Memorandum

To: Mariners' Advisory Committee Members and Interested Parties
From: Captain Drew Hodgens
Re: Meeting Agenda December 9th, 2021

Your presence is requested at the Quarterly Meeting of the above-mentioned committee on Thursday, December 9th, 2021 at 1100 hours.

Agenda

I **Approval of Minutes** – from the September 2021 meeting

II. **Reports**

A.	**Treasurer's Report**	- Captain Rick Iuliucci
B.	**Membership Report**	- Captain John Gazzola
C.	**USCG**	- Captain Jonathan Theel, Captain of the Port
D.	**USACE Reports**	- Mike Landis, Chief of Operations
E.	**NOAA Reports**	- Katie Kirk, Oceanographer - NOAA Charting/Surveying-Ryan Wartick, Mid-Atlantic Nav. Mgr. - Alicia Schuler, NOAA Fisheries
F.	**US Wind**	- Ben Cooper
G.	**Seamen's Center Wilmington**	- Christine Lassiter

III. **Unfinished Business**

A. **MAC Bank Account Update**

IV. **New Business**
V. **Open Discussion**
VI. **Adjournment**

Next meeting: March 10th 2022 at 1100 hours.

Memorandum

To: Mariners' Advisory Committee Members and Interested Parties
From: Captain Rick Iuliucci, Treasurer
Re: Treasurer's Report for December 2021

Balance – from September 2021	**$ 13,389.22**
Deposits (Sept-Dec 2021)	
Total Deposits during the period	**$ 8,000.00**
INCOME BALANCE	**$ 21,389.22**

Disbursements (Sept 2021-Dec 2021)

Popi's Restaurant (9/28)	$ 1,000.00
Popi's Restaurant (9/10)	$ 4,128.95
Popi's Restaurant (12/1)	$ 4,000.00
USPS (11/19)	$ 7.95
Administration (9/13)	$ 220.00
Email Service (G-mail- $38.88 mo.)	$ 116.64
Email service- Twild ($89.95. Per mo.)	$ 359.80
Misc. Withdrawal	$ 2.00
PNC Service Fees ($2.00 per mo.)	$ 6.00

TOTAL DISBURSEMENTS (Sept 2021-Dec 2021)	**$ 9,841.34**
BALANCE as of December 7, 2021	**$ 11,547.88**

Mariners Advisory Committee (MAC) For the Bay & River Delaware
Fifth Coast Guard District and Sector Delaware Bay
Waterways and Aids to Navigation Report for December 9, 2021

1. **Seasonal Alerts**
    a. Hurricane seasonal alert expired on November 30, 2020.
    b. The ice seasonal alert will go into effect on December 15, 2021. Thanks to all who attended our annual Ice Season Operations meeting last week. If you were unable to attend and would like to review the seasonal forecasts, the Coast Guard's ice operations, or reporting requirements, please review the Sector Delaware Bay Homeport page under the Waterways Management section, then "Ice Season". The presentations and other resources have been posted for your convenience.
    c. Northern Right Whale Speed Restrictions went into effect on November 1, 2021. All vessels over 65' in length are limited to speeds of 10 knots or less when transiting in a protected zone. For more information, see MSIB 14-21.

2. **COVID-19**
    a. The Coast Guard is continuing to monitor the coronavirus outbreak. We have additional screening procedures in place for vessels arrivals to include last ports of call and crew member embarkation places and dates. We are in close communication with CDC, CBP, and the local health departments.
    b. MSIBs relating to COVID-19 are available on the Sector Delaware Bay Homeport page under Maritime Transportation System (MTS) Recovery.

3. **Upper Delaware River Maintenance Dredging**
    a. Dredging commenced in November per conversations w/ ACE. Upper Delaware River Channel Lighted Buoys 8, 12, 22 and 30 were temporarily relocated by CGC WILLIAM TATE.

4. **Philadelphia to Sea Maintenance Dredging**
    a. Norfolk Dredging Co. is conducting maintenance dredging in Marcus Hook Anchorage. Vessels desiring to anchor within Marcus Hook Anchorage must obtain permission from the COTP at least 24 hours in advance, by calling the Command Center at 215-271-4807. The COTP will permit one vessel at a time on a "first come, first served" basis in the northern portion of the anchorage, with preference given to those vessels greater than 650' in overall length. Vessels will be limited to a

12 hour stay. The two safety zones detailed in the MSIB remain in effect until the end of December.

5. **Wind Energy Lease Areas (NJ, DE coasts)**
   a. Sector Delaware Bay prevention personnel have been actively participating in and assisting USCG District Five Waterways staff with the five wind energy lease areas off the coasts of NJ, DE, and MD and an additional six proposed lease areas in the New York Bight that impact the Delaware Bay AOR. We are also in communications with District Five regarding the NJ Port Access Route Study (comment period closed 25OCT) and the associated proposed offshore anchorages.
   b. If any MAC members have questions or concerns as these projects move forward, you can reach out to LT Jordan Marshall (Waterways Management Division), CDR Jodi Min (Prevention Department Head), or Mr. Matt Creelman (Marine Planning Specialist) at District Five Waterways.

Sector Delaware Bay Aids To Navigation (ATON) Updates

1. **CGC WILLIAM TATE**
   a. Seasonal ice buoy reliefs began end of October and will be completed in January 2022.

2. **Aids To Navigation Team (ANT) Philadelphia**
   a. Seasonal ice buoy reliefs have been completed.
   b. Fisher Point Range converted to Solar Power/LEDs; should provide a more reliable range. Site surveys and core samples have been taken to move forward with removing the rear range from the storage tank and rebuilding the range in the water.

3. **Aids to Navigation Team (ANT) Cape May**
   a. D5 has directed a Waterways Analysis and Management Study (WAMS) of the NJ ICW NJICW (LLNR 34980), near Manasquan River Inlet, to New Jersey Intracoastal Waterway Day beacon 479 (LLNR 36720) at Cape May, NJ. This will assess waterway usage and inform decisions improving ATON. The study will last six months and be published for public comment for a 60 day period starting OOA March 2022. If anyone would like to inform the study, please contact the WWM office for the questionnaire.
   b. Working with ACE on shoaling concerns in the NJ ICW.
   c. Seasonal ice buoy reliefs will be completed by January 2022.

District Five ATON Updates

1. **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. The design is 95% completed with anticipated construction beginning in FY21. Update: Civil Engineering Unit (CEU) Cleveland, D5 Waterways and the MAC are working with the DE State Historic Preservation to secure the old rear range lights when the project is completed. UPDATE: Approximately six more months for the consultations to be complete with the SHPO.

2. **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. Update: The design for New Castle is at 95%. The A/E is scheduled to have the design completed by the end of May. Awaiting permitting and SHPO approval. UPDATE: Approximately six more months for the consultations to be complete with the SHPO. Project should go out for bids Oct 2021 with a completion date in Nov 2022.

3. **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.

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) is conducting three supplemental studies that are considering the connecting routes to and from mid-Atlantic ports and the ANPRM fairways. For each of these studies, D5 is conducting targeted consultations, reviewing 2017-2019 AIS data,

and conducting 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 is considering establishing 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.

- 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.

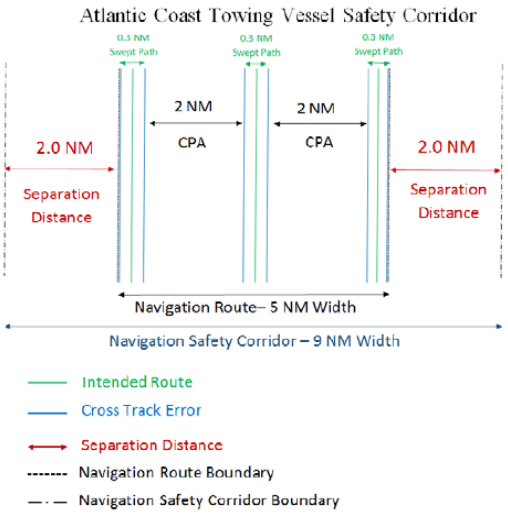
Atlantic Coast Port Access Route Study (ACPARS)

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

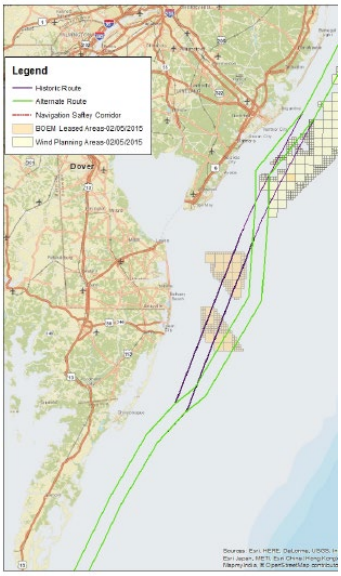
- The Coast Guard announced the availability of the final ACPARS report and requested public comment in the Federal Register on March 14, 2016 (81 FR 13307). After considering comments submitted in response to that notice, the Coast Guard determined that the final report was complete as published and 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.



- 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.



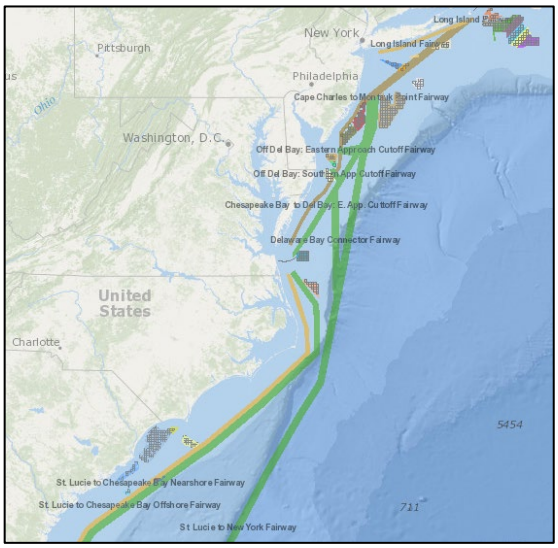
ACPARS Traditional Towing Vessel Route and Alternate Route

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.

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



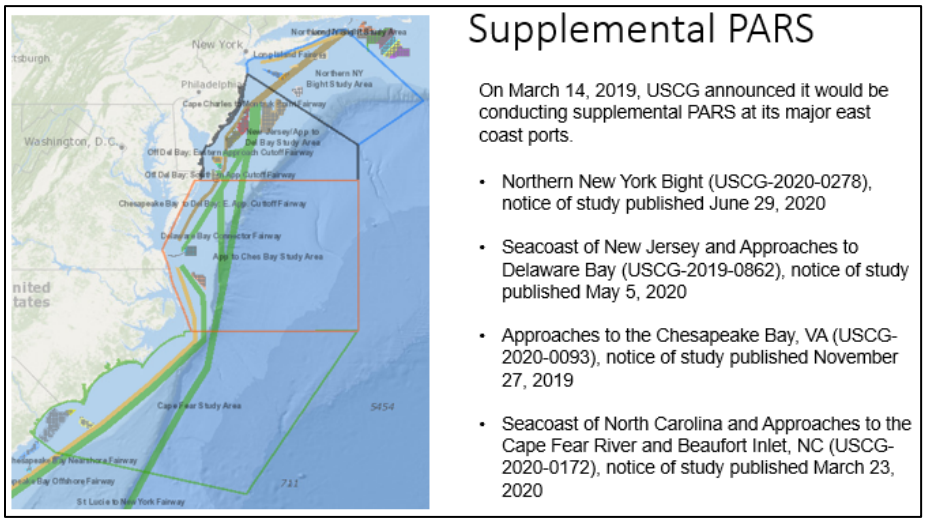
- On June 19, 2020, the Coast Guard published an ANPRM seeking comments on the possible establishment of shipping safety fairways along the Atlantic Coast identified in the ACPARS Study. This potential system of fairways is intended to ensure the traditional navigation routes are kept free from obstructions 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 NPRM is summer 2022.

Supplemental Port Access Route Studies

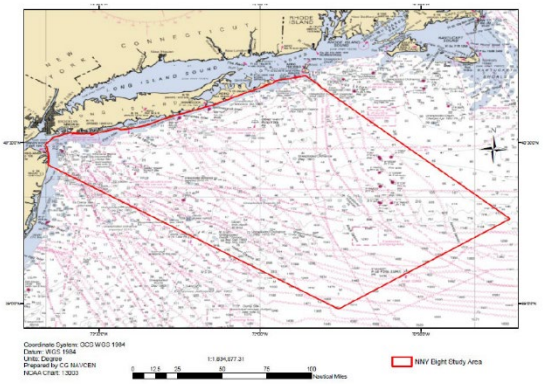
- On March 15, 2019, the Coast Guard announced a study of port approaches and international entry and departure areas in the Federal Register (84 FR 9541). This study will consider access routes from ports along the Atlantic Coast to the navigation safety corridors the ACPARS report recommended that we consider developing as fairways or other appropriate vessel routing measures. The ports to be considered in this study are economically important, 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.

– 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).

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.

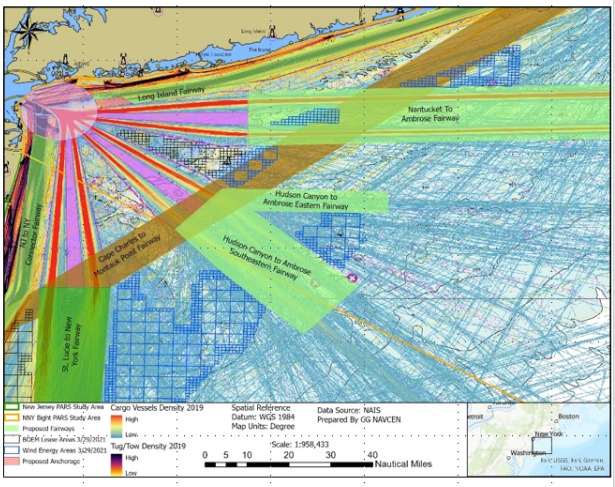
B. Establish a modified version of the "Ambrose Anchorage" discussed in the Approaches to New York notification of inquiry [Docket No. USCG-2020-0620 (86 FR 17090) April 1, 2021] and adjust the Southern end of the Long Island Fairway proposed in the ACPARS ANPRM [Docket No. USCG-2011-0351 (85 FR 37034)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

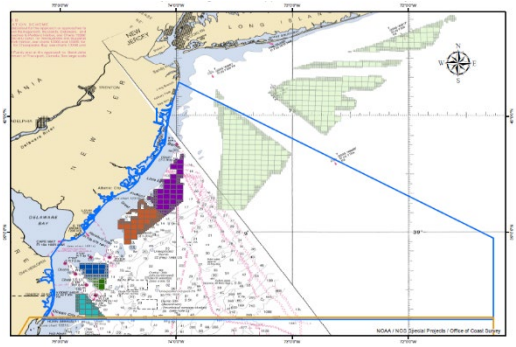
F. Establish a single Nantucket to Ambrose Fairway, thereby removing the need for separate Nantucket to Ambrose and Ambrose to Nantucket Fairways as currently exist.



- Target date to publish the final report in the Federal Register is Sep 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.

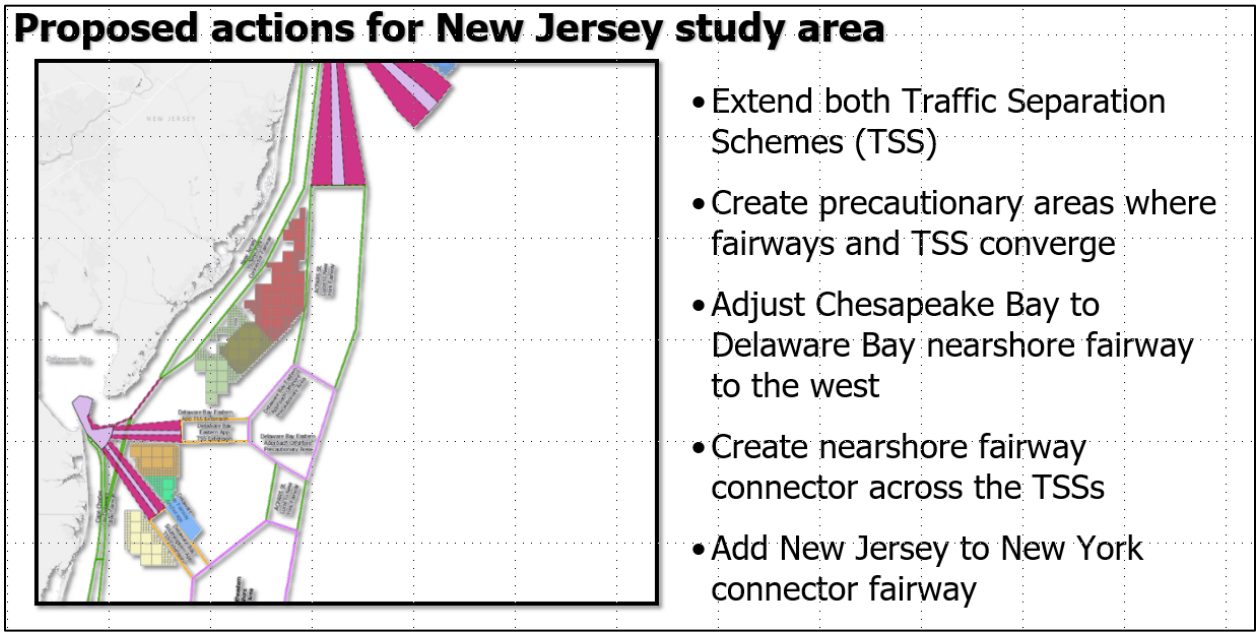
- Note: offshore lightering and anchoring is critically important to the ports of the Delaware River, and the lease areas offshore Maryland and Delaware, if developed will displace these operations. In anticipation of this, the Coast Guard and the Mariners' Advisory Committee of the Delaware River and 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 is currently considering the following recommendations (See insert).

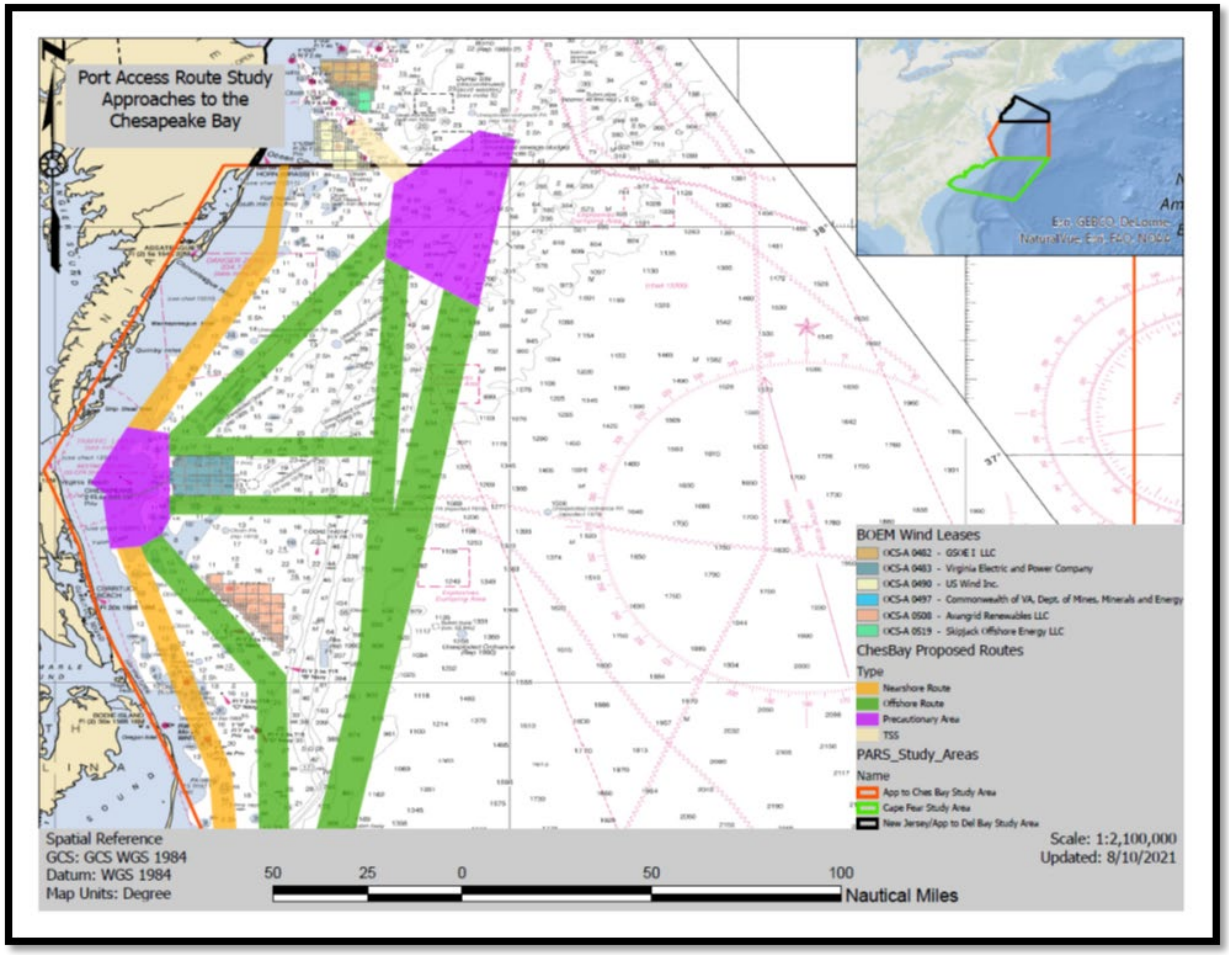


– Target date to publish draft report in the Federal Register is December 2021.

Approaches to the Chesapeake Bay, VA (Docket Number: USCG-2019-0862)

– On Nov 27, 2019, the Coast Guard announced a supplemental PARS to determine whether existing or additional vessel routing measures are necessary in the approaches to the Chesapeake Bay, VA. The comment period closed on Dec 27, 2019.

– The draft report of the study and its recommendations were published in the Federal Register on Jun 16, 2021. Ten comments were received during the 30-day public comment period, which ended on July 16. Based on the feedback received during the comment period, the Fifth District is currently considering the following recommendations (See insert).

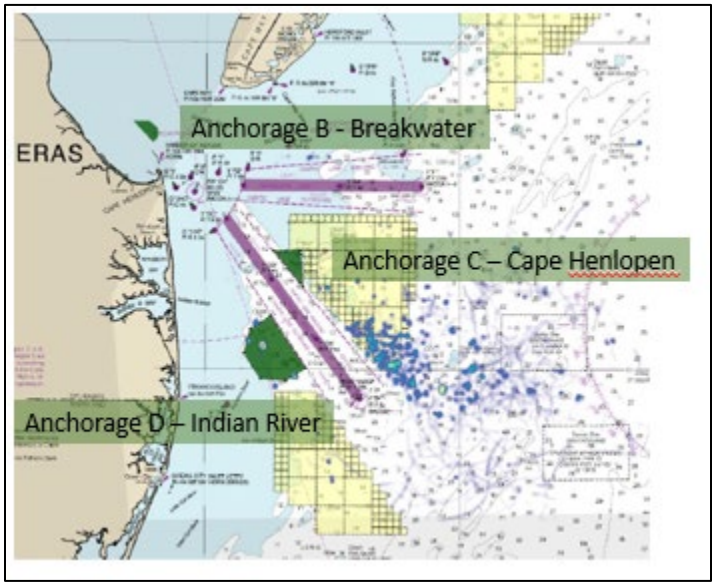


– Published final report in the Federal Register in October 2021.

- In the near future, D5 intends to conduct a PARS or PARS like study to determine whether this TSS is necessary or should be amended. Prior to commencing the study, D5 is seeking input on the particular geographic area to be studied. Once initiated, the study may take up to a year to conduct, and may lead to future rulemakings or appropriate international agreements. D5 POC: LTJG John Frank; John.R.Frank@uscg.mil, 757-398-6298.

Anchorages

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.

- 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 are recommending the development of a NPRM to establish Anchorages C and D. In addition, the New Jersey PARS will recommend an additional fairway anchorage be established.

- Target date for anchorage ground NPRM is January 2022.

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".

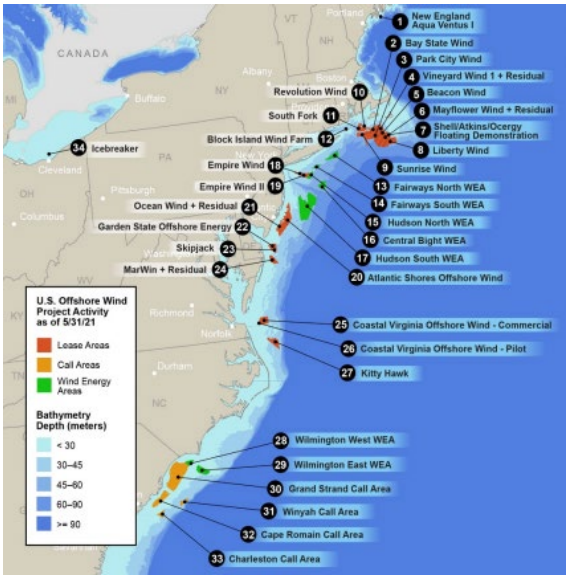
Atlantic and Gulf Coast Seacoast System (AGCSS):

- 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.

Intracoastal Waterway, NJ

- D5 intends to conduct a WAMS review of the NJ ICSW between Sep 2021 and Mar 2022. The WAMS review will cover the waters from New Jersey Intracoastal Waterway Junction Light NJICW (LLNR 34980), near Manasquan River Inlet, to New Jersey Intracoastal Waterway Daybeacon 479 (LLNR 36720) at Cape May. The WAMS will not include the adjacent inlets and intersecting waterways.

Offshore Wind



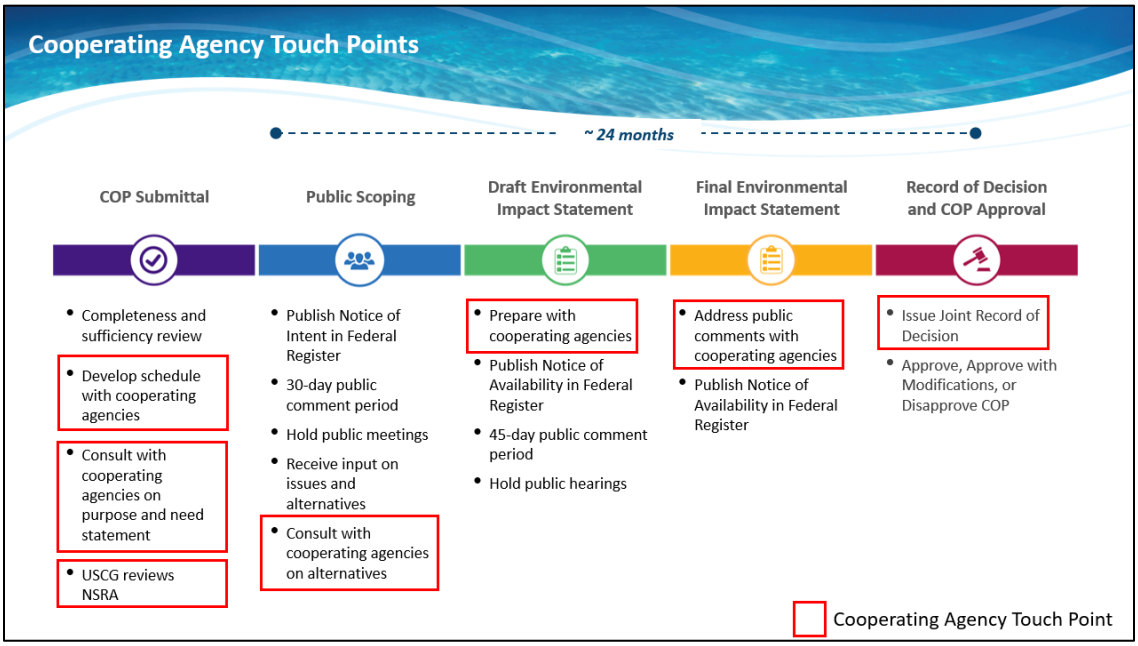
Coast Guard's Role

- 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

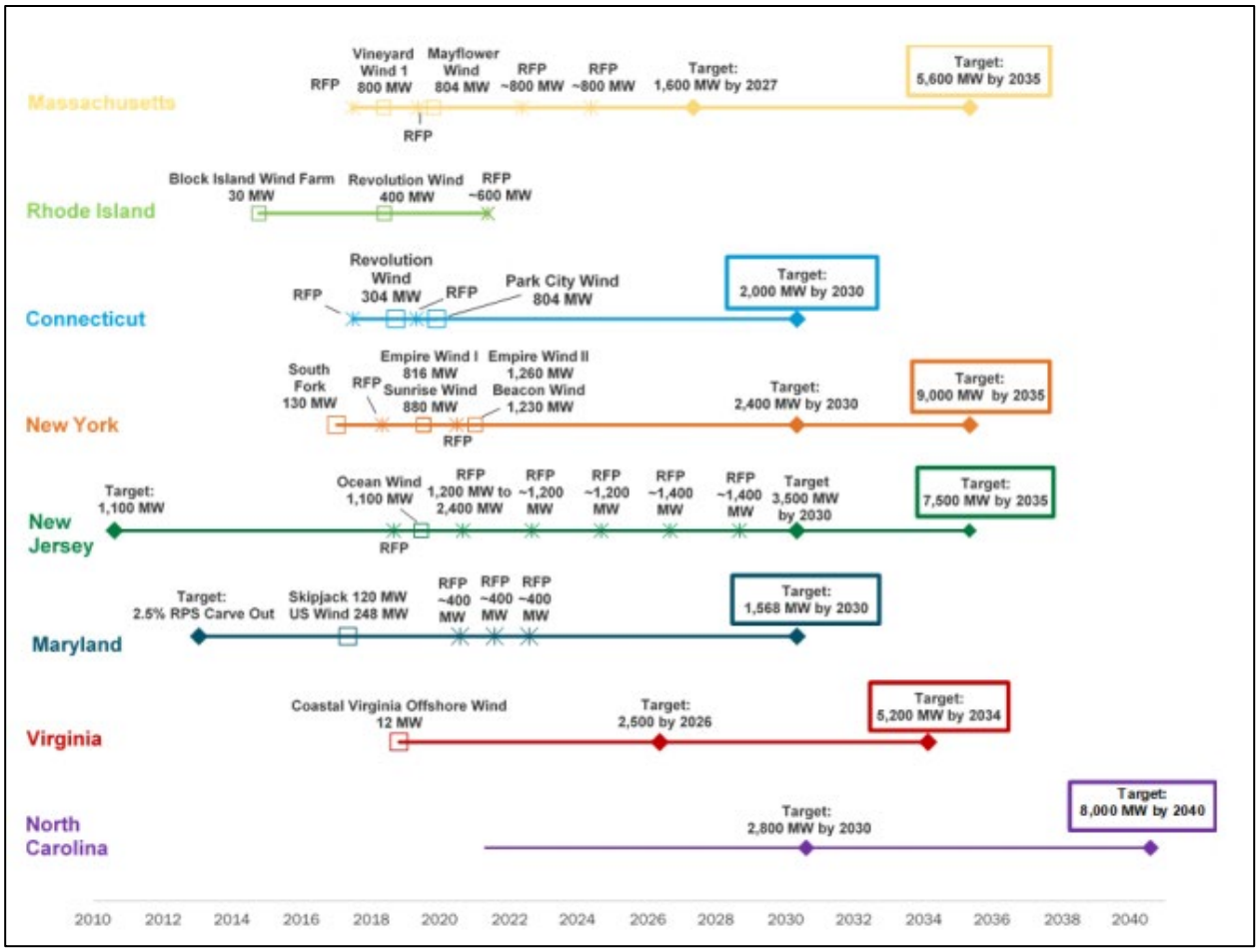
- The Bureau of Ocean Energy Management (BOEM) is responsible for offshore renewable energy development in Federal waters. As the federal agency principally responsible for issuing leases, easements and rights of way for renewable energy development, BOEM bears the primary responsibility for coordinating 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.



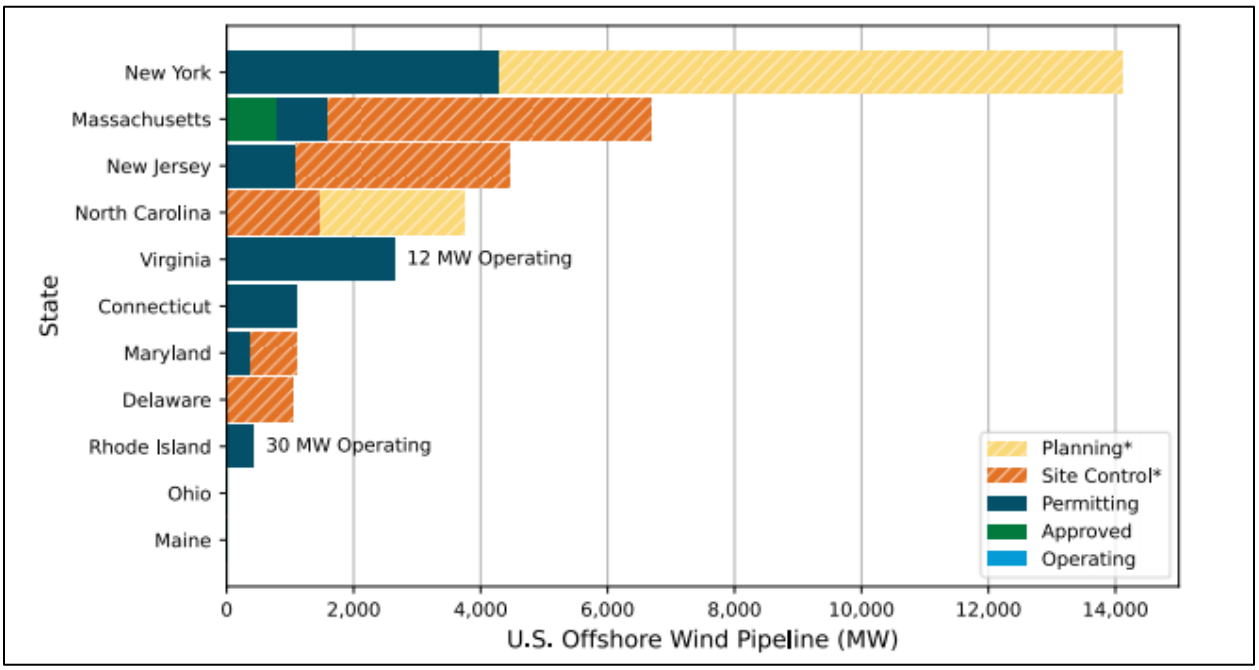
Policy of the United States and Offshore Wind Procurement Timeline by State

– 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.



Source: DOE Offshore Wind Market Report, 2021 Edition



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.

- **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

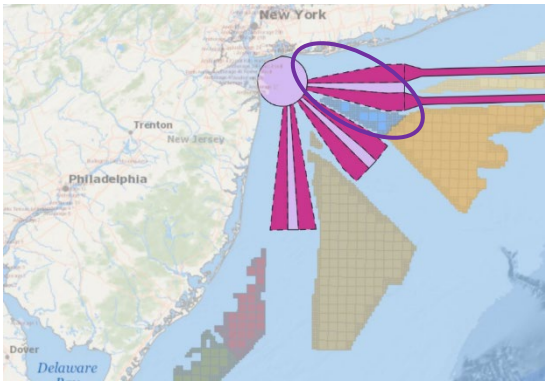


Image source: MARCO Data Portal

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.

New Jersey

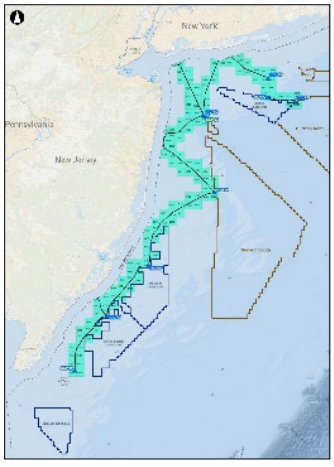
- **State Commitments:** On Nov. 19, 2019, New Jersey more than doubled its target for offshore-wind energy production under an executive order (EO No. 92) signed by Gov. Phil Murphy. The EO raises NJ's goal from 3.5 GW of offshore wind-energy generated electricity by 2030 to 7.5 GW by 2035. The New 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 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 expected 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.

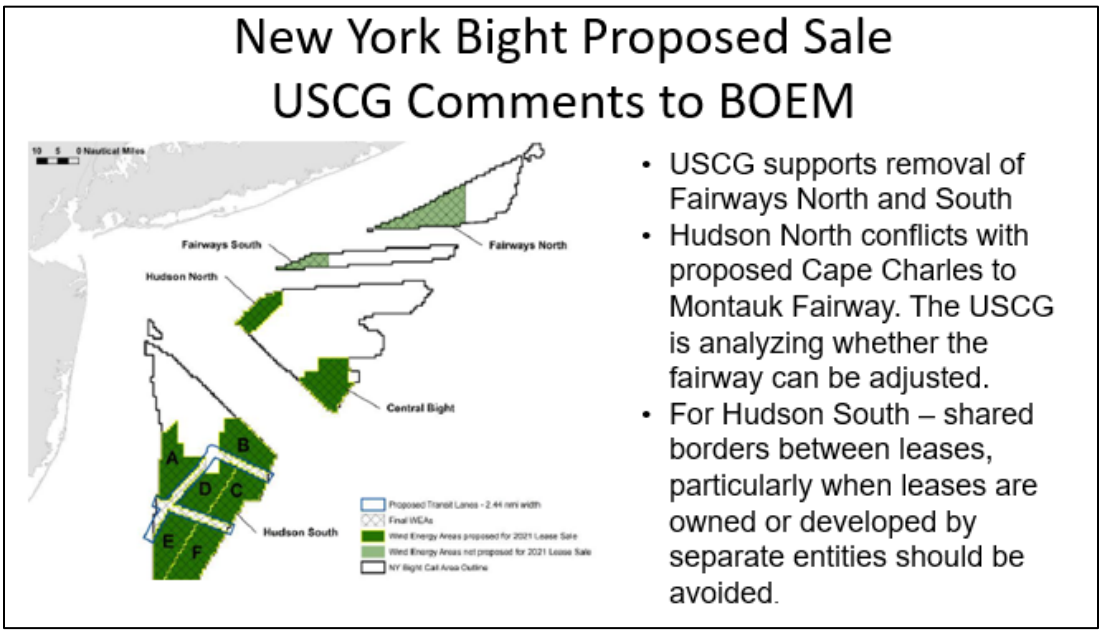
– **Atlantic Shores (OCS-A 0499, 183,353 acres offshore NJ-north):** SAP submitted Dec 2019; COP/NSRA anticipated March 2021. Pre-survey meeting held with BOEM on Feb 20, 2020. EDF Renewables and Shell New Energies are actively conducting site characterization activities and consulting with USCG regarding 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. Project is expected to be operational in 2026. Survey operations are underway for the 2021 season. Updates are available in the LNM as well as https://www.atlanticshoreswind.com/mariners/.

– **New York / New Jersey Ocean Grid Project:** On April 30, 2019, BOEM received and 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 l.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; comments due Sep 9.



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 2021 season. Updates are available in the LNM as well as https://us.orsted.com/mariners.

- **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..

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

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Marine Transportation Specialist

U.S. Coast Guard Fifth District

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Cell: 757 869-0396

USACE PHILADELPHIA DISTRICT

MAC MEETING

MAC Meeting Presentation

Michael A. Landis, Chief Operations Division
Timothy J. Kelly, P.E., Deputy Chief Operations Division
Timothy J. Rooney, Project Manger

09December2021

US Army Corps of Engineers®

U.S.ARMY

Delaware River, Philadelphia to Sea

- The current annual maintenance dredging being performed by Norfolk Dredging Company (NDC) completed New Castle (NC), Marcus Hook (MH) Ranges and is currently dredging Marcus Hook Anchorage with scheduled completion late December.
- The next annual maintenance dredging contract is consolidated with Wilmington Harbor has been awarded to NDC for $22,986,500 on 22Sept2021.
- Dredging operations are scheduled to begin at Wilmington Harbor mid-January followed by Delaware River Deepwater Point Range in late February/early March.
- An object removal contract has been cancelled due to high bids greater than 25% over the Government estimate.
- The District is going to re-advertise contract in January, removing all options and focus on the 4 rock pinnacles.
- The Hopper Dredge McFarland is scheduled to be in the shipyard for steel work. The McFarland is anticipated to be out of the shipyard in Spring of 2022.

US Army Corps of Engineers

U.S.ARMY

Delaware River, Philadelphia to Trenton

- Bucket dredging of the lower reach of the channel began 21 November to address edge shoaling at several locations on both sides of the channel from just south of the Tacony-Palmyra Bridge to just south of the Neshaminy basin. Work is scheduled to be complete by mid-January. A solicitation for hydraulic dredging of Fairless Turning Basin and the upper reach of the project is scheduled to be advertised in early April.

Wilmington Harbor

- Maintenance dredging of the Port is scheduled to begin in mid-January and be completed by late February by Norfolk Dredging under the FY21 Contract.

US Army Corps of Engineers

U.S.ARMY

NOAA - NOS - CO-OPS

Delaware River & Bay Tidal Current Survey

The Center for Operational Oceanographic Products and Services (CO-OPS), an office of the National Oceanic and Atmospheric Administration's (NOAA) National Ocean Service (NOS), is planning an update to NOAA's Tidal Current Predictions for the Delaware River & Bay to help ensure safe navigation.

Project Description: Acoustic Doppler current profilers (ADCPs) were deployed in order to sample current speed and direction every six minutes over a 45 to 90 day duration at 34 stations (see map and station list below). The ADCPs collected a vertical profile of currents throughout the water column, with the exception of one station in Mantua Creek that measured the currents across the channel at a single depth. These observations will be used to generate tidal current predictions at new stations and update the predictions at historic stations. The tidal current predictions will be available online at tidesandcurrents.noaa.gov.

Project Update: Field operations are complete. All equipment at 34 stations have been recovered from the Delaware Bay & River with two exceptions. One mount and sensor were lost due to a recreational vessel allision with the USCG ATON Buoy 40 in the upper River. The NJ State Police responded to the accident and the USCG Command Center was notified. One steel disk anchor at the mouth of the Bay (38.78129, -75.04296) still remains on the seafloor due to the rest of the mooring unexpectedly breaking free during a high wind and wave event. The mooring washed onshore and has been recovered.

Project Timeline

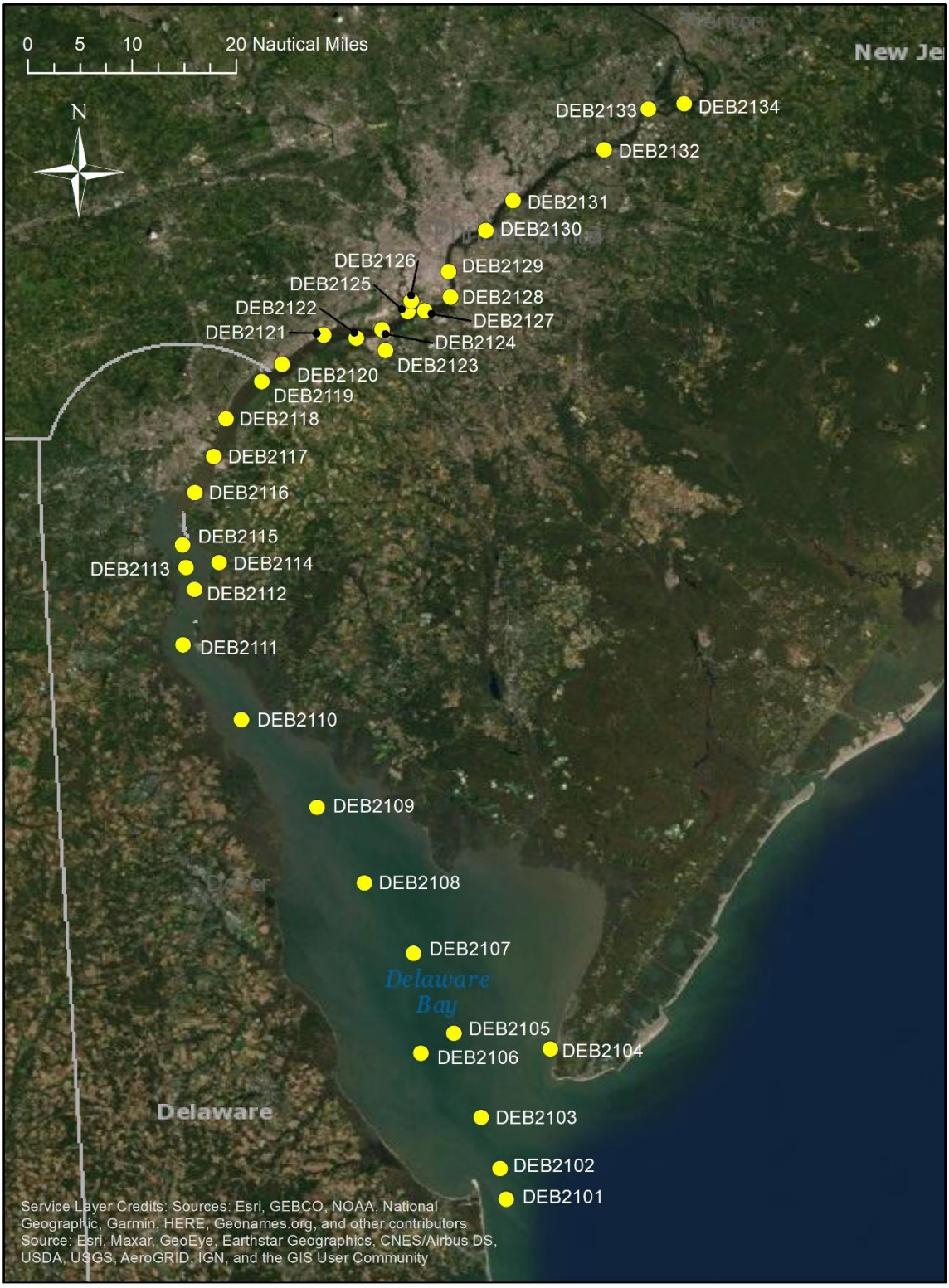
- **November 2 – 19, 2021:** Recovery of equipment and completion of current survey field operations.
- **2022:** Completion of data analysis. Tidal current predictions and raw data will be available online at tidesandcurrents.noaa.gov

Please contact the project lead, Katie Kirk (email: katie.kirk@noaa.gov) if you have any questions and/or concerns.

NOAA Delaware River & Bay Tidal Current Survey Stations 2021:

Station ID	Station Name	Latitude	Longitude
DEB2101	Delaware Bay Entrance	38.78129	-75.04296
DEB2102	Cape Henlopen, 2 mi NE of	38.81988	-75.05283
DEB2103	Cape Henlopen, 5 mi north of	38.88339	-75.08329
DEB2104	Cape May Canal, west end	38.96837	-74.97243
DEB2105	Brandywine Shoal Light, 0.5 nm west of	38.98816	-75.12649
DEB2106	Big Stone Beach Anchorage "G" buoy	38.96316	-75.17940
DEB2107	Brandywine Range at Miah Maull Range	39.08746	-75.19131
DEB2108	Cross Ledge Light	39.17473	-75.27001
DEB2109	Ben Davis Point, 3.2 nm southwest of	39.26816	-75.34543
DEB2110	Arnold Point, 1.8 nm WSW of	39.37683	-75.46623
DEB2111	Baker Range Channel	39.46939	-75.55995
DEB2112	Reedy Island Wreck	39.53754	-75.54178
DEB2113	Chesapeake and Delaware Canal Entrance	39.56438	-75.55494
DEB2114	Salem River Entrance, east of marker 11	39.57081	-75.50221
DEB2115	Pea Patch Island	39.59222	-75.56073
DEB2116	Kelly Point, 0.7nm N of	39.65680	-75.54100
DEB2117	Deepwater Point, 0.5 nm NW of	39.70129	-75.51062
DEB2118	Edgemoor	39.74747	-75.49092
DEB2119	Marcus Hook Bar (north)	39.79328	-75.43375
DEB2120	Marcus Hook	39.81435	-75.40125
DEB2121	Eddystone	39.85039	-75.33482
DEB2122	Crab Point, 0.5 mi East of	39.84675	-75.28297
DEB2123	Mantua Creek US 44 Bridge Paulsboro	39.83147	-75.23604
DEB2124	Mantua Creek Anchorage	39.85701	-75.24178
DEB2125	Schuylkill River Entrance	39.87936	-75.20071
DEB2126	Girard Point	39.89237	-75.19495
DEB2127	Eagle Point, 0.2 nm northwest of	39.88027	-75.17364
DEB2128	Gloucester Point	39.89729	-75.13220
DEB2129	Kaighn Point	39.92823	-75.13526
DEB2130	Fisher Point	39.97850	-75.07597
DEB2131	Frankford Range at Tacony Range	40.01529	-75.03226
DEB2132	Edgewater Range at Devlin Range	40.07757	-74.88664
DEB2133	Florence Bend	40.12727	-74.81581
DEB2134	Newbold Island north of, Main Channel	40.13372	-74.75887

NOAA Delaware Bay & River Tidal Current Survey Stations 2021



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

9/1/21-11/30/21
Reedy Point Air Gap – 100 %
Delaware Memorial Bridge Air Gap – 93.7% (data was turned off between 10/16 and 10/22)
Ben Franklin Air Gap – 99.2%

db0301 (Philadelphia) currents – 99.7%
db0502 (Brown Shoal LB10) currents – 79.3% (station is due for a six month equipment swap and went down 11/15- visit should occur in the next few weeks)

Other notes:

- There is a painting project occurring on the Delaware Memorial Bridge. The tarping that went up had blocked the sensor and air gap data between 10/16 and 10/22. We worked with the bridge folks at DRBA to ensure there is space in the tarping so we can still collect air gap data throughout the project. As far as we know, there is no reduction in air draft due to this tarping. (It hangs no lower than the existing center channel nav light where the air gap data is referenced to.
- Newbold, Burlington and Delaware City water level and meteorological stations underwent scheduled maintenance visits this fall.

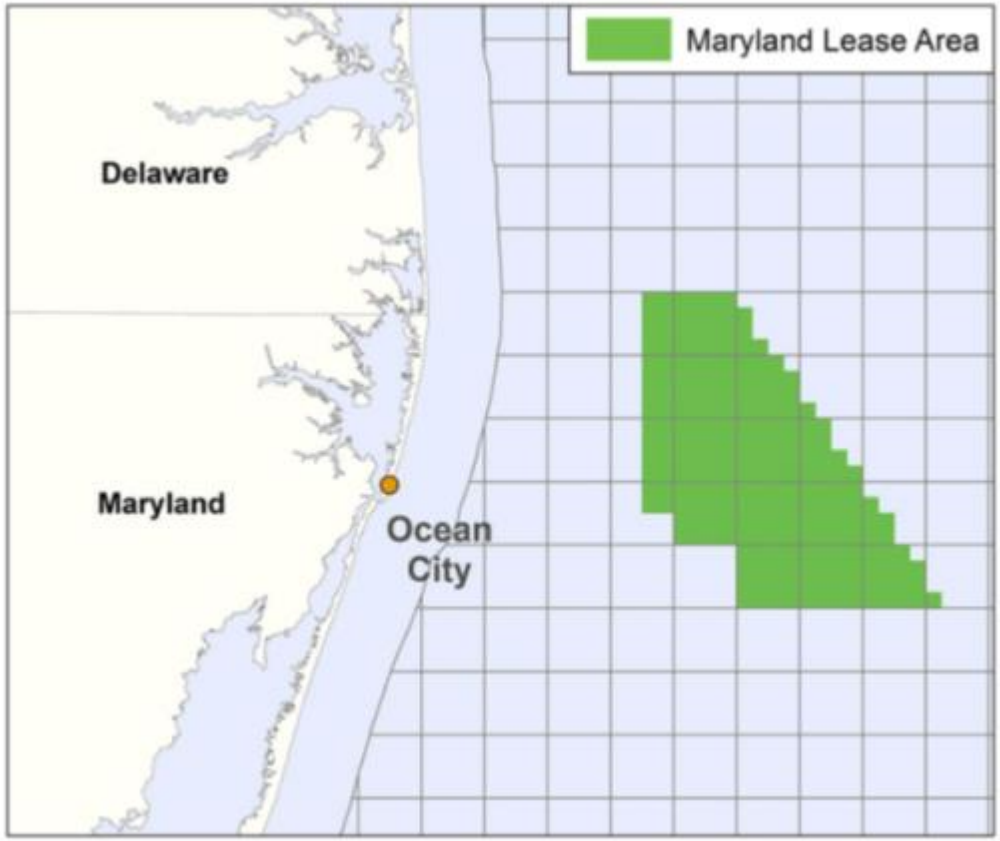
US Wind

Fueling our future, naturally.

Mariners' Advisory Committee for the Bay & River Delaware
December 9, 2021

MarWin & Future Build-Out

- 2014: US Wind won lease rights to the 80K acre MD Lease area
- 2017: US Wind won MD Offshore Renewable Energy Credit (OREC) award for ~270 MW project (MarWin)
- MarWin will be developed in the Lease area's southeast corner.
  - >17 miles off the MD coast
  - Up to 22 turbines
  - Will power 80,000 homes
- 2021: US Wind applied to the MD PSC for additional ORECs (Momentum Wind)
  - Up to 121 total turbines
  - Will power 500,000 homes



US Wind

Estimated Planning/Permitting Timeline

2021 - 2024

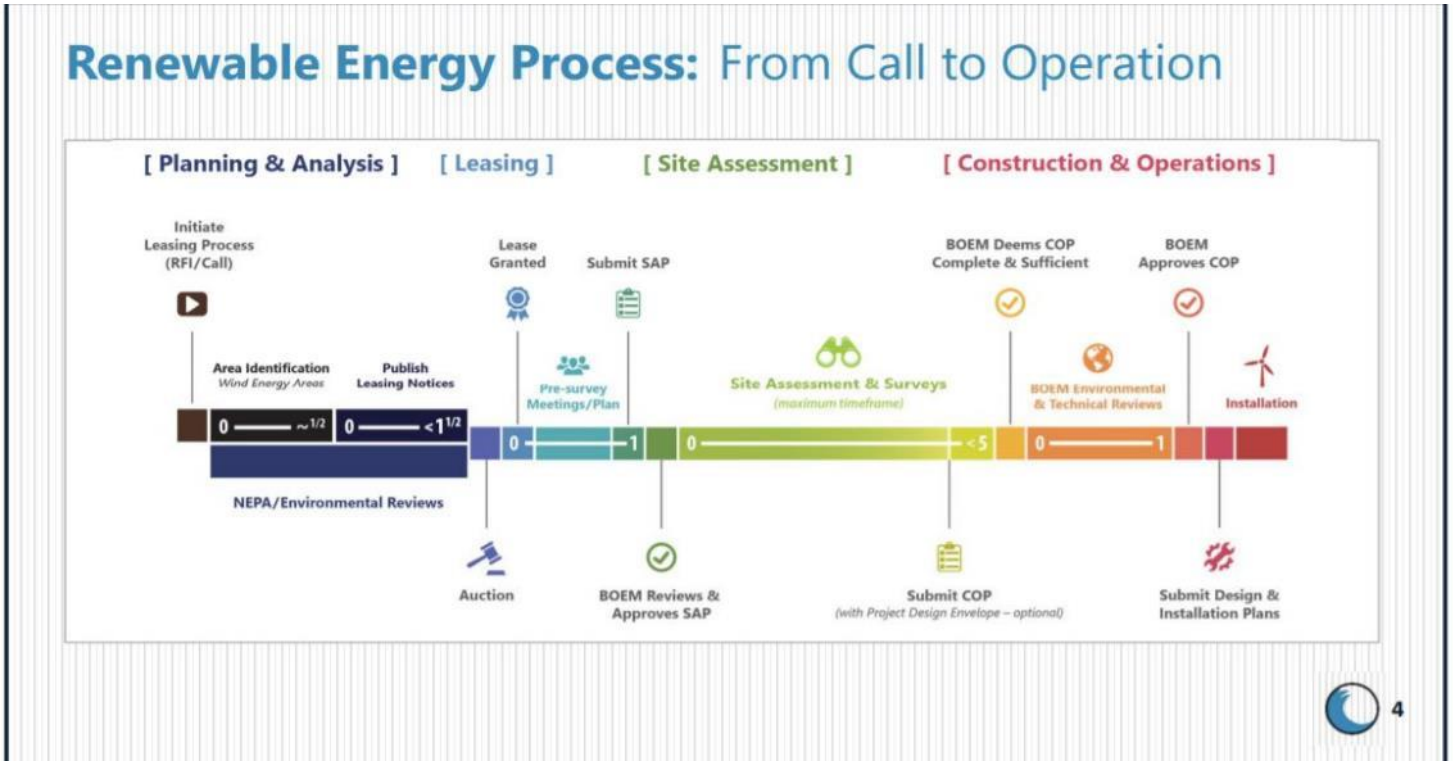
Surveys, Approvals, Design & Fabrication

2024

Offshore Construction Begins

2025 – 2050+

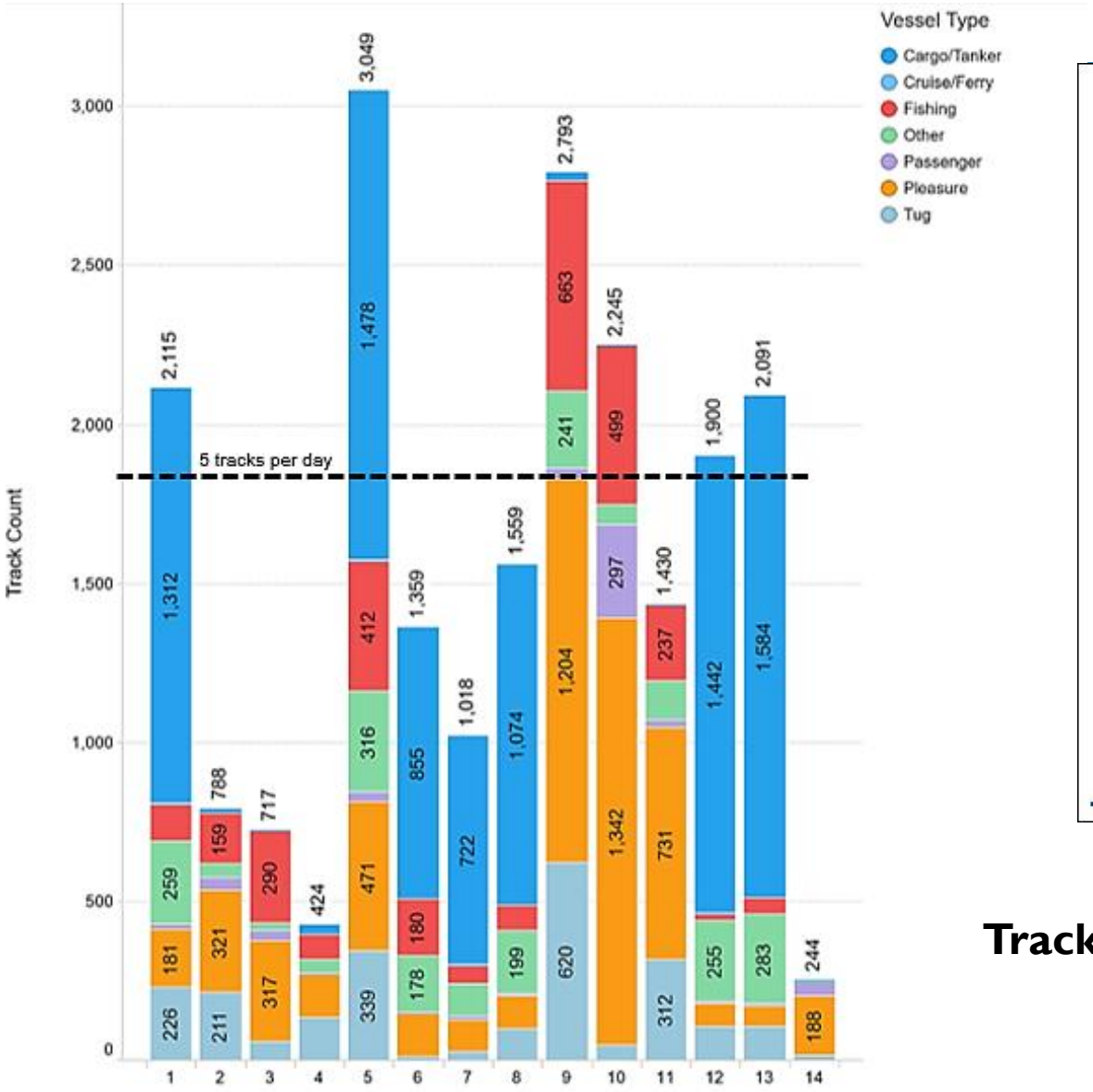
Clean Energy Generation

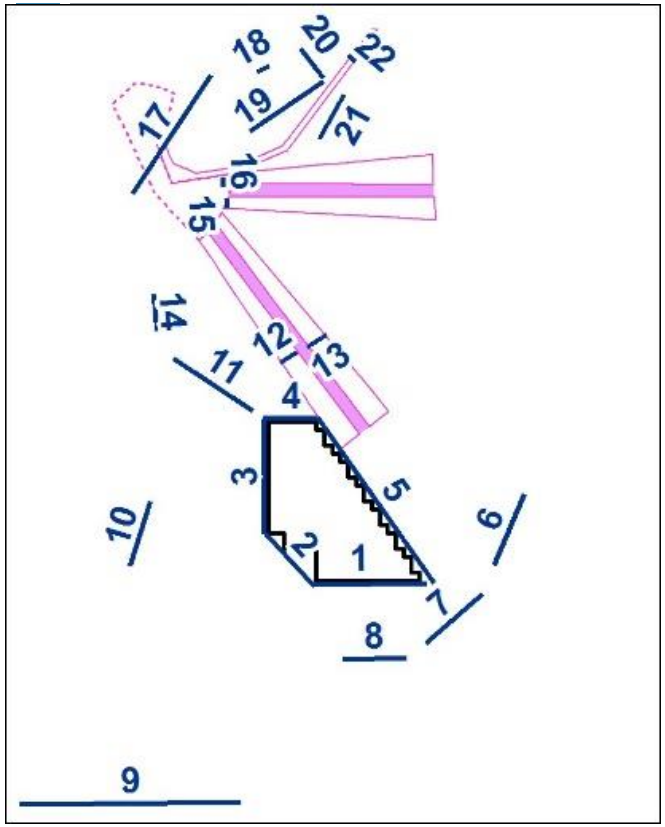


NSRA ANALYSES (NVIC 01-19 CHECKLIST)

Section/Topic	Key Topics/Findings
1. Project information/layout	• 126/119/98 structure layouts are analyzed • 4 OSS & a Met tower
2. Traffic survey	• 2019 AIS data - TSS traffic keeps to centerline of the lane • Low level of fishing activity in Lease Area • Low seasonal variation-tugs and deep drafts • Vessel/track distrib (see table) • Future traffic estimates

NSRA Vessel Type	Traffic Survey Area		In the Vicinity of the Lease Area*	
	Number of Tracks	Number of Unique Vessels	Number of Tracks	Number of Unique Vessels
Cargo/Carrier/Tanker	9,678	1,413	3,702	895
Cruise/Ferry	1,028	27	9	5
Fishing	10,370	418	1,059	193
Other	7,660	594	857	289
Passenger	3,605	77	172	27
Pleasure	11,994	2,515	1,718	762
Tug	4,982	247	771	134





Track counts based on 2019 AIS

Figure 2-23 Annual Number of Vessel Tracks for the Southern Traffic Survey Area – Transects 1 to 14

NSRA ANALYSES

Section/Topic	Key Topics/Findings
3. Above-water hazards	• Air gap (WTG 114 ft; OSS 70.9 ft; Met tower 65.6 ft) • Allision • Gear snag • Project vessel transits • Searoom for deep draft evasive maneuvers • Emergency rescue hazards (e.g., tip height) • Allision impact analysis
4. Underwater hazards	• Project cable hazards (routed around proposed anchorages)
5. Navigating close to a structure (qualitative)	• Construction phase risks and mitigations • Operational phase risks and mitigations • Proposed anchorage areas and activity
6 & 7. Tides, currents, waves, weather, ice	• Tide, mean: 2.1 ft • Current, surface max monthly mean: < 0.46 kt (N) • Wave Hs, max monthly mean: 1.3 m • Hazards to vessels under sail

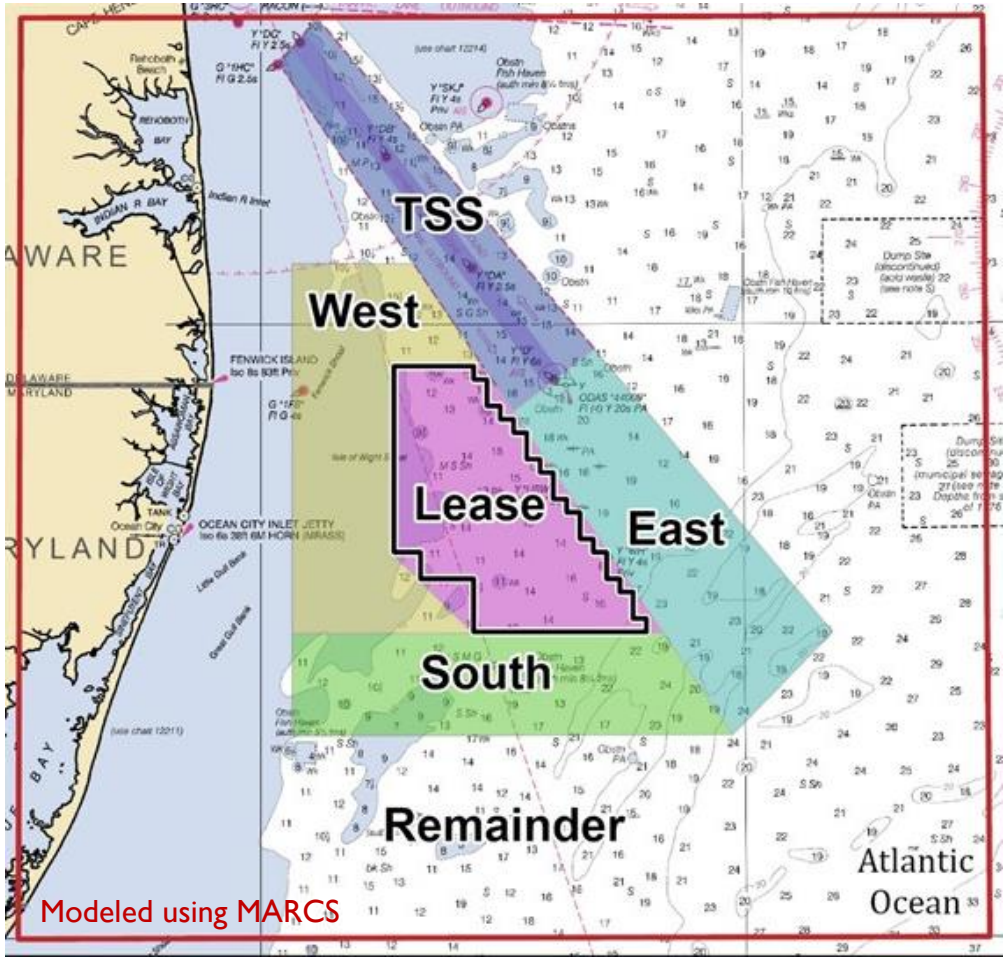
NSRA ANALYSES

Section/Topic	Key Topics/Findings
8. Risk to SAR and mitigations	• SAR capabilities • Layout considerations • Mitigations
9. Risk from visual navigation	• Calculated time of blocked view

10. Comms, radar, positioning	• Literature review summaries of effects on:
	  • Communications
	  • Marine radar
	  • HF Radar
	  • Positioning systems
	• Potential mitigation measures

11. Collision, allision, grounding risk assessment	• Consequences – qualitative; vessel damage likely at speed; significant structure damage only by deep draft at speed • Frequencies – modeling shows accident frequencies in line with vessel sizes and routes • Mitigation evaluation and cost-benefit analysis • Cumulative effects for collision/grounding were modelled

SUB-AREAS ENABLE DIGGING INTO DETAILS



FOCUS ON HIGH CONSEUENCY/ LOW FREQUENCY EVENT – DEEP DRAFT POWERED ALLISION

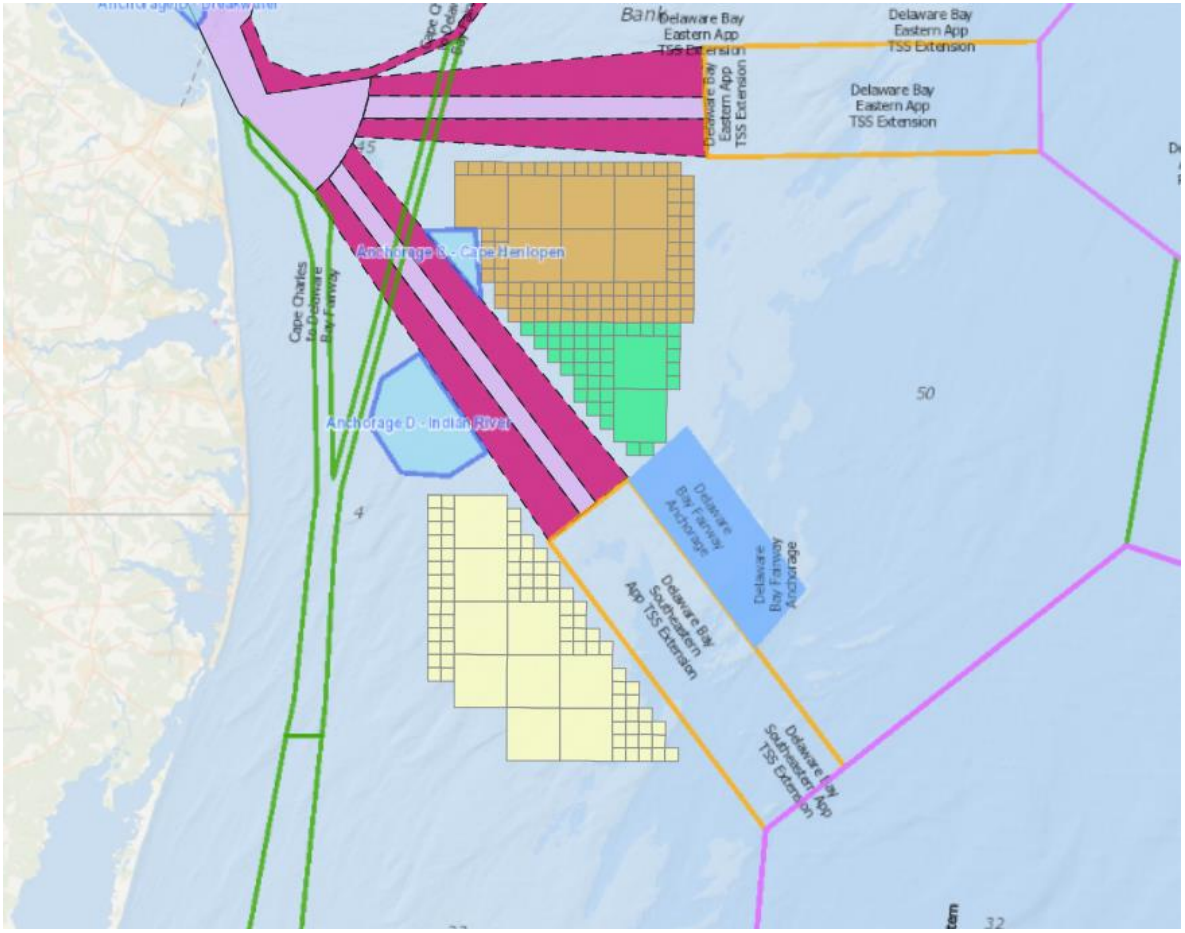
Modeled powered allision events for Cargo/Carrier and Tanker vessels

	126-Structure Layout (0.4 NM setback)	119-Structure Layout (1 NM setback)	98-Structure Layout (2 NM setback)
Cargo/Carrier and Tanker - no change to TSS	0.0023 (1 in 430 yr)	0.0016 (**1 in 610 yr**)	0.0004 (1 in 2,400 yr)

Risk benefit of 1 NM setback:

- Reduces this event of primary concern from 1 accident in 430 years to 1 in 610 years

DRAFT NJ PARS PROPOSED ROUTING MEASURES

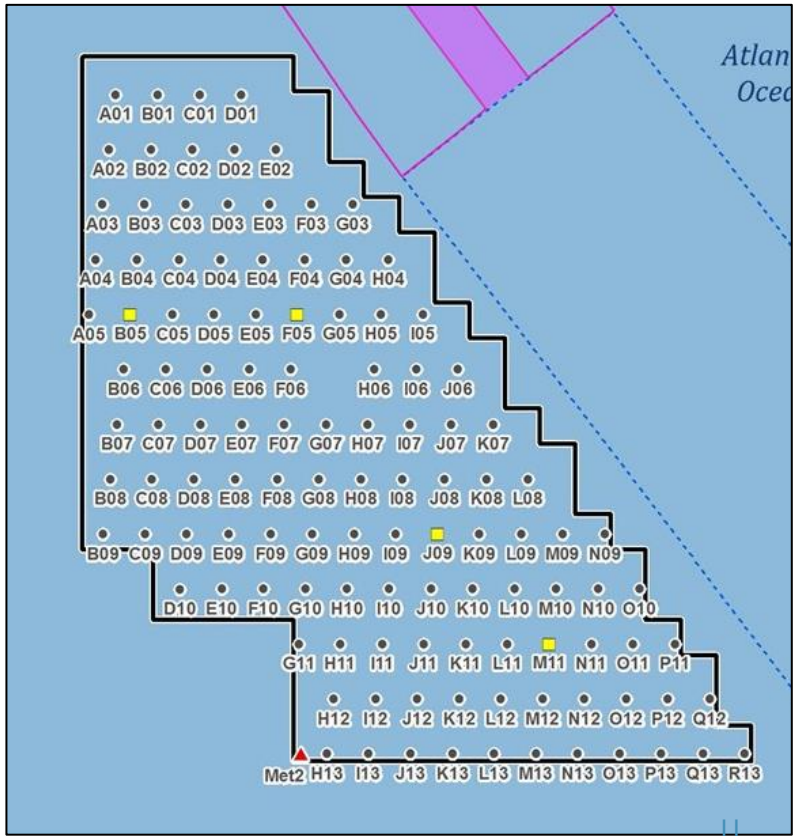


US Wind

PROPOSED EXTENDED TSS 119-STRUCTURE LAYOUT (1 NM SETBACK)

Powered Allision – Cargo/Carrier and Tanker

TSS Configuration	119-Structure Layout
Current TSS	0.0016 (1 in 610 yr)
Proposed Extended TSS*	0.00079 (1 in 1,200 yr)
Difference = Current minus Extended	0.00085 (52% decrease)



* Includes existing TSS lanes

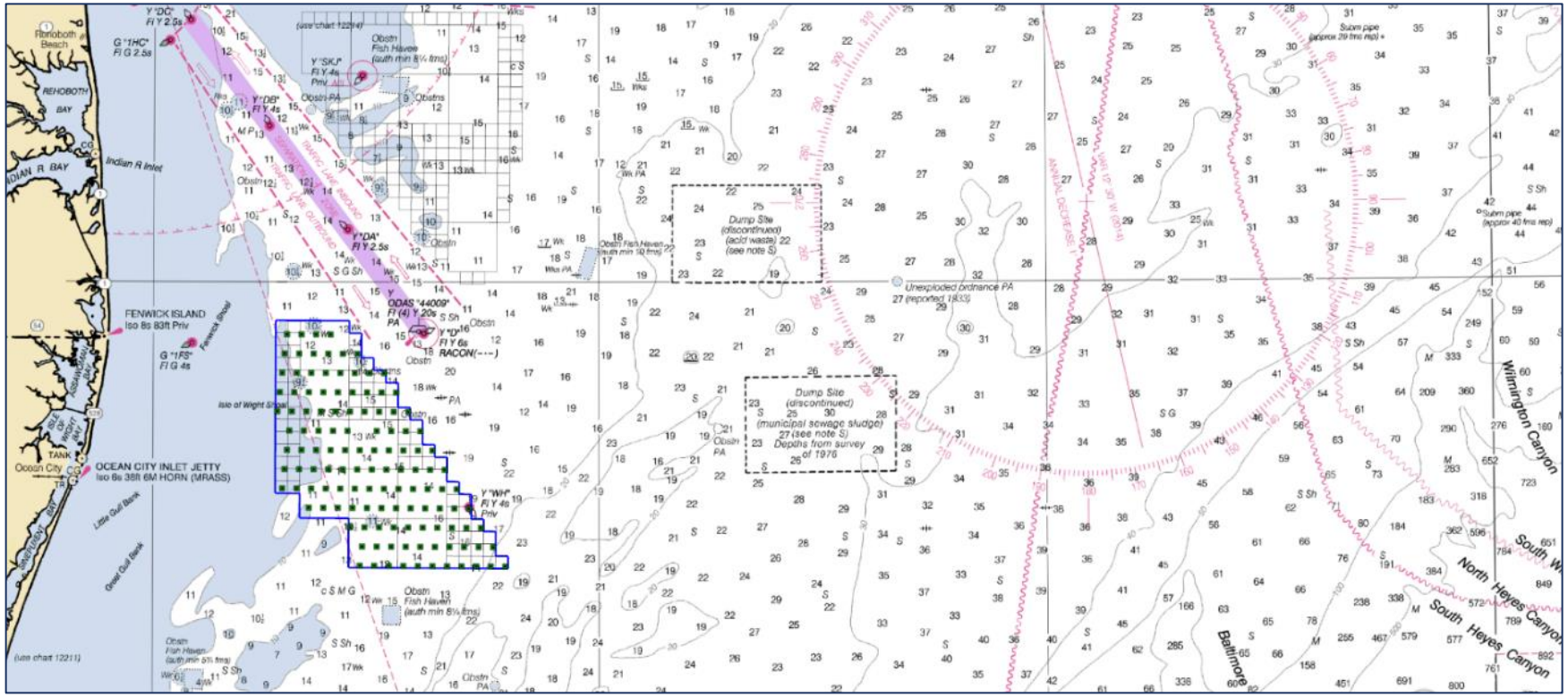
NSRA ANALYSES

Section/Topic	Key Topics/Findings

12. Emergency response	• USCG SAR mission stats & maps
	• Mission data for 10 years
	  • 8 SAR missions in the Lease Area (0.8/yr)
	  • 1,026 missions within 20 NM (37 km) of the Lease Area (103 per year)
	• USCG MEP data not yet received
	• MISLE data used to help fill gaps for environmental response data
	• Mitigation options

13 & 14. Facility characteristics and design requirements	• Summary of lighting and marking requirements • Detailed proposal discussions are being conducted separate from NSRA report • Shore-based control center
15 & 16. Operational requirements and Procedures	• Future plans for operational procedures and emergency plans

Questions?


Fenwick Island
Ocean City
Indian R Inlet
REHOBOTH BAY
OCEAN CITY INLET JETTY
Dump Site (discontinued) (municipal sewage sludge) 27 (see note S) Depths from survey of 1976
Dump Site (discontinued) (acid waste) 22 (see note S)
Unexploded ordnance PA
Wilmington Canyon
South Wilmington Canyon
North Heyes Canyon
South Heyes Canyon
Baltimore