



Memorandum

To: Mariners' Advisory Committee Members and Interested Parties
From: Captain Drew Hodgens
Re: Meeting Agenda September 8, 2022

Your presence is requested at the Quarterly Meeting of the above-mentioned committee on Thursday, September 8, 2022 at 1100 hours.

Agenda

I Approval of Minutes – from the June 2022 meeting

Introduction of all in attendance

II. Reports

- | | |
|------------------------------|--------------------------------------------------------------------|
| A. Treasurer's Report | - Captain John Gazzola |
| B. Membership Report | - Captain John Gazzola |
| C. USCG Report | - Captain Jonathan Theel |
| D. USACE Report | - Mr. Michael Landis |
| E. NOAA Reports | - Mr. Ryan Wartick
- Mr. Chris DiVeglio
- Ms. Alicia Schuler |
| F. U.S. Wind | - Mr. Ben Cooper |
| G. Ørsted | - Mr. Norm Witt |

III. Unfinished Business

IV. New Business

V. Open Discussion

VI. Adjournment

Next meeting: Thursday, December 8, 2022 at 1100 hours.



Memorandum

To: Mariners' Advisory Committee Members and Interested Parties
From: Captain Rick Iulucci, Treasurer
Re: Treasurer's Report for September 2022

Balance – from June 6, 2022 **\$ 17,029.22**

Deposits (June 2022- Sept. 2022)

Total Deposits during the period **\$ 0**

INCOME BALANCE **\$ 17,029.22**

Disbursements (June 2022-Sept. 2022)

Popi's Restaurant	\$ 5,245.00
Email Service (G-mail- \$38.88 month.)	\$ 116.64
Email service- Twild (\$89.95. Per month @ 3 months)	\$ 269.85
<u>PNC Service Fees (\$2.00 per mo.)</u>	<u>\$ 6.00</u>

TOTAL DISBURSEMENTS (June 2022-Sept. 2022) **\$ 5,637.49**

BALANCE as of September 5, 2022 **\$ 11,391.73**

**Mariners Advisory Committee (MAC) For the Bay & River Delaware
Fifth Coast Guard District and Sector Delaware Bay
Waterways and Aids to Navigation Report for September 8, 2022**



1. Seasonal Alerts
 - a. Ice Season is already approaching. We are in planning efforts for this year's Ice Season meeting. It is going to likely occur on Thursday, November 17th from 0930-1130 located at Sector Delaware Bay. Please mark your calendars now, as we know that time of year is busy for many of you. Further details will be put out via the MAC web page and via e-mail. If anyone has pertinent information they would like to include for presentation, please reach out to LCDR Jordan Marshall or BOSN Isaac St. John.
 - b. Hurricane Seasonal Alert went into effect 01 June. Please continue to remain aware of seasonal forecasts and storm developments and tracks. If you have not yet, please review the guidance on MSIB 14-22 which directs you to homeport for hurricane preparedness checklists. There are actions needed by both vessels and facilities in the event we change port condition due to the approach of a storm.
2. Marine Safety Information Bulletins
 - a. Final Rule for the two new offshore anchorages went into effect August 11, 2022. See MSIB 15-22 posted on homeport and the MAC webpage for more info. NOAA has ensured the anchorages are charted.
3. Marine Events
 - a. We are wrapping up our busiest season yet for numerous marine events along the Delaware River and NJ/DE coasts. Listen for broadcast notice to mariners regarding specific events times and corresponding safety zones. We ask that traffic does not go through a safety zone during actual firework shows, so please be advised that ships/tug/tow traffic may experience brief delays.
4. Cyber Security Highlights
 - a. The MTS remains an enticing target for cybercriminals or state and non-state malicious cyber actors. As diplomatic and economic pressure on Russia to discontinue its invasion of Ukraine mounts, the risk of cyberattacks on U.S. critical infrastructure is assessed to be elevated. Please visit CISA's new page for its "Shields Up" campaign to keep up to date on the latest technical and non-technical alerts and notifications: www.cisa.gov/shields-up.
 - b. In case of an actual cybersecurity incident or even just anomalous activity, MTS stakeholders should immediately make three notifications to federal authorities. Contact information for CISA Central and FBI Cyber Watch are available on the Shields Up page. The National Response Center (NRC), which can be reached at 1-800-424-8802, will provide notification to the USCG Sector. These notifications will

**Mariners Advisory Committee (MAC) For the Bay & River Delaware
Fifth Coast Guard District and Sector Delaware Bay
Waterways and Aids to Navigation Report for September 8, 2022**

trigger resources and interagency coordination to help you mitigate damage to your systems, and ultimately the MTS.

- c. All MTS vessels and facilities experiencing a cyber-attack or suspicious cyber-activity should also report the activity to their local FBI Field Office or file a complaint through the FBI's Internet Crime Complaint Center at www.IC3.gov, as well as the MTS Information Sharing and Analysis Center (MTS-ISAC) via email at soc@mtsisac.org. The MTS Information Sharing and Analysis Center (MTS-ISAC) is a resource for timely reporting of cyber threats toward the MTS. It is highly recommended you subscribe to their alerts and bulletins.
5. Offshore Wind Energy Lease Areas
- a. Sector Delaware Bay has been participating in meetings with offshore wind developers and District Five Waterways staff regarding five wind energy lease areas off the coasts of NJ, DE, and MD and an additional four lease areas in the New York Bight that impact the Delaware Bay area.
 - b. We are working to schedule a PAWSA (Ports and Waterways Safety Assessment) to occur in 2023 with the CG's Navigation Center to assess the increase in traffic that offshore wind will bring to the DE river, bay and offshore areas in the coming years. Once scheduled, we will provide notification to partners for participation in the study.
 - c. If any MAC members have questions or concerns as these projects move forward, you can reach out to LCDR Jordan Marshall (Waterways Management Division), CDR Jodi Min (Prevention Department Head), or Mr. Robert Webb (newly hired Marine Planning Specialist) at District Five Waterways.
6. Draft Waiver Requests
- a. Due to the to the federal channel draft transition from 40' to 45' currently underway, Sector Delaware Bay COTP is suspending the draft waiver requirements for vessels requesting to come inbound drafting over 40' until the transition process is complete, at which time we will revisit needing a draft waiver plan for vessels intending to come inbound at 45' or over. This was the "Waiver Process and Passage Plan for the Delaware Bay and River Transit with Draft in Excess of 40 Feet Project Depth". Vessel agents are no longer required to submit draft waiver requests to the WWM office for approval, provided the transit is within the scope of the draft transition plan developed by the Pilot's Association.

Sector Delaware Bay Aids To Navigation (ATON) Updates

1. CGC WILLIAM TATE

- a. Tender continues to service ATON year-round throughout their DELMARVA area of responsibility. The Delaware River/Bay buoy constellation is strong with a low discrepancy rate. Seasonal buoy hull reliefs begin early December.

**Mariners Advisory Committee (MAC) For the Bay & River Delaware
Fifth Coast Guard District and Sector Delaware Bay
Waterways and Aids to Navigation Report for September 8, 2022**

- b. There is discussion surrounding the possibility of the making winter ice hull buoys a year-round buoy hull.
2. Aids To Navigation Team (ANT) Philadelphia
 - a. Reedy Island Gap North Light 2 rebuilt, watching properly.
 - b. Reedy Island Dike Middle Light rebuilt and relighted. Waiting on parts to install the dayboards.
3. Aids to Navigation Team (ANT) Cape May
 - a. On-going efforts with ACE to address shoaling concerns in the NJ ICW.
 - b. Brown Shoal Light rebuild funding was approved for FY23. We should see construction sometime in FY23 into FY24.

District Five ATON Updates

1. Rebuild Fisher Pint Range Front and Rear Lights
 - a. Design is complete and we are waiting on permits, both front and rear ranges will be rebuilt in the river. Bottom core samples were taken in September 2021.
2. Rebuild Liston/Reedy Range Lights
 - a. This project entails the relocation/rebuild of front and rear structures for both ranges. The new range front light will be constructed at the intersection of both ranges and will serve as a combined range front structure. Separate rear structures will be constructed. Consulations with SHPO are complete, ACOE Permits received waiting on State of Delaware permits.
3. Rebuild New Castle Front/Rear Range Lights
 - a. This project will entail the relocation of the front and rear structures for the range. The existing range front and rear towers located on land will be demolished. The new range front light will be constructed near the edge of the channel. The new rear light will be constructed near the shoreline in front of the existing front tower in approx. 22 feet of water. Both new structures will have mono-pile type foundations driven into the river bottom. All optics will be changed to solar power. Consulations with SHPO are complete and the design is 100%. Waiting on permits.
4. Mud Island Upper and Beverly Lower Ranges
 - a. Range lights are scheduled to be converted to LEDs this year. An Advance Notice will run in the LNM before the conversions are completed. This upgrade from incandescence lamps to LED optics, at the scheduled recharge date, is in alignment with the Commandant's Strategic Plan to increase the use of LEDs on AtoN systems reducing the amount of power required, thereby lowering the number a batteries required which in turn will reduce the life cycle cost, reduce hazardous waste and reduce ANT work load. Feedback after the conversion is appreciated.

**Mariners Advisory Committee (MAC) For the Bay & River Delaware
Fifth Coast Guard District and Sector Delaware Bay
Waterways and Aids to Navigation Report for September 8, 2022**

5. DE – NJ - Delaware River – Pea Patch Island Dike

This Project has been approved and the Advance Notice ran in the LNM from 05 Apr to 31 May 2022. The Coast Guard will rebuild Pea Patch Island Dike Warning Light E (LLNR 2847) with a focal plane of 20 feet vice the previous 32 feet. This change is due to the recalculation of the required Geographic Range (the visibility of an object taking into account the height of the object and the height of the observer). The previous focal plane of 32 feet far exceeded the Nominal Range of the light, the Nominal Range of the Daymarks and the line of sight on the river. We are awaiting the completion of Cutter SLEDGE's Drydock to schedule the rebuild.

6. DE-Delaware Bay-Harbor of Refuge

New Sabik VRB-25-6P-1T_LED Optic approved that reduces power requirements and long lead time for repairs due to equipment. It is a cutting-edge modern high-output LED rotating lighthouse beacon and is being tested at our product line. It will be installed as soon as the test is complete.

**Fifth Coast Guard District Marine Planning
Meeting Notes**

HIGHLIGHTS

- The Coast Guard published an Advance Notice of Proposed Rulemaking (ANPRM) in June 2020 seeking comments on the possible establishment of shipping safety fairways along the Atlantic Coast identified in the Atlantic Coast Port Access Route Study (ACPARS). This potential system of fairways is intended to ensure the traditional navigation routes are kept free from obstructions that could impact navigation safety.
- The Fifth District (D5) has completed three supplemental studies that are considered the connecting routes to and from mid-Atlantic ports and the ANPRM fairways. For each of these studies, D5 conducted targeted consultations, reviewing 2017-2019 AIS data, and conducted a risk analysis to inform the development of additional routing measures and to refine the shipping safety fairways published in the ANPRM.
- Coast Guard Headquarters (CGHQ) is adjudicating the ANPRM comments and intends to wait for completion of the First District (D1) and D5 supplemental PARS before moving the shipping safety fairway regulatory project forward. The NPRM when published will include both the Atlantic Coast fairways and port connecting routes.
- D5 has established anchorage grounds offshore Delaware Bay and North Carolina to preserve areas traditionally used for anchoring from offshore development; and updating the regulated navigation area for the Chesapeake Bay entrance and Hampton Roads, VA.

**Mariners Advisory Committee (MAC) For the Bay & River Delaware
Fifth Coast Guard District and Sector Delaware Bay
Waterways and Aids to Navigation Report for September 8, 2022**

- The Coast Guard is conducting several waterway management and system reviews to ensure existing aids to navigation (ATON) systems are optimized to meet the navigational needs of waterway users. Several of these reviews have led to major changes in how the waterway will be marked.

DETAILED BACKGROUND INFORMATION

Shipping Safety Fairways

- Section 70003 of Title 46 United States Code directs the Secretary of the department in which the Coast Guard resides to designate necessary fairways that provide safe access routes for vessels proceeding to and from U.S. ports. Designation as a fairway keeps an area free of fixed structures. This designation recognizes the generally paramount right of navigation over other uses in the designated areas. The Coast Guard is coordinating its possible establishment of fairways along the Atlantic Coast, as well as complementary port approaches and international entry and departure zones, with the Bureau of Ocean Energy Management (BOEM) to minimize the impact on offshore energy leases.
- Under 46 U.S.C. 70003, fairways are designated through federal regulations. Regulations governing fairways in 33 CFR part 166 provide that fixed offshore structures are not permitted within fairways because these structures would jeopardize safe navigation. The Coast Guard may establish, modify, or relocate existing fairways to improve navigation safety or accommodate offshore activities such as mineral exploitation and exploration.
- Before establishing or adjusting fairways, 46 U.S.C. 70003(c)(1) requires the Coast Guard to study potential traffic density and assess the need for safe access routes for vessels. During this process, the Coast Guard considers the views of the maritime community, environmental groups, and other stakeholders to reconcile the need for safe access routes with reasonable waterway uses. The Coast Guard attempts to recognize and minimize each identifiable cost, and balance cost impacts against the needs of safe navigation.

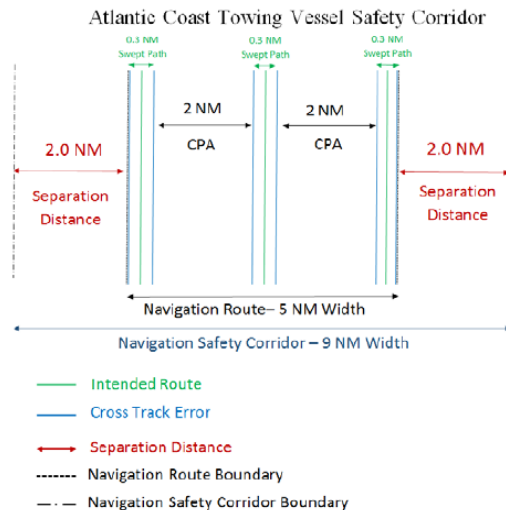
Atlantic Coast Port Access Route Study (ACPARS)

- On May 11, 2011, the Coast Guard chartered an ACPARS workgroup to address the potential navigational safety risks associated with offshore developments and to support future marine planning efforts. The workgroup analyzed the entire Atlantic Coast and focused on waters located seaward of existing port approaches within the U.S. Exclusive Economic Zone (EEZ). The Coast Guard used Automatic Identification System (AIS)

**Mariners Advisory Committee (MAC) For the Bay & River Delaware
Fifth Coast Guard District and Sector Delaware Bay
Waterways and Aids to Navigation Report for September 8, 2022**

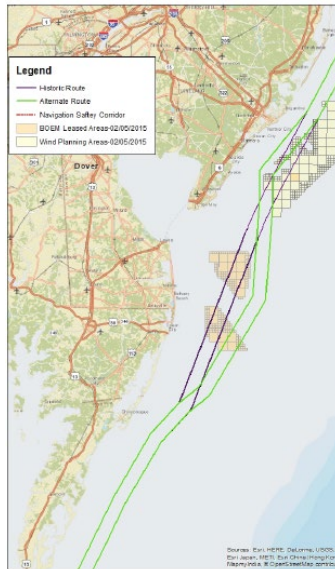
data and information from shipping organizations to identify traditional navigation routes.

- The Coast Guard announced the availability of the final ACPARS report and requested public comment in the Federal Register on March 14, 2016 (81 FR 13307). After considering comments submitted in response to that notice, the Coast Guard determined that the final report was complete as published and announced this finding in the Federal Register on April 5, 2017 (82 FR 16510).
- The ACPARS workgroup identified navigation safety corridors along the Atlantic Coast that have the width necessary for navigation and sufficient buffer areas. The ACPARS Final Report identified deep draft routes for navigation and recommended that they be given priority consideration over other uses for consistency with the United Nations Convention of the Law of the Sea (UNCLOS). Article 78 of UNCLOS states that, “[t]he exercise of the rights of the coastal State over the continental shelf must not infringe or result in any unjustifiable interference with navigation and other rights and freedoms of other States as provided for in this Convention.”
- The ACPARS final report also identified coastal navigation routes and safety corridors of an appropriate width for seagoing tows. The report recommended that the Coast Guard consider developing the navigation safety corridors it identifies in its Appendix VII—which include ones for deep draft vessels and ones closer to shore for towing vessels—into official shipping safety fairways or other appropriate vessel routing measures. Analysis of the sea space required for vessels to maneuver led to the development of marine planning guidelines that were included in the ACPARS final report and that the workgroup considered when identifying the navigation safety corridors in its Appendix VII.

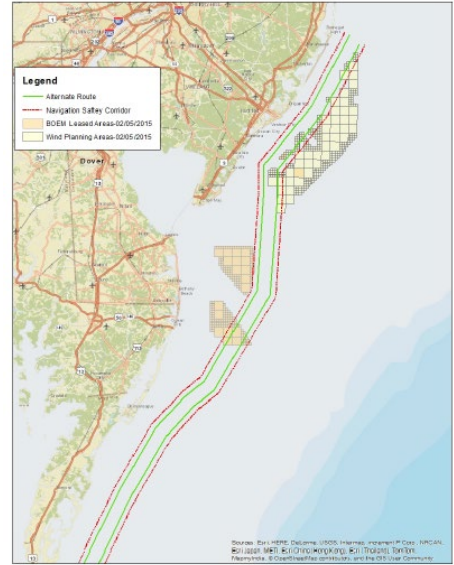


**Mariners Advisory Committee (MAC) For the Bay & River Delaware
Fifth Coast Guard District and Sector Delaware Bay
Waterways and Aids to Navigation Report for September 8, 2022**

- The navigation corridors identified in the ACPARS report included sea space between the route and fixed structures to maneuver safely under emergency situations (i.e., a buffer zone comprised of 2 NM of sea space on each side of the navigation route). The result was an identification of a navigation route width of 5NM and a navigation safety corridor width of 9 NM. The ANPRM published in June 2020 included towing vessel routes that varied in width from 5 to 10 NM.



ACPARS Traditional Towing Vessel Route and Alternate Route



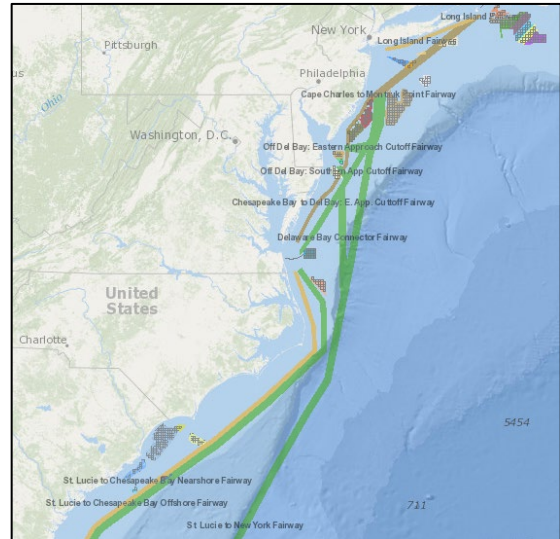
ACPARS Alternate Route with Buffer Zone

- Another important issue discussed in the ACPARS report is the need to preserve traditional towing vessel routes offshore New Jersey and Delaware Bay. The ACPARS workgroup identified a navigation route through the proposed wind energy lease areas and recommended an alternative route following the marine planning guidelines and width recommendations, with the goal of minimizing conflicts with the areas proposed for development.

**Mariners Advisory Committee (MAC) For the Bay & River Delaware
Fifth Coast Guard District and Sector Delaware Bay
Waterways and Aids to Navigation Report for September 8, 2022**

Shipping Safety Fairways along the Atlantic Coast (Docket No. USCG-2019-0279)

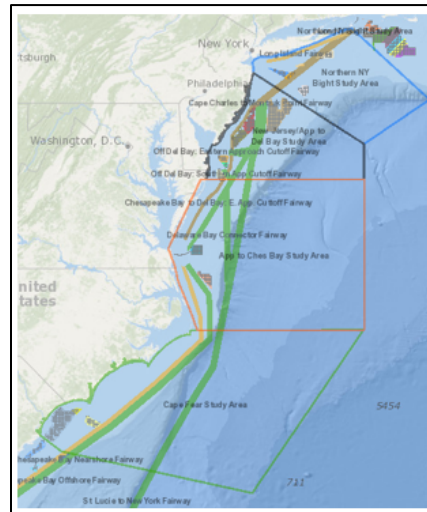
- On June 19, 2020, the Coast Guard published an ANPRM seeking comments on the possible establishment of shipping safety fairways along the Atlantic Coast identified in the ACPARS Study. This potential system of fairways is intended to ensure the traditional navigation routes are kept free from obstructions that could impact navigation safety. The comment period closed on August 18, 2020.
- CGHQ is adjudicating comments and intends to wait for completion of the D1 and D5 supplemental PARS before moving regulatory project forward. CGHQ will review the districts' recommendations and include connecting routes which they positively endorse and support.



- Target date for the consolidated NPRM is fall 2022.

Supplemental Port Access Route Studies

- On March 15, 2019, the Coast Guard announced a study of port approaches and international entry and departure areas in the Federal Register (84 FR 9541). This study will consider access



Supplemental PARS

On March 14, 2019, USCG announced it would be conducting supplemental PARS at its major east coast ports.

- Northern New York Bight (USCG-2020-0278), notice of study published June 29, 2020
- Seacoast of New Jersey and Approaches to Delaware Bay (USCG-2019-0862), notice of study published May 5, 2020
- Approaches to the Chesapeake Bay, VA (USCG-2020-0093), notice of study published November 27, 2019
- Seacoast of North Carolina and Approaches to the Cape Fear River and Beaufort Inlet, NC (USCG-2020-0172), notice of study published March 23, 2020

routes from ports along the Atlantic Coast to the navigation safety corridors the ACPARS report recommended that we consider developing as fairways or other appropriate vessel routing measures. The ports to be considered in this study are economically important,

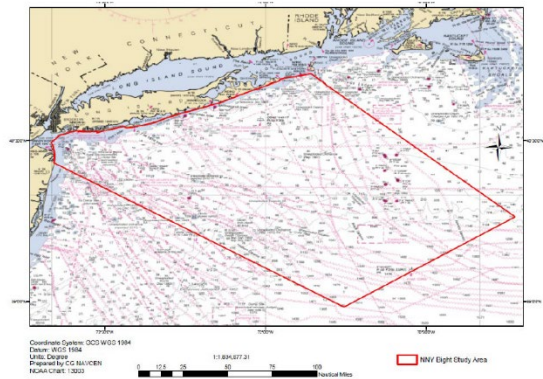
**Mariners Advisory Committee (MAC) For the Bay & River Delaware
Fifth Coast Guard District and Sector Delaware Bay
Waterways and Aids to Navigation Report for September 8, 2022**

support military operations, or have been identified to be strategically critical to national defense. The study will also examine areas associated with customary international trade routes seaward of the navigation safety corridors identified in the ACPARS. The creation of unimpeded transit lanes from the potential fairways outlined in the ACPARS final report to ports, and from those potential fairways to international transit areas, would help ensure the safe and efficient flow of commerce and enhance national security.

- Similar to the ACPARS methodology, AIS data and information from shipping organizations will again be used to identify and verify the customary navigation routes that are followed by ships in open-water situations where no obstructions exist. This will allow the Coast Guard to identify areas where structures could jeopardize safe navigation and impede commerce. These studies will provide a mechanism to engage stakeholders with potentially competing uses of the waters of the U.S. EEZ in an effort to reduce impacts to those uses.

Northern New York Bight (Docket Number USCG-2020-0278)

- On Jun 29, 2020, the Coast Guard announced a supplemental PARS to determine whether existing or additional routing measures are necessary in the Northern New York Bight area.
- The comment period closed Aug 28, 2020. The Coast Guard hosted two virtual public meetings on Jul 30 and Aug 11.
- 25 comments received from government, fishing, offshore wind, and industry, recommending consideration of additional data, studies, and stakeholder outreach in addition to specific routing measures.



- A supplemental notice of study was published on Apr 12, 2021. The comment period closed on May 12, 2021. Five comments were received.
- The draft report of the study and its recommendations were published in the Federal Register on July 15, 2021. Nineteen comments were received during the 45-day public comment period, which ended on August 30. Based on the feedback received during the comment period, the First District is currently considering the following recommendations (See insert).

**Mariners Advisory Committee (MAC) For the Bay & River Delaware
Fifth Coast Guard District and Sector Delaware Bay
Waterways and Aids to Navigation Report for September 8, 2022**

Proposed Actions

A. Establish the Cape Charles to Montauk Fairway proposed in the Atlantic Coast Port Access Route Study (ACPARS) Advanced Notice of Proposed Rulemaking (ANPRM) [Docket No. USCG-2011-0351 (85 FR 37034) June 29, 2020]. The First Coast Guard District recommends establishing a fairway that cuts across the New York Bight, but the exact coordinates of the fairway are best dispositioned by Coast Guard Headquarters as the fairway extends beyond multiple PARS study areas.

B. Establish a modified version of the "Ambrose Anchorage" discussed in the Approaches to New York notification of inquiry [Docket No. USCG-2020-0620 (86 FR 17090) April 1, 2021] and adjust the Southern end of the Long Island Fairway proposed in the ACPARS ANPRM [Docket No. USCG-2011-0351 (85 FR 37034) June 29, 2020] to the North of Ambrose Anchorage, to mitigate the current location conflict between the potential anchorage and ANPRM fairway.

C. Establish a New Jersey (NJ) to New York (NY) Connector Fairway (a customary route for vessels transiting along the coast of NJ between the Port of NY/NJ and Delaware Bay).

D. Establish a Hudson Canyon to Ambrose Southeastern Fairway from the entrance/exit of Traffic Separation Scheme Off New York, South-eastern approach to a point 5 NM beyond the Bureau of Ocean Energy Management's (BOEM) current Area Identification location(s).

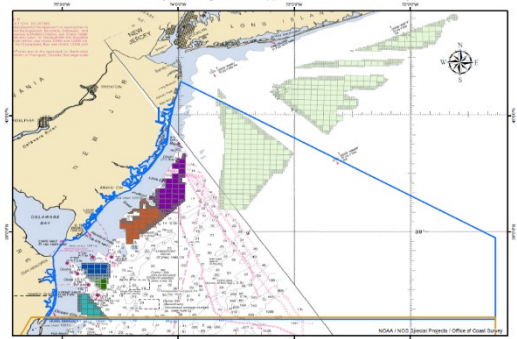
E. Establish a Hudson Canyon to Ambrose Eastern Fairway that connects to the Hudson Canyon Southeastern Fairway and extends to a point 5 NM beyond BOEM's current Area Identification location(s).

F. Establish a single Nantucket to Ambrose Fairway, thereby removing the need for separate Nantucket to Ambrose and Ambrose to Nantucket Fairways as currently exist.

- The final report was published in the Federal Register in December 2021.
- First Coast Guard District POC for Northern NY Bight PARS: LCDR Mike Wysong, 617-659-1243 (mobile), Michael.p.wysong@uscg.mil

Seacoast of New Jersey and Approaches to the Delaware Bay (Docket Number USCG-2020-0172)

- On May 5, 2020, the Coast Guard announced a supplemental PARS to determine whether existing or additional routing measures are necessary along the seacoast of New Jersey and approaches to the Delaware Bay.
- The comment period closed Jul 6, 2020. In response to four separate requests, the Coast Guard reopened the comment period for 30 days, and held virtual public meetings on Oct 29 and Nov 4, 2020. The comment period closed Nov 10, 2020.
- Note: offshore lightering and anchoring is critically important to the ports of the Delaware River, and the lease areas offshore Maryland and Delaware, if developed

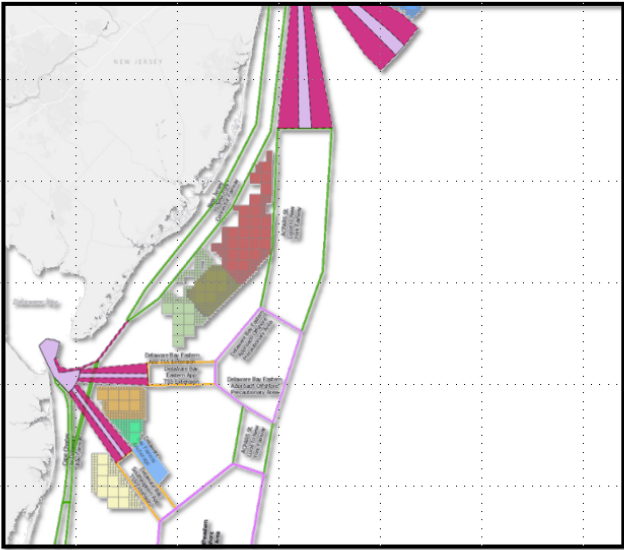


**Mariners Advisory Committee (MAC) For the Bay & River Delaware
Fifth Coast Guard District and Sector Delaware Bay
Waterways and Aids to Navigation Report for September 8, 2022**

will displace these operations. In anticipation of this, the Coast Guard and the Mariners' Advisory Committee of the Delaware River and Bay identified potential anchorage areas to be formally designated outside the offshore wind projects. In May 2019, the Coast Guard learned that both the US Wind and Skipjack Offshore Wind projects were planning to run transmission lines through the largest of these areas identified as a potential future anchorage ground.

- As a result and in support of the NJ PARS, the Coast Guard Navigation Center completed an analysis of the Delaware Bay approaches to confirm the areas traditionally used for anchoring. On Dec 2, 2020, D5 forwarded the analysis to BOEM, the windfarm developers, and the maritime advisory committee.
- To address the conflicts between the lease areas, transmission lines, offshore anchoring, north-south tug and tow traffic, and the coastal and international traffic, the Coast Guard Navigation Center completed an in-depth analysis of vessel traffic in the study area including towing vessels. On Feb 22, 2021, Sector Delaware Bay posted the analyses on their CG Homeport site. On Mar 9, 2021, D5 obtained informal feedback from key stakeholders on ideas regarding existing and potential routing measures and anchorage areas via a roundtable discussion and exchanging of ideas hosted by the Mariners' Advisory Committee for the Bay & River Delaware.
- Based on this feedback and consultations, the Fifth District published the following recommendations (See insert).

Proposed actions for New Jersey study area



- Extend both Traffic Separation Schemes (TSS)
- Create precautionary areas where fairways and TSS converge
- Adjust Chesapeake Bay to Delaware Bay nearshore fairway to the west
- Create nearshore fairway connector across the TSSs
- Add New Jersey to New York connector fairway

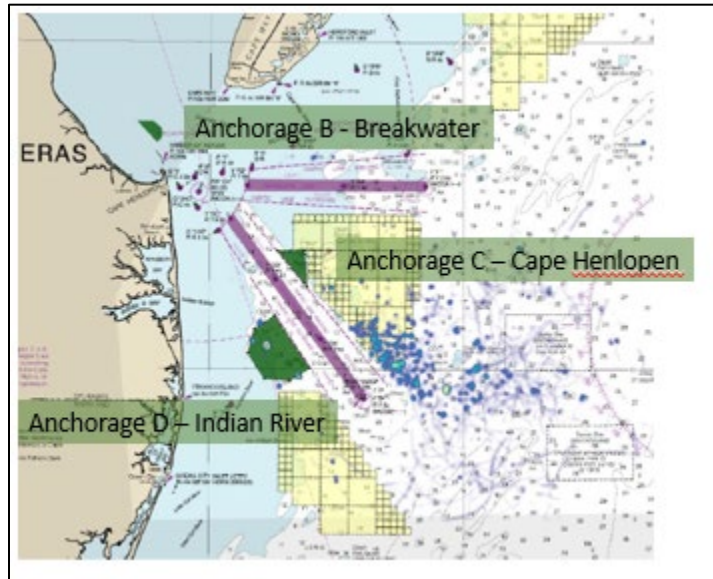
- Final Report published May 2022.

**Mariners Advisory Committee (MAC) For the Bay & River Delaware
Fifth Coast Guard District and Sector Delaware Bay
Waterways and Aids to Navigation Report for September 8, 2022**

Anchorage

Anchorage Grounds; Delaware Bay and Atlantic Ocean, Delaware (Docket Number: USCG-2019-0822)

- On Nov 29, 2019, the Coast Guard published a notice of inquiry, request for comments, on the need to establish new anchorage grounds in the Delaware Bay and Atlantic Ocean. 42 comments were received.
- Initial analysis shows an overwhelming percentage of comments (66%) involved environmental concerns (including fuel bunkering spill concerns, endangered species concerns and sensitive areas in Anchorage B). 9 comments (21%) expressed concerns over view shed and tourism impacts. 5 (12%) were supportive from maritime stakeholders. 3 (7%) were from wind energy proponents that expressed concerns about anchorage locations impacting planned electrical transmission line routes.
- On May 19, 2020, the Coast Guard held a conference call with Dr. Dewayne Fox from Delaware State University to better understand his research and concern regarding impacts from anchoring to the Atlantic Sturgeon in the Delaware Bay.
- The Coast Guard reopened the comment period for 30 days, and held virtual public meetings on Oct 29 and Nov 4, 2020. The comment period closed Nov 10, 2020.
- As part of the New Jersey PARS, the Coast Guard Navigation Center completed an analysis of the Delaware Bay approaches to identify areas traditionally used for anchoring. On December 2, 2020, D5 forwarded the anchorage analysis to BOEM, the windfarm developers, and the maritime advisory committee.



**Mariners Advisory Committee (MAC) For the Bay & River Delaware
Fifth Coast Guard District and Sector Delaware Bay
Waterways and Aids to Navigation Report for September 8, 2022**

- The Coast Guard Navigation Center completed a subsequent and more in-depth analysis of vessel traffic within the study area to include a separate study focusing on towing vessels. On February 22, 2021, Sector Delaware Bay posted these analyses along with the anchorage analysis on their CG Homeport site in support of future stakeholder discussions.
- On Mar 9, 2021, D5 shared the analysis and obtained informal feedback from key stakeholders on ideas regarding existing and potential routing measures and anchorage areas. This roundtable discussion and exchanging of ideas was hosted by the Mariners’ Advisory Committee for the Bay & River Delaware.
- Based on comments received and analysis conducted by the Navigation Center, D5 marine planners recommended the development of a NPRM to establish Anchorages C and D. That NPRM was published in the federal Register May 22, 2022 and received one comment.
- Final Rule effective August 11, 2022. MSIB 15-22.

Waterways Management and System (WAMS) Studies

Nation’s Shallow Draft Waterways ATON System

- The Coast Guard is conducting a WAMS Study on the Shallow Draft System (waters less than 12 feet). The purpose of the study is to determine the navigational needs and requirements of vessels operating in shallow draft navigable waterways throughout the country. The study is focusing on the existing shallow water Aids to Navigation (ATON) system, future development projects, waterborne commerce transiting these waters, and marine casualty information. The comment period closed Nov 1, 2020, and the Coast Guard received over 9,000 responses. Further questions or comments may be emailed to CGNAV@uscg.mil using the subject line: “Shallow Draft”.

Atlantic and Gulf Coast Seacoast System (AGCSS):

- D5 is implementing changes resulting from recent AGSS WAMS, which includes removal of bells, gongs, whistles; providing landfall lights with an operational range of 5 NM from the 30 foot curve; and charting of hazards of 30 feet or less in offshore shipping lanes.

**Mariners Advisory Committee (MAC) For the Bay & River Delaware
Fifth Coast Guard District and Sector Delaware Bay
Waterways and Aids to Navigation Report for September 8, 2022**

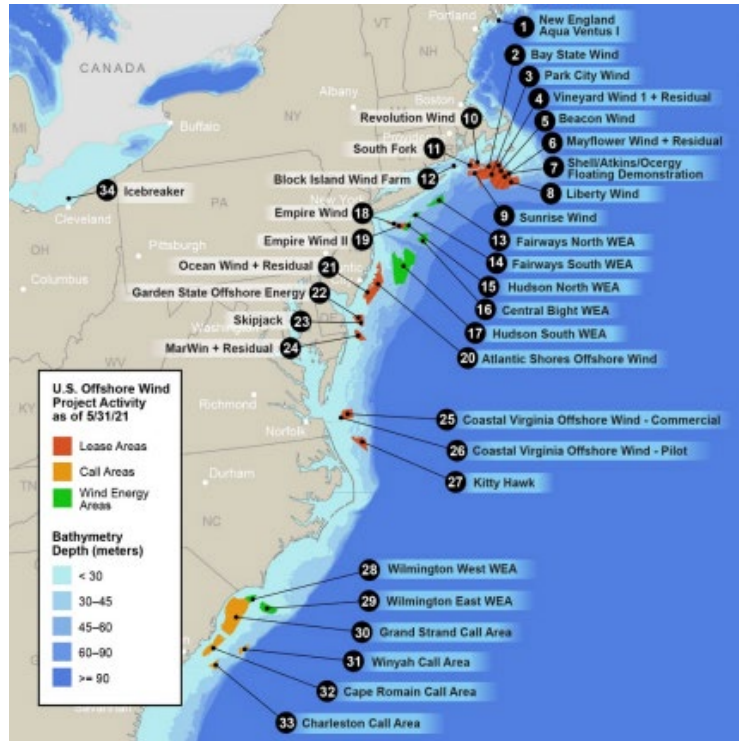
Offshore Wind

Coast Guard's Role

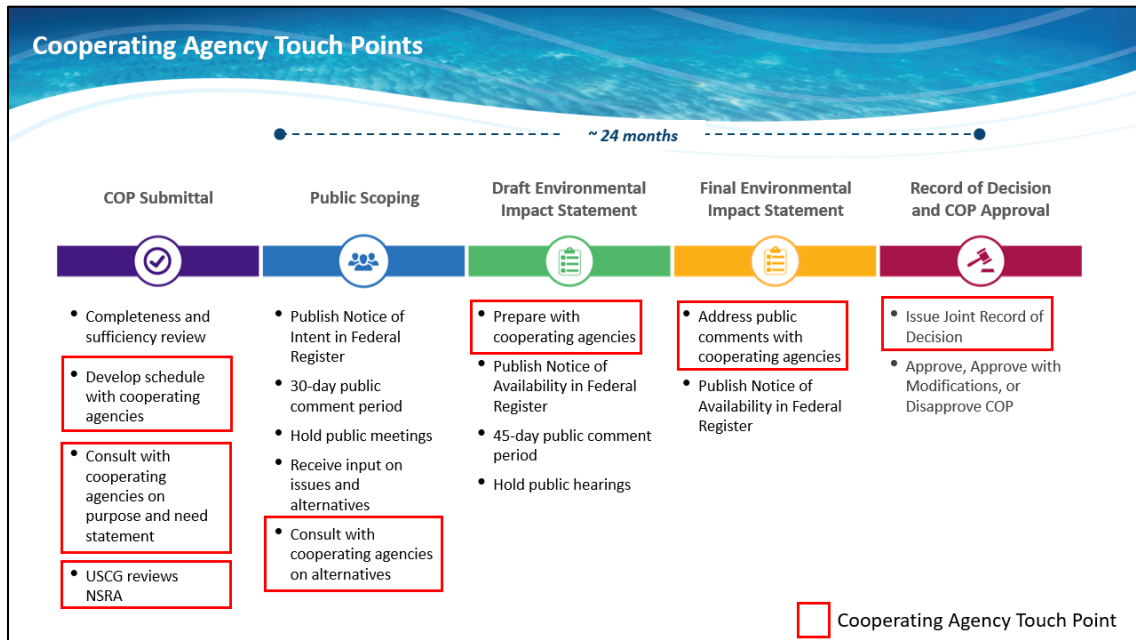
- The US Coast Guard evaluates a proposed project's impact on the marine transportation system, safety of navigation, and the Coast Guard's ability to conduct its missions, and assists in the development of related mitigations.
- The Coast Guard does not evaluate potential impacts outside our expertise, nor do we approve or disapprove a specific project.

BOEM Authorization Timeline and Touchpoints with Coast Guard as a Cooperating Agency

- The Bureau of Ocean Energy Management (BOEM) is responsible for offshore renewable energy development in Federal waters. As the federal agency principally responsible for issuing leases, easements and rights of way for renewable energy development, BOEM bears the primary responsibility for coordinating environmental reviews and preparation of an Environmental Impact Statement. During the authorization process, BOEM provides the Coast Guard the opportunity to review a developer's plans at multiple stages.



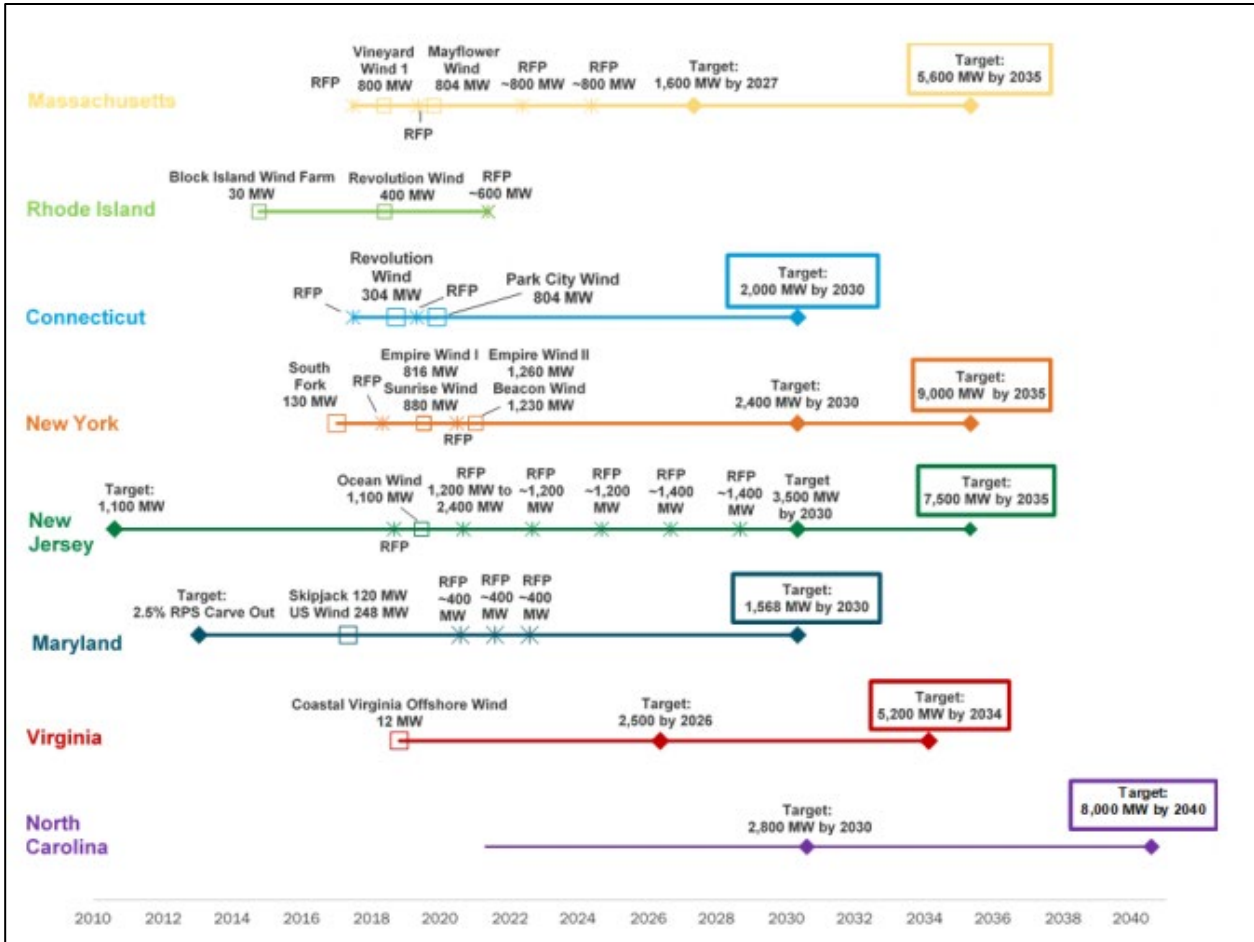
**Mariners Advisory Committee (MAC) For the Bay & River Delaware
Fifth Coast Guard District and Sector Delaware Bay
Waterways and Aids to Navigation Report for September 8, 2022**



Policy of the United States and Offshore Wind Procurement Timeline by State

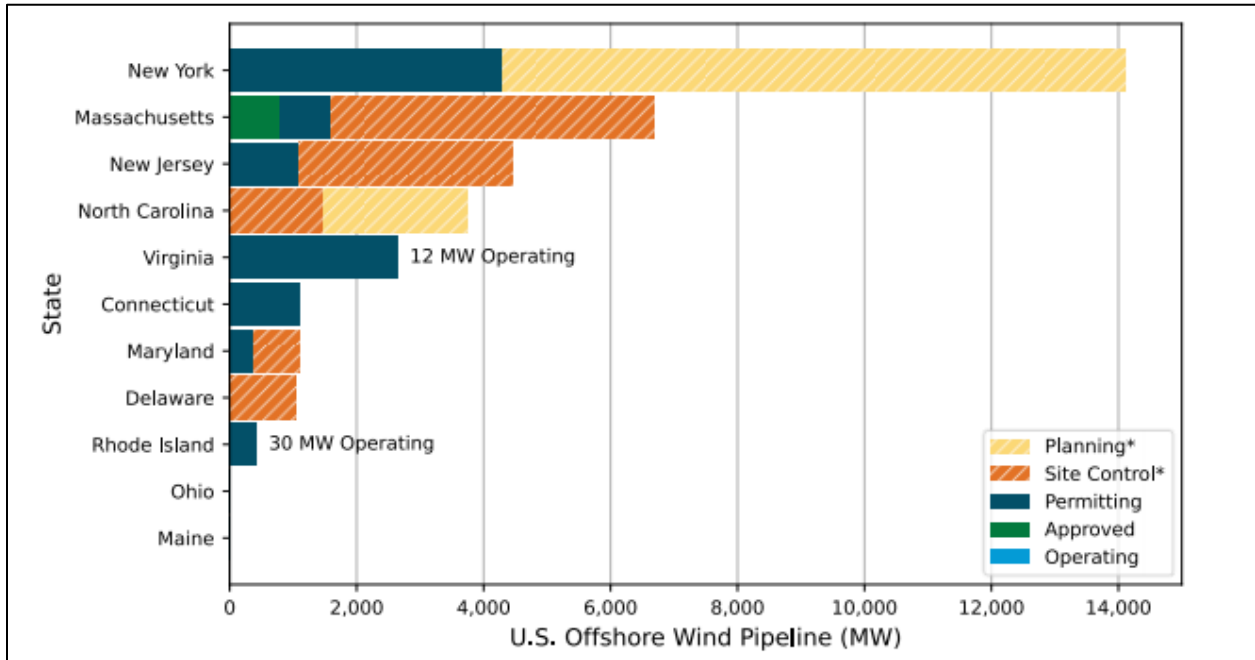
- On January 27, 2021, the President signed Executive Order 14008 setting forth the commitment of the United States “to organize and deploy the full capacity of its agencies to combat the climate crisis to implement a Government-wide approach that reduces climate pollution in every sector of the economy; increases resilience to the impacts of climate change; protects public health; conserves our lands, waters, and biodiversity; delivers environmental justice; and spurs well-paying union jobs and economic growth, especially through innovation, commercialization, and deployment of clean energy technologies and infrastructure.”
- Prior to this EO, many States had developed their own offshore wind policies and permitting goals that have been driving demand.

**Mariners Advisory Committee (MAC) For the Bay & River Delaware
Fifth Coast Guard District and Sector Delaware Bay
Waterways and Aids to Navigation Report for September 8, 2022**



Source: DOE Offshore Wind Market Report, 2021 Edition

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Source: DOE Offshore Wind Market Report, 2021 Edition

New York

- State Commitments: In Jan 2017, the Governor announced a commitment to develop 2.4 GW of offshore wind by 2030. In Jan 2019, the Governor increased the target to 9.0 GW by 2035. In Jul 2019, NY announced the winners of its first offshore wind solicitation: Orsted and Eversource’s 880 MW Sunrise Wind project and Equinor’s 816 MW Empire Wind project. On Jul 21, 2020, the Governor announced a second offshore wind solicitation seeking up to 2.5 GW of projects.

**Mariners Advisory Committee (MAC) For the Bay & River Delaware
Fifth Coast Guard District and Sector Delaware Bay
Waterways and Aids to Navigation Report for September 8, 2022**

- Empire Wind (OCS-A 0512): 2.4 GW total capacity; up to 132 – 18 MW turbines; up to three offshore substations; up to two transmission lines into NY, and one transmission line into NJ. Project determined to be a covered project under Title 41 of the Fixing America’s Surface Transportation Act (FAST-41) and added to the Permitting Dashboard on Jun 19, 2020. On May 18, 2020, BOEM hosted an interagency meeting with cooperating and participating agencies in order to provide an overview of the COP, review a purpose and need statement, and discuss a generic authorization timeline. Notice of Intent was expected to be published Apr-Jun 2021 or later. Project was expected to be operational in 2024; however - updated COP is now anticipated in March 2021 with significant changes due to NYSERDA OREC award announced Jan 13, 2021. Major changes will be a decrease from three phases to two phases and only two export cable routes/landfall sited in NY, eliminating the proposed landfall site in NJ. Notice of Intent issued in June 18, 2021. Draft EIS expected Aug 5, 2022.

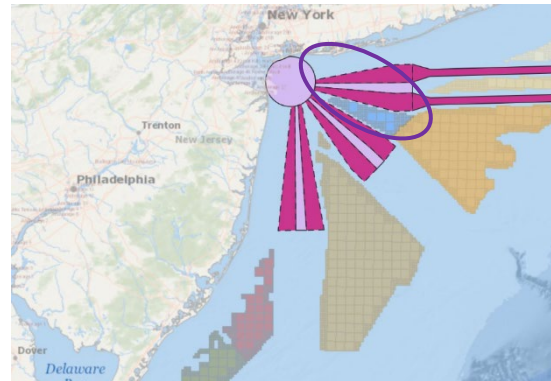


Image source: MARCO Data Portal

New Jersey

- State Commitments: On Nov. 19, 2019, New Jersey more than doubled its target for offshore-wind energy production under an executive order (EO No. 92) signed by Gov. Phil Murphy. The EO raises NJ’s goal from 3.5 GW of offshore wind-energy generated electricity by 2030 to 7.5 GW by 2035. The New Jersey Board of Public Utilities granted the state’s first award for offshore wind to Ørsted’s Ocean Wind 1,100 MW project. In Jan 2020, Gov Murphy signed an offshore wind solicitation bill into law which expanded the definition of a “qualified offshore wind project” to include “offshore wind transmission facilities.” On Mar 3, 2020, the State released its timetable for its 7.5GW offshore wind procurement program, which calls for solicitations of 1.2 GW in Q3 2020, Q3 2022, Q3, 2024, followed by solicitations for 1.4 GW in Q3 2026 and Q3 2028. On Sep 9, 2020, the State opened the application window for its second offshore wind solicitation, inviting all interested parties to submit applications for consideration by Dec 10, 2020. Atlantic Shores and Orsted/Ocean Wind both submitted applications. On Nov 30, 2020, the State issued a Request of Qualifications for construction management services for its first-of-its-kind offshore wind manufacturing and marshalling facility located in Lower Alloways Creek. Construction of the NJ Wind Port is planned in two phases, beginning in 2021. Phase 1 will comprise the development of an approximately 30-acre site to accommodate marshalling activities and an approximately 35-acre Tier 1 component manufacturing site. Phase 2 adds a further 150 acres or more to

**Mariners Advisory Committee (MAC) For the Bay & River Delaware
Fifth Coast Guard District and Sector Delaware Bay
Waterways and Aids to Navigation Report for September 8, 2022**

- accommodate expanded marshalling activities and extensive manufacturing facilities for turbine components like blades and nacelles. On Jun 30, NJ awarded 2.7 GW of offshore power; 1.51 GW to Atlantic Shores and 1.148 GW to Orsted and its new Ocean Wind 2 project.
- Ocean Wind (OCS-A 0498), 160,480 acres offshore NJ-south): SAP approved May 17, 2018; COP submitted Aug 15, 2019. Coast Guard completed its third review of Ocean Wind’s draft Navigation Safety Risk Assessment. Orsted plans to install up to 99 (12 MW) turbines capable of generating 1,110 MW. Facility may include inter-array cables, up to three offshore substations, and up to two onshore stations (Ocean City and Barnegat Bay/Oyster Creek). Orsted is actively conducting site characterization activities and wind farm is expected to be operational in 2024. Project determined to be a covered project under Title 41 of the Fixing America’s Surface Transportation Act (FAST-41) and added to the Permitting Dashboard on Oct 29, 2019. On May 18, 2020, BOEM hosted an interagency meeting with cooperating and participating agencies in order to provide an overview of the COP, review a purpose and need statement, and discuss a generic authorization timeline. On Mar 3, 2021, BOEM held an EIS interagency meeting. Notice of Intent published March 24, 2021. On May 6, USCG submitted comments in response to NOI discussing need to have common turbine orientation between adjacent projects, or a buffer between the two. On Jul 20, USCG submitted feedback on draft EIS alternatives to BOEM. Draft EIS published May 27, 2022. Project is expected to be operational in 2024. Survey operations are underway for the 2021 season. Updates are available in the LNM as well as <https://us.orsted.com/mariners>.
 - Atlantic Shores (OCS-A 0499, 183,353 acres offshore NJ-north): SAP submitted Dec 2019; COP/NSRA anticipated March 2021. Pre-survey meeting held with BOEM on Feb 20, 2020. EDF Renewables and Shell New Energies are actively conducting site characterization activities and consulting with USCG regarding potential turbine sizing and layout. Coast Guard completed a review of Atlantic Shores draft NSRA as a consultation on Feb 8, 2021. Site has the potential to generate up to 2.5 GW. On Jun 30, NJ awarded 2.7 GW of offshore power; 1.51 GW to Atlantic Shores. BOEM interagency meeting held Aug 9; BOEM issued the Notice of Intent on Sep 30, 2021. On Jul 20-21, USCG participated in a SAR Risk Workshop with Atlantic Shores. Aug 31, 2022, USCG submitted feedback on the draft EIS Alternative to BOEM. Project is expected to be operational in 2026. Updates are available in the LNM as well as <https://www.atlanticshoreswind.com/mariners/>.

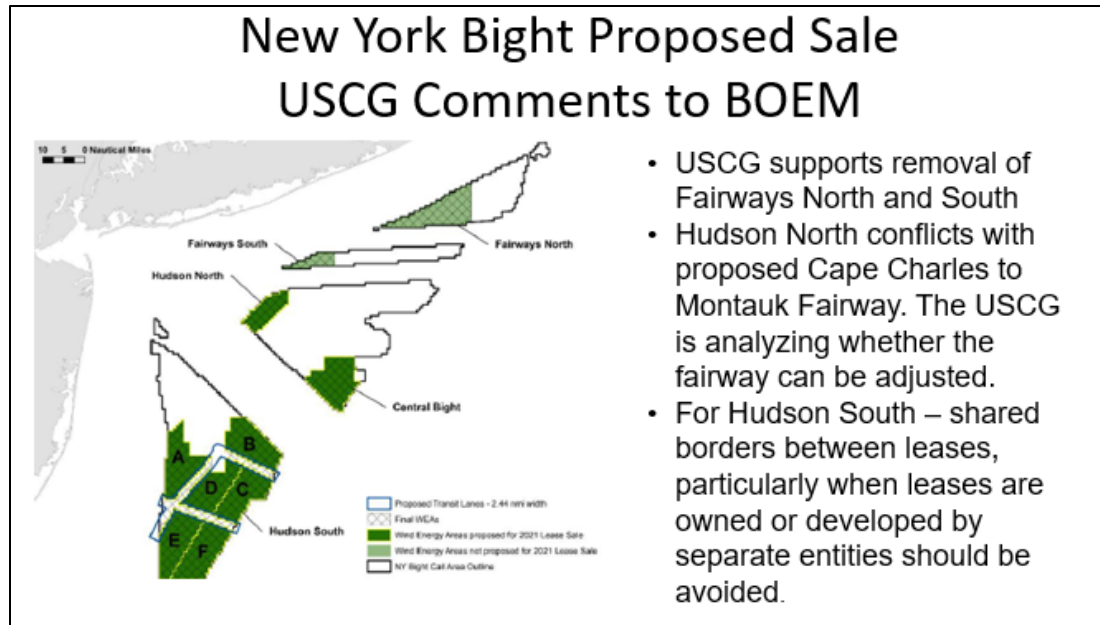
**Mariners Advisory Committee (MAC) For the Bay & River Delaware
Fifth Coast Guard District and Sector Delaware Bay
Waterways and Aids to Navigation Report for September 8, 2022**

- New York / New Jersey Ocean Grid Project: On April 30, 2019, BOEM received an application from Anbaric Development Partners for a Right of Way grant on the OCS offshore NY and NJ. The proposed project would entail the construction, installation, and operation of an offshore transmission system of approximately 185 NM of submarine cable on the OCS and approximately 118 NM of submarine cable on State submerged lands to deliver offshore wind energy generation to the onshore electric grid. BOEM recently determined there is no competitive interest. In Jan 2020, Gov Murphy signed an offshore wind solicitation bill into law which expanded the definition of a “qualified offshore wind project” to include “offshore wind transmission facilities” such as this project.



- New York Bight Call Area: On Apr 14 and 16, 2021, BOEM held an Intergovernmental Renewable Energy Task Force meeting for the purpose of soliciting feedback on the proposed sale of eight additional lease areas in the New York Bight area; six of these eight are offshore New Jersey in an area called Hudson South. If all six are sold at auction, D5 will have a total of 14 leases in various stages of review, encompassing 2,012 square miles of ocean, an area approximately 1.7X larger than the State of Rhode Island. In response to this task force meeting, the Coast Guard provided BOEM with the following comments (See insert). BOEM published Proposed Sale Notice on June 14, 2021; USCG provided comments to BOEM on Aug 11, 2021. BOEM published draft EA for NY Bight site characterization activities on Aug 11. During the Final Sale notice BOEM altered lease areas to remove one (A) and create a larger area by combining two lease areas (C & D) and trim it to make a slightly larger area than the others. Feb 2022 BOEM conducted an auction for the 4 lease area in D5 and the 2 lease areas in D1. Total revenue generated from the auction was \$4.37Billion. Preliminary bid winners are listed on BOEM’s website.

**Mariners Advisory Committee (MAC) For the Bay & River Delaware
Fifth Coast Guard District and Sector Delaware Bay
Waterways and Aids to Navigation Report for September 8, 2022**



Delaware

- Skipjack Offshore Energy (OCS-A 0519, 26,332 acres offshore DE-south): Southern portion of lease OCS-A 0492 assigned to Skipjack Offshore Energy at the request of Garden State Offshore Energy and approved by BOEM on June 12, 2018. Southern portion now carries a new lease number OCS-A 0519. Will include up to 16 wind turbines, 8 MW to 12 MW each, spaced approximately 0.7 to 0.87 NM apart, and up to 1 offshore sub-station. Blade height of 641' to 860'. COP submitted July 2019. FLiDAR buoy deployed Jan. 22, 2020.. Project determined to be a covered project under Title 41 of the Fixing America's Surface Transportation Act (FAST-41) and added to the Permitting Dashboard on Apr 8, 2020. On May 5, 2020, BOEM hosted an interagency meeting with cooperating and participating agencies in order to provide an overview of the COP, review a purpose and need statement, and discuss a generic authorization timeline. Notice of Intent was expected to be published Nov 2020 or later, with operations expected in 2024; however, Orsted recently informed BOEM that they will be updating their COP, and that this will delay the project by 12 to 24 months. New expected operations date is 2026. In Jun 2021, project developer Orsted submitted bid to Maryland Public Service Commission to develop Skipjack Wind 2; if approved, it would be a 760 MW project located in the same lease area as Skipjack 1. Survey operations are underway for the 2022 season. Updates are available in the LNM as well as <https://us.orsted.com/mariners>.

**Mariners Advisory Committee (MAC) For the Bay & River Delaware
Fifth Coast Guard District and Sector Delaware Bay
Waterways and Aids to Navigation Report for September 8, 2022**

- Garden State Offshore Energy I (OCS-A 0482, 70,098 acres offshore DE-north): Site Assessment Plan (SAP) submitted Jul 25, 2018 and approved Dec 6, 2019. Orsted actively conducting site characterization activities; FLiDAR buoy deployed Jan 22, 2020. Construction and Operations Plan (COP) due to BOEM by Jun 1, 2019; however, BOEM approved term extension on Nov. 26, 2019. COP now due June 2024. Survey operations are underway for the 2021 season. Updates are available in the LNM as well as <https://us.orsted.com/mariners>.

Maryland

- State Commitments: Maryland’s Offshore Wind Energy Act of 2013 amended the state’s renewable energy portfolio standard to include offshore wind and to provide financial support for projects in the form of Offshore Wind Renewable Energy Credits (ORECs). In May 2017, the Maryland Public Service Commission (PSC) awarded both Orsted and US Wind Offshore Wind Renewable Energy Credits (OREC) for 120 MW and 248 MW respectively, and Orsted and US Wind agreed to invest \$115 million in port infrastructure and steel fabrication facilities in Baltimore. In its announcement, Maryland estimated the projects would create 9,700 full time equivalent jobs and result in more than \$2 billion of economic activity for the state. In May 2019, the state passed an offshore wind mandate of 1.2 GW by 2030. Maryland is in the process of issuing a second round of ORECs, which will consider 3 application periods: Jan 1, 2020 for projects to begin creating (400 MW) ORECs not later than 2026 (announcements expected soon); Jan 1, 2021 for projects to begin creating (800 MW) ORECs not later than 2028; and Jan 1, 2022 for projects to begin creating (1,200 MW) ORECs not later than 2030. In Jun 2021, both US Wind and Orsted submitted bids to the Maryland Public Service Commission, which intends to award 440 MW of ORECs by the end of CY2021.

- US Wind (OCS-A 0490, 79,707 acres offshore MD): US Wind intends to install up to 125 - 12 MW turbines with up to 4 offshore transmission stations. Site is located approximately 11.5 statute miles east of Ocean City, MD. On May 19, 2021, US Wind deployed a Floating Light Detection and Ranging (LiDAR) buoy to collect wind and marine life data within its lease area. The buoy was deployed in position 38°21'10.74"N 74°45'12.66"W. Notice of Intent expected to be published in early 2022. Survey operations are underway for the 2021 season. Updates are available in the LNM as well as <https://uswindinc.com/mariners>. On Aug 3, US Wind announced major labor agreements; a new port facility agreement with Tradepoint Atlantic to develop 90 waterfront acres into a new offshore wind deployment hub with an initial investment of \$77M; expansion plans for a 2nd project titled “Momentum Wind;” and a proposal for a new steel fabrication facility at Tradepoint Atlantic to be built in conjunction with Momentum Wind.

**Mariners Advisory Committee (MAC) For the Bay & River Delaware
Fifth Coast Guard District and Sector Delaware Bay
Waterways and Aids to Navigation Report for September 8, 2022**

Note: As of April 20, 2021, the Fifth Coast Guard District Local Notice to Mariners (LNM) includes an enclosure exclusively dedicated to Offshore Renewable Energy Installations (OREI) projects, survey operations, and construction activities. New articles will run for three weeks in the LNM's General Section and the OREI Enclosure. After three weeks, articles will be removed from the General Section and will remain in the OREI Enclosure until completed. Coast Guard LNMs are published weekly and are accessible online at <https://www.navcen.uscg.gov/>.

Fifth District Point of Contact

Mr. Matthew Creelman

Marine Information Specialist

U.S. Coast Guard Fifth District

Branch Email: CGD5Waterways@uscg.mil

Office: 757 398-6230

USACE PHILADELPHIA DISTRICT

MAC MEETING

MAC Meeting Presentation

Michael A. Landis, Chief, Operations Division

Timothy J. Kelly, P.E., Deputy Chief Operations Division

08September2022

“The views, opinions and findings contained in this report are those of the authors(s) and should not be construed as an official Department of the Army position, policy or decision, unless so designated by other official documentation.”



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Delaware River, Philadelphia to Sea

- The Dredge Essex is dredging the shoal in New Castle Range.
- The Dredge Charleston has completed Liston Range and is scheduled to mobilize to Cherry Island/Bellevue Junction.
- The FY22 maintenance dredging solicitation will be consolidated with Wilmington Harbor. Bid opening is scheduled for September 12 with award by October 1, 2022.
- The rock removal contract was awarded to Cashman Dredging and Marine Contracting for \$7,909,000. Notice to Proceed was issued on July 15, 2022 with the preconstruction meeting scheduled September 13, 2022.
- The Hopper Dredge McFarland is in the shipyard for steel work and anticipated to be out of the shipyard in late Spring 2023.
- The District has scheduled Great Lakes Dredge and Dock Company's Hopper Dredge Terrapin Island to be on station in the Delaware Bay to perform maintenance dredging starting in early October 2022



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Delaware River, Philadelphia to Trenton

- Hydraulic cutterhead dredging of Fairless Turning Basin and the Delaware River between Station 110+000 and Newbold Island is being complete by Cottrell Contracting Corp; dredging began 19 July and is expected to be completed by early November.
- The next solicitation, in FY23 will be for bucket dredging only between the Tacony Palmyra Bridge and Newbold Island.

Wilmington Harbor

- The FY22 maintenance dredging has again been consolidated with the Philly to Sea solicitation, bid opening currently scheduled for 12 September with award by 1 October. Dredging within the port should begin approximately 1 November.



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Salem River

- Future dredging operations are anticipated to clear the majority of remaining shoaling in Fall 2022 using a combination of the Government Dredge Murden and contract dredging operation beneficially placing material to restore marsh in Supawna Meadows.
- Dredging will occur to the authorized depth of 16 ft MLLW with up to 2 ft overdepth.



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C & D Canal

- The Chesapeake City Bridge Project will impact the bridge air gap. Work on the main span will be limited to 1/2 of the main span/channel at a time. In the area that is restricted there will be a reduction of 16 inches to the air gap. The other half of the main span/channel will be unrestricted.
- There are also two other bridge projects occurring at SR-1 and St. Georges bridge with no reduction to the bridge air gap.



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Air gap and current meter station Instrument performance stats.

Criteria - Percentages report of data which

1- Passed preliminary Quality Control (public dissemination = ON)

2- Data were 18 minutes old or less when populated into the database

06/01/2022-08/31/2022

Delaware Memorial Bridge Air Gap – 99.9%

Ben Franklin Air Gap – 99.1%

Reedy Point Air Gap – 99.8 %

Chesapeake City Gap – 32.3 % - On June 30th, scaffolding was moved into the vicinity of equipment which impacted the data. While working to resolve that, in mid-July- a storm impacted the safe span scaffolding even though it was rated for high winds. An investigation is underway (stop work directive) and there are now issues with the contractor for the larger rehab project.

db0301 (Philadelphia) currents – 99.9%

db0502 (Brown Shoal LB10) currents – 95.4%

All water level stations in the river and bay (11 of them) reported 98% and above data returns for the three month period.

Other updates:

- Delaware City water level station: Issues with the Acoustic sensor and well and we have been disseminating backup (bubbler) water level data here. We are working towards installing a microwave radar at this location given continuous issue with the acoustic well and technology here over the years. We realize that under keel clearance is very important at Delaware City and continuous, quality water level data is important here.
- In recent days, there have been some transmission issues that have developed with the LB10 current meter so we will need to send a crew out to investigate.
- This week, there are some obstructions to the air gap data on the Delaware Memorial Bridge. No painting occurring in the vicinity but its possible the rain and wind this week impacted the scaffolding/tarpping. DRBA is looking into this.

A vibrant sunset over a vast blue ocean. The sun is low on the horizon, casting a golden glow across the sky and reflecting on the water. The sky is filled with scattered clouds, some of which are illuminated by the setting sun. The water is a deep blue with gentle ripples.

Current Raster Chart Sunset Status

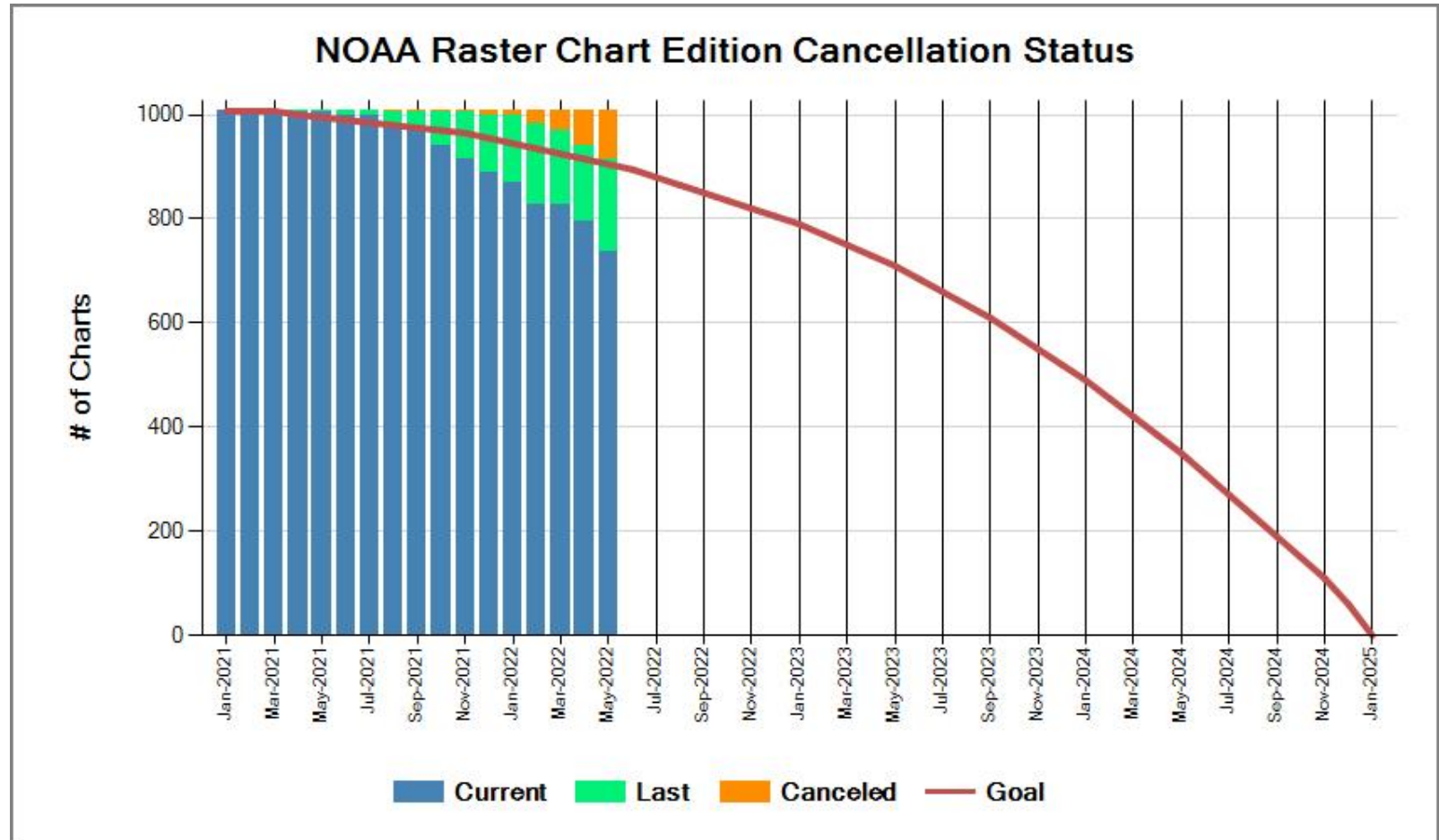
**Ryan Wartick
757-268-8164**

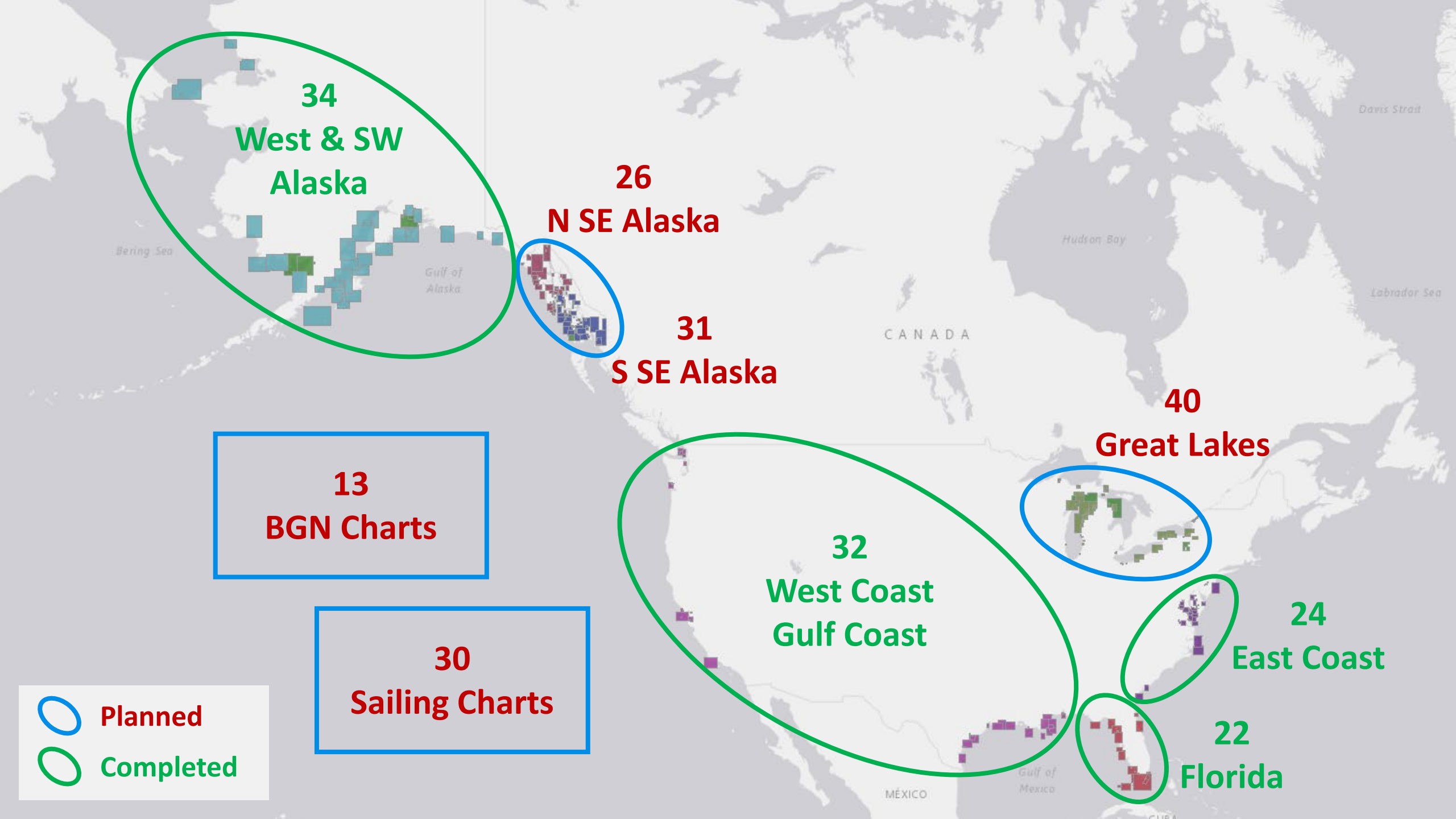
Raster Chart Status as of 7 July 2022

Current Status

Canceled	139
Last Edition	+ 152
<hr/>	
Subtotal	291
Current Active	+ 716
<hr/>	
Total	1007

14% of suite canceled
15% are last editions





34
West & SW
Alaska

26
N SE Alaska

31
S SE Alaska

40
Great Lakes



13
BGN Charts

32
West Coast
Gulf Coast

24
East Coast

30
Sailing Charts

22
Florida

 **Planned**
 **Completed**

Last Edition Schedule for 2022



✓ 1.	Apr 2022	W Coast & W Gulf	32
✓ 2.	May 2022	East Coast	24
✓ 3.	Jun 2022	SW & W Alaska	34
✓ 4.	Jul 2022	Florida	22
5.	Aug 2022	N SE Alaska	26
6.	Sep 2022	S SE Alaska	31
7.	Oct 2022	Great Lakes	40
8.	Nov 2022	Sailing Charts	30
9.	Dec 2022	BGN*	13

* Charts for which the US Board on Geographic Names will be approving replacements for derogatory place names.

ENC Display Services

<https://nauticalcharts.noaa.gov/data/gis-data-and-services.html#enc-display-services>

Office of Coast Survey
National Oceanic and Atmospheric Administration
U.S. Department of Commerce

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Home > Data > GIS Data & Services

GIS Data & Services

Supporting non-traditional users of nautical chart information

Coast Survey uses nautical charting data to produce GIS-friendly products for a world of uses outside of navigation. Find the product or service that supports your application.

- ENC Direct to GIS
- ENC Display Services

ENC Data Portrayed Two Different Ways

Two ENC display services provide simple HTTP interfaces for user applications to request geo-registered nautical chart images from NOAA databases for display in online and offline applications for which a basemap of nautical chart data is desired, including GIS, web-based, and mobile mapping applications.

The chart images are rendered from the latest NOAA electronic navigational chart (NOAA ENC®) data. The ENC data and the chart images derived from it are updated weekly. Each display service portrays the ENC data with a different symbology set.

The **ECDIS Display Service** uses symbology developed by the International Hydrographic Organization (IHO) for the display of ENC data on Electronic Chart Display and Information Systems (ECDIS) that large ocean-going vessels and many smaller commercial ships use for navigation. This symbol set is commonly referred to by its IHO specification number, "S-52," or as "ECDIS symbology."

The **ENC Viewer** portrays ENC data using this ECDIS symbology.

Two ENC Display Services

1. ECDIS Display Service
IHO S-52 / ECDIS
2. NOAA Chart Display Service (New)
IHO S-4 / Chart 1
NOAA AtoN Symbology

Offline MapBox Tiles

Office of Coast Survey
National Oceanic and Atmospheric Administration
U.S. Department of Commerce

NOAA Chart Display Service
MB Tile Download

Map labels include: Victoria Island, Canada, Amundsen Gulf, Baffin Island, Foxe Channel, Davis Strait, Hudson Bay, Labrador Sea, Gulf of St. Lawrence, Gulf of Fundy, Gulf of Maine, United States, Los Angeles, Phoenix, México, Ciudad de México, La Habana, The Bahamas, Cuba, República Dominicana, Kingston, Ciudad de Guatemala, Honduras, Nicaragua, Panamá, Medellín, Venezuela, Caracas, Washington, New York, Ottawa.

Coming Soon (indicated by a blue arrow pointing towards the map)

NOAA Fisheries

NOAA Fisheries [announced proposed changes](#) to the North Atlantic right whale vessel speed rule to further reduce the likelihood of mortalities and serious injuries to endangered right whales from vessel collisions. NOAA Fisheries is accepting public comment on the proposed rule until September 30, 2022. More information on the submission process can be found in the [Federal Register notice](#). NOAA Fisheries also hosted three informational webinars in August regarding the Proposed Rule. A recording of the August 16, 2022 webinar can be found [here](#).

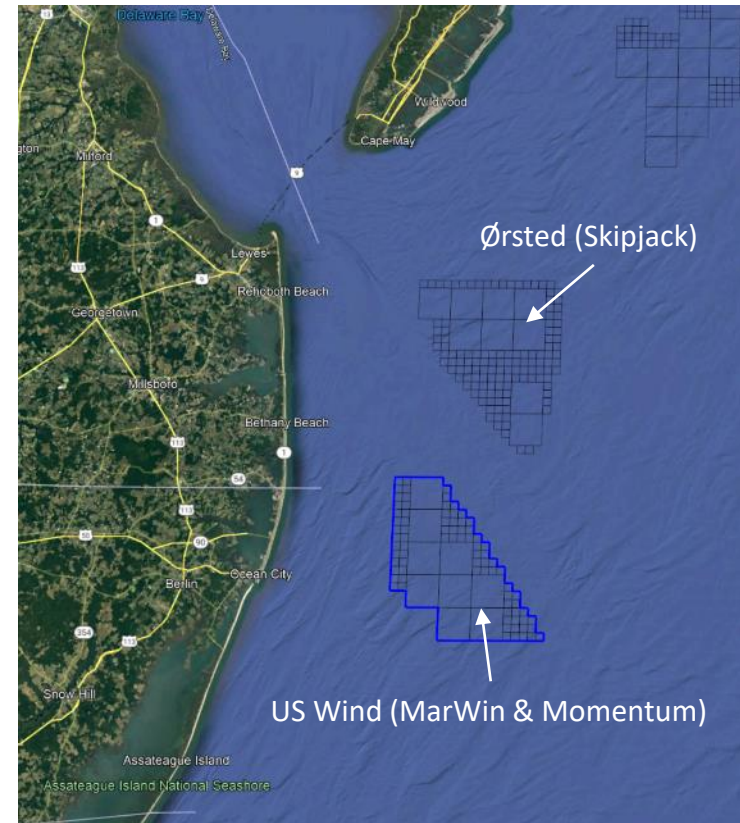


Project Overview
Mariner's Advisory Committee
September 8, 2022

Lease Area



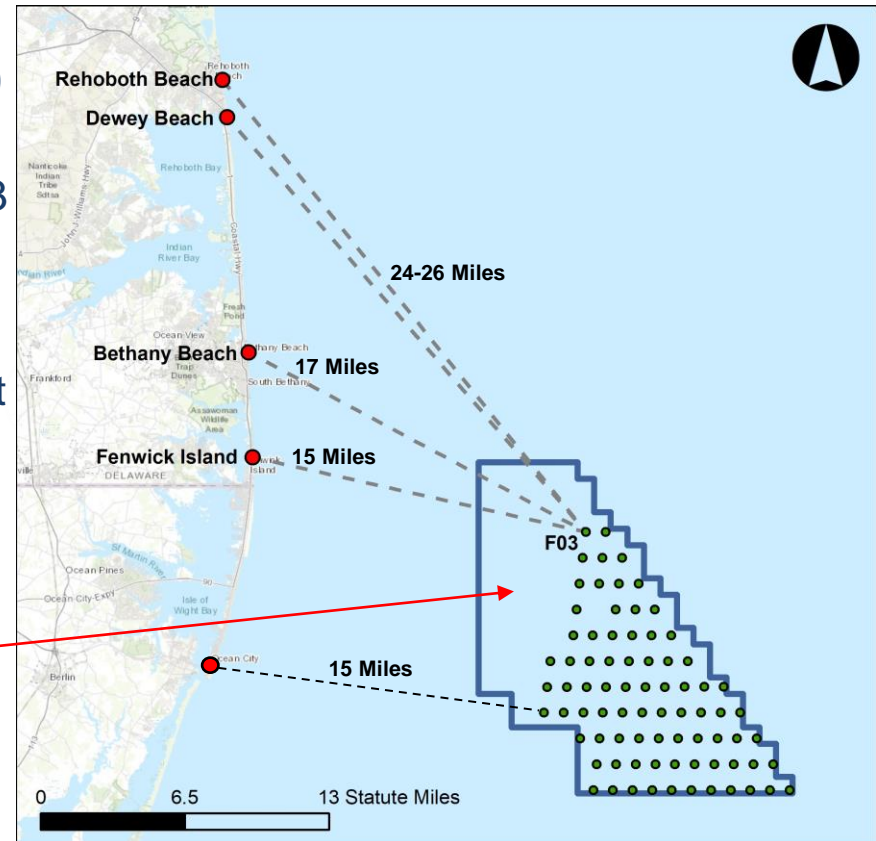
- 2014: US Wind won rights to the MD Lease area (OCS-A 0490)
 - Defined, sited by BOEM to avoid conflicts
 - 80,000 acres; 12 – 27 statute miles from Ocean City, MD
 - Entire lease area can support ~1,800 MW
- 2017: US Wind won MD OREC award for ~270 MW project (“MarWin”)
- 2021 US Wind won another MD OREC award for 808 MW (“Momentum Wind”)



US Wind Projects Under Contract



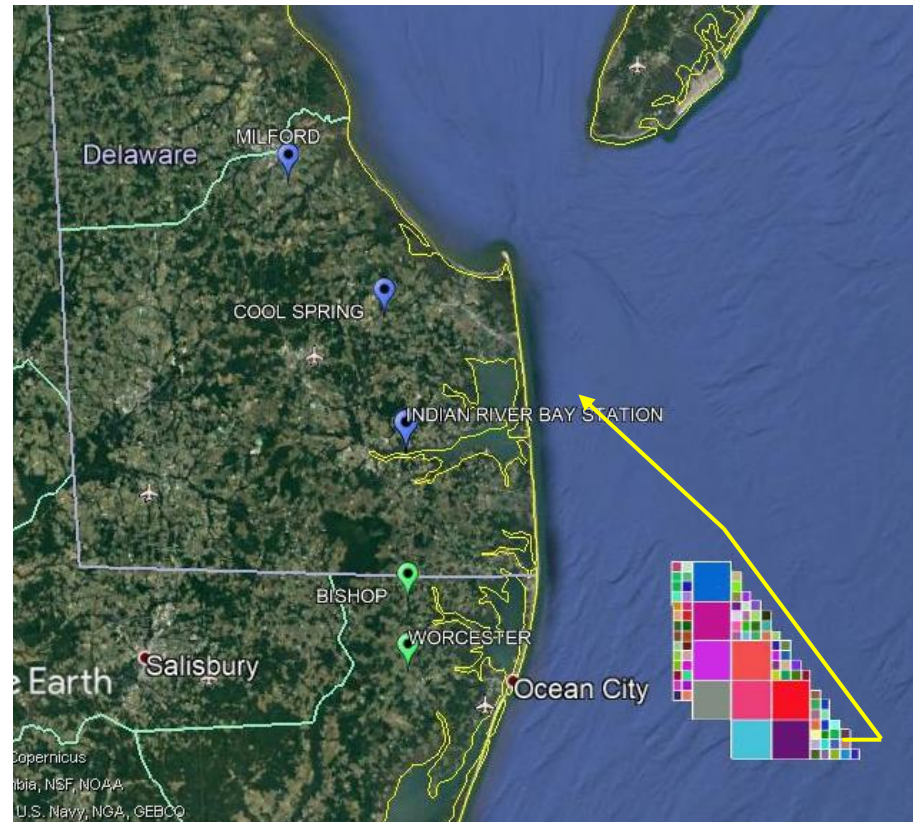
- Combined ~ 1,100 MWs of clean energy will power more than 340,000 area homes
- Energy delivered with 76 turbines and 3 offshore substations, roughly 1 mile apart
- Closest turbine (current awards) is 15 statute miles from both Ocean City Inlet and Fenwick Island; over half will be beyond 19 miles
- Closest turbine is 17 miles from Bethany, 24 from Dewey & 26 from Rehoboth
- Remaining Lease area has ~700 MW of capacity available



Interconnection



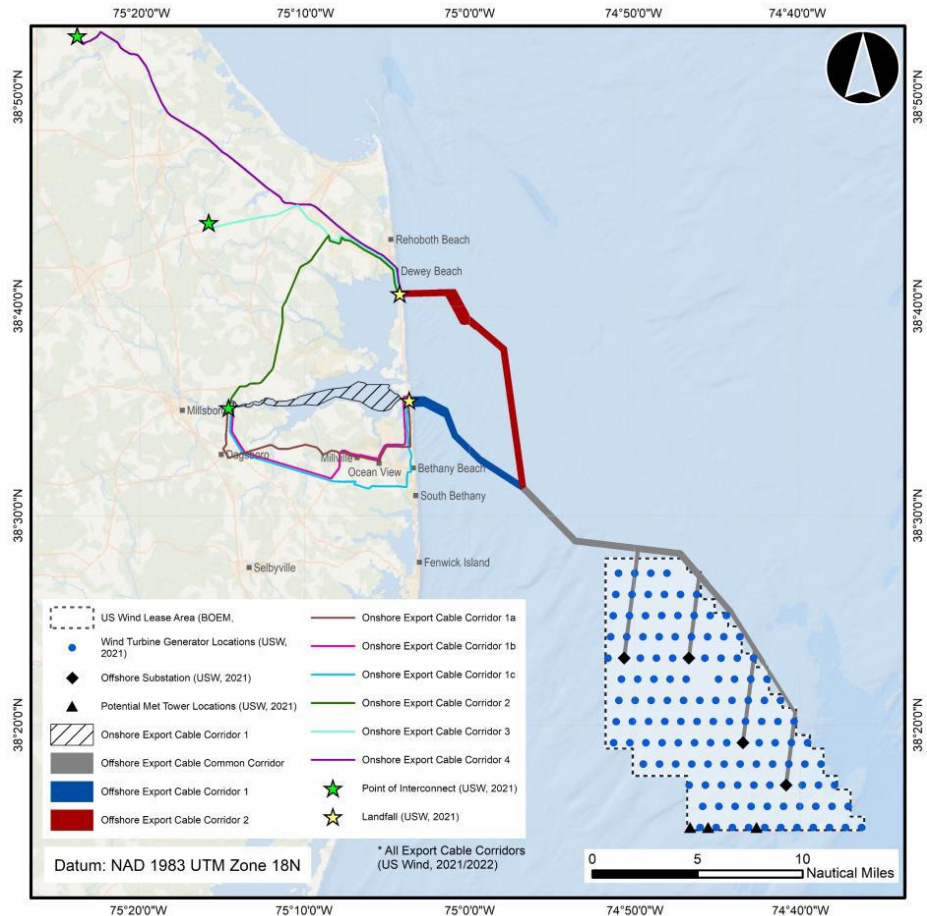
- Will connect to an existing 230 kV substation in Delaware
 - All coastal Maryland substations are 138 kV
- Evaluated many points of interconnection & route options
 - Sought least disruptive path
 - Guided by environmental & technical evaluations
 - Cables buried; no above ground infrastructure
 - Horizontal Directional Drilling used to avoid contact with beaches, dunes, and wetlands



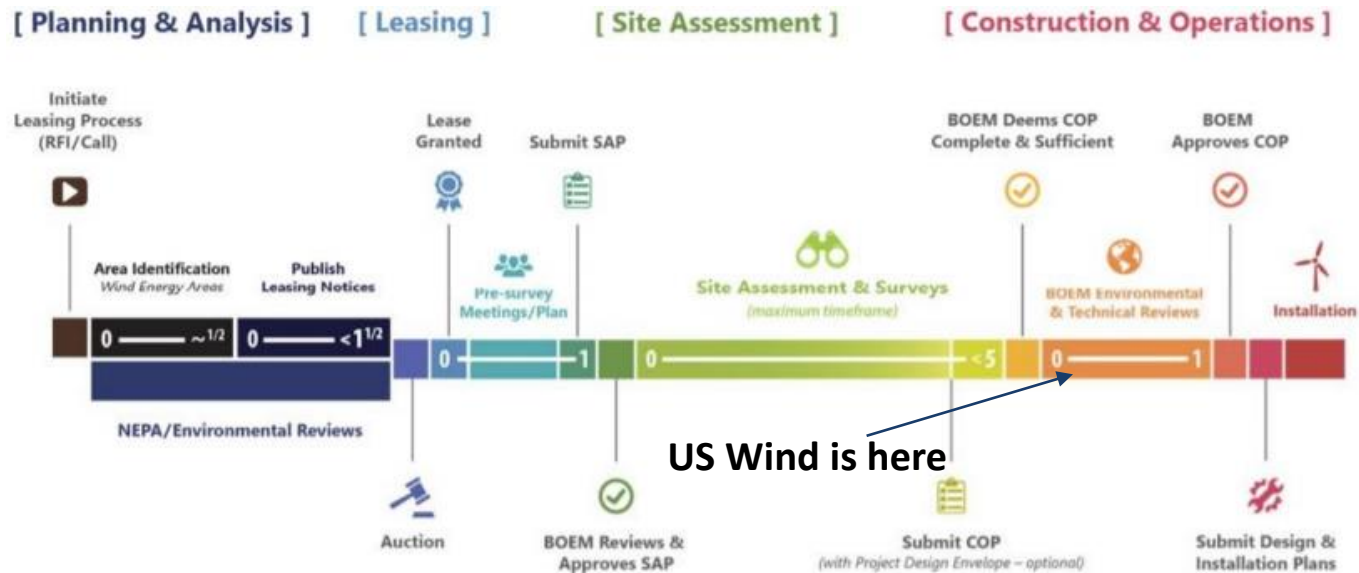
COP Project Design Envelope



- **COP seeks to permit entire lease area**, and includes a Project Design Envelope
- Up to 121 wind turbine generators
- Turbine height up to 938 feet
- Up to 4 offshore substations
- Up to 4 cables to shore
- 2 potential landing locations
- 7 potential onshore export cable corridors to 3 potential interconnection points to the grid



Development Timeframe

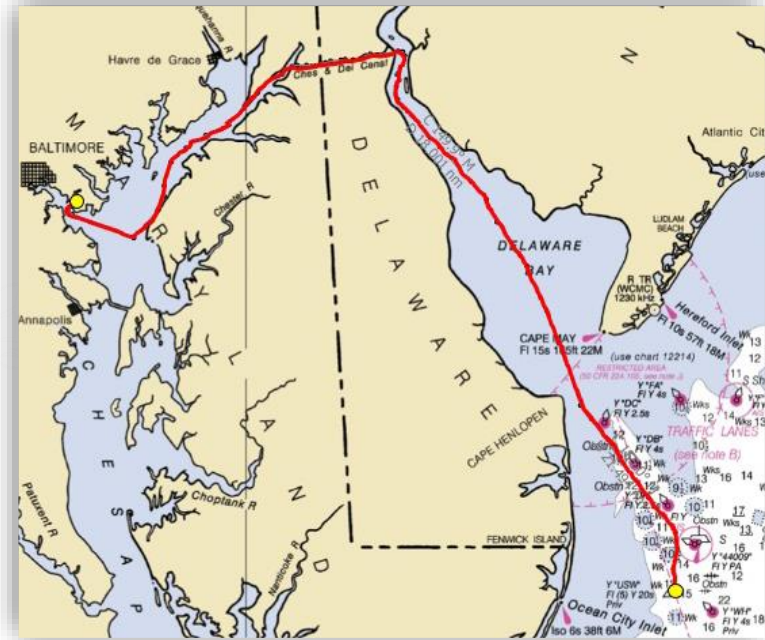


- On June 8 2022, our Construction and Operations Plan (COP) became public on BOEM.gov
- Next: US Wind's projects assessed against all federal environmental laws (NEPA)
- Multiple opportunities for public input
- If BOEM judges that we've passed all tests, could be approved for construction in 2024

MarWin Construction – 21 WTGs in 2025

Offshore Construction process

- Surveys
- Scour Protection (filter layer) install
- Export cable install
- Offshore Substation install
- Foundation (monopiles) installation
- Inter-array cables pull in
- Scour Protection (armor layer) install
- Towers/Turbine/Blades installation
- Commissioning / Grid connection



Sparrows Point in Baltimore will serve as staging area for Foundations and WTG components (~143nm to site via C&D Canal)



Benjamin Cooper

Director of Marine Affairs
b.cooper@uswindinc.com

Project Design Envelope

	Project Design Envelope (Max)
Wind Turbine Generation Capacity	18 MW
Tip Height	286 m
Hub Height	161 m
Rotor Diameter	250 m
Air Gap	35.1 m
WTG locations	121
Separation distances	1.02 NM North/South 0.77 NM East/West

Other structures: Up to 4 Offshore Substations and 1 Meteorological tower

Navigation Safety Risk Assessment (DNV) 119 Structure Layout – 1 NM setback



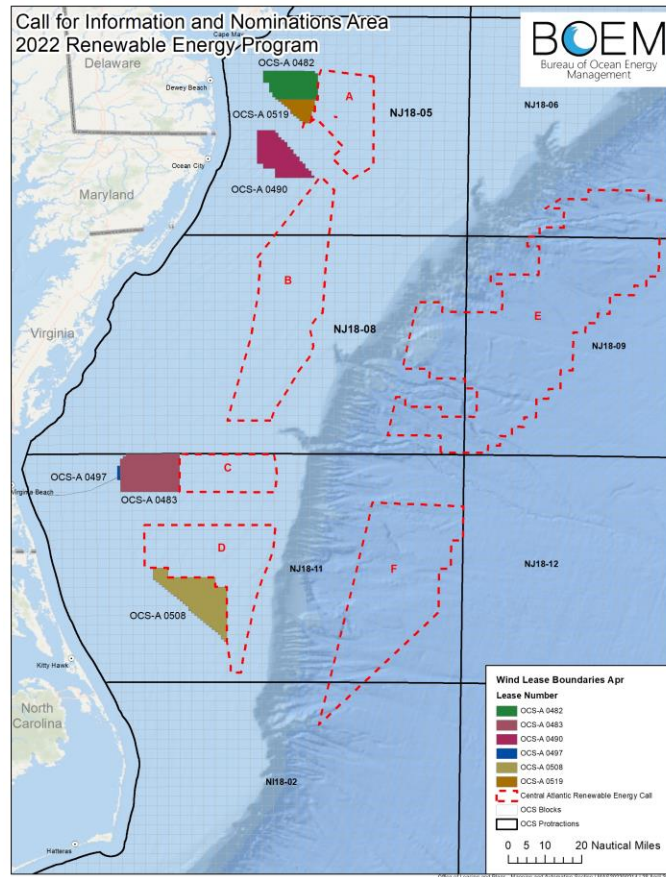
Highest consequence event is Powered Allision with Cargo/Carrier and Tanker

- Under current TSS configuration, modeled likelihood of powered allision is: 0.0016, or 1x in 610 years
- Under potential Extended TSS configuration, modeled likelihood of powered allision is 0.00079, or **1x in 1,200 years**

* Based on 2019 AIS data for 9,678 Cargo/Carrier/Tanker vessel tracks



Future potential offshore development



Visual Simulations



- 24-Hour time lapse of awarded buildout (76 Turbines, 3 Offshore Substations) with 817-foot turbines taken from 84th Street in Ocean City, available on US Wind's YouTube Channel:
 - <https://www.youtube.com/watch?v=zq5LabMbE-c&t=17s>
- Static simulations of full buildout (121 Turbines, 4 Offshore Substations) with 938-foot turbines, taken from Bethany Beach, available on BOEM.gov:
 - Morning: <https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/BethanyBeach-Morning-PrevailingWinds-TraditionalPanorama.pdf>
 - Mid Afternoon: <https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/BethanyBeach-MidAfternoon-PrevailingWinds-TraditionalPanorama.pdf>
 - Late Afternoon: <https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/BethanyBeach-LateAfternoon-PrevailingWinds-TraditionalPanorama.pdf>
 - Evening with lights on: <https://www.boem.gov/sites/default/files/documents/renewable-energy/state-activities/BethanyBeach-Night-PrevailingWinds-TraditionalPanorama.pdf>



Mid-Atlantic Marine Affairs Update

Mariners' Advisory Committee



- Presentation to MAC
September 2022

The global leader in offshore wind



- 30+ years of experience
- 7.6 GW installed capacity
- 3.5 GW under construction
- 1,500+ turbines spinning
- 28 offshore wind farms in operation

The world's first
Vindeby, 1991
5 MW



The world's largest
Hornsea 2, 2021
1.32 GW

America's first
Block Island Wind Farm, 2016
30 MW

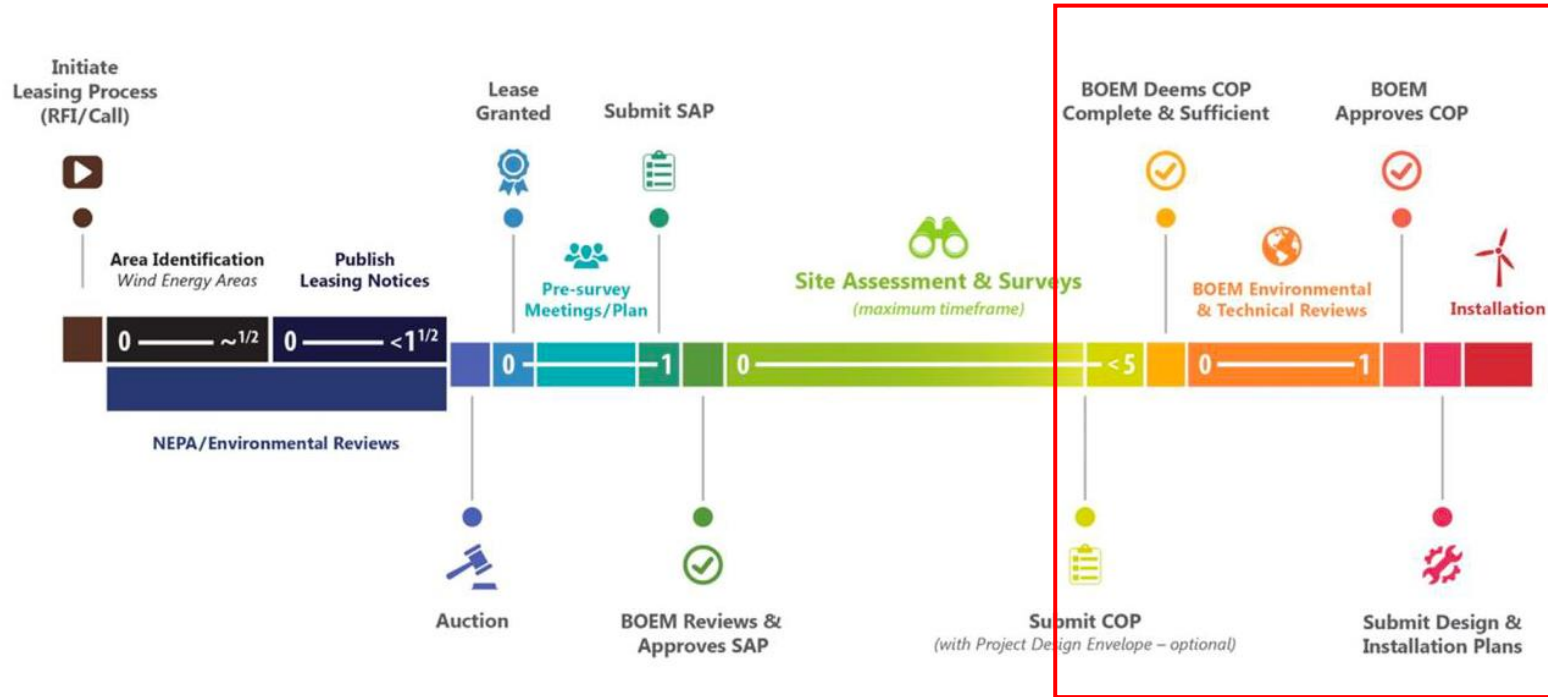


Marine Affairs Team – Roles and Responsibilities

Key Role	Team	Key Tasks
Head of Marine Affairs	Ed LeBlanc	<ul style="list-style-type: none"> Responsible for overall execution & management of the Marine Affairs team, including hiring, retention, career planning, quality, and overall strategy/vision Relationship manager for USCG, BSEE
Mid-Atlantic Marine Affairs Manager	Norm Witt	<ul style="list-style-type: none"> Leads all technical and stakeholder aspects for Mid-Atlantic projects, including internal & external stakeholders for navigation safety, vessel operations, oil spill response planning, maritime stakeholder outreach, emergency response Coordinates with Fisheries Relations Manager on challenges/opportunities Responsible for Nav Safety Risk Assessment (NSRA), emergency response plan, safety management system (SMS) delivery to support Construction and Operations Plan (COP)
Marine Affairs Specialist	Kara Gross (OCW01/02) Dana Nelson (SJW)	<ul style="list-style-type: none"> Responsible for regular & direct interaction with the maritime community, soliciting & addressing concerns; disseminating Project information; documenting claims- in direct support of project(s) Hold port hours, walk the docks (represents ~25% of their time) Create Mariners Briefings at regular intervals Maintains GIS database of gear locations for survey considerations
Fisheries Relations Manager	Ross Pearsall	<ul style="list-style-type: none"> Responsible for overall conduct of fisheries outreach efforts; collecting & analyzing outreach data; & recommending appropriate engagement strategies with individuals, Fisheries Management Councils. Responsible for BOEM/NOAA project-based fisheries discussions, fisheries section/mitigation review to support COP Advises on technical project issues and general policy considerations Administers Gear Loss Claims program for Orsted

Project Review

A public process involving federal, state, and local authorities and interests



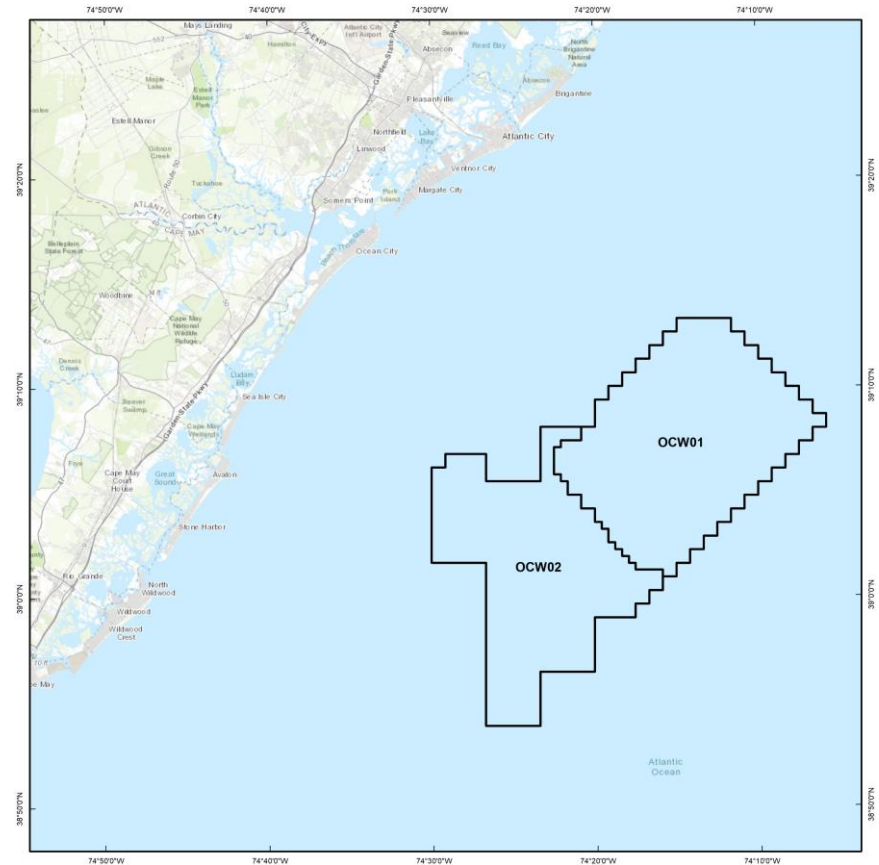
OCEAN WIND

- **OCW01**

- 1,100 MW Project
- Projected operational:
- Construction and Operations Plan (COP)

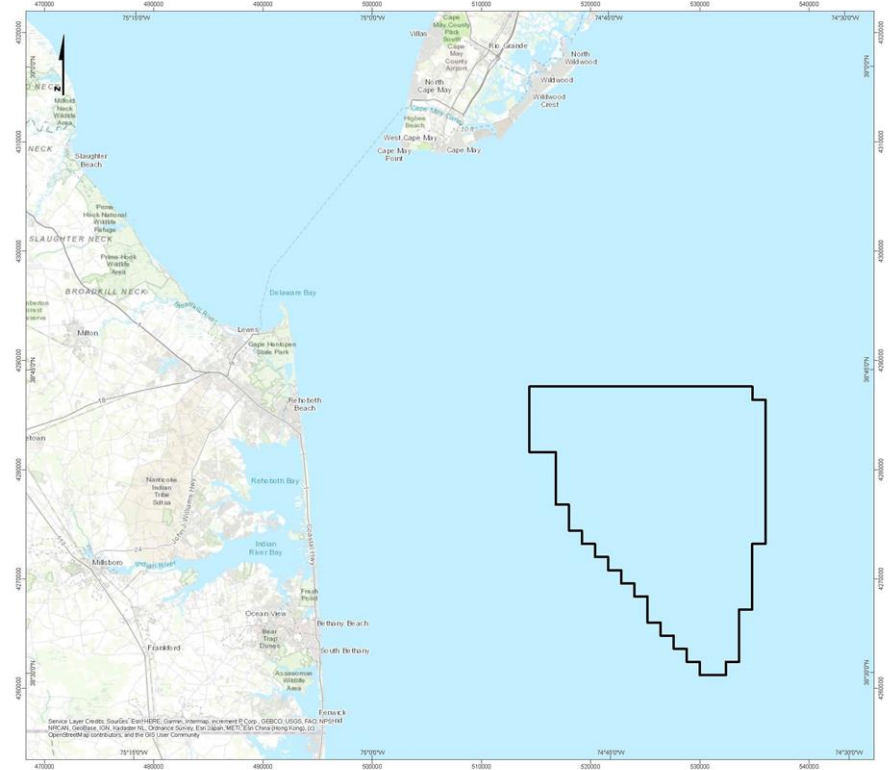
- **OCW02**

- 1148 MW Project
- Projected operational:
- Construction and Operations Plan (COP)



SKIPJACK WIND

- 966 MW project
- Projected operational:
- Construction and Operations Plan (COP)



Questions

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 Orsted