regarding asset recapitalization, as previously requested by the board. A review was provided of the funding estimates for critical infrastructure replacements needed over several periods; 1 year, 2-3 years, 4-6 years, and beyond. It was suggested to the board that future Closing the Gaps funding (when applicable) or additions to base from the IOOS PO be used to supplement recapitalization funding. The board also suggested the following funding ideas and suggestions: state capital budgets, offshore wind development, and utilizing the indirect cost rate as a means for discretionary funding. It was also suggested that strategically leveraging other projects such as ISMN to assist in funding and replacing new assets.

The proposed proposal process for the next IOOS five-year award will solicit proposals specifically on current efforts, expansion of current efforts, and identified key stakeholder gaps. All proposals received will be collated and reviewed by an unconflicted advisory committee (to be established), which will work with the NERACOOS staff to assist in providing recommendations for choosing proposals moving forward. Todd Callaghan is currently on the advisory committee, more volunteers and suggestions for other members will be needed. Steve Couture recommended having a National Estuarine Research Reserve (NERR), National Estuarine Partnership (NEP), and/or Coastal Zone Management (CZM) presence on the committee.

IOOS Program Office Update

Carl Gouldman provided an update for the IOOS Program Office. Carl gave a brief update on the IOOS PO strategic plan, vision, mission, and goals. Carl also discussed relevant events and documents, such as OceanObs19, the White House Science and Tech for America's Oceans: A Decadal Vision, the UN Decade of Ocean Science for Sustainable Development, and the Whitehouse Summit on Partnerships in Ocean Science and Technology recently held in November.

Carl then reviewed the enacted presidents' budgets from FY04 to present, FY19 IOOS regional funding, an overview of the Filling the Gaps Campaign funding from FY17 to present, and a breakdown of IOOS funding for NERACOOS. Increases in funding are shown in the overview of the president's budget over time as well as the "Filling the Gaps" campaign. Slides of these charts and graphs are available upon request.

NOAA Administration priorities right now include the NOAA Weather Act and NOAA Water Initiative, which allows the IOOS PO to define ocean and coastal modeling in a way that aligns with the priorities of NOAA and other agencies.

Dave Easter and Jessica Snowden are working on the new five-year notice of federal funding and are currently expected to release in April 2020. Dave, Jessica, and others working on this are looking to keep the things that worked well in the previous five-year process while streamlining efforts where they can.

IOOS Association Update

The IOOS Association Update was provided by Josie Quintrell. Part of the mission for the IOOS Association is to represent the regional associations (RA) and their interests in Washington DC, to build partnerships, and advocate on their behalf. Appropriations are a key piece in raising funding levels and spreading awareness for the RAs, so reaching out to congressional delegations is critical.

There is currently a continuing resolution in place for FY20. The Filling the Gaps campaign will continue into FY21. The IOOS Association is currently discussing the plan for the next campaign strategy. Recapitalization is a priority with aging infrastructure as well as retiring PIs. The Filling the Gaps method was such a success because it was scalable with incremental increases over time. The IOOS Association would like to apply a similar tactic to the recapitalization process if possible.

Work and advocacy for the IOOS Reauthorization Act continue. The House submitted Omnibus Bill HR729 and will be voting this week, though it has stalled in the Senate. OceanObs19, which marked 20 years for IOOS, was a good way to review the accomplishments of IOOS over the years. The UN Decade of the Ocean will be beneficial for looking forward to ocean observations. The Association had good engagement and representation at the recent White House Summit. IOOS is reviewing the recently released NOAA Science and Technology priorities and will be specifically highlighting partnerships and collaboration.

Executive Committee Update

The executive committee discussed the executive director position at NERACOOS, specifically regarding the position announcement and search committee procedures. The minutes from this session are confidential at this time.

Note: Philip Trowbridge recused himself from these discussions. He left the room and was recalled to the meeting after the executive committee discussion.

Finance Committee Update

The Finance Committee update was provided by Janet Freedman and Rob Cardeiro. Copies of the FY19 NERACOOS budget were provided to the board of directors. Each line item of the budget was reviewed by the board and accepted. The annual audit will begin later this month and results should be available by March 2020. Rob would like to work on growing the NERACOOS indirect rate which is currently set at 11%, this would lend NERACOOS more

financial flexibility. Copies of the proposed FY20 budget were provided to the board of directors. The budget was reviewed by the board. Todd Callaghan motioned to approve the NERACOOS budget, seconded by Steve Couture. The budget was unanimously approved.

Two of the three members of the finance committee have terms ending today, please contact Rob if you are interested in participating in this committee.

Nominating Committee Update

The Nominating Committee update was provided by Steve Couture. The slate of nominations, previously distributed to the board, was reviewed and include Dave Hebert, Christian Williams, Jason Goldstein, Pamela DiBona, Todd Morrison, Rhonda Moniz, Tom Pham, Nicole Bartlett, and Regina Lyons. Andy Pershing motioned to consider and vote on the nominations for board membership as a single slate, seconded by John Trowbridge and was unanimously approved by the board. Steve Couture motioned to approve the entire board of directors slate of nominations, seconded by Todd Callaghan. The slate of nomination was unanimously approved. The nominations for board officers include John Trowbridge for president and Philip Trowbridge for vice president. Steve Couture motioned to approve John Trowbridge as president, seconded by Todd Morrison. The nomination for president was unanimously approved. Todd Morrison motioned to approve Philip Trowbridge as vice president, seconded by Todd Callaghan. The nomination for vice president was unanimously approved.

Two of the three members of the Nominating committee have terms ending today, please contact Emily Silva if you are interested in participating in this committee.

Miscellaneous

Rob Cardeiro distributed a board resolution for check signing authority for the board to consider. Checks over \$10,000 require two signatures as an internal control. Ru is no longer available to sign checks, so Rob proposes the in-office signee be Jackie Motyka and the secondary signee be Chris Williams, due to the proximity of NH DES to the NERACOOS office. Todd Morrison motioned to approve this board resolution seconded by Steve Couture. The resolution was unanimously approved.

Todd Morrison motioned to adjourn the meeting, seconded by Todd Callaghan. The meeting was adjourned at 3:04 PM.