



## Meeting Summary:

Offshore Wind and Maritime Industry Knowledge Exchange

Agency and Industry Coordination

*Thursday, August 19, 2021; 12:30 – 3:00 p.m. ET*

## I. Introduction

This summary captures the third Bureau of Ocean Energy Management (BOEM) Offshore Wind and Maritime Industry Knowledge Exchange sessions, held virtually on August 19, 2021. The information contained within is intended to serve as an important reference to support coordination and future planning decisions related to offshore wind, agency, and maritime industry coordination and needs. Over 145 participants joined the knowledge exchange session, including representatives from federal and state agencies, the maritime and offshore wind industry, academia, and more.

This document summarizes discussion highlights and input shared throughout the session. It is not intended to be a detailed transcript. A recording of the session and speaker presentations are available to the public on BOEM's [project webpage](#). The session agenda is available as Appendix A.

### **BOEM Offshore Wind and Maritime Industry Knowledge Exchange Objectives:**

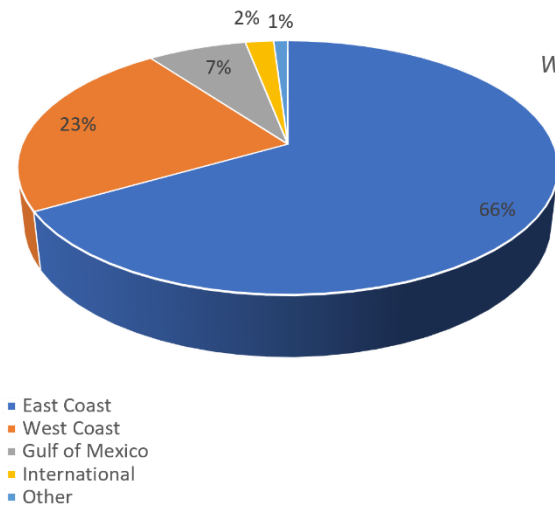
- Share updates on offshore wind and maritime activities that occurred since BOEM's 2018 Offshore Wind and Maritime Industry Knowledge Exchange.
- Share how past recommendations and approaches were incorporated in offshore wind and maritime transportation co-existence.
- Discuss measures to minimize risk to safety and disruptions to maritime transportation operations while supporting the development of domestic renewable energy.

## II. Discussion Highlights

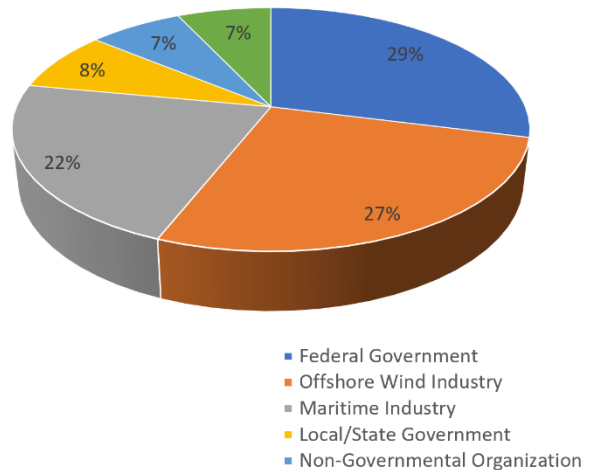
### A. Opening Remarks

Jason Gershowitz, Kearns & West Facilitator, opened the meeting by welcoming participants and providing an overview of the agenda framework, ground rules, and how to participate, and facilitating the following introductory polls:

Where are you joining from today?



Which of the following sectors or industries do you represent?



Mr. Gershowitz then introduced BOEM’s Deputy Director, Walter Cruickshank, and the U.S. Coast Guard’s Director for Marine Transportation Systems, Michael Emerson for opening remarks.

Walter opened by thanking participants for their attendance and the Coast Guard for their partnership as they navigate the offshore wind industry. He continued that BOEM is responsible for managing renewable energy resources and is the lead regulatory agency for offshore wind. BOEM is playing a critical role in helping the Biden-Harris administration reach their goal of 30 gigawatts of offshore wind energy by 2030. To date, BOEM has leased 1.7 million acres, has 18 commercial leases in the Atlantic, and plans to advance new lease sales and complete the review of at least 16 Construction and Operation Plans (COPs) by 2025. Walter continued, noting that in May 2021, BOEM approved Vineyard Wind, the first commercial scale offshore wind project in the United States. And that the agency is applying lessons learned to new projects moving forward.

Walter noted BOEM’s goals of increasing certainty and transparency across the industry to improve stakeholder relationships and protect ocean ecosystems. BOEM is currently taking public feedback on several initiatives, including an Environmental Impact Statement (EIS) for the Kitty Hawk Offshore Wind project and environmental assessments for new leasing areas. He continued that to ensure successful planning, government stakeholders must have access to authoritative data and tools for analysis. BOEM has helped lay the groundwork for this planning through taskforces, consisting of federally recognized tribes, Federal agencies, states, and local governments, and the [Marine Cadastre website](#), in partnership with the National Oceanic and Atmospheric Association (NOAA). Walter concluded by emphasizing the importance of public engagement, sharing information, and incorporating data into decision-making.

Michael Emerson thanked participants and expressed appreciation for BOEM’s commitment to partnership and coordination to reach offshore wind energy goals. He noted that it is the Coast Guard’s

goal to plan meaningfully for all waterway users to operate safely, securely, and successfully as the offshore wind industry integrates with traditional ocean users.

Michael noted the subjectivity around this new industry and emphasized the importance of stakeholder relationships and sharing of information, in addition to, a data-driven approach utilizing Marine Cadastre and Automatic Identification System (AIS) information. He added the importance of examining demand signals for planning and ocean management. For example, the Coast Guard has initiated several Port Access Route Studies and is in the process of implementing those fairways to avoid conflict between new and traditional ocean users through wind energy areas. Michael concluded his opening remarks and emphasized the Coast Guard's commitment to coordinating with partners to help facilitate stakeholder engagement and planning for offshore wind.

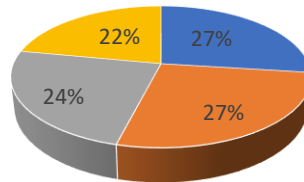
*Throughout and following the remarks, participants share questions and comments using the chat and Q&A functions, including:*

- **Commercial Fishing:** *One participant asked if BOEM considers commercial fisherman to be part of the maritime community. Walter responded that yes, commercial fisherman are part of the maritime community. He added that BOEM is taking efforts to improve communication with the commercial fishing sector to understand potential impacts from offshore wind energy and their concerns.*
- **Participation:** *One participant inquired about how many participants were on the call. Representative of the project team shared that there are over 120 attendees on the call at this time. They added that the webinar is being recorded for those who are unable to attend.*
- **Task Force Membership:** *One participant asked why the Task Forces don't include stakeholders as members. Walter responded that the task forces are designed to be intergovernmental but are open to the public to share their input. BOEM holds public meetings for projects and issue and sector-specific meetings for the greater program.*
- **Vessel Engine Failure:** *One participant asked if there have been studies of vessels that are set adrift due to engine failure, as well as studies related to turn radius for commercial fishing vessels that are towing bottom tending mobile gear. They expanded inquiring when these kinds of studies would be available. Michael responded that he would take note of studies covering vessels set adrift due to engine failures. He added that there is academic analysis published on turn radius, in addition to data collected from the British, and reports from Massachusetts and Rhode Island projects on the sizing of vessels and towing requirements.*

## B. Major Ocean Data Portals

Prior to presentations from Christine Taylor with BOEM and Nick Napoli with the Northeast Regional Ocean Council (NROC) and Mid-Atlantic Regional Council on the Ocean (MARCO), Jason facilitated a poll gauging participants level of experience and familiarity with major ocean data portals:

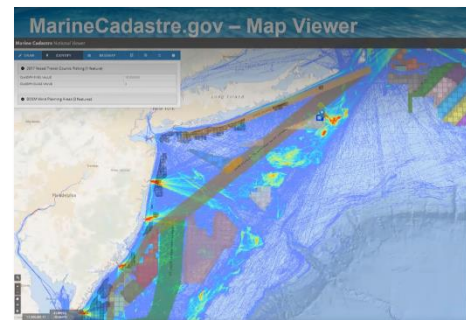
*What is your level of experience or familiarity with major ocean data portals?*



- I visit major ocean data portals sometimes
- I visit major ocean data portals often
- I don't know much about major ocean data portals
- I know about but don't use major ocean data portals

Christine Taylor, responsible for BOEM's Marine Cadastre Program, opened her presentation by emphasizing the importance of maps as a communication tool. She noted that maps help deliver data, identify physical conditions and interactions, and can be shared digitally. She then reviewed the purpose and functions of the [MarineCadastre.gov](https://www.marinecadastre.gov) tool.

Marine Cadastre was established through a partnership with NOAA, using authoritative data sources for marine planning purposes. Using a search function, the tool allows users to efficiently view and download map layers. Christine gave a brief tutorial on how to use filters to pull datasets and the Map Viewer to best visualize data by turning layers on and off. She showed an example of a map highlighting potential planning area conflicts including sand leasing, active fishing, wind planning areas, Coast Guard studies for potential fairways, and more.



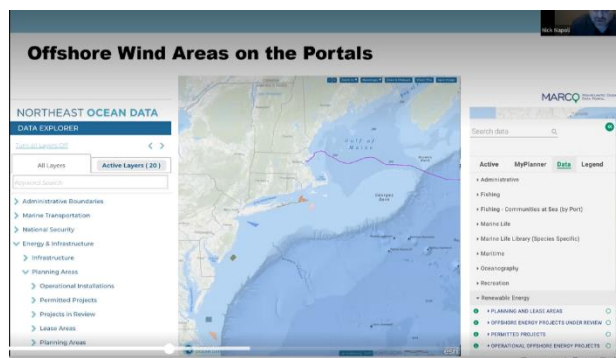
Christine then reviewed the Ocean Reports Tool, used to provide analysis on areas of interest. The Ocean Reports Tool is designed for all stakeholders interested in ocean and coastal information. The tool runs analysis for over 80 layers based on the users polygon or coordinate input, has 6 chapters, and 67 infographics. She provided samples of the following chapters, noting that infographics are listed at the top of each:

- General Information
- Energy & Minerals
- Transportation & Infrastructure
- Natural Resources
- Oceanographic & Biophysical
- Economics & Commerce

Christine also listed the special tools available including, coordinate entry and measure distances, and covered how to share reports and further investigate analysis. She concluded with a sneak peak of the AccessAIS tool, coming out this Fall. This tool will make historic data available for download, customized by time span and area of interest.

Nick Napoli introduced himself and his role at NROC and MARCO, noting that the two regional data portals are very closely coordinated. He emphasized that both are informed by regional requirements, needs, and feedback from experts, agencies, and stakeholders. Nick continued to review the functionality and data catalog of the portals, which are organized into themed categories, made easily discoverable by the search function.

Both NROC and MARCO are utilized by federal and state agencies, the research community, consultants, the general maritime industry, and members of the public. The portals allow for quick access to information on agency actions and proposed projects. Nick noted that there is an increase in users during public comment periods and that organizations make a significant effort to stay up to date on recent issues, including offshore wind, USACE Public Notices, and USCG proposed actions.



NROC and MARCO coordinate closely with BOEM to provide information on the planning status of offshore wind areas. Nick presented an example map of offshore wind projects currently under review. They also maintain an [offshore wind projects page](#), providing a snapshot of each project, linking to BOEM's website for more information. In addition, NROC and MARCO work closely with the Coast Guard to maintain information on proposed anchorages and Port

Route Access Studies, and the maritime industry to provide data on commercial fishing, marine transportation, recreation, and more. Nick closed his presentation by noting the importance of feedback and approval of the industry of the data released.

*Throughout and following the presentations, participants shared questions and comments via chat and Q&A functions, including:*

- **AIS Data Processing:** *One participant inquired if there is a plan to increase the turnaround time for processing AIS data. They shared that there has been a 6 month to year lag time which starts to get challenging moving forward as we think about additional lease sales, other ocean users, and shifting baselines from climate. Christine shared that BOEM has recently started providing AIS data quarterly.*
- **Integrating Logbook Data:** *One participant asked how Data Portals incorporate logbook data from State Managed fisheries in EEZ and commercial fishing vessels without VIS or VMS requirements that are involved in specific fisheries in the OCS. Christine responded that there is significant regional data on fisheries and commercial fishing in the Northeast Ocean Data Portal. They added that BOEM does include data on essential fish habitat and AIS counts for fishing vessels. Nick added that the regional portals include vessel monitoring system, federal vessel trip reports, management areas, and AIS data, but that does leave out fisheries reporting to states.*

*They are currently working with the state of Maine to make sure they are including data representing lobster fisheries in the area.*

- **Maritime Safety:** *One participant asked what maritime safety/security groups have been consulted for the data. Nick shared that he attends Port Operator Group meetings and Safety and Security meetings and would love the opportunity to present and receive feedback at more of those meetings. Christine added that there is Marine Cadastre staff who attends those meetings, but BOEM is focused on keeping data on risks to navigation as up to date as possible within their resources.*
- **Project Specific Data:** *One participant asked if BOEM could commit to posting specific project data (max work area, turbine layout, cable corridors) at COP NOI. They emphasized that this information is important for developing constructive comments and has not been available on most projects until the Draft Environmental Impact Statement DEIS or later. Christine responded that BOEM is currently considering posting project specific data. Nick added that they are working with BOEM to provide information on turbine layout and cable corridors. Right now, they are focused on projects that have submitted a COP and will add more information as they receive it.*
- **Vessels Adrift / Lost Power:** *Several participants asked questions about considerations and impacts of vessels that lose power or are set adrift. Arianna shared that BOEM requires developers to conduct an analysis of these factors in their navigation safety risk assessment before they engage in the NEPA process and that all the documents from that assessment are available on the BOEM website.*
- **Vessel Sizes:** *One participant noted that AIS does show vessel movements but does not reflect the evolving shift to much larger vessel sizes. They added that Larger vessels present unique operational issues and asked how the data portals track vessel size information. Nick responded that the portals benefit from efforts on AIS data, and that they've considered breaking down data by vessel size in the past. Christine added that they have always left it to the user to decide what attributes are most important to them and their analysis and that they've provided counts on vessel types, which vary by size.*

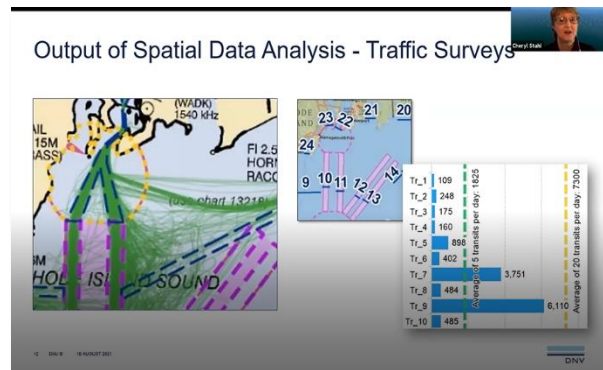
### C. Marine Spatial Planning

Cheryl Stahl, Senior Principal with DNV and Amilynn Adams, Marine Transportation Specialist with the USCG Waterways Risk Analysis and Support Division, gave a joint presentation on marine spatial data analysis and planning. Cheryl and Amilynn opened by sharing brief introductions and emphasizing the importance of knowledge exchange events to help better understand existing and future waterway uses.

They reviewed the types of data and their limitations used in analysis including, AIS, Marine Cadastre, and Vessel Monitoring System (VMS) data. Amilynn noted that the Coast Guard has access to raw VMS data but cannot share it with its partners due to the Magnuson-Stevens Fisheries Management and Conservation Act data confidentiality requirements. Cheryl and Amilynn also reviewed challenges to the quality of data and solutions like web scraping, authoritative registries, ArcGIS tools, and leveraging partnerships.

They continued covering Navigation Safety Risk Assessments, submitted by developers, as part of their Construction and Operations Plans (COPs) to BOEM, the USCG, and public. These assessments require spatially distributed data to inform the layout of an offshore wind energy area. In addition to the types of data previously noted, wind, wave, tide, visibility, vessels transits not included in AIS, historical data on accidents and incidents, and more inform Navigation Safety Risk Assessments. These sources are refreshed for each study, improving the quality of the data and product over time.

Cheryl and Amilynn shared examples of outputs from spatial data analysis of navigation safety used for planning wind energy areas including, traffic surveys and incident frequency modeling. They both noted the importance of visualization practices to highlight important information needed for planning efforts. Amilynn summarized that models are “data hungry,” use similar methodologies, and that the correlation to historical data increase with improved quality of data.



They closed their presentation by looking forward, noting the importance of stakeholder collaboration and improved data to support mitigation efforts and decision-making, incorporating factors including impacts of climate change.

Throughout and following the presentations, participants shared questions and comments via chat and Q&A functions, including:

- Changing Traffic Patterns:** One participant noted the emphasis on historical data and inquired how work on risk assessments account for known traffic pattern changes as vessels and traffic evolve. They shared the example of increasing ship sizes with deeper drafts and ongoing harbor deepening projects at ports. Amilynn shared that the Coast Guard runs and compares several different models, with various assumptions, to help predict how traffic will behave. Cheryl noted that she has a very similar approach.
- Cumulative Impacts:** One participant shared that Navigation Safety Risk Assessments reflect individual areas/projects. They asked how USCG plans to evaluate the impact of future buildouts that create larger cumulative areas due to continued lease-out and development. Mr. Emerson responded that proposed inshore and deep draft fairways are specifically designed to protect traditional traffic routes. He added that Coast Guard is employing a new Risk Analysis Modeling Tool for evaluating Nav Safety Risk Assessments from developers, based on vessels impacted by their projects.
- Fuel Impacts:** One participant asked if analysis includes assessment of increased fuel needs to circumnavigate wind arrays. Cheryl responded that economic impacts are studied and assessed during NEPA documentation, and that additional time for transit is accounted for in modeling (e.g., related to assessing risk of engine failure.)
- Radar:** One participant asked how impacts of radar interference from wind turbines are considered in navigation safety risk assessments. Cheryl answered that assessments do address

*impacts to radars, and that it is a topic of ongoing research, some areas more understood than others.*

- **Vessel Safety:** *One participant asked how navigational safety risks consider vessels outside of lease areas that need to return to port for safe harbor under a weather influenced navigation track. Cheryl answered that the model does not include that type of scenario but does account for weather as a causal factor.*
- **Vessel Volume:** *One participant asked how vessel volume is factored into safety assessments. Amilynn responded that more vessels means more opportunity for incidences to occur. She noted the importance of AIS videos to help visualize traffic.*

#### D. Wrap up and Next Steps

*Arianna Baker responded to outstanding questions participants shared in the chat or Q&A functions before closing the session, including:*

- **Community Benefit Agreements:** *One participant asked if potential lessors have developed community benefit agreements with fishing communities. They also asked what lessor's record of communication is like with fisherman. Arianna responded that BOEM does not require community benefit agreements or submission of communication records but requests and encourages in depth stakeholder engagement and developers to look for mitigation solutions through that engagement process. These mitigations, including community benefit agreements may eventually be required as part of the Terms and Conditions of a Construction and Operations Plan Approval.*
- **European Studies:** *One participant asked if analysis incorporates European studies on cable impacts and presence in navigation channels to determine burial depth. Arianna noted that NEPA requires in depth environmental analysis and that BOEM has staff dedicated to this specific issue. She noted that BOEM considers bottom geology, depth, and pressure, and more from the pre to the post-construction phase.*
- **Foreign Lessors:** *One participant asked about available of lessor data, and if any are foreign entities. Arianna answered that under regulations, a lessor must submit financial and technical qualifications to be considered and move forward with a project. Lessors may be a subsidiary of a foreign company but are required to be an American subsidiary under regulations.*
- **Wind Turbine Failures:** *One participant asked what potential lessors record of wind turbine failures looks like. Arianna answered that BOEM ensures that developers are experienced and that as part of the post approval and pre-construction period, developers have third party consultants that work with BOEM to monitor engineering, facility design reports, and more prior to construction.*

Arianna concluded the session by encouraging participants to look out for upcoming BOEM comment periods and notices to stakeholders. She then thanked attendees and panelists for their participation and Kearns & West for supporting the Knowledge Exchange series. The link to the [Offshore Wind and Maritime Industry Knowledge Exchange webpage](#) was shared in the chat.



### III. Appendix

#### A. Public Agenda