

**Board Members Attending:** Todd Callaghan, Pam DiBona, Janet Freedman, Jason Goldstein, Dave Hebert, Regina Lyons, Todd Morrison, Tom Taylor, Dave Townsend, John Trowbridge, Dave Ullman, Mike Whitney, and Chris Williams

**Other Attendees:** Rob Cardeiro, Jake Kritzer, Julianna Mullen, Jackie Motyka, Josie Quintrell, Tom Shyka, Emily Silva, and Oriana Villar

#### Nominating Committee Update

Emily provided the Nominating Committee Update and shared the current slate on nominations. Dave Ullman's first term is coming to an end in December, he is eligible for another. Joe Salisbury's second term is coming to an end in December, he is not eligible for another at this time. Nicole Bartlett is completing James Brinkley's term as he had to step down early, Nicole is eligible to begin her own term in December. Following the March board meeting, Regina Lyons and Jason Goldstein volunteered to join John Trowbridge on the nominating committee. Emily will continue to communicate with them on Nominating Committee activities moving forward.

Philip Trowbridge had stepped down as Vice President in December 2019 for the duration of the Executive Director search. Pam DiBona was voted in as acting Vice President during this time with an electronic vote which took place on January 23, 2020. Philip is resuming the role of Vice President at this time.

#### Approval of the Minutes

No edits or changes were proposed for the March 19, 2020 board meeting minutes. Todd Callaghan motioned to approve the minutes from the March board meeting, seconded by Todd Morrison. The board meeting minutes were unanimously approved.

#### NERACOOS Operations Update

The NERACOOS staff provided the operations update. NERACOOS staff have primarily been working from home at this time. A date for returning to the office is to be determined. Rob shared a COVID-19 policy during the March board meeting and that is still in place.

Jackie reviewed some impacts NERACOOS operators are experiencing due to COVID-19, ship surveys, ship time for servicing buoys, and glider deployment has been canceled or delayed. The Gulf of Maine Research Institute (GMRI) has been refocusing on data management while some observations are delayed. University of New Hampshire (UNH) buoys are in the water and there have been efforts to identify funding opportunities to replace or upgrade the Great Bay Buoy. Seabird is experiencing delays in servicing sensors. Woods Hole Oceanographic Institution (WHOI) Marine Mammal Monitoring efforts, led by Mark Baumgartner, took place as planned over the winter and finished up in the spring. Anthony Kirincich is continuing operations of High Frequency Radar (HFR) stations, including the addition of two new stations which will be operational by June as part of the Closing the Gaps campaign. The model run by Changsheng Chen at University of Massachusetts Dartmouth (UMassD) is operational, however, updates have been delayed without access to the lab. University of Rhode Island (URI) buoys are in the water and reporting. Some University of Connecticut (UCONN) buoys are in the water, though some need to be serviced or switched and ship time is restricted.

The Cape Cod Physical Oceanographic Real Time System (PORTS) Acoustic Doppler Current Profiler (ADCP) on the Massachusetts Maritime Academy (MMA) pier is now fully operational and any mariner traveling through the Cape Cod Canal can access this data which is updated

every six minutes. A second wave buoy, in addition to the one in Cape Cod Bay near the mouth of the canal, is being planned for Buzzards Bay. The buoy will be deployed near the Buzzards Bay Tower operated by the National Buoy Data Base Center (NDBC) following input from stakeholders. Communication with stakeholders will continue throughout the summer to refine the exact location where the buoy will be deployed. NERACOOS is working with COOPS and Massachusetts Department of Environmental Protection (DEP) to update the PORTS agreement to include this wave buoy and extend the agreement by 3-5 years. The funding for the buoys and ADCP is long-term funding provided by Mass DEP through the oil spill trust fund managed by Mass DEP.

Mayflower Wind is a joint venture between Shell New Energies and EDP Renewables and they have deployed an oceanographic buoy south of Martha's Vineyard. They have asked that NERACOOS integrate the data from this buoy into our system so it will be publicly available. The data management team at GMRI has been working with the Mayflower Wind buoy operator, Fugro, to get that data into the NERACOOS system, ERDDAP. All of the sensor data is available now in hourly increments except for wind speed which is received as a daily average. GMRI is working to integrate this wind speed data into the system. Working with Mayflower Wind may provide opportunities to work with other wind companies in the region.

#### NERACOOS Five-Year Proposal Process

NERACOOS staff drafted and RFP in March. An Advisory Committee meeting was held in April with Todd Callaghan, Steve Couture, and Matt Lyman. The IOOS Notice of Funding Opportunity (NOFO) was released in May and the NERACOOS Request for Proposals (RFP) was then released in June through the newsletter. We are soliciting mini proposals within four categories; sustained observations, expanding on sustained efforts, observational gaps, and new projects. The mini proposals are submitted through a short Google Form and will be due July 10<sup>th</sup>. The Staff will review and then distribute to the board to be ranked. Following the review, a discussion will take place during the August Board Meeting and mini-proposal authors will be invited to participate. A slate will be proposed by NERACOOS staff and reviewed by the board. The slate will be finalized by the Executive Director. The NERACOOS staff and PI's will write the proposal and submit to IOOS in December.

#### Funding and Proposals

Several other proposal have been submitted by NERACOOS recently, three are pending and one is moving forward. Please reach out to the NERACOOS office for a list of these proposals. Two other proposals are upcoming, and opportunities are being discussed.

#### NERACOOS Operations Update Continued

Coastal Ocean Modeling Testbed (COMT) is funded by the Integrated Ocean Observing System (IOOS) COMT program and focuses on coupling the weather and hydrodynamic model in the Northeast Coastal Ocean Forecast System (NECOFS) operated by UMassD, and a hydrologic model operated by the UNH and is aimed at improving forecasting where rivers meet coastal waters. UNH the WMN has been transitioned from a daily to an hourly forecast, improved the coupling framework between the models. UMassD is testing and validating a higher resolution model grid in NECOFS. The operators on this project participated in a NOAA Coastal Coupling Community of Practice (CCCOP) virtual workshop and presented on this work and have been invited to participate in an IOOS workshop in July. Stakeholder engagement work on this project has been delayed for various reasons but will resume in the fall. UMassD are planning a major update on their modeling system within the next few

months and will allow them to make improvements on their modeling capability. Todd Callaghan and Tom Shyka will talk further on a similar USGS model.

The Ocean Acidification (OA) Thresholds is a project funded by NOAA National Centers for Coastal Ocean Science (NCCOS) and NOAA Ocean Acidification Program (OAP). The goal of this project is to work within NECOFS to create a biogeochemical model for the region while working with stakeholders to assess regional needs. A lot of progress is being made on the model development. A funding opportunity is being pursued to help supplement the existing funding for this project and keep things moving forward. The stakeholder aspect of this project had been delayed due to COVID-19 but will now focus on aquaculture groups that use upwellers and water quality managers to get feedback on how this model will be helpful to them and what information they would need.

The Integrated Sentinel Monitoring Network (ISMN) Marine Biodiversity Observation Network (MBON) project is funded through the IOOS MBON program. Jeff Runge, UMaine, is the lead PI for this project. Sampling for this project had begun in December and was to continue for 11 months, however, again due to COVID-19, schedules will need to be readjusted as ship surveys have been canceled for the time being. The data integration aspect of this project is moving forward with new biological parameters and historical data. GMRI is working to identify these data sets, how to access them, and then bring them into the NERACOOS framework. Riley Young-Morse has a new staff member who will be dedicating a lot of their time to this part of the project. With new observations and historical data, a model will be developed to help predict locations of right whales.

The Ocean Acidification Information Exchange (OAIE) is going well with 1,050 members and a diverse community with representation from over 60 countries. The NOAA OAP funded micro-grant opportunity is moving forward, proposals have been received and reviewed. Two projects have been chosen, one based in Alaska and another in North Carolina, both are working with indigenous groups in those regions. The OAIE is considering creating a Diversity, Equity, and Inclusion committee. The annual survey will be coming out soon to gauge member satisfaction.

Julianna has been working on ISMN branding and communications, including the new logo and a new website, and an informational one-pager. The oversight committee has been meeting regularly and continues to be engaged. ISMN is working on interfacing with other organizations such as LTER, MBON, and the Fisheries Science Center on how best to work together and collaborative on projects. The ISMN meta-data base is gaining momentum. This will be a broad assessment of all the monitoring program in the region and information on them.

The Northeast Coastal Acidification Network (NECAN) Steering Committee meets once per month to discuss on-going projects. Emily is working on the next NECAN newsletter which will come out in July. The 2020 webinar series is being scheduled and planned. NECAN held a state of the science workshop in 2013 to review and discuss the current science on OA and research priorities. The NECAN SC is now planning a similar workshop for 2021. Following an industry survey that was released in late 2018, the Industry working group has been working on the release of a report of that survey, led by Meredith White of Mook Sea Farm, and this report will be released soon.

NERACOOS is involved in two new projects, one working with Mike Brosnahan at WHOI and GMRI on how to share harmful algal bloom (HAB) data in the region. This project will include new observations along the coast including information floctobots (IFCB). Jackie will share a map of the observations with the board following this meeting. The second project is a collaboration with ATN and Mass DMR to monitor white sharks in real-time, funded by the Office of Naval Research (ONR). PacIOOS is also working on this project to improve telemetry access.

The Mariner's Dashboard is a new product NERACOOS has been developing with GMRI and it almost ready for release. This will be an upgrade to the NERACOOS buoy map in terms of user interface and the backend as well. The Dashboard is in the final testing stages and will be released as a beta product in the near future. Some board members have assisted in testing this product and provided great feedback.

Julianna shared a graphic recently through NERACOOS social media on the anatomy of a buoy which did really well. The NERACOOS website is being updated, Julianna is working on the informational pages and GMRI will be working on the products and tools. Julianna will share some visuals of the new pages she has been working on.

#### IOOS Program Office Update

Oriana Villar, new IOOS Regional Coordinator, provided the IOOS PO Update. The NOFO has been released, Oriana is available for any questions on this. The IOOS PO is finishing up their funding cycle, once RA funding is approved, it is submitted to Grants Management division and is processed within 60 days and NERACOOS will be notified. The IOOS PO is interested in gathering information from all the Regional Associations (RAs) on how COVID is impacting operations, through progress reports or in separate documents. There is a new surface currents program manager and a new National Ocean Service (NOS) model and portfolio manager will be coming on board soon.

#### IOOS Association Update

Josie Quintrell provided the IOOS Association update. The IA advocates for the RA and IOOS, networking, partnership development, and special projects. Closing the Gaps campaign is ongoing and is successful due to a unified message from the IOOS PO and RAs. Funding has increased by \$8M over the last three years. NCCOS and IOOS having been working together on creating a sustained observation system for HAB research. A pilot project has been set up for FY20 with the goal of setting up a national program eventually. A small working group is working on recommendations on how to move forward. Filling the Gaps continued in FY21 and included support for HFR and gliders. Senate appropriations staff are working on moving the budget forward, FY21 funding should not be impacted by COVID-19 relief funds. Increased support was also requested for the IOOS PO this year in addition to the RAs. The IOOS Association had been working with the RA directors to track COVID-19 impacts to operations and resources and how to quantify that for COVID-19 funding and building resilience in our observation systems. The House is putting forward an economic relief bill, which would cover projects that are ready to begin within 3-6 months of receiving funding. Starting with four RAs and hoping to expand to others. Closing the Gaps campaign is a five-year dedicated campaign, that last year is 2021 and the IOOS Association is thinking about the next phase of this which also coincides with the next IOOS PO five-year proposal. IOOS Reauthorization Act passed in the House in December and is now in the Senate. The IA is active in congressional outreach, conducting briefings and may start hosting short webinars.

The IOOS Association is working on a strategic plan and there are some upcoming OAR/IOOS workshops on building communications on the east and west coasts this summer. The IA has created the Caraid Award recognizing excellence in ocean observing. This first will be presented to Ru Morrison this afternoon.

Work on the economic valuation is moving forward, data is still being collected. Based on an initial analysis, NERACOOS results showed a very high number of operational users in comparison with other RAs. There are a lot of users who check data daily or multiple times per day. The goal is to assign an economic value to observations. NERACOOS participated in a pilot survey and the other RAs will provide the survey to their regions this summer. Josie will share the methodology and how the surveys were pulled together with the board.

#### Finance Committee

Janet Freedman provided the finance committee update. Finance committee members are now Janet, John Trowbridge, and Chris Williams. Rob sent out the audit and FY20 budget and the balance sheet to the board. Information on sub-awards was also provided, how much funding is received by NERACOOS and then out to the partners. Sub-award funding is mostly pass-through and not much stays within NERACOOS. The balance sheet compares numbers at the end of FY19 and year-to-date. The audit report Rob sent around included his notes for the board to review. There were no concerns in the audit, everything was normal. Any questions the board may have on the budget statements, invoices, or balance sheets may be directed to Rob.

#### Next Board Meeting

Teleconference on August 20, 2020 from.

Todd Callaghan motioned to adjourn the meeting, seconded by Pam DiBona. The meeting was adjourned at 11:30 AM.