# Port Access Route Study: Northern New York Bight

Final Report

Docket Number USCG-2020-0278

12/27/2021

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## I. <u>EXECUTIVE SUMMARY</u>

On June 29, 2020, the First Coast Guard District issued a notice of study, request for comments to announce the Northern New York Bight Port Access Route Study (NNYBPARS) in the Federal Register (FR) (<u>85 FR 38907</u>). The NNYBPARS would consider whether existing or additional routing measures are necessary to improve navigation safety due to factors such as planned or potential offshore development, current port capabilities and planned improvements, increased vessel traffic, existing and potential anchorage areas, changing vessel traffic patterns, effects of weather, or navigational difficulty. The public was afforded a 60-day comment period, and two virtual public meetings were held to receive public input. The virtual public meetings were held to receive public input.

On April 12, 2021, the First Coast Guard District issued a supplemental notice of study, request for comments in the Federal Register (<u>86 FR 18996</u>) to seek additional information and allow the public another opportunity to provide comments. The public was afforded a 30-day comment period for the supplemental notice of study, request for comments.

On July 15, 2021, the First Coast Guard District issued a notice of availability of draft report and public meeting and requested comments in the Federal Register (<u>86 FR 37339</u>) to provide comments on the draft version of the study report. The public was initially afforded a 45-day comment period for the notice of availability of draft report and public meeting. One virtual public meeting and three in-person meetings were held to receive public input. The virtual public meeting was held on July 30, 2021. The three in-person meetings were held on August 10, 2021 in Point Judith, RI, August 24, 2021 in Montauk, NY and August 25, 2021 in Stonington, CT. The comment period was re-opened on September 09, 2021 for an additional 22 days to allow for additional opportunity to receive public input.

The NNYBPARS was conducted according to the methodology outlined in United States Coast Guard (USCG) <u>Commandant Instruction 16003.2B</u>, *Marine Planning to Operate and Maintain the Marine Transportation System (MTS) and Implement National Policy*. The recommendations and results of this Port Access Route Study (PARS) are based on data gathered and analyzed, the comments received to the docket, public outreach, and consultation with other government agencies. The notices, supporting documents and all comments received are available in the public docket (<u>USCG-2020-0278</u>). The NNYBPARS evaluated several concerns that resulted in the following:

#### Recommendation:

Mariners transiting in or near leased or planned Wind Energy Areas (WEAs) in the New York Bight should use extra caution, ensure proper watch, proceed at a safe speed to avoid collision and be able to stop within a distance appropriate to the prevailing circumstances and conditions and assess all risk factors. Offshore renewable energy installations present new challenges to safe navigation, but proper voyage planning and access to relevant safety information should ensure that safety is not compromised.

#### Proposed Actions:

- A. Establish a Barnegat to Narragansett Fairway, a modified version of 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 (<u>85 FR</u> <u>37034</u>) June 29, 2020], that cuts across the New York Bight (a customary route for vessels transiting across the New York Bight between Montauk Point / Southeastern New England to points in Southern New Jersey and beyond).
- 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 the Ambrose Anchorage, to mitigate the current location conflict between the potential anchorage and ANPRM fairway. Additionally it is recommended that the Long Island fairway be expanded up to a width of 9 NM, where 9 NM of sea space unimpeded by existing routing measures, throughways, etc. exists, in accordance with Enclosure 3 of the ACPARS.
- 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). Additionally it is recommended that the NJ to NY Connector Fairway be expanded up to a width of 9 NM, where 9 NM of sea space unimpeded by existing routing measures, throughways, etc. exists, in accordance with Enclosure 3 of the ACPARS.
- D. Establish a Hudson Canyon to Ambrose Southeastern Fairway from the entrance/exit of Traffic Separation Scheme <u>Off New York: South-eastern approach</u> to a point 5 NM beyond BOEM's <u>current Area Identification location(s)</u>.
- 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 <u>current Area Identification</u> <u>location(s)</u>.
- 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.

#### Continued Actions:

A. Conducting this study, three recurring themes were raised that were determined to fall outside the scope of this study. Specifically, potential Offshore Renewable Energy Installations (OREI) impacts to Coast Guard Search and Rescue (SAR) operations, the impacts of Wind Turbine Generators on the efficacy of marine vessel radar, and potential impacts to vessels fishing in Wind Energy Areas. It should be noted that, the Coast Guard will address SAR in Bureau of Ocean Energy Management's (BOEM) specific environmental assessment process. The Wind Turbine Radar Interference Mitigation (WTRIM) Committee under the Department of Energy, and the National Academies of Science, Engineering and Medicine being funded by the BOEM are currently conducting research on the efficacy of marine vessel radars in WEAs. Finally, BOEM working with the National Marine Fisheries Service (NMFS) and affected coastal states, is developing guidance to be used in developing plans and environmental reviews for reducing or avoiding impacts from offshore wind projects on commercial and recreational fisheries and fishing.

- B. The Coast Guard will continue to serve as a National Environmental Policy Act (NEPA) cooperating agency to BOEM's environmental review of each proposed project. In that role, the Coast Guard will evaluate the navigational safety risks of each proposal on a case-by-case basis.
- C. The Coast Guard actively monitors all waterways subject to its jurisdiction to ensure navigation safety and will continue to monitor the areas of the New York Bight for evolving conditions, which may require additional studies to ensure navigational safety and minimize impacts to Coast Guard operations.

The First Coast Guard District's proposed actions<sup>1</sup> are depicted in Figure 1 and Figure 2, in large and small scales respectively.



Figure 1 NNYBPARS Proposed Actions Large Scale

<sup>&</sup>lt;sup>1</sup> The proposed actions included in the NNYBPARS Executive Summary depicted in Figures 1 and 2 and represent specific boundaries being proposed by the First Coast Guard District.



Figure 2 NNYBPARS Proposed Actions Small Scale

### II. <u>PURPOSE</u>

The First Coast Guard District conducted the NNYBPARS to examine the port approaches to New York and New Jersey and international and domestic transit areas in the study area. This study evaluates the applicability and need to establish new or modify existing vessel routing measures or shipping safety fairways (fairways) to ensure navigation safety. The Port of New York and New Jersey is an economically significant port which supports military and/or critical national defense operations and related international entry and departure transit areas that are integral to the safe and efficient and unimpeded flow of commerce to/from major international shipping lanes. The goal of the study was to determine whether fairways and/or other ship routing measures can reduce risk of collision, allision and grounding, and their impact on the environment, increase efficiency and predictability for vessel traffic, and preserve the paramount right of navigation while continuing to allow for other reasonable waterway uses.

The First Coast Guard District, while collaborating with waterways management team members from Coast Guard Sector New York, Coast Guard Sector Long Island Sound, Coast Guard Sector Southeastern New England, Coast Guard Headquarters Assistant Commandant for Prevention, Office of Navigation Systems (CG-NAV), the Coast Guard Navigation Center (NAVCEN), Coast Guard Atlantic Area and the Fifth Coast Guard District, analyzed whether it should revise existing regulations to improve navigation safety in the Northern New York Bight due to factors such as:

- a. Increased vessel traffic;
- b. Changing vessel traffic patterns;
- c. Weather conditions; or
- d. Navigational difficulty in the vicinity.

## III. <u>BACKGROUND</u>

#### A. <u>Statutory Authority and Direction</u>:

The Ports and Waterways Safety Act (PWSA) (<u>46 U.S.C. §70003</u>) authorizes the Coast Guard to designate necessary fairways and traffic separation schemes to provide safe access routes for vessels proceeding to and from United States ports. The designation of Fairways and Traffic Separation Schemes (TSS) recognizes the paramount right of navigation over all other uses in the applicable areas, subject however, to certain preexisting rights granted through leases or permits.

The PWSA requires the Coast Guard to conduct a study of port access routes before determining the need for, establishing, or adjusting fairways or TSS. These evaluations are called Port Access Route Studies. The Coast Guard must announce the study through a Federal Register notice and then coordinate with Federal and State agencies (as appropriate), and consider the views of maritime community representatives, environmental groups, and other interested stakeholders. A primary purpose of this coordination is, to the extent practicable, to reconcile the need for safe access routes with other reasonable waterway uses. Information and analysis developed through the PARS process may also be used to support other routing measures, areas to be avoided or limited access areas.

On April 5, 2017, The Coast Guard completed the ACPARS study [Docket No. USCG–2011–0351 (82 FR 16510) April 5, 2017]. The ACPARS study area included the entire Atlantic Coast (Maine to Florida) but was not focused on the port areas from the sea buoy into the port.

On March 15, 2019, CG-NAV published a Notice of Study; request for comments [Docket. No. USCG-2011-0351 (<u>84 FR 9541</u>) March 15, 2019] to announce that Coast Guard District Commanders will prioritize and schedule a PARS for specific port approaches and international transit areas associated with proposed ACPARS fairways within their areas of responsibilities (AOR).

On June 19, 2020, CG-NAV issued an ANPRM [Docket No. USCG-2019-0279 (<u>85 FR 37034</u>), June 19, 2020], supplemental to the ACPARS, to seek comments regarding the possible establishment of shipping safety fairways along the Atlantic Coast of the United States identified in the ACPARS. The proposed system of fairways are intended to ensure that traditional navigation routes are kept free from obstructions that could impact navigation safety. Within this ANPRM, CG-NAV identified two potential shipping safety fairways within the offshore approaches to the Port of New York and New Jersey; The Cape Charles to Montauk Point Fairway and the Long Island Fairway.

On June 29, 2020, the First Coast Guard District published a notice of study; request for comments [Docket No. USCG–2020–0278 (<u>85 FR 38907</u>) June 29, 2020] announcing that the Coast Guard was conducting a PARS to evaluate the adequacy of existing vessel routing measures and determine whether additional vessel routing measures are necessary for port approaches to New York and New Jersey and international and domestic transit areas in the First Coast Guard District AOR. The First Coast Guard District stated the NNYBPARS would consider whether existing or additional routing measures are necessary to improve navigation safety due to factors such as planned or potential offshore development, current port capabilities and planned improvements, increased vessel traffic, existing and potential anchorage areas, changing vessel traffic patterns, effects of weather, or navigational difficulty.

On April 1, 2021 the First Coast Guard District published a notification of inquiry; request for comments [Docket No. USCG–2020–0620 (<u>86 FR 17090</u>) April 1, 2021] regarding the potential establishment of an anchorage ground in an area referred to by mariners as the "Ambrose Anchorage," which is an offshore area located approximately 3 nautical miles south of Long Beach, New York, and just north of the Nantucket to Ambrose Traffic Lane that has been used by ships awaiting inshore anchorages or berths. The notification of inquiry sought public comments on the benefits and impacts of establishing a regulated anchorage ground, and if so, what types of requirements should be considered for Coast Guard oversight of the anchorage ground.

On April 12, 2021, the First Coast Guard District published a supplemental notice of study; request for comments [Docket No. USCG–2020–0278 (<u>86 FR 18996</u>) April 12, 2021] announcing that the First Coast Guard District sought additional information related to the notice of study that was published on June 29, 2020.

On July 15, 2021, the First Coast Guard District issued a notice of availability of draft report and public meeting and requested comments in the Federal Register (<u>86 FR 37339</u>) to provide comments on the draft version of the study report. The public was afforded a 45-day comment period for the notice of availability of draft report and public meeting.

On September 9, 2021, the First Coast Guard District issued a Notice of availability of draft report; reopening of the comment period in the Federal Register (<u>86 FR 50546</u>) on the draft version of the study report. The public was afforded a 22-day comment period to allow for additional opportunity to receive public input.

The NNYBPARS was conducted in accordance with the PWSA, employing the methodology outlined in USCG <u>Commandant Instruction 16003.2B</u>, Marine Planning to Operate and Maintain the Marine Transportation System (MTS) and Implement National Policy.

#### B. <u>ACPARS Methodology and Standards:</u>

The First Coast Guard District used the PARS process authorized by the PWSA and applicable Coast Guard policies. The planning guidelines address the "port approaches and traffic separation schemes" category which is the category most applicable to the Northern New York Bight as it is applicable to large, deep-draft oceangoing vessel traffic transiting to or from major coastal ports.

The ACPARS Methodology and Standards are to:

- 1. Determine present and potential traffic density, if existing vessel routing measures are adequate or require modifications.
- 2. Define and justify any need for new vessel routing measures.
- 3. Determine the type of new vessel routing measures.
- 4. Determine if the usage of the vessel routing measures must be mandatory for specific classes of vessels.
- C. <u>Study Area:</u>

The study area, as depicted in Figure 3, is described as the Northern New York Bight; an area bounded by a line connecting the following geographic positions:

1. 40° 18′ 00.0" N, 074° 00′ 00.0" W;

- 2. 38° 57′ 00.0" N, 071° 16′ 00.0" W;
- 3. 39° 47 '24.0" N, 069° 40' 01.2" W;
- 4. 41° 07' 12.0" N, 071° 34' 33.6" W; and
- 5. 41° 04′ 15.6" N, 071° 51′ 25.2" W.

Thence along the coastline back to the origin. All geographic points are based on North American Datum of 1983 (NAD 83). The study area (see Appendix A) includes the approaches to the Port of New York and New Jersey, the 3rd largest commercial port in the United States.



Figure 3 NNYBPARS Study Area

#### D. <u>Previous Analyses:</u>

The precautionary area and TSS(s) within this study area were first established in May 1967, and were adopted by the International Maritime Organization (IMO). In 1987 the Coast Guard conducted a PARS prior to establishing two parallel shipping safety fairways off New York entitled "Ambrose to Nantucket Safety Fairway" and "Nantucket to Ambrose Safety Fairway" and published the final results in the Federal Register (52 FR 33589; September 4, 1987). In 2016, the Coast Guard published a notice of its ACPARS in the Federal Register (81 FR 13307; March

14, 2016) and announced the study report as final in the Federal Register (<u>82 FR 16510</u>; April 5, 2017).

In addition to previous PARS conducted, the NNYBPARS study area has undergone several analyses for other purposes.

1. Waterways Analysis Management System (WAMS):

WAMS Reviews are periodically conducted by the Coast Guard to determine the need for modifications to the Aids to Navigation (AtoN) system in United States (U.S.) waterways. The First Coast Guard District examined all past WAMS Reviews of the Northern New York Bight Study Area to determine if there were any past requests for or references to a need for additional traffic routing measures. Since 1985, three WAMS Reviews have been completed to assess the effectiveness of the Federal Aids to Navigation system in the waters of the Northern New York Bight to include access to the Port of New York and New Jersey. There were no requests for or references to a need for additional traffic routing measures in any of the subject WAMS.

2. ACPARS:

The ACPARS addressed potential navigational safety risks associated with developing offshore renewable energy installations. The ACPARS identified customary navigation routes along the Atlantic coast from Maine to Florida with emphasis on waters seaward of existing port approaches that combine the width necessary for navigation and additional buffer areas.<sup>2</sup> It identified deep draft routes to be given priority consideration to navigation over other uses, consistent with the United Nations Convention of the Law of the Sea and alongshore towing routes.<sup>3</sup> The ACPARS clarified necessary sea space for vessels to maneuver in compliance with the International Regulations for Preventing Collisions at Sea that led to the development of the marine planning guidelines. The ACPARS did not consider detailed navigation routes to or from ports or international routes destined for the United States that are integral to a safe and efficient transportation infrastructure.

The Coast Guard is pursuing a rulemaking effort to establish shipping safety fairways<sup>4</sup> as recommended in the ACPARS. The recommendations provided by this study will be considered during the proposed rulemaking.

<sup>&</sup>lt;sup>2</sup> Navigation Safety Corridor is a term used in the ACPARS final report for areas required by vessels to safely transit along a customary navigation route under all situations. A navigation safety corridor is not a routing measure and should not be confused with fairways, two-way routes, or traffic separation schemes. The ACPARS recommended that the identified navigation safety corridors be considered for designation as fairways or other routing measures.

<sup>&</sup>lt;sup>3</sup> United States Coast Guard, "Atlantic Coast Port Access Route Study: Final Report," July 8, 2015, Appendix VII, "Identification of Alongshore Towing Vessel and Major Deep Draft Routes.

<sup>&</sup>lt;sup>4</sup> Fairway or shipping safety fairway is a lane or corridor in which no artificial island or fixed structure, whether temporary or permanent, will be permitted. Temporary underwater obstacles may be permitted under certain

#### E. <u>Definition of Terms:</u>

To help readers understand certain terms used in this PARS, definitions are listed in Appendix B.

#### F. <u>Abbreviations and Acronyms:</u>

See Appendix C for a list of abbreviations and acronyms used in this PARS.

#### G. <u>Outreach Process:</u>

- A "Notice of study; request for comments" (USCG-2020-0278) was published in the Federal Register (<u>85 FR 38907</u>) on June 29, 2020. A copy of this Federal Register notice is included as Enclosure 2.
  - On June 30, 2020, Coast Guard Sector Southeastern New England distributed the First Coast Guard District's Marine Safety Information Bulletin (MSIB) 20-062 to announce the study. This bulletin was posted to <u>Coast Guard Sector Southeastern New England's</u> <u>homeport website</u> and distributed via e-mail to 815 subscribers. A copy of the bulletin is included as Enclosure 3 to this study.
  - On July 1, 2020, Coast Guard Sector New York distributed the First Coast Guard District's MSIB 20-062 to announce the study. This bulletin was posted to <u>Coast Guard Sector New</u> <u>York's homeport website</u> and distributed via e-mail to 270 subscribers. A copy of the bulletin is included as Enclosure 3 to this study.
  - On July 3, 2020, Coast Guard Sector Long Island Sound distributed the First Coast Guard District's MSIB 20-062 to announce the study. This bulletin posted to <u>Coast Guard Sector</u> <u>Long Island Sound's homeport website</u> and was distributed via e-mail to 275 subscribers.
  - Notice of the NNYBPARS was published each week for nine consecutive weeks in the <u>First Coast Guard District Local Notice to Mariners</u> (LNM) (more than 5,000 subscribers) from LNM 26/20 to LNM 35/20.
  - The First Coast Guard District published a Facebook post, and Twitter post on July 1, 2020 to further disseminate announcement of the study.
- Coast Guard representatives also discussed the NNYBPARS and solicited comments at several public forums:

conditions described for specific areas. Aids to navigation approved by the Coast Guard may be established in a fairway. See 33 Code of Federal Regulations (CFR) 166.105 (a).

- The July 1, 2020, New York and New Jersey Harbor Operations Executive Steering Committee Meeting.
- The July 15, 2020 meeting of the Offshore Wind Permitting Subgroup.
- The July 17, 2020 meeting of the Fisheries Technical Working Group sponsored by the New York State Energy Research and Development Authority (NYSERDA).
- The July 29, 2020, Long Island Sound Harbor Safety Forum, sponsored by Coast Guard Sector Long Island Sound.
- The August 11, 2020 meeting of the Maritime Technical Working Group sponsored by NYSERDA.
- The September 16, 2020 meeting of the Ocean Offshore Wind Working Group sponsored by the Mid-Atlantic Regional Council.
- The October 29, 2020 public meeting for the Delaware Bay PARS, several comments received on Northern New York Bight approaches including near shore safety fairways.
- The November 16, 2020, Long Island Sound Harbor Safety Forum, sponsored by Coast Guard Sector Long Island Sound.
- The November 4, 2020, New York and New Jersey Harbor Operations Executive Steering Committee Meeting.
- The January 20, 2021, New York and New Jersey Harbor Operations Full Committee Meeting.
- The February 3, 2021, New York and New Jersey Harbor Operations Executive Steering Committee Meeting.
- The April 7, 2021, New York and New Jersey Harbor Operations Full Committee Meeting.
- The April 28 and 29, 2021, Long Island Sound Harbor Safety Forum, sponsored by Coast Guard Sector Long Island Sound.
- The June 2, 2021 New York and New Jersey Harbor Operations Executive Steering Committee Meeting.
- The June 4, 2021 U.S. Coast Guard & American Waterways Operators (AWO) Safety Partnership Atlantic Regional Quality Steering Committee Meeting.
- The June 14, 2021 Northeast and Mid-Atlantic Port Access Route Studies Presentation for the States of Virginia, Maryland, Delaware, New Jersey & New York.

- In conducting this PARS, the First Coast Guard District communicated and coordinated with appropriate federal and state agencies, non-government organizations, and other public stakeholders listed in Appendix D. Additionally, the First Coast Guard District received input from the National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS).
- A "supplemental notice of study; request for comments" (USCG-2020-0278) was published in the Federal Register (<u>86 FR 18996</u>) on April 12, 2021. A copy of this Federal Register notice is included as Enclosure 4.
  - Members of the public that originally provided comment (and included their contact details) to the First Coast Guard District's Federal Register notice of study, request for comments (<u>85 FR 38907</u>) of June 29, 2020 were notified via email of the First Coast Guard District's issuance of the supplemental notice of study, request for comments (<u>86 FR 18996</u>) of April 12, 2021.
  - On April 19, 2021, Coast Guard Sector New York distributed the First Coast Guard District's MSIB 21-003 to announce the supplemental notice of study, request for comments. This bulletin was posted to <u>Coast Guard Sector New York's homeport website</u> and distributed via e-mail to 270 subscribers. A copy of the bulletin is included as Enclosure 5 to this study.
  - On April 20, 2021, Coast Guard Sector Long Island Sound distributed the First Coast Guard District's MSIB 21-003 to announce the supplemental notice of study, request for comments. This bulletin was posted to <u>Coast Guard Sector Long Island Sound's homeport</u> <u>website</u> and distributed via e-mail to 275 subscribers.
  - The First Coast Guard District published a Facebook post, and Twitter post on April 15, 2021 to seek additional information related to the NNYBPARS.
- A "Notice of availability of draft report and public meeting; request for comments" (USCG-2020-0278) was published in the Federal Register (<u>86 FR 37339</u>) on July 15, 2021. A copy of this Federal Register notice is included in Enclosure 6.
  - On July 19, 2021, Coast Guard Sector New York distributed the First Coast Guard District's MSIB 21-005 to announce notice of availability of the draft report, public meetings, and request for comments. This bulletin was posted to <u>Coast Guard Sector New</u> <u>York's homeport website</u> and distributed via e-mail to 270 subscribers. A copy of the bulletin is included as Enclosure 7 to this study.
  - On July 19, 2021, Coast Guard Sector Long Island Sound distributed the First Coast Guard District's MSIB 21-005 to announce notice of availability of the draft report, public meetings, and request for comments. This bulletin was posted to <u>Coast Guard Sector Long</u> <u>Island Sound's homeport website</u> and distributed via e-mail to 275 subscribers.

- On August 2, 2021, Coast Guard Sector New York distributed the First Coast Guard District's MSIB 21-006 to announce the in-person public meetings in the states of Rhode Island, Connecticut, & New York. This bulletin was posted to <u>Coast Guard Sector New</u> <u>York's homeport website</u> and distributed via e-mail to 270 subscribers. A copy of the bulletin is included as Enclosure 8 to this study.
- On August 2, 2021, Coast Guard Sector Long Island Sound distributed the First Coast Guard District's MSIB 21-006 to announce the in-person public meetings in the states of Rhode Island, Connecticut, & New York. This bulletin was posted to <u>Coast Guard Sector</u> <u>Long Island Sound's homeport website</u> and distributed via e-mail to 275 subscribers.
- On August 2, 2021, Coast Guard Sector Southeastern New England distributed the First Coast Guard District's MSIB 21-006 to announce the in-person public meetings in the states of Rhode Island, Connecticut, & New York. This bulletin was posted to <u>Coast Guard</u> <u>Sector Southeastern New England's homeport website</u> and distributed via e-mail to 815 subscribers.
- A "Notice of availability of draft report; reopening of the comment period was published in the Federal Register (<u>86 FR 50546</u>) on September 9, 2021. A copy of this Federal Register notice is included in Enclosure 6.
  - On September 10, 2021, Coast Guard Sector New York distributed the First Coast Guard District's MSIB 21-007 to announce the notice of availability of draft report; reopening of the comment period. This bulletin was posted to <u>Coast Guard Sector New York's homeport</u> <u>website</u> and distributed via e-mail to 270 subscribers. A copy of the bulletin is included as Enclosure 9 to this study.
  - On September 10, 2021, Coast Guard Sector Long Island Sound distributed the First Coast Guard District's MSIB 21-007 to announce the notice of availability of draft report; reopening of the comment period. This bulletin was posted to <u>Coast Guard Sector Long</u> <u>Island Sound's homeport website</u> and distributed via e-mail to 275 subscribers.
- Comments and Public Meetings:
  - The Federal Register notice (<u>85 FR 38907</u>) of June 29, 2020 (see Enclosure 2) provided for a 60-day period to receive written public comments. Twenty-five (23 written & 2 oral) unique comments were posted to the public docket.
  - The First Coast Guard District also held two virtual public meetings to receive public comments directly. Recordings of these public meetings are included in the public docket at the link above. The meetings were held:
    - o July 30, 2020 at 9 a.m. EST via webinar and teleconference.
    - <u>August 11, 2020</u> at 6 p.m. EST via webinar and teleconference.

- The Federal Register supplemental notice (<u>86 FR 18996</u>) of April 12, 2021 provided for a 30-day period to receive written public comments. Five unique comments were posted to the public docket.
- The Federal Register notice (<u>86 FR 37339</u>) of July 15, 2021 provided for a 45-day period to receive written public comments. The Federal Register notice (<u>86 FR 50546</u>) of September 9, 2021 subsequently reopened the comment period for an additional 22 days to receive additional written public comments (both Federal Register notices are included in Enclosure 6). Twenty unique comments were posted to the public docket in response to these notices.
- The First Coast Guard District also held one virtual & three in-person public meetings to receive public comments directly. Recordings of these public meetings are included in the public docket at the link above. The meetings were held:
  - July 30, 2021 at 9 a.m. EST via <u>webinar</u> and <u>teleconference</u>.
  - <u>August 10, 2021</u> at 4 p.m. EST at the U.S. Coast Guard Station Point Judith Boathouse, Narraganset, RI.
  - <u>August 24, 2021</u> at 4 p.m. EST at the Montauk Fire District, Montauk, NY.
  - <u>August 25, 2021</u> at 4 p.m. EST at the Portuguese Holy Ghost Society, Stonington, CT.

# IV. <u>THE STUDY</u>

#### A. Existing Regulations & Pilotage:

Existing regulations that apply to the Northern New York Bight study area include:

- U.S. Army Corps of Engineers (USACE) regulations regarding obstructions and hazards to navigation pursuant to The Rivers and Harbors Appropriation Act of 1899, <u>33 United States</u> <u>Code (U.S.C.) §403</u>.
- General Coast Guard Captain of the Port (COTP) authority contained in <u>33 Code of Federal</u> <u>Regulations (CFR) §1.01</u>.
- Vessel Bridge-To-Bridge Radiotelephone Regulations contained in <u>33 CFR §26</u>.
- U.S. Aids to Navigation System contained in <u>33 CFR subchapter C</u>.
- The Navigation Rules, International and Inland ("Rules of the Road") contained in <u>33 CFR</u> subchapters D and E, respectively.

- Vessel Operating Regulations contained in <u>33 CFR subchapter F</u>.
- Regulations governing the conduct of regattas and marine parades contained in <u>33 CFR</u> <u>subchapter G</u>.
- General, explosives, naval, and special anchorages have been prescribed for the Port of New York in <u>33 CFR §110.1, §110.60, and §110.155</u>.
- A mandatory vessel traffic service has been established in the navigable waters of Lower New York Harbor. Vessel Traffic Services (VTS), as defined by <u>33 CFR §160.3</u>, improve the safety and efficiency of vessel traffic and protect the environment. The VTS has the capability to interact with marine traffic and respond to traffic situations developing in the VTS area. The New York Traffic Lanes do not constitute part of the VTS New York reporting area, which begins at the entrance to Ambrose, Sandy Hook and Swash Channels. Although regulatory jurisdiction is limited to the navigable waters of the United States, certain vessels will be encouraged or may be required, as a condition of port entry, to report beyond this area to facilitate traffic management within the VTS area. Information on the vessel traffic service, New York, can be found in <u>33 CFR §161.1 through 33 CFR §161.25</u>
- Regulated Navigation Area (RNA) contained in <u>33 CFR §165.100</u>. These regulations govern towing vessels engaged in towing tank barges carrying petroleum oil in bulk.
- Off New York Shipping safety fairways contained in <u>33 CFR §166.500</u> have been established connecting the eastern approach Off Ambrose of Traffic Separation Scheme Off New York and eastern approach Off Nantucket of Traffic Separation Scheme Off New York.
- Traffic Separation Scheme Off New York has been established in the approaches to New York Harbor from sea. The Traffic Separation Scheme Off New York is contained in <u>33 CFR §167.1</u> <u>through 33 CFR §167.155</u>. Three sets of traffic lanes direct traffic in and out of the Precautionary Area.
- Precautionary Area contained in <u>33 CFR §167.151</u> Off New York. A circular precautionary area with radius 7 miles is established centered upon 40°27.50'N, 73°49.90'W.
- The Approaches to New York, Atlantic Ocean Safety and Security Zone within the New York Marine Inspection Zone and Captain of the Port Zone contained in <u>33 CFR §166.169 (a) (12)</u> (i-iii).
- A designated pilot boarding area is located southeast of the Ambrose Channel Lighted Whistle Buoy A (Light List Number (LLNR) 34785).
- 50 CFR §244.105; Endangered North Atlantic right whales may occur within 30 miles of the New York and New Jersey coasts in the approaches to New York Harbor (peak season: November through April). All vessels 65 feet or greater in length overall (LOA) and subject to the jurisdiction of the United States are restricted to speeds of 10 knots or less in a Seasonal

Management Area existing around the Ports of New York/New Jersey between November 1 and April 30. The area is defined as the waters within a 20-nm radius of 40°29'42.2"N., 73°55'57.6"W.

Pilotage, New York Harbor and approaches; foreign vessels and U.S. vessels under register entering or departing from the Port of New York and New Jersey must employ a pilot licensed by the State of New York or New Jersey. Enrolled vessels must have on board or employ a pilot licensed by the federal government. State and federal pilotage service for vessels entering the Port of New York and New Jersey through Lower Bay and intra-harbor movements is available from the United New York New Jersey Sandy Hook Pilot Association, 201 Edgewater Street, Staten Island, NY 10305, telephone 718–448–3900, Facsimile (FAX) 718–876–8055, e-mail: pilotoffice@sandyhookpilots.com.

The list of federal regulations above is not all-inclusive but cites those regulations most significant to the issues considered in the Northern New York Bight. There are multiple other federal regulations designed to ensure navigation safety that may apply to one or more segments of the maritime community, i.e., passenger-carrying vessels (ferries), excursion vessels. These regulations, generally contained in titles 33 and 46 of the CFR, may require carriage of certain navigation safety equipment such as radar, Automatic Identification System (AIS), Very High Frequency (VHF) communications; may require credentials of crew such as master, mate, engineer; and may prescribe certain vessel construction and operating standards.

#### B. Assessing Existing and Future Waterway Uses:

The waterways of the Approaches to New York and New Jersey are used for both recreational and commercial purposes year-round. Table 1, a summary extract from Appendix F (unless where noted by \*, where Vessel Monitoring Systems (VMS) data is utilized as per Appendix  $E^5$ ), contains unique vessel counts by type that transited the study area in 2017, 2018 and 2019.

Vessel Type	2017	2018	2019	Average
Fishing	*627	*595	613	*612
Other	277	323	333	311
Pleasure Craft / Sailing	1926	2681	2986	2531
Cargo	1013	1226	1161	1133
Tanker	1259	727	814	933
Tug Tow	545	232	198	325
Passenger	98	110	119	109
Not Available	191	257	223	224
Military	22	29	33	28
Totals	*5958	*6180	6480	*6206

Table 1 Unique Vessel Count by Type

<sup>&</sup>lt;sup>5</sup> AIS & VMS data sources are capable of capturing the presence of unique fishing vessels. Not all Fishing Vessels possess AIS transceivers, thus the higher vessel quantity is used between AIS & VMS data where appropriate.

On average over the course of 2017 to 2019, 1133 Cargo ships, 933 Tankers, and 325 Tug and Tow vessels transited the study area, demonstrating the economic significance of the waterways to the Port of New York and New Jersey, the third largest container port in North America, and the largest port on the East Coast. The Port includes numerous dry and liquid bulk terminals, general cargo and barging facilities, cruise terminals, ferry landings, recreational users, and vessel support facilities. The Port Authority NY NJ 2019 Annual Report<sup>6</sup> communicates that in 2019 the Port handled cargo volumes of more than 7.5 million Twenty Foot Equivalent Units (TEU) and conducted nearly 7,000 rail lifts. The Port of New York & New Jersey 2019 Trade Statistics publication<sup>7</sup> communicates that in 2019, the port handled over 86 million metric tons of cargo worth over \$205 billion dollars and 570,000 automotive vehicles passed through the port. The port is expected to continue to grow significantly over the next 30 years, as laid out in the Port of NY NJ Port Master Plan 2050<sup>8</sup>.

In addition to being frequently transited by commercial shipping traffic, the study area experiences significant use by multiple other vessel types. Based on AIS data collected from 2017 to 2019, the Northern New York Bight Study Area hosts more Pleasure Craft / Sailing vessels than any other type. Figure 4 shows the predominance of the number of Pleasure Craft / Sailing vessels in the study area. It should also be noted that the study area experiences significant concentrations of fishing vessels, with an average of 612 unique vessels transiting the study area between 2017 and 2019 (VMS counts used in 2017 & 2018 and AIS counts used in 2019).



Figure 4 AIS Data: Unique Vessel Count by Type

The following resources were evaluated to determine current and future vessel trends:

<sup>&</sup>lt;sup>6</sup> Port Authority NY NJ 2019 Annual Report

<sup>&</sup>lt;sup>7</sup> Port of New York & New Jersey 2019 Trade Statistics

<sup>&</sup>lt;sup>8</sup> Port NY NJ Master Plan 2050

#### 1. Automatic Identification System Data:

The Coast Guard Navigation Center provided AIS vessel traffic data for the Northern New York Bight for the years 2017 to 2019. The First Coast Guard District concurs with the Coast Guard Navigation Center's findings in their Traffic Analysis for the NNYBPARS (Appendix E). While historical AIS data is informative, future traffic volume is complicated to predict. However, AIS data confirms the routes taken by vessels outfitted with this equipment in those areas most frequently transited (see Figure 5). See Appendix E for Traffic Analysis and detailed AIS data.



Figure 5 Vessels Route Density 2019 (All vessel types)

Also noted in Appendix E (pg. 8, Traffic Composition Analysis), it is useful to look at a subset of the AIS vessel traffic data in smaller time periods (as opposed to per year). Figure 6 shows the track lines from September of 2019, the busiest month of the year with over 15,000 tracks. "Other" and "Not Available" ship types were excluded from this graphic, and "Cargo" and "Tanker" were combined since they have similar transit patterns.

The legend is organized based on the drawing order in the graphic. Pleasure craft were drawn first so those tracks appear underneath the tracks for the other ship types. Cargo and tank ships were drawn last, so their tracks are on top of the tracks for the other ship types. Due to this drawing order, the passenger vessel tracks in the main channels are covered by the cargo ships, and some passenger vessel track lines off the New Jersey coast are hidden by the tow boats. Fishing vessels along the South Shore of Long Island Sound are hidden by the tow boat traffic. The pleasure craft that cross a main transit area for any of the other vessel types are also covered.



Figure 6 September 2019 Vessel Tracks

Other current and future waterways activities and uses were assessed using:

- 2. Commercial Fishing:
- a. Commercial Fishing Vessel Activity:

VMS data in the NNYBPARS study area was obtained for a period of 11 years. The average number of fishing vessel transits over the years of 2010-2020 from VMS data was 10,226 transits per year, made by an average of 613 vessels. This is based on the report in Appendix F, provided by the NMFS Office of Law Enforcement's Northeast VMS Team. This summary shows the number of VMS-equipped vessel transits of the Northern New York Bight study area for each of the calendar years available.

Table 2 indicates the total counts of VMS vessel transits of the <u>NNYBPARS Study Area</u> by calendar year, from 2010 through 2020. The Permits column in Table 2 indicates how many permits were utilized in the study area, where 1 permit represents 1 unique [fishing] vessel and vice versa. Also shown are counts of permitted VMS vessels conducting the transits. For example,

in 2016, 648 different VMS vessels together made 12,082 transits of the study area. The presence of an average of 613 fishing vessels in the study area for the years observed indicates the Northern New York Bight is currently and is likely to continue to be significant to the commercial fishing industry subject to future regulations. VMS data is heavily influenced by fisheries management decisions that often change yearly or even seasonally and make it difficult to ascertain overall traffic patterns.

Accordingly, predictions of future fishing vessel traffic are even more difficult	Accordingly, pre	edictions of futu	re fishing v	vessel traffic are	even more difficul
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Vessel Type	Transits	Permits
2010	8,365	613
2011	11,735	644
2012	10,795	614
2013	10,520	582
2014	9,972	614
2015	10,418	638
2016	12,082	648
2017	11,076	627
2018	9,791	595
2019	8,812	577
2020	8,916	592

Table 2 Counts of Transits and Permits by Year, NNYBPARS Study Area

Analyzing VMS heat map data (Appendix F), the First Coast Guard District concluded that the majority of fishing vessel transits in the study area occur 1) near shore along the coast of Long Island and New Jersey, 2) cut across the New York Bight between Montauk Point / Southeastern New England to points in Southern New Jersey and beyond, or 3) transit to and from fishing grounds contained within the Northern New York Bight. Figure 7 depicts VMS equipped fishing vessel transits for the year 2020.



Figure 7 2020 VMS Transits in NNYBPARS Study Area Source: NOAA NMFS

Additionally, several in depth studies provided data to inform the study on the Commercial Fishing Vessel activity within the area.

- NYSERDA and the Responsible Offshore Development Alliance (RODA) hosted a workgroup which resulted in a great level of detail informing the First Coast Guard District on commercial fishing vessel transits through the study area<sup>9</sup>.
- NOAA Fisheries has developed reports summarizing fishing activity (commercial and party/charter vessels) within each offshore wind lease area along the Atlantic Coast. These reports provide detailed data on specific port trips for both commercial and party/charter vessels within the individual lease areas.<sup>10</sup>

<sup>&</sup>lt;sup>9</sup> NYSERDA, RODA, New York Bight Transit Lanes Surveys, Workshop and Outreach Summary, 2020

<sup>&</sup>lt;sup>10</sup> NOAA. Socioeconomic Impacts of Atlantic Offshore Wind Development. 2021.

b. Commercial Fishing Industry Concerns:

Throughout the duration of the study, the First Coast Guard District received numerous concerns from Commercial Fishing Industry stakeholders that are outside the scope of the NNYBPARS. Although not addressed by this study, it is useful to aggregate Commercial Fishing Industry stakeholder concerns. The following list of concerns is not meant to be exhaustive or provided in any priority order. Some of the most frequently cited concerns include:

- Commercial Fishing Industry input: Commercial Fishing Industry stakeholders assess their input has been insufficiently incorporated into the Federal Wind Energy Development process. Commercial Fishing Industry stakeholders generally assess that one industry is being sacrificed for another; the Commercial Fishing Industry is being sacrificed for the Wind Energy Industry.
- High Frequency (HF) Radar: Commercial Fishing Industry stakeholders assess impacts to HF radar will be detrimental to U.S. Coast Guard SAR operations. Commercial Fishing Industry stakeholders point to a <u>2014 NOAA US Integrated Ocean Observing System (IOOS) Program</u> <u>Office letter</u> that states "eleven (11) high frequency (HF) radars in New Jersey, New York and Rhode Island will be negatively impacted to some degree or another by wind turbines situated offshore Long Island and would result in a loss of coastal radar monitoring for 100 miles of the NY, NJ, & RI coasts. HF radars are used operationally by the U.S. Coast Guard for SAR and by NOAA for oil spill response."
- Marine Vessel Radar: Commercial Fishing Industry stakeholders assess that the Federal Government has yet to conduct a conclusive radar study that assesses impacts of Wind Turbine Generators on the efficacy of marine vessel radar.
- Distances between Wind Turbine Generators: Commercial Fishing Industry stakeholders assess a misconception of the distance between Wind Turbine Generator Towers, as the sea space between the bottom structures that support the tower further constrains the ability of a Fishing Vessel to deploy mobile fishing gear. Otherwise stated, the distance between the towers is not the true distance of available sea space Commercial Fishing Industry stakeholders need to conduct fishing operations.
- Lighting: Commercial Fishing Industry stakeholders assess that lighting is a concern within and around WEAs, and thus impacts to navigation exist in the vicinity of WEAs. One fishing vessel representative commented that the Block Island Wind Farm lighting system is not working from time to time, and when reported, action is not always taken & that a better plan/back-up plan should be implemented to ensure the WEAs are properly lit.
- Cumulative impacts of multiple WEAs in the New York Bight / Atlantic Coast: Commercial Fishing Industry stakeholders assess that the site specific Navigation Safety Risk Assessment (NSRA) and Construction and Operation Plan (COP) reviews are insufficient to assess the cumulative navigation impacts across a wide area, such as across the New York Bight or the entire Atlantic Coast.

#### c. Safe Access to Ports:

Most vessels in the study area are 165 feet in length or less<sup>11</sup>. Although current routing measures exist to provide safe access to and from the major ports in the New York Bight region, the First Coast Guard District recognizes certain vessels have historically transited where new WEAs have been designated. To determine if additional routing measures might be required, the First Coast Guard District used the World Association for Waterborne Transport Infrastructure (PIANC), MarCom Working Group Report<sup>12</sup> to calculate the width needed for a fairway or routing measure based on length of vessels and frequency of transits.

Although the PIANC study was primarily designed to determine adequate widths of traffic lanes for routing measures adjacent to wind farms, leveraging this international study has provided the Coast Guard a baseline to determine adequate widths for fairways. To provide adequate space for each vessel to safely transit, the calculation takes two times the ship's length multiplied by a factor based on the number of vessels using the route annually and includes an additional safety zone. Less than 4,400 vessels transits per year suggest the number of vessels side by side is expected to be no more than two. Thus the calculation is as follows:

165 (vessel length in feet) \* 2 (minimum safe distance) \* 2 (factor for less than 4,400 vessels per year)

$$4L = 165 * 2 * 2 = 660$$
 feet or 201 meters

The PIANC study discusses the need to account for a ship's ability to conduct a full round turn to starboard within the traffic lane in the event it must take action to avoid a collision. Using IMO Standards for Ship Maneuverability (IMO resolution MSC.137 (76) and MSC/Circ. 1053), the standard turning ability should not exceed an advance of 4.5 ship lengths and the tactical diameter should not exceed 5 ship lengths. An extra ship length was added considering the operator of a ship will not be fully prepared for the maneuver. Therefore, six times the ship's length was used for a full round turn.

165 (vessel length in feet) \* 6 (ship lengths for a ship's ability to conduct a full round turn)

6L = 165 \* 6 = 990 feet or 302 meters

PIANC also added a distance of 0.3 NM to account for any prior deviation from the original track the ship may take for collision avoidance prior to finding the need to conduct a full round turn. The First Coast Guard District assessed an appropriate distance for vessels 165 feet in length or less to be 1.5 times the standard ship length (vice the 0.3 NM used in PIANC for a 400 meter vessel).

165 (vessel length in feet) \* 1.5 (ship lengths for prior deviation from original track)

<sup>&</sup>lt;sup>11</sup> In 2017, 2018 and 2019, AIS data shows that the largest fishing vessel in the NNYBPARS WEAs was 165 feet long (see Appendix G).

<sup>&</sup>lt;sup>12</sup> World Association for Waterborne Transport Infrastructure. Interaction between offshore wind farms and maritime navigation. 2018.

#### 1.5L = 165 \* 1.5 = 248 feet or 76 meters

The PIANC states a full round turn could also be made to the port side in the case a round turn to starboard is not possible, if for example there is a vessel off the starboard quarter. The overall distance calculated considers two-way traffic (i.e., one lane in each direction). The adjacent lane provides ample room to turn to port therefore no additional space was added for a turn to port.

PIANC further discusses applying a 500-meter (1,640 feet) margin to the shipping lane to account for safety zones around wind turbines as referenced in Article 60 of the United Nations Convention on the Law of the Sea (UNCLOS). Of note, UNCLOS article 60 states the safety zone, "shall not exceed a distance of 500 meters," and the PIANC study explicitly states the safety zone, is for "protection of the structure' and is not meant as a safe distance for safe maneuvering [sic] according to COLREGS. A 500-meter distance may be excessive or overly conservative for vessels 165 feet in length or less, as these smaller vessels are capable of navigating coastal seaports, and are significantly more maneuverable and responsive than larger ships. In the event the owner/operator of any offshore structure feels it necessary to protect the structures during a maintenance period, an up to 500m safety buffer may be requested.

Based on this, the First Coast Guard District concludes an adequate width of a transit lane for vessels 165 feet in length in an area with less than 4,400 vessel transits per year is 0.62 to 0.89 nautical miles. Larger and less maneuverable vessels will likely avoid transiting within the lease areas, therefore the First Coast Guard District does not recommend formal establishment of shipping safety fairways or other routing measures through the designated WEAs at this time.

To be clear, the First Coast Guard District is not setting a minimum spacing requirement between offshore structures with these study calculations. The calculations have been included only to illustrate what would be considered safe navigation parameters if establishing a fairway or traffic separation scheme. Further evaluation for safe navigation within and adjacent to all OREI under development will be reviewed by the Coast Guard as a cooperating agency with BOEM during the leasing and development process.

d. Fishing Vessels Navigating while Fishing:

Vessels engaged in fishing may require additional sea room for safe navigation; however, this study did not attempt to determine adequate safe distances for such activity. Potential impacts to fisheries and vessels engaged in fishing will be evaluated during BOEM's project specific environmental assessment process. Coast Guard Headquarters Assistant Commandant for Prevention, Office of Navigation Systems (CG-NAV) may provide cooperating agency input to BOEM during the environmental assessment process concerning sea room for vessels engaged in fishing.

#### 3. Port Authority Forecast:

Commercial Shipping traffic in the Port of New York and New Jersey is expected to proportionately increase by vessel type, relevant to the identified market trends:

- Dry bulk demand (cement, salt, and scrap) is projected to increase to between approximately 3.7 million and 5.5 million Metric Tons by 2050. Average annual growth ranges from 1.1 percent under low forecast assumptions to 2.4 percent under high forecast assumptions.<sup>13</sup>
- Auto demand through the Port is projected to increase from 573,000 vehicle units (Car Equivalent Units (CEU)) in 2018 to a range of approximately 800,000 to 1.3 million units by 2050. Average annual growth ranges from 1.6 percent under low forecast assumptions to 3.3 percent under high forecast assumptions.<sup>13</sup>
- Cruise demand captured by the Port Authority of New York and New Jersey (PANYNJ) tenants is projected to increase from 856,000 passengers in 2018 to between 1.3 million and 2.6 million passengers by 2050.<sup>13</sup> Additionally, the NY Cruise Manhattan and Brooklyn terminal cruise demand is projected to increase from 1.1 million passengers in 2019 to between 1.5 to 1.6 million passengers by 2026.<sup>14</sup>
- Container demand at Port Authority facilities is projected to increase from 7.2 million TEU in 2018 to between 12 million and 17 million TEU by 2050. Average annual growth ranges from 2.1 percent under low forecast assumptions to 3.4 percent under high forecast assumptions.<sup>13</sup>
- 4. Resource Development Activities:

A prominent potential future use of the Northern New York Bight is the proposed BOEM commercial wind lease areas. On March 29, 2021, BOEM identified nearly 800,000 acres as WEAs in the New York Bight, between Long Island and the New Jersey coast, as depicted in Figure 8. The announcement<sup>15</sup> came during a White House forum in which Secretary of the Interior Deb Haaland, and the Secretaries of Energy, Commerce, and Transportation, met with representatives from states, the offshore wind industry, and members of the labor community to identify challenges and solutions facing this new industry. The event included a commitment by Interior and the Departments of Energy and Commerce to establish a target to deploy 30 gigawatts (GW) (30,000 megawatts) of offshore wind by 2030 nationwide. Regionally, and as part of the States' sustainability plans, the Governors of New York and New Jersey have committed to the installed capacity of nearly 16.5 GW of wind generated energy by 2035, with the New York State Climate Act mandating 9 GW and New Jersey's goal set at 7.5 GW<sup>16</sup>.

<sup>&</sup>lt;sup>13</sup> <u>NY NJ Port Master Plan 2050</u>

<sup>&</sup>lt;sup>14</sup> First Coast Guard District inquiry to NY Cruise, 04 June 2021.

<sup>&</sup>lt;sup>15</sup>BOEM Advances Offshore Wind in Major U.S. East Coast Energy Market

<sup>&</sup>lt;sup>16</sup> State of New York Department of State comment to docket USCG-2020-0278



Figure 8 BOEM New York Bight Final WEA Map, 29Mar21

In their March 26, 2021 <u>New York Bight Area Identification Memorandum</u>, BOEM found that commercial and recreational fishing were one of the existing uses found to interact most with potential offshore development. An extract of BOEM's findings are useful in the context of existing resource development activities and their potential interaction with offshore wind development:

"In recognition that all of the Call Areas experience some level of fishing activity, BOEM developed a Relative Use Index (RUI), to determine areas that would have less impact relative to total fishing activity and avoid known unique benthic habitats. Using vessel trip report data from the NMFS for the period 2007-2015, BOEM identified the top six Fisheries Management Plans (FMP) by total revenue in the Call Areas for mapping their relative use. The scallop fishery is by far the highest-value fishery. BOEM is concerned, however, that a strict revenue analysis would result in recommended WEAs that disproportionately impact lower value fisheries. To address concerns from the fishing industry about this disparity in economic value, BOEM created a weighted spatial overlay of multiple factors, including conversion of the fishing revenue, adjusted to weight the relative importance of the NY Bight to that FMP. For instance, an FMP with 5% of its revenue from a potential WEA would be given a higher index number than an FMP where only 0.5% of the revenue came from the area. The RUI also factored in fishing vessel transit routes based on 2016 automatic identification system (AIS) data to better understand potential impacts

to fisheries access. Although recreational fishing data was not included in determining the RUI, BOEM's overall analysis considered recreational fishing areas identified in the New Jersey Sport Fishing Atlas. The "cooler" blue areas indicate a lower relative economic importance across the top 6 commercial fisheries"



Figure 9 BOEM Fisheries Relative Use Index<sup>17</sup>

In addition to the WEAs depicted in Figure 8 and Figure 9, two Call Areas within the NNYBPARS study area have been leased for offshore energy development within Outer Continental Shelf (OCS) OCS-A 0512, Empire Wind 1 and Empire Wind 2. The New York State Energy Research and Development Authority awarded Equinor Wind US LLC the Empire Wind 1 (816 megawatts) lease area in on July 18, 2019<sup>18</sup> and Empire Wind 2 (1,260 megawatts) was awarded to Equinor Wind US LLC and strategic partner BP plc on January 13, 2021<sup>19</sup> whereby the companies will partner with the State to transform the South Brooklyn Marine Terminal (SBMT) and the Port of Albany into large-scale offshore wind working industrial facilities.

<sup>&</sup>lt;sup>17</sup> <u>New York Bight Area Identification Memorandum Pursuant to 30 C.F.R. § 585.211(b)</u>

<sup>&</sup>lt;sup>18</sup> Equinor offshore wind bid wins in New York States

<sup>&</sup>lt;sup>19</sup> Equinor selected for largest-ever US offshore wind award

Future OCS-A 0512 developments are expected to follow NYSERDA's "Building a Clean Energy Future, Timeline for 1st Phase of Projects<sup>20</sup>" publication in which lists Construction and Installation activities will commence from 2022 to 2024. Figure 10 identifies the Empire Wind Lease areas.



Figure 10 Empire Wind 1 and 2 Lease Areas (pictured in dark blue) Source: <u>Northeast Ocean Data Portal</u>

In addition to utilizing sea space within the NNYBPARS study area, it is important to consider the subsurface considerations that future cable routes may have on other resource development activities and /or traditional and potential new anchorages. Notional cable placement from OCS-A 0512 is included in Figure 11, although not finalized and therefore subject to change.

<sup>&</sup>lt;sup>20</sup> <u>Building a Clean Energy Future, Timeline for 1<sup>st</sup> Phase of Projects</u>



Figure 11 Notional Cable Placement from OCS-A 0512 Source: Equinor Wind - Supplemental Comments on the NNYBPARS 05.12.21

#### 5. United States Army Corps of Engineers (USACE) Dredging Projects:

USACE maintenance and planned dredging projects are another significant indicator about changes in current and future waterways use. The waterways within the Northern New York Bight PARS area have not been requested for any upcoming maintenance dredging. A potential future project is the <u>NY and NJ Harbor Deepening and Channel Improvements</u> (NYNJHDCI) Study. The study is still in the early stages of looking at Port facilities, and the pathways leading to them which might include the Anchorage and Ambrose Channels. The goal of that study is to evaluate the benefits and costs of providing future access to these facilities to a Malacca-max class vessel. This could include dredging to 54 or 55 feet, channel widening, and turning and passing zones. If approved, and funded, construction would likely not start before FY25 or FY26. Additionally, there was a recommendation to Congress to deepen a portion of the Gravesend Anchorage, located outside of our study area but inside the Port of NY and NJ, from -47 ft. Mean Lower Low Water (MLLW) to -50 ft. MLLW.

#### 6. Marine Event Permit Data:

Since 2010, Coast Guard Sector New York received approximately 10 Marine Event Permit Applications each year for regattas and other marine events occurring within the New York Lower Bay in vicinity of the Northern New York Bight. None of these events are predicted to significantly grow in size or scope, nor are they expected to increase marine congestion but are included for consideration in the context of the NNYBPARS.

Such events are normally organized and sponsored by local yacht clubs, swim organizations, national/international regattas or similar organizations, have well-defined schedules, and place certain operating and safety requirements on participants. Most of these events in the Lower New York Bay occur annually. The largest single annual organized marine event in the Lower New York Bay is the Fleet Week Parade of Ships, an event that begins at Ambrose Channel Buoy and proceeds into New York Bay. The sponsor of the event is the U.S. Navy, and there is a Permanent Regulation in <u>33 CFR 165.163</u> governing the event.

#### Other Events:

- "Around Long Island Regatta" is an annual recurring event hosted by National Powerboat Association.
- "Coney Island Fireworks" is a beach-based Fireworks display in close proximity to the area and hosts weekly displays during summer months, annually.
- Multiple swims in vicinity of Coney Island and Brighton Beach (three annual recurring).
- Transatlantic Regattas occur approximately every two years.
- Annual "Celebrate Israel" boat parade starts in the Lower Bay (Rockaway Inlet).
- Annual "Statue of Liberty Race" occurs from Sandy Hook to Upper NY Bay.
- A few other paddle events occur approximately once every two years in that area.

Since 2015, Coast Guard Sector Long Island Sound received an average of four Marine Event Permit Applications each year for fireworks displays and other marine events occurring along the south shore of Long Island. Such events are normally organized and sponsored by local parks departments, yacht clubs, or similar organizations, have well-defined schedules, and place certain operating and safety requirements on participants. Many of these events on the south shore occur annually. The largest single annual organized marine event on the south shore is the Jones Beach Airshow, which attracts more than 400,000 spectators for a three-day event over Memorial Day weekend. The sponsor of the event is the New York State Office of Parks and Recreation, and there are permanent regulations in <u>33 CFR 165.163</u> governing the event.

Other Events:

- Jones Beach Air Show
- Jones Beach Fireworks
- Tri America Swim
- Salute to Veterans Fireworks

- Connetquot Fireworks
- Lawrence Beach Club Fireworks
- 7. Maritime Incident Data:

Maritime incidents are reportable marine casualties as defined in <u>46 CFR 4.05</u>. These include: loss of main propulsion, injury requiring medical treatment, loss of life, occurrence affecting vessel seaworthiness, allisions, and collisions, all of which could create a hazard to navigation. In the area under review, there were 202 incidents reported from January 2010 - June 2020, on average 20 incidents a year, as shown in Figure 12. Three incidents were duplicates with multiple locations listed. See Table 3 for details by Incident type.

Of these 202 incidents, 170 were reportable marine casualties per <u>46 CFR Part 4</u> and could create a hazard to navigation. These 170 reportable marine casualties are comprised of 373 individual timeline events, which are defined as an unwanted occurrence happening to a person or vessel. The "initiating event" is the first unwanted event in a sequence.

Table 3 shows the initiating event for each the 170 reportable marine casualties that occurred in the NNYBPARS Study Area over the past ten years. Table 4 shows all 373 events that were involved in these 170 reportable marine casualties. In analyzing event data, it is important to remember that one incident may involve many events attributed to multiple vessels or people.
Incident Type	Total
Abandonment	1
Allision	2
Collision	9
Damage to Cargo	1
Discharge/Release - Pollution	1
Fire – Initial	6
Flooding - Progressive	1
Fouling	9
Grounding	1
Loss of Electrical Power	6
Loss of Stability	1
Loss/Reduction of Vessel Propulsion/Steering	15
Material Failure/Malfunction	99
Personnel Casualty - Death	2
Personnel Casualty - Injury	10
Personnel Casualty - Missing	1
Personnel Fall into Water	1
Vessel Maneuver	2
Wave(s) Strikes/Impacts	2
Grand Total	170

 Table 3 Reportable Marine Casualty Initiating Events Jan 2010 - Jun 2020

 Source: U.S. Coast Guard Marine Information for Safety & Law Enforcement (MISLE) Database

Incident Type	Total
Abandonment	7
Allision	2
Capsize	2
Collision	19
Damage to Cargo	2
Discharge/Release - Pollution	8
Fire – Initial	11
Fire - Reflash	2
Flooding - Initial	9
Flooding - Progressive	9
Fouling	10
Loss of Electrical Power	21
Loss of Stability	1
Loss/Reduction of Vessel Propulsion/Steering	104
Material Failure/Malfunction	123
Personnel Casualty - Death	4
Personnel Casualty - Injury	15
Personnel Casualty - Missing	2
Personnel Fall into Water	5
Set Adrift	2
Sinking	9
Vessel Maneuver	4
Wave(s) Strikes/Impacts	1
Grounding	1
Grand Total	373

Table 4 All Reportable Marine Casualty Events Jan 2010 - Jun 2020Source: U.S. Coast Guard Marine Information for Safety & Law Enforcement (MISLE) Database



Figure 12 Maritime Incident Data Jan 2010 - Jun 2020 in NNYBPARS Study Area Source: U.S. Coast Guard Marine Information for Safety & Law Enforcement (MISLE) Database

In collecting and analyzing the historical Maritime Incident Data represented in **Error! Reference source not found.** and Table 4 and Figure 12, the First Coast Guard District found that existing routing measures did not specifically create, or significantly correlate to, the occurrences and locations of marine casualties. Additionally, the First Coast Guard assessed that the establishment of additional routing measures were not likely to mitigate the occurrence or location of future potential maritime incidents.

8. Native American Tribal Considerations:

Based on outreach associated with this PARS, the Shinnecock Indian Nation tribe did not indicate any current or future navigation safety concerns for the Northern New York Bight.

9. Military and National Security:

The primary military activities occurring in the Northern New York Bight are Coast Guard operations. U.S. Navy patrol craft may also transit the study area on occasion. These military activities remain consistent in volume and frequency over the last decade and are anticipated to remain so in the future.

• United States Coast Guard:

The primary military activities occurring in the Northern New York Bight are Coast Guard operations supporting maritime safety, SAR, aids to navigation, pollution response, living marine resource enforcement, and other law enforcement. SAR is discussed in more depth later in this section of the study. Coast Guard Cutters patrol the offshore areas of the Atlantic Coast. Typically, the largest of these are 270-foot medium endurance cutters. They primarily conduct the following

missions: law enforcement, drug and migrant interdiction, search and rescue and other homeland security defense operations.

Coast Guard SAR case analysis provides another risk management data point. Coast Guard SAR data shows a notably small number of incidents in 2009 but a relatively steady level of incidents from 2010 to 2019. The data from 2009 is significantly lower than all other years and could skew the average to be lower than it actually is. When 2009 data is excluded, there is an average of 92 cases per year from 2010 to 2019.

Table 5 provides an annual count of SAR cases within the NNYBPARS study area.

Incident Type	Total
2009	8
2010	84
2011	87
2012	70
2013	93
2014	88
2015	97
2016	101
2017	103
2018	96
2019	93
Grand Total	920

Table 5 U.S. Coast Guard SAR Cases 2009-2019

Source: Marine Information for Safety & Law Enforcement (MISLE) Database

Table 6 lists SAR case types within the NNYBPARS study area. An examination of these 920 cases shows that the most frequent need of assistance was from recreational vessels and was due to "disabled vessel" (no propulsion) or "person in the water," and not due to collisions or groundings.

Incident Type	Total
Abandoned/Derelict	6
Adrift (Unmanned)	38
Aground	23
Aircraft Crash	3
Aircraft Ditch	0
Aircraft Emergency	3
Allision	1
Anchored [Unmanned]	0
Assist Other Agency	5
Beset by Weather	25
Bridge Jumper	1
Capsized Vessel	25
Collision	3
Disabled Vessel	221
Disoriented Vessel	9
Distress Alert – situation unknown	92
Driving Accident	5
Fire	30
Flooding	0
Mass Rescue Ops	0
MAYDAY Broadcast	10
MEDEVAC	68
MEDICO	50
Non-Maritime EMS Transport	1
Overdue Person (Non-Maritime)	0
Overdue Vessel	18
Person in Water (Ice)	1
Person in Water (PIW)	122
Special Operation	0
Stranded (on ice)	0
Stranded (on island)	1
Taking on Water (TOW)	100
Uncorrelated MAYDAY	51
Unknown (Legacy)	0
Unreported Vessel	8
Vehicle in Water	0
Grand Total	920

Table 6 U.S. Coast Guard SAR Case Types 2009-2019 Source: Marine Information for Safety & Law Enforcement (MISLE) Database

Additionally, an examination of a scatter plot of all 920 SAR cases within the Northern New York Bight PARS area (see Figure 13) shows a concentration of cases in close vicinity of the shoreline along the study area, such as Long Island and the New Jersey shore.



Figure 13 Scatter Plot of SAR Cases within NNYBPARS Study Area, 2009-2019 Source: Marine Information for Safety & Law Enforcement (MISLE) Database

Potential OREI impacts to Coast Guard SAR operations is being studied by the Coast Guard and will be evaluated during BOEM's project specific environmental assessment process.

• United States Navy:

The United States Navy has no comment regarding possible changes and considers the Traffic Separation Schemes and navigation hazards all well identified visually, by radar (RACONS), and by chart. U.S. Navy activities remain consistent in volume and frequency over the last decade and are anticipated to remain so in the future. Historical activity for U.S. Navy in New York Harbor and Naval Weapons Station Earle is as follows:

In New York Harbor, there are 5-10 port visits annually in support of Fleet Week, New York, Veteran's Day, and namesake visits (i.e. USS NEW YORK, USS THE SULLIVANS). Ships range in size from LHD (845') to PC (174'). Port visit sites include Manhattan Cruise Ship Terminal, Brooklyn Cruise Ship Terminal, Staten Island Sullivan's Pier (Front St.), State

University of New York (SUNY) Maritime Academy, and United States Merchant Marine Academy at Kings Point, NY.

At Naval Weapons Station Earle, NJ, there are approximately 20 port visits annually conducted by U.S. Navy and U.S. Coast Guard vessels. Ships range in size from LHD (845') to WLB (225').

Additionally, the United States Navy operates the Narragansett Bay Range Complex off the coasts of Massachusetts, Rhode Island, and New York. A range complex is a designated set of specifically bounded geographic areas and may encompass a water component (above and below the surface) and airspace through established Operating Areas and Special Use Airspace.<sup>21</sup> Portions of the range complex overlaps the study area. Figure 14 and Figure 15 respectively depict the Surface Area Grid and Air Grid for the Narraganset Bay Operating Area.

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(23)	(02B)	(02C)	(03C)	(03D)	(04C)	(04D)		(05B)		
(21) (22)	(06A)	(06B)	(07A)	(07B)	(08A)	(08B)	(09A)	(09B)	E	(Å)
(24) (25) (25)	(06C)	(06D)	(07C)	(07D)	(08C)	(08D)	(09C)	(09D)	(10B)	(10C)
(28)	(11A)	(11B)	(12A)	(12B)	(13A)	(13B)	(14A)	(14B)	(15A)	(15B)
	(11C)	(11D)	(12C)	(12D)	(13C)	(13D)	(14C)	(14D)	(15C)	(15D)
	(16A)	(16B)	(17A)	(17B)	(18A)	(18B)	(19A)	(19B)	(20A)	(20B)
	(16C)	(16D)	(17C)	(17D)	(18C)	(18D)	(19C)	(19D)	(20C)	(20D)

Figure 14 Surface Area Grid for Narragansett Bay Operating Area

<sup>&</sup>lt;sup>21</sup> Department of the Navy FACSFAC VACAPES Instruction 3120.1N Manual for the Utilization of Fleet Area Control and Surveillance Facility, Virginia Capes Operating Areas (FASCFAC VACAPES OPERATIONS MANUAL)



Figure 15 Air Grid for Narragansett Bay Operating Area

Foreign Navies:

Various foreign Navies visit New York Harbor, resulting in approximately 6 visits per year. HMS Queen ELIZABETH visited in 2018 and was the largest to conduct a visit recently, at 924' in length. Typical visitors are DDG's and FFG's at under 500' in length.

## C. Vessel Traffic Pattern Analysis:

Overall, the Northern New York Bight study area remains a busy offshore area serving a multitude of navigational interests. In general, vessel traffic within the study area tends to transit within the established routing measures as demonstrated in Figure 16, follow coastwise routes as demonstrated in Figure 17, cut across the Bight from points to and from Southern New Jersey and areas in the vicinity of Montauk Point as demonstrated in Figure 18, and anchor in the port approaches as demonstrated in Figure 19.



Figure 16 2019 Cargo AIS Data



Figure 17 2019 Tug Tow AIS Data



Figure 18 2017 Fishing AIS Data



Figure 19 2019 All Vessels AIS Data, Vessels at Anchor in vicinity of Precautionary Area

# D. <u>Weather Conditions:</u>

Weather is an important consideration for all parties in the Northern New York Bight. The First Coast Guard District examined marine weather information from a variety of sources to gauge historic wind and wave data including from the National Data Buoy Center (NDBC) Stations <u>44025</u> (Long Island, 30 nautical miles (NM) South of Islip) and <u>44065</u> (New York Harbor Entrance).

- Weekly average wave heights were obtained for two locations in the study area from 2016 to 2019 through the NDBC and are contained in Appendix H. Significant wave height (meters) was calculated as the average of the highest one-third of all of the wave heights during the 20-minute sampling period. Average wave heights at Station <u>44025</u>, 30 NM South of Islip, NY, were 1.4 m and average wave heights at Station <u>44065</u>, New York Harbor Entrance 15 NM Southeast of Breezy Point, NY, were 1.1 m.
- Monthly mean wind speeds with available data were retrieved from two locations in the study area for 2016 through 2019 are provided in Appendix H. Wind speed (m/s) was averaged over an eight-minute period for buoys. The data retrieved indicate a seasonal fluctuation in wind speed with the highest speeds occurring from October March. Average wind speeds at

Station <u>44025</u>, 30 NM South of Islip, NY, were 6.8 m/s and average wind speeds at Station <u>44065</u>, New York Harbor Entrance 15 NM Southeast of Breezy Point, NY, were 6.5 m/s.

- Typical weather in the Northern New York Bight as reported in authoritative nautical publications, such as NOAA's Coast Pilot, continue to be valid. During the spring and early summer, the NY and NJ Harbor and approaches are susceptible to advection fog.
- The First Coast Guard District examined marine weather information and found that average weather conditions in the Northern New York Bight have not significantly changed over the past 5 years. Additionally, the First Coast Guard District has received no reports from any major users of the Northern New York Bight that sustained changes in weather patterns have prompted a change in operations in the Northern New York Bight.

## E. <u>Navigational Difficulty:</u>

The strongest indicators of navigational difficulty within the study area and preferences for mariners are weather conditions, discussed above, and complex traffic routes, which can be seen in AIS vessel density maps of commercial traffic in the years 2017, 2018 and 2019 from the Coast Guard Navigation Center (see Appendix F). The First Coast Guard District found traffic patterns to be highly consistent with aids to navigation marking systems throughout Northern New York Bight waterways. The Port of New York and New Jersey ranks as one of the busiest ports in the world. The New York Traffic Lanes and the Precautionary Area are essential to the orderly and safe flow of the extensive amount of vessel traffic.

The USACE has no current plans to modify or dredge in the Northern New York Bight. A potential future project is the NY and NJ Harbor Deepening and Channel Improvements (HDCI) Study. The study is still in the early stages of looking at Port facilities, and the pathways leading to them that might include the Anchorage and Ambrose Channels. The <u>HDCI Study</u> can be read about further in section IV.B.5 of this report.

Coast Guard SAR case analysis provides another risk management data point and is discussed in section IV.B.9 of this report.

- F. Aids to Navigation:
- There are 38 federal aids-to-navigation in the NNYBPARS Study Area.
- There are 16 private aids to navigation in the NNYBPARS Study Area.
- AIS data and historical surveys show that mariners continue to use the routing measures as marked and most rely heavily on the aids to navigation in the area. The waterways are adequately marked and provide safe passage for all mariners transiting the area. The New York Traffic Lanes are shown in detail in NOAA charts <u>12326</u> and <u>12300</u>. After validation, the current status of the Ambrose Channel and New York Traffic Lanes waterways for the purposes of AtoN evaluation and discrepancy response time determination remains

"Navigationally Critical." This means that a degradation of the current aids to navigation system would present an unacceptable level of risk to navigation.

Potential structures in a proposed wind farm, in addition to being obstructions, may serve as
aids to navigation. Developers constructing and operating wind farms will mark and light each
structure in accordance with Federal regulations and international standards. BOEM may, as
a condition of a construction and operations permit, require the wind energy companies to
submit a comprehensive aids-to-navigation plan for First Coast Guard District review.

# G. <u>Radar:</u>

The topic of impacts of Wind Turbine Generators on efficacy of marine vessel radar is being researched by two separate federal entities, the WTRIM Committee under the Department of Energy, and the National Academies of Science, Engineering and Medicine being funded by BOEM. Further analysis of this topic is outside the scope of a PARS.

# H. Public Comments:

The First Coast Guard District assessed 25 comments provided by the public in response to the June 29, 2020 Federal Register Notice (<u>85 FR 38907</u>) and other outreach efforts soliciting feedback about the Northern New York Bight PARS to learn about any additional waterway use considerations. The comments received, were provided by multiple entity types including, five from Government entities, five from the Offshore Wind Industry, seven from Marine Transportation System Operators, and eight from Commercial Fishing representatives.

- 1. Summary of [relevant points to the study] Comments from Government Entities (85 FR 38907):
- The New York State Fisheries Technical Group led by NYSERDA requested transit lanes be established (including Tug and Tow lanes being considered in ANPRM) and allow for up to 4 NM width.
- The New England Fishery Management Council (NEFMC) and Mid-Atlantic Fisheries Management Council (MAFMC) communicated the First Coast Guard District's MARIPARS report was ambiguous & requested the First Coast Guard District consider all available data to understand patterns of fishing vessel activity in the area including; AIS data, VMS data, vessel trip report (VTR), and fisheries observer data. NEFMC/MAFMC urged the First Coast Guard District to hold in-person meetings with stakeholders & requested 4 NM wide transit lanes.
- The New Jersey Department of Environmental Protection (NJ DEP) requested the First Coast Guard District give particular consideration to the necessity for sea space between WEAs, consult with the fisheries that are most affected as those fisheries may be poorly represented in readily available data sources & that the First Coast Guard District consider operational

measures for vessels that may include routing and reporting, speed restrictions, and the potential establishment of areas to avoid.

- The New York Department of State (NYDOS) communicated that the First Coast Guard District's conduct of the NNYBPARS is urgently needed to inform offshore planning and design so that developers and regulators can proceed with greater certainty. New York Department of State requested the NNYBPARS describe the established coordination and delineation of responsibilities across the two Coast Guard Districts in the New York Bight so that the entire Bight is covered comprehensively and consistently. Additionally, NYDOS requested undesignated anchorage areas (specifically off Long Beach, NY) be formally designated.
- The Department of Interior, Bureau of Energy Ocean Management requested the First Coast Guard District consider planned offshore export cable routes from proposed offshore wind energy facilities identified in the submitted COPs, as well as potential cable routes that may be identified in future COPs relative to the establishment of any anchorage areas.
- 2. Summary of [relevant points to the study] Comments from Offshore Wind Entities (85 FR 38907):
- The American Wind Energy Association (AWEA) and New York Offshore Wind Association (NYOWA) requested that NSRAs and COP reviews be the primary form of adjudication specific to each WEA. AWEA/NYOWA stated that existing routing measures are sufficient & no lanes are needed to cut through WEAs, any implemented buffer zones should be 1 NM or less. AWEA/NYOWA requested the First Coast Guard District host public meetings to discuss the contents of the draft PARS and that the before the Coast Guard establishes additional routing measures, it should review the "gap" in VTS coverage between New York & Buzzards Bay. Lastly, AWEA/NYOWA stated the respective organizations cannot comment on unchartered or informal anchorage areas as they are unknown by AWEA/NYOWA.
- Equinor Wind US LLC expressed concern about the timing of the NNYBPARS as it relates to Lease OCS-A 0512 and the already conducted NSRA which proposes a 1 NM setback from the TSSs.
- Orsted communicated their comments were aligned to the AWEA/NYOWA comment submission. Orsted requested the First Coast Guard District conduct a thorough and comprehensive analysis of economic costs, benefits, effects, and impacts of study recommendations as required by Coast Guard policy. Orsted additionally requested the First Coast Guard District publish a draft of the NNYBPARS, allow for a minimum 120-day comment period on any draft report that may be issued, and host public meetings in sufficient numbers and locations to facilitate a fuller discussion of the draft report among a broad crosssection of stakeholders.

- EDPR Renewables urged the First Coast Guard District to rely on project-specific NSRA as the basis to assess and mitigate risks instead of using the PARS process to impose a wholesale risk assessment incompatible with existing policy and timeline for the New York Bight lease auction.
- EnBW North America communicated that multiple, concurrent proceedings currently underway by the Coast Guard have the opportunity to be confusing to stakeholders, and it is unclear how the District 5 PARS may interact with and impact this NNYBPARS, and vice versa. Remaining concerns related to navigation safety can be resolved through evaluating individual project NSRAs and COP reviews and conditions on approval.
- 3. Summary of [relevant points to the study] Comments from Marine Transportation System Entities (85 FR 38907):
- The Harbor Safety Navigation & Operations Committee of the Port of NY & NJ, The Towboat & Harbor Carriers Assoc. of NY & NJ and the Maritime Association of the Port of NY/NJ comments were similar in nature and requested;
  - Historic and established waterway port access transit lanes be respected and include National Coastal Tug/Barge Routes as follows: 1) South Shore of Long Island (Ambrose to Montauk), 2) NJ Shore (McCrie Shoal to the Scotland Buoy), and 3) Atlantic City to Montauk as well as International Traffic Separation Systems.
  - Historic and established custom and practice anchorage areas supporting port operations be advanced to Federal Designated Anchorages.
  - Setbacks along proposed National Coastal Tug/Barge Safety Fairways and International TSS lanes be consistent along the East Coast and that special consideration be granted for the largest East Coast Port, the Port of NY/NJ.
  - National Coastal Tug/Barge Safety Fairways be at least 5-miles wide with 2-mile Safety Margins (Setbacks) on either side as per recommendations of the United States Coast Guard/American Waterway Operators Quality Action Team (QAT).
  - A minimum setback of 5 NM be established from all entry/exit points of the TSS.
  - At least a 2 NM setback be established from all traffic lanes.
  - To extend all traffic lanes in the NY Bight to the Canyon Edge.
  - Suitable pass-through fairways be established to allow smaller coastal vessels to transverse any projects. It is recommended that such fairways be 5 miles wide, with a 2-mile setback on either side. A fairway from Atlantic City to Montauk is necessary to accommodate existing traffic.

- All continuous developed areas should have allowances for clear "cut-through" passages to allow marine traffic to pass through a field.
- The American Waterways Operators requested the First Coast Guard District to widen the proposed Long Island Shipping Safety Fairway to 9 NM.
- The Cruise Lines International Association expressed concern that wind turbines may be approved for construction in close proximity, and on both sides of TSSs and requested the establishment of 2 NM buffer zones.
- The World Shipping Council asserted the minimum buffer zone be at least 2 NM and 3 NM where vessels operate over 20 knots, they also supported the proposed fairway south of Long Island & requested the First Coast Guard District address the question of how it will manage the risk of collision between crossing tug and barge vessels and the deep draft vessels operating in the TSSs.
- 4. Summary of [relevant points to the study] Comments from Fishing Entities (85 FR 38907):
- RODA communicated the appropriate width of transit lanes should in no circumstances be less than 2 NM, and it is possible that even greater than 4 NM could be required under certain conditions.
- Seafreeze Ltd. expressed concern with the Coast Guard's lack of completing a comprehensive analysis on marine radar interference. Seafreeze Ltd. referenced the United Kingdom Maritime and Coast Guard Agency Marine Guidance Note (UK MGN) 543 that states that greater than 3.5 NM is the minimum recommended separation distance between turbines when they occur on opposite sides of the route and in some cases the width of the lane could be up to 5.5 NM in width.
- Wallace & Associates Consulting Inc. represents the fishing industry and requests transit lanes possess 4 NM widths.
- The Long Island Commercial Fishing Association (LICFA) communicated the two virtual public meetings were insufficient & field meetings are needed to gather the appropriate information. LICFA expressed concern on the use of AIS data not holistically representing the fishing community and that transit lanes are needed to preserve navigation to and from fishing vessel areas of interest.
- Lund's Fisheries encourages the First Coast Guard District to specifically evaluate up to 4 NM, 2-way dedicated transit corridors as proposed by RODA. Lund's also noted that some call areas under consideration within the NNYBPARS study area have yet to be leased for wind development, providing a unique opportunity to design leases with transit lanes between adjacent lease boundaries or otherwise fully incorporated into lease design.

The First Coast Guard District assessed 5 additional comments provided by the public in response to the April 12, 2021 Federal Register Notice (<u>86 FR 18996</u>) and other outreach efforts soliciting feedback about the Northern New York Bight PARS to learn about any additional waterway use considerations. The comments received, were provided by multiple entity types including, including two from the Offshore Wind Industry and three from Marine Transportation System Operators.

- 5. Summary of [relevant points to the study] Comments from Offshore Wind Entities (86 FR 18996):
- American Clean Power (ACP) and NYOWA commented that BOEM had published final WEAs in March of 2021, after more than three years of consideration and stakeholder input, to address vessel navigation concerns, including those of commercial fisherman, and that the First Coast Guard District should incorporate the subject accommodations in the NNYBPARS. ACP/NYOWA also provided comment in support of revising the ANPRM USCG-2019-0279 (<u>85 FR 37034</u>) Cape Charles to Montauk shipping safety fairway to accommodate Wind Energy development.
- Equinor commented their wind development in Northern New York Bight will not significantly affect navigation, the existing Traffic Separation Schemes need not be widened or extended, and that establishment of federal anchorages in the Northern New York Bight was necessary, but that there is a realistic need for the future placement of transmission cables nearer the anchorage location closer to shore.
- 6. Summary of [relevant points to the study] Comments from Marine Transportation System Entities (86 FR 18996):
- The World Shipping Council commented that 800' to 1,000' deep draft vessels have a turning radius of more than 1 NM, require more than 2 NM to come to a complete stop, and when anchoring release up to a half-mile of anchor chain generating a swing radius that could easily exceed 1 NM, and thus buffer zones need to be at least 2 NM in width.
- The Towboat & Harbor Carriers Assoc. of NY & NJ requested three shipping safety fairways be established including: 1) New Jersey shore from Delaware Bay to New York Harbor, 2) Long Island shore from New York Harbor, and 3) Atlantic City NJ to Montauk NY "cut across." Additionally, it was requested that the Marine Planning Guidelines be followed and specific standards for Offshore Structures, Underwater Connectors & Landfall Connectors be adhered to.
- The American Waterways Operators (AWO) commented the First Coast Guard District should establish 9 NM wide shipping safety fairways including 1) the New York Bight "cut-across" fairway from New Jersey to Montauk Point, 2) Long Island Shipping Safety Fairway (expanded from 5 NM to 9 NM), and 3) an inshore fairway, set at 9 NM, from Delaware Bay to New York Harbor.

The First Coast Guard District assessed 20 comments provided by the public in response to the July 15, 2021 Federal Register Notice (<u>86 FR 37339</u>) and other outreach efforts soliciting feedback about the Northern New York Bight PARS draft report to learn about any additional waterway use considerations. The comments received, were provided by multiple entity types including, two from Government entities, four from the Offshore Wind Industry, four from Marine Transportation System Operators, nine from Commercial Fishing representatives, and one unrelated comment.

- 7. Summary of [relevant points to the study] Comments from Government Entities (86 FR 337339):
- The United States Navy Fleet Forces Command commented that Military Sealift Command (MSC) does not anticipate any impact to Naval Weapons Station Earle operations as a result of the NNYBPARS. Ideally, wind turbines and other manmade hazards to navigation will be constructed well away from shipping lanes. However, provided the development does not impose on existing TSS passage, MSC ships can transit to and from New York City without issue.
- NYDOS communicated the six proposed actions of the NNYBPARS are each well-justified and warrant near-term action by Coast Guard Headquarters to implement. The Department was encouraged by the Coast Guard's efforts to coordinate with BOEM to de-conflict the Hudson North and the proposed Cape Charles to Montauk Fairway so that the regionally significant traffic lane can be designated while preserving as much of the proposed lease areas as possible. Additionally, NYDOS requested the First Coast Guard District consider multiple topics, a few of which are summarized below.
  - Provide recommendations on turbine orientation and spacing (given the types and sizes of fishing vessels and prevailing fishing patterns) within leases in the study area, to the extent the Coast Guard's analysis reveals their need.
  - Clarify whether the light-green shaded proposed fairways identified in the Executive Summary graphic were conceptually drawn, to be refined at a later date, or represent accurate boundaries.
- 8. Summary of [relevant points to the study] Comments from Offshore Wind Entities (86 FR 337339):
- The American Clean Power Association (ACP) and New York Offshore Wind Association (NYOWA) commented they;
  - Supported the proposed action to establish the Hudson Canyon to Ambrose Southeastern Fairway, so long as there is not an additional setback required from the fairway that would impede on the proposed Hudson South and Central Bight lease areas.

- Requested clarification on the route for the proposed action to establish the Cape Charles to Montauk Point Fairway; ACP and NYOWA recommend a revised route the Coast Guard had proposed in other forums that avoids overlap with the Hudson North lease area.
- Requested reconsideration of the proposed action to establish a Hudson Canyon to Ambrose Eastern Fairway. It does not appear to be supported by the vessel density analysis.
- Opposed the proposed action to establish a single Nantucket to Ambrose Fairway. ACP/NYOWA communicated a single Nantucket to Ambrose Fairway is not supported by the vessel traffic analysis and no compelling evidence is provided as to why the current bifurcated fairways are inadequate to protect navigation safety.
- EnBW North America commented that they urge the Coast Guard and its Headquarters to make modest adjustments to this proposed Cape Charles to Montauk Fairway, as shown in public forums.
- Equinor Wind US LLC requested the Coast Guard explain the need, benefit, and challenges in establishing a Hudson Canyon to Ambrose Eastern Fairway, and should address the potential for safety buffers surrounding newly proposed fairways.
- 9. Summary of [relevant points to the study] Comments from Marine Transportation System Entities (86 FR 337339):
- The Towboat & Harbor Carriers Association of NY & NJ commented the Draft NNYBPARS:
  - Failed to protect the ACPARS-recommended 9 NM width for the Cape Charles to Montauk, Cape May to New York Harbor, and New York Harbor to Montauk. The 9-NM fairways are a must for safe navigation.
  - Failed to protect the custom and practice Long Island Fairway indicating that the competing and rather new, Long Beach Anchorage proposal will take precedence over decades old custom and practice tug routes along the south shore of Long Island. The newly formed Long Beach Anchorage should be arranged around the Long Island Fairway.
  - The Cape Charles to Montauk Fairway must be without bends or impeded by any offshore infrastructure.
- The American Waterways Operators commented on the Draft NNYBPARS:
  - Failed to remedy its proposal not to allocate the ACPARS-recommended 9 NM width for most of the towing vessel fairways.
  - Given the Coast Guard's proposal to establish Cape Charles to Montauk Point fairway at a width of approximately 10 NM (as per the 2020 ANPRM), it is perplexing that the agency has not applied the same dimensions to other towing vessel fairways.

• The Ambrose Anchorage underscores the value of allocating more fairway space rather than less: because of this conflict, the Coast Guard has been forced to further constrict the width of an already narrow safety fairway, rendering it less safe. We encourage the Coast Guard to expand the Long Island Fairway width further south.

10. Summary of [relevant points to the study] Comments from Fishing Entities (85 FR 38907):

- The Responsible Offshore Development Alliance (RODA) commented the Proposed Actions for Fairways are well justified and encourages the USCG to implement Alternative 5, which would implement all the fairways proposed in this Draft PARS for Northern New York Bight. RODA additionally commented:
  - The Draft PARS contains no analysis nor recommendations on the important matter of fishing vessel safety while transiting through Offshore Wind lease areas.
  - Supports the Cape Charles to Montauk fairway in the location proposed in the ANPRM & approx. 8 NM wide.
  - Concerned with unsubstantiated conclusion that "the findings of the study will inform future navigation safety within the NNYBPARS study area." Measures to improve safety by reducing radar interference are only truly effective if incorporated in the siting and design phases of Offshore Wind planning. The final PARS, and Offshore Wind planning that relies on its findings, must therefore be issued after the Wind Turbine Radar Interference Mitigation Committee study results are complete.
  - Any analysis of fisheries data should include a much longer time series to understand the long-term trends in fishing patterns. RODA recommended expanding the analysis to include VMS data from when it was first implemented to present for relevant fisheries.
- Seafreeze Ltd. communicated support of the draft NNYBPARS recommendation to adopt Alternative 5. Seafreeze Ltd. additionally commented:
  - Setbacks: The USCG did issue the MPG recommendations to BOEM prior to the issuance of the OCS-A 0512 Equinor lease, due to the fact that a smaller setback would leave mariners at "medium to high" and "high" risk of collision. The USCG issued these recommendations in 2015; BOEM leased the area in 2016. The fact is that BOEM chose to ignore these recommendations, See USCG comment to BOEM, September 28, 2015 at USCG NY Area page (boem.gov).
  - Equinor Wind US LLC has now submitted a COP for lease OCS-A 0512 "Empire Wind" in which it proposes only a 1 NM setback. It justifies this proposal by quoting a 2012 USCG guidance document, and not the updated 2015 USCG guidance that was submitted to BOEM prior to the lease sale. In its "timeline of events" recap in the COP, Equinor completely and conveniently ignores the 2015 USCG recommendations in favor of the outdated and superseded 2012 USCG guidance.

- BOEM has chosen to ignore the USCG recommendations when siting offshore wind leases in favor of the developer. BOEM has even stated as such in its 2016 decision to ignore the USCG 2015 guidance prior to the lease sale of OCS-A 0512. In defense of its decision to reject the USCG requested setbacks from the TSS in favor of only 1 nautical mile setbacks, BOEM stated, "BOEM strives to ensure that lessees have sufficient flexibility to microsite a project within their lease areas, especially given that data critical to siting decisions (e.g., results from geophysical and geotechnical surveys, environmental surveys, site specific resource assessment data, etc.) will not be gathered until after lease issuance.
- The USCG cannot rely on BOEM to put the safety of US mariners ahead of the interests of OSW developers. This has already been demonstrated. As such, the USCG should incorporate all necessary setbacks in the Alternative 5 measures being proposed. The USCG should incorporate the 2 NM setbacks on either side of the Alternative 5 fairways in addition the fairways.
- Marine Radar Interference: If the USCG cannot complete both comprehensive analysis and provide recommendations/decisions based on that analysis before the Final NNYBPARS is issued, mariners will be placed in potentially life threatening situations by the accelerated pace of OSW development, as in the case of Vineyard Wind. As BOEM's track record is to consistently put maritime safety second to wind developer interests, the responsibility for protecting lives and safety at sea lies with the USCG.

We request that the USCG as part of the WTRIM and also as an individual entity conduct modeling studies to model "typical scenario" to "worst case scenario" radar interference. The Appendix M to the Cape Wind project, "Report of the Effect on Radar Performance of the Proposed Cape Wind Project and Advance Copy of USCG Findings and Mitigation," noted that both the number and size of the turbine with relation to turbine-induced false targets and side lobes matters:

- o "The 130 turbines proposed for Nantucket Sound provide for a much greater # of potential false targets than the 30 wind turbines of Kentish Flats."
- o "The vertical extent of the tower, the shape and complexity of the nacelle, the orientation of the nacelle, and the orientation of the blades, all contribute to a changing, but generally large, radar cross section. This results in strong radar target reflections...side lobe reflections...become more of an issue when the radar cross section of the target is large."
- "There is no disagreement, however, that false echoes do occur and that they may be more numerous when there are a number of targets with large radar cross sections."

For the Cape Wind project modeling/USCG assessment, the turbines were only 277.5 feet above sea level with 341 foot blade diameter. The newest Haliade-X 14 MW turbine is 853 feet high, with a 721 foot rotor. This is not even in the same ballpark, and the level of impact cannot be expected to be the same.

- In 2019, due to these concerns, RI State Senator Sosnowski, sent the USCG a series of questions regarding offshore wind impacts on USCG capabilities. The USCG indicated it has not completed an independent analysis. Knowing what the impacts on USCG vessel capabilities will be/could be as a result of Offshore Wind farm buildout in the NY Bight should be an important aspect of analysis included in the NNYBPARS.
- SAR will be negatively affected by Offshore Wind turbines in the NY Bight by HF radar loss.
- The Long Island Commercial Fishing Association (LICFA) communicated the WEAs will, as was noted by Coast Guard staff at the August 24th meeting, create radar interference for boats traveling in the area in and around the turbines, throwing false targets and scatter. LICFA additionally communicated support for Alternative 5 of the Draft NNYBPARS, but 3 NM setbacks should be included within the envelope of the WEAs to prevent scatter from turbines to bleed over into transit zones and fairways.
- Lund's Fisheries requested that an analysis of potential fishing vessel access, safety and navigational risk using Closest Point of Approach (CPA) methodology under all weather conditions and associated with multiple layouts in each of the proposed and pending lease areas in the region. Lund's Fisheries additionally commented disappointment that the draft report made no recommendations concerning the safe placement and distances between wind turbines and requested the Coast Guard could consider 1x1 NM minimum distance between platforms.
- Mr. Daniel Malone, owner/operator of the Fishing Vessel Susan C, commented that adequate consideration has not been given to the needs for the fishing industry to safely operate. Mr. Malone additionally requested spacing of at least 2 NM x 2 NM in the actual turbine grids, and 4 mile fairways through them.
- Empire Fisheries commented the Draft NNYBPARS significantly under examined or failed to identify the risk and impacts associated with mobile gear fishing in and around WEAs. Empire Fisheries requested a fishing navigation safety-risk assessment be done by the USCG with fisheries input. Empire Fisheries additionally commented WEAs produce their own fog by mixing atmospheric layers (see Figure 20) and requested spacing of at least 2 NM x 2 NM between turbines.



Figure 20 Wake Effect Fog at Horns Rev 1, Denmark Source: <u>Empire Fisheries comment to USCG-2020-0278</u>

- Clean Ocean Action commented it is imperative for the Coast Guard to consider impacts on marine mammals and turtles in the final NNYBPARS study, especially considering the agency's many official missions: Marine Safety; SAR; Aids to Navigation; Living Marine Resources; Marine Environmental Protection; and Ice Operations.
- Oceana commented the lack of analysis conducted thus far by the USCG is exemplified by the limited discussion of North Atlantic right whales in the draft report for the Port Access Route Study: Northern New York Bight; the North Atlantic right whale is an endangered species on the brink of extinction that is protected under both the Endangered Species Act and the Marine Mammals Protection Act. A mere paragraph consisting of a few sentences in the draft report is insufficient to address the significant impacts vessel traffic in the Northern New York Bight will likely have on the species. The Atlantic Coast PARS Advanced Notice of Proposed Rulemaking, off of which several recommendations made by the NNYBPARS were based, also failed to consider the plight of the North Atlantic right whale and how their migration corridors and calving, feeding, and breeding grounds.

# V. <u>DISCUSSION</u>

## A. Data:

The First Coast Guard District reviewed all available data in the course of conducting the NNYBPARS. Based on recent trends and existing uses, neither vessel traffic frequency nor patterns have changed significantly over the past several years. Future changes in traffic frequency and patterns are expected relative to offshore wind development in the New York Bight. The Bureau of Ocean Energy Management New York Bight WEAs are pictured in Figure 21. Currently, the only offshore development being undertaken is the Empire Wind OCS-A 0512

located between the Off New York Eastern and South-eastern TSS(s). Areas planned for future development within the NNYBPARS study area, referred to as WEAs, include Fairways North, Fairways South, Hudson North, & Central Bight.



Figure 21 BOEM Wind Lease & Wind Energy Areas as of March 29, 2021 Source: <u>Mid-Atlantic Ocean Data Portal</u>

If developed as planned, a significant portion of the Bight would be occupied by wind farms, thus changing the majority of vessel traffic patterns to steer clear of the wind farms, whether by utilizing the existing Traffic Separation Schemes, following a near shore route, or transiting up to 60 NM further offshore. It is therefore appropriate to preserve navigation by implementing a routing measure that cuts through the Bight, such as has been proposed by ANPRM USCG-2019-0279 (85 FR 37034) Cape Charles to Montauk shipping safety fairway, pictured in Figure 21 in brown.

It is common practice to design routing measures to generally be as long and straight as possible. As proposed in the ANPRM, the Cape Charles to Montauk shipping safety fairway, although long and straight, has multiple location conflicts with BOEM's identified New York Bight Call Areas as depicted in Figure 21. Considering the need to preserve navigation across the Bight, the locations of the BOEM Wind Lease and WEAs present challenges to the placement of a long and straight routing measure that spans the majority of the Bight. Thus it is appropriate to implement a Barnegat to Narragansett Fairway, a modified version of the Cape Charles to Montauk Fairway as was proposed by ANPRM USCG-2019-0279 (<u>85 FR 37034</u>).

The Barnegat to Narragansett Fairway preserves a 9 NM wide navigation corridor between Montauk Point / Southeastern New England to points in Southern New Jersey and beyond. The placement of a bend in this fairway occurs in the offshore areas south of the current Nantucket to Ambrose Fairway, away from the entrance/exit of the adjacent Southeastern and Eastern Off New York Traffic Separation Schemes. The area of the fairway's directional change is wider than the rest of the fairway, to provide appropriate sea space for a myriad of vessel types to make the turn. On scene navigational circumstances considered, the increased width of the fairway in vicinity of the bend may allow vessels to make a more gradual turn and/or to follow navigation track lines where minimal heading changes are required.

Also proposed in ANPRM USCG-2019-0279 (85 FR 37034), the Long Island Fairway (gold color in Figure 21) preserves navigation for mariners to transit in the near shore area south of Long Island. It is appropriate to establish a modified version of this fairway to preserve navigation, although it is recommended that the Southern end of the fairway be adjusted to the north of a traditional anchorage, commonly referred to by mariners as "Ambrose Anchorage." Additionally it is recommended that the Long Island fairway be expanded up to a width of 9 NM, where 9 NM of sea space unimpeded by existing routing measures, throughways, etc. exists, in accordance with Enclosure 3 of the ACPARS. It is also appropriate to formally establish the anchorage as doing so preserves this offshore area for ships awaiting inshore anchorages or berths, improves navigation safety, and enhances the safe and efficient flow of vessel traffic and commerce.

To mitigate the current location conflict between the traditional anchorage and the ANPRM Long Island Fairway (see Figure 22), as discussed in the Approaches to New York notification of inquiry [Docket No. USCG-2020-0620 (<u>86 FR 17090</u>) April 1, 2021], it is recommended that the geometries of both the anchorage and the fairway be adjusted such as depicted in Figure 23. By overlaying 2019 Tug and Tow and Cargo AIS densities (see Figure 24), it can be determined that the recommended adjustments balance traditional navigational practices in this area, whereby Tug and Tow traffic transit north of vessels at anchor.



Illustration showing conflict between the considered anchorage ground and the southern end of the proposed Long Island Fairway.

Figure 22 Location Conflict between Traditional Anchorage & Proposed Long Island Fairway Source: <u>Federal Register Docket USCG-2020-0620</u>



Figure 23 Modified Ambrose Anchorage & Adjusted Long Island Fairway



Figure 24 Modified Ambrose Anchorage & Adjusted Long Island Fairway with AIS densities

In addition to establishing an adjusted version of the Long Island Fairway, it is a finding of this study that navigation needs to similarly be preserved in the near shore areas along the New Jersey coast by implementing a New Jersey to New York Connector Fairway. Additionally it is recommended that the New Jersey to New York Connector Fairway be expanded up to a width of 9 NM, where 9 NM of sea space unimpeded by existing routing measures, throughways, etc. exists, in accordance with Enclosure 3 of the ACPARS. AIS data clearly identifies the near shore coastal areas to be the most frequently transited areas, particularly along the New Jersey coast as demonstrated in Figure 25.



Figure 25 Vessels Route Density 2019 (All vessel types)

In terms of weather and navigation difficulty, the maritime environment in the Northern New York Bight is similar today as it has been for many years, dynamic and frequently transited by a multitude of maritime community stakeholders of various vessel types. The existing routing measures in the Northern New York Bight have been in use since the late 1960's and AIS data demonstrates that mariners consistently utilize them.

Coast Guard VTS New York has been in continuous operation since the early 1990's to improve the safety and efficiency of vessel traffic and protect the environment. The current VTS New York area includes the entrance to the harbor via Ambrose and Sandy Hook Channels, through the Verrazano Narrows Bridge to the Throgs Neck Bridge in the East River, to the Holland Tunnel in the Hudson River, the Kill Van Kull including Newark Bay and all of Arthur Kill, and Raritan Bay. <u>33 CFR §160.3</u> notes that although regulatory jurisdiction is limited to the navigable waters of the United States, certain vessels will be encouraged or may be required, as a condition of port entry, to report beyond this area to facilitate traffic management within the VTS area. Considering future planned offshore development and predicted effects on changes to navigation within the NNYBPARS study area, VTS New York coverage could be expanded to coordinate vessel traffic movements in the offshore port approaches of New York and New Jersey, if deemed to appropriate to mitigate navigational risk not otherwise addressed by the implementation of additional near shore routing measures. Between the entry and exit points of the Off New York: Eastern approach off Nantucket<sup>22</sup> TSS and Off New York: Eastern approach<sup>23</sup> TSS, AIS data shown in Figure 26 demonstrates that mariners transit in multiple directions, but specifically follow the Ambrose to Nantucket and the Nantucket to Ambrose Safety Fairways contained in <u>33 CFR §166.500</u>. These safety fairways were created to control the erection of structures therein to provide safe vessel routes along the Atlantic Coast. In practice and as an added navigational benefit, these two fairways have traditionally served the purpose of separating deep draft commercial marine transportation system traffic from other vessel traffic types. To preserve navigation for a mix of vessel traffic considering multiple planned and future offshore resource development and maintain geometrical consistency with both the proposed St. Lucie to New York & Hudson Canyon to Ambrose Southeastern fairways, it is appropriate to establish a single Nantucket to Ambrose Fairway, thereby removing the need for separate fairways as currently exist.

Beyond the entry and exit points of the Off New York: South-eastern approach<sup>24</sup> TSS, AIS data shown in Figure 26 demonstrates that mariners transit in multiple different directions, including following the same heading as being followed while in the TSS. It has therefore been deemed appropriate to preserve navigation by establishing fairways to the North and South of the Central Bight WEA; 1) Hudson Canyon Eastern Fairway and 2) Hudson Canyon Southeastern Fairway. It is proposed that the Hudson Canyon Southeastern Fairway connects with the off New York Southeastern TSS and extend to a point 5NM south of the Central Bight WEA. It is also proposed that the Eastern provide an access point to the Off New York Southeastern TSS and extend to a point 5NM east of the Central Bight WEA. Both fairways are depicted in Figure 26.

<sup>&</sup>lt;sup>22</sup> Off New York: Eastern approach defined in <u>33 CFR §167.152</u>

<sup>&</sup>lt;sup>23</sup> Off New York: Eastern approach defined in <u>33 CFR §167.153</u>

<sup>&</sup>lt;sup>24</sup> Off New York: South-eastern approach defined in <u>33 CFR §167.154</u>



Figure 26 NNYBPARS Proposed Actions

## B. Comments:

The First Coast Guard District received 51 total comments in response to notice(s) (<u>85 FR 38907</u>), (<u>86 FR 18996</u>), (<u>86 FR 37339</u>) & (<u>86 FR 50546</u>). All comments are publicly available in Federal Register docket <u>USCG-2020-0278</u>. Table 7 categorizes many of the comments by prominent topic and/or theme.

	Comments to ( <u>85 FR 38907</u> ) & ( <u>86 FR 18996</u> )			
14	requested additional routing measures be established			
12	expressed concerns that wind farm installations will negatively affect vessel's marine radar performance			
8	requested setback/buffer zones			
6	requested anchorages be designated			
6	requested additional meetings			
3	requested alteration of existing routing measures			
3	requested expanding Vessel Traffic Services			
	Comments on Draft NNYBPARS ( <u>86 FR 37339</u> ) & ( <u>86 FR 50546</u> )			
1	requested a fishing navigation study be conducted			

2	requested 2 NM x 2 NM spacing between turbines in WEAs			
3	requested additional years of VMS data be analyzed			
1	opposed the proposed Hudson Canyon to Ambrose Eastern Fairway			
3	requested the First Coast Guard District resolve the Cape Charles to Montauk location conflict with BOEM's WEAs announced 29Mar21			
2	requested the Final NNYBPARS assess turbine orientation and spacing			
3	support Alternative 5 as proposed in the Draft NNYBPARS			
2	requested that shipping safety fairways be 9 NM in width			
Tab	Table 7 Comments to 85 FR 38907, 86 FR 18996, 86 FR 37339, & 86 FR 50546			

#### C. Marine Planning Guideline Assessment:

In conducting the NNYBPARS, the First Coast Guard District assessed the current routing measures within the Northern New York Bight against the Marine Planning Guidelines<sup>25</sup> (MPG) criteria to determine whether existing regulations should be revised to improve navigation safety due to factors such as increased vessel traffic, changing vessel traffic patterns, conflicting off-shore uses, weather conditions, and other navigational challenges. Being that existing OREI leases and WEAs have been located in proximity to current routing measures, their placement has also been assessed against the MPG criteria.

In the context of assessing existing routing measures within the Northern New York Bight, it is useful to review both the Coast Guard's roles and responsibilities for OREI and the most relevant sections of the MPG criteria;

## Coast Guard's roles and responsibilities for OREI:

As stated in Navigation and Vessel Inspection Circular (NVIC) NO. <u>01-19</u>, the Coast Guard's role is as follows;

The Coast Guard may serve as a Cooperating Agency under the National Environmental Policy Act with the Lead Agency (LA) considering the issuance of a lease, right of use and easement, or right or way for an Offshore Renewable Energy Installation. The Coast Guard will serve as a subject matter expert for its 11 missions. As such, the role of the Coast Guard is limited to providing an LA with an evaluation of the potential impacts of the proposed facility on the MTS, safety of navigation, the traditional uses of the particular waterway and other Coast Guard missions in order for the LA to prepare its required National Environmental Policy Act (NEPA) documentation. The Coast Guard will develop recommendations that address navigation safety and mitigate potential adverse impacts on other Coast Guard missions in and around the proposed installation and provide them to the LA for consideration. The Coast Guard does not have the authority to approve, disapprove, permit nor in any way authorize an OREI application.

<sup>&</sup>lt;sup>25</sup> The Marine Planning Guidelines are included in Appendix E of <u>COMDTINST 16003.2B</u> and in Enclosure 3 of <u>NVIC 01-19</u>)

## Marine Planning Guideline Criteria:

There is no international standard that specifies minimum distances between shipping routes and fixed structures. However, it is widely accepted that fixed structures in the offshore environment should not interfere with navigation. The MPGs provide general guidelines for siting of multiple structures near shipping routes and established ships routing measures. Each project will be assessed during the BOEM NEPA process on a case by case basis using the MPGs. NOTE: as stated in the <u>COMDTINST 16003.2B</u>, "*These guidelines are not regulatory. They do not impact the boundaries of any existing leases for site characterization and site assessment activities, but do inform suitability of siting structures within a lease area. These guidelines should be considered during the area identification phase for both unsolicited and solicited development areas and when determining the siting of structures within existing areas.*" Thus, it is helpful to understand how the existing lease and the proposed leases currently compare to the MPGs. Below is the First Coast Guard District's assessment on the applicability of each MPG to the Northern New York Bight:

1. Port Approaches and Traffic Separation Schemes:

Planning Guideline:

- 2 NM from the parallel outer or seaward boundary of a traffic lane. (Assumes 300-400m vessels)
- 5 NM from the entry/exit (terminations) of a TSS

These recommendations are based on generic deep draft vessel maneuvering characteristics and are consistent with existing European guidelines. They account for the minimum distances for larger vessels to maneuver in emergency situations.

The 5 NM mile separation from the entry and exit of a TSS is necessary to enable vessels to detect one another visually and by radar in areas where vessels are converging and diverging from and to multiple directions.

*Assessment*: Traffic Separation Scheme Off New York has been established in the approaches to New York Harbor from sea. The Traffic Separation Scheme Off New York is contained in <u>33</u> <u>CFR §167.1 through 33 CFR §167.155</u>. Three sets of traffic lanes direct traffic in and out of the Precautionary Area. Figure 27 assesses each Traffic Separation Scheme to the Marine Planning Guide criteria. There are numerous instances of deviations from the MPGs when looking at both the current OCS-A 0512 lease (awarded before issuance of the MPGs) and BOEM WEAs announced in March 2021. It is important to note that the Marine Planning Guidelines are applicable to Traffic Separation Schemes, but are not considered to be applicable to shipping safety fairways.



Figure 27 Marine Planning Guideline Applicability to Traffic Separation Schemes

# OCS-A 0512:

For the existing OCS-A 0512 lease, the Coast Guard, serving as a cooperating agency to BOEM, will assess and provide input to BOEM on the suitability and appropriateness of navigation risk mitigation measures proposed in the developer's NSRA and COP as BOEM conducts the Environmental Impact Statement (EIS). At the time of this publication's release, the Coast Guard, as a cooperating agency, has not yet provided its final assessment to BOEM specific the subject documents.

## WEAs announced 29Mar21 & Proposed WEA 2021 Lease Sale:

For future WEA development and lease finalization, the Coast Guard will serve as a cooperating agency to BOEM, which should consider the MPGs. At the time of this publication's release, the WEAs have not yet been leased, thus the MPGs would be applicable.

On June 14th, 2021, the Department of the Interior published a <u>Proposed Sale Notice</u> in the Federal register that provided detailed information about potential areas that could be available for leasing, proposed lease provisions and conditions, auction details (e.g., criteria for evaluating competing bids and award procedures), and lease execution. The Proposed Sale Notice includes Hudson North (lease area ID OCS-A 0544), but does not include the Fairways South WEA (not proposed for 2021 lease sale). The current OCS-A 0544 and Fairways South WEA locations, amongst others, are depicted in Figure 28.



Figure 28 BOEM New York Bight Overview Map, June 2021

Stakeholders can assess the WEAs (in the NNYBPARS study area) against the MPG criteria for setbacks. If OCS-A 0544 and Fairways South WEA locations are leased as depicted in Figure 28, these OREI locations would deviate from the MPG criteria, as noted in Figure 27.

The MPG Assessment within the NNYBPARS should inform current and future lease activity and also the Coast Guard's future cooperating agency input.

2. Coastwise or Coastal Shipping Routes:

Vessels that tend to follow the coastline are typically smaller vessels and vessels that cannot safely transit too far offshore due to sea state limitations. The necessary sea space for vessels to safely maneuver is determined by the size and maneuverability of vessels and density of vessel traffic. When determining routes near shore, the depth of water and location of underwater obstructions must be considered, especially if vessel routes will be displaced by the introduction of fixed structures. Vessels of particular concern are those towing astern on a wire. In this configuration, their footprint is large, maneuvering ability is constrained, and the catenary of the tow wire will dictate significantly larger water depths than the drafts of the tug or barge alone.

Planning Guidelines:

- Identify a navigation safety corridor to ensure adequate sea area for vessels to transit safely.
- Provide inshore corridors for coastal ships and tug/barge operations.
- Minimize displacement of routes further offshore.
- Avoid displacing vessels where it will result in mixing vessel types.
- Identify and consider cumulative and cascading impacts of multiple offshore renewable energy installations, such as wind farms.

*Assessment*: Coastwise Shipping Routes are needed to organize traffic through the Northern New York Bight along the coast of New Jersey and Long Island.

# VI. ALTERNATIVES

The First Coast Guard District considered five alternatives:

*Alternative 1*: Make no regulatory changes to existing vessel routing measures.

Alternative 2: Establish modified versions of the Shipping Safety Fairways proposed in the ACPARS ANPRM.

*Alternative 3*: In addition to the contents of Alternative 2, establish a New Jersey to New York Connector fairway.

*Alternative 4*: In addition to the contents of Alternative 3, establish a Hudson Canyon to Ambrose Southeastern Fairway, a Hudson Canyon to Ambrose Eastern Fairway, and a single Nantucket to Ambrose fairway.

*Alternative 5*: In addition to the contents of Alternative 4, establish an Ambrose Anchorage and adjust the Long Island Fairway to mitigate location conflict between the anchorage and fairway.

# VII. CONCLUSION

As required by Coast Guard Headquarters per the March 15, 2019 Federal Register Notice of study; request for comments (84 FR 9541), the First Coast Guard District considered whether it should revise existing regulations to improve navigation safety in Northern New York Bight due to factors such as vessel traffic density, vessel traffic patterns, weather conditions, or navigation challenges in the study area. The First Coast Guard District analyzed all available sources of data relevant to this process, including existing and potential traffic patterns, existing regulations, public submissions, and other factors. The First Coast Guard District identified five different alternatives to consider within this study.

Based on our review, the First Coast Guard District recommends that Alternative 5 be implemented. Alternative 5 best preserves the current and predicted future navigational practices
of a myriad of user types that transit within the established routing measures, follow coastwise routes, cut across the Bight from points to and from Southern New Jersey and areas in the vicinity of Montauk Point and/or Southeastern New England, and anchor in the port approaches awaiting inshore anchorages or berths.

As detailed in the previous section, Alternative 5 recommends that multiple shipping safety fairways and one federal anchorage be established within the NNYBPARS study area. Shipping safety fairways may be utilized mariners but are not mandatory for any specific class of vessel.

Per <u>33 CFR § 166.105</u>, the definition of shipping safety fairway or fairway means a lane or corridor in which no artificial island or fixed structure, whether temporary or permanent, will be permitted. Temporary underwater obstacles may be permitted under certain conditions described for specific areas in Subpart B. Aids to navigation approved by the U.S. Coast Guard may be established in a fairway.

The First Coast Guard District actively monitors all waterways subject to its jurisdiction to help ensure navigation safety. As such, the First Coast Guard District will continue to monitor the Northern New York Bight for changing conditions and consider appropriate actions, such as recommend vessel routes or more extensive use of electronic AtoN, to promote waterway and user safety.

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