UNITED STATES COAST GUARD

Port Access Route Study: Approaches to Maine, New Hampshire, and Massachusetts

Final Report

Docket Number USCG-2022-0047

3/27/2023

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I. EXECUTIVE SUMMARY

On March 31, 2022, the First Coast Guard District issued a 45-day notice of study; request for comments to announce the Approaches to Maine, New Hampshire, and Massachusetts Port Access Route Study (MNMPARS) in the Federal Register (FR) (87 FR 18800). The MNMPARS would consider whether routing measure revisions 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, changing vessel traffic patterns, weather, or navigational difficulty.

On June 28, 2022, the First Coast Guard District published a 60-day notification of inquiry and public meetings; request for comments (87 FR 38418). This supplemental notice announced a schedule for six public meetings and sought additional public comments concerning more specific navigational safety issues. The notification requested responses to several general and port-specific questions that were based on analysis of historical traffic data and public comments received from the original notice of study. Of the six public meetings, four were conducted in both in-person and virtual formats, one was in-person only, and one was virtual only.

On January 3, 2023, the First Coast Guard District published a notice (88 FR 83) announcing the availability of a draft report and request for comments. Due to a publication error, an additional notice (88 FR 2108) was issued on January 12, 2023, to ensure the public was afforded a full 30-day comment period.

The MNMPARS was conducted according to the methodology outlined in United States Coast Guard (USCG) Commandant Instruction 16003.2B, *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, 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 (USCG-2022-0047).

Through the study process, multiple sources of data were considered including a detailed Automated Identification System (AIS) and Vessel Monitoring System (VMS) traffic analysis (Enclosure 1), commercial fishing statistics, public comments, and partner agency submissions. The First Coast Guard District concluded that port expansion projects, changes in fishery management and species distributions, and offshore renewable energy infrastructure, may result in the introduction of larger vessel classes, greater traffic densities, and displacement of some traditional transit routes within the study area. Implementation of shipping safety fairways that will preserve unobstructed transit of densely trafficked routes and port approaches would best mitigate a heightened risk of marine casualties.

The MNMPARS resulted in the following recommendations:

A. Proposed Actions

The First Coast Guard District's proposed routing measures are depicted in Figure 1.

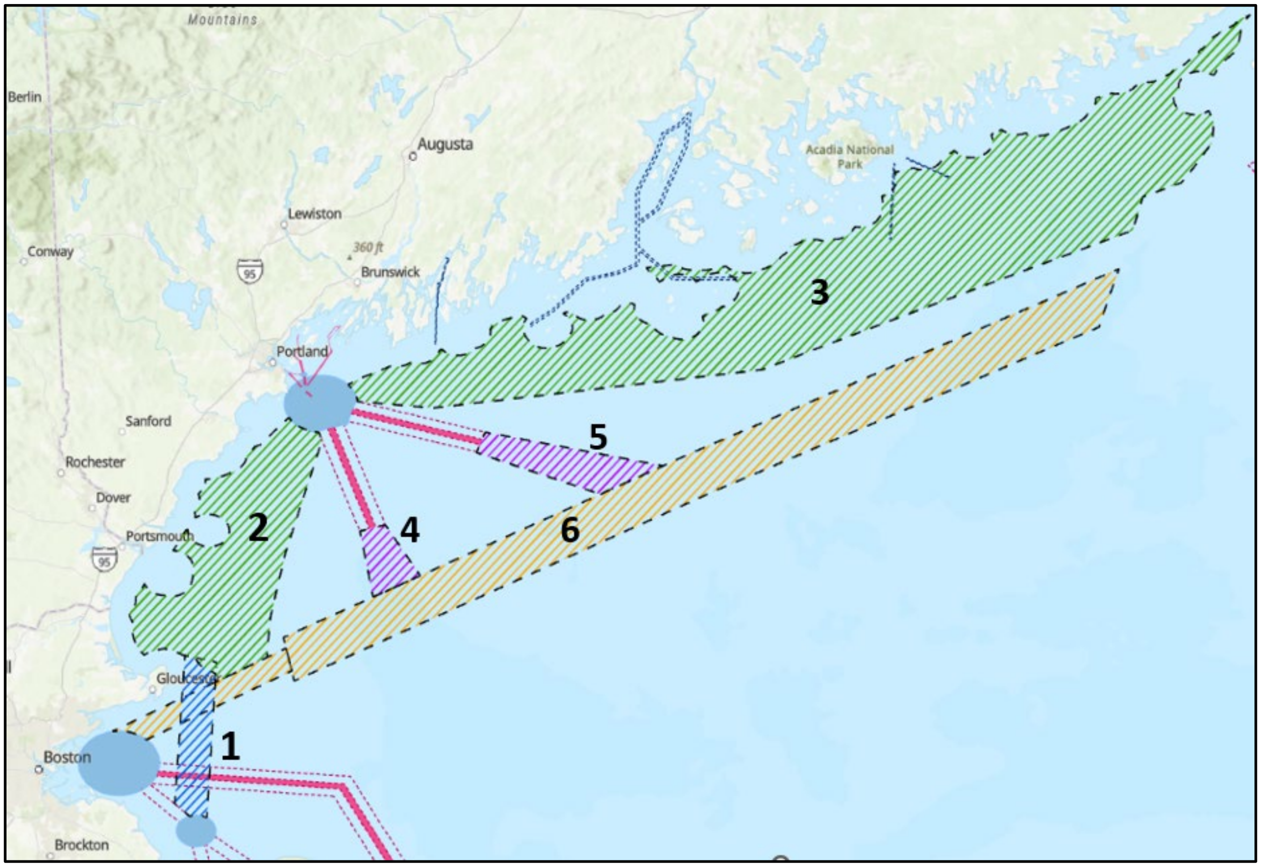

Figure 1 – MNMPARS Recommended Fairways

1. **Massachusetts Bay Fairway (Figure 1, item #1)**. A 5 NM wide fairway is proposed to meet the needs of commercial tug and tow traffic transiting between the Cape Cod Canal and other points north of Boston while also addressing potential impacts of vessel traffic to marine life within the Stellwagen Bank National Marine Sanctuary (SBNMS). The Fairway will extend north from the two-way route precautionary area in Cape Cod Bay to an area east of Rockport, MA. The fairway width was assigned 5 NM to account for the increased complexity of tug and tow transits.[1] Additional 2 NM buffers were not added to the fairway width to aid in consolidating traffic to the western end of the SBNMS and reduce the impact of radiated noise to several whale and fish species. There exists a reduced potential for future obstructions located adjacent to the fairway as it intersects with the SBNMS, the Boston Approach Traffic Separation Scheme (TSS), and a proposed Gulf of Maine Fairway (Figure 1, item #6).

2. **Coastal Zone Fairway (Figure 1, items #2 and #3).** A coastal zone fairway (CZF) is proposed to meet the needs of cargo, tanker, and tug tow vessel traffic transiting along coastal routes between primary commercial ports including Boston, MA; Portsmouth, NH; Portland, Searsport, and Eastport, ME, and Canadian ports through the Bay of Fundy. This fairway would also preserve unobstructed access for all vessel types to several densely trafficked port approaches and non-regulatory recommended routes. To reduce potential conflict with state coastal zone management, the 3 NM state waters line would serve as the inshore CZF boundary. The offshore boundaries were determined using a minimum distance while also expanding in certain areas to encompass traditional, heavily trafficked routes. Considering the substantial amount of tug/tow traffic transiting the western CZF (item #2), a 9 NM minimum distance[1] from the state waters line was used while an 8 NM minimum distance[2] was used for the eastern CZF (item #3).

3. **Portland Southern Approach Fairway** (Figure 1, item #4)**.** A fairway is proposed that will meet the needs of vessel traffic entering and exiting the port of Portland via the Southern Approach TSS. This fairway will ensure sufficient maneuvering space is provided for vessels to manage complex meeting situations and cross traffic as they depart or converge on the regulated traffic lanes. The fairway extends from the terminus of the TSS, gradually expanding to 8 NM before connecting with the proposed Gulf of Maine fairway (Figure 1, item #6).

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[1] This distance aligns with the recommendations provided in the USCG and American Waterways Operators (AWO) Quality Action Team Report provided in Enclosure 3 of the Atlantic Coast PARS
[2] Width determined using a methodology discussed in the World Association for Waterborne Transport Infrastructure (PIANC) MarCom Working Group Report Number 161 (WG 161). Calculation discussed in Section V.C of MNMPARS report.

4. **Portland Eastern Approach Fairway** (Figure 1, item #5**)**. A fairway is proposed that will meet the needs of vessel traffic entering and exiting the port of Portland via the Eastern Approach TSS. This fairway will ensure sufficient maneuvering space is provided for vessels to manage complex meeting situations and cross traffic as they depart or converge on the regulated traffic lanes. The fairway extends from the terminus of the TSS, gradually expanding to 8 NM before connecting with the proposed Gulf of Maine fairway (Figure 1, item #6).

5. **Gulf of Maine Fairway** (Figure 1, item #6**)**. A fairway is proposed that will meet the needs of vessel traffic, primarily cargo and tanker vessels, proceeding across the Gulf of Maine between Boston and the Bay of Fundy. This fairway extends from the Boston Approach TSS precautionary area in Massachusetts Bay to the international boundary outside of the Bay of the Fundy. The fairway width is 4 NM as it extends through Massachusetts Bay along the northern portion of the SBNMS before expanding to 8 NM at the SBNMS border. Similar to the proposed Massachusetts Bay Fairway, this fluctuation in width is deemed appropriate due to the reduced risk of future obstructions adjacent to the fairway and the desire to consolidate traffic and reduce the potential impact of vessels to species within the sanctuary.

6. **Wind Energy Areas (WEA)**. The First Coast Guard District concurs with the concerns and recommendations, including recommended exclusion areas, outlined in the comment submitted by the USCG to BOEM's Request for Interest (RFI) in commercial leasing for wind energy development on the Gulf of Maine Outer Continental Shelf (87 FR 51129; August 19, 2022). These recommendations also apply to the Gulf of Maine Request for Competitive Interest (RFCI) area, specifically the Maine Research Array as proposed in the RFCI (87 FR 51134; August 19, 2022).

7. **WEA Layouts and Cabling**. The USCG recommends that BOEM define wind energy areas in the Gulf of Maine that will allow for consistent layouts and cable routes. Cable routes should not interfere with established Aids to Navigation. Each wind farm, regardless of the area's size and the turbine type, should be organized in straight rows and columns, creating a grid pattern consisting of two lines of orientation. Common turbine spacing and layout will help facilitate navigation safety, consistent and continuous marking and lighting, search and rescue, and other uses, such as commercial fishing. When multiple wind projects share a border, a common turbine spacing and layout throughout all adjoining wind projects is paramount and should be required. This will have the cumulative effect of presenting one wind farm with consistent straight-line routes for the mariner through the entire area.

8. **WEA Mooring Systems and Ancillary Equipment**. The USCG insists that all mooring systems and ancillary equipment not impede the safe navigation of vessel traffic in the wind energy area and be contained inside any approved lease area as a requirement under the terms and conditions of a specific lease.

9. **WEA Siting**. Consistent with the USCG MPG, wind energy areas should avoid conflict with vessels using a TSS. Regardless of location, it is essential that analysis of cumulative impacts to navigation is conducted for each project and that appropriate mitigations are identified as part of a developers Navigation Safety Risk Assessment (NSRA). The USCG will provide evaluations of the potential impacts a project may have on the Marine Transportation System (MTS), safety of navigation, other traditional waterway uses, and the Coast Guard's ability to conduct its 11 statutory missions.

10. **Marine Vessel Radar (MVR)**. The First Coast Guard District recommends that mariners consider the mitigation methods described within the 2022 National Academies Report[3] - *Wind Turbine Generator Impacts to Marine Vessel Radar*, such as implementing supplemental watch standers, greater utilization of non-radar navigation tools, and leveraging additional onboard technologies such as AIS or adopting solid-state MVR equipment that are better capable of filtering out unwanted radar returns. In addition, updated training to enhance radar operator proficiency in distinguishing targets and reducing display clutter could be beneficial. While outside the scope of this PARS, the First Coast Guard District concurs with the National Academies' assessment that there exists a need to collect more data and develop physics-based models for developing strategies to mitigate potential negative effects of wind turbine generators (WTG) on MVR.

B. Continued Actions

The USCG 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 USCG will evaluate the navigational safety risks of each proposal on a case-by-case basis.

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 MNMPARS study area for changing conditions and consider appropriate actions to promote waterway and user safety.

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[3] The National Academies of Sciences, Engineering, and Medicine. 2022. Wind Turbine Generator Impacts to Marine Vessel Radar

II. PURPOSE

The First Coast Guard District conducted the MNMPARS to examine port approaches to Maine, New Hampshire, and Massachusetts and international and domestic transit routes within the study area. This study evaluates the efficacy of current vessel routing measures to determine the need and applicability for modifications or the establishment of new routing measures. In addition to determining the need for adjusting or establishing new traffic separation schemes (TSS) and shipping safety fairways (fairways), other measures including two-way routes, recommended routes, deep-water routes, precautionary areas, and areas to be avoided, were also considered. Several ports within the study area are considered economically significant and/or are critical to the nation's military and national defense operations and serve as international entry and departure transit areas that are integral to the safe, efficient, and unimpeded flow of commerce to/from major international shipping lanes. While recognizing the paramount right of navigation within designated areas, this study seeks to reconcile the need for safe access routes with other reasonable waterway uses such as anchorages, construction, renewable energy facilities, marine sanctuary operations, commercial and recreational activities, and other uses.

The First Coast Guard District, while collaborating with waterways management team members from Coast Guard Sector Northern New England, Coast Guard Sector Boston, Coast Guard Headquarters Assistant Commandant for Prevention, Office of Navigation Systems (CG-NAV), and the Coast Guard Navigation Center (NAVCEN), analyzed whether it should revise existing regulations to improve navigation safety within the study area due to factors such as:

- Increased vessel traffic;
- Changing vessel traffic patterns;
- Planned or potential offshore development;
- Current port capabilities and planned improvements;
- Weather conditions; or
- Navigational difficulty.

III. BACKGROUND

A. Statutory Authority and Direction

The Ports and Waterways Safety Act (PWSA) (46 U.S.C. §70003) authorizes the U.S. Coast Guard (USCG) to designate necessary fairways and TSS to provide safe access routes for vessels proceeding to and from United States (U.S.) ports. The designation of fairways and 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 USCG to conduct a study of port access routes before determining the need for establishing or adjusting current fairways or TSS. These evaluations are called Port Access Route Studies (PARS). The USCG must announce the study through a Federal Register Notice (FRN) 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 USCG 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 (84 FR 9541) March 15, 2019] to announce that Coast Guard District Commanders will prioritize and schedule a PARS for ports within their area of responsibility (AOR) that are economically significant, that support military operations, or are strategic for national defense along the Atlantic.

On March 31, 2022, the First Coast Guard District published a notice of study; request for comments [Docket No. USCG–2022-0047 (87 FR 18800) March 31, 2022] announcing commencement of a PARS to evaluate the adequacy of existing vessel routing measures and determine whether additional vessel routing measures are necessary for port approaches to Maine, New Hampshire, and Massachusetts and international and domestic transit areas in the First Coast Guard District Area of Responsibility (AOR).

On June 28, 2022, the First Coast Guard District published a notification of inquiry and public meetings; request for comments [Docket No. USCG–2022–0047 (87 FR 38418) June 28, 2022] which announced a schedule for six public meetings and sought additional public comments regarding concerns to navigational safety within the area of study. The notification also requested responses to several general and port-specific questions to gain additional insight into issues impacting regional navigation and potential recommendations for changes to existing routing measures.

On January 3, 2023, the First Coast Guard District published a notice of availability of draft report; request for comments [Docket No. USCG–2022–0047 (88 FR 83) January 3, 2023] offering the public an opportunity to provide feedback on the report content, recommendations, and process. Due to a publication error, the ability to provide comments was not initially enabled. On January 12, 2023, an additional notice was issued [Docket No. USCG-2022-0047 (88 FR 2108) January 12, 2023] to ensure the public was afforded a full 30-day comment period.

B. Previous Analyses

1. Port Access Route Studies

In 2005, the USCG published a notice of study announcing a PARS to Evaluate the Vessel Routing Measures in the Approaches to Portland, ME, and Casco Bay (70 FR 7067; February 10, 2005). This study was completed in 2006 and concluded that no amendment to the TSS was needed.

In 2005, the USCG announced a PARS of Potential Vessel Routing Measures to Reduce the Strikes of North Atlantic Right Whales (70 FR 8312; February 12, 2005). The USCG analyzed potential vessel routing measures and considered adjusting existing vessel routing measures in the northern region of the Atlantic Coast, which included Cape Cod Bay, the area off Race Point at the northern end of Cape Cod, and the Great South Channel. The results of the study were announced on May 24, 2006 (71 FR 29876) and included recommendations for amending the location and size of the western portion of the Boston approach TSS. The TSS was subsequently reconfigured in 2007.

In 2007, the USCG announced a second study that included the approaches to Boston, a PARS to *Analyze Potential Vessel Routing Measures to Reduce Vessel Strikes of North Atlantic Right Whales While also Minimizing Adverse Effects on Vessel Operations* (72 FR 64968; November 19, 2007). In addition to the approaches to Boston, this PARS included a northern right whale critical habitat in the area east and south of Cape Cod, MA, and the Great South Channel, including Georges Bank. The study results can be found in docket number USCG-2007-0057, and included recommendations for a seasonal Area to be Avoided (ATBA) and amendments to the southeastern portion of the TSS which were subsequently implemented in 2009.

In 2016, the USCG published a notice of report availability for its Atlantic Coast Port Access Route Study (ACPARS) in the Federal Register (81 FR 13307; March 14, 2016) and announced the study report as final in the Federal Register on April 5, 2017 (82 FR 16510). The ACPARS identified customary navigation routes along the Atlantic coast from Maine to Florida with emphasis on waters seaward of existing port approaches within the U.S. Exclusive Economic Zone (EEZ). The ACPARS clarified necessary sea space for vessels to maneuver in compliance with the International Regulations for Preventing Collisions at Sea (COLREGS) that led to the development of the USCG's Marine Planning Guidelines (MPG).[4] The ACPARS did not

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[4] The Marine Planning Guidelines are included in Appendix E of COMDTINST 16003.2B

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.

2. Waterways Analysis Management System (WAMS)

The USCG periodically conducts a WAMS study to assess the adequacy of the current Aids to Navigation (AtoN) system within U.S. waterways and determine the need for any modifications. The First Coast Guard District examined all past WAMS reviews of waterways within the MNMPARS Study Area to determine if there had been any requests for or references to a need for additional traffic routing measures. Since 1986, 37 WAMS reviews have been completed to assess the effectiveness of the Federal AtoN system within the study area, none of which included requests for or references to a need for additional vessel traffic routing measures.

C. Administrative Procedure

The First Coast Guard District conducted the MNMPARS in accordance with the PWSA, employing methodology from applicable USCG policies including the framework outlined in Appendix D of USCG Commandant Instruction (COMDTINST) 16003.2B, *Marine Planning to Operate and Maintain the Marine Transportation System (MTS) and Implement National Policy*.

If the PARS recommends vessel routing measures, Commandant (CG-NAV) will validate the recommendations and initiate the Federal rulemaking process and/or the International Maritime Organization's (IMO) ships routing measures process. The objectives of the PARS are to:

- Determine potential traffic density;
- Determine if existing vessel routing measures are adequate;
- Determine if existing vessel routing measures require modifications;
- Determine the type of modifications;
- Define and justify the needs for new vessel routing measures;
- Determine the type of new vessel routing measures; and
- Determine if the usage of the vessel routing measures must be mandatory for specific classes of vessels.

D. Study Area

The study area, as depicted in Figure 2, includes regions of the Gulf of Maine, New Hampshire Seacoast, and Massachusetts Bay; an approximate 20,500 square nautical mile area bounded by a line connecting the following geographic positions:

- 41° 55′ N, 070° 33′ W;
- 42° 08′ N, 070° 15′ W;
- 42° 08′ N, 067° 08′ 17” W;

Then proceeding north along the outermost extent of the EEZ and U.S./Canadian border and thence along the COLREGS demarcation line back to the origin. All geographic points are based on North American Datum of 1983 (NAD 83). The study area includes the approaches to the Port of Portland, Portsmouth, and the largest seaport in New England, Boston Harbor.

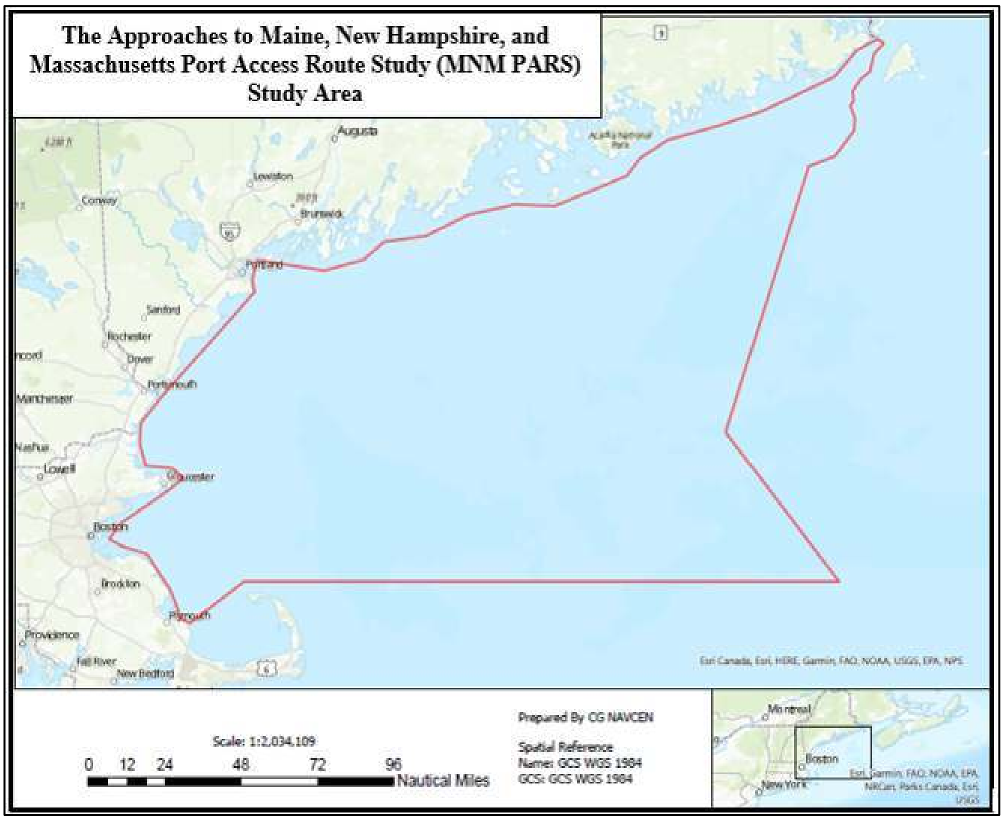

Figure 2 – MNMPARS Study Area

E. <u>Outreach Process</u>

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). Consultation letters were sent to the following groups in accordance with [46 USC 70003]:

- Office of the Governor, State of Maine
- Office of the Governor, State of New Hampshire
- Office of the Governor, Commonwealth of Massachusetts
- Northeast Navigation Manager, NOAA Office of Coast Survey
- New England District Commander, U.S. Army Corps of Engineers (USACE)
- Office of Renewable Energy Programs, Bureau of Ocean Energy Management (BOEM)

1. Notice of Study; request for comments (USCG-2022-0047)

Commencement of the MNMPARS was officially announced on March 31, 2022, with publication of the "Notice of Study; request for comments" in the Federal Register (87 FR 18800). A copy of this Federal Register notice is included in Enclosure 2.

a) On February 22, 2022, Coast Guard Sector Southeastern New England distributed the First Coast Guard District's Marine Safety Information Bulletin (MSIB) 22-002 to provide advance notice of the study. This bulletin was posted to the Sector's homeport website and distributed via email to 1,582 subscribers. A copy of the bulletin is included as Enclosure 3 to this study.

b) On February 23, 2022, Coast Guard Sector Boston distributed the First Coast Guard District's MSIB 22-002 to provide advance notice of the study. This bulletin was posted to the Sector's homeport website and distributed via email to 305 subscribers. A copy of the bulletin is included as Enclosure 3 to this study.

c) On February 24, 2022, Coast Guard Sector New York distributed the First Coast Guard District's MSIB 22-002 to provide advance notice of the study. This bulletin was posted to the Sector's homeport website and distributed via e-mail to 47 members of Port of NY/NJ Harbor Operations Executive Steering Committee. A copy of the bulletin is included as Enclosure 3 to this study.

d) On February 24, 2022, Coast Guard Sector Long Island Sound distributed the First Coast Guard District's MSIB 22-002 to provide advance notice of the study. This bulletin was posted to the Sector's homeport website and distributed to 625 GovDelivery subscribers. A copy of the bulletin is included as Enclosure 3 to this study.

e) On March 15, 2022, Coast Guard Sector Boston further distributed the First Coast Guard District's MSIB 22-002 to the Boston Port Operators Group email distribution list of approximately 322 subscribers.

f) On March 16, 2022, Coast Guard Sector Northern New England distributed the First Coast Guard District's MSIB 22-002 to provide advance notice of the study. This bulletin was posted to the Sector's homeport website and distributed via email to 150 subscribers. A copy of the bulletin is included as Enclosure 3 to this study.

g) On April 1, 2022, Coast Guard Sector Northern New England distributed the First Coast Guard District's MSIB 22-003 to announce the study commencement. This bulletin was posted to the Sector's homeport website and distributed via e-mail to 150 subscribers. A copy of the bulletin is included as Enclosure 4 to this study.

h) On April 1, 2022, Coast Guard Sector Southeastern New England distributed the First Coast Guard District's MSIB 22-003 to announce the study commencement. This bulletin was posted to the Sector's homeport website and distributed via email to 1,582 subscribers. A copy of the bulletin is included as Enclosure 4 to this study.

i) On April 1, 2022, Coast Guard Sector New York distributed the First Coast Guard District's MSIB 22-003 to announce the study commencement. This bulletin was posted to the Sector's homeport website and distributed via e-mail to 47 members of Port of NY/NJ Harbor Operations Executive Steering Committee. A copy of the bulletin is included as Enclosure 4 to this study.

j) On April 1, 2022, the First Coast Guard District published a Facebook and Twitter post announcing commencement of the MNMPARS and providing instructions for submitting comments. Screen shots have been uploaded to the public docket.

2. Notification of Inquiry and Public Meetings; request for comments (87 FR 38418). A copy of this Federal Register Notice is included as Enclosure 5 to this study.

a) On June 30, 2022, Coast Guard Sector Northern New England distributed the First Coast Guard District's MSIB 22-004 to announce the Notification of Inquiry and public meeting schedule. This bulletin was posted to the Sector's homeport website and distributed via e-mail to 150 subscribers. A copy of the bulletin is included as Enclosure 6 to this study.

b) On June 30, 2022, Coast Guard Sector Southeastern New England distributed the First Coast Guard District's MSIB 22-004 to announce the Notification of Inquiry and public meeting schedule. This bulletin was posted to the Sector's homeport website and distributed via email to 1,582 subscribers. A copy of the bulletin is included as Enclosure 6 to this study.

c) On June 30, 2022, Coast Guard Sector New York distributed the First Coast Guard District's MSIB 22-004 to announce the Notification of Inquiry and public meeting schedule. This bulletin was posted to the Sector's homeport website and distributed via e-mail to 47 members of Port of NY/NJ Harbor Operations Executive Steering Committee. A copy of the bulletin is included as Enclosure 6 to this study.

d) On July 1, 2022, 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 (87 FR 18800) of March 31, 2022 were notified via email of the First Coast Guard District's issuance of the notification of inquiry and public meetings (87 FR 38418) of June 28, 2022.

e) On July 13, 2022, Coast Guard Sector Boston distributed the First Coast Guard District's MSIB 22-004 to announce the Notification of Inquiry and public meeting schedule. This bulletin was posted to the Sector's homeport website and distributed via e-mail to 305 subscribers. A copy of the bulletin is included as Enclosure 6 to this study.

f) On July 20, 2022, Coast Guard Sector Northern New England distributed the First Coast Guard District's MSIB 22-006 to provide an updated public meeting schedule with additional attendance options. This bulletin was posted to the Sector's homeport website and distributed via e-mail to 150 subscribers. A copy of the bulletin is included as Enclosure 7 to this study.

g) On July 20, 2022, Coast Guard Sector Boston distributed the First Coast Guard District's MSIB 22-006 to provide an updated public meeting schedule with additional attendance options. This bulletin was posted to the Sector's homeport website and distributed via e-mail to 305 subscribers. A copy of the bulletin is included as Enclosure 7 to this study.

h) On July 20, 2022, Coast Guard Sector Southeastern New England distributed the First Coast Guard District's MSIB 22-006 to provide an updated public meeting schedule with additional attendance options. This bulletin was posted to the Sector's homeport website and distributed via email to 1,582 subscribers. A copy of the bulletin is included as Enclosure 7 to this study.

i) On July 20, 2022, Coast Guard Sector Long Island Sound distributed the First Coast Guard District's MSIB 22-006 to provide an updated public meeting schedule with additional attendance options. This bulletin was posted to the Sector's homeport website and distributed to 625 GovDelivery subscribers. A copy of the bulletin is included as Enclosure 7 to this study.

j) On July 20, 2022, the First Coast Guard District published a Twitter post, with several partner agencies tagged, to raise awareness of the notification of inquiry and encourage public meeting attendance for the MNMPARS. Screen shots have been uploaded to the public docket.

k) On July 22, 2022, Coast Guard Sector New York distributed the First Coast Guard District's MSIB 22-006 to provide an updated public meeting schedule with additional attendance options. This bulletin was posted to the Sector's homeport website and distributed via e-mail to 47 members of Port of NY/NJ Harbor Operations Executive Steering Committee. A copy of the bulletin is included as Enclosure 7 to this study.

l) On August 1, 2022, the First Coast Guard Districted distributed an email reminder of the PARS public meeting schedule to over 500 recipients including members of the BOEM Intergovernmental Renewable Energy Task Force.

m) On August 9, 2022, Coast Guard Marine Safety Detachment (MSD) Belfast distributed an email reminder of the PARS public meeting schedule to over 200 subscribers.

3. Notice of Availability of Draft Report; request for comments (88 FR 83) and comment period extension (88 FR 2108). Copies of both Federal Register Notices are included as Enclosures 8 and 9, respectively, to this study.

a) On January 12, 2023, Coast Guard Sector Boston distributed the First Coast Guard District's MSIB 23-001 to announce availability of a draft report and public comment period. This bulletin was posted to the Sector's homeport website and distributed via e-mail to 305 subscribers. A copy of the bulletin is included as Enclosure 10 to this study.

b) On January 13, 2023, Coast Guard Sector Northern New England distributed the First Coast Guard District's MSIB 23-001 to announce availability of a draft report and public comment period. This bulletin was posted to the Sector's homeport website and distributed via e-mail to 150 subscribers. A copy of the bulletin is included as Enclosure 10 to this study.

c) On January 13, 2023, Coast Guard Sector Southeastern New England posted the First Coast Guard District's MSIB 23-001 to the Sector's homeport website to announce availability of a draft report and public comment period. A copy of the bulletin is included as Enclosure 10 to this study.

d) On January 17, 2023, Coast Guard Sector Long Island Sound distributed the First Coast Guard District's MSIB 23-001 to announce availability of a draft report and public comment period. This bulletin was posted to the Sector's homeport website and distributed to 625 GovDelivery subscribers. A copy of the bulletin is included as Enclosure 10 to this study.

e) On January 18, 2023, Coast Guard Marine Safety Detachment (MSD) Belfast distributed the Fist Coast Guard District's MSIB 23-001 to announce availability of a draft report and public comment period. This bulletin was distributed via email to over 200 subscribers.

f) On January 19, 2023, the First Coast Guard District published a Twitter post to raise awareness of the draft report availability and opportunity for public comment. Screen shots have been uploaded to the public docket.

g) On January 31, 2023, Coast Guard Sector New York distributed the First Coast Guard District's MSIB 23-001 to announce availability of a draft report and public comment period. This bulletin was posted to the Sector's homeport website and distributed via e-mail to 291 subscribers. A copy of the bulletin is included as Enclosure 9 to this study.

4. Local Notice to Mariners (LNM)

Notices related to the MNMPARS were published each week for 27 consecutive weeks in the First Coast Guard District Local Notice to Mariners (more than 5,000 subscribers) from LNM 08-22 to LNM 34-22.

Additional notices related to the availability of the MNMPARS draft report were published each week for 4 consecutive weeks in the First Coast Guard District Local Notice to Mariners (more than 5,000 subscribers) from LNM 03-23 to LNM 06-23.

5. Public Forums

USCG representatives also discussed the MNMPARS and solicited feedback at several public forums including:

- March 15, 2022, meeting of the Maine Offshore Wind Roadmap Fisheries Working Group
- March 15, 2022, meeting of the Boston Port Operators Group
- March 16, 2022, meeting of the Maine Pilotage Commission
- March 17, 2022, meeting of New England Fishery Management Council Habitat Committee
- April 12, 2022, meeting of the Waterfront Alliance of Portland Harbor
- April 19, 2022, meeting of the Boston Port Operators Group
- May 4, 2022, meeting of the Northeast Regional Ocean Council
- May 19, 2022, meeting of the Gulf of Maine Intergovernmental Renewable Energy Task Force

- May 24, 2022, meeting of the Massachusetts Fisheries Working Group on Offshore Wind

- May 31, 2022, meeting of the Maine Offshore Wind Roadmap Fisheries Working Group

- July 6, 2022, meeting of the Port of New York and New Jersey Harbor Operations Executive Steering Committee

- January 17, 2023, BOEM Information Exchange Regarding Offshore Wind Energy in the Gulf of Maine, Salem, MA

- January 17, 2023, meeting of the Boston Port Operators Group

- January 18, 2023, BOEM Information Exchange Regarding Offshore Wind Energy in the Gulf of Maine, Portsmouth, NH

- January 19, 2023, BOEM Information Exchange Regarding Offshore Wind Energy in the Gulf of Maine, Portland, ME

- January 20, 2023, meeting of the Massachusetts Fisheries Working Group on Offshore Wind

6. Public Comment Opportunities

   a) Federal Register (87 FR 18800) of March 31, 2022 (see Enclosure 2) provided for a 45-day comment period during which time 14 comments were posted to the public docket.

   b) Federal Register notice (87 FR 38418) of June 28, 2022 (see Enclosure 5) provided for a 60-day period to receive written comments. The First Coast Guard District also held six public meetings to provide the opportunity for oral comments. A total of 16 comments were received during the comment period – six posted directly to the public docket, eight provided orally at public meetings, and two submitted via email. Oral comments provided during public meetings can be viewed in the individual meeting recordings posted to the documents section of the public docket. Comments received via email can be viewed, along with those posted directly, in the public docket comments section.

   c) Of the six public meetings held, four were conducted in a hybrid format, which included in-person, virtual, and teleconference attendance options. Of the two remaining meetings, one was in-person only and the other was a virtual-only session.

   d) Federal Register notice (88 FR 2108) of January 12, 2023 (see Enclosure 9) provided for a 30-day period to receive written comments on the MNMPARS draft report. A total of 12 comments were received during the comment period – 11 posted directly to the public docket and 1 received via email.

Recordings of the hybrid and virtual format public meetings, as well as a meeting summary for the USCG Station Jonesport meeting (in-person only), are included in the public docket. The public meetings held included:

- August 2, 2022, at 3 p.m. EST – Hybrid Format - New Hampshire Department of Environmental Services; Portsmouth, NH
- August 3, 2022, at 3 p.m. EST – Hybrid Format – Winter Island Function Hall; Salem, MA
- August 10, 2022, at 3 p.m. EST – In-Person Only - USCG Station Jonesport; Jonesport, ME
- August 11, 2022, at 3 p.m. EST – Hybrid Format – UMaine Hutchinson Center; Belfast, ME
- August 17, 2022, at 3 p.m. EST – Hybrid Format – International Marine Terminal; Portland, ME
- August 18, 2022, at 6 p.m. EST – Virtual Only – Zoom and Teleconference

F. Definition of Terms

Definitions for certain terms used in this PARS can be found in Appendix B.

G. Abbreviations and Acronyms

A list of abbreviations and acronyms used in this PARS can be found in Appendix C.

IV. THE STUDY

A. Existing Regulations & Pilotage

The items discussed in this section are not all-inclusive but provide a list of primary regulations and routing measures that are most applicable to the area of study.

1. Policies that apply to the MNMPARS study area include:

   - General Coast Guard Captain of the Port (COTP) Authority - 33 Code of Federal Regulations (CFR) §1.01

- U.S. Army Corps of Engineers (USACE) regulations regarding obstructions and hazards to navigation pursuant to The Rivers and Harbors Appropriation Act of 1899 - 33 United States Code (U.S.C.) §403

- U.S. Aids to Navigation System - 33 CFR subchapter C

- The Navigation Rules, International and Inland ("Rules of the Road") - 33 CFR subchapters D and subchapter E

- Vessel Operating Regulations - 33 CFR subchapter F

- Special Local Regulations: Marine Events Held in the Coast Guard Sector Northern New England and Sector Boston Captain of the Port Zones - 33 CFR §100.100 – 100.499

- Speed Restrictions to protect North Atlantic Right Whales (NARW) - 50 CFR §224.105

- Boundary and prohibited/regulated activities within the Stellwagen Bank National Marine Sanctuary - 15 CFR §922.140 – 922.143

- Regulated Navigation Areas (RNA) and Limited Access Areas within the First Coast Guard District area of responsibility - 33 CFR §165.T01 - 0023

- Anchorage Regulations and Designated Areas - 33 CFR §110

2. Traffic Separation Schemes (TSS)

    a) Approaches to Portland, ME – Consists of three parts: A precautionary area, an Eastern approach, and a Southern approach TSS. Each were established in 1978 and are described in 33 CFR §167.50 , 167.51, & 167.52.

    b) Approach to Boston, MA – Consists of three parts: Two precautionary areas and a single approach TSS. The TSS was established in 1973 and was amended in 1983, 2007, and 2009. The areas are described in 33 CFR §167.75 , 167.76, & 167.77.

3. Two-Way Routes

    a) To reduce the possibility of vessel strikes with NARW, Two-Way Routes were developed for vessels entering and transiting through Cape Cod Bay.[5]

    b) To reduce the potential for conflict with recreational boaters, fishing gear, and other small craft; and to reduce the potential for grounding or collision, Two-Way

[5] U.S. Coast Pilot 1

Routes have been established in the approaches to Portland Harbor and Casco Bay, through Hussey Sound to Cousins Island and through Broad Sound to Harpswell, Maine.

4. Non-Regulatory

a) Frenchman Bay Recommended Vessel Route - To provide established tracklines for commercial traffic and mitigate loss of fishing gear placed in the approach to Frenchman Bay, deep-draft and other commercial vessels are requested to follow designated routes. These routes are the result of an agreement between the Penobscot Bay River Pilots Association, fishermen, cruise ship representatives and the USCG.[6]

b) Sheepscot River Recommended Vessel Route - To provide established tracklines for increased vessel traffic and mitigate loss of fishing gear placed in the approach to Sheepscot River, vessels are requested to follow a designated route. This route is the result of cooperation between the Maine and New Hampshire Port Safety Forum and USCG Sector Northern New England Captain of the Port.[7]

c) Penobscot Bay Recommended Vessel Route - To provide established tracklines for commercial vessels and mitigate loss of fishing gear placed in the approach to Penobscot Bay, deep draft vessels are requested to follow a designated route. This route is the result of cooperation between the Maine and New Hampshire Port Safety Forum and the USCG Sector Northern New England Captain of the Port.[8]

d) Voluntary Area to Be Avoided (ATBA) – To reduce the risk of ship strikes to the NARW, a voluntary ATBA was established in the Great South Channel, east of the Boston Harbor traffic lanes. Ships 300 gross tons or more should avoid transiting the area between April 1 and July 31.[9]

5. Pilotage

a) Pilotage is compulsory for foreign vessels and U.S. vessels under register in the foreign trade as follows:

- Maine – Eastport, Cobscook Bay, Pennamaquan River and Friar Roads when entered through Head Harbor Passage, Frenchman Bay, Penobscot Bay and River, Kennebec River to Bath, and Portland

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[6] Route described in NOTE B of NOAA Chart 13318
[7] Route described in NOTE D of NOAA Chart 13293 & Chapter 8 of U.S. Coast Pilot 1
[8] Route described in NOTE B of NOAA Chart 13303 & Chapter 7 of U.S. Coast Pilot 1
[9] NOAA Fisheries - Reducing Vessel Strikes to North Atlantic Right Whales

- New Hampshire – All ports

- Massachusetts – All ports

b) Pilotage is optional for coastwise vessels that have on board a pilot properly licensed by the Federal Government for the waters which the vessel travels. Details regarding service providers and pilot arrangements can be found in the U.S. Coast Pilot 1.

B. Existing and Future Waterway Uses

The MNMPARS area of study encompasses a remarkably complex and dynamic marine environment that is home to over 3,000 coastal and marine species[10] and is used year-round for both recreational and commercial purposes. The maritime economies of Maine, New Hampshire, and Massachusetts saw significant growth between 2009 and 2019 with each state adding an average of 14,000 marine related jobs and reaching a combined marine economic GDP of $13.8 billion.[11]

In 2019, more than approximately 95,000 individuals[12] within the study area were employed across several industry subsectors including:

- Marine Construction – Heavy construction activities associated with dredging navigation channels and beach re-nourishment

- Offshore Mineral Extraction – Oil and gas exploration and production, as well as limestone, sand, and gravel mining

- Tourism and Recreation – Businesses that attract and support marine-based tourism and recreation (e.g. restaurants, hotels, tour boats, aquariums, parks, marinas, etc.)

- Living Resources – Commercial fishing, aquaculture, seafood processing, and wholesale and retail markets

- Ship and Boat Building – Construction, maintenance, and repair of ships, recreational boats, commercial fishing vessels, ferries, and other marine vessels

[10] Census of Maine Life Program - Gulf of Maine Association
[11] NOAA Office for Coastal Management (OCM) - Reports on the U.S. Marine Economy
[12] Figure estimate based on combined marine economy employment figures from NOAA OCM; Suffolk County figure used for Massachusetts as entire state does not fall within the PARS study area

- Marine Transportation – Deep-sea freight, marine passenger and transportation services, warehousing, and navigation equipment manufacturing

Continued changes to the environment and expansion of the maritime economy can be expected to influence both routes and densities of regional vessel traffic.

The following resources and considerations were evaluated to determine current and future vessel traffic trends and identify potential impacts to navigation and efficient port access:

1. Vessel Traffic Data

The First Coast Guard District coordinated with the National Marine Fisheries Service (NMFS) Office of Law Enforcement (OLE) and the Coast Guard Navigation Center (NAVCEN) for Automatic Identification System (AIS) and Vessel Monitoring System (VMS) data products. The First Coast Guard District concurs with NAVCEN's complete traffic analysis which can be found, along with a more detailed description of the analysis methodology, in Enclosure 1.

Acknowledging that not all vessels are required to transmit their location using AIS or VMS,[13] the First Coast Guard District ensured vessel traffic data was considered alongside other sources of information including public comments, industry reports, and consultations with partner agencies.

While AIS data may not capture all vessels transiting within the area of study, it does provide a good representation of commonly trafficked routes used to access domestic ports.

The Coast Guard NAVCEN provided AIS data for the MNMPARS area of study from 2019 thru 2021. Table 1 provides a summary extract from Enclosure 1 (except where annotated by *, indicating VMS data was used[14]) showing the unique vessel counts by type that transited the study area in 2019, 2020, and 2021.

Vessel Type	2019	2020	2021	Average
Fishing	266	269*	316*	283*
Other	99	105	102	102
Pleasure Craft / Sailing	1916	1933	2087	1,979
Cargo	254	225	207	229
Tanker	140	124	151	138
Tug Tow	161	133	135	143

[13] AIS carriage requirements - 33 CFR §164.146; VMS carriage requirements 50 CFR §648.10

[14] AIS & VMS data sources can capture the presence of unique fishing vessels. Not all Fishing Vessels possess AIS transceivers, thus the higher vessel quantity was used between AIS & VMS data where appropriate

Passenger	126	79	78	94
Not Available	470	94	763	442
Military	12	6	11	10
Totals	3,444	2,968	3,844	3,419

Table 1 – AIS Unique Vessel Counts by Type

While these counts provide a broad overview of the amount and type of vessels present in the study area, track counts were also considered to determine the volume of traffic. Table 2 provides an extract from Enclosure 1 (except where annotated by *, indicating VMS data was used) showing the amount of track counts per vessel type in each year.

Vessel Type	2019	2020	2021	Average
Fishing	12.1k*	12k*	13.1k*	12.4k*
Other	2.2k	1.9k	2.0k	2.03k
Pleasure Craft / Sailing	12.1k	13.0k	12.5k	12.53
Cargo	1.0k	0.8k	0.8k	0.86k
Tanker	1.0k	1.0k	1.2k	0.73k
Tug Tow	3.5k	2.1k	1.9k	2.5k
Passenger	5.3k	3.0k	4.3k	4.2k
Not Available	4.2k	1.5k	6.2k	3.96k
Military	0.1k	0k	0k	0k
Totals	41.5k	35.3k	42k	39.21k

Table 2 – AIS Vessel Track Counts by Type (thousands)

Pleasure craft/sailing traffic is most concentrated in near coast patterns, within 5-10 NM of shore, transiting in vicinity of the regions more densely populated areas, coastal communities, and various seasonal/vacation destinations. Passenger vessels, including cruise ship traffic, frequently enter and depart several port areas including Bar Harbor, Rockland, Boothbay, and Portland, ME; Portsmouth, NH; and Newburyport, Gloucester, and Boston, MA.

Cargo and tanker traffic primarily call on the region's principle deep-draft commercial ports including Eastport, Searsport, and Portland ME; Portsmouth, NH; and Boston, MA. A significant amount of regional tanker traffic transits between these domestic ports and international destinations, such as Saint John, New Brunswick, carrying petroleum products (e.g., heating oil, gasoline, diesel, and jet fuels) that are especially critical to northern New England. Four ports within the study area ranked within the top 150 domestic ports for total cargo tonnage handled. Figure 3 shows the waterborne cargo tonnage handled by these ports for

2018, 2019, and 2020, as provided by the U.S. Army Corps of Engineers (USACE) Waterborne Commerce Statistics Center (WCSC).[15]

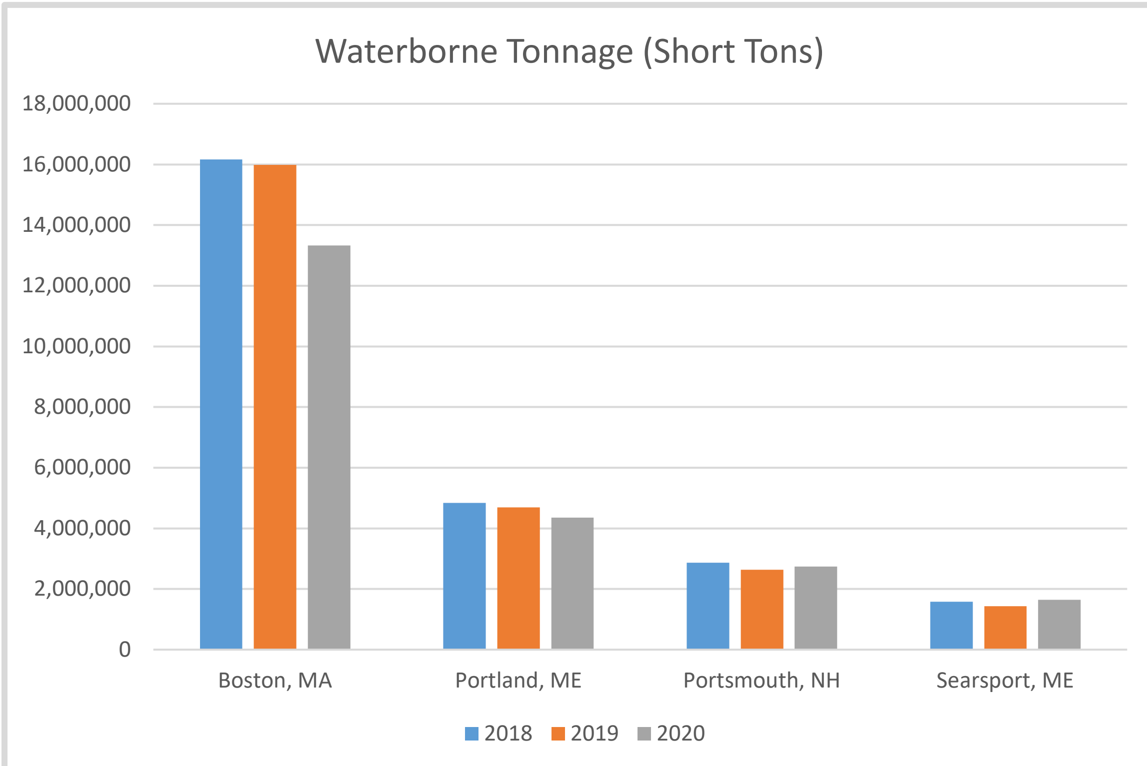

Figure 3 – Commercial Cargo Waterborne Tonnage

Dense tug/tow vessel traffic transits to and from the Cape Cod Canal to Boston, Portsmouth, Portland, Penobscot Bay, and further into Canadian ports. Depending on the port of call, tug and tow transit routes can be complicated by the region's coastal geography, preventing these vessels from hugging the coast as closely as they might in other areas.

While fishing vessels accounted for only 8% of the average annual unique vessel count, they represented approximately 31% of the average annual vessel tracks.

Figure 4 provides an additional representation of the total annual AIS vessel tracks transiting the study area divided by type.

[15] WCSC - Waterborne tonnage for principal U.S. ports and all 50 states and territories

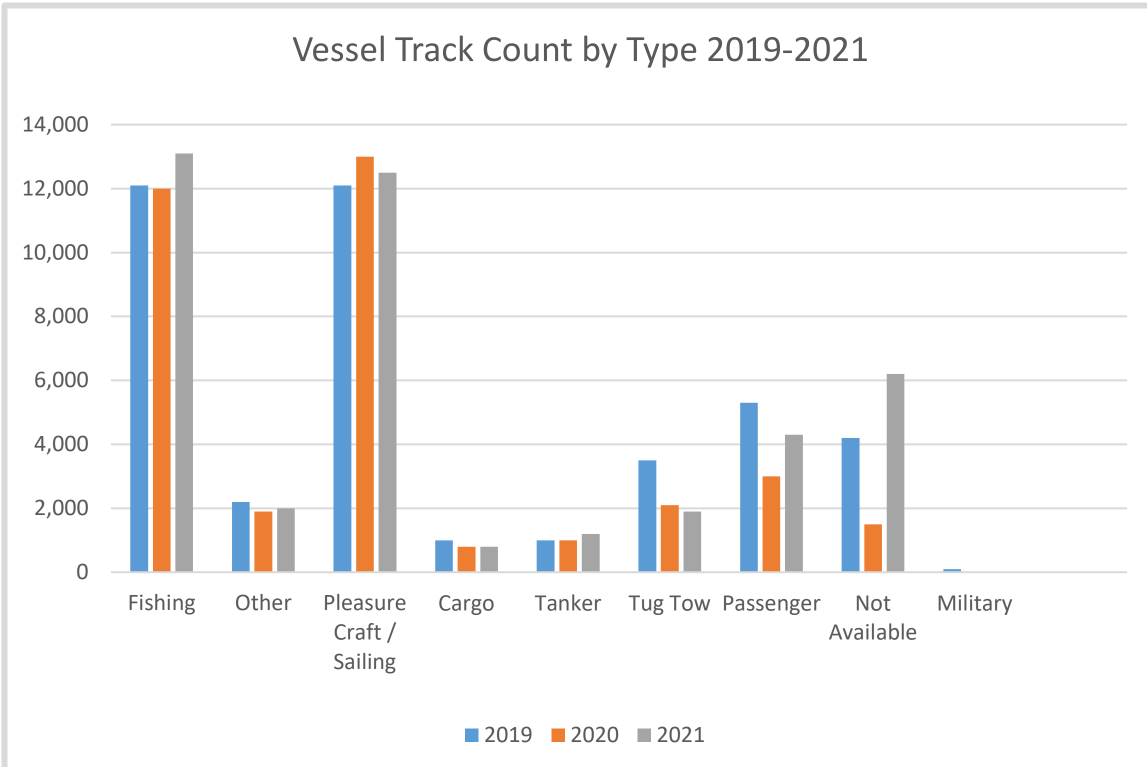

Figure 4 – AIS Vessel Track Counts by Type

2. Commercial Fishing Activity

Fisheries in the Gulf of Maine, along the New Hampshire Seacoast, and within the Massachusetts Bay, are extremely important to the economic security of the region and social well-being. NOAA's 2022 New England State of the Ecosystem Report[16] identifies several communities within the study area that are both highly engaged in and reliant on the commercial fishing industry.

Preliminary 2021 data for the state of Maine reflects a total price paid for commercial fish landings, also referred to as *ex-vessel value*, in excess of $890 million, with 82% of that being from lobster.[17] In 2017, the marine fishing industry contributed $125 million to the New Hampshire Economy.[18] The port of Gloucester, one of Massachusetts' top ports within the study

[16] NOAA Fisheries - State of the Ecosystem Reports for the Northeast U.S. Shelf
[17] ME Dept. of Marine Resources - Most Recent Maine Commercial Landings
[18] State of NH - Report on Greenhouse Gas Emissions, and Infrastructure and Supply Chain Opportunities as it Relates to the Deployment of Offshore Wind in the Gulf of Maine

area in terms of landings value, had a reported ex-vessel value of more than $53 million in 2018.[19]

VMS transit data for the MNMPARS area of study was obtained for 10 years from 2012 thru 2021. Table 3 shows the approximate number of annual transits per year and the number of permitted (unique) vessels. The activity and patterns indicated by VMS data can shift based on changes in fishery management and other environmental factors.

Year	Transits (thousands)	Unique VMS Vessels
2021	13.1k	316
2020	12k	269
2019	12.1k	255
2018	12.8k	270
2017	12.5k	350
2016	13.2k	318
2015	13k	311
2014	14.6k	300
2013	16.2k	345
2012	20.5k	369

Table 3 – VMS Transits and Unique Vessels

There are several Habitat Management and Closure Areas located in the area of study, each with certain seasonal or year-long restrictions. These areas include Eastern Maine, Jeffrey's Bank, Ammen Rock, Cashes Ledge, Fippennies Ledge, and the Western Gulf of Maine (WGoM). In addition, the study area includes the Stellwagen Bank National Marine Sanctuary (SBNMS) and the Stellwagen Bank Dedicated Habitat Research Area (DHRA).[20]

New regulatory measures aimed at preserving habitats and protecting species, such as the North Atlantic Right Whale (NARW) and Atlantic Sturgeon, may lead to changes in vessel traffic patterns and interactions. Climate change and ocean warming has, and will likely continue to cause, shifts in species distributions[21] potentially changing transit routes used by fishing fleets when proceeding to and from regional ports.

Analysis of AIS and VMS density maps and summaries (Enclosure 1) indicate that the heaviest fishing vessel traffic largely transits from several primary port areas including Jonesport, Beals, Rockland, Stonington, Vinalhaven, Boothbay, Harpswell, and Portland, ME; Portsmouth, NH;

[19] MA Division of Marine Fisheries - Profiles and Analysis of Massachusetts Commercial Fishery
[20] NOAA Fisheries - Northeast Multispecies Closed Area Regulations: Gulf of Maine
[21] NOAA Fisheries - State of the Ecosystem Reports for the Northeast U.S. Shelf

Newburyport and Gloucester, MA. Comparing the traffic densities produced using VMS and AIS data, as shown by example in Figure 5 and Figure 6 respectively, reveals similar traffic patterns and trends. However, considering shifts in environmental conditions and various other factors that influence the region's fisheries, past activity may not be indicative of future trends and can make predicting future transit routes difficult.

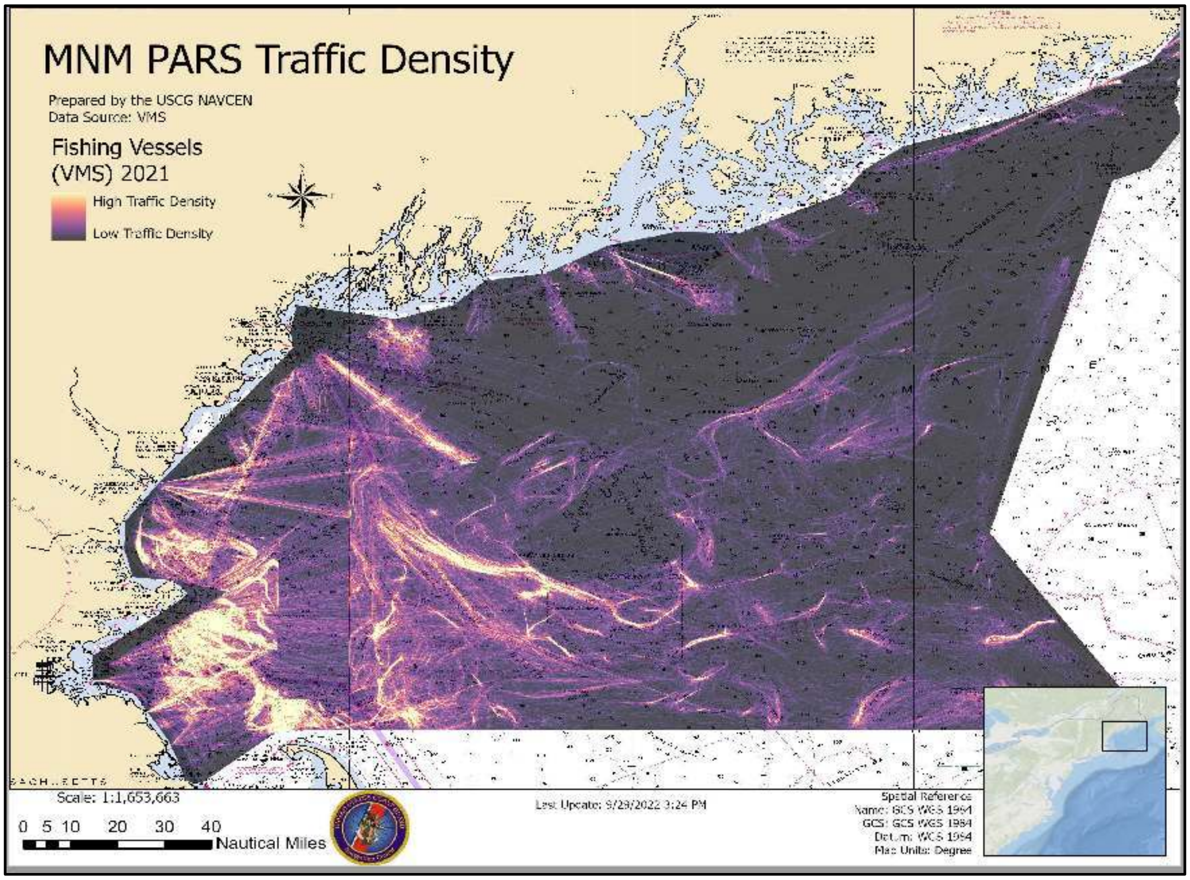

Figure 5 – 2021 VMS Fishing Vessel Traffic Density

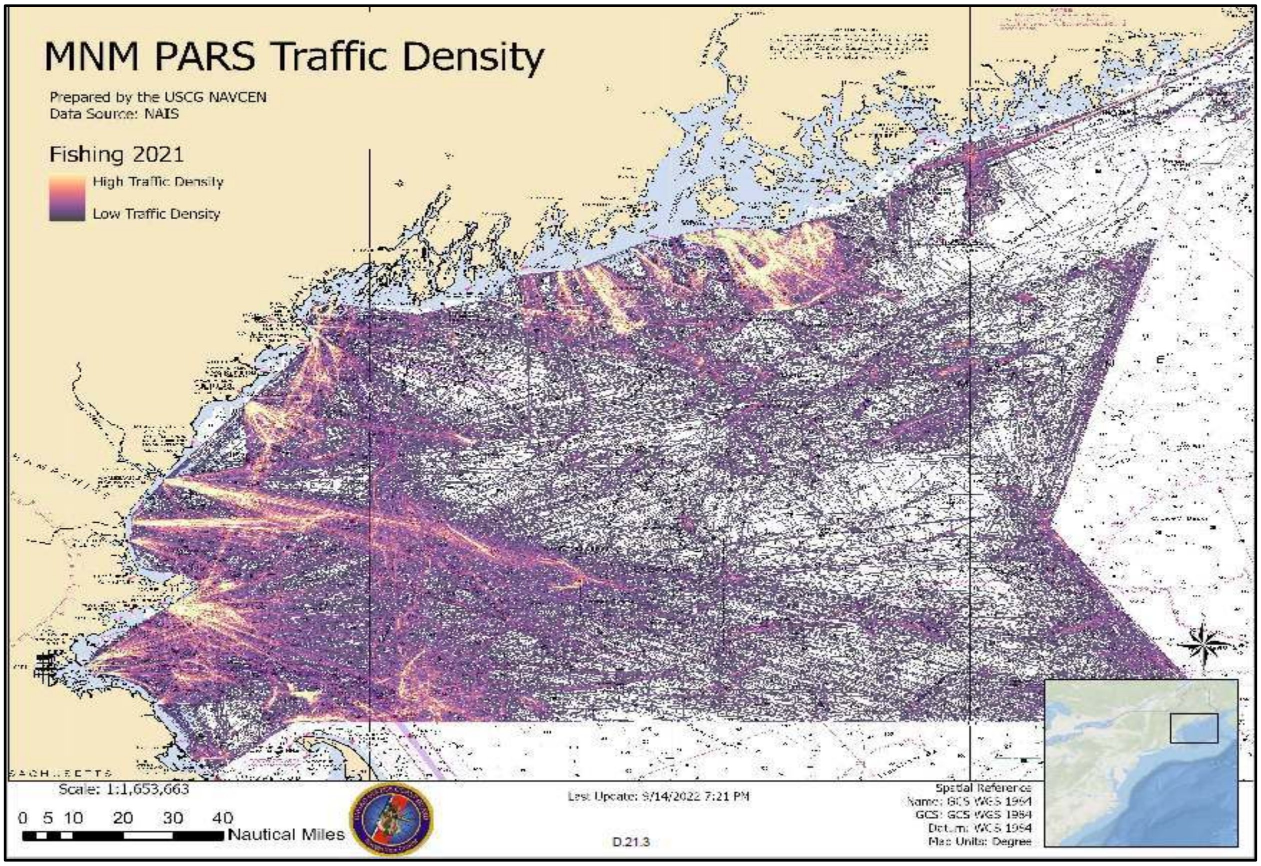

Figure 6 – 2021 AIS Fishing Vessel Traffic Density

Vessels departing Portland and ports in the eastern coastal region of Maine, typically transit on southeastern routes before diverting to various fishing grounds. Vessels departing Portsmouth primarily take easterly routes, branching off into several northern and southern oriented headings. Vessels operating out of Newburyport appear to take easterly routes while also operating within 10-15 miles of the northern Massachusetts coast. Vessels departing Gloucester take one of several routes, with dense traffic appearing on southeast headings and northeast headings near the coast of Cape Ann; a significant amount of operations appears to take place in Stellwagen Bank and along the edges of the WGoM Closure Area.

Although vessels may engage in fishing operations throughout the study area, high levels of activity can been in the Isles of Shoals, Bigelow Bight, Rye Beach, Wilkinson Basin, Stellwagen Bank, Platts Bank, and the edges of closure areas (e.g. Jeffrey's Bank, Cashes Ledge, WGoM).

The Gulf of Maine has seen increased lobster landings over the past 10 years, primarily in the ports north of Cape Cod, due to ocean warming off Southern New England.[22] Some of the biggest ports for lobster in the study area include Stonington, Vinalhaven, and Friendship, ME; and Gloucester, MA. Lobstering occurs across Maine's entire coastline with some lobstermen harvesting year-round and others ranging from five to ten months out of the year. In addition to harvesting in rivers and bays, lobstermen will also venture further offshore, following lobsters as they migrate.[23] Table 4 provides a list of the Maine ports with the most trips and highest landing value for American Lobster from 2019-2021.[24]

Port	Total Trips	Total Harvesters	Total Value
Stonington	80,044	1,165	$ 171,247,082.66
Other Maine	78,832	1,841	$ 197,186,278.05
Vinalhaven	46,957	629	$ 128,006,900.42
Beals	41,913	871	$ 72,564,971.03
Friendship	32,651	510	$ 85,233,529.60
Spruce Head	25,889	467	$ 65,674,115.39
Harpswell	23,625	382	$ 51,022,488.81
Portland	23,032	565	$ 52,314,389.42
Cundys Harbor	20,835	319	$ 40,303,988.00
Milbridge	18,806	297	$ 39,501,138.46
Southwest Harbor	16,273	360	$ 43,523,295.69

Table 4 – State of Maine Lobster Landings and Trip Data, 2019-2021

While most federal fisheries have either VMS or Vessel Trip Report (VTR) requirements, this is not the case for the vast majority of the region's lobster harvesters. Federal permit holders designated as "lobster only" are not required to report; this constitutes 97% of Maine license holders and 84% of federal permit holders.[25] Due to the lack of spatial data available for characterizing lobster fleet transit patterns, the First Coast Guard District actively sought additional data from partner agencies and feedback from Lobstermen Associations to assist in characterizing heavily trafficked areas.

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[22] MA Division of Marine Fisheries - Profiles and Analysis of Massachusetts Commercial Fishery
[23] ME Port Authority - Public comment submitted 30Aug2022
[24] ME Dept. of Marine Resources – Landings Data Portal
[25] ME Dept. of Marine Resources - Marine Resources Summary of Industry Engagement and Siting for Offshore Wind Research Array

3. Aquaculture

The cultivation and harvesting of aquatic organisms including shellfish, finfish, and plant life has continued to grow at the state level. While primarily in Cape Cod, a growth in Massachusetts aquaculture led to a significant rise in ex-vessel oyster value from $6.4 million in 2009 to $28.3 million in 2018.[26] New Hampshire aquaculture farms rose from four businesses with an estimated oyster value of $56,654 in 2013 to 12 businesses (28 sites) with a harvest valued at more than $500,000 in 2021.[27] As of September, 2022, the state of Maine has 185 active or pending standard and experimental aquaculture leases.[28]

With some exceptions, most of these activities occur in nearshore areas including rivers, sounds, and estuaries, and do not currently conflict with regional port access. However, technological advancements and conflict resolution of nearshore areas is prompting harvesters to move further offshore.

As of January 2023, the Salem State University/Northeast Massachusetts Aquaculture Center (NEMAC) pilot scale mussel farm is the only aquaculture project permitted in federal waters within the study area. This project was permitted by the USACE in 2015 and presently operates a 33-acre farm approximately 7 nautical miles off the coast of Cape Ann, MA.

Other projects presently in the permitting process include a finfish aquaculture facility proposed by Blue Water Fisheries that would be located approximately 7.5 miles ENE of Newburyport Harbor.

In May 2020, Executive Order (E.O.) 13921 was implemented with a focus on removing barriers to aquaculture permitting in federal waters.[29] In addition to streamlining the permitting process, E.O. 13921 directs NOAA, in consultation with other federal offices, regional Fishery Management Councils, and state and tribal governments, to identify areas that show high potential for commercial aquaculture known as Aquaculture Opportunity Areas (AOA).[30] The AOA process seeks to utilize science-based tools to help encourage the growth of aquaculture while minimizing interactions with other users, such as shipping, fishing, and the military.

While no AOA assessment is presently scheduled for the Gulf of Maine region, it may be evaluated in the future. Increased interest in siting aquaculture within federal waters may lead to proposed projects that could displace vessel traffic, increase interactions, and impact port access.

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[26] MA Division of Marine Fisheries - Profiles and Analysis of Massachusetts Commercial Fishery
[27] NH Fish and Game Dept. - 2022 Marine Aquaculture Compendium
[28] ME Dept. of Marine Resources - Standard and Experimental Aquaculture Leases
[29] NOAA - Guide to Permitting Marine Aquaculture in the United States (2022)
[30] NOAA Fisheries - Aquaculture Opportunity Areas

As interest in siting aquaculture within federal waters continues, it will become increasingly important for permitting authorities and NOAA, when acting as lead agency for the National Environmental Policy Act (NEPA) process, to coordinate with the USCG, Fishery Management Councils, and State and Tribal governments, to reduce waterway use conflicts and promote safe navigation.

4. Offshore Wind Energy Development

As of the report date, there are three offshore wind (OSW) energy projects within the area of study including:

- New England Aqua Ventus (NEAV) - An 11-megawatt single turbine floating offshore wind demonstration project located on an approximate 1 by 2-mile test site in Maine state waters, south of Monhegan Island. As of this report date, the project's Environmental Assessment is paused pending decisions from the University of Maine and NEAV.[31]

- Commercial Planning and Leasing - The Bureau of Ocean Energy Management (BOEM) is presently in the Planning and Analysis phase with a goal of conducting future commercial leases for offshore wind energy development in the Gulf of Maine Outer Continental Shelf (OCS).

- Maine Floating Offshore Wind Research Array - A pilot project commissioned by the Maine Governor's Energy Office. The State of Maine is requesting a 9,700-acre site, approximately 20 miles off the Maine coast, which would consist of up to 12 floating offshore wind turbines. The project application is currently under review by BOEM.

In January of 2019, New Hampshire Governor Christopher Sununu requested the establishment of an intergovernmental offshore wind renewable energy task force. Given the regional nature of offshore wind energy development, BOEM established a Gulf of Maine Task Force composed of federal officials and elected tribal, state, and local officials from Maine, New Hampshire, and Massachusetts. The task force held its first meeting in December of 2019 and collaborates to identify potential opportunities for renewable energy leasing and development on the Gulf of Maine OCS.

[31] Department of Energy – Office of NEPA Policy and Compliance. 2022. University of Maine's New England Aqua Ventus

On August 19, 2022, BOEM initiated the commercial planning and leasing process by publishing a Request for Interest (RFI) to identify suitable locations for offshore wind energy development in the Gulf of Maine.

BOEM used information gained through public comment, industry nominations on the RFI, and spatial analysis in coordination with National Oceanic and Atmospheric Administration's (NOAA) National Center for Coastal and Ocean Science (NCCOS) to reduce the RFI area into a draft "Call Area" shown in Figure 7.

Based on the Commercial Leasing Milestones communicated during the May 19, 2022, Gulf of Maine Task Force meeting[32], a Call for Information & Nominations is anticipated in the first quarter of 2023, the designation of Wind Energy Areas (WEAs) for the third quarter of 2023, and a lease sale in the Gulf of Maine within the third or fourth quarter of 2024.

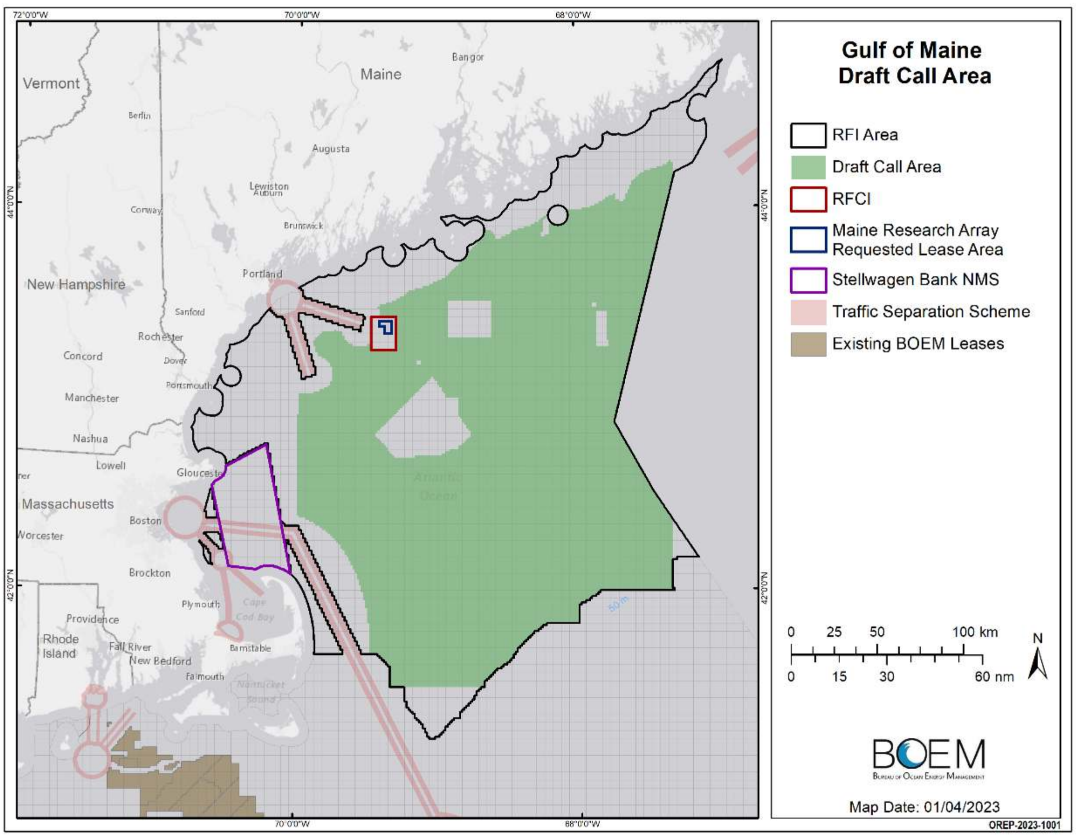

Figure 7 – BOEM Gulf of Maine Draft Call Area

[32] The Commercial Leasing Milestones can also be found on the BOEM Gulf of Maine website as part of the Next Steps for Commercial & Research Planning & Leasing presentation

On August 19, 2022, BOEM published a Request for Competitive Interest (RFCI) to identify any competitive commercial interest for the State of Maine's proposed Research Array. Figure 8 shows the Gulf of Maine RFCI and the location of the requested Research Array lease area, positioned just over 5 NM outside the terminus of the Portland Eastern Approach TSS. On average, 137 unique vessels required to carry AIS and an associated 216 vessel tracks pass through the requested lease area each year[33].

On January 19, 2023, BOEM announced its "Determination of No Competitive Interest" for the research lease proposed by the State of Maine. BOEM is continuing to process the state's application with next steps including an environmental review of potential impacts from offshore wind leasing activities associated with the research lease[34].

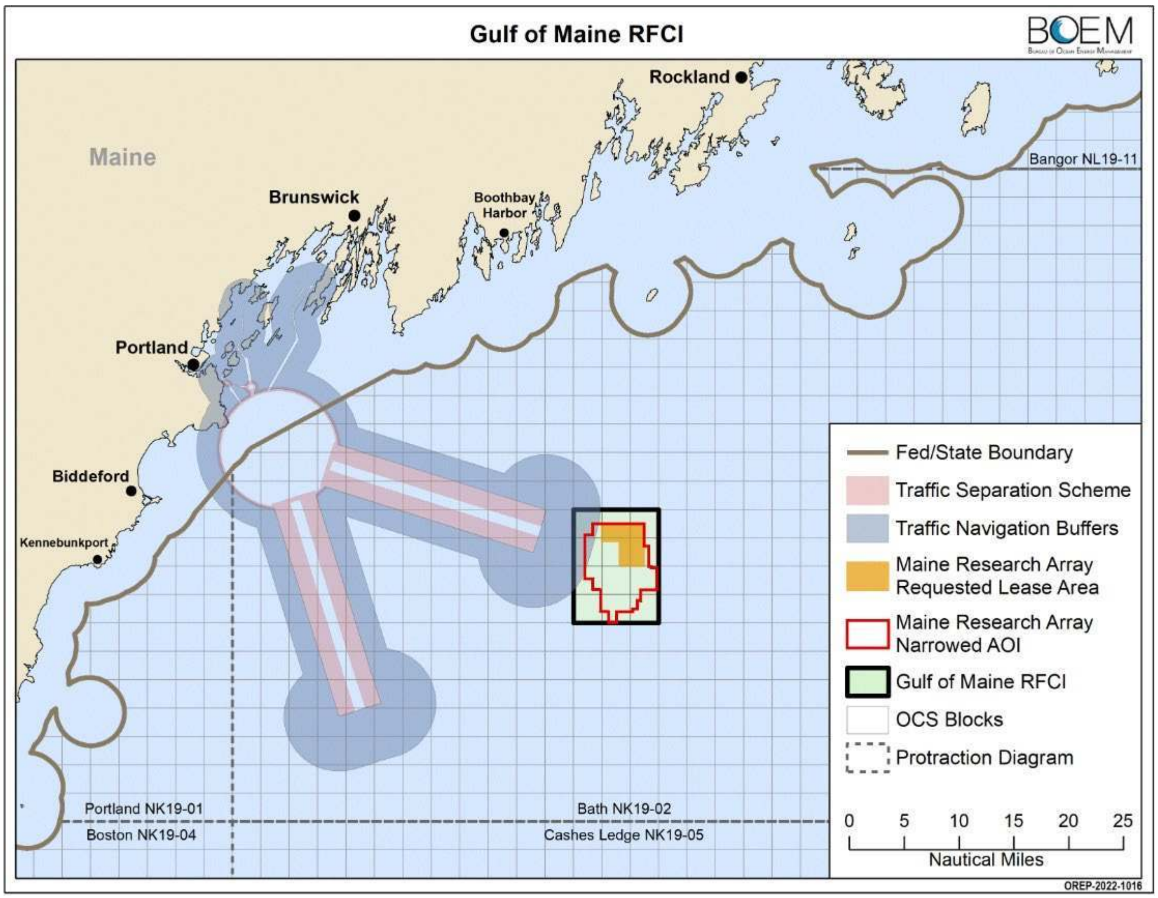

Figure 8 – BOEM Gulf of Maine RFCI

[33] Figures are the averages from 2019 thru 2021 of vessels required to carry AIS transiting through the proposed lease site. Data taken from NAVCEN traffic summary report in Enclosure 1
[34] BOEM. 2023. State Activities – Gulf of Maine

In February of 2023, the state of Maine completed an 18-month effort to develop a stakeholder-driven comprehensive plan that includes several strategies for the State to realize economic, energy, and climate benefits from offshore wind. This plan, known as the Maine Offshore Wind Roadmap, was led by a 24-person advisory committee with members from State agencies and energy, economic, fisheries, wildlife, science, and environmental leaders in Maine.

While outside the area of study, it should be noted that the government of Nova Scotia has recently expressed its intentions to pursue development of offshore wind energy infrastructure. In September 2022, Nova Scotia Premier Tim Houston announced the province's goal of offering leases for five gigawatts of offshore wind energy by 2030.[35] In addition to the region's domestic projects, future development in adjacent Canadian waters has the potential to introduce additional vessel traffic in the Gulf of Maine.

Given the nature of Gulf of Maine water depths, the USCG expects future developers to install floating turbines which are unique compared to traditional fixed bottom structures and still only a demonstration technology worldwide. Floating turbines utilize mooring systems that can extend a significant distance from the turbine foundation and may present a hazard to navigation.

The presence of OSW within the area of study may result in several impacts to traditional navigation routes. The nature and degree of influence will be dependent on several factors including the size and location of each WEA, the orientation of each wind farm layout, the size of the individual turbines, and the chosen mooring configuration. As the Gulf of Maine is presently in the early planning and analysis stages, it is difficult to predict what specific impacts a WEA would have to area vessel traffic. As WEAs are being developed, it is likely that vessel traffic in those areas will be displaced or funneled, leading to changes in traffic density, mixing of vessel types, and more complex vessel interactions. Increases in traffic transiting to and from the regional facilities can be expected during turbine construction and cable installation phases with long-term increases in vessel activity related to maintenance and support activities.

5. Port Development

Several development projects aimed at facilitating greater levels of maritime commerce have been recently completed or are projected to continue in various ports throughout the study area. This section includes a summary of many of these projects, including those for the port of Saint John, a primary destination for regional tanker and cargo traffic located in New Brunswick, Canada. The following projects highlight an overall regional trend; ports are expanding to handle greater volume of traffic, bigger ships, and larger cargo loads.

[35] Gorman, M. 2022. CBC News. Nova Scotia government launches ambitious plan to develop offshore wind sector

a) Maine

- In 2021, Portland's International Marine Terminal (IMT) installed a new mobile harbor crane as part of a $15.5 million project to increase terminal capacity[36]

- Volume of shipping containers at IMT has increased by an annual average of more than 20% since 2012 - global annual growth average is 5%[37]

- International shipping company Eimskip, headquartered in Portland, is seeking to potentially expand routes and increase the size of ships calling on Portland[38]

- In August 2022, Maine Port Authority (MPA) announced construction of a 107,000 square-foot cold storage facility adjacent to the IMT that is expected to be completed in February 2024; facility is anticipated to enhance international trade opportunities[39]

- MPA has transferred a mobile harbor crane to the port of Eastport; having a mobile crane vice utilizing rental equipment is anticipated to open growth opportunities and attract new shipping lines[40]

- State agencies are assessing the potential for utilizing the port of Searsport as an offshore wind energy component manufacturing and marshalling hub[41]

b) New Hampshire[42]

- In April 2022, a project that expanded the uppermost turning basin in the Piscataqua River from 800 to 1200 feet was completed

- Market Street Terminal, the only state-owned, public access, general cargo facility in the Portsmouth Harbor/Piscataqua River, is presently undergoing a $12+ million rehabilitation of the terminal's main 600-foot wharf

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[36] Mcguires, P. 2021. Portland Press Herald. New Crane caps multiyear investment at Portland container terminal
[37] Mcguires, P. 2021. Portland Press Herald. Portland is sailing toward a record-breaking year
[38] Mcguires, P. 2021. Portland Press Herald. Portland is sailing toward a record-breaking year
[39] Cordes, R. 2022. Maine Biz – Cold storage facility breaks ground in Portland
[40] Maine Port Authority – Relocation of mobile harbor crane to Eastport
[41] Maine Governor's Energy Office – Study of Searsport to Support and Develop Offshore Wind
[42] Current and project information gathered through consultation with NH Port Authority

- In July 2023, the New Hampshire Port Authority is expecting to solicit bids for a $40+ million project that will lengthen the wharf to 800 feet, increasing their maximum accepted vessel length from 660 feet to 750 feet

c) Massachusetts Bay[43]

- In 2020, a new 50-foot-deep berth expanded Conley Container Terminal's linear berth space by 65%

- In 2021, the Port of Boston commissioned three new ship-to-shore cranes, making its new deep-water Berth 10 fully operational

- In 2021, the Port of Boston experienced a 31% increase in cement imports. Massachusetts Port Authority (Massport) partnered with Coastal Cement for infrastructure improvements to accommodate larger ships capable of delivering more cement products

- Boston's Flynn Cruiseport added a modern passenger boarding bridge capable of serving a larger class of cruise ships

- In August 2022, the $350 million Boston Harbor Deep Draft Navigation Improvement Project was completed; deepened the harbor to -47 feet, the berths to -50 feet, and expanded the turning basin by 1,725 feet

- Dredging and terminal upgrades to the Port of Boston has increased its capability of reaching 18 additional ports in China, Southeast Asia, India, the Mediterranean, the Middle East, Northern Europe and Latin America

- In May 2022, Port of Salem was allocated $45 million in funding to transform empty land around Salem Harbor footprint into an offshore wind turbine marshalling yard[44]

d) Saint John - New Brunswick, Canada

- In 2015, Port of Saint John commenced a $205 million port Modernization Project to be completed in 2023; project will more than double container cargo capacity and upgrade terminal facilities[45]

- Modernization Project will create a new 1,132-foot berth (56-foot depth) in addition to the current 1,427-foot berth (40-foot depth); expected to increase

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[43] Massport - 2021 Annual Report
[44] The Salem News - Salem offshore wind facility gets major cash infusion from state
[45] Port of Saint John – Project Features

annual TEU capacity from 150,000 to 300,0000 with additional growth opportunity[46]

- Since 2017, Saint John has partnered with DP World logistics – connecting Saint John to over 500 global ports and becoming a destination for top shipping lines including CMA CGM and Hapag-Lloyd[47]

- In 2022, DP World has invested in additional technology to modernize port operations and provide wider logistics, transloading, and cargo warehousing capabilities[48]

e) Dredging and Navigation Projects

The U.S. Army Corps of Engineers (USACE) maintains over 170 Federal navigation projects within the New England District, many of which are located within the area of study.[49] In January 2022, the New England District announced it would receive more than $273 million in additional funding resulting from the Infrastructure Investment and Jobs Act and the 2022 Disaster Relief Supplemental Appropriations Act. Several projects including dredging, surveys, and other repairs are expected for Salem Harbor, Newburyport Harbor, and Bar Harbor.[50] Due to this influx of funding additional projects can be expected in other port areas within the next 5 years.

C. Weather Conditions

Weather conditions are an especially important consideration for regional mariners when determining the most efficient and safest transit route. The Gulf of Maine in particular, has a reputation for its frequent fogs, strong tidal currents, and rapidly changing weather conditions. The First Coast Guard District examined weather information from several sources including data collected from buoys owned and maintained by the National Data Buoy Center (NDBC), the Northeast Regional Association of Coastal Ocean Observing Systems (NERACOOS), and the University of New Hampshire[51]. Typical weather as reported in authoritative nautical publications, such as the NOAA Coast Pilot 1, were also utilized and continue to be valid.

1. Storms

Although destructive hurricanes have occurred within the area of study, powerful winter storms known as Nor'easters are more common and can generate 30-foot waves and hurricane force

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[46] Port of Saint John – Project Features
[47] DP World. 2022. DP World Saint John makes a significant investment to better enable the flow of trade
[48] DP World. 2022. DP World Saint John makes a significant investment to better enable the flow of trade
[49] U.S. Army Corps of Engineers New England District
[50] U.S. Army Corps of Engineers New England District – Press Release
[51] NERACOOS Historical Buoy Data

winds. More than 40 extratropical systems move through or near the Gulf of Maine each year, some capable of generating gales and rough seas. Lines of thunderstorms, known as squall lines, may develop during the spring and summer and can contain damaging tornadoes and waterspouts.

2. Wind

Winds in the Gulf of Maine are typically westerly but can be northerly in the winter and southerly in the summer. Winds are stronger in open seas but more complex along the coast as they are influenced by the region's topography. Weekly average wind speeds were obtained for four locations in the study area from 2019 thru 2021 with graph representations contained in Appendix E and a summary provided in Table 5. The region's highest wind speeds were seen during the late fall and winter months with gusts reported by some stations as approaching 50 knots.

3. Waves

According to the NOAA Coast Pilot 1, rough seas in the region are typically generated by gales out of the northwest through northeast. Waves greater than 10 feet occur about 10 to 15 percent of the time during the winter months. Weekly average wave heights were obtained for five locations in the study area from 2019 thru 2021 with graph representations contained in Appendix E and a summary provided in Table 5. Similar to wind speeds, wave heights in the area of study are typically the highest in the fall and winter months with wave heights reported by some stations as reaching 25 feet or greater.

Station	Location	Avg. Wind Speed (knots)	Avg. Wind Gust (knots)	Avg. Wave Height (ft)
44034	Eastern Maine Shelf	12	33	3.8
44030	Western Maine Shelf	11	33	3.3
44007	12 NM SE of Portland	11	30	3
44013	16 NM E of Boston	12	30	3
44098	Jeffrey's Ledge	-	-	4

Table 5 – Wind and Wave Summary

4. Ice

The potential for superstructure icing in the Gulf of Maine exists from November through April with December, January, and February being the worst. Freezing rain and the freezing of sea spray to superstructures and other exposed areas can cause non-uniform weight distribution and hinder vessel maneuverability.

D. Navigational Difficulty

As indicated by public comments, and supported by analysis of vessel traffic patterns, the most significant indications of navigational difficulty within the study area are related to weather, coastal geography, and conflicting waterway use.

Mariners in the region will seek the most direct routes that also provide the best possible coverage from inclement wind and sea conditions and known geographic hazards. The placement of fishing gear, such as lobster traps, in vicinity of regularly trafficked areas creates an additional consideration for transiting vessels. Recommended routes, such as those mentioned in Section IV.A.4 of this report, were adopted through cooperative agreements to facilitate movement of commercial traffic while also working to mitigate loss of fishing gear.

E. Aids to Navigation

Based on vessel traffic analysis, mariners continue to use the marked routing measures and rely on the region's aids to navigation for safe passage and when approaching key port areas.

- There are 95 federal aids to navigation in the MNMPARS Study Area.
- There are 21 private aids to navigation in the MNMPARS Study Area.

Any structure constructed within a potential future WEA may also serve as an aid to navigation. Wind farm developers will be required to mark, light, and label each structure consistent with International Association of Marine Aids to Navigation and Lighthouse Authority (IALA) and BOEM guidelines.

BOEM may, as a condition of a construction and operations permit, require developers to submit a comprehensive aids to navigation plan for review by the USCG. Each wind energy turbine would require a private aid to navigation permit, to be issued from the First Coast Guard District Office of Waterways Management.

As detailed in NOAA's 2022 Guide to Permitting Aquaculture in the United States, aquaculture project applicants are required to apply for and receive authorization to deploy private aids to navigation at their approved aquaculture operation site once all other federal permits have been obtained.

F. Radar

Marine vessel radar (MVR) can be a critical tool for safe navigation and collision avoidance, especially when operating in environments of reduced visibility. While carriage requirements can vary depending on vessel type and size, International Regulations for Preventing Collisions at Sea 1972 (COLREGS) Rule 5 and 8 each suggest that use of an MVR, when available, is required to "determine if risk of collision exists."

The maritime community has expressed concern that wind turbine generators (WTGs) could cause radar shadows and obfuscate smaller vessels transiting in vicinity of WTG arrays. In 2020, BOEM requested the *National Academies of Sciences, Engineering, and Medicine* to complete a study that would provide more insight into the impacts of WTGs on MVR operating near offshore wind farms. In February 2022, the National Academies published the completed Consensus Study Report - *Wind Turbine Generator Impacts to Marine Vessel Radar.*[52]

In addition to 28 key findings, the report's authoring committee provided the following two specific conclusions:

- "Wind turbines in the maritime environment affect marine vessel radar in a situation-dependent manner, with the most common impact being a substantial increase in strong, reflected energy cluttering the operator's display, leading to complications in navigation decision-making."
- "Opportunities exist to ameliorate wind turbine generator-induced interference on marine vessel radars using both active and passive means, such as improved radar signal processing and display logic or signature-enhancing reflectors on small vessels to minimize lost contacts."

The study conclusions imparted two primary recommendations. The first focusing on the need for BOEM, and other relevant federal agencies, to fill knowledge gaps through additional data collection, modeling, and analysis. The second recommendation suggests these agencies should continue to examine several potential options for mitigating WTG impacts to MVR, such as additional MVR operator training, reference buoys, use of radar reflectors onboard smaller vessels, and additional design measures for reducing the radar cross section of a WTG.

G. Maritime Incidents

Historical data regarding search and rescue (SAR) cases and marine casualty events provide an important risk management consideration. Data gathered from the USCG's Marine Information

[52] The National Academies of Sciences, Engineering, and Medicine. 2022. Wind Turbine Generator Impacts to Marine Vessel Radar

for Safety and Law Enforcement (MISLE) database was examined to determine incident trends and identify potential correlations to current vessel routing measures within the area of study.

1. Search and Rescue

SAR cases within the USCG Sector Boston and Sector Northern New England Captain of the Port Zones have averaged 730 incidents per year since 2011. While numbers have fluctuated each year, there appears to be a decreasing trend with the highest numbers being in 2011 (986 cases) and 2012 (891 cases). Table 6 shows the total number of search and rescue cases for each calendar year.

Incident CY	Total
2011	986
2012	891
2013	723
2014	773
2015	790
2016	751
2017	663
2018	636
2019	648
2020	679
2021	499
Grand Total	8,039

Table 6 – USCG Study Area SAR Cases 2011-2021

Based on data gathered from the Coast Guard MISLE database, the most frequent assistance has been provided for cases involving disabled vessels, reports of adrift (unmanned) vessels, and persons in the water (PIW). Table 7 shows the total number of cases divided by incident type.

Incident Type	Total
Disabled Vessel	1923
Adrift (Unmanned)	1209
Person in Water (PIW)	854
Aground	750
Distress Alert – situation unknown	626
Taking on Water (TOW)	594
Capsized Vessel	292
Fire	235
Uncorrelated MAYDAY	229
MEDEVAC	203
Overdue Vessel	181
Beset by Weather	140
Abandoned/Derelict	103
Disoriented Vessel	85
MEDICO	77
Bridge Jumper	70
Assist Other Agency	64
Stranded (on island)	59
MAYDAY Broadcast	57
Non-Maritime EMS Transport	42
Aircraft Emergency	41
Collision	35
Unreported Vessel	31
Diving Accident	29
Person in Water (Ice)	21
Anchored [Unmanned]	18
Flooding	18
Overdue Person (Non-Maritime)	12
Stranded (on ice)	9
Vehicle in Water	9
Allision	8
Unknown (Legacy)	8
Aircraft Crash	4
Special Operation	3
Grand Total	8,039

Table 7 – USCG Study Area SAR Case Types 2011-2021

While SAR assistance has been provided throughout the study area, it has been most heavily required inside bay and harbor areas and within approximately 10-12 NM of shore. Figure 9 represents the location of SAR cases from 2011-2021.

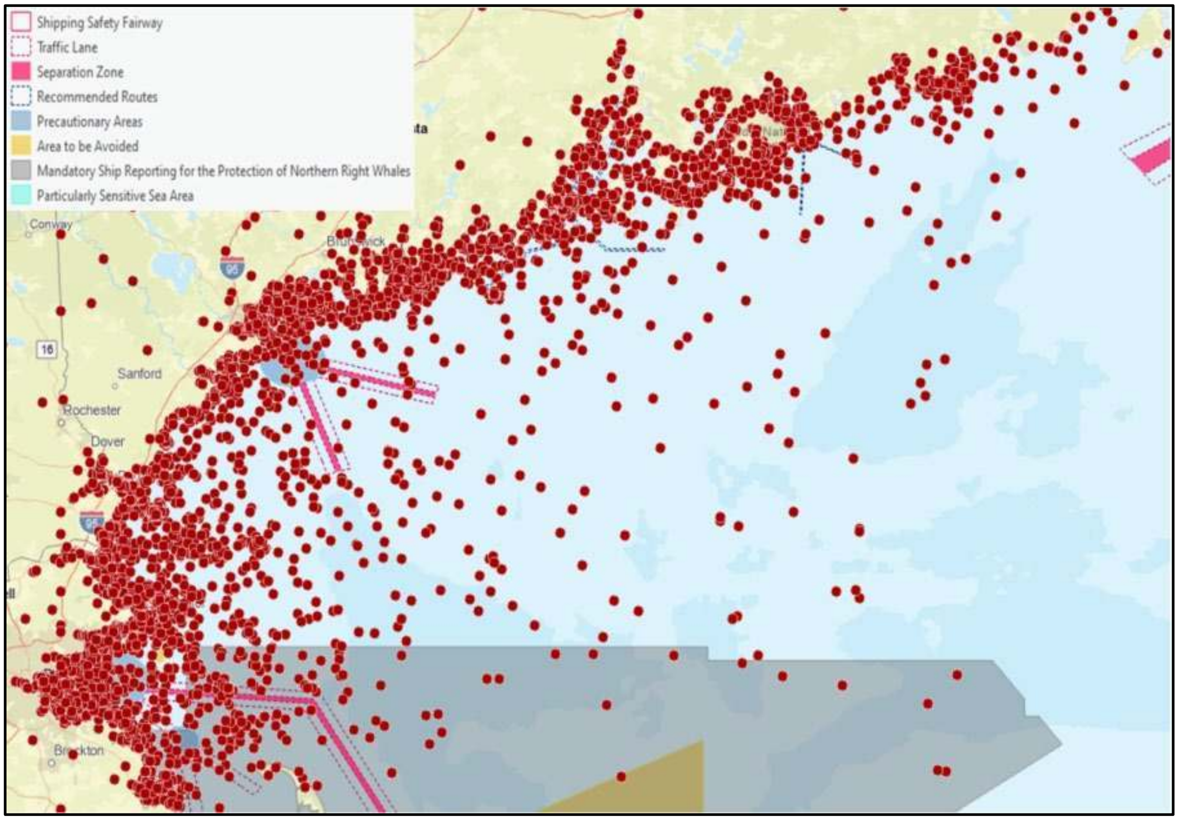

Figure 9 – USCG Study Area SAR Cases 2011-2021

2. Marine Casualties

A marine casualty, as defined in [46 CFR Part 4], is a casualty or accident involving a vessel (other than a public vessel) that occurs upon the navigable waters of the United States. Examples may include vessel groundings, collisions, allisions, injury or loss of life, and several other events that could harm the environment or create a hazard to navigation.

Applicability, reporting requirements, and categories of casualties including Reportable Marine Casualties, Serious Marine Incidents, and Major Marine Casualties can also be found [46 CFR Part 4].

From 2011 to 2021, 1,758 individual marine casualty events, many involving more than one vessel, took place within the USCG Sector Boston and Sector Northern New England Captain of the Port Zones. Table 8 shows the total marine casualty events for each calendar year. Table 9 shows the total marine casualties by event type.

Incident CY	Total
2011	185
2012	159
2013	218
2014	226
2015	193
2016	144
2017	147
2018	186
2019	116
2020	70
2021	114
Grand Total	1,758

Table 8 – USCG Study Area Marine Casualty Events 2011-2021

Incident Type	Total
Material Failure/Malfunction	526
Loss/Reduction of Vessel Propulsion/Steering	392
Grounding	128
Discharge/Release - Pollution	116
Flooding - Initial	96
Sinking	74
Vessel Maneuver	74
Flooding - Progressive	59
Allision	46
Set Adrift	42
Fire - Initial	41
Loss of Electrical Power	34
Fouling	30
Collision	28
Loss of Stability	20
Wave(s) Strikes/Impacts	12
Abandonment	11
Capsize	10
Vessel Yawl/Pitch/Roll/Heel	8
Cargo/Fuel Transfer/Shift	4
Explosion	3
Fire - Reflash	2
Damage to Cargo	1
Personnel Casualty - Injury	1
Grand Total	1,758

Table 9 – USCG Study Area Marine Casualty Event Types 2011-2021

The majority of marine casualty events involved fishing vessels (1,053 events) and passenger vessels (467 events). Like SAR incidents, marine casualty events took place throughout the study area but were primarily located within bay and harbor areas and within 10-12 NM of shore. Figure 10 represents the locations of marine casualties taking place within the Sector Boston and Sector Northern New England Captain of the Port Zones from 2011 to 2021.

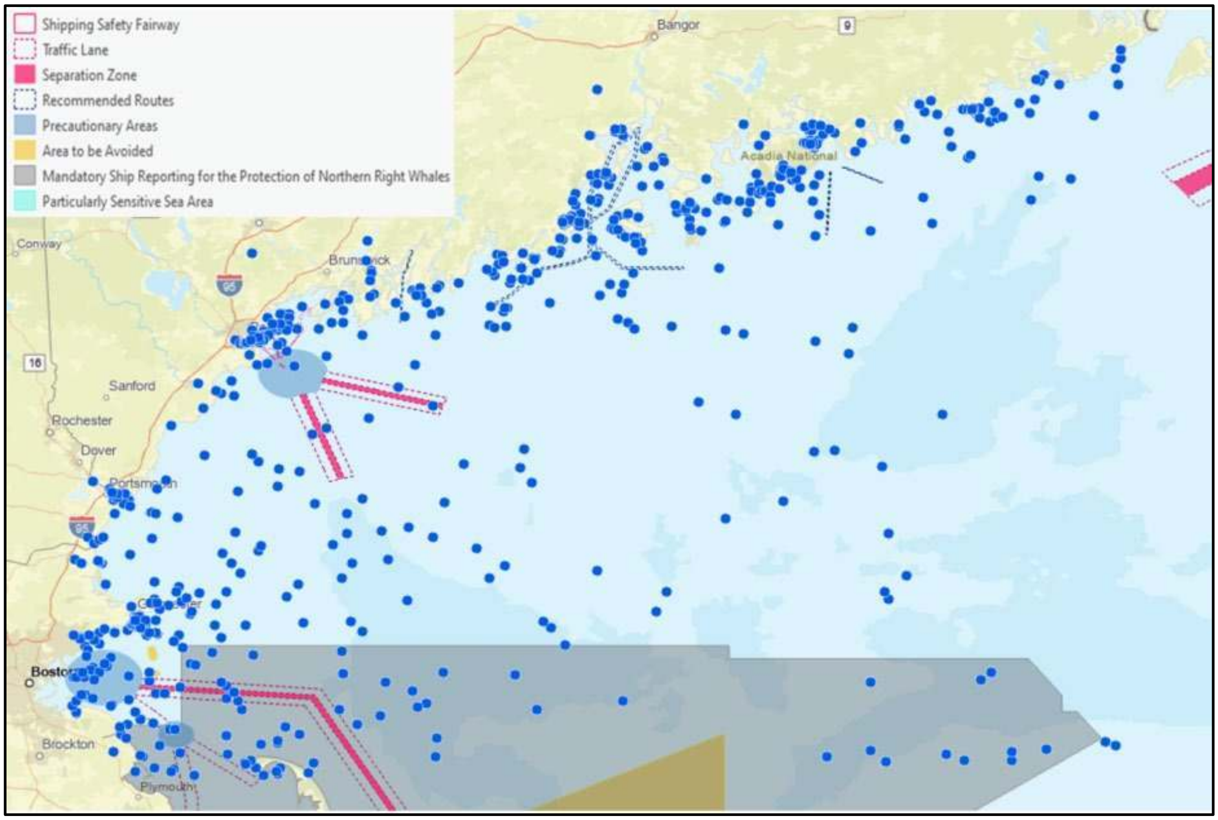

Figure 10 – USCG Study Area Marine Casualty Events 2011-2021

To determine any potential correlation with existing vessel routing measures, the First Coast Guard District further divided and examined the location of specific SAR incident and marine casualty event types including collision, allision, and groundings. The First Coast Guard District determined that existing routing measures did not significantly correlate or contribute to the locations or occurrences of these incidents.

H. <u>Public Comments</u>

The First Coast Guard District considered input and recommendations from 42 comments provided by the public in response to Federal Register Notices and other outreach efforts.

Public comments were received from 28 unique parties including federal and state agencies, industry groups, environmental organizations, and individual mariners. Comments were provided during public meetings, via email, and submitted directly to the electronic docket.

Table 10 provides an overview of concerns and recommendations provided in public comments to the notice of study (87 FR 18800, March 31, 2022) and notification of inquiry (87 FR 38418, June, 28, 2022). The table is divided into categories based on content and includes an associated response from the First Coast Guard District where appropriate.

Table 11 provides an overview of concerns and recommendations provided in public comments to the notice of availability of draft report (88 FR 83, January 3, 2023; 88 FR 2108, January 12, 2023). The table is divided into categories based on content and includes an associated response from the First Coast Guard District where appropriate.

Please note that summaries provided in the following tables are not verbatim or all-inclusive. They are intended only to highlight several primary concerns and recommendations. The complete comments can be accessed through the electronic docket.

Public Comment	Coast Guard Response
Comments regarding the PARS process	
Massachusetts Office of Coastal Zone Management (Mass CZM) requested the PARS area of study be expanded to include the entirety of the Gulf of Maine and Port of Chatham, MA, to mirror the BOEM Planning Area.	The Coast Guard declined to expand the area of study due to several, carefully considered factors. The MNMPARS includes an unprecedented study area of approx. 20,500 square nautical miles. The resources needed to properly conduct a thorough and timely study with the proposed expansion were not available. Additionally, the area of study was determined to meet several other objectives outlined in a 2019 Atlantic Coast PARS supplemental (84 FR 9541; March 15, 2019) which directed the completion of individual PARS for several port areas in the First Coast Guard District area of responsibility.
New England Fishery Management Council (NEFMC) encourages continued coordination of PARS with BOEM, Gulf of Maine Task Force, and Maine Roadmap. BOEM and the Coast Guard should align the timing of the Gulf of Maine Task Force and PARS projects as the Task Force may help to inform assumptions made in the PARS.	The First Coast Guard District has actively participated in meetings of the Gulf of Maine Task Force and Maine Roadmap and sought feedback of partner agencies and stakeholders to provide insight into concerns related to regional navigation. A primary goal of this study is to provide both informed and timely recommendations that may support future decisions and rulemaking efforts. Under NEPA, the USCG serves as a cooperating agency to BOEM. In this
Responsible Offshore Development Alliance (RODA) is concerned regarding what it sees as Coast Guard deference of several related offshore wind energy development issues to other agencies. Issues such as turbine layout, radar interference, buffer areas, traffic	

funneling, SAR policies, cable depths, fishing operational needs, and impacts to protected marine species.	capacity, the First Coast Guard District has and will continue to coordinate with BOEM throughout the various stages of planning and development and will provide evaluations of the potential impacts any proposed offshore renewable energy installations (OREI) may have on the Marine Transportation System, safety of navigation, traditional waterway uses, and the Coast Guard's ability to conduct its 11 statutory missions.
NEFMC and RODA encourage the Coast Guard to coordinate with NOAA staff to use best available data, including VMS and other sources, for projecting traffic and analyzing fishing activity.	The First Coast Guard District utilized AIS and VMS data products provided through coordination with USCG NAVCEN and the NOAA National Marine Fisheries Service (NMFS). These detailed products, found in Enclosure 1, were also incorporated in Section IV and Section V of this study. Acknowledging that AIS and VMS are not representative of all fisheries, the First Coast Guard District considered various other sources of data, conducted extensive outreach, and coordinated with other state and federal partner agencies to accurately characterize regional vessel traffic.
Mass CZM comments that the USCG should ensure the study includes analysis of vessel traffic trends (not just as an appendix) and considers recent and planned changes in the Gulf of Maine.	
Stellwagen Bank National Marine Sanctuary (SBNMS) requests that the PARS address future activities of concern to the SBNMS including wind energy development, larger vessel traffic entering the port of Boston and future operations at the Northeast Gateway deep water port.	To determine if additional routing measures may be necessary, the First Coast Guard District examined current and historical vessel traffic patterns and densities, existing and future waterway uses including offshore wind energy development, and recent/planned port development projects for the Port of Boston and other principal port areas.
The Center for Biological Diversity (CBD) comments that the USCG should integrate into the PARS process its analysis required under the National Environmental Policy Act (NEPA), Endangered Species Act (ESA), Marine Mammal Protection Act (MMPA), and other environmental laws.	A primary purpose of this study is to provide recommendations and inform potential rulemaking related to the establishment of routing measures that will improve safe and efficient navigation. This study seeks to reconcile the need for safe access routes with other reasonable waterway uses including marine sanctuary operations.
Oceana comments that the USCG must conduct a thorough environmental assessment and comply with provision of the Endangered	

<table>
<tr><td>Species Act and MMPA in analyzing environmental consequences of a proposed project and determining both the direct and indirect impact to marine species including the NARW.</td><td rowspan="2">Should the Coast Guard pursue regulatory action to officially implement one or more routing measures, potential environmental impacts including those to protected species such as the NARW, would be considered as part of the review process under NEPA and would include other consultations under applicable environmental laws.</td></tr>
<tr><td>SBNMS requests that an additional overall objective be added to this and all future PARS to “determine and mitigate environmental impacts of existing and anticipated vessel traffic”.</td></tr>
<tr><td>American Clean Power Association (ACP) expressed concern that the PARS approach may discourage offshore wind development if shipping routes are laid down without consideration of other important uses.</td><td>As part of the PARS process, the First Coast Guard District conducted extensive public outreach and analysis of data from multiple sources, including AIS and VMS, to support the recommendations outlined in Section VI of this report. This process included the consideration of other reasonable waterway uses such as the development of offshore renewable energy facilities.</td></tr>
<tr><td colspan="2">Comments regarding navigation & recommended routing measures</td></tr>
<tr><td>The Portland Pilots recommend additional routing measures to accommodate vessel traffic transiting approx. 12-20 NM from Maine coast, between Portland and Bay of Fundy. Route accounts for 55% of commercial traffic calling on Portland and additional measures would ensure safe transit and prevent delay of critical cargo delivery.</td><td rowspan="4">The First Coast Guard District has considered several factors including recent and projected port development, vessel traffic, and trends in maritime commerce in developing the recommendations found in Section VI of this report.

Based on traffic analysis and potential negative impact to other waterway users and ecological resources, the First Coast Guard District has determined not to amend any of the established Traffic Separation Schemes (TSS) within the study area.

Shipping safety fairways discussed in Section VI of this report, including:

- Massachusetts Bay Fairway
- Coastal Zone Fairway
- Portland Southern Approach Fairway
- Portland Eastern Approach Fairway
- Gulf of Maine Fairway</td></tr>
<tr><td>Iver Ships recommends the Portland traffic lanes be adapted for traffic utilizing uncharted/direct routes coming from the South (Boston) and the North (Canada).</td></tr>
<tr><td>The Portland Pilots do not recommend amending the current Southern and Eastern Approach Portland TSSs. Shifting these traffic lanes would have negative impact on dependent vessel traffic and regional commercial fishing.</td></tr>
<tr><td>M/T GREAT EASTERN (IMO 9298739) recommends developing or amending the existing routing measures in the region as deep draft traffic increases with time.</td></tr>
</table>

The Portsmouth Pilots appreciate efforts to maximize shipping routes in the Northeast but do not have any recommendations for changes to routing measures in the ports of Portsmouth/Newington, NH.	have been recommended to preserve transit routes frequented by all vessel types including commercial fishing, passenger, shipping, and tug/tow. These proposed actions are also intended to mitigate negative impacts of vessel traffic to marine sanctuary resources. The Coast Guard will continue to actively monitor the MNMPARS area of study for evolving conditions which may require additional studies to ensure safe and efficient port access.
The Boston Pilots suggest that fairways be established to allow unimpeded access for ships transiting to/from TSS, designated anchorage, and pilot boarding area; also support the establishment of fairways from Portland to the Bay of Fundy.	
SBNMS requests a fairway or TSS be established in the northern portion of the SBNMS for vessel traffic heading in a northeast/southwest direction between Boston and the Bay of Fundy TSS.	
SBNMS requests a fairway or TSS be established for vessel traffic heading in a north/south direction between the Cape Cod Canal and Ports north of Boston	
American Waterways Operators (AWO) recommend three 9 NM – wide fairways to facilitate safe transit of towline and articulated tug-barge traffic; (1) Cape Cod – Portland, (2) Boston – Penobscot Bay, (3) Boston Bay of Fundy. Recommend additional fairway from Portland to Bay of Fundy to protect nearshore coastal transits.	
General Dynamics Bath Iron Works (BIW) comments that the current fairway routes and navigational aids support the safe completion of sea trials from the BIW shipyard throughout Gulf of Maine. Any future offshore wind development projects must provide ample time for comment by interested parties, including BIW.	The First Coast District appreciates all comments and insight into the efficacy of current routing measures and navigational aids and will continue to actively monitor the MNMPARS area of study for evolving conditions which may require additional studies to ensure safe and efficient port access.
The Boston Pilots suggest designating an anchorage in the area two miles north of Boston Lighted Whistle Buoy "B".	USCG Sector Boston is aware of the request and is determining feasibility.
Salem Massachusetts Harbormaster comments that permanent Aids to Navigation marking shoal areas should be placed at Bowditch Ledge and Abbott Rock as soon as	This concern has been passed along to the First Coast Guard District's Aids to Navigation Branch.

possible to instill greater navigational confidence.	
NEFMC suggests evaluating minimum suitable gaps between wind energy areas to facilitate navigation. While not endorsing a specific corridor width, they suggest evaluating a 4 NM corridor width frequently suggested by the fishing industry.	The First Coast Guard District has provided, in Section VI of this report, recommendations for several shipping safety fairways. Consideration for the necessary size and location of these measures included several factors such as vessel size, the number of vessels utilizing a route, and the sea space necessary for hazard avoidance. In alignment with the Marine Planning Guidelines (MPG) and the methodology described in Section V. D for determining appropriate fairway width, 2 NM buffers were incorporated into the recommended fairways, where appropriate, to provide a low level of tolerable risk. The spacing of wind energy turbines and the width/location of any potential transit corridor separating wind energy areas is dependent on several factors related to the siting of a wind energy area and would be assessed at the project level as part of a Navigation Safety Risk Assessment (NSRA).
RODA requests use of the Closest Point of Approach (CPA) methodology from the USCG Marine Planning Guidelines (COMDTINST 16003.2B) related to the width of navigational safety corridors.	
The CBD suggests establishment of vessel traffic thresholds, above which additional vessel routing measures would be triggered for the protection of NARW and other protected species.	Should the Coast Guard pursue regulatory action to officially implement one or more routing measures recommended as part of this study, potential impacts to the NARW and other marine species would be assessed as part of the review process under NEPA, which would include consultations under applicable environmental control laws.
Oceana comments that vessel traffic routes must be carefully sited and managed in a manner that reduces impacts to marine species.	
NEFMC comments that the effects of severe weather on navigation, including icing, should be considered.	The First Coast Guard District considered several sources of information including the National Data Buoy Center (NDBC), the Northeast Regional Association of Coastal Ocean Observing Systems (NERACOOS), the University of New Hampshire, and other authoritative sources. This information was assessed, along with public comments, in

	considering the potential effect of severe weather on regional navigation.
Comments regarding impacts to marine species and environment	
The Marine Mammal Commission (MMC) recommends the USCG work closely with other agencies to consider changes to North Atlantic Right Whale (NARW) distributions and potential impact from changes in vessel routing measures. Further recommends ensuring consistency between proposed recommendations and the vessel strike reduction plan final rule put forth by the National Marine Fisheries Service (NMFS).	Should the USCG pursue regulatory action to officially implement one or more routing measures recommended as part of this study, potential impacts to fishery research and activities, right whales, and other protected species, would be assessed as part of the review process under NEPA. This would also include consultations under applicable environmental control laws. Shipping safety fairways recommended in Section VI of this report, included efforts to route and consolidate traffic in a manner that would reduce impact to protected species.
NEFMC encourages the USCG to prioritize present and potential fisheries activities and fishery related research activity in developing any new fairway or TSS.	
The CBD and Oceana express similar comments that the Coast Guard must consider in the PARS the impacts of shipping noise on the environment and how those impacts would be minimized or increased by routing measures	
Comments regarding commercial fishing industry	
RODA requests the USCG include in this and future PARS an analysis of fishing operations within wind energy areas including spatial operational needs.	The primary purpose of this PARS is to determine if amendments to current measures or additional routing measures may be necessary to ensure safe navigation and efficient access to ports within the area of study. Fishing vessel transit patterns and traffic densities were considered in the study's navigation analysis and addressed in the recommended measures described in Section VI. Establishment of a Coastal Zone Fairway has been recommended to preserve unobstructed transit of coastal areas and access to the region's most heavily trafficked fishing ports.

	An analysis of fishing operations and the spatial requirements needed to engage in fishing within wind energy areas would be outside the scope of this study. Potential impacts to fisheries and vessels engaged in fishing will be evaluated during BOEM's project specific environmental assessment process.
NEFMC comments that the USCG should consider past fishing activity may not be representative of future activity due to regulatory changes, fluctuations in fish species distributions, and the effects of climate change.	The First Coast Guard District acknowledges the dynamic nature of fisheries within the region and that future fluctuations would be a contributing factor to changes in vessel transit routes. The First Coast Guard District has consulted with state federal partners in regard to current and future trends in aquaculture permitting and increased interest in siting offshore aquaculture projects.
NEFMC requests that the increased interest in development of offshore aquaculture facilities in the Gulf of Maine be considered as it may lead to an increased number of anchored structures and may affect vessel routing	
Comments regarding offshore wind energy development	
The Portland Pilots state the proposed siting of the Maine Offshore Wind Research Array in proximity of the entrance/exit of the Eastern Portland TSS may prove hazardous for inbound/outbound traffic. The location does not provide sufficient separation especially when considering inclement weather and potential loss of vessel propulsion/maneuverability.	Both CG-NAV and USCG Sector Northern New England have submitted comments regarding the siting of the Maine Research Array to BOEM's RFI and RFCI dockets. As currently proposed, the Maine Research Array is directly in line with existing vessel traffic routes. While there is no international standard specifying minimum distances between shipping routes and fixed structures, it is widely accepted that such structures should not interfere with navigation. The First Coast Guard District recommends placement of fairways to facilitate the unobstructed transit of vessels proceeding to and from the Portland Eastern and Southern Approach traffic lanes to other international and domestic transit routes.
Maine Port Authority comments that the proposed Maine Offshore Wind Research Array has been micro-sited to allow for minimized conflicts with navigation and other waterway uses. The array is within the USCG MPGs and provides ample sea room for vessels transiting to and from sea.	
Eastern Point Pilots comments that a significant amount of development in Port of	The First Coast Guard District researched potential future staging areas and port

Salem is concentrating on establishing offshore wind construction and marshalling operations. There is an expectation of a tremendous increase in expected traffic within the next few years that should be considered.	development activities for the support and manufacturing of offshore wind energy installations and considered the changes in traffic patterns and densities that may result. As there are presently no awarded leases, or designated wind energy areas, it can be difficult to determine the exact manner in which vessel traffic would be displaced. However, cumulative impacts to navigation including, but not limited to, shifting patterns, traffic funneling, and mixing of vessel classes, due to installation of offshore structures and other associated human activities were evaluated in determining the recommendations included in this report.
NEFMC stated it is critical that the MNMPARS evaluate the cumulative impacts of wind development and other human activities on navigation.	
Mass CZM suggests that the PARS assess safe travel distances within and around floating WTGs for all vessel types.	Consistent with comments provided by the USCG to the BOEM RFI, the USCG provides recommendations in Section VI of this report that wind energy areas within the area of study be defined in a manner that will allow consistent layouts and cable routes. Under NEPA, the Coast Guard serves as a cooperating agency to BOEM. In this capacity, the First Coast Guard District has and will continue to coordinate with BOEM throughout the various stages of planning and development and will provide evaluations of the potential impacts any proposed OREI may have on the Marine Transportation System, safety of navigation, traditional waterway uses, and the Coast Guard's ability to conduct its 11 statutory missions.
NEFMC comments that Coast Guard should provide advice to developers and BOEM on the layout of turbines and electrical service platforms to facilitate transit within wind energy areas.	
RODA requests analysis of risk associated with different array layouts and consideration of transit lanes and buffer zones in and around WEAs.	
NEFMC encourages the Coast Guard to address whether cables associated with new wind farms would be allowed within safety fairways.	
Mass CZM suggests the MNMPARS include recommendations for WTG non-design measures such as improvements to communications, marking/painting of turbine floats, and placement of RADAR reflectors to assist in navigating through floating wind arrays.	Wind farms will be marked and labelled consistent with International Association of Marine Aids-to-Navigation and Lighthouse Authority (IALA) guidelines. Facility characteristics, including how a site will be marked, design requirements and other navigation related risks associated with a specific wind energy development project will be assessed on a case-by-case basis as part of
NEFMC requests to further research the effects of offshore wind development on	

vessel radar systems and how these impacts can be mitigated.	the Construction and Operation Plan and NSRA submitted by the developer. The First Coast Guard District recommends mariners consider the mitigation methods described within a National Academies Report discussed in Section IV. F. While outside the scope of this study, the First Coast Guard District concurs with the National Academies assessment that there exists a need to collect more data and develop physics-based models for developing strategies to mitigate potential negative effects of WTGs on Marine Vessel Radar (MVR).
The ACP comments that navigation safety concerns related to offshore wind development should be resolved through project Navigation Safety Risk Assessments (NSRAs) and Construction and Operation Plan (COP) review. ACP opposes uniform buffers between turbines and TSSs – should be done at the project level on case-by-case basis.	The separation distances outlined in the USCG MPG are not regulatory but do inform the suitability of siting structures within a lease area and should be considered during the identification phase. As a cooperating agency, the First Coast Guard District will assess the safety of navigation in and adjacent to proposed structures and provide an analysis and recommended mitigation measures and conditions to the Lead Agency when projects may potentially interfere with navigation or Coast Guard missions.

Table 10 - Public Comment Summary and Responses (87 FR 18800, 87 FR 38418)

Public Comment	**Coast Guard Response**
Comments regarding the PARS process	
NEFMC expressed satisfaction that previously submitted comments and recommendations were addressed in the draft MNMPARS report – pleased that VMS, AIS, and additional data sources and outreach efforts were incorporated.	The First Coast Guard District appreciates the draft report feedback and participation in the PARS process.
NEFMC and RODA expressed concern regarding the alignment of the MNMPARS,	The First Coast Guard District has and will continue to actively participate in the Gulf of

the Gulf of Maine Task Force, and BOEM's leasing processes.	Maine Task Force and provide recommendations to BOEM as a cooperating agency throughout the leasing process. The First Coast Guard District actively monitors all waterways subject to its jurisdiction and will continue to monitor the MNMPARS study area for changing conditions and consider appropriate actions to promote waterway and user safety. Should the USCG seek to officially implement one or more routing measures recommended as part of this study, potential impacts to fishery research and other activities would be assessed as part of the federal rulemaking process under NEPA. This would also include consultations under applicable environmental control laws.
AWO requests USCG maintain regular contact and coordination with BOEM – do not allow MNMPARS to lag behind BOEM leasing process.	
NEFMC requests clarification of whether the USCG would update routing measures as factors impacting vessel traffic continue to change – concerned routing measures may need to be adjusted once offshore wind development areas are identified.	
NEFMC expressed concern that should the USCG take action to implement the proposed routing measures, any impacts to fishery research activities would be assessed during the regulatory process and NEPA review. In their view this is not adequate.	
MASS CZM recommends that a PARS including the entire Gulf of Maine and its associated ports should be conducted as an update to the MNMPARS or future study.	While expansion of the study area was determined to be beyond the intended scope and resources available for the MNMPARS, the First Coast Guard District acknowledges the request for inclusion in a future study.
Comments submitted by RWE, the American Clean Power Association (ACP) and RENEW urge the USCG to better balance navigational concerns with other waterway uses, as required by the PWSA.	The MNMPARS recommendations were determined following extensive outreach efforts outlined in Section III.E and careful consideration of several factors impacting regional navigation. Information including current and planned development projects, commercial trends, insight from port authority officials, pilot associations, environmental groups, and a detailed vessel traffic analysis conducted by the Coast Guard's Navigation Center (NAVCEN), were used in reaching the report's conclusions. The MNMPARS seeks, to the extent practicable, to balance the need for safe access routes with other reasonable waterway uses. In accordance with the PWSA, fairways have been recommended to ensure safe access routes for the movement
The State of Maine Governor's Energy Office (Maine GEO) commented that decisions must be based on best available information that is aligned with current and planned activities in the Gulf of Maine.	

	of vessel traffic proceeding to and from ports within the area of study.
ACP & RENEW request that public engagement be reopened as the criteria used in the MNMPARS to establish fairway widths (e.g. PIANC, and AWO Quality Action Team Report) were not developed in concert with stakeholders including the offshore wind industry.	A request for reopening of public engagement is noted. Extensive engagement opportunities including 6 public meetings and 105 total public comment period days preceded publication of the MNMPARS draft report. The PIANC WG 161 and AWO Quality Action Team reports were developed outside of the MNMPARS process through collaboration of various industry experts and international maritime organizations. Additional public engagement related to these separate studies would be outside the scope of the MNMPARS.
Comments regarding navigation & recommended routing measures	
Portland Pilots expressed support for the recommendations outlined in the MNMPARS draft report – proposed fairways would improve safety of navigation for all vessel types transiting the Gulf of Maine.	The First Coast Guard District appreciates the draft report feedback and participation in the PARS process.
WSC expressed support for fairways proposed in MNMPARS - would provide safe and unobstructed space for vessels to operate.	
WSC recommends use of the USCG Marine Planning Guidelines (MPG) vice the PIANC method for determining fairway widths – this would increase the Gulf of Maine Fairway to 12 NM. The MPGs provide a worst-case scenario approach that PIANC does not.	Both the MPGs and criteria outlined in the PIANC study were considered in determining the recommended fairway widths. The 8 NM width proposed for the Gulf of Maine Fairway includes collision avoidance factors that account for reaction time and turn radiuses of the largest sized vessels. The width also accounts for two vessels operating alongside each other, which is cited as appropriate in both the MPGs and PIANC report for the traffic volume found on the Gulf of Maine Fairway shipping route.

AWO supports the establishment of fairways proposed in the MNMPARS draft report. An additional fairway is recommended from Provincetown to the Bay of Fundy to ensure additional safe navigation options as Gulf of Maine becomes increasingly congested. Further request widening Massachusetts Bay Fairway to 9 NM to avoid future conflicts if regulations governing the placement of structures in marine sanctuaries are changed.	Recommendations are noted. As proposed, the First Coast Guard District considers the MNMPARS fairways to be appropriate for current and anticipated traffic patterns. The MNMPARS study area will continue to be monitored for changing conditions and, if necessary, appropriate actions to promote waterway and user safety will be considered.
PTOW states a need for the proposed Portland Approach Fairways and Gulf of Maine Fairway is not supported by available data (e.g., vessel traffic, vessel size, port infrastructure). Fairways would impede the State of Maine Research Array and future BOEM wind energy area leasing. PTOW lists several domestic ports with greater traffic and cargo handling capabilities that operate without shipping safety fairways. If deemed necessary, PTOW suggests the Portland fairways are reduced to 2 NM wide like those present in the Gulf of Mexico. Further recommends that the Gulf of Maine Fairway be reduced to 4 NM wide.	The widths of the proposed Portland Approach and Gulf of Maine Fairways align with criteria outlined in both the PIANC study and USCG MPGs (COMDTINST 16003.2B). Similar studies conducted by the USCG in several other regions have resulted in recommended fairway widths ranging from 10 to 30-miles wide. While regional traffic routes may be less dense than those approaching other domestic ports, the First Coast Guard District has determined these routes are nevertheless important to provide safe and efficient port access for commercial and recreational traffic, and should be preserved to mitigate potential risk of marine casualties. Many of the heavily trafficked port areas cited in public comment as operating without shipping safety fairways (e.g., Straits of Juan de Fuca, San Francisco Bay, Chesapeake Bay, and Delaware River) currently have additional fairways and other routing measures recommended for implementation that can be found in both the *Consolidated Port Approaches and International Entry and Departures Transit Area PARS (East Coast)* or *the Pacific Coast PARS*. The 2 NM wide shipping fairways in the Gulf of Mexico were reactive in nature, formalized in 1965 after much of the area
RWE comments that traffic volumes are low in the approaches to Portland and the Boston – Bay of Fundy route. If implemented, RWE recommends the Portland Eastern Approach Fairway should be reduced to 2 NM and realigned to pass south of the State of Maine's Research Array lease area.	
Maine GEO comments that vessel traffic does not appear to warrant need for additional fairways. Decisions should be based on sufficient vessel volumes and align with USCG practices elsewhere.	

Maine GEO comments that the proposed Portland Approach Fairways may have the perverse effect of protecting minor shipping traffic while impacting other water uses by potentially requiring the proposed research array to be moved to a less compatible area.	had been built up with infrastructure leaving minimal sea space for traffic lanes to access gulf ports. Like other recent studies, a goal of the MNMPARS is to be proactive and utilize available traffic and navigation information to reconcile the need for preserving safe navigation routes with other waterway uses. The criteria outlined in the PIANC WG 161 report includes best practices from several global navigation experts, representatives from the U.S. Coast Guard, and the International Maritime Organization (IMO) - the global standard-setting authority for the safety, security, and environmental performance of international shipping. The PIANC study recommends, based on input from the Maritime Institute Netherlands (MARIN), that the "maximum size of vessels" be considered, keeping in mind potential future developments. The method also incorporates hazard avoidance factors, standards for turn radiuses prescribed by the IMO, and the use of 2 NM buffer distances between a shipping route and structures that would provide the lowest level of tolerable risk. The PIANC study reasonably prescribes that on a given shipping route a minimum of 2 vessels operating side by side could be expected. This was the traffic density factor used in calculating the Portland Approach Fairways and the Gulf of Maine Fairway as described in Section V.C. This minimum standard is also expressed in the USCG MPGs as being appropriate for "low-density situations". The use of traffic visualizations, such as heat maps, were not the sole source of consideration and were determined appropriate for identifying overall vessel
ACP & RENEW state the criteria used for determining fairway size does not account for low-density AIS traffic and consequently inflates the fairway width.	
ACP & RENEW express concern over the use of vessel traffic heat maps in the MNMPARS. Heat maps were not meant to be relied upon as a standalone set of data to demonstrate vessel traffic when making safety considerations.	

	transit patterns and particular areas of interest. Should the USCG seek to implement one or more of the recommended routing measures, final proposals would be determined and announced in a future Notice of Proposed Rulemaking (NPRM) as part of the federal rulemaking process.
ACP & RENEW state it is unclear how 8 NM and 9 NM fairway widths are justified in less dense areas while 4 NM and 5 NM fairway widths were determined as adequate in more densely trafficked locations.	PIANC and the USCG MPGs recommend a 2 NM separation between the border of a shipping route and offshore structures to provide the lowest level of tolerable risk. As described in Section VI.A and VI.E, these buffers were not deemed necessary in those regions as their proximity to the Stellwagen Bank National Marine Sanctuary (SBNMS) and other established routing measures, such as the Boston Approach TSS and Precautionary Area, reduced the potential for structures to be erected alongside the routing measure. In addition, the reduced widths would help to consolidate vessels to portions of the sanctuary that will reduce traffic impact to protected marine species.
ACP & RENEW express concern that the draft MNMPARS report proceeds to round up its calculations at several points – 4 NM fairway width was rounded up from 3.33 NM, over a 20% increase.	Calculations were rounded up in a single instance to account for any plotting error. As described on page 78 of the report, the 3.77 NM traffic lane was round up to 4 NM (a 6% increase).
Comments regarding impacts to marine species and environment	
NEFMC cited the mentioning of speed restrictions to protect right whales within the MNMPARS and requested clarification of whether this policy would be a regulatory requirement and how would it be enforced.	Since portions of the Off Race Point and Cape Cod Bay Seasonal Management Areas described in the *Speed Restrictions to protect North Atlantic Right Whales* (50 CFR §224.105) are located within the MNMPARS study area, they were cited as applicable regulations in Section IV.A.1 of the report.

	Implemented in 2008, the vessel speed rules are a regulatory requirement with primary enforcement responsibility given to the NOAA Office of Law Enforcement (OLE) and NOAA Office of General Counsel (NOAA GC). OLE is supported by the USCG to assist with mariner compliance.
SBNMS expressed strong support for the establishment of the Massachusetts Bay and Gulf of Maine Fairways - these measures would benefit sanctuary species by condensing traffic and reducing noise exposure and other impacts to biologically important feeding areas.	The First Coast Guard District appreciates the draft report feedback and participation in the PARS process.
Comments regarding commercial fishing industry	
RODA recommends the USCG consult and incorporate into the final MNMPARS, findings from a report issued by the National Renewable Energy Laboratory (NREL) titled *The New York Bight Offshore Wind Farms: Collaborative Development of Strategies and Tools to Address Commercial Fishing Access.*	The First Coast Guard District greatly appreciates the findings and additional insight provided in the NREL report. As the primary purpose of the MNMPARS is to determine if a need exists for additional routing measures to maintain safe and efficient port access, an analysis of fishing operations and the spatial requirements needed to transit between turbines and engage in fishing within wind energy areas is considered outside the scope of this study. The USCG will provide recommendations as a cooperating agency during BOEM's project specific environmental assessment process.
Salem State University provided information regarding an active aquaculture site permitted for operation in federal waters offshore of Rockport, MA. The site overlaps with a proposed fairway.	Comment acknowledged. Should the USCG seek to implement one or more of the recommended routing measures, final proposals would be determined in accordance with the limitations outlined in 46 USC 70003. Final proposals would be announced in a future Notice of Proposed Rulemaking (NPRM) as part of the federal rulemaking process.

Comments regarding offshore wind energy development	
RODA requests the USCG proactively set standards for OSW facility design and layouts.	While outside the scope of this PARS, the request has been noted. Facility characteristics, including how a site will be marked, design requirements, and navigation related risks associated with a wind energy development project will be assessed on a case-by-case basis as part of the Construction and Operation Plan and NSRA submitted by the developer.
RODA commented that the USCG should clarify in the MNMPARS that floating wind infrastructure, including cables and anchors, are considered fixed structures, and would be prohibited from being placed in a shipping safety fairway.	While wind energy turbines would not be permitted, submarine transmission and export cables are not inherently prohibited within shipping safety fairways or traffic lanes. Overlays showing the location of submarine energy and communication transmission cables that presently pass through traffic lanes and other proposed fairways can be found on the Northeast Ocean Data Portal. Section VI.F.2 provides recommendations related to mooring systems and ancillary equipment. The placement and routing of export cables associated with a wind energy area, and any potential impact to navigation and the environment, will be assessed for each project in coordination with BOEM, the project developer, and the USCG.
MASS CZM requests the Coast Guard use a cross-section of common vessel types and OSW installation typologies to provide guidance on safe travel distances around floating wind turbines. MASS CZM requests the Coast Guard provide, through a PARS or separate process, broad spacing guidelines for the most cited anchoring/mooring configurations to assist ocean managers in the early stages of planning.	The request for additional guidelines has been noted. Presently, the USCG has not provided broad turbine separation and spacing guidelines since an appropriate distance would be based on several variables related to the location of a specific wind energy area. As such, recommendations are considered best provided on a case-by-case basis through

	coordination with BOEM and the developer at the project level.
MASS CZM recommends the final MNMPARS include recommendations for non-design measures of offshore wind turbines such as painting and placement of RADAR reflectors.	Non-design measures of offshore wind turbines are considered outside the scope of this PARS and will be assessed as part of the Construction and Operation Plan and NSRA submitted by the developer.
NEFMC requests that the final MNMPARS recommend adjacent wind farms adopt a common orientation.	Section IV.F.1 provides recommendations regarding common layouts and cabling.
NEFMC commented that it remains unclear whether any offshore export cables would be permitted within any of the proposed shipping safety fairways.	Submarine transmission and export cables are not inherently prohibited within shipping safety fairways or traffic lanes. Overlays showing the location of submarine energy and communication transmission cables that presently pass through traffic lanes and other proposed fairways can be found on the Northeast Ocean Data Portal. Offshore wind transmission cables will be buried to a depth according to several factors – the route from the windfarm to the substation, the seabed geology, the types of vessels that transit the area, and the cable to be installed. Recommendations regarding cabling, mooring systems and ancillary equipment are included in Section VI.F. Ultimately, BOEM approves the burial depth based on recommendations from stakeholders including the USCG.
NEFMC requests the final PARS explicitly recommend that siting and cabling for WEAs consider the need for safe access by survey vessels and other research activities.	
RWE requests clarification that parts of offshore wind installations that do not impact or hinder the safe use of fairways will be allowed to encroach or cross a fairway (e.g., export cables)	
RWE requests clarification that anchor chains are allowed to encroach into fairways, provided they are below a certain water depth and allow deep draft vessels to navigate safely	

Table 11 – Draft Report Public Comment Summary and Responses (88 FR 2108)

V. NAVIGATION ANALYSIS

In conducting the MNMPARS, the First Coast Guard District sought to determine whether existing routing measures should be amended, or additional measures implemented to improve navigation and ensure safe and efficient access to ports due to several impacting factors. This process included an assessment of how well current measures facilitate the movement of vessels, whether current measures would continue to be adequate considering projected traffic and waterway uses, and how well these measures align with marine planning principles.

The USCG's Marine Planning Guidelines (MPG)[53] provide a non-regulatory set of standards for the placement of structures near shipping routes, established routing measures, and multiple use areas. Application of these guidelines will result in the lowest level of acceptable risk reduction as they are based on minimum distances for the largest vessels to safely maneuver.

Offshore wind energy development and its potential impact to navigation, marine resources, and other waterway uses, was frequently cited as a concern during the PARS comment periods. In the context of assessing the efficacy of existing routing measures and the need for additional measures, it is useful to clarify the USCG's role and responsibilities for offshore renewable energy infrastructure.

As stated in Navigation and Vessel Inspection Circular (NVIC) No. 01-19, the USCG's role is as follows:

> *The Coast Guard may serve as a Cooperating Agency under the National Environmental Policy Act (NEPA) with the Lead Agency (LA) considering the issuance of a lease, right of use and easement, or right of way for an Offshore Renewable Energy Installation (OREI). 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, 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.*

A. Traffic Separation Schemes

There are three traffic separation schemes (TSS) within the area of study, two in the approaches to Portland and one in the approach to Boston. The Eastern and Southern Approaches to Portland were established in 1978 and were incorporated into the Code of Federal Regulations (CFR) in 2010. The Approach to Boston TSS was established in 1973 and was later amended in 1983, 2007, and 2009. From 2019 – 2021, approximately 1,463 AIS equipped vessel tracks

[53] The Marine Planning Guidelines are included in Appendix E of COMDTINST 16003.2B and in Enclosure 3 of NVIC 01-19)

utilized Portland's Eastern and Southern Approaches and 3,905 vessel tracks entered or exited Massachusetts Bay via the Boston Approach TSS.

Figure 11 shows a breakdown of vessel tracks that transited Portland's Eastern and Southern Approaches while Figure 12 provides the same breakdown of vessel tracks by type that transited the Approach to Boston.

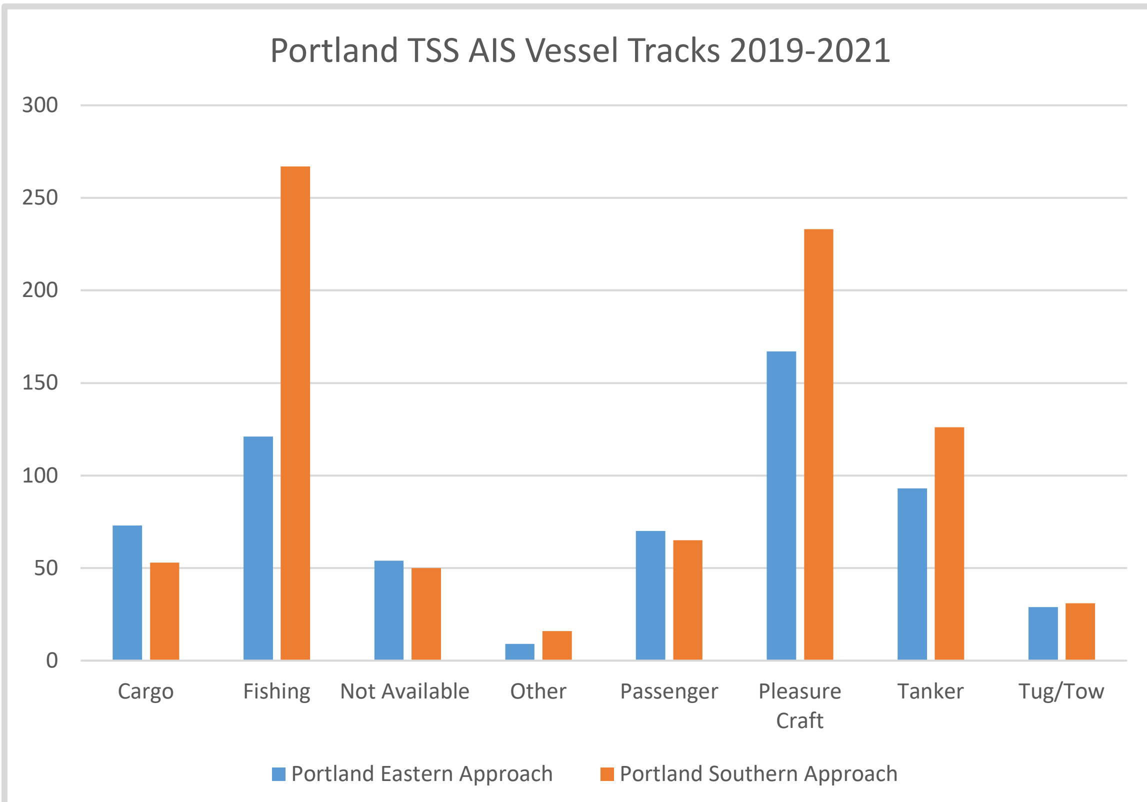

Figure 11 – Portland Eastern and Southern Approach TSS AIS Vessel Tracks

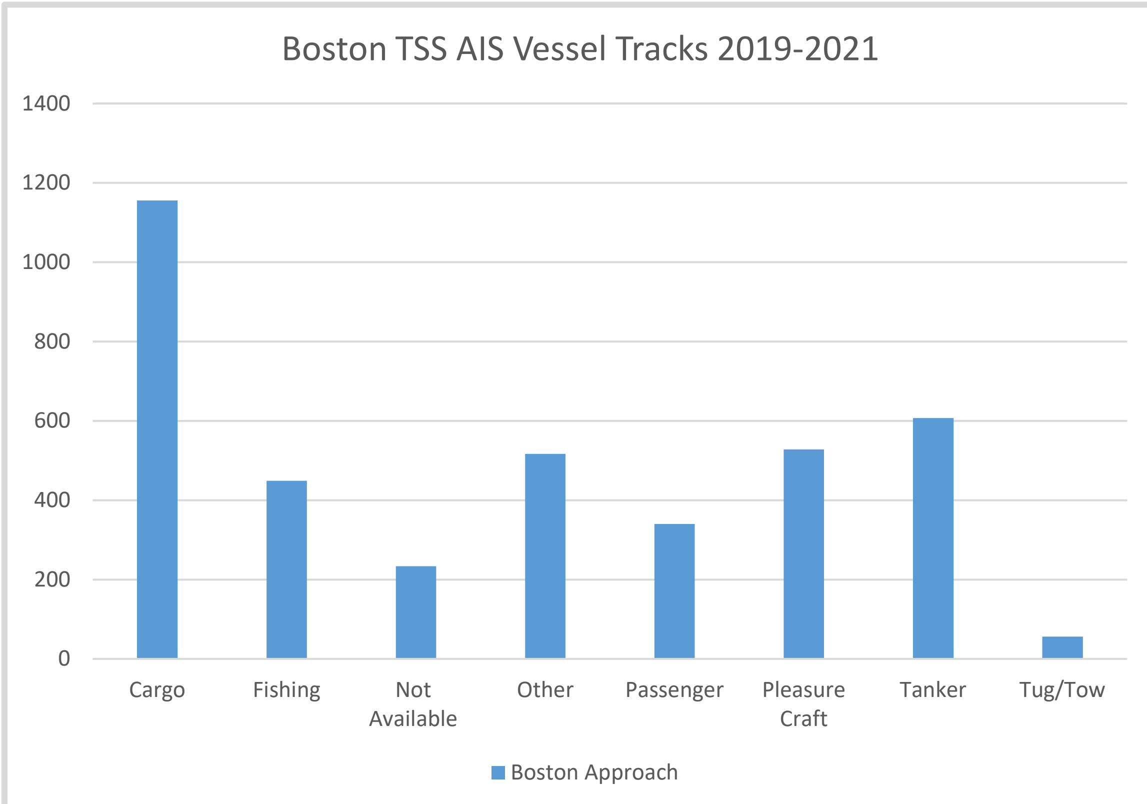

Figure 12 – Boston Approach TSS AIS Vessel Tracks

In addition to the regulatory traffic lanes, the First Coast Guard District identified multiple routes consistently utilized by commercial vessel traffic for accessing the port of Portland and Boston. Attachment 1 of Enclosure 1 provides a detailed analysis for 30 areas of interest within the study area, including both regulatory and frequently utilized alternate routes.

Figure 13, taken from Attachment 1 of Enclosure 1, shows the approaches to Portland. From 2019 – 2021, a total of 1,176 AIS vessel tracks, comprised primarily of cargo and tanker vessels, utilized an alternate northern approach route (line 28).

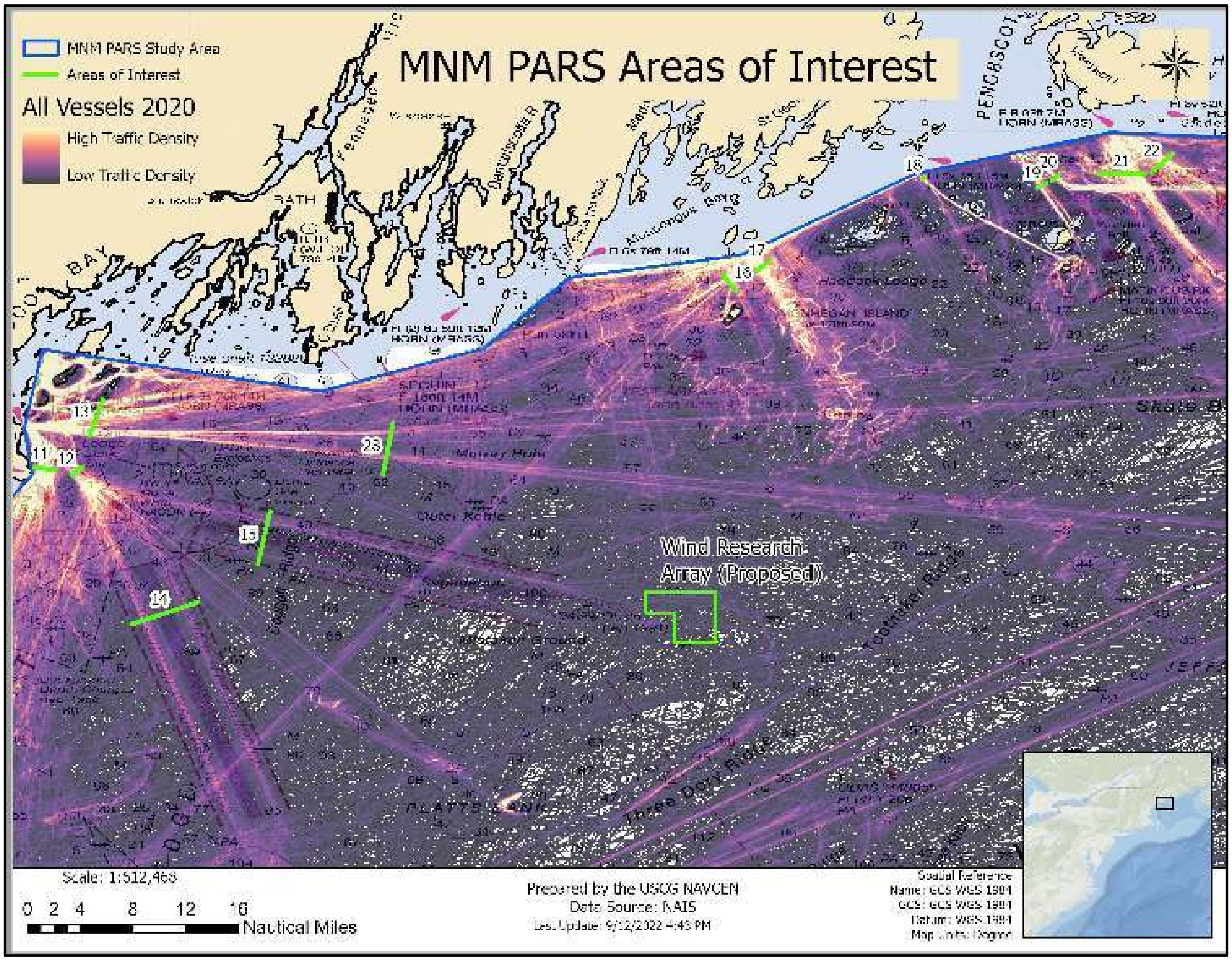

Figure 13 – Portland Approach Areas of Interest

As vessel traffic is funneled in and out of each Portland TSS, complex meeting situations can result with other cross traffic. Inclement weather and sea states can further complicate such situations and, if combined with a potential material malfunction, could raise the risk of a marine casualty. Inbound and outbound traffic transit to and from various locations with a significant amount of commercial traffic proceeding on direct routes to other domestic ports and international destinations.

While there is no international standard that specifies minimum distances between shipping routes and fixed structures, it is widely accepted that fixed structures in the offshore environment should not interfere with navigation.

The MPG recommendations listed below specify buffer zones for the placement of offshore structures adjacent to shipping routes. These recommendations are based on generic deep draft vessel maneuvering characteristics and account for the minimum distances needed for larger vessels to maneuver in emergency situations.

- 2 NM from the parallel outer or seaward boundary of a traffic lane. (assumes 300 - 400-meter vessels)

- 5 NM from the entry/exit (terminations) of a TSS

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.

Figure 14, also taken from Attachment 1 of Enclosure 1, shows the approaches to Boston. From 2019 – 2021, a total of 2,535 AIS vessel tracks, comprised primarily of fishing and tanker vessels, utilized a route (line 27) that continues across the Gulf of Maine to the Bay of Fundy.

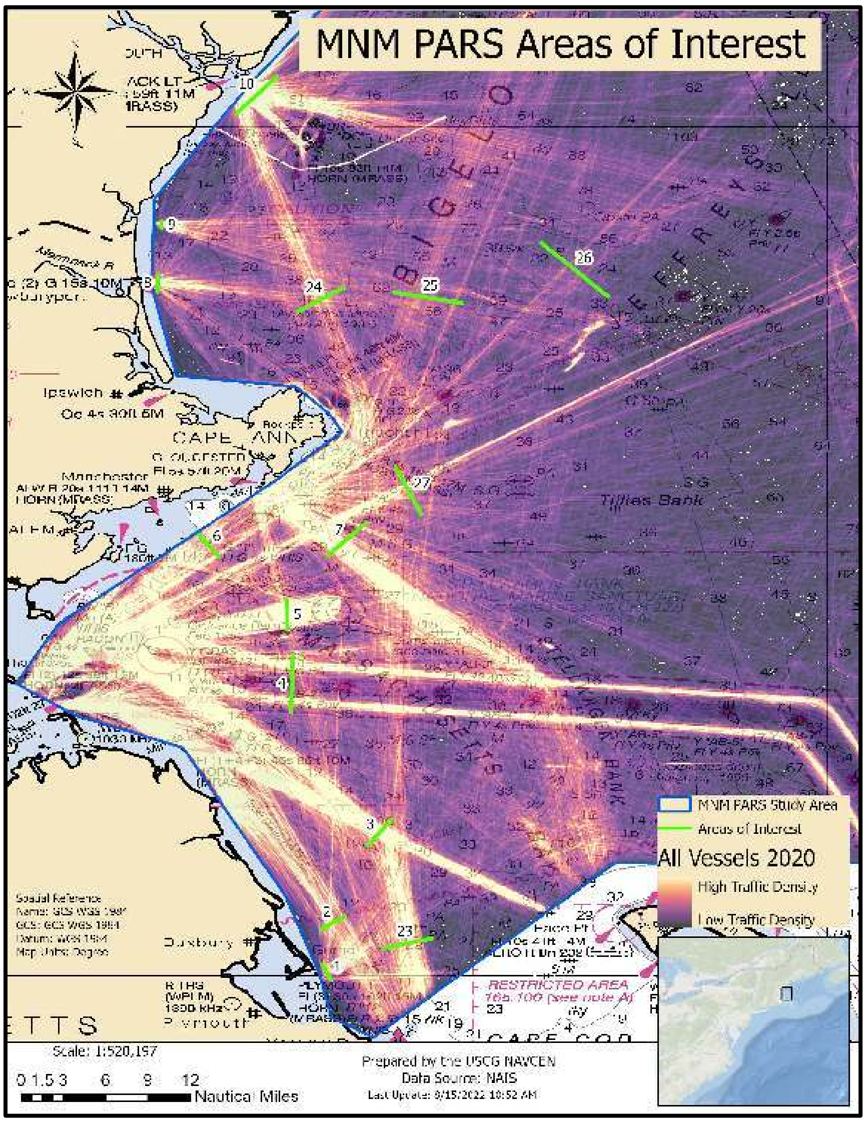

Figure 14 – Boston Approach Areas of Interest

As part of the notification of inquiry and public meetings (87 FR 38418) published on June 28, 2022, the First Coast Guard District sought additional information from maritime stakeholders regarding use of these routes and the potential need for amendments to current regulations.

Based on further analysis, and information provided by pilot organizations and other industry stakeholders, it was determined that any amendments to the current Portland and Boston TSS would have a negative impact to the variety of vessels that consistently utilize and depend upon the established routing measures for safe and efficient port access. In addition, it was determined that shifting and displacement of traffic resulting from any amendments to these routing measures would have a negative impact to fishing grounds and protected species habitats.

To facilitate the safe and efficient transit of traffic to and from domestic and international ports, the First Coast Guard District proposes the following measures discussed further in Section VI:

- A *Gulf of Maine Fairway* extending from the Massachusetts Bay Precautionary Area to the international boundary at the mouth of the Bay of Fundy

- A *Portland Eastern Approach Fairway* that will extend from the terminus of the Eastern Approach TSS to the proposed Gulf of Maine Fairway

- A *Portland Southern Approach Fairway* that will extend from the terminus of the Southern Approach TSS to the proposed Gulf of Maine Fairway

B. Coastwise or Coastal Shipping Routes

The necessary sea space for vessels to safely maneuver is determined by the size and maneuverability of vessels and density of vessel traffic. 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.

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.

Figure 15 shows the primary tug and tow vessel transit routes within the study area; the bulk of traffic transiting through the Cape Cod Canal, utilizing the established two-way route south of Boston, and travelling to and from Boston, Portsmouth, Portland, Penobscot Bay and Canadian destinations.

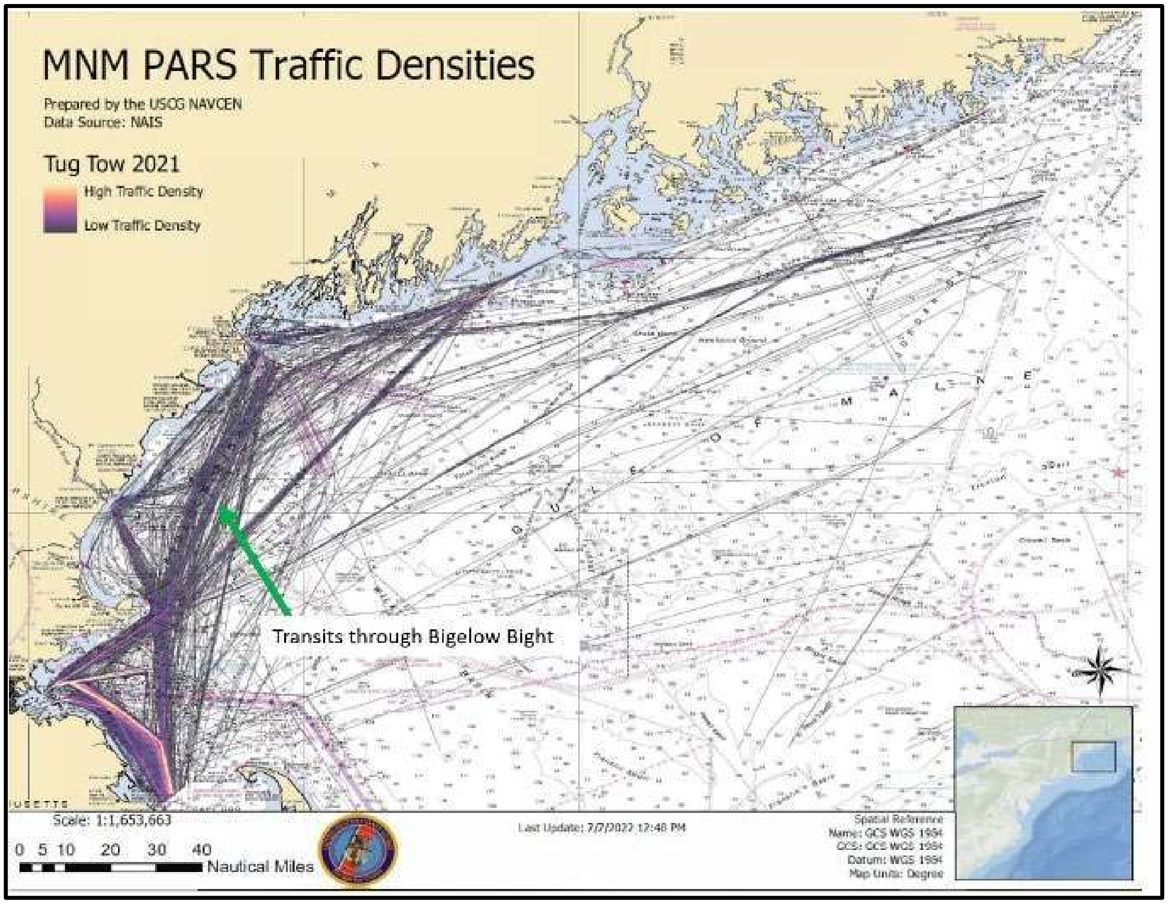

Figure 15 – 2021 Tug Tow AIS Vessel Track Density

This same coastal zone is also heavily transited by other vessel classes including cargo and tanker vessels, and fishing and passenger vessels calling on Newburyport, Hampton, Portsmouth, and Portland.

From 2019 – 2021, 6,011 AIS vessel tracks transited in and out of the port of Portsmouth, with 4,164 of those tracks comprised of fishing vessels and pleasure craft.

Densely trafficked coastal routes and port approaches also extend from Portland to Eastport, ME, with the greatest concentration seen within 20 miles of the coast and in the approaches to ports within Penobscot Bay. Cargo and tanker vessels, shown in Figure 16, traverse a coastal route between Portland and the Bay of Fundy that affords the most direct transit and provides better protection from inclement weather and high sea states further offshore. Cargo and tanker traffic can also be seen converging on the Penobscot Bay recommended routes.

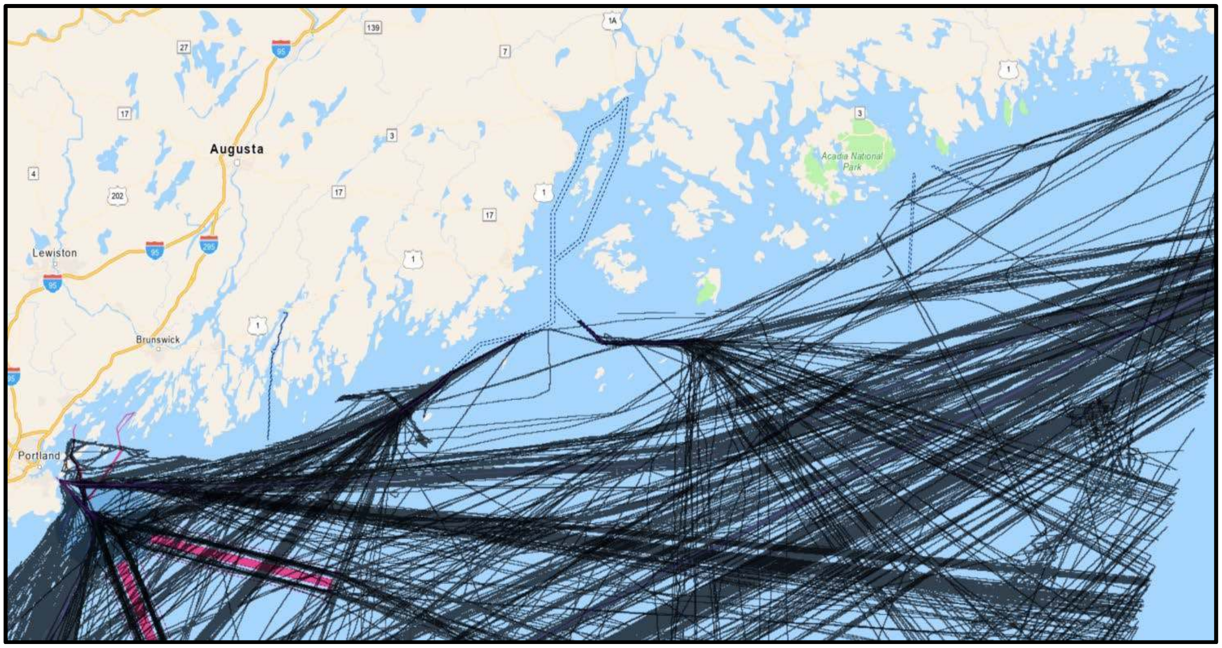

Figure 16 – 2021 Penobscot Bay Cargo and Tanker Vessel AIS Tracks

The ports in this region are also amongst the most highly trafficked fishing and passenger vessel ports within the area of study as shown in Figure 17. See Enclosure 1 for the complete vessel traffic analysis.

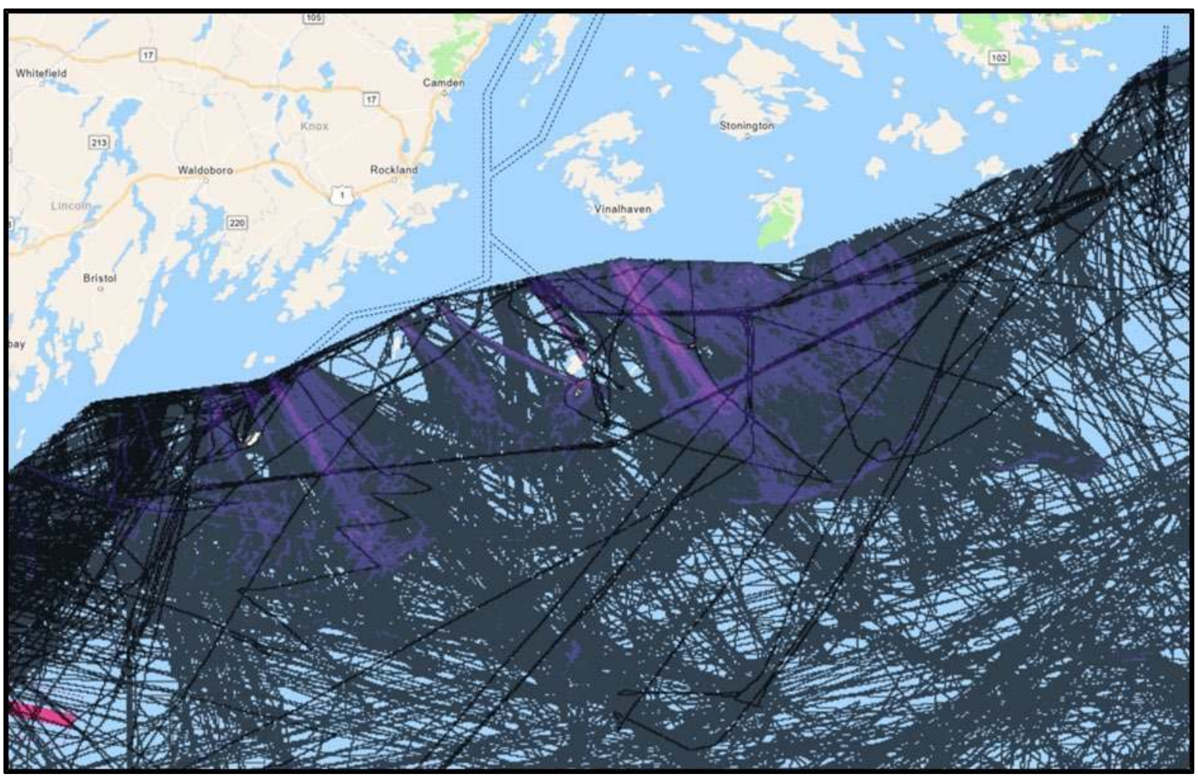

Figure 17 – 2021 Penobscot Bay Fishing and Passenger Vessel AIS Tracks

Overall, coastal shipping routes and densely trafficked port approaches within the study area consist of all vessel types and classes. These routes are utilized to afford vessels with the most direct transit while also considering weather, sea state, water depth, and coastal geography.

Unlike routes located further offshore, potential displacement or funneling of coastal traffic is far less flexible and presents greater navigation safety concerns. As outlined in the Coast Guard's MPG, efforts should be made to avoid displacing traffic further offshore or in a manner that will result in mixing of vessel types.

To ensure preservation of unobstructed port access and coastal shipping routes that are vital for efficient maritime commerce and the continued viability of coastal communities, the First Coast Guard District proposes the following measures discussed further in Section VI of this report:

- A *Coastal Zone Fairway* that will extend offshore from the 3 NM state waters boundary to a varying distance based on traffic density, the location of traditional port approach and shipping routes, and spatial needs to ensure safe navigation

- A *Massachusetts Bay Fairway* that will extend from the two-way route precautionary area in Cape Cod Bay to the Coastal Zone Fairway east of Gloucester

C. Determining Shipping Safety Fairway Width

In considering an appropriate width for shipping safety fairways, the First Coast Guard District utilized a method discussed in a 2018 report by the *World Association for Waterborne Transport Infrastructure (PIANC)*, a global organization that provides guidance and technical advice for port and waterway infrastructure.

The PIANC MarCom Working Group Report 161 (WG 161) was conducted to provide guidelines for assessing required vessel maneuvering space when operating in vicinity of offshore wind farms. Considering the potential for future installation of structures on the outer continental shelf (OCS), this methodology provides the Coast Guard with a baseline to determine adequate sea-space for preserving unobstructed vessel transit to and from domestic ports.

The calculation consists of the following formula:

Fairway width = $(2L \times T) + (6L \times 2) + (1.5L \times 2)$

L = Largest vessel length transiting

T = Factor assigned based on annual vessel traffic

According to the PIANC report and the International Maritime Organization (IMO) *General Provisions on Ships' Routeing [sic]*, a guideline that has proven to be accurate when determining routing measure width considers both the number of vessels transiting a route and the maximum vessel size, keeping in mind potential future developments in both ship size and traffic density.

As an example, two-way traffic in the shipping transit route from Boston to the Bay of Fundy shown in Figure 14 (line 27) represents less than 4,400 vessel transits per year. Based on the ranges provided in the PIANC report, this suggests the number of vessels side by side is expected to be no more than two.

- <4,400 annual vessels require space for two vessels aside - Factor of 2
- 4,400 – 18,000 annual vessels require space for three vessels aside - Factor of 3
- >18,000 vessels annual vessels require space for four vessels aside - Factor of 4

Year	Number of Unique Vessels	Mean Vessel Length (ft)	Median Vessel Length (ft)	Maximum Vessel Length (ft)
2019	2906	156	52.5	1148
2020	2707	139	49.2	1201
2021	3085	127	49.2	1207

Table 12 – Study Area Unique Vessel Lengths

Using the maximum vessel length as shown in Table 8, the calculation is as follows:

1,207 (vessel length in feet) × 2 (minimum safe distance) × 2 (factor for < 4,400 annual vessels) = 4,828 feet

The PIANC study also identifies the need to account for a ship's ability to conduct a full round turn to avoid a collision.

The primary difference between calculating two-way versus a one-way traffic lane is the need to account for the reaction time and course deviation for vessels traveling in both directions.

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. The PIANC report concluded it is reasonable to add an extra ship length considering that the operator of a ship may not be fully prepared for the maneuver. Therefore, six times the ship's length was used, and then doubled, to account for a full round turn to both port and starboard.

1,207 (vessel length in feet) × 6 (ship lengths; ability to conduct a full round turn)

= 7,242 × 2 = 14,484 feet

PIANC also adds 0.3 NM, based on a 400-meter ship length, to account for any prior deviation from the original track that a ship may take in collision avoidance prior to determining the need to conduct a full round turn. This equates to a reaction/length ratio of 1.389. To be conservative, the First Coast Guard District rounded this to 1.5 and incorporated 1.5L as the collision avoidance factor in the fairway width calculation.

1,207 (vessel length in feet) × 1.5 (ratio for prior deviation from original track)

= 1,810.5 × 2 = 3,621 feet

Based on these figures, the width calculation would be:

W = (4,828 + 14,484 + 3,621)

W = 22,933 feet or 3.77 NM. This distance was rounded up to 4 NM to account for any plotting error.

Lastly, in alignment with the Coast Guard's Marine Planning Guidelines, a 2 NM buffer is added to both sides of the proposed Gulf of Maine Fairway resulting in a final width of 8 NM. Figure 18 provides a visual of the methodology used for calculating fairway widths using the previously described variables L (vessel size) and T (traffic factor).

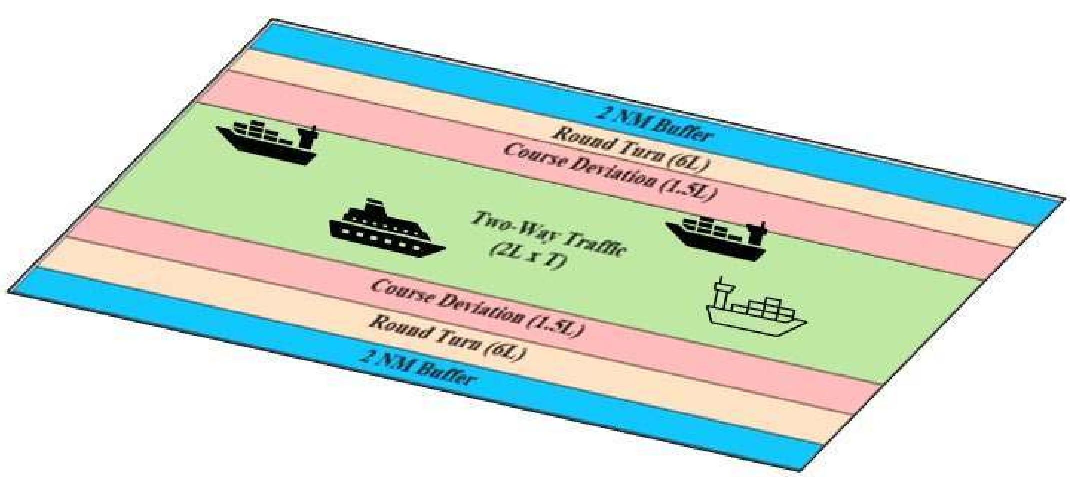

Figure 18 – Fairway Width Methodology

VI. PROPOSED ACTIONS

The First Coast Guard District proposes implementation of five shipping safety fairways within the area of study.

Shipping safety fairways may be utilized by mariners but are not mandatory for any specific class of vessel. Per 33 CFR § 166.105, 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.*

Figure 19 provides an overview of the proposed fairway locations.

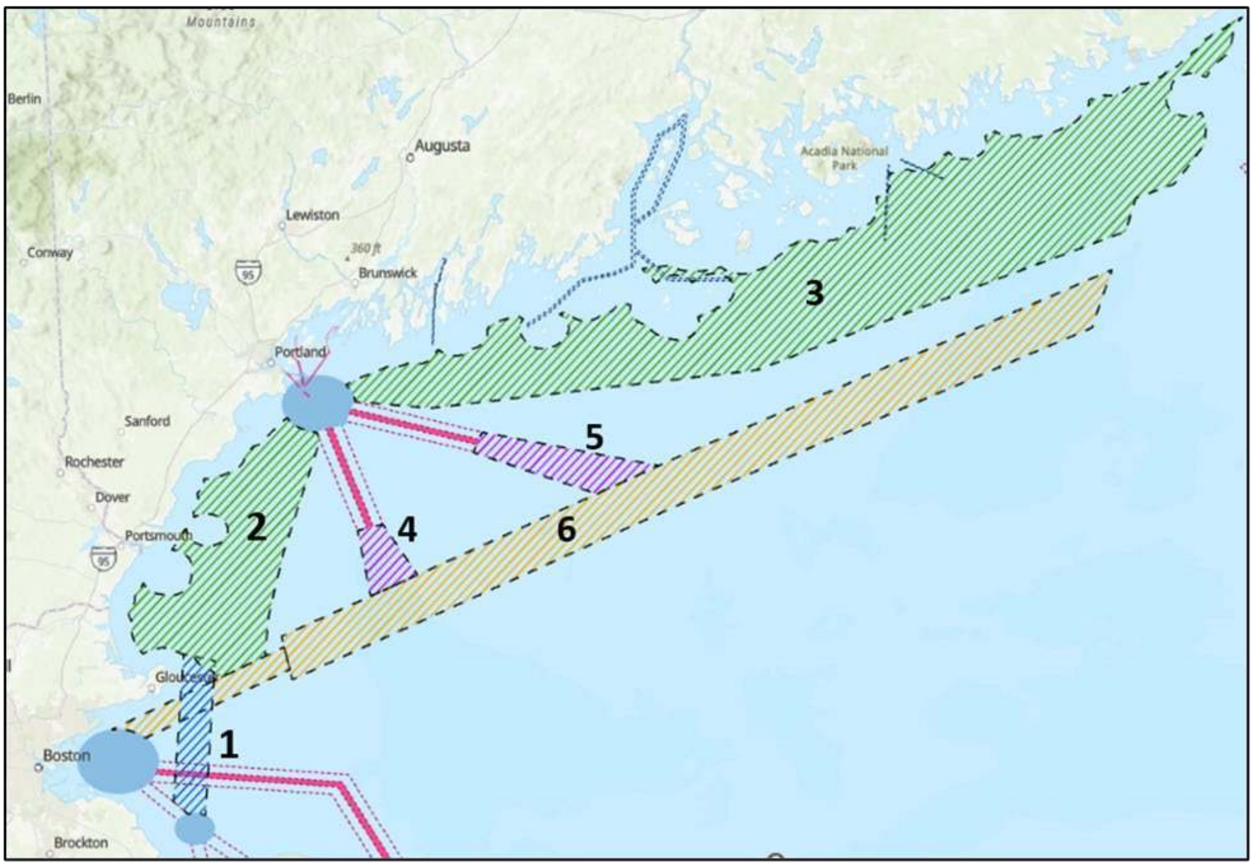

Figure 19 – MNMPARS Recommended Fairways

A. Massachusetts Bay Fairway

A 5 NM wide fairway (Figure 19, item #1) is proposed to meet the needs of commercial tug and tow traffic transiting between the Cape Cod Canal and other points north of Boston while also addressing potential impacts of vessel traffic to marine life within the Stellwagen Bank National Marine Sanctuary (SBNMS). The Fairway will extend north from the two-way route precautionary area in Cape Cod Bay to an area east of Rockport, MA. The fairway width was assigned 5 NM to account for the increased complexity of tug and tow transits[54]. Additional 2 NM buffers were not added to the fairway width to aid in consolidating traffic to the western end of the SBNMS and reduce the impact of radiated noise to several whale and fish species. There exists a reduced potential for future obstructions located adjacent to the fairway as it intersects with the SBNMS, the Boston Approach TSS, and a proposed Gulf of Maine Fairway (Figure 19, item #6).

Latitude and Longitude of primary points:

Massachusetts Bay Fairway		
	Latitude (North)	**Longitude (West)**
1	42.24993	-70.59221
2	42.20913	-70.54095
3	42.21337	-70.54114
4	42.20503	-70.48186
5	42.70159	-70.4494
6	42.72315	-70.55725

B. Coastal Zone Fairway

A coastal zone fairway (CZF) (Figure 19, items #2 and #3), is proposed to meet the needs of cargo, tanker, and tug tow vessel traffic transiting along coastal routes between primary commercial ports including Boston, MA; Portsmouth, NH; Portland, Searsport, and Eastport, ME, and Canadian ports through the Bay of Fundy. This fairway will also preserve unobstructed

[54] This distance aligns with the recommendations provided in the USCG and American Waterways Operators (AWO) Quality Action Team Report provided in Enclosure 3 of the Atlantic Coast PARS

access for all vessel types to several densely trafficked port approaches and non-regulatory recommended routes.

To reduce potential conflict with state coastal zone management, the 3 NM state waters line will serve as the inshore CZF boundary. The offshore boundaries were determined using a minimum distance while also expanding in certain areas to encompass traditional, heavily trafficked routes. Considering the substantial amount of tug/tow traffic transiting the western CZF (item #2), a 9 NM minimum distance[55] from the state waters line was used while an 8 NM minimum distance was used for eastern CZF (item #3).

Latitude and Longitude of primary points:

Coastal Zone Fairway (Figure 19; #2)		
	Latitude (North)	**Longitude (West)**
1	42.63643	-70.45518
2	42.71607	-70.27734
3	42.84934	-70.26381
4	43.05133	-70.21283
5	43.41023	-70.08786
6	43.43597	-70.09869
7	43.44927	-70.15674
*These points constitute the offshore boundary for the fairway zone which connects to the 3 NM state waters line (inshore boundary)		

[55] USCG and American Waterways Operators (AWO) Quality Action Team Report provided in Enclosure 3 of the Atlantic Coast PARS

Latitude and Longitude of primary points:

Coastal Zone Fairway (Figure 19; #3)		
	Latitude (North)	**Longitude (West)**
1	43.5621	-69.97511
2	43.53383	-69.96678
3	43.51359	-69.70613
4	43.63552	-68.58112
5	43.69251	-68.42379
6	43.75643	-68.24438
7	43.83031	-68.03411
8	43.88057	-67.88947
9	44.07952	-67.31758
*These points constitute the offshore boundary for the fairway zone and connect to the international boundary line (eastern boundary) and the 3 NM state waters line (inshore boundary)		

C. Portland Southern Approach Fairway

A fairway is proposed (Figure 19, item #4) that will meet the needs of vessel traffic entering and exiting the port of Portland via the Southern Approach TSS. This fairway will ensure sufficient maneuvering space is provided for vessels to manage complex meeting situations and cross traffic as they depart or converge on the regulated traffic lanes. The fairway extends from the terminus of the TSS, gradually expanding to 8 NM before connecting with the proposed Gulf of Maine fairway (Figure 19, item #6).

Latitude and Longitude of primary points:

Portland Southern Approach Fairway		
	Latitude (North)	**Longitude (West)**
1	43.12023	-69.95837
2	43.14013	-69.8714
3	42.97825	-69.75216
4	42.90965	-69.91341

D. <u>Portland Eastern Approach Fairway</u>

A fairway is proposed (Figure 19, item #5) that will meet the needs of vessel traffic entering and exiting the port of Portland via the Eastern Approach TSS. This fairway will ensure sufficient maneuvering space is provided for vessels to manage complex meeting situations and cross traffic as they depart or converge on the regulated traffic lanes. The fairway extends from the terminus of the TSS, gradually expanding to 8 NM before connecting with the proposed Gulf of Maine fairway (Figure 19, item #6).

Latitude and Longitude of primary points:

Portland Eastern Approach Fairway		
	Latitude (North)	**Longitude (West)**
1	43.37047	-69.55881
2	43.43596	-69.52859
3	43.32833	-68.92071
4	43.23841	-69.13693

E. <u>Gulf of Maine Fairway</u>

A fairway is proposed (Figure 19, #6) that will meet the needs of vessel traffic, primarily cargo and tanker vessels, proceeding across the Gulf of Maine between Boston and the Bay of Fundy. This fairway extends from the Boston Approach TSS precautionary area in Massachusetts Bay to the international boundary outside of the Bay of the Fundy. The fairway width is 4 NM as it extends through Massachusetts Bay along the northern portion of the SBNMS before expanding to 8 NM at the SBNMS border. Similar to the proposed Massachusetts Bay Fairway, this fluctuation in width is deemed appropriate due to the reduced risk of future obstructions adjacent to the fairway and the desire to consolidate traffic and reduce the potential impact of vessels to species within the sanctuary.

Latitude and Longitude of primary points:

Gulf of Maine Fairway		
	Latitude (North)	**Longitude (West)**
1	42.48032	-70.80537
2	42.47975	-70.75751
3	42.47418	-70.73112
4	42.45408	-70.68781
5	42.67425	-70.19071
6	42.64161	-70.18338
7	43.24785	-68.74553
8	43.77241	-67.42815
9	43.95759	-67.36019
10	43.36419	-68.83607
11	42.78024	-70.21987
12	42.74585	-70.21135

F. Wind Energy Areas (WEA)

The First Coast Guard District concurs with the concerns and recommendations, including recommended exclusion areas, outlined in the comment submitted by the USCG to BOEM's Request for Interest (RFI) in commercial leasing for wind energy development on the Gulf of

Maine Outer Continental Shelf (87 FR 51129; August 19, 2022). These recommendations also apply to the Gulf of Maine Request for Competitive Interest (RFCI) area, specifically the Maine Research Array as proposed in the RFCI (87 FR 51134; August 19, 2022).

1. Layouts and Cabling

The USCG recommends that BOEM define wind energy areas in the Gulf of Maine that will allow for consistent layouts and cable routes. Each wind farm, regardless of the area's size and the turbine type, should be organized in straight rows and columns, creating a grid pattern consisting of two lines of orientation. Common turbine spacing and layout will help facilitate navigation safety, consistent and continuous marking and lighting, search and rescue, and other uses, such as commercial fishing. When multiple wind projects share a border, a common turbine spacing and layout throughout all adjoining wind projects is paramount and should be required. This will have the cumulative effect of presenting one wind farm with consistent straight-line routes for the mariner through the entire area.

2. Mooring Systems & Ancillary Equipment

The USCG insists that all mooring systems and ancillary equipment not impede the safe navigation of vessel traffic in the wind energy area and be contained inside any approved lease area as a requirement under the terms and conditions of a specific lease.

3. Siting

Consistent with the USCG MPG, wind energy areas should avoid conflict with vessels using a TSS. Regardless of location, it is essential that analysis of cumulative impacts to navigation is conducted for each project and that appropriate mitigations are identified as part of a developers Navigation Safety Risk Assessment (NSRA). The USCG will provide evaluations of the potential impacts a project may have on the Marine Transportation System (MTS), safety of navigation, other traditional waterway uses, and the Coast Guard's ability to conduct its 11 statutory missions.

4. Marine Vessel Radar

The First Coast Guard District recommends that mariners consider the mitigation methods described within the 2022 National Academies Report - *Wind Turbine Generator Impacts to Marine Vessel Radar*, such as implementing supplemental watch standers, greater utilization of non-radar navigation tools and leveraging additional onboard technologies such as AIS or adopting solid-state MVR equipment that are better capable of filtering out unwanted radar returns. In addition, updated training to enhance radar operator proficiency in distinguishing targets and reducing display clutter could be beneficial.

Ultimately, it will be incumbent on the mariner to implement appropriate safety measures when choosing to navigate within, or adjacent to, any future offshore wind farm developed within the area of study.

While outside the scope of this PARS, the First Coast Guard District concurs with the National Academies' assessment that there exists a need to collect more data and develop physics-based models for developing strategies to mitigate potential negative effects of WTGs on MVR.

VII. CONCLUSION

The First Coast Guard District considered the need for implementing new routing measure regulations to promote safe navigation and efficient access to ports within the study area. Several data sources were examined, including public comments and partner agency submissions, to identify current vessel traffic trends and determine potential changes that may result due to environmental factors, changes in fishery management and species distributions, port development projects, and offshore renewable energy infrastructure.

The First Coast Guard District concluded that these factors may result in larger vessel classes, increased traffic densities, and displacement of traditional transit routes. Increases in complex meeting situations and a heightened risk of marine casualties would best be mitigated through implementation of shipping safety fairways and fairway zones that will preserve unobstructed transit of densely trafficked routes and port approach areas.

The First Coast Guard District provided recommendations for the siting and layout of potential offshore wind energy areas within the study area and will continue to serve as a NEPA cooperating agency to BOEM's environmental review of each proposed project. In that role, the USCG will evaluate the navigational safety risks of each proposal on a case-by-case basis.

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 MNMPARS study area for changing conditions and consider appropriate actions to promote waterway and user safety.

APPENDICES

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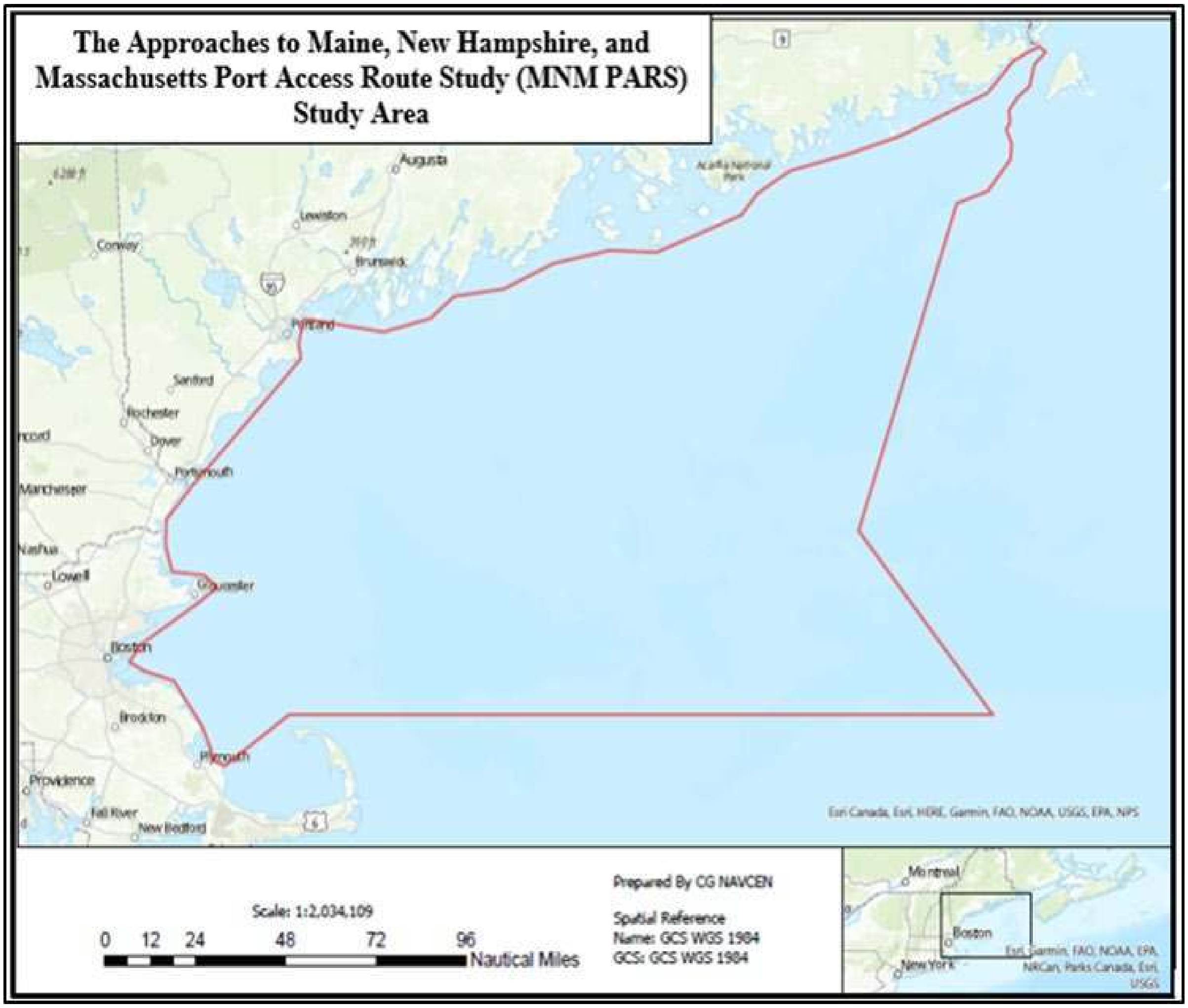
APPENDIX A

MNMPARS
Study Area


The Approaches to Maine, New Hampshire, and Massachusetts Port Access Route Study (MNM PARS) Study Area
Augusta
Lewiston
Conway
Brunswick
Portland
Sanford
Rochester
Dover
Portsmouth
Manchester
Nashua
Lowell
Gloucester
Boston
Brockton
Plymouth
Providence
Fall River
New Bedford
Acadia National Park
Esri Canada, Esri, HERE, Garmin, FAO, NOAA, USGS, EPA, NPS
Scale: 1:2,034,109
0 12 24 48 72 96
Nautical Miles
Prepared By CG NAVCEN
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Montreal
Boston
New York
Esri, Garmin, FAO, NOAA, EPA, NRCan, Parks Canada, Esri, USGS

APPENDIX B

Definition of Terms

1. Area to be avoided or ATBA means a routing measure comprising an area within defined limits in which either navigation is particularly hazardous or it is exceptionally important to avoid casualties and which should be avoided by all vessels, or certain classes of vessels.

2. Deep-water route means a route within defined limits, which has been accurately surveyed for clearance of sea bottom and submerged obstacles as indicated on nautical charts.

3. Fairway means a lane or corridor in which no artificial island or structure, whether temporary or permanent, will be permitted so that vessels using U.S. ports will have unobstructed approaches.

4. Inshore traffic zone means a routing measure comprising a designated area between the landward boundary of a traffic separation scheme and the adjacent coast, to be used in accordance with the provisions of Rule 10(d), as amended, of the International Regulations for Preventing Collisions at Sea, 1972 (COLREGS), 33 CFR 83.

5. Marine Environment, as defined by the Ports and Waterways Safety Act, means the navigable waters of the United States and the land resources therein and thereunder; the waters and fishery resources of any area over which the United States asserts exclusive fishery management authority; the seabed and subsoil of the Outer Continental Shelf of the Unites States, the resources thereof and the waters superjacent thereto; and the recreational, economic, and scenic values of such waters and resources.

6. No anchoring area means a routing measure comprising an area within defined limits where anchoring is hazardous or could result in unacceptable damage to the marine environment. Anchoring in a no anchoring area should be avoided by all vessels or certain classes of vessels, except in case of immediate danger to the vessel or the persons on board.

7. Precautionary area means a routing measure comprising an area within defined limits where vessels must navigate with particular caution and within which the direction of traffic flow may be recommended.

8. Recommended route means a route of undefined width, for the convenience of vessels in transit, which is often marked by centerline buoys.

9. Recommended track means a route which has been specially examined to ensure so far as possible that it is free of dangers and along which vessels are advised to navigate.

10. Regulated Navigation Area or RNA means a water area within a defined boundary for which regulations for vessels navigating within the area have been established under 33 CFR part 165.

11. Roundabout means a routing measure comprising a separation point or circular separation zone and a circular traffic lane within defined limits. Traffic within the roundabout is separated by moving in a counterclockwise direction around the separation point or zone.

12. Separation Zone or separation line means a zone or line separating the traffic lanes in which vessels are proceeding in opposite or nearly opposite directions; or from the adjacent sea area; or separating traffic lanes designated for particular classes of vessels proceeding in the same direction.

13. Traffic lane means an area within defined limits in which one-way traffic is established. Natural obstacles, including those forming separation zones, may constitute a boundary.

14. Traffic Separation Scheme or TSS means a routing measure aimed at the separation of opposing streams of traffic by appropriate means and by the establishment of traffic lanes.

15. Two-way route means a route within defined limits inside which two-way traffic is established, aimed at providing safe passage of ships through waters where navigation is difficult or dangerous.

16. Vessel routing system means any system of one or more routes or routing measures aimed at reducing the risk of casualties; it includes traffic separation schemes, two-way routes, recommended tracks, areas to be avoided, no anchoring areas, inshore traffic zones, roundabouts, precautionary areas, and deep-water routes.

APPENDIX C

Abbreviations and Acronyms

ACP – American Clean Power

ACPARS – Atlantic Coast Port Access Route Study

AIS – Automatic Identification System

AWO – American Waterways Operators

AOR – Area of Responsibility

AtoN – Aids to Navigation

ACP – American Clean Power

AWO – American Waterways Operators

BIW – Bath Iron Works

BOEM – Bureau of Ocean Energy Management

CBD – Center for Biological Diversity

CFR – Code of Federal Regulations

CG-NAV – Coast Guard Headquarters Assistant Commandant for Prevention, Office of Navigation Systems

COLREGS – International Regulations for Preventing Collisions at Sea 1972

COP – Construction and Operation Plan

COTP – Captain of the Port

DMR – Department of Marine Resources

EIS – Environmental Impact Statement

FMP – Fisheries Management Plan

FR – Federal Register

IMO – International Maritime Organization

LA – Lead Agency

LLNR – Light List Number

LNM – Local Notice to Mariners

MA - Massachusetts

MAFMC – Mid-Atlantic Fisheries Management Council

MASS CZM – Massachusetts Coastal Zone Management

ME - Maine

MMC – Marine Mammal Commission

MMPA – Marine Mammal Protection Act

MNMPARS – Approaches to Maine, New Hampshire, and Massachusetts Port Access Route Study

MPA – Maine Port Authority

MPG – Marine Planning Guideline

MSIB – Marine Safety Information Bulletin

MTS – Marine Transportation System

NAD 83 – North American Datum of 1983

NARW – North Atlantic Right Whale

NDBC – National Data Buoy Center

NAVCEN – Coast Guard Navigation Center

NEFMC – New England Fisheries Management Council

NEPA – National Environmental Policy Act

NERACOOS – Northeastern Regional Association of Coastal Ocean Observing Systems

NH – New Hampshire

NHDES – New Hampshire Department of Environmental Services

NM – Nautical Mile

NMFS – National Marine Fisheries Service

NOAA – National Oceanic and Atmospheric Administration

NREL – National Renewable Energy Laboratory

NROC – Northeast Regional Ocean Council

NSRA – Navigation Safety Risk Assessment

NVIC – Navigation and Vessel Inspection Circular

OCS – Outer Continental Shelf

OREI – Offshore Renewable Energy Installation

PARS – Port Access Route Study

PIANC – World Association for Waterborne Transport Infrastructure

PWSA – Ports and Waterways Safety Act

QAT – Quality Action Team

RNA – Regulated Navigation Area

RODA – Responsible Offshore Development Alliance

SAR – Search and Rescue

SBNMS – Stellwagen Bank National Marine Sanctuary

TEU – Twenty-foot Equivalent Unit

TSS – Traffic Separation Scheme

UNCLOS – United Nations Convention on the Law of the Sea

UNH – University of New Hampshire

U.S. – United States

USACE – Unites States Army Corps of Engineers

USC – United States Code

USCG – United States Coast Guard

VMS – Vessel Monitoring System

VTS – Vessel Traffic Service

WAMS – Waterways Analysis Management Study

WEA – Wind Energy Area

WTG – Wind Turbine Generator

WTRIM - Wind Turbine Radar Interference Mitigation

APPENDIX D

MNMPARS Contact List

Marine Safety Information Bulletin (MSIB
Distribution Lists

Note: A number (#) indicates multiple individuals contacted within that organization
An entry listed in all CAPS indicates a vessel

USCG Sector Northern New England MSIB Distribution List

Bangor Fire Department (2)
Bangor Public Works
Bath Iron Works (2)
Bay Ferries
Buckeye Partners, LP
Casco Bay Ferries
Casco Bay Lines
CBP (6)
Chief Harbor Master Tracy Shattuck
Citgo (2)
Clean Harbors Inc.
CLIA Rep
Cold Brook Energy
Dead River Company
Downeast Lobstermen's Association
Downeast Windjammer Cruise Lines
Eastport Pilots (2)
Eastport Port Authority Director (3)
EMSKIP
Federal Marine Terminal
Fournier Tugs- Penobscot Bay & River, Searsport & Bucksport (2)
FPL Wyman
Global
Global Companies LLC
Granite Shore Power
Granite State Minerals
Gulf
Irving (9)
Kennebec County Emergency Management (4)
Lake Champlain Transportation
Maine Coast Fishermen's Association
Maine Emergency Management Agency (8)
Maine Port Authority
McAllister Towing
ME Dept of Marine Resources (2)
ME Harbormaster's Association
ME Kittery Harbormaster
ME Lobstermen's Association
ME State Ferry Service (2)
ME-DOT
ME-DOT – Bridge (2)
"ME-DOT
Freight passenger services"
Moran Shipping Agents (2)
Moran Towing
National Gypsum
National Weather Service - Caribou
National Weather Service - Gray (2)
NH DOT
NH DOT - Bridge
NH Emergency Management (4)
NH Port Authority director
NH-DOS
NRC
NYS EMA
Penobscot Bay River Pilots
Penobscot Bay Terminals
Penobscot County
Portland Pipeline
Portland Docking Pilots
Portland Harbormaster (2)
Portland IMT
Portland Ocean Gateway
Portland Pilots (3)
Portland Tugboat
Portland-State Pier (2)
Portsmouth Pilots
Quoddy Pilots
Reinauer
Sea Land Energy of Maine
Sea-3 (4)
Sprague (4)
State of Maine
SUBCOM
Turners Island
U.S. Army Corps of Engineers (3)
U.S. Geological Survey
Vessel Services
VT EMA
Vtrans Bridges

USCG Marine Safety Detachment (MSD) Belfast MSIB Distribution List

Penobscot Bay Pilots (5)
Quoddy Pilots
Eastport Pilots
Addison Harbormaster
Bangor Harbormaster
Bar Harbor Harbormaster (4)
Bass Harbor Harbormaster
Beals Harbormaster
Belfast Harbormaster (2)
Blue Hill Harbormaster
Brooksville Harbormaster
Bucks Harbor Harbormaster
Bucksport Harbormaster
Calais Harbormaster
Camden Harbormaster (3)
Castine Harbormaster
Corea Harbormaster
Cranberry Isles Harbormaster
Cushing Harbormaster
Cutler Harbormaster (3)
Deer Isle Harbormaster
Eastport Harbormaster
Ellsworth Harbormaster
Frenchboro Harbormaster
Georgetown Harbormaster
Gouldsboro Harbormaster
Harrington Harbormaster
Islesboro Harbormaster (2)
Islesboro Harbormaster
Islesford - Little Cranberry
Jonesport Harbormaster
Lamoine Harbormaster
Lincolnville Harbormaster
Lubec Harbormaster
Machias Harbormaster
Machiasport Harbormaster
Milbridge Harbormaster
Mount Desert Island Harbormaster
North Haven, Fox Hound Thorofare, Pulpit Harbor Harbormaster
Northport Harbormaster
Owl's Head Harbormaster
Perry Harbormaster
Prospect Harbor Harbormaster
Rockland Harbormaster
Rockport Harbormaster
Roque Bluffs Harbormaster
Sedgwick Harbormaster
Seal Cove Harbormaster
Seal Harbor Harbormaster
Searsport Harbormaster
Sorrento Harbormaster
Southwest Harbor Harbormaster
Steuben - Pigeon Hill Bay Harbormaster
Steuben - Gouldsboro Bay & Dyers Bay Harbormaster
Stockton Springs Harbormaster
Stonington Harbormaster
Sullivan Harbor Harbormaster
Surry Harbormaster
Swans Island Harbormaster
Tremont Harbormaster
Vinalhaven Harbormaster
Winter Harbor Harbormaster
Winterport Harbormaster
Clean Harbors
Bar Harbor - Whale Watch (2)
Bay Ferries
Eastport Fish Pier
Eastport Federal Marine Terminal
Irving - Searsport
Rockland Public Landing
Sprague Energy - Bucksport & Searsport
Penobscot Bay Terminal
Maine State Ferry Service (8)
ABACO
ACADIA EXPLORER
ACADIAN
AHOSKIE
ALAKAI
AMBASSADOR
AMERICAN EAGLE
ANGELIQUE
APPLEDORE
ASTICOU
ATLANTIC
ATLANTICAT
ALTON A II
BAILEY LOUISE TODD
BAKERS DOZEN
BARBARA FROST
BAY KING III
BONNIE LYNN
BOWDOIN
ISAAC H. EVANS
CANGARDA
CAP'N B
CAPT RAY O'NEAL
CAPT. RICHARD G. SPEAR
CAPT SUSAN J. CLARK
CAPTAIN CHARLES PHILBROOK
CAPTAIN E. FRANK THOMPSON
CAPTAIN HENRY LEE
CAPTAIN NEAL BURGESS
CHARM
CHIEF
DOROTHY L
DOUBLE B
EBB TIDE

EDEN STAR
EDSEL B. FORD
ELIZABETH T
EMERY HAYDEN
EQUINOX
EVERETT LIBBY
FISH HAWK
FOURNIER BOYS
FOURNIER TRACTOR
FRIENDSHIP V
GINNIE T
GOVERNOR CURTIS
GRACE BAILEY
HARVEST MOON
HERITAGE
HERON
HINDU
BLOODHOUND
ISLAND QUEEN
ISLAND TRANSPORTER
ISLANDER
J. & E. RIGGIN
JOSH
KATHERINE
KATIE GRACE
LADONA
LAZY JACK II
LEWIS R. FRENCH
LITTLE DIPPER
LIL' TOOT
LIVELY LADY
LULU
MARGARET CHASE SMITH
MARGARET TODD
MARY DAY
MERCANTILE
MERRIMAC II
MINK
MISS LIZZIE
MISS SAMANTHA
MORNING IN MAINE
NETEPENAWESIT
PERIWINKLE
OCEAN OBSESSION
OLAD
OSPREY
OTTER
PENTAGOET
PHILIP MARKHAM CAUGHEY
PIER PRESSURE
POLLY LIN II
QUICKSILVER
QUODDY DAM
R. L. GOTT
ROBIN R
SACHEM
LADY CLARE
SCHOODIC EXPLORER
SCHOODIC LION
SEA PRINCESS
SEA QUEEN
SEBAGO
SELECT
SENECA
STARFISH ENTERPRISE
STATE OF MAINE
STEPHEN TABER
SUMMERTIME
SURPRISE
SUTTON
TARQUIN
TRICIA CLARK
VAGABOND
VICTORY CHIMES
YANKEE

<u>USCG Sector Boston MSIB Distribution List</u>

AMERICAN CLASSIC
American Yacht Club
Amesbury Harbormaster
Anisquam Yacht Club (2)
Bass Haven Yacht Club
Bay Rider
Bay State Cruise Co. (3)
BELLE
Beverly Harbormaster (2)
BHC (9)
BOSTON BELLE
Boston Best Cruises
Boston Duck Tours
Boston Harbor Yacht Club, Inc.
Boston Harbormaster
Boston Line & Service (3)
Boston Lobster Tours
Boston Sailing Center
Boston Water Bus
Boston Yacht Charters
Boston Yacht Club
Boston's Best Cruises (4)
Broad Sound Tuna Club
Cape Ann Divers
Cape Ann Whale Watch
CAPTAIN'S LADIES
CHALLENGER
Charles River Boat Co.
Charles River Yacht Club
Charles Riverboat
Charlesgate Yacht Club
Chelsea Harbormaster (3)
Circle Yacht Club
City Water Taxi
City Water Taxi
Clean Harbors Environmental
Cohasset Harbormaster
Columbia Point (2)
COME SAIL AWAY NOW
Constitution Marina
Corinthian Yacht Club (2)
Cottage Park Yacht Club (2)
Courageous Sail Center (4)
Crescent Yacht Club
Cruiseport Gloucester Marine Terminal
CYN Environmental
Danvers Harbormaster (3)
Danversport Yacht Club Association
Devaney Energy
Diesel Direct (3)
Distrigas of Massachusetts Corporation
Dolphin Yacht Club (3)
Dorchester Yacht Club
Double Eagle
Duxbury Bay Maritime
Duxbury Yacht Club
EARTH ANGEL
Eastern Point Yacht Club
Eastern Salt Company, Inc. (2)
Eastern Yacht Club (2)
Entertainment Cruises
Erica Lee Fisheries
Essex Harbormaster
Essex PD (2)
Essex River Queens
EVALYN RUTH
Everett Police
Exxon Mobile
Felicia Oil Company, Inc.
Flynn Cruiseport
FORMIDABLE
FRIENDSHIP OF SALEM
Friendship of Salem
Full Moon Charters
Georgetown Harbormaster
Global Companies, LLC (2)
Gloucester Harbormaster
Green Harbor Yacht Club
Gulf Oil
Gull Point Yacht Club
Harbor Fuels
Harbor Tours (2)
Haverhill Harbormaster
Hingham Harbormaster (3)
Hingham Yacht Club (2)
HOLCIM U.S.
Hull Yacht Club
INTEGRITY
Ipswich Bay Yacht Club
Ipswich Harbormaster (2)
Ipswich Outboard Club
Irving Oil Terminal, Inc.
Ipswich Bay Yacht Club
J.P. Noonan
Jeffries Yacht Club
Jubilee Yacht Club (3)
Kingman Yacht Club
Kingston Harbormaster (2)
LADY SEA
LIBERTY CLIPPER
LOBSTER TALES
Loud Fuel
LUCKY FINN
Lynn Harbormaster
Lynn Yacht Club
Mahi Cruises
Manchester Harbormaster
MANISEE

Marblehead Harbormaster
Marblehead Yacht Club
Marshfield Police
Marshfield Yacht Club
MARY ELIZABETH
Massachusetts Lobstermen's Association
Mass Bay HBR Safety Committee Board (38)
Mass Bay Lines (2)
Mass State Police Marine Unit (2)
MassBay Lines
MassPort Fire Boat
MBYCA
Medford Boat Club
Metropolitan Yacht Club (2)
Mid-Harbor Launch
Milton Yacht Club
MISS AMERICA
Moran Environmental Recover (2)
MWRA Deer Island
Mystic Wellington Yacht Club, Inc.
Nahant Dory Club
Nahant Harbormaster
Nantasket Beach Salt Water Club
Nantasket Beach Water Club
New Bedford Yacht Club
NEW HORIZONS
Newbury Harbormaster (2)
Newburyport Harbormaster
Newburyport Yacht Club
Newton Yacht Club
North Andover Harbormaster
Norwell Harbormaster
NRC East Environmental Services
Ocean Classroom Foundation
Old Colony Yacht Club
OSPREY
Palmer's Cove Yacht Club
Paul W. Conley Container Terminal (2)
Pickering Wharf Marina
Pleasant Park Yacht Club
Plum Island Eco Tours
Plymouth Yacht Club
Point of Pines Yacht Club
PRINCE OF WHALES
Quincy Harbormaster (2)
Quincy Yacht Club
QUINNETUKUT II
RESOLUT
REVOLUTION
RIP RYDER V
Riverside Yacht Club
ROCKMORE
Rose's Transportation Inc.
ROSEWAY
Rowley Harbormaster
Rowley Harbormaster
Salem Harbormaster (2)
Salem Wharf
Salem Willows Yacht Club
Salisbury Harbormaster (2)
Sandy Bay Yacht Club
Satuit Boat Club (2)
Savin Hill Yacht Club (2)
Schnitzer
Scituate Harbor Yacht Club
Scituate Harbormaster (2)
Scituate Yacht Club
South Boston Yacht Club
South Shore Yacht Club
SPIRIT OF BOSTON
Sprague Energy (3)
Squantum Yacht Club
Steamboat Wharf Marina
Steamship Authority
Sterling
Sunoco
Super Duck Tours (3)
Swampscott Harbormaster (2)
Swampscott Yacht Club
Tails of the Sea
Taylor Oil Northeast, Inc.
THE LADY BEA
THOMAS E. LANNON
THOMSPON IS OUTWARD BOUND
Tradebe
TUPELO HONEY
VIRGINIA C II
Watertown Yacht Club
WEJACK
Wessagussett Yacht Club
WESSAGUSSETT YACHT CLUB
West Newbury Harbormaster
Winter Hill Yacht Club
Winthrop Harbormaster (5)
Winthrop Yacht Club (2)
Wollaston Yacht Club
Yankee Fleet

USCG Sector Southeast New England MSIB Distribution List

12 Meter Charters
13th Civil Support Team. Rhode Island National Guard (2)
A & J Boat Corp.
A&R Marine Corp/ DBA Prudence Island & Bay Island Transport
Absolute Sport Fishing
Acushnet Emergency Management Agency
Acushnet Fire Department
Adirondack Sailing Excursions
Advantech Business Builders, Inc.
ADVENTURESS - Fife Holdings, LLC
ALBATROSS
Alden Yachts Service Yard
Allen Harbor Marine Service Inc.
Althea K Sport Fishing
American Red Cross
America's Cup Charters (2)
Americorps - Cape Cod - Barnstable County
AMTRAK - Police
Anatec LTD
ANG 1st WWD-CST
Applied Science Associates
Apponaug Harbor Marina (Dickerson's Marina, Inc.)
Aqua Vista Marina
Aquidneck Land Trust
Aquinnah Fire Department
Aquinnah Harbormaster
Aquinnah - Police
Arabella Sail Charters
Army: 1st CST(WMD)
Atlantic Commercial Diving Co
Atlantic Star Lines, LLC (2)
Audubon Society of Rhode Island
Aurora Schooner Charters
Autonomous Marine Systems
Avondale Boatyard
Bannister's Wharf Marina
Barden's Boat Yard, Inc.
Barnstable - Fire Department - West Barnstable
Barnstable - Harbormaster
Barnstable - Police Department (9)
Barnstable County (2)
Barnstable County Department of Health & Environment (2)
Barnstable County Regional Emergency Planning Committee
Barnstable County Sheriff Dept. (12)
Barnstable Harbormaster
Barnstable Marine Service, Inc.
Barnstable Police Department
Barnstable Police Dept. Marine Unit
Barrington Fire Department
Barrington Harbormaster
Barrington Yacht Club
Barrington Yacht Club / US Sailing
Bass River Marina
Battleship Massachusetts
Bay Fuel Inc.
Bay Marine, Inc.
Bay Queen Cruises / Spirit of Newport / Rhode Island Cruise Company (Water Street Dock) (3)
Belle Vue Yachting Center (Point Judith Marina)
Beverly Yacht Club (2)
Blackstone Valley Tourism Council
Blount Boats, Inc.
Blount Small Ship Adventures (4)
Borden & Remington Corporation
Borden Light Marina
Borden Light Marine Contracting, Inc.
Boston Coastwise Pilots (4)
Boston Harbor Cruises (2)
Boston Harbor Pilot Association, LLC (2)
Boston Line and Service Co/Coast Line Service Inc.
Boston Line Service
Boston Towing
Bouchard Transportation Company, Inc.
Bourne Department of Natural Resources (3)
Bourne Fire Department
Bowen's Wharf
Bowen's Wharf Co. (2)
Brandaris Sailing Charters
Breezy Point Marina
Brewer Cove Haven Marina
Brewster Conservation & Natural Resources
Brewster Fire Department
Brewster Police Department
Bristol Fire Department
Bristol Harbormaster (3)
Bristol Police Department
Bristol County Sheriff's Office (2)
Bristol Marine (2)
Bristol Police Department (2)
Bristol Yacht Club
Brown University - Environmental Health and Safety
Bullock's Cove Marina
Burr Brothers Boats, Inc.
Buzzards Bay Action Committee
Buzzards Bay Coalition (2)
Canal Towing and Assist
Cape & Islands EMS System, Inc.
Cape and Island Harbormasters
Cape Cod Bay Sail, Inc.
Cape Cod Bay Watersports
Cape Cod Boat Tours
Cape Cod Central Railroad/ Massachusetts Coastal Railroad
Cape Cod Chronicle

Cape Cod Duckmobiles
Cape Cod Hospital
Cape Cod Times
Cape Wildlife Center
Capital Terminal
Capt. John Boats (3)
Capt. Leroy's Fishing Parties
Capt. O'Connell's
Casey's Oil (2)
CBP
CEE JAY Corporation
Centerville-Osterville-Marston's Mills Fire Dept
Champlin's Block Island Marina
Champlin's Marina – Payne's Dock
Charleston Rescue
Charlestown Fire District
Cross Mills Fire Department
Charlestown Harbormaster
Charlestown Police Department
Chatham Fire Department (3)
Chatham Harbormaster (President - C&I HMA)
Chatham Boat Company
Chatham Yacht Basin
Chilmark Conservation Commission
Chilmark Emergency Management
Chilmark Fire Department
Chilmark Harbormaster
Chilmark Police Department
Cianbro Corporation - Brightman Street Bridge Project (2)
City of Providence
Clean Harbors (6)
Clean the Bay
Coalition for Buzzards Bay
Coast Guard Investigative Service
Coast Line
Coast Line & Service Company, Inc. - Providence Habor CoOp (manager)
Coast Line Service
Community Boating Center
Community College of Rhode Island (2)f
Conanicut Marine Services, Inc.
Conanicut Yacht Club (2)
Congressman David Cicilline's Office
Continental Marina
Cotuit - Fire Department
Cotuit Fire District
Cove Haven Marina (Brewer)
Cranston Fire Department
Cranston Harbormaster
Cranston Fire Dept
Crosby Yacht Yard, Inc. (2)
Cross Sound Ferry (JESSICA W - New London to BI)
Cruising Club of America, Buzzards Bay Post
Customs and Boarder Protection
Cuttyhunk (Gosnold) - Emergency Management
Cuttyhunk Boat Lines
Cuttyhunk Ferry Company Inc. (2)
Cuttyhunk Water Taxi
Dartmouth Emergency Management Agency
Dartmouth Environmental Affairs Coordinator
Dartmouth Fire Department District 2
Dartmouth Harbormaster
Dartmouth Police Department
Dartmouth LEPC
Dartmouth Natural Resources Trust
DCR Office of Waterways
Dennis Fire Department (2)
Dennis Harbormaster (2)
Dennis Natural Resource
Department of Environmental Management
Department of Homeland Security (4)
U.S. CBP
DHS - ICE
DHS / TSA (6)
DHS Office of Intelligence and Analysis
Dighton - Conservation Agent
Dighton Harbormaster
Dolphin Fleet of Provincetown (2)
Dominion Energy (5)
DONG Energy Wind Power
Duke Energy
Dukes County - Senior Environment Corps
Dukes County Sheriff's Office
East Bay Newspapers (3)
East Greenwich Harbormaster
East Greenwich Police Department
East Greenwich Marina
East Greenwich Yacht Club
East Providence - City Manager
East Providence Fire Department (6)
East Providence - Harbormaster (4)
East Providence Police Department (3)
East Providence Fire Department
East Providence Fuel Oil Co.
East Providence Terminal
Eastham Department of Natural Resources
Eastham Fire Department
Eastham Natural Resources Officer (2)
Edgartown Fire Department
Edgartown Police Department (2)
Edgartown Yacht Club (2)
Ellsworth Marine
ENDEAVOUR - K Corp, LLC
Enterprise Terminals and Storage, LLC (EPCO, Inc.) (2)
EPA Region 1
Equinor
Esco Terminal
ESS Group, Inc. (2)
Exeter EMA
Exxon Mobile (3)
Fairhaven Emergency Management (LEPC)
Fairhaven Police Department (SEMLEC)

Fairhaven Police Department (5)
Fairhaven Shellfish Dept./Harbormaster
Fairhaven Shipyard & Marina, Inc.
Fairhaven Swing Bridge
Fall River Economic Development
Fall River Emergency Management (LEPC)
Fall River Environmental Officer
Fall River Fire Department (7)
Fall River Grant Writer
Fall River Harbor Coordinator
Fall River Harbormaster
Fall River Health & Human Services
Fall River Mayor's Office
Fall River Harbormaster
Fall River Herald News
Fall River Line Pier, Inc.
Fall River Police Department (3)
Falmouth Conservation Agent
Falmouth Emergency Preparedness
Falmouth Harbormaster (2)
Falmouth Ferry Service
Falmouth Fire Rescue Department
Falmouth Hospital
Federal Air Marshall Service (2)
Federal Bureau of Investigation
Federal Energy Regulatory Commission
Federal Energy Regulatory Commission - LNG Engineering Branch
FEMA R1 Response Division
Fiddler's Cove Marina (Brewer)
FLYER Catamaran
Flyer's Boat Rentals
Frances Fleet
Frank Corp. Environmental Services
Frank Hall Boat Yard
Freedom Cruise Line - Nantucket Ferry
Frogmen Divers, Inc.
G.W. Connors, Inc.
Gannon and Benjamin Marine Railway
Gansett Cruises
General Dynamics - Electric Boat
General Manager Seafreeze Shoreside
Gerard Group International LLC
Gifford Maritime
Gladding Hearn Shipbuilders (3)
Global Companies LLC
Global Petroleum - Sandwich
Goat Island Marina
Golden Eagle Deep Sea Fishing
Gosnold Fire Department (2)
Grays Boat Yard
Great Harbor Yacht Club
Great Lakes Dredge & Drydock Co. (3)
Green Pond Marina Association, Inc.
Green Pond Tackle and Marina
Greenwich Bay Marina (Brewer)
Harbor Fuel Oil Corporation (2)
Harborside Inn
Harwich Conservation Agent
Harwich Fire Department (3)
Harwich Harbormaster (3)
Harwich Police Department (2)
Harwich Port Boat Yard, Inc.
Hayward Industries, Inc.
Hexagon Metrology Inc.
Hinckley Yacht Services
Holcim US (St. Lawrence Cement Co.)
Holland & Knight LLP
Homeland Security Investigations (2)
Honeywell
Honeywell - Automation and Control Solutions
Hospital Association of Rhode Island
Hudson Terminal
Hudson Terminal Corp. / Northeast Petroleum Terminal (NEPT) North & South (2)
Hunt Marine Towing & Transport
Hyannis Emergency Management
Hyannis Fire Department (4)
Hyannis Marina (3)
Hyannis Pirate Adventures
Hyannis Whale Watcher Cruises
Hyannis Yacht Club
HYC, Inc.
HyLine Cruises (2)
Hy-Line Cruises - Hyannis Harbor Tours, Inc. (2)
Ida Lewis Yacht Club
IDS International LLC (2)
Inspire Environmental
International Fund for Animal Welfare
International Longshoremen's Association Local 2001
Interstate Navigation Company - "The Block Island Ferry" (5)
Island Commuter Corp. (2)
Jamestown Fire Department (2)
Jamestown Harbormaster (2)
Jamestown Police Department
Jamestown Volunteer Fire Department
Jamestown Boat Yard
Jamestown Marine Services Inc. (2)
Jamestown Press
Johnson & Wales University (2)
Johnson & Wales University - Safety & Security (2)
JUST DO IT TOO
Kamelot Marine Services - LNG
Kelly J Sportfishing Charters
KeySpan Energy
Keyspan LNG (5)
Little Compton Fire Department
Little Compton Harbormaster
LMS Ship management, INC - MV ENERGY ENTERPRISE
MA DEP - Bureau of Waste Site Cleanup
MacDougall's Cape Cod Marine Service, Inc.
Maco's Bait and Tackle, Inc.

MAKO II
Marine Biological Laboratory
Marine License Lifeline
Marine Safety Consultants (4)
Marion Emergency Management
Marion Police Department
Maritime Consultants
Maritime International Inc. (2)
Maritime Planning Associates (2)
Martha's Vineyard Commission
Martha's Vineyard Communications Center
Martha's Vineyard Shellfish Group, Inc.
Mashpee Fire Department (3)
Mashpee Police Department
Mashpee Harbormaster
Mashpee Wampanoag Tribe
Mass Army National Guard - 1st Civil Support Team, Weapons of Mass Destruction (2)
Mass Audobon Society (3)
Mass Chief Medical Examiner Office
Mass Civil Air Patrol - Bristol SQDN
Mass Civil Air Patrol - Cape Cod SQDN
Mass Civil Air Patrol - Pilgrim SQDN
Mass Department of Conservation and Recreation
Mass Department of Conservation and Recreation - Bureau of Engineering
Mass Department of Conservation and Recreation - Office of Natural Resources
Mass Department of Environmental Protection (2)
Mass Department of Environmental Protection - BWSC - Emergency Response Coordination
Mass Department of Environmental Protection - Emergency Response - SERO
Mass Department of Environmental Protection - GIS
Mass Department of Environmental Protection - NERO
Mass Department of Environmental Protection - SERO (3)
Mass Department of Fire Services
Mass Department of Fire Services - HazMat
Mass Department of Fire Services - State Fire Marshal
Mass Department of Fire Services - Training
Mass Department of Transportation - Highway Division (4)
Mass Dept. of Fire Sciences (2)
Mass District 1 HazMat Response Team (New Bedford Fire Department)
Mass District 1 HazMat Team - (Easton Fire Department)
Mass Division of Energy Resources (DOER)
Mass Division of Fisheries and Wildlife
Mass Division of Marine Fisheries (2)
MASS DOT
Mass Emergency Management Agency (7)
Mass Executive Office of Energy and Environmental Affairs
Mass Executive Office of Energy and Environmental Affairs / Cape & Islands Base
Mass Executive Office of Public Safety - Commonwealth Fusion Center
Mass Executive Office of Transportation
Mass Fire Chiefs Association
Mass Marine Trade Association
Mass Maritime Academy (8)
Mass National Guard - Mass Military Reservation - Welcome Center
Mass Office of Coastal Zone Management (3)
Mass Office of Coastal Zone Management / Buzzards Bay Basin
Mass Office of Coastal Zone Management / Buzzards Bay National Estuary Program (2)
Mass Office of Coastal Zone Management / Regional Coordinator
Mass Office of the Attorney General
Mass Office of the Governor (3)
Mass Office of the Lt. Governor
Mass Oil Heat
Mass State Historic Preservation Office
Mass State Police (4)
Mass State Police - Bomb Squad (3)
Mass State Police - Bourne
Mass State Police - Commonwealth Fusion Center (2)
Mass State Police - JTTF
Mass State Police - Marine Unit (2)
Mass State Police - Middleboro
Mass State Police - Nantucket
Mass State Police - Oak Bluffs
Mass State Police - Office of the Superintendent
Mass State Police - Underwater Recovery Team
Mass State Police - Yarmouth
Mass State Police Dartmouth
Mass. Department of Fire Services
Mass. State Police - Marine Unit (2)
Massachusetts Air National Guard
Massachusetts Audubon Society
Massachusetts Bay Lines
Massachusetts Clean Energy Center
Massachusetts Department of Environmental Protection
Massachusetts Department of Fire Services - HazMat Response
Massachusetts Environmental Police (15)
Massachusetts Executive Office of Public Safety and Security
Massachusetts Governor's Seaport Advisory Council
Massachusetts Maritime Academy (3)
Massachusetts Office of Environmental Law Enforcement
Massachusetts State Police (2)
Massachusetts Environmental Police
Massachusetts State Police
Mattapoisett - Fire Department

Mattapoisett - Police Department - Mass Chiefs of Police Association
Mattapoisett Boatyard, Inc.
Mattapoisett Harbormaster (2)
Mattapoisett Land Trust, Inc.
Mayflower Wind
McAllister Towing
McAllister Towing Narragansett Bay
Metals Recycling
Millway Marina (2)
Moby Dick Marina
Molchan Marine Services
Monomoy Island Ferry
Moran Environmental Recovery LLC (3)
Moran Shipping (6)
Moran Towing Corp
Moran Towing of New York, New Jersey
MRW Marine Services
MSP-Critical Infrastructure Program
Mutualink (3)
Nantucket Harbormaster
Nantucket Police Department (2)
Nantucket - Town Manager
Nantucket Boat Basin (3)
Nantucket Conservation Foundation, Inc.
Nantucket Cottage Hospital
Nantucket Electric
Nantucket Fire Department (2)
Nantucket Moorings
Nantucket Police Department
Nantucket Yacht Club
Nantucket Yacht Club
Narragansett - Fire Department
Narragansett - Harbormaster
Narragansett Bay Commission (8)
Narragansett Fire Department (2)
Narragansett Harbormaster (2)
Narragansett Tribe (3)
National Grid (4)
National Response Corporation (4)
Natural Resource Department of the Wampanoag Tribe of Gay Head (3)
Nauset Marine, Inc.
Naushon Ferries
Naval Station Newport - Environmental Division
Naval Underwater Warefare Center
Neat Lady Fishing, LLC
NERACOOS
New Bedford - Director of Public Health
New Bedford - Emergency Medical Services
New Bedford - Police Department - Port Security Unit
New Bedford Fire Department (5)
New Bedford Harbor Development Committee
New Bedford Marine Rescue - TowBoat US
New Bedford Marine Rescue / Auxiliary 605
New Bedford Police (5)
New Bedford Port Authority (3)
New Bedford Seafood Consulting
New Bedford Standard Times
New Bedford State Pier
New Bedford State Pier - Mass DCR
New Bedford Yacht Club
New England Aquarium - Harbor Express
New England Fast Ferry Company / Bay State Cruise Company
New England Stevedore Service Corp.
New Seabury Marina
New Shoreham Emergency Management
New Shoreham Fire Department
New Shoreham Harbormaster
New Shoreham Police Department
New York Yacht Club (2)
Newport Fire Department (3)
Newport - Harbormaster (Perotti Park)
Newport - Police Department (2)
Newport Cruise Company
Newport Daily News
Newport Harbor Hotel and Marina
Newport Police Department
Newport Shipyard
Newport Yacht Club
Newport Yachting Center Marina (2)
NMFS NOAA
NOAA Northeast Marine Support Facility (2)
NOAA Office of Coastal Survey (2)
NOAA Ship OKEANOS EXPLORER
North Atlantic Distribution, Inc. (NORAD) (2)
North Kingstown Fire Department (4)
North Kingstown - Harbormaster (North Kingstown Town Wharf) (2)
North Kingstown Police Department (5)
North Kingstown Fire Department (3)
North Providence - Fire Department
Northeast Marine Pilot (12)
Northeast Regional Ocean Council
Northern Pelagic Group, LLC
Northside Marina at Sesuit Harbor
Norwegian Cruise Lines - (Agents)
Norwegian Marine Services, Inc.
NRG - Somerset Power LLC (3)
NRG Energy Inc.
Nuka Research and Planning
Nuka Research and Planning Group, LLC.
Oak Bluffs Conservation Agent
Oak Bluffs Emergency Management
Oak Bluffs Fire Department
Oak Bluffs Harbormaster
Oak Bluffs - Police Department (4)
Oakland Beach Yachting Center
Ocean Eye
Ocean Server Technology, Inc.
Ocean Skimmers
Ocean State (2)
Office of Congressman William Keating (MA)

Office of Congressman William R. Keating
Office of Intelligence & Analysis
Office of US Senator Sheldon Whitehouse
Oil Heat Institute (4)
Oldport Marine Services, Inc.
Olmsted Marine Service
Orleans Fire Department
Orleans Harbormaster
Orleans Police Department
Orsted Inc.
Otis Fire Department
Oyster River Boat Yard
P. K. O'Connell Marina
Parker's Boatyard, Inc.
Parsons
Parsons Brinkerhoff
Patriot Party Boats, Inc.
Pawtucket Fire Department (2)
Pawtucket - Police Department
Pawtuxet Cove Marina
Payne's New Harbor Dock
Pettis Boat Yard and Yacht Sales
PG&E National Energy Group
Pier 37 Boats
Pier 65 Marina
Pier Oil Co. - TB 450, TB 451 (2)
Pile Drivers Local Union 56
Pirate Adventures Orleans
Pirate Cove Marina
Plymouth Fire Department (3)
Plymouth Harbormaster
Plymouth - LEPC
Plymouth Police Department
Plymouth County Sheriff's Department
Plymouth County Sheriff's Department - Sheriff's Emergency Management Agency
Plymouth Fire Department (3)
Pope's Island Marina
Port of Davisville
Port Security interest
Portsmouth - Police Department
Portsmouth Fire Department
Portsmouth Police department / RI State JCTF
Portuguese Princess Excursions
Professional Security Services (2)
Promet Marine Services Corp.
Providence - DPW
Providence - Emergency Management Agency
Providence - Mayor's Office
Providence Police Department (8)
Providence Emergency Management (2)
Providence Fire Department
Providence Journal
Providence Journal CO
Providence Maritime Heritage Foundation
Providence Piers (3)
Providence Police Department (Computer Crimes Unit)
Providence River Boat Co.
Providence River Boat Company
Providence Steamboat - McAllister Towing of Narragansett Bay
Providence Water
Provincetown Emergency Management Agency
Provincetown Fire Department (2)
Provincetown Harbormaster (MacMillan Pier) (2)
Provincetown Police Department
Provincetown Public Pier Corporation
ProvPort Inc. - Waterson Terminal Services, LLC (5)
Prudence Island Ferry
QUEEN OF ORLEANS
Quonset Development Corporation (2)
R.M. Packer Co., Inc.
R.M. Packer Co., Inc. - Tisbury Towing
Ram Point Marina (3)
Raytheon (2)
Reinauer / Windserve Marine
Reinauer Transportation Company
Reinhauer Transportation
Rhode Isaland National Guard
Rhode Island Airport Corporation
Rhode Island Cruise Co. - (Water Street Docks)
Rhode Island Emergency Management Agency
Rhode Island Fast Ferry
Rhode Island Mooring Services, Inc. (2)
Rhode Island National Guard (3)
Rhode Island Office of Energy Resources
Rhode Island State Fusion Center
Rhode Island State Police (4)
Rhode Island Yacht Club
RI Air National Guard
RI Army National Guard (2)
RI Army National Guard - 13th Civil Support Team, Weapons of Mass Destruction (3)
RI Attorney General (2)
RI Center for Emergency Preparedness and Response
RI Civil Air Patrol - USAF Auxiliary
RI Coastal Resources Management Council (5)
RI Committee for Occupational Safety and Health
RI DEM
RI DEM - Boating and Commercial Licensing Office
RI DEM - Director's Office
RI DEM - Emergency Response (4)
RI DEM - Information Management Division
RI DEM - Law Enforcement (2)
RI DEM - Water Resources (2)
RI Department of Health - Center for Emergency Preparedness and Response (3)
RI Department of Public Safety - RI State Police
RI Dept. of Health
RI Dept of Health (CEPR)
RI Economic Development Corporation (2)
RI Emergency Management Agency (5)

RI Fire Academy Terrorism Coordinator
RI Lobstermen's Association, Inc. (2)
RI Manufacturing Extension Service
RI Marine Trade Association (2)
RI Narragansett Bay Commission
RI National Guard (2)
RI State Fire Marshal's Office-Bomb Squad
RI State Police (8)
RI State Senator's Staff
RI State Yachting Committee
RI Truckers Association
RIBI Security (5)
RIMTA
RISP
Rite Solutions
Riverside Marine
Roger Williams University - Environmental Sciences (2)
Ryan Marine, Inc.
Ryder's Cove Boat Yard
Safe Sea RI
Safe/Sea
Safe/Sea - TowBoat US Narragansett Bay
SAIC
Sail Martha's Vineyard
Sail Newport (4)
Sandwich Fire Department
Sandwich Harbormaster - (Sandwich Marina)
Sandwich Natural Resources Officer
Sandwich Fire Department
Sandwich Harbormaster
Sasa Chaters,Inc.
Save the Bay (7)
Schnitzer Steel
SE Regional Homeland Security Advisory Council (2)
Sea Education Association (2)
Sea Fuels Marine Services - CO-OP NO. 4
Sea Risk Solutions, LLC
Sea Tow Cape & Islands / Sea Tow Rhode Island
Sea Tow Cape and Islands (2)
Sea Tow Rhode Island
Sea Tow South Shore
Seacope Yacht Charters - Northern Light Charters. Inc.
Seafarers International Union
Securitas Security Services (3)
Seebald & Associates
Seekonk - Fire Department
SEMLEC
Senesco Marine (3)
Seven B's V Deep Sea Fishing
Shell Oil Products US
Ship Shops Inc.
Sightsailing, Inc. (2)
Simms
SKIPPER SHEA
Skippy's Pier I Marina
Snappa Fishing & Diving Charter
Snug Harbor Marina
Somerset - Emergency Management
Somerset Fire Department (4)
Somerset Harbormaster
Somerset Police Department
Somerset Town Administrator
Somerset Marina
SOS Security Inc.
South Kingstown Fire Department - Union
South Kingstown Harbormaster
South Kingstown Police Department
South Kingstown Harbormaster (2)
Southcoast Hospital Group - Tobey Hospital
Southeastern Regional Planning and Economic Development District
Southern Rhode Island Newspapers
Sprague (6)
Sprague Operating Resources LLC
St. Georges School
Stanley's Boat Yard
Starfish Bass River Cruises & Water Safaris (Nor'saga, Inc.)
Steamship Authority (6)
Steamship Authority Board of Governors
Stonebridge Marina - Atlantic Boats
Striper Marina
Swansea Emergency Management
Swansea Police Department
T.F. Green Airport Fire Department (2)
T.F. Green Airport Police Department
Tabor Academy (2)
Tall Ships RI
Taunton - Police Department / SEMLEC Regional Dive Team
Taunton River Watershed Alliance
Tetra Tech
The 300 - Falmouth's Land Trust
The Black Dog Tall Ships - a.k.a. The Coastwise Packet Company
The Inquirer and Mirror
The Nature Conservancy
The Nature Conservancy in Rhode Island
The Nature Conservancy of Massachusetts - The Massachusetts Islands Program
The Response Group, Inc.
The Steamship Historical Society of America (3)
The Sunken Ship - Diving and Salvage
The Trustees of Reservation - Islands Regional Director
Three Flags Holding Company (2)
Tisbury - Conservation Agent
Tisbury Fire Department
Tisbury Police Department
Tisbury Town Administrator
Tisbury Harbormaster
Tisbury Towing and Transportation

Tiverton - Harbormaster
Town Administrator of Freetown, MA
Town of Barrington (2)
Town of Chatham (2)
Town of Nantucket
Town of New Shoreham
Town of Sandwich
Town of Wareham
TRANQUILITY
Transportation Security Administration (2)
Transportation Security Agency Office of Intel & Analysis
Trinity Marine Group LLC - Trinity Marina
Tripps Boatyard & Marina - F. L. Tripp & Sons, Inc.
Truro Fire Department
Truro Harbormaster
Tucker-Roy Marine Towing & Salvage (2)
U.S. Army - State Emergency Preparedness Liaison Officer (SEPLO) RI
U.S. Army Corps of Engineers (12)
U.S. Army North (2)
U.S. Attorney's Office - District of Massachusetts
U.S. Attorney's Office - District of Massachusetts - Anti-Terrorism/National Security Unit
U.S. Attorney's Office - District of Rhode Island - ATAC
U.S. Bureau of Alcohol Tobacco, Firearms and Explosives
U.S. Congressman Barney Frank's Office
U.S. Congressman Jim Langevin's Office (2)
U.S. Customs and Border Protection (5)
U.S. Defense Coordinating Official - Northeast
U.S. Department of Commerce - NOAA
U.S. Department of Commerce - NOAA - Boston
U.S. Department of Commerce - NOAA - Office of Coast Survey (2)
U.S. Department of Commerce - NOAA - Stellwagen Bank National Marine Sanctuary
U.S. Department of Commerce - NOAA Fisheries Service - Office of Law Enforcement (3)
U.S. Department of Commerce - NOAA Fisheries Service - Ship Strike Reduction (2)
U.S. Department of Defense - Defense Coordinating Element RGNT
U.S. Department of Defense - Defense Criminal Investigative Service
U.S. Department of Health and Human Services - Region I (4)
U.S. Department of Homeland Security - Customs & Border Protection (5)
U.S. Department of Homeland Security - Domestic Nuclear Detection Office
U.S. Department of Homeland Security - FEMA - Grants Programs Directorate (3)
U.S. Department of Homeland Security - FEMA Region 1 (14)
U.S. Department of Homeland Security - Immigration & Customs Enforcement (7)
U.S. Department of Homeland Security – NP Police Department - Office of Infrastructure Protection (6)
U.S. Department of Homeland Security - Risk Management Division (3)
U.S. Department of Homeland Security - Transportation Security Administration (12)
U.S. Department of Homeland Security - U.S. Secret Service - Providence
U.S. Department of Homeland Security, FEMA Region I - Rhode Island
U.S. Department of Interior - Bureau of Indian Affairs
U.S. Department of Interior - Fish and Wildlife Service - Northeast Regional Office
U.S. Department of Interior - Fish and Wildlife Service - RI National Wildlife Refuge Complex
U.S. Department of Interior - Fish and Wildlife Service - Southern New England Coastal Program
U.S. Department of Interior - National Park Service (6)
U.S. Department of Interior - Office of Environmental Policy and Compliance (2)
U.S. Department of Justice - Federal Bureau of Investigation - Anti-Gang Task Force - New Bedford
U.S. Department of Justice - Federal Bureau of Investigation - Joint Terrorism Task Force (Boston)
U.S. Department of Justice - Federal Bureau of Investigation (6)
U.S. Department of Justice - U.S. Attorney's Office
U.S. Department of Justice - U.S. Drug Enforcement Agency (6)
U.S. Department of Justice - U.S. Marshals Service - Providence
U.S. Department of Labor - OSHA (7)
U.S. Department of Transportation - Federal Aviation Administration
U.S. Department of Transportation - Federal Aviation Administration - T.F. Green Tower
U.S. DHS - Immigration & Customs Enforcement
U.S. Environmental Protection Agency - Atlantic Ecology Division (5)
U.S. Environmental Protection Agency - Region 1 (5)
U.S. Fish and Wildlife Service
U.S. General Services Administration
U.S. Geological Survey - Coastal & Marine Geology Program
U.S. Internal Revenue Service - CI
U.S. Naval Criminal Investigative Service
U.S. Navy - Combating Terrorism & FP
U.S. Navy Naval Station Newport (2)
U.S. Navy - Naval Station Newport - Environmental Scientist
U.S. Navy - Naval Undersea Warfare Center (2)
U.S. Navy - Naval War College (2)
U.S. Navy - NAVSEA Newport
U.S. Security Associates, Inc.

U.S. Senator Jack Reed's Office (3)
U.S. Senator John Kerry's Office
U.S. Senator Sheldon Whitehouse
U.S. Senator Sheldon Whitehouse's Office
UAW LOCAL 1596
UMass Amherst
UMass Dartmouth - SMAST (3)
United States Navy
Univar
Univar USA (4)
University of Rhode Island School of Oceanography
URI - DHS Center of Excellence Explosives Detection, Mitigation, Response
URI - Natural Resources Science Department - Environmental Data Center
URI College of the Environment and Life Sciences
URI Graduate School of Oceanography
URI Graduate School of Oceanography - R/V ENDEAVOR
US Customs and Border Patrol (2)
US EPA Region 1
US Naval Station Newport
US Naval War College Center on Irregular Warfare & Armed Groups (CIWAG)
US Navy Region Atlantic
US Office of Naval research
USS Saratoga Museum Foundation, Inc.
Viking Fleet Ferry (Montauk, NY to BI & MV)
Vineyard Fast Ferry (3)
Vineyard Gazette
Vineyard Haven Marina
Vineyard Porthole / Dockside Marina
Vineyard Sound Charters, Inc.
Vineyard Wind (4)
Volkswagen
Vopak
Wampanoag Tribe of Gay Head - Cultural Resource Protection
Wampanoag Tribe of Gay Head - Natural Resource Dept.
Wampanoag Tribe of Gay Head (Aquinnah)
Wampanoag Tribe of Gay Head(Aquinnah) THPO
Waquoit Bay National Estuarine Research Reserve
Wareham Emergency Management
Wareham Harbormaster (2)
Wareham - Police Department
Wareham Boat Yard & Marina
Warren Harbormaster
Warrior Fuel Corp. - MORGAN NO. 6
Warwick Emergency Management Agency
Warwick Fire Department (2)
Warwick Harbormaster
Warwick Police Department (4)
Warwick Fire Dept. Marine/Dive Ops
Warwick Harbormaster
Warwick Police Department (4)
Watch Hill Boat Yard
Watch Hill Yacht Club
Weaver's Cove Energy
Wellfleet - Fire Department
Wellfleet Harbormaster (3)
Wellfleet Police Department
Wellfleet - Shellfish Department
West Dennis Yacht Club
West Tisbury Conservation Commission
West Tisbury Emergency Management
West Tisbury Fire Department
West Tisbury Police Department
West Warwick Fire Department
Westerly Civil Defense
Westerly - Watch Hill Fire Department
Westerly Marina
Westport Fire Department (2)
Westport Harbormaster
Westport Police Department
Westport Shellfish
Whaling City Marina
Wickford Cove Marina (Brewer)
Wickford Marina
Witt/O'Briens
Woods Hole Group
Woods Hole Marine
Woods Hole Oceanographic Institution (10)
Woonsocket - Police Department
WPRO
Yarmouth DNR & Harbormaster Department (2)
Yarmouth Police Department (2)
Yarmouth Fire Department

<u>USCG Sector New York MSIB Distribution List</u>

A. DiCesare Associates
AECOM (2)
Agate Construction
AIA Inc
Alpine Ocean (7)
American Petroleum
Anchor QEA (2)
Aqua Survey 1
Aquifer Drilling & Testing (2)
Atlantic Engineering
Boswell Engineering
Bouchard Transport, Dispatch
Breakwater Marine
Bren Transportation
Brewster Marine
Buchanan Marine
Caldwell Marine 1
Caldwell Marine 2
Caldwell Marine 3
Cape Liberty Cruise Port-NE Port Ops
Centerline Logistics
CMI Subsurface
Coeymans Marine Towing (2)
Con Ed Bargemaster
Construction & Marine Equipment
Conway Marine Construction
Covanta NY MTS
Dann Ocean Towing (2)
Donjon Marine (11)
D'Onofrio General Contractors
DP Marine Services
Dryden Diving
Dutra Group Dredging (2)
e4sciences
EEA Environmental Consultants
Express Marine, Croft Register Ops Mgr
FPA Engineers, Joseph Tierney
Frontz Drilling
Gellatly & Criscione
Gellatly Services (2)
Genesis Marine
Glas Transportation
Great Lakes Dredge & Dock (7)
Greater NY Marine Transportation (4)
H&L Contracting, Sean Murray
Harley Marine (12)
Haugland Marine Svcs (2)
HDR LMS (2)
Henry Marine (2)
Hornbeck Offshore
Hudson Marine (3)
Hughes Marine
Hunt Tugs & Barges
IEW Construction
J.T. Cleary (2)
Jacobs Ports & Marine
Jacobs (5)
Jay Cashman (2)
Kiewit Construction (3)
Kirby Offshore Marine (2)
Kiska Construction
KT Marine (2)
M G McLaren (2)
Malcolm Pirnie (2)
Marine Solutions
Mark Duffy Cmcl Diving
McAllister Towing (3)
McLaren Engineering Group
Mid-State Construction
Moffatt Nichol (2)
Moran Towing Corp (2)
Moran Tug (2)
MVN Associates (2)
New York Harbor School
Norfolk Tug Company
Normandeau 1
Normandeau 2
Normandeau 3
Normandeau 4
Normandeau 5
Normandeau 6
North American Aggregates

NY Oil Heating Assn
NYC DEP (4)
NYC Dept of Sanitation (8)
NYC DOT
NYC EDC (2)
NYS Marine Highway Transportation (2)
NYSERDA
Ocean & Coastal (3)
Ocean Surveys (3)
Ocean Ventures (3)
PANYNJ (4)
Parsons Brinckerhoff
Penfield Marine
Pennmax Engineering
Phillips 66 Bayway (2)
Phoenix Marine (2)
Poling & Cutler
PSE&G
Randive
Reicon Group LLC
Reinauer (5)
Rising Tide - Waterfront Solutions
RS Marine Diving
Sea Vision Marine Services
Sea Wolf Marine (3)
Shell Northeast U.S.
Skanska (4)
Spectraserv
Sprague Energy Lawrence NY
Sterling Equipment (2)
THBCA
Thornton Towing and Transportation (2)
TMS Waterfront (2)
TRC Companies
Trevcon (15)
Underwater Construction (2)
Uni-Tech Drilling 1
US Concrete (3)
US Waterways Transportation LLC
USACE Caven Point Marine Terminal
Vane Brothers (6)
Verdant Power, Mary Ann Adonizio
Village Dock, Sean Murray
Vinik Marine, Office
Walsh Construction (2)
Walsh Group (2)
Waste Management (2)
Watco Terminal
Weeks Marine (12)
Wittich Bros (2)

Federal and State Agencies Contacted

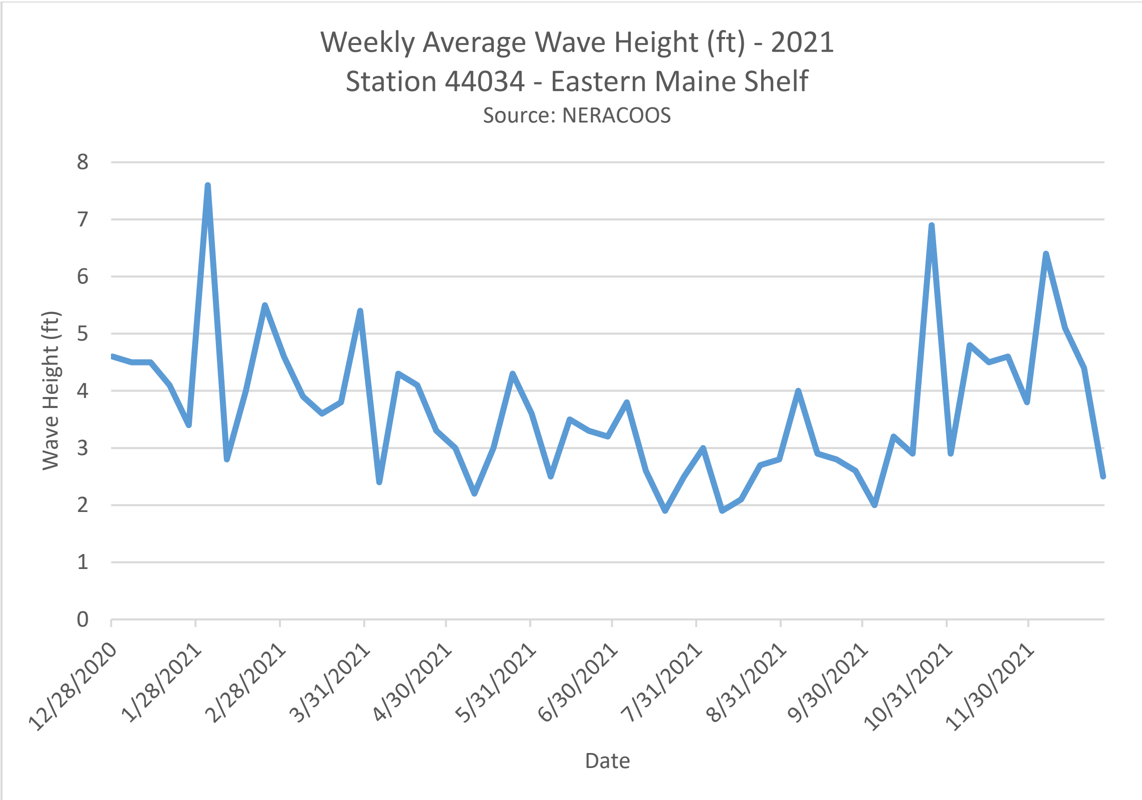
Bureau of Ocean Energy Management (BOEM)
Maine Department of Marine Resources
Massachusetts Coastal Zone Management
National Oceanic and Atmospheric Administration (NOAA)
New Hampshire Department of Environmental Services (NHDES)
State of Maine, Office of Governor Janet Mills
State of New Hampshire, Office of Governor Chris Sununu
State of Massachusetts, Office of Governor Charlie Baker
United States Army Corps of Engineers (USACE)
United States Fish and Wildlife Service (FWS)

Tribal Governments Contacted

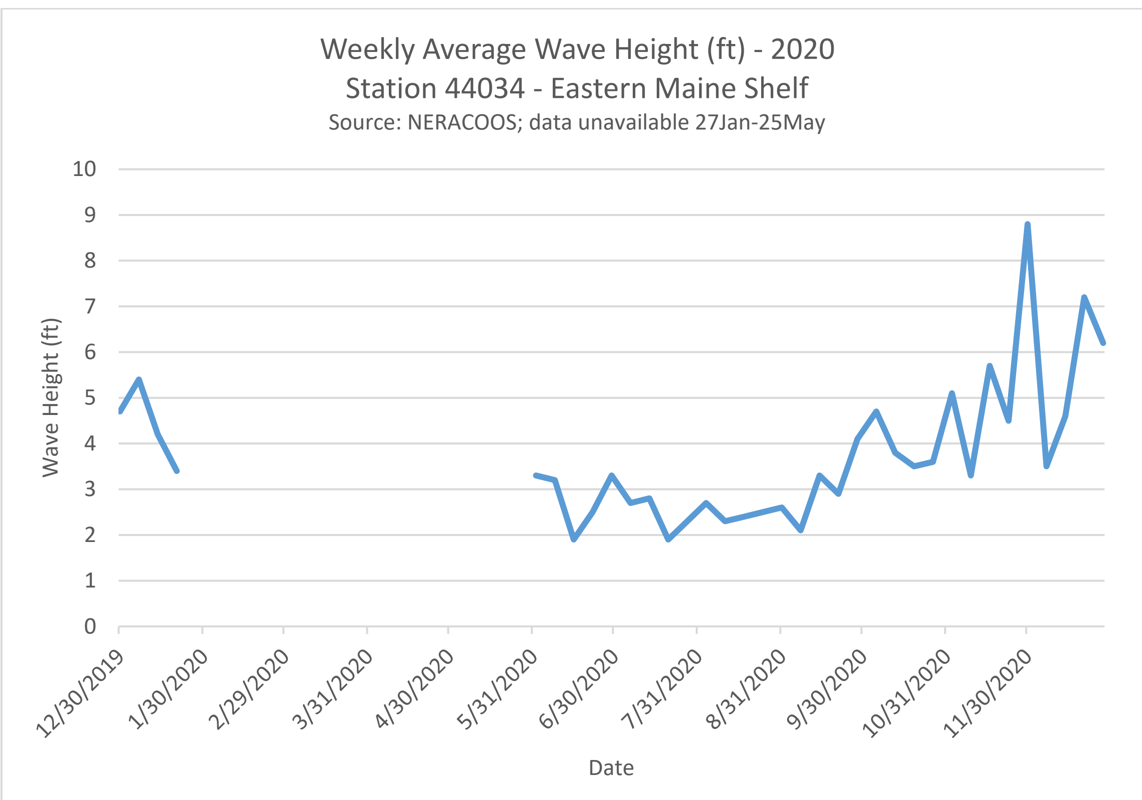
Aroostook Band of Micmacs Mi'kmaq Nation
Houlton Band of Maliseet Indians
Narragansett Indian Tribe
Mashpee Wampanoag Tribe
Mohegan Tribe of Indians
Narragansett Indian Tribe
Passamaquoddy Tribe of Indians – Indian Township
Passamaquoddy Tribe of Indians – Pleasant Point
Penobscot Indian Nation
Shinnecock Indian Nation
Wampanoag Tribe of Gay Head

APPENDIX E

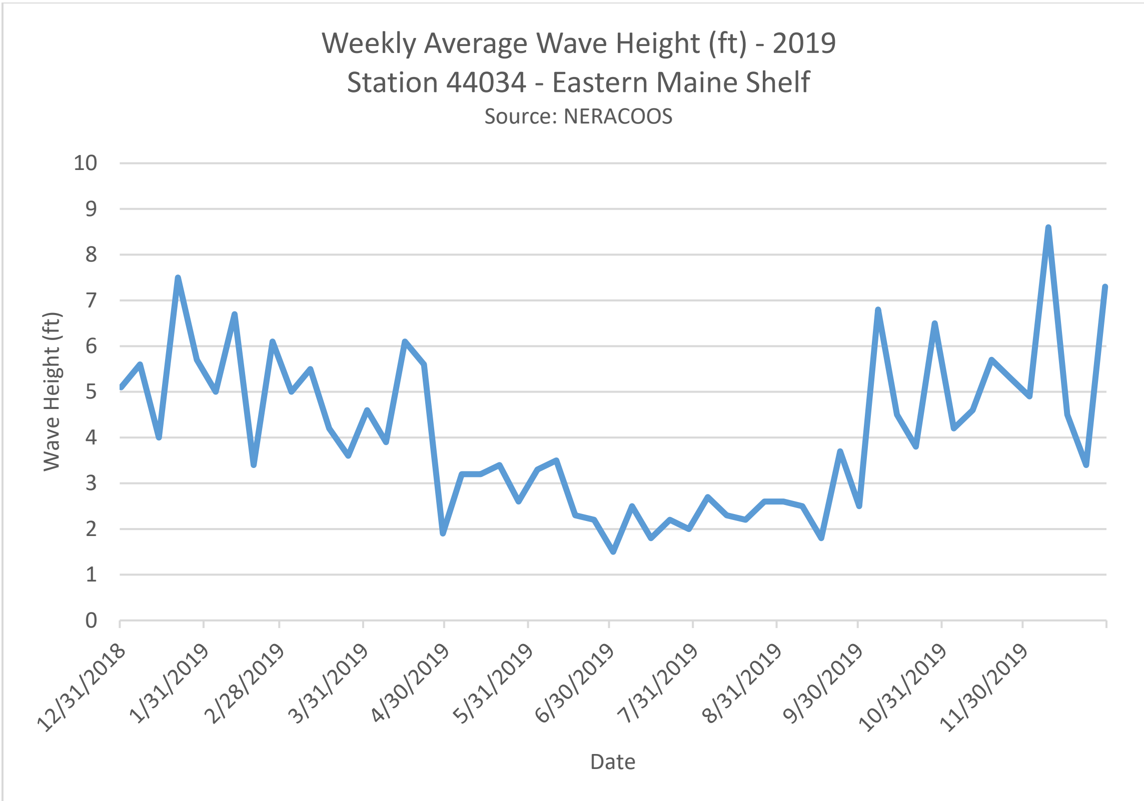
Weather Data

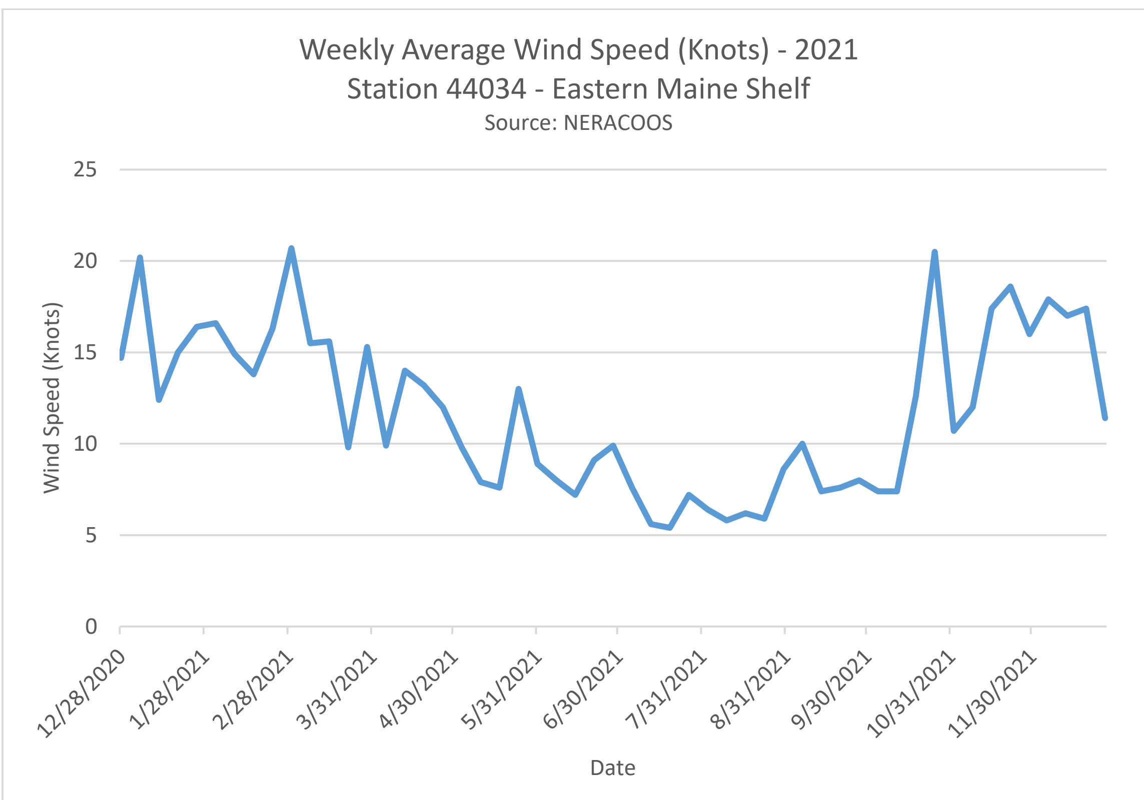


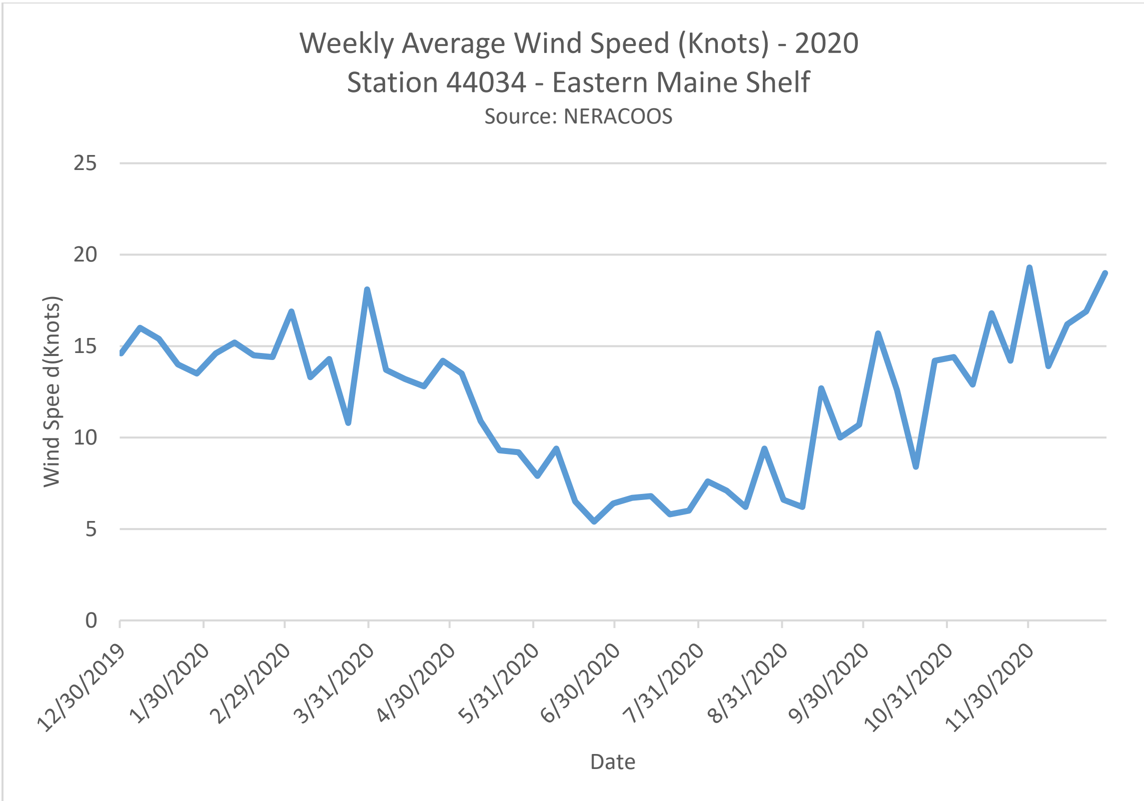
Weekly Average Wave Height (ft) - 2021
Station 44034 - Eastern Maine Shelf
Source: NERACOOS
Wave Height (ft)
0
1
2
3
4
5
6
7
8
12/28/2020
1/28/2021
2/28/2021
3/31/2021
4/30/2021
5/31/2021
6/30/2021
7/31/2021
8/31/2021
9/30/2021
10/31/2021
11/30/2021
Date

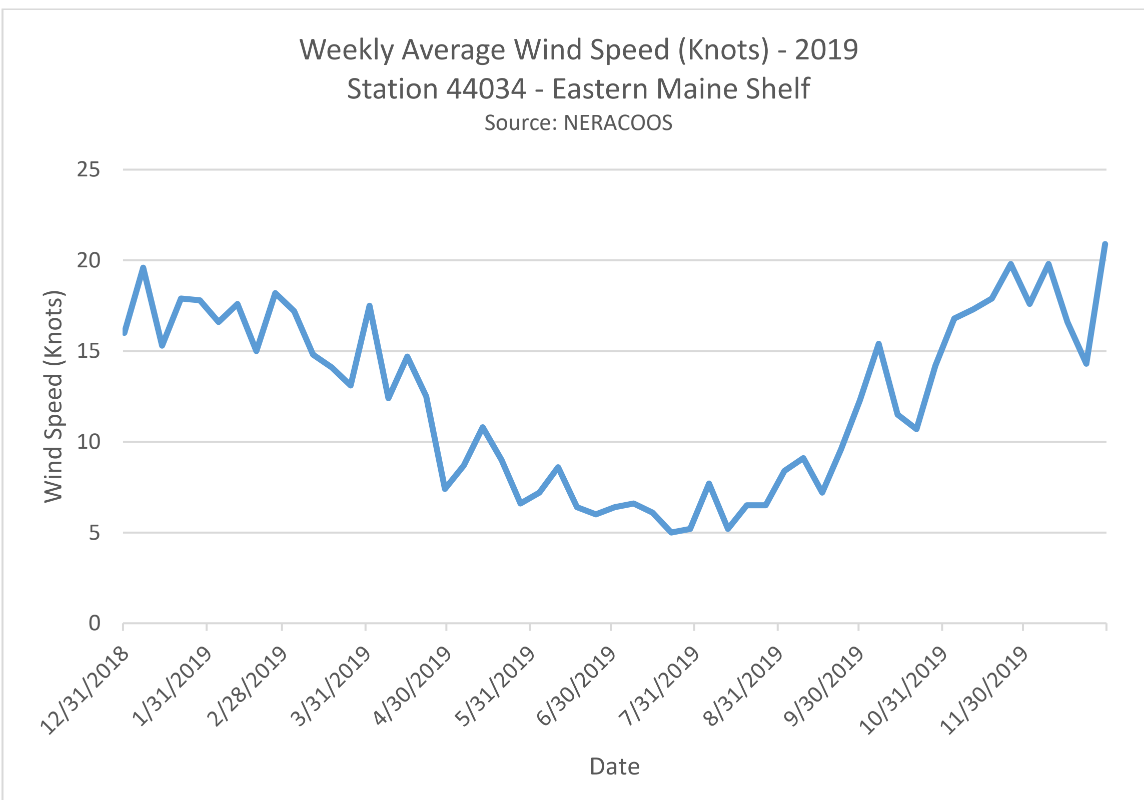


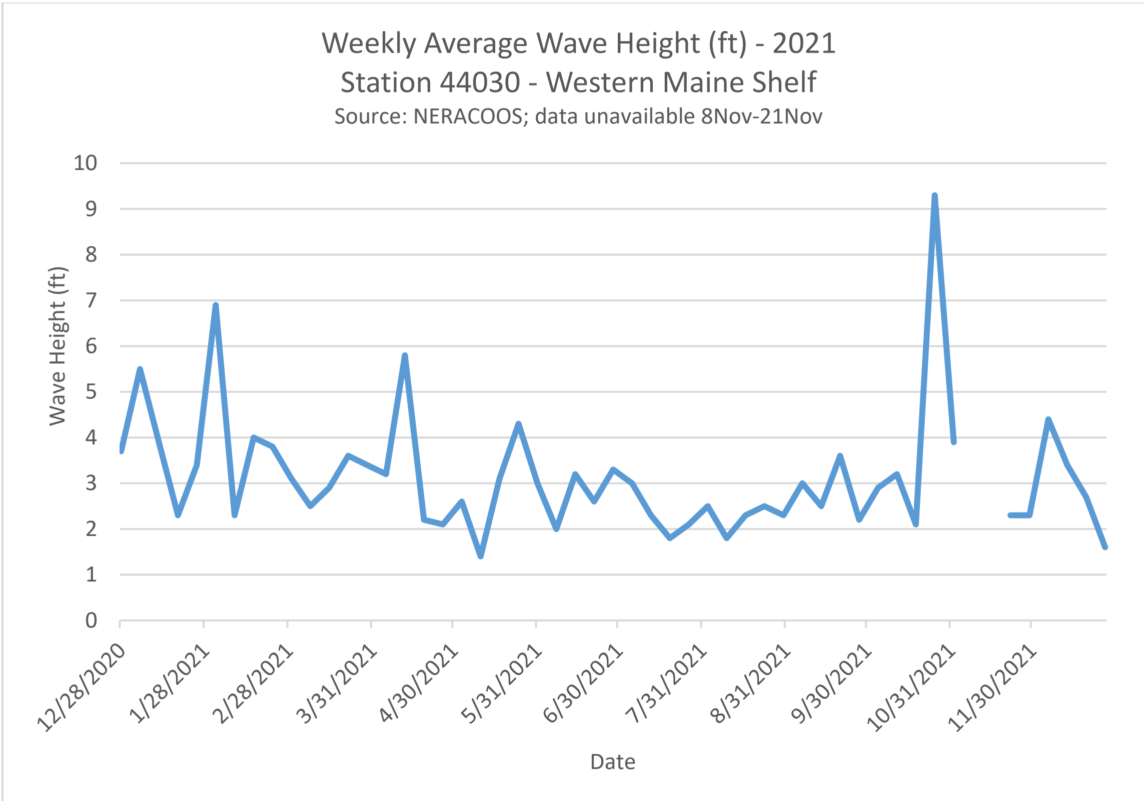
Weekly Average Wave Height (ft) - 2020
Station 44034 - Eastern Maine Shelf
Source: NERACOOS; data unavailable 27Jan-25May
Wave Height (ft)
0
1
2
3
4
5
6
7
8
9
10
12/30/2019
1/30/2020
2/29/2020
3/31/2020
4/30/2020
5/31/2020
6/30/2020
7/31/2020
8/31/2020
9/30/2020
10/31/2020
11/30/2020
Date

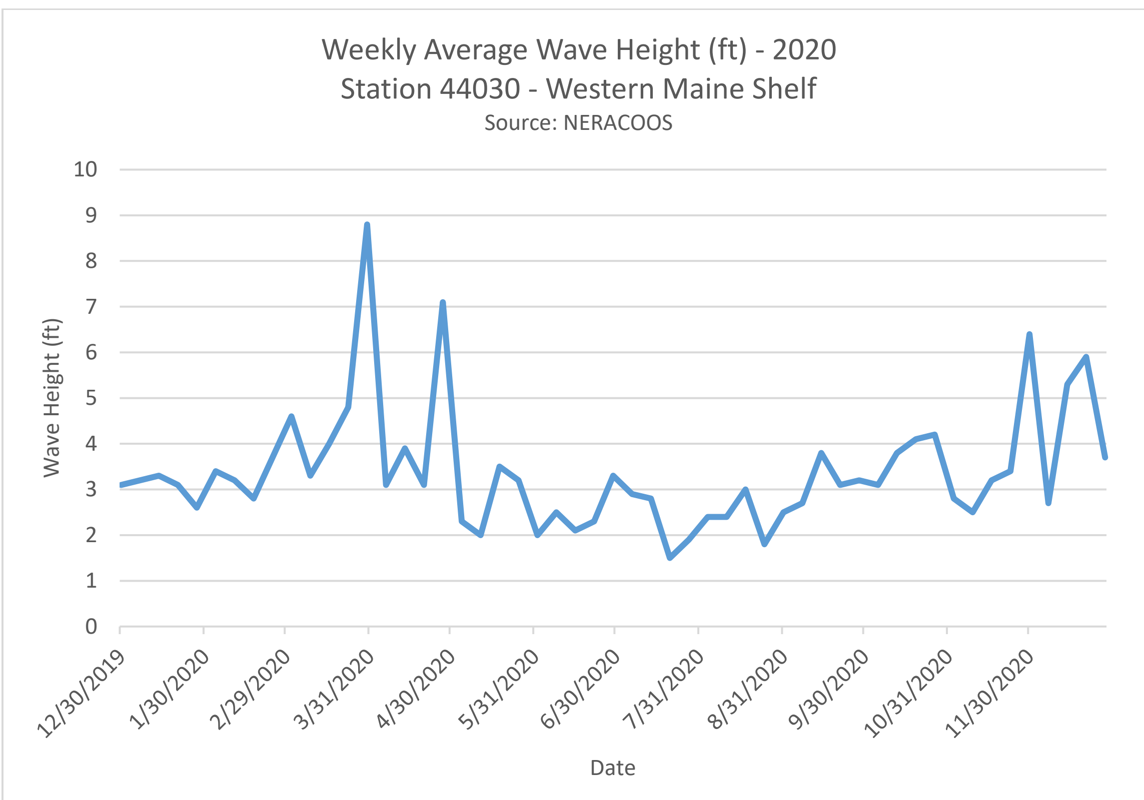

Weekly Average Wave Height (ft) - 2019
Station 44034 - Eastern Maine Shelf
Source: NERACOOS
Wave Height (ft)
10
9
8
7
6
5
4
3
2
1
0
12/31/2018
1/31/2019
2/28/2019
3/31/2019
4/30/2019
5/31/2019
6/30/2019
7/31/2019
8/31/2019
9/30/2019
10/31/2019
11/30/2019
Date

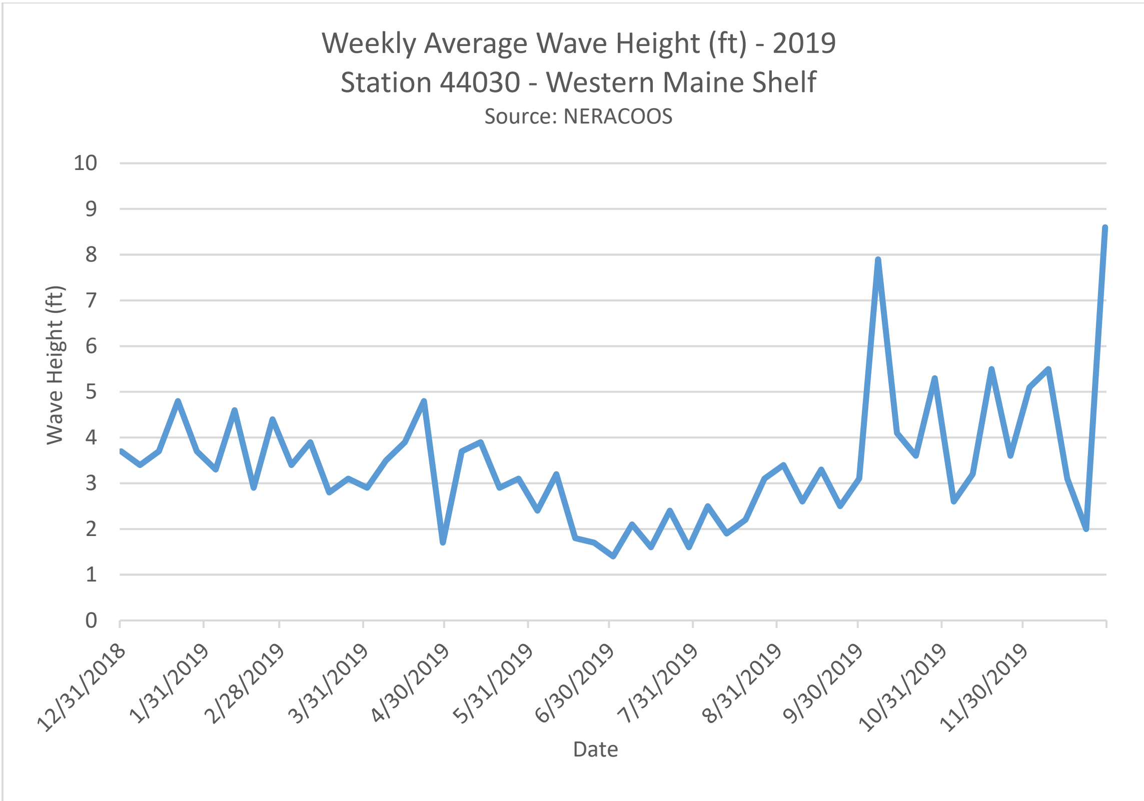

Weekly Average Wind Speed (Knots) - 2021
Station 44034 - Eastern Maine Shelf
Source: NERACOOS
Wind Speed (Knots)
25
20
15
10
5
0
12/28/2020
1/28/2021
2/28/2021
3/31/2021
4/30/2021
5/31/2021
6/30/2021
7/31/2021
8/31/2021
9/30/2021
10/31/2021
11/30/2021
Date

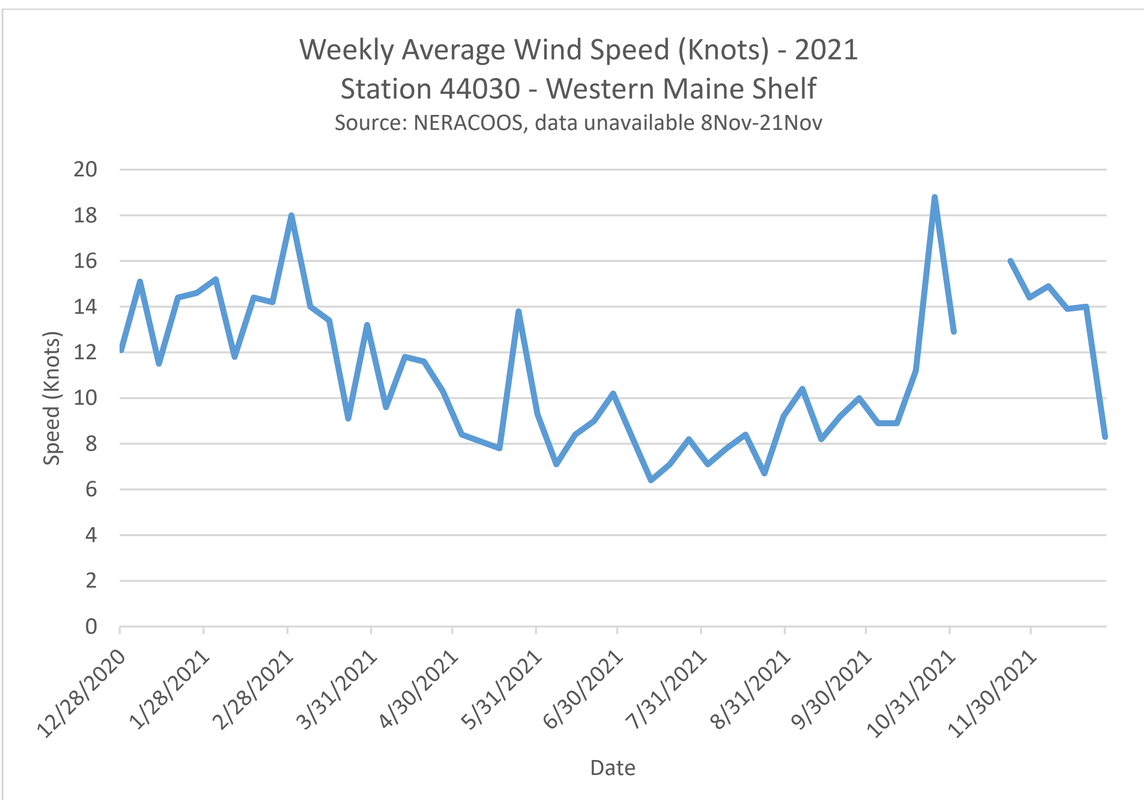

Weekly Average Wind Speed (Knots) - 2020
Station 44034 - Eastern Maine Shelf
Source: NERACOOS
25
20
15
10
5
0
Wind Spee d(Knots)
12/30/2019
1/30/2020
2/29/2020
3/31/2020
4/30/2020
5/31/2020
6/30/2020
7/31/2020
8/31/2020
9/30/2020
10/31/2020
11/30/2020
Date

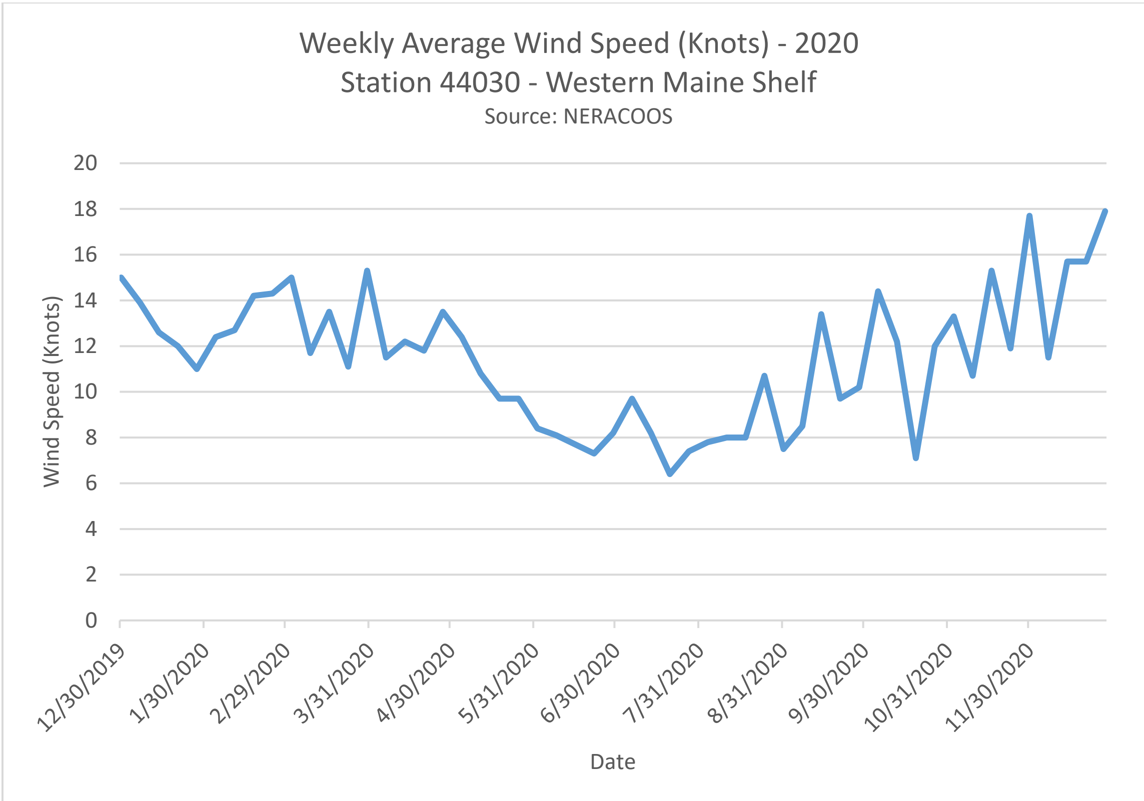

Weekly Average Wind Speed (Knots) - 2019
Station 44034 - Eastern Maine Shelf
Source: NERACOOS
25
20
15
10
5
0
Wind Speed (Knots)
12/31/2018
1/31/2019
2/28/2019
3/31/2019
4/30/2019
5/31/2019
6/30/2019
7/31/2019
8/31/2019
9/30/2019
10/31/2019
11/30/2019
Date

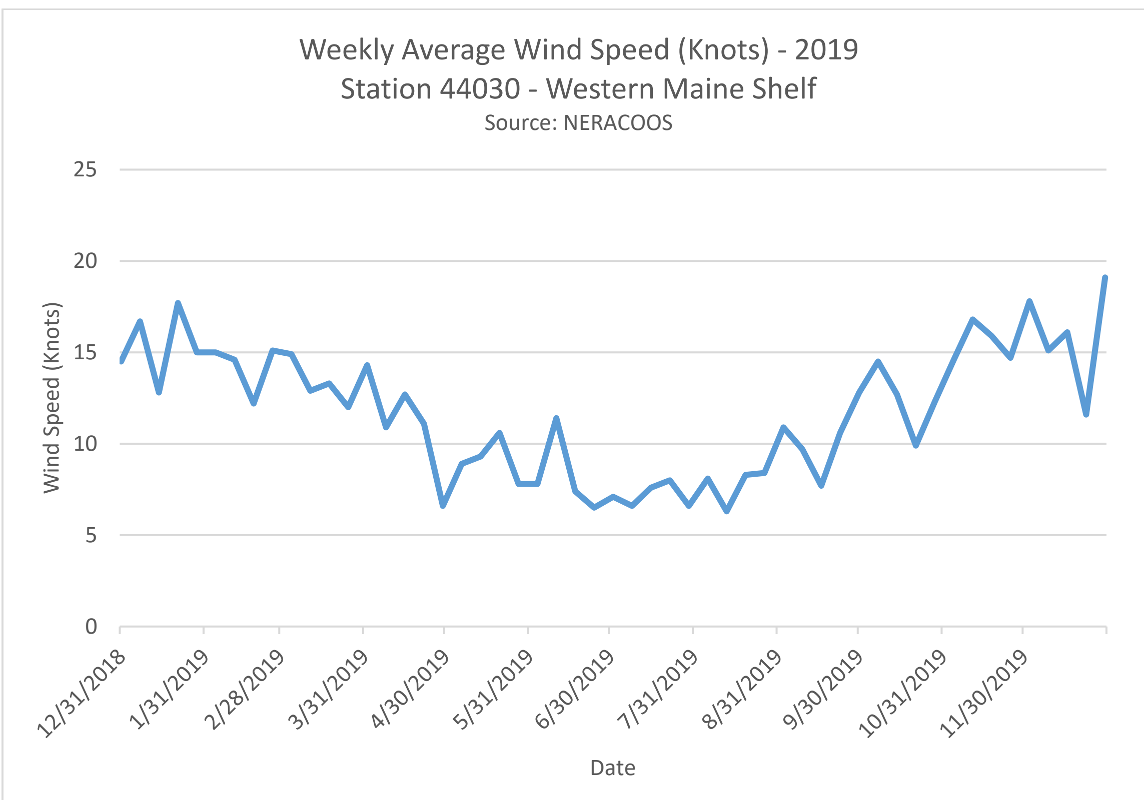

Weekly Average Wave Height (ft) - 2021
Station 44030 - Western Maine Shelf
Source: NERACOOS; data unavailable 8Nov-21Nov
Wave Height (ft)
0
1
2
3
4
5
6
7
8
9
10
12/28/2020
1/28/2021
2/28/2021
3/31/2021
4/30/2021
5/31/2021
6/30/2021
7/31/2021
8/31/2021
9/30/2021
10/31/2021
11/30/2021
Date

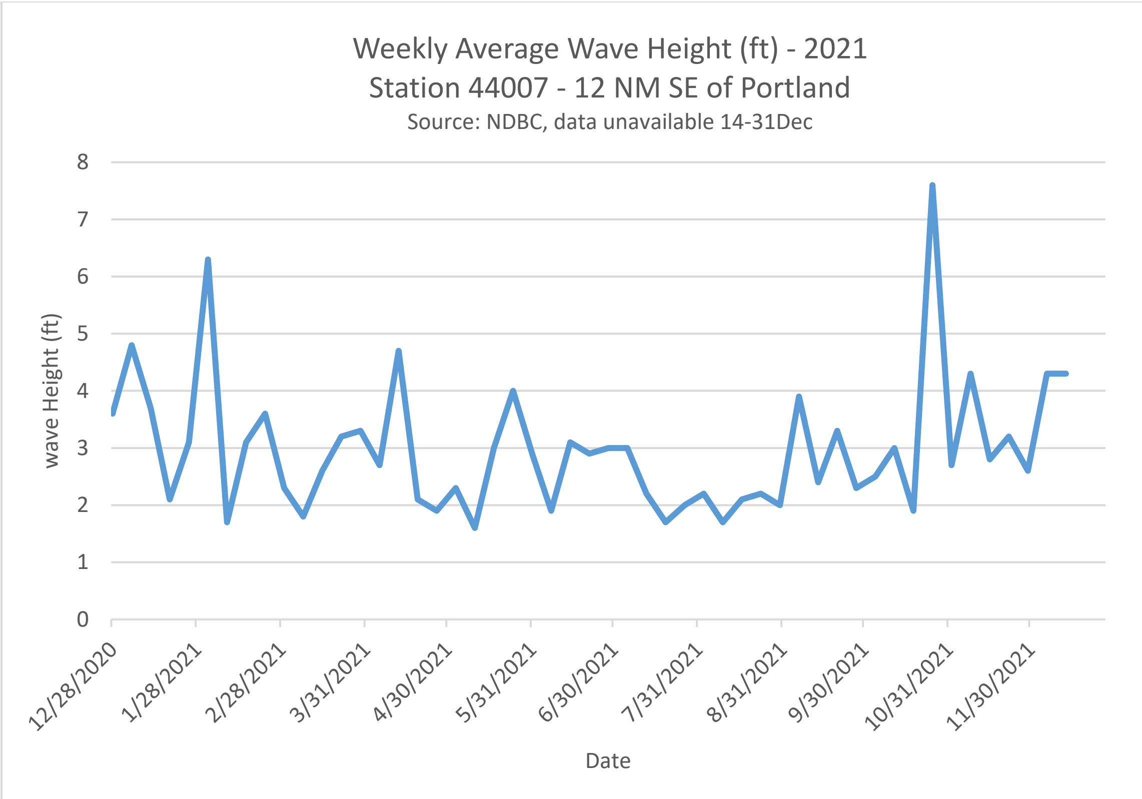

Weekly Average Wave Height (ft) - 2020
Station 44030 - Western Maine Shelf
Source: NERACOOS
Wave Height (ft)
0
1
2
3
4
5
6
7
8
9
10
12/30/2019
1/30/2020
2/29/2020
3/31/2020
4/30/2020
5/31/2020
6/30/2020
7/31/2020
8/31/2020
9/30/2020
10/31/2020
11/30/2020
Date

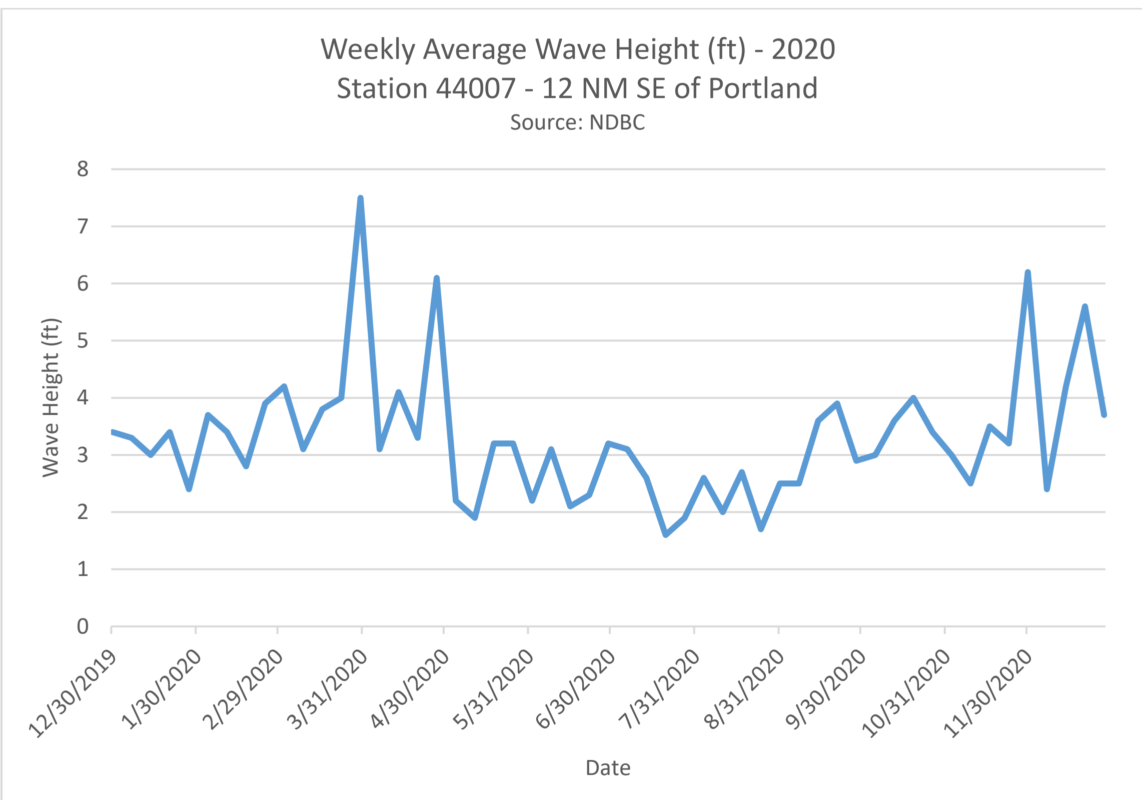

Weekly Average Wave Height (ft) - 2019
Station 44030 - Western Maine Shelf
Source: NERACOOS
Wave Height (ft)
10
9
8
7
6
5
4
3
2
1
0
12/31/2018
1/31/2019
2/28/2019
3/31/2019
4/30/2019
5/31/2019
6/30/2019
7/31/2019
8/31/2019
9/30/2019
10/31/2019
11/30/2019
Date

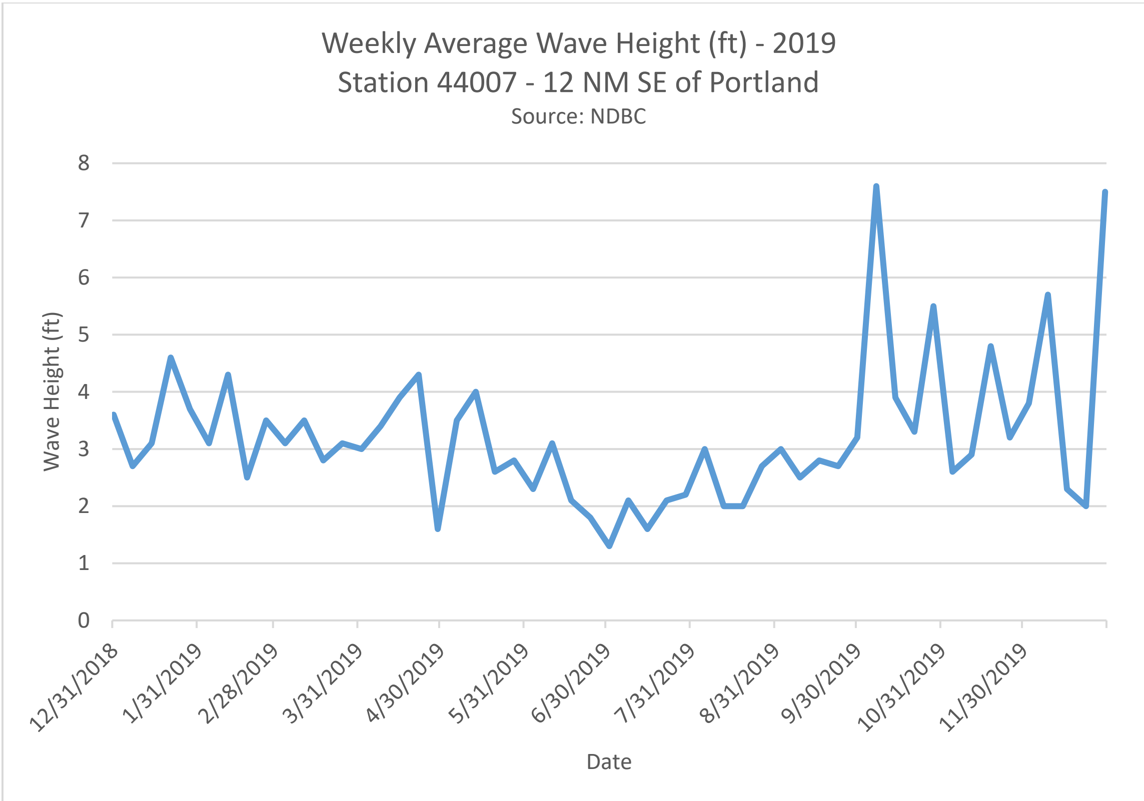

Weekly Average Wind Speed (Knots) - 2021
Station 44030 - Western Maine Shelf
Source: NERACOOS, data unavailable 8Nov-21Nov
Speed (Knots)
20
18
16
14
12
10
8
6
4
2
0
12/28/2020
1/28/2021
2/28/2021
3/31/2021
4/30/2021
5/31/2021
6/30/2021
7/31/2021
8/31/2021
9/30/2021
10/31/2021
11/30/2021
Date

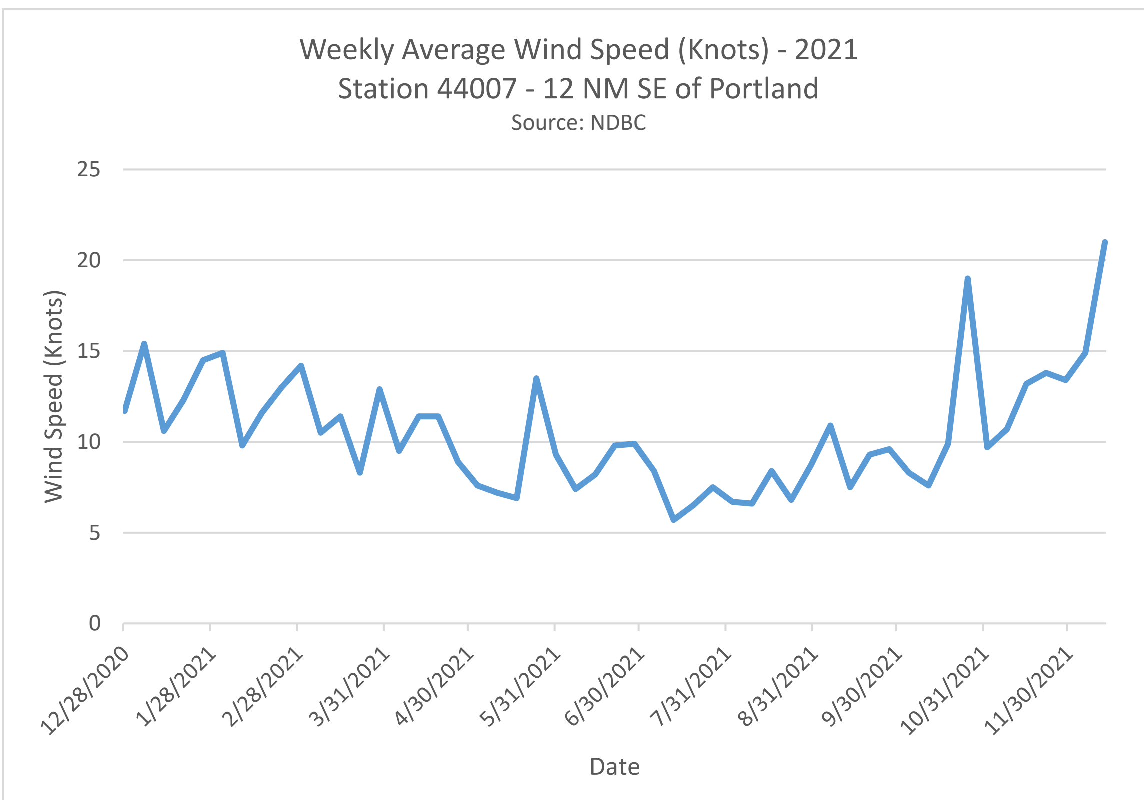

Weekly Average Wind Speed (Knots) - 2020
Station 44030 - Western Maine Shelf
Source: NERACOOS
Wind Speed (Knots)
20
18
16
14
12
10
8
6
4
2
0
12/30/2019
1/30/2020
2/29/2020
3/31/2020
4/30/2020
5/31/2020
6/30/2020
7/31/2020
8/31/2020
9/30/2020
10/31/2020
11/30/2020
Date

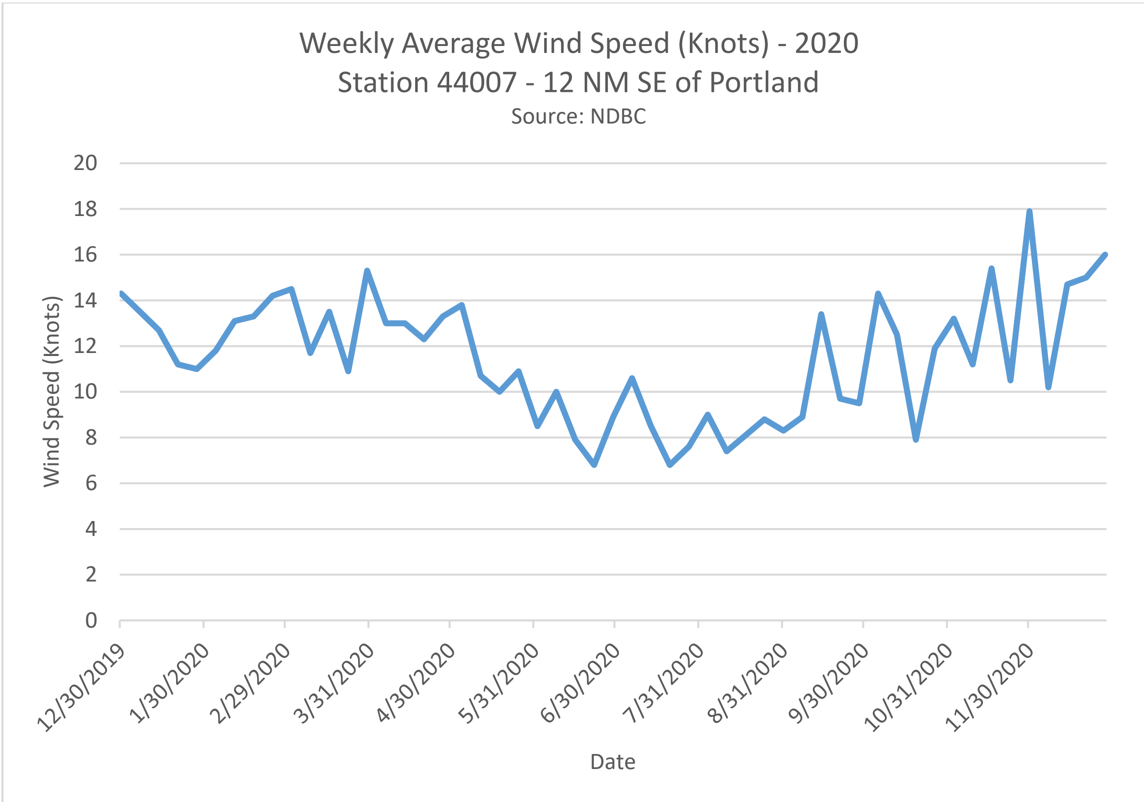

Weekly Average Wind Speed (Knots) - 2019
Station 44030 - Western Maine Shelf
Source: NERACOOS
Wind Speed (Knots)
25
20
15
10
5
0
12/31/2018
1/31/2019
2/28/2019
3/31/2019
4/30/2019
5/31/2019
6/30/2019
7/31/2019
8/31/2019
9/30/2019
10/31/2019
11/30/2019
Date


Weekly Average Wave Height (ft) - 2021
Station 44007 - 12 NM SE of Portland
Source: NDBC, data unavailable 14-31Dec
wave Height (ft)
0
1
2
3
4
5
6
7
8
12/28/2020
1/28/2021
2/28/2021
3/31/2021
4/30/2021
5/31/2021
6/30/2021
7/31/2021
8/31/2021
9/30/2021
10/31/2021
11/30/2021
Date

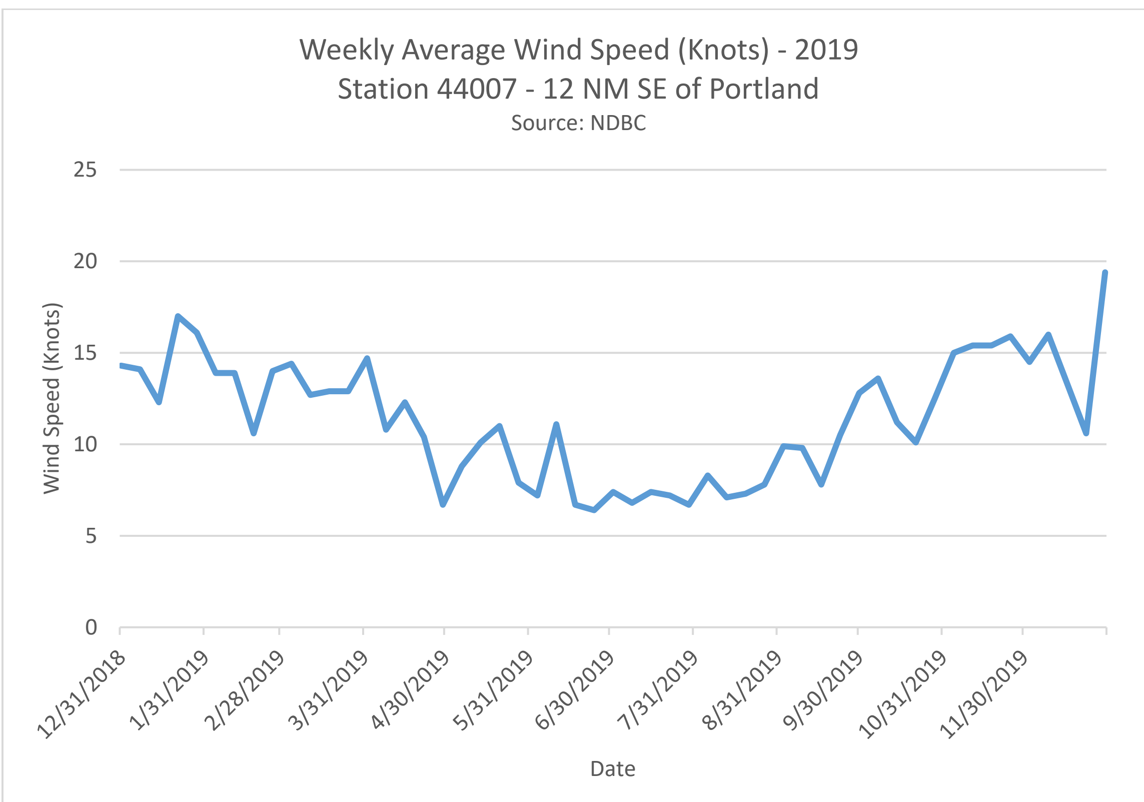

Weekly Average Wave Height (ft) - 2020
Station 44007 - 12 NM SE of Portland
Source: NDBC
Wave Height (ft)
0
1
2
3
4
5
6
7
8
12/30/2019
1/30/2020
2/29/2020
3/31/2020
4/30/2020
5/31/2020
6/30/2020
7/31/2020
8/31/2020
9/30/2020
10/31/2020
11/30/2020
Date


Weekly Average Wave Height (ft) - 2019
Station 44007 - 12 NM SE of Portland
Source: NDBC
Wave Height (ft)
0
1
2
3
4
5
6
7
8
12/31/2018
1/31/2019
2/28/2019
3/31/2019
4/30/2019
5/31/2019
6/30/2019
7/31/2019
8/31/2019
9/30/2019
10/31/2019
11/30/2019
Date

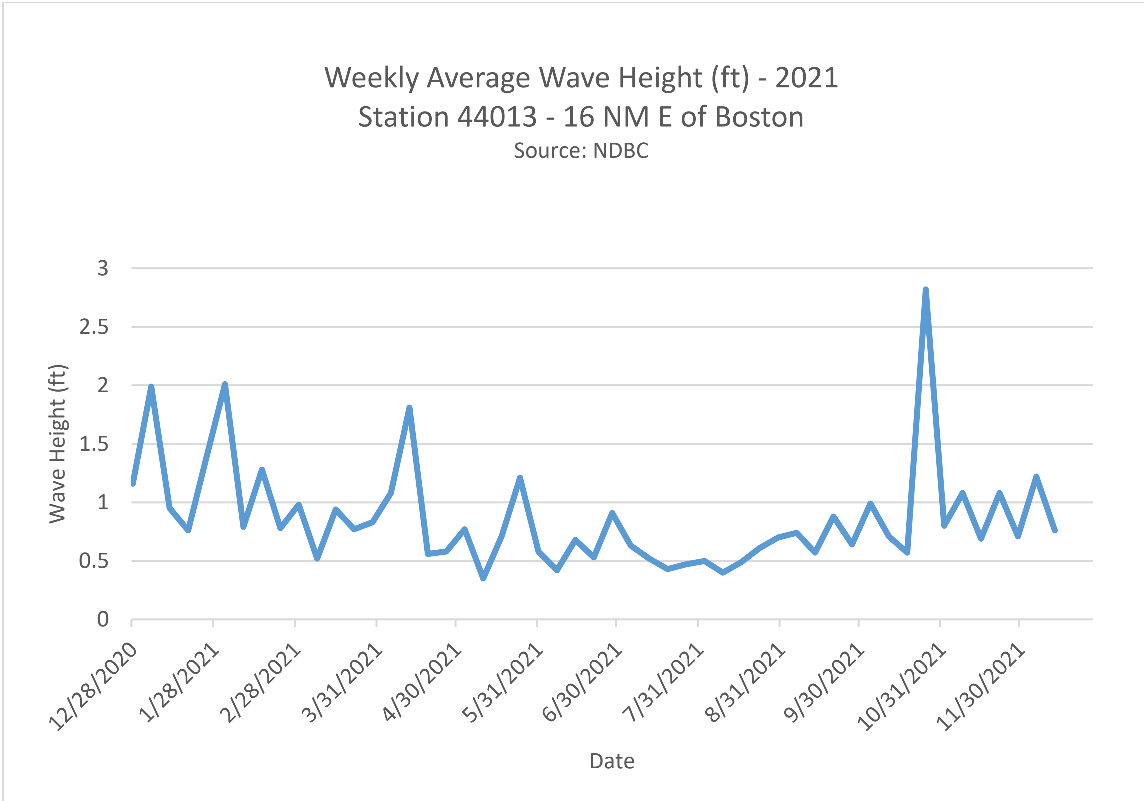

Weekly Average Wind Speed (Knots) - 2021
Station 44007 - 12 NM SE of Portland
Source: NDBC
Wind Speed (Knots)
0
5
10
15
20
25
12/28/2020
1/28/2021
2/28/2021
3/31/2021
4/30/2021
5/31/2021
6/30/2021
7/31/2021
8/31/2021
9/30/2021
10/31/2021
11/30/2021
Date



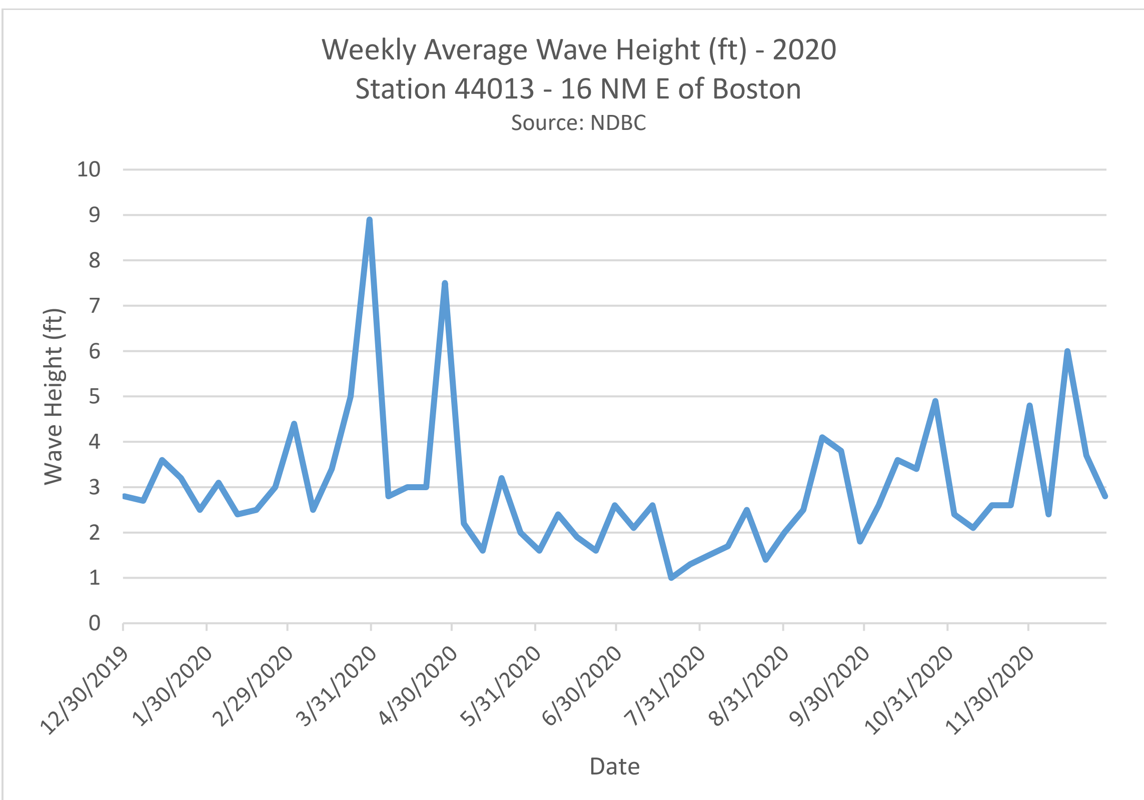
Weekly Average Wind Speed (Knots) - 2020
Station 44007 - 12 NM SE of Portland
Source: NDBC
Wind Speed (Knots)
20
18
16
14
12
10
8
6
4
2
0
12/30/2019
1/30/2020
2/29/2020
3/31/2020
4/30/2020
5/31/2020
6/30/2020
7/31/2020
8/31/2020
9/30/2020
10/31/2020
11/30/2020
Date



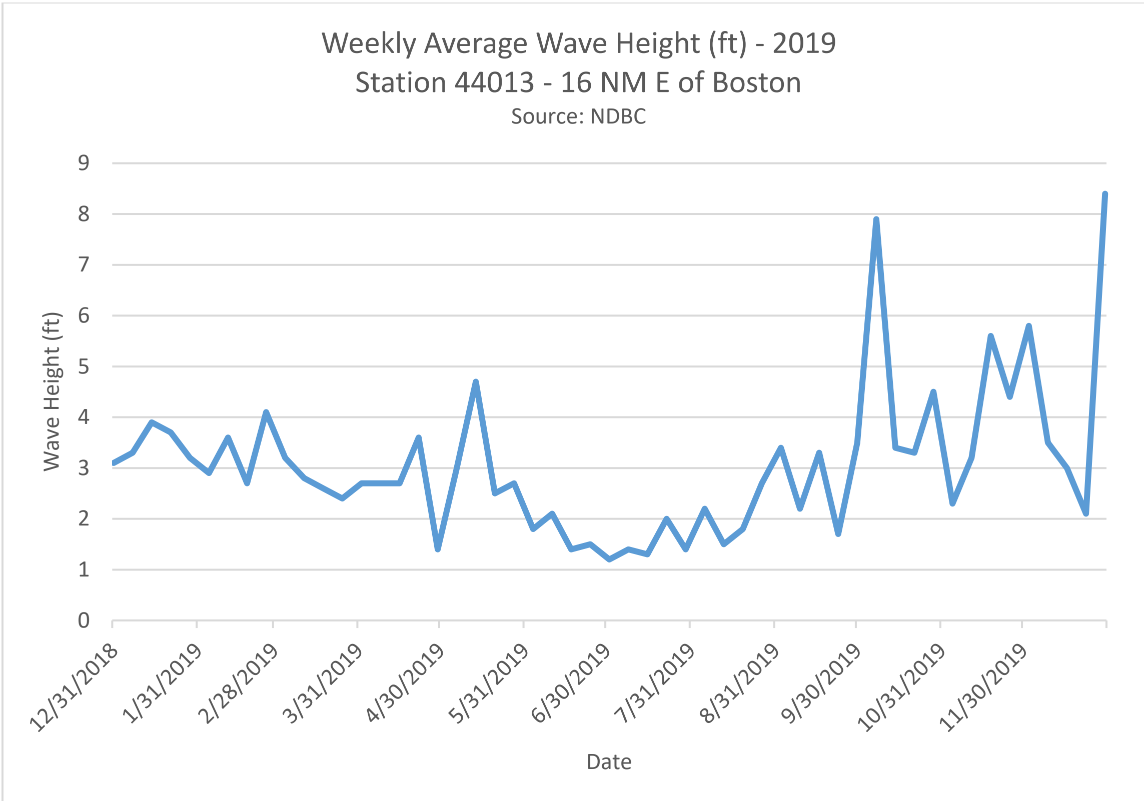
Weekly Average Wind Speed (Knots) - 2019
Station 44007 - 12 NM SE of Portland
Source: NDBC
Wind Speed (Knots)
25
20
15
10
5
0
12/31/2018
1/31/2019
2/28/2019
3/31/2019
4/30/2019
5/31/2019
6/30/2019
7/31/2019
8/31/2019
9/30/2019
10/31/2019
11/30/2019
Date



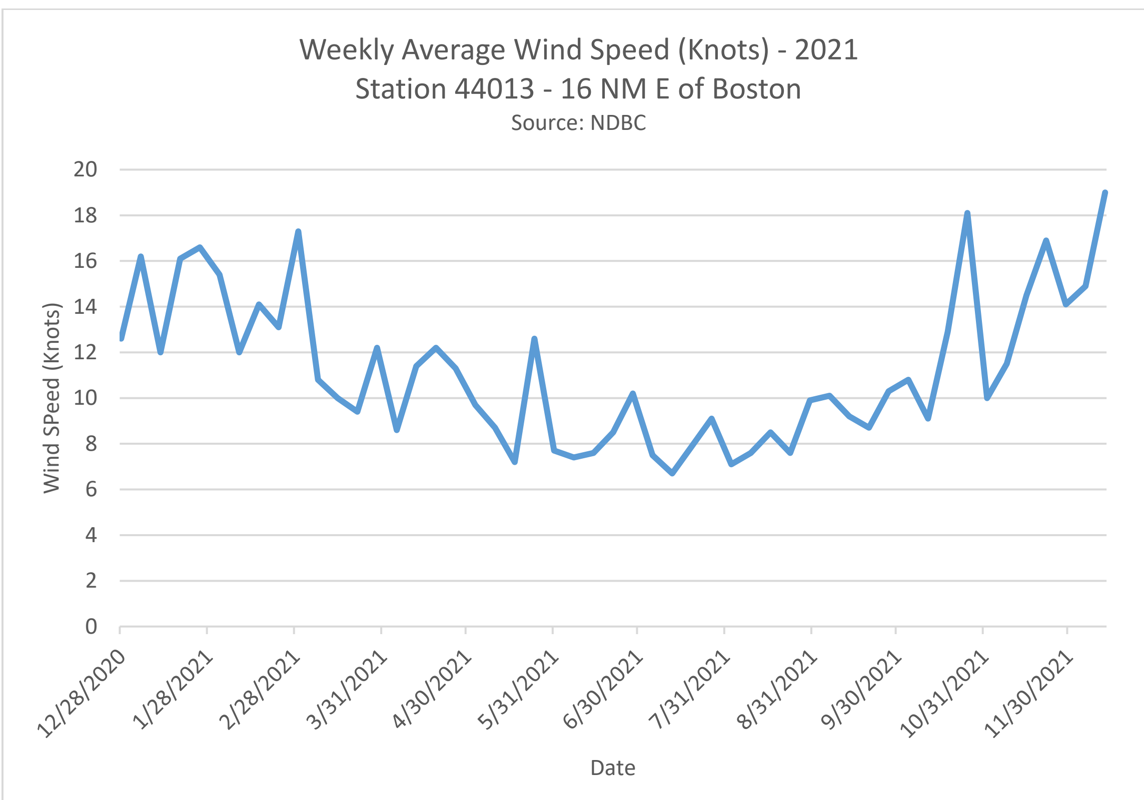
Weekly Average Wave Height (ft) - 2021
Station 44013 - 16 NM E of Boston
Source: NDBC
Wave Height (ft)
3
2.5
2
1.5
1
0.5
0
12/28/2020
1/28/2021
2/28/2021
3/31/2021
4/30/2021
5/31/2021
6/30/2021
7/31/2021
8/31/2021
9/30/2021
10/31/2021
11/30/2021
Date



Weekly Average Wave Height (ft) - 2020
Station 44013 - 16 NM E of Boston
Source: NDBC
Wave Height (ft)
10
9
8
7
6
5
4
3
2
1
0
12/30/2019
1/30/2020
2/29/2020
3/31/2020
4/30/2020
5/31/2020
6/30/2020
7/31/2020
8/31/2020
9/30/2020
10/31/2020
11/30/2020
Date



Weekly Average Wave Height (ft) - 2019
Station 44013 - 16 NM E of Boston
Source: NDBC
Wave Height (ft)
0
1
2
3
4
5
6
7
8
9
12/31/2018
1/31/2019
2/28/2019
3/31/2019
4/30/2019
5/31/2019
6/30/2019
7/31/2019
8/31/2019
9/30/2019
10/31/2019
11/30/2019
Date



Weekly Average Wind Speed (Knots) - 2021
Station 44013 - 16 NM E of Boston
Source: NDBC
Wind SPeed (Knots)
0
2
4
6
8
10
12
14
16
18
20
12/28/2020
1/28/2021
2/28/2021
3/31/2021
4/30/2021
5/31/2021
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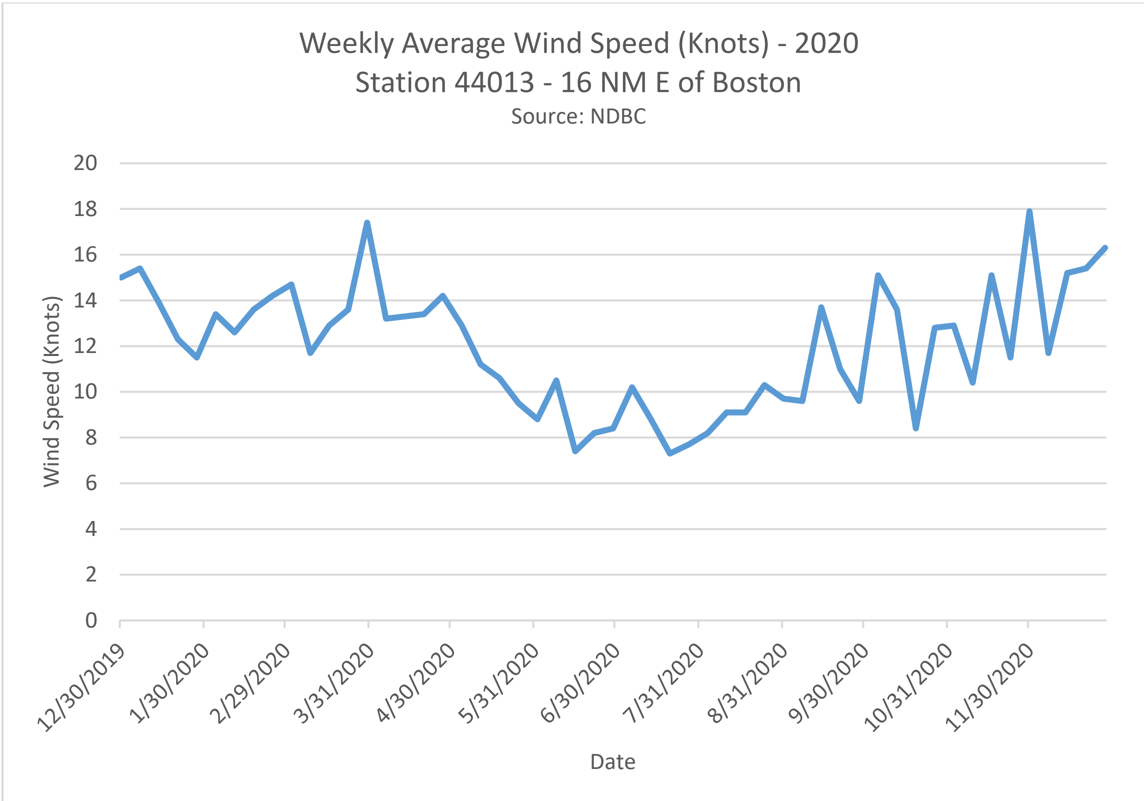
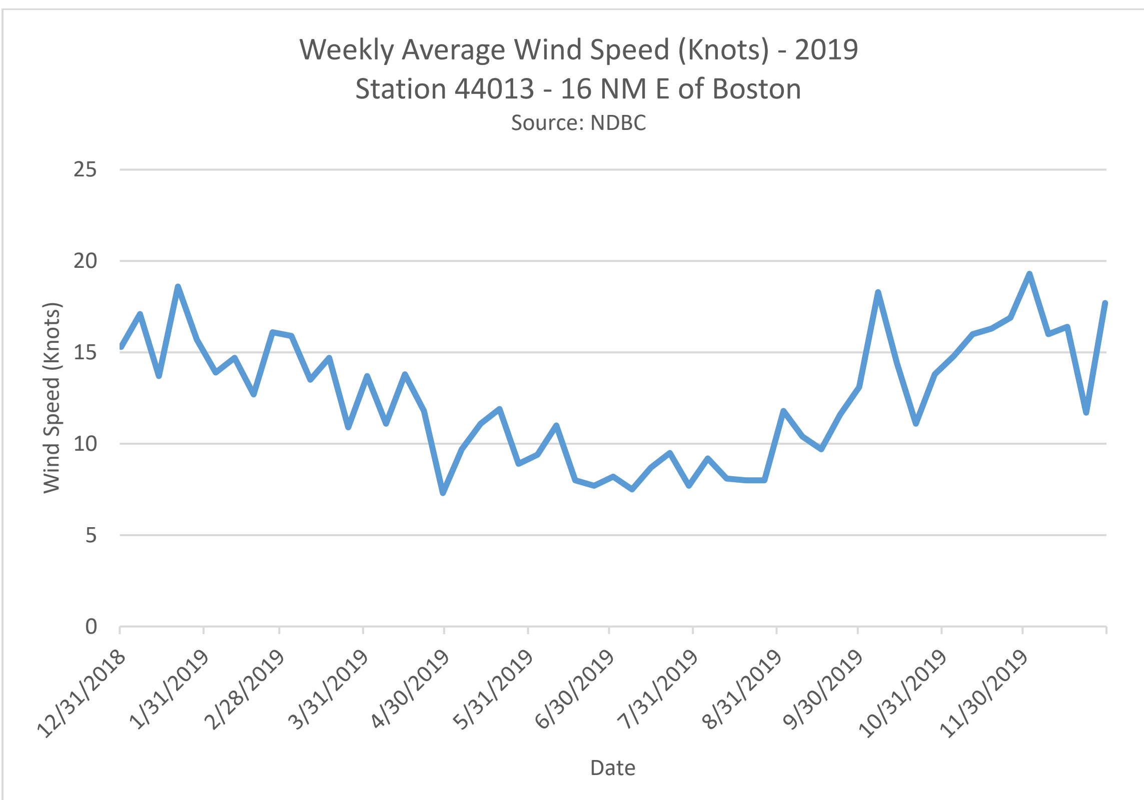
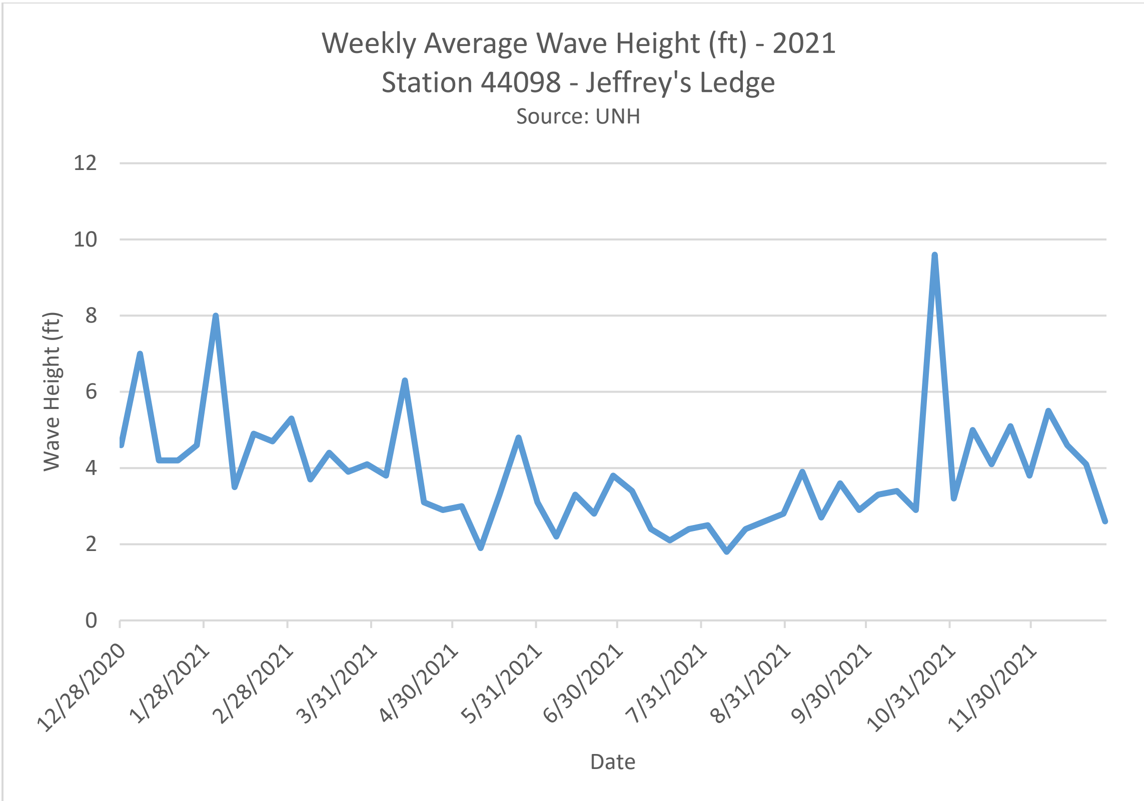
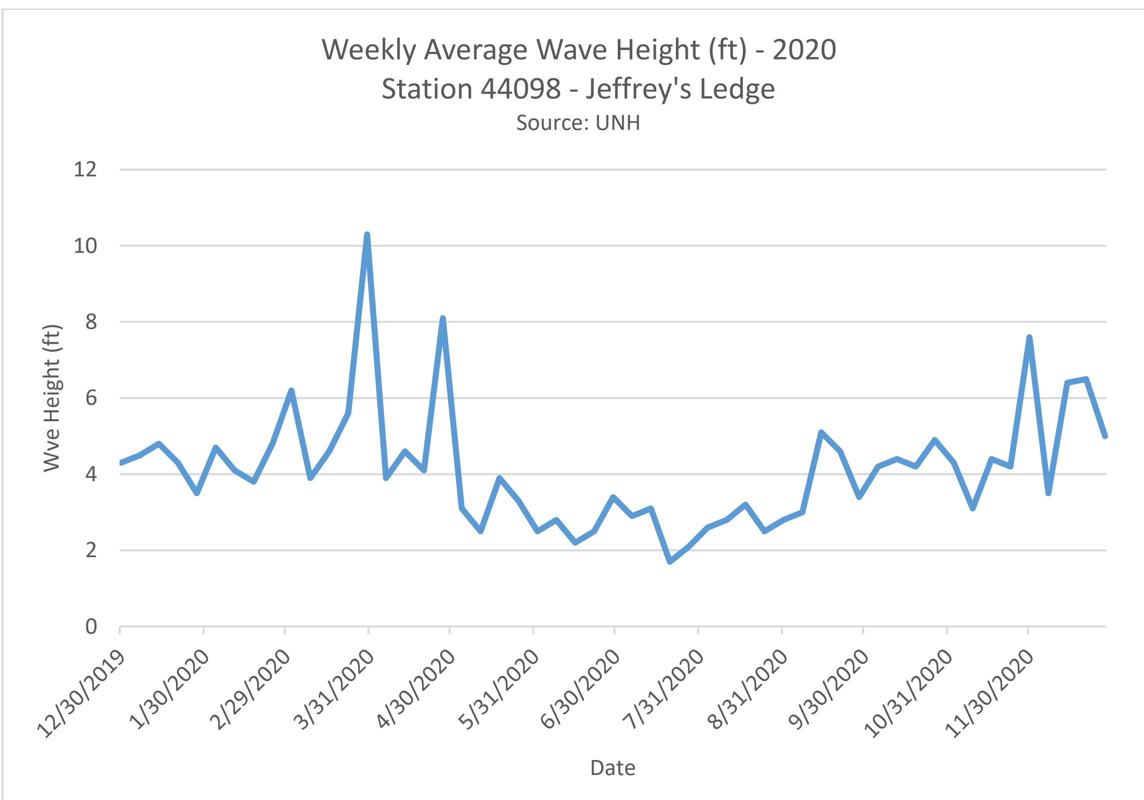
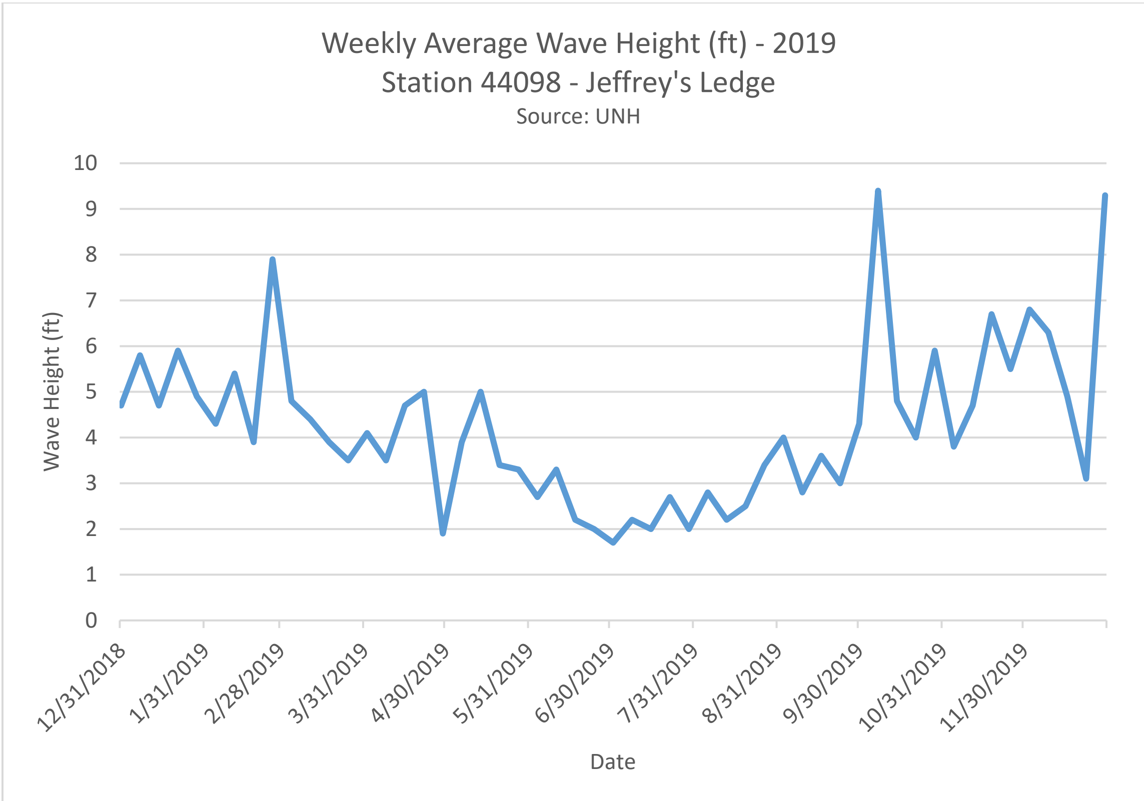
8/31/2021
9/30/2021
10/31/2021
11/30/2021
Date


Weekly Average Wind Speed (Knots) - 2020
Station 44013 - 16 NM E of Boston
Source: NDBC
Wind Speed (Knots)
20
18
16
14
12
10
8
6
4
2
0
12/30/2019
1/30/2020
2/29/2020
3/31/2020
4/30/2020
5/31/2020
6/30/2020
7/31/2020
8/31/2020
9/30/2020
10/31/2020
11/30/2020
Date


Weekly Average Wind Speed (Knots) - 2019
Station 44013 - 16 NM E of Boston
Source: NDBC
Wind Speed (Knots)
25
20
15
10
5
0
12/31/2018
1/31/2019
2/28/2019
3/31/2019
4/30/2019
5/31/2019
6/30/2019
7/31/2019
8/31/2019
9/30/2019
10/31/2019
11/30/2019
Date


Weekly Average Wave Height (ft) - 2021
Station 44098 - Jeffrey's Ledge
Source: UNH
Wave Height (ft)
12
10
8
6
4
2
0
12/28/2020
1/28/2021
2/28/2021
3/31/2021
4/30/2021
5/31/2021
6/30/2021
7/31/2021
8/31/2021
9/30/2021
10/31/2021
11/30/2021
Date


Weekly Average Wave Height (ft) - 2020
Station 44098 - Jeffrey's Ledge
Source: UNH
Wve Height (ft)
12
10
8
6
4
2
0
12/30/2019
1/30/2020
2/29/2020
3/31/2020
4/30/2020
5/31/2020
6/30/2020
7/31/2020
8/31/2020
9/30/2020
10/31/2020
11/30/2020
Date



Weekly Average Wave Height (ft) - 2019
Station 44098 - Jeffrey's Ledge
Source: UNH
Wave Height (ft)
10
9
8
7
6
5
4
3
2
1
0
12/31/2018
1/31/2019
2/28/2019
3/31/2019
4/30/2019
5/31/2019
6/30/2019
7/31/2019
8/31/2019
9/30/2019
10/31/2019
11/30/2019
Date

ENCLOSURES

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ENCLOSURE 1

Vessel Traffic Summary

Enclosure 1 to the Port Access Route Study: Approaches to Maine, New Hampshire, and Massachusetts – Vessel Traffic Summary

Analysis conducted by the USCG Navigation Center (NAVCEN) in Alexandria, VA

Waterways Risk Assessment and Support Division

September 2022

Table of Contents

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Introduction and Background

This traffic analysis examines data from the years 2019-2021 to identify presumed trends or variations in vessel transits and characteristics in consideration of the Port Access Route Study: Approaches to Maine, New Hampshire, and Massachusetts (MNM PARS). The study area for this traffic analysis is the same as the study area defined in the Federal Register, Agency Docket Number USCG-2022-0047 and shown in Figure 1. The Gulf of Maine Floating Offshore Wind Research Array[1] is also shown in this figure. Throughout this report, phrases including study area, MNM PARS study area, whole study area, and entire study area are used interchangeably and all refer to the pictured area.

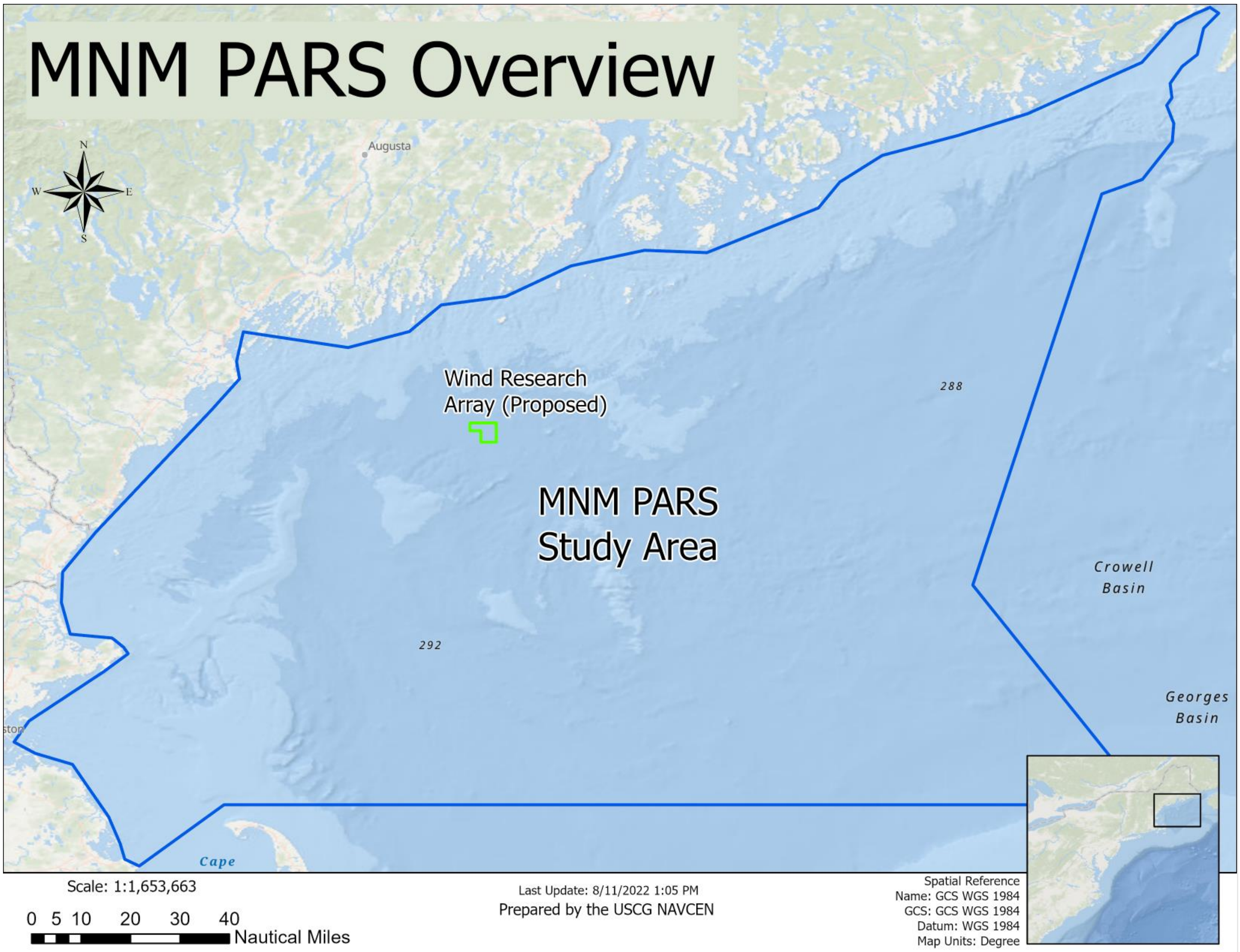


Figure 1: MNM PARS Overview

[1] For up to date information, please visit the State of Maine Governor's Energy Office: [Gulf of Maine Floating Offshore Wind Research Array | Governor's Energy Office]

Materials and Data

Nationwide Automated Identification System (NAIS) Data

Traffic data from 01 January 2019 to 31 December 2021 is from the NAIS and provided by the United States Coast Guard (USCG). All dimensions are originally reported in meters; subsequently, draft and length dimensions are converted to feet for use in this report.

Column Header	User-Defined?	Explanatory Information
MSG_TYPE	No	Identifies AIS unit as either Class A or Class B.
MMSI	No	Maritime Mobile Service Identity, unique identifier for the ship, can change over time.
IMO_NUMBER	Yes	International Maritime Organization Number, remains the same for the vessel's life (not used in this report).
CALL_SIGN	Yes	Not used.
LAT_AVG	No	Aggregate of latitude reports for 2.5 min on either side of time in PERIOD field.
LONG_AVG	No	Aggregate of longitude reports for 2.5 min on either side of time in PERIOD field.
PERIOD	No	Date/Time Stamp of AIS transmission.
SPEED_KNOTS	No	Speed of vessel at time of transmission.
COG_DEG	No	Course over ground of vessel at time of transmission
HEADING_DEG	No	True heading of vessel at time of transmission if fitted with gyro compass.
SHIP_AND_CARGO_TYPE	Yes	A numerical value between 10 and 99, delineating the vessel's service.
DRAUGHT	Yes	Vessel Draft
DIM_BOW	Yes	"Bow Dimension" Distance from transceiver antenna to bow. Used to calculate vessel length.
DIM_STERN	Yes	"Stern Dimension" Distance from transceiver antenna to stern. Used to calculate vessel length.
DIM_PORT	Yes	"Port Dimension" Distance from transceiver antenna to port side. Used to calculate vessel beam.
DIM_STARBOARD	Yes	"Starboard Dimension" Distance from transceiver antenna to starboard side. Used to calculate vessel beam.
DESTINATION	Yes	

Table 1: AIS Data Overview

AIS data fields include fields that are both user-defined and non-user defined as indicated in Table 1. User defined data can be prone to error and missing inputs. Additionally, while AIS accepts user inputs of ship types 1-99, for this analysis, these ship types have been aggregated into nine categories, shown in Table 2.

AIS Ship Type Code	Vessel Group
70-79	Cargo
30	Fishing
35	Military
60-69	Passenger
36, 37	Pleasure Craft / Sailing
80-89	Tanker
31-32, 52, 57	Tug / Tow
0-29, 90+, Null	Not Available
All other values	Other (Workboats)

Table 2: AIS Ship Types to Vessel Groups

The group "Not Available" categorizes vessels where either the type was not recorded by NAIS correctly or the user defined a ship type that is invalid, unrecognized, or indiscernible. The group "Other" includes ships transmitting various other specified ship types such as dredging, diving, and law enforcement vessels.

AIS traffic data does not capture all vessels that operate in the study area. Federal and international carriage regulations stipulate only certain vessels are required to send and/or receive AIS signals. This includes, but is not limited to, vessels of 65 feet or greater in length, towing vessels of 26 feet or greater in length, vessels certificated for 150 or more passengers, dredging vessels near a channel, fishing vessels, and vessels over 300 gross tons on an international voyage[2,3]. Despite these limitations, AIS traffic data provides a sound representation of marine traffic in the study area. Effectively, deep draft and large vessels are required to broadcast an AIS signal; the counts of these vessels as well as their geographic locations are assumed to accurately reflect pertinent marine traffic information. Transit patterns for vessels not required to broadcast an AIS signal, such as small recreational vessels, are apparent even if these vessels are undercounted in the data set. With a portion of vessels not required by regulation to carry AIS voluntarily broadcasting a signal, these data points provide a representative sample of the greater population. Overall, since not all vessels are required to broadcast on AIS, the population of all vessels operating in the study area is presumed greater than cited in this report.

Software

Data cleaning and/or enumeration was completed in Python, ArcGIS Pro, or PowerBI. Track lines, traffic densities, and summarize within graphics were created in the ArcGIS Pro. Bar charts or other graphs were created in R or PowerBI.

Methodology

Traffic Composition

The traffic composition section provides counts of vessel tracks anywhere in the study area. AIS transmission data was cleaned in Python, then imported to ArcGIS Pro to construct and enumerate vessel tracks. In this report, a trip or track is a continual passage through the study area which starts when the vessel enters the area and ends when either it exits the study area or remains stationary for greater than six hours.

This section includes counts of all tracks by vessel type in an area over a given year. Thus, if a ship transits in the area multiple times, each transit is counted as a track. For example, if the container ship CGALLTHEWAY transits within the MNM PARS study area, moors for greater than six hours while discharging cargo, after cargo

[2] See 33 CFR 164.46

[3] See Regulation V/19 of the International Convention for the Safety of Life at Sea (SOLAS), 1974, as amended

discharge leaves the berth and anchors for greater than six hours, and finally weighs anchor and transits out of the study area, three tracks are tallied under the type "Cargo" (i.e., entrance transit, transit to anchorage, and the exit transit).

In addition to these track counts, unique vessel counts are also provided to differentiate total tracks and vessels responsible for those tracks. This tally indicates the number of unique vessels by type. In respect to the unique vessel counts, CGALLTHEWAY is counted only once under "Cargo" regardless of the number of transits it makes in the study area. These counts provide a broad overview of the vessels present in the study area.

Areas of Interest

While the traffic composition section gives a broad overview of the study area, information about specific transits in smaller areas of interest are not represented in this summary. For more specific information about major routes or other specific geographic locations within the study area, areas of interest analyses are provided. This is accomplished by counting the transits that intersect a gate or a polygon shape placed within the study area. A transit is counted every time a vessel intersects an area of interest and each crossing is enumerated and reported by vessel type.

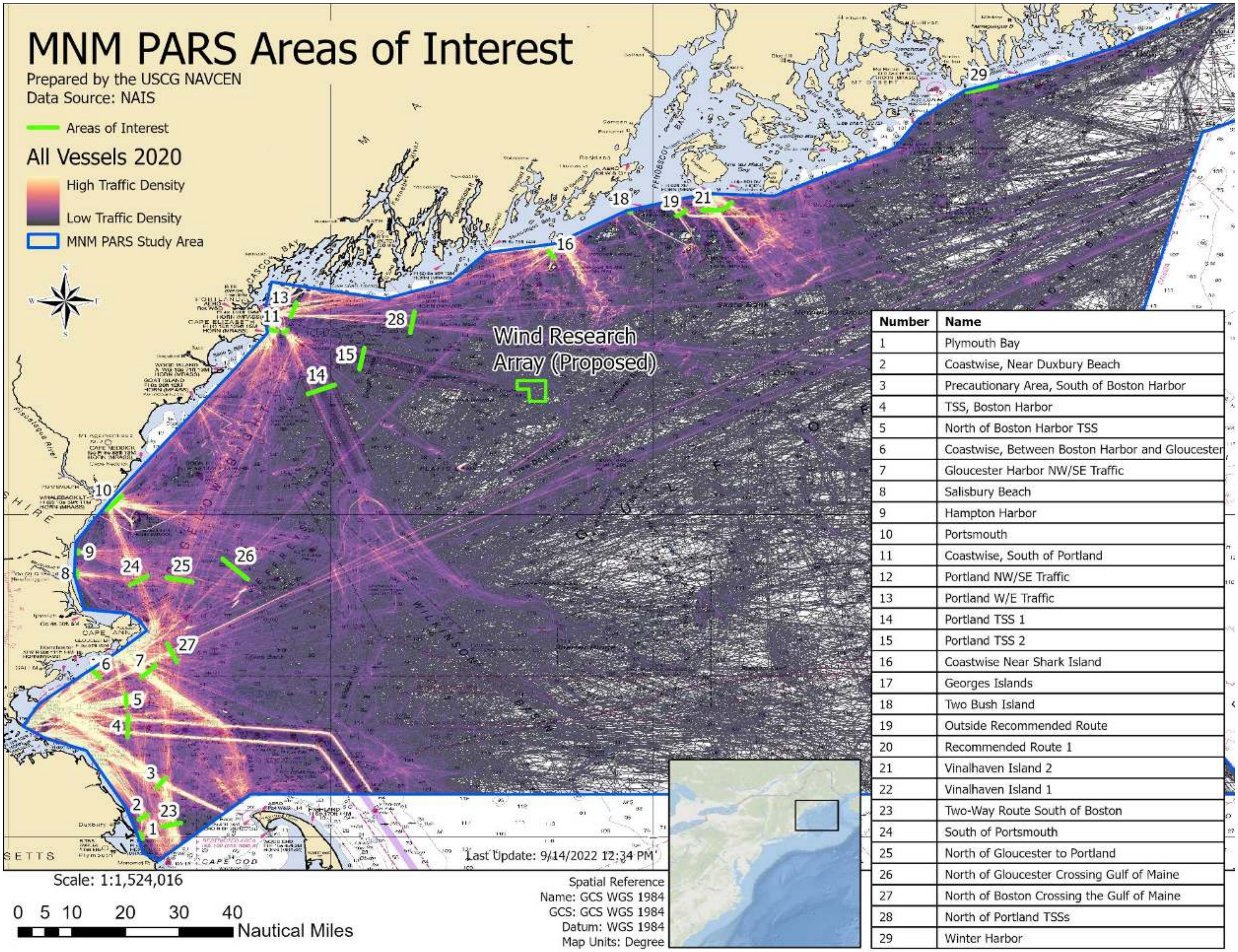
Areas of interest were identified in locations with apparent high traffic volume and/or geographic significance. Common vessel routes, both those within official routing measures such as a precautionary area or TSS and other areas showing high traffic density, are also included. The proposed Gulf of Maine Floating Offshore Wind Research Array site was also considered.

Figure 2, Figure 3, and Figure 4 depict geographic areas of interest analyzed with traffic density depictions of all vessels from 2020. Traffic density is shown on a black, purple, orange, to yellow scale with black as lowest density and yellow as highest. Areas of interest analyzed are annotated in green. Table 3 provides the name and number used to refer to each area throughout the study.

Continuing the previous example, in the area of interest analysis conducted for MNM PARS, a hypothetical CGALLTHEWAY is counted every time it crosses each area of interest. If it crosses the Plymouth Bay (1) and Coastwise, Near Duxbury Beach (2) lines in the same trip, two crossings are counted under "Cargo" (i.e., one for each line).

Name	Number (Linked)
Plymouth Bay	1
Coastwise, Near Duxsbury Beach	2
Precautionary Area, South of Boston Harbor	3
TSS, Boston Harbor	4
North of Boston Harbor TSS	5
Coastwise, Between Boston Harbor and Gloucester	6
Gloucester Harbor NW/SE Traffic	7
Salisbury Beach	8
Hampton Harbor	9
Portsmouth	10
Coastwise, South of Portland	11
Portland NW/SE Traffic	12
Portland W/E Traffic	13
Portland TSS 1	14
Portland TSS 2	15
Coastwise Near Shark Island	16
Georges Islands	17
Two Bush Island	18
Outside Recommended Route	19
Recommended Route 1	20
Vinalhaven Island 2	21
Vinalhaven Island 1	22
Two-Way Route South of Boston	23
South of Portsmouth	24
North of Gloucester to Portland	25
North of Gloucester Crossing Gulf of Maine	26
North of Boston Crossing Gulf of Maine	27
North of Portland TSSs	28
Winter Harbor	29
Wind Research Array (Proposed)	30

Table 3: Areas of Interest by Name and Number



Number	Name
1	Plymouth Bay
2	Coastwise, Near Duxbury Beach
3	Precautionary Area, South of Boston Harbor
4	TSS, Boston Harbor
5	North of Boston Harbor TSS
6	Coastwise, Between Boston Harbor and Gloucester
7	Gloucester Harbor NW/SE Traffic
8	Salisbury Beach
9	Hampton Harbor
10	Portsmouth
11	Coastwise, South of Portland
12	Portland NW/SE Traffic
13	Portland W/E Traffic
14	Portland TSS 1
15	Portland TSS 2
16	Coastwise Near Shark Island
17	Georges Islands
18	Two Bush Island
19	Outside Recommended Route
20	Recommended Route 1
21	Vinalhaven Island 2
22	Vinalhaven Island 1
23	Two-Way Route South of Boston
24	South of Portsmouth
25	North of Gloucester to Portland
26	North of Gloucester Crossing Gulf of Maine
27	North of Boston Crossing the Gulf of Maine
28	North of Portland TSSs
29	Winter Harbor

Figure 2: Geographical Locations of Areas of Interest

Note: All areas of interest are displayed above. Some are smaller than others, and some numeric labels are not visible at this extent. Those that are visible are approximately centered on each area of interest.

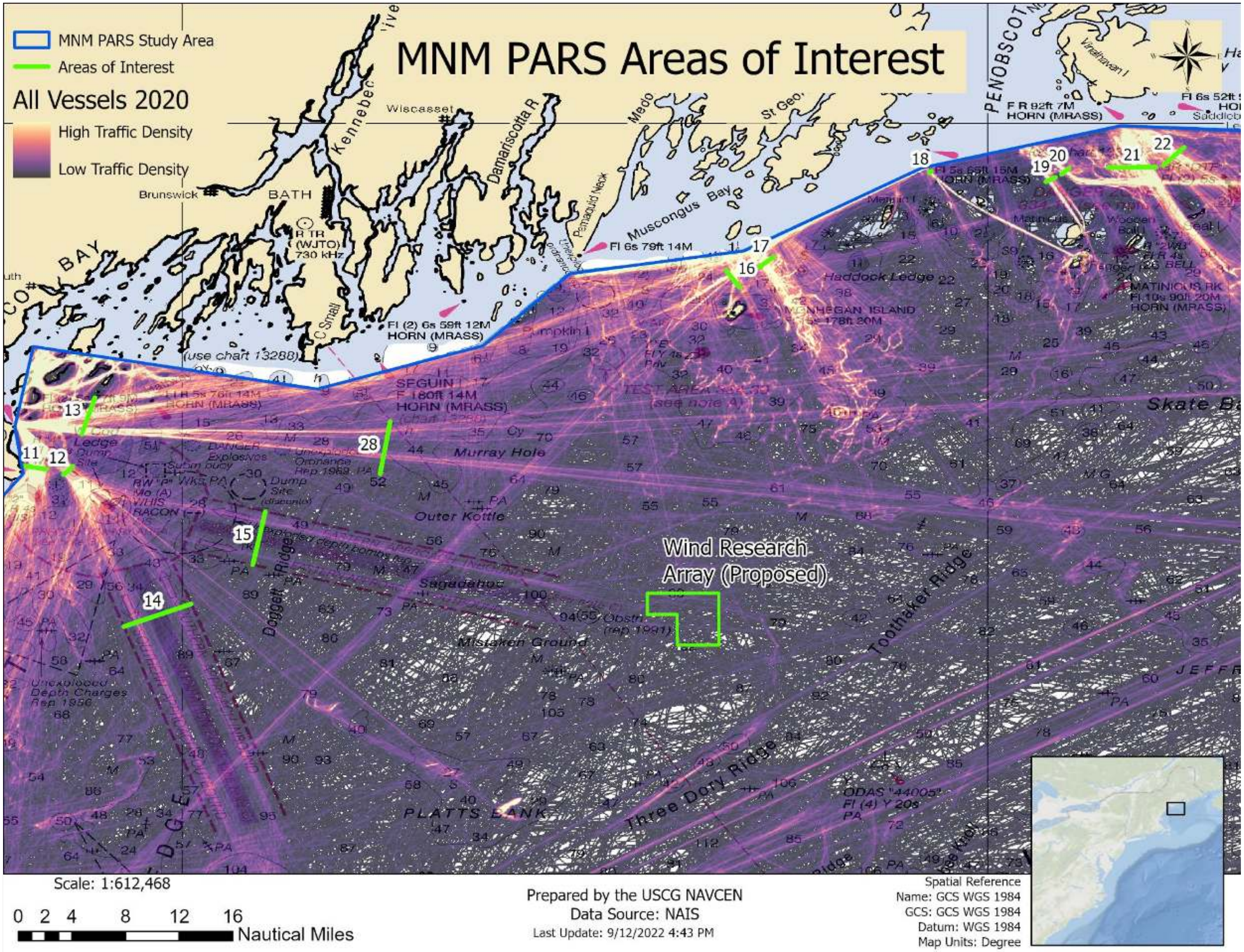


Figure 3: MNM PARS Areas of Interest, North
Passage line 29 is excluded from this figure but is visible in Figure 2.

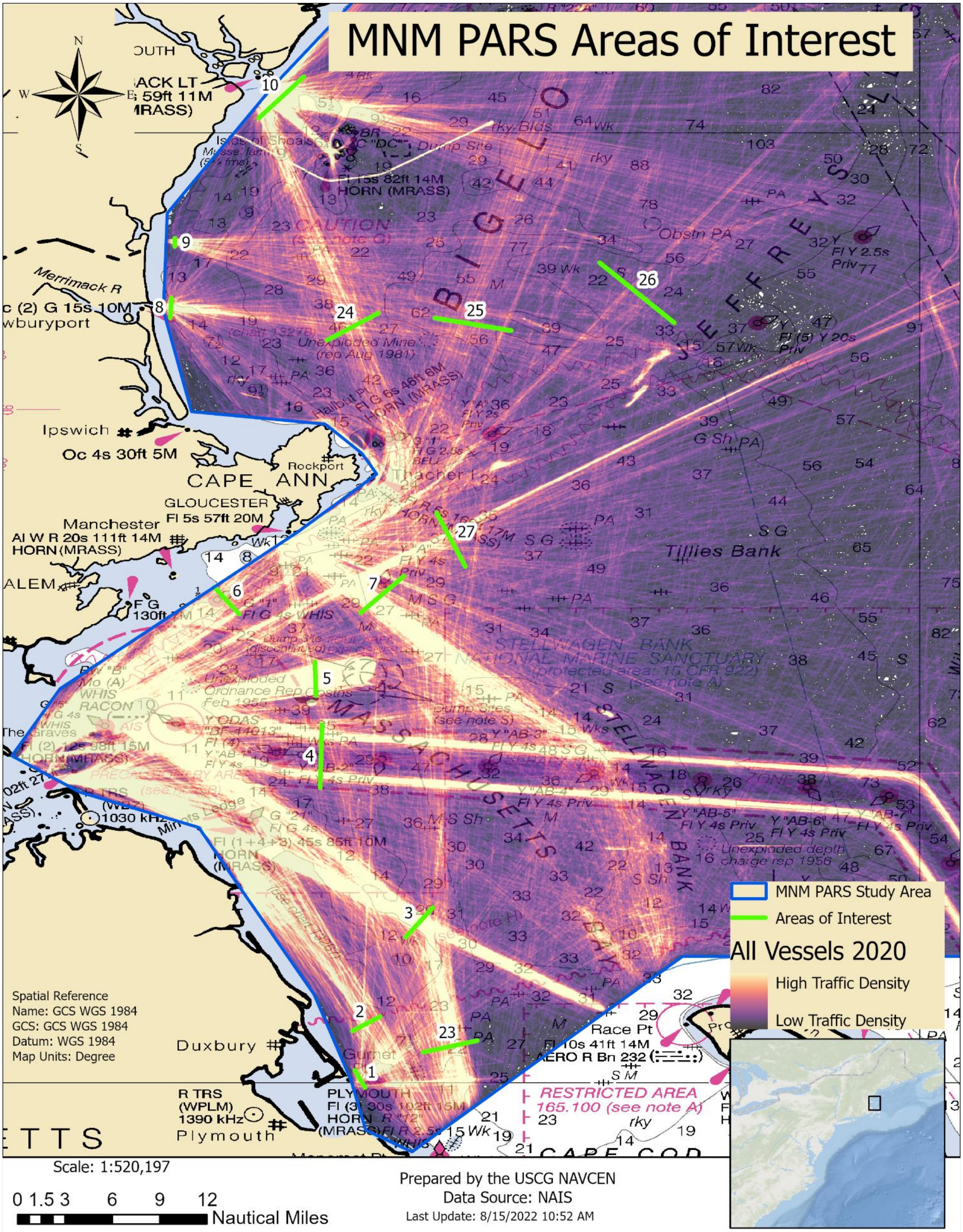


Figure 4: MNM PARS Areas of Interest, South

Comparing Traffic Composition and Areas of Interest Analyses

Traffic composition figures examine the whole study area, whereas areas of interest analyses examine subsets of the study area. Since areas of interest do not encompass the entire study area, the traffic observed in these areas will not yield the same track line or unique vessel counts as those observed in the traffic composition section. For example, in the areas of interest section, if across one line there are a total of 200 Pleasure Craft vessel transits in 2019, more than 200 transits will be recorded in the traffic composition section for this vessel type. Each analysis is informative for individual consideration: traffic composition for the study area as a whole, and areas of interest analyses for specific geographic locations.

Vessel Length Distributions

Two summary histogram types are included to illustrate the distribution of vessel lengths within the study area. For these histograms, any length less than one and greater than or equal to 400 meters was removed as erroneous. Lengths were then converted from meters to feet.

Two types of histograms are included for vessel lengths. The first histogram shows the counts of the number of transits recorded by vessels of specified lengths. Each track line is counted so that each visit of a vessel to the study area is represented. The second histogram shows counts of the number of unique vessels reporting specified lengths. Additional histograms that distinguish vessel types or areas of interest are also included in Attachment 2 – Vessel Length Breakdowns.

Traffic Visualizations

Traffic visualizations were created to show overall vessel transit patterns for all vessels, particular vessel types, and particular areas of interest. These graphics show all vessel traffic for the key listed attribute over the course of a year. For example, the All Vessels graphics show the aggregate of the track lines of all the vessel groups combined, while the Cargo Ship graphics show only the track lines associated with cargo ships. For the traffic visualizations of areas of interest, only the track lines that intersected that area of interest were used to create the visualization. This can provide insight on the broader transit patterns of vessels that pass through that area of interest.

Traffic densities were created using ArcGIS's line density function. Densities are calculated by enumerating the length of transits per square mile ($\frac{\text{Miles transited(year)}}{mile^2}$) and are represented on a black, purple, orange, to yellow scale with black as lowest density and yellow as highest. These calculations are carried out independently for each traffic density, thus each density is shown on a different scale that best represents the data in each case.

Additionally, visualizations similar in appearance to the traffic densities were created using ArcGIS's summarize within (geo-analytics) function. The tool enumerates track lines that pass through 200 square meter bins throughout the specified area. Each bin is then displayed on a graduated color scale depending on the number of crossings recorded for that bin. The color scale is black, purple, orange, to yellow with black as the lowest count and yellow as the highest count. The scale selected for each graphic is based on the year of data with the most transits, for all vessels. This scale is kept consistent between all graphics within each area to best enable direct comparisons.

Vessel Monitoring System (VMS) Data Analysis

VMS fishing vessel data was analyzed in comparison to the AIS data and is included in Attachment 4. These data were provided by National Oceanic and Atmospheric Administration (NOAA) Fisheries for January 2012 through December of 2021. The sharing and use of these data satisfies the criteria of section 1881a(b)(1)(H) of the Magnuson-Stevens Fisheries Management and Conservation Act.

Results

Results for this analysis are maintained by NAVCEN in various file formats. For more information, please contact NAVCEN:

U.S. Coast Guard Navigation Center (NAVCEN)
Waterways Risk Assessment and Support Division
TIS-DG-NAVCEN-Waterways@uscg.mil
(703) 313-5900
https://navcen.uscg.gov/

Traffic Summary – Figures and Observations

This section includes the Traffic Composition, Areas of Interest, Vessel Length Distributions, and Vessel Traffic Visualizations.

Traffic Composition

The Traffic Composition charts indicate how many transits each vessel type made in the study area over the identified year, as well as how many unique vessels were identified (Figure 5, Figure 6). For example, in 2019, 1,916 unique Pleasure Craft or Sailing vessels conducted 12,100 total transits in the study area.

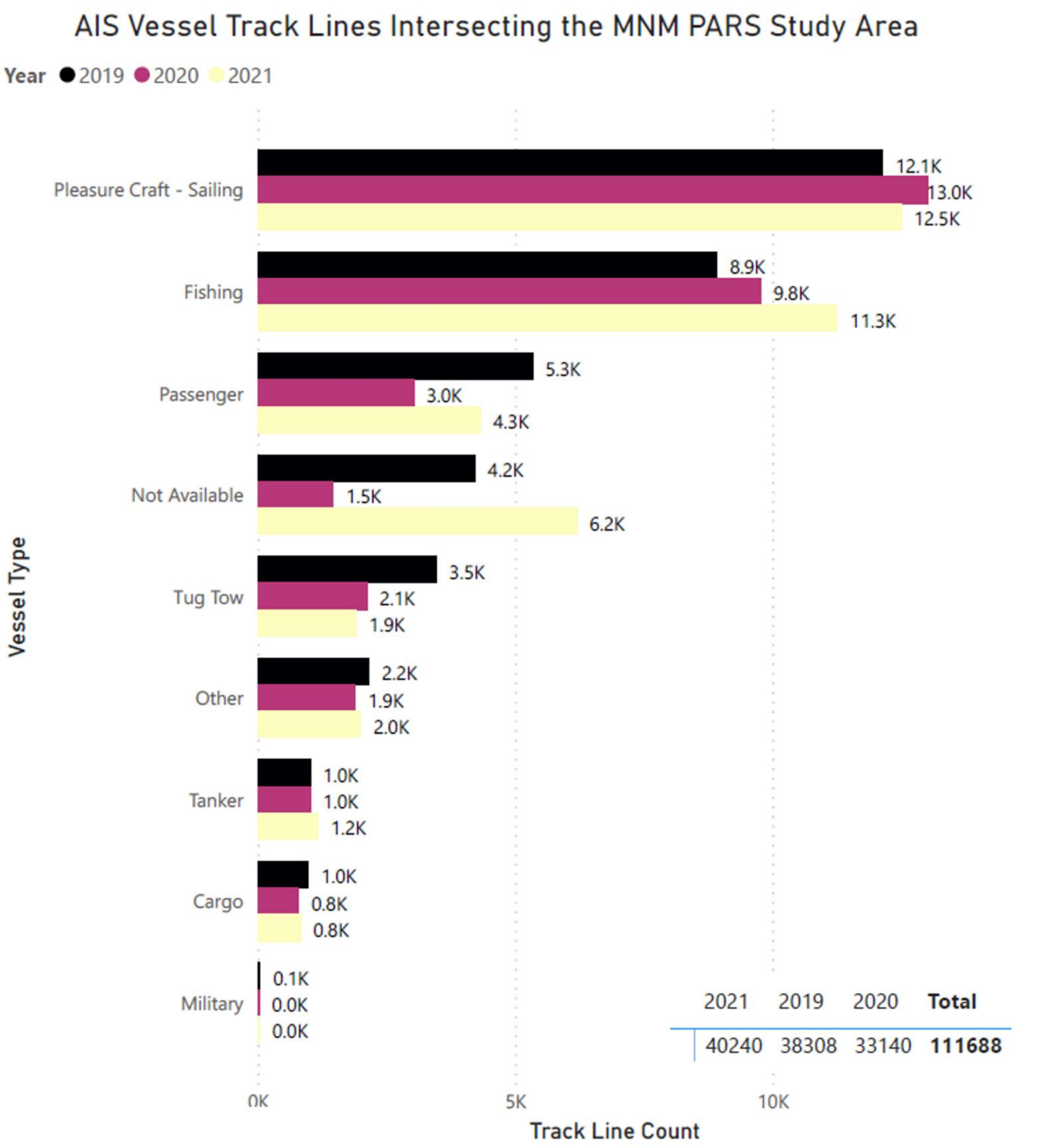


Figure 5: Vessel Track Line Counts, Full Study Area

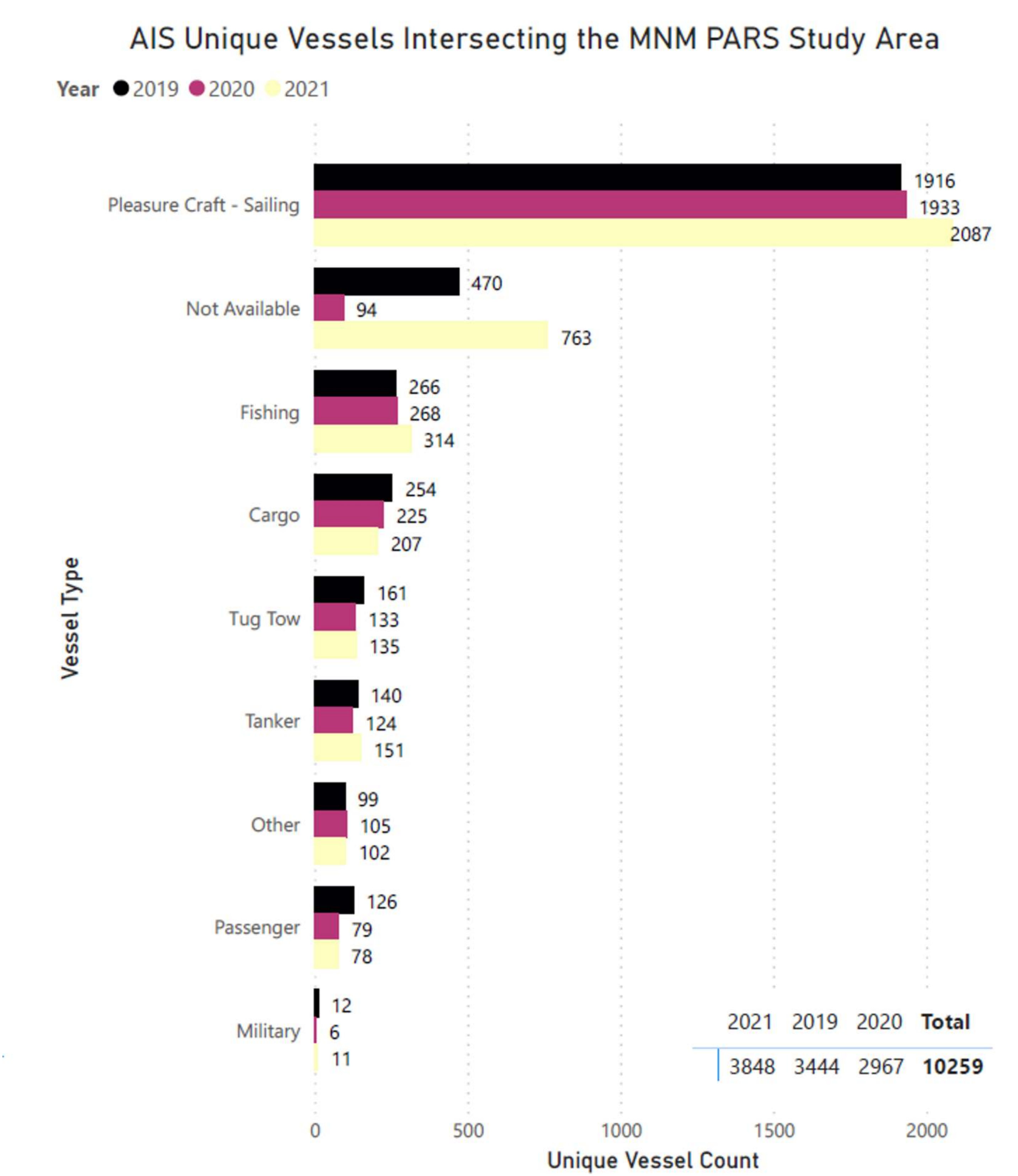


Figure 6: Unique Vessel Counts, Full Study Area

Calculating transits per unique vessel is a way to compare the traffic distribution between the three years of data. The overall average number of transits per vessel per year are shown in Table 4. The average number of transits conducted by each unique vessel by type per year is calculated by dividing the total number of transits by the total number of unique vessels, shown in Figure 7. In practice, some vessels visit the study area more frequently than others.

Year	Average Number of Transits per Unique Vessel
2019	11
2020	11
2021	10

Table 4: Average Number of Transits per Unique Vessel by Year

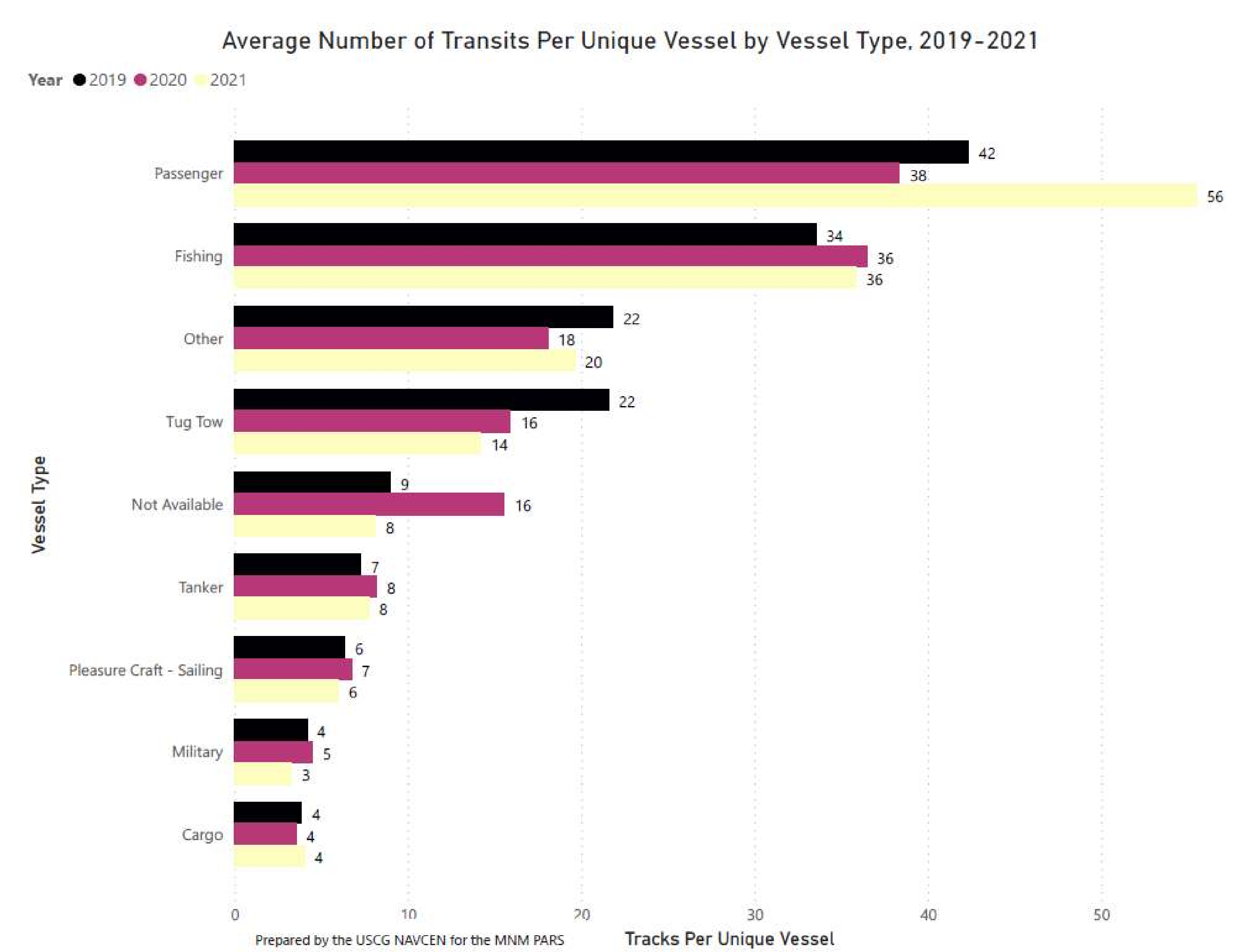


Figure 7: Average Number of Transits per Unique Vessel by Vessel Type Chart, 2019-2021

Observations About the Traffic Composition from Year to Year

Vessel transit counts appeared to remain consistent throughout the three years of data presented, with 2020 showing the least transits overall compared to 2019 and 2021. This decrease in total transits may be attributable to the COVID-19 pandemic, especially for vessel types such as passenger vessels (including but not limited to cruise ships). In all years, pleasure craft were the most prevalent in the study area. Fishing vessel transit counts were also high and showed an increase over time, with more transits per unique vessel, on average, than pleasure craft. Larger commercial cargo and tank ship transit and unique vessel counts remained consistent in the data presented.

Although these observations are informative, data across a longer timeframe is needed to make definitive conclusions about the traffic trends or determine if there is a statistically significant difference in vessel transit or unique vessel counts over the years.

Areas of Interest

Bar charts for each area of interest are included in Attachment 1 – Areas of Interest Data. Total crossing charts are also included in this attachment, showing the number of crossings across all vessel types for each area of interest. Additionally, visualizations using vessel track lines intersecting the areas of interest in 2020 are included. The area names, numbers, and total crossing for all vessel types from 2019-2021 are shown in Table 3. A discussion of observations about these areas is included in the following sections.

Name	Number	Total Crossings (2019-2021)
Plymouth Bay	1	1124
Coastwise, Near Duxsbury Beach	2	2418
Precautionary Area, South of Boston Harbor	3	4078
TSS, Boston Harbor	4	3905
North of Boston Harbor TSS	5	3033
Coastwise, Between Boston Harbor and Gloucester	6	2681
Gloucester Harbor NW/SE Traffic	7	2604
Salisbury Beach	8	1420
Hampton Harbor	9	473
Portsmouth	10	6011
Coastwise, South of Portland	11	4108
Portland NW/SE Traffic	12	2996
Portland W/E Traffic	13	4082
Portland TSS 1	14	843
Portland TSS 2	15	620
Coastwise Near Shark Island	16	1765
Georges Islands	17	953
Two Bush Island	18	213
Outside Recommended Route	19	474
Recommended Route 1	20	943
Vinalhaven Island 2	21	2045
Vinalhaven Island 1	22	1426
Two-Way Route South of Boston	23	4090
South of Portsmouth	24	2538
North of Gloucester to Portland	25	2041
North of Gloucester Crossing Gulf of Maine	26	1541
North of Boston Crossing Gulf of Maine	27	2535
North of Portland TSSs	28	1176
Winter Harbor	29	402
Wind Research Array (Proposed)	30	650

Table 5: Areas of Interest by Name and Number, with Total Crossings 2019-2021

Areas Near Boston Harbor

Areas of interest near Boston Harbor include 1-7, 23, and 27. The areas south of Boston (1-3) and just north of the TSS (5) showed a variety of vessel types, with pleasure craft having the most unique vessels. Tug-tow transits were also prevalent in these areas, especially 3 and 5, as well as passenger vessels on 3.

Within the TSS near Boston (4), there is a higher prevalence of cargo and tank vessels, as expected. For the most part, these vessels operate within the existing routing measures.

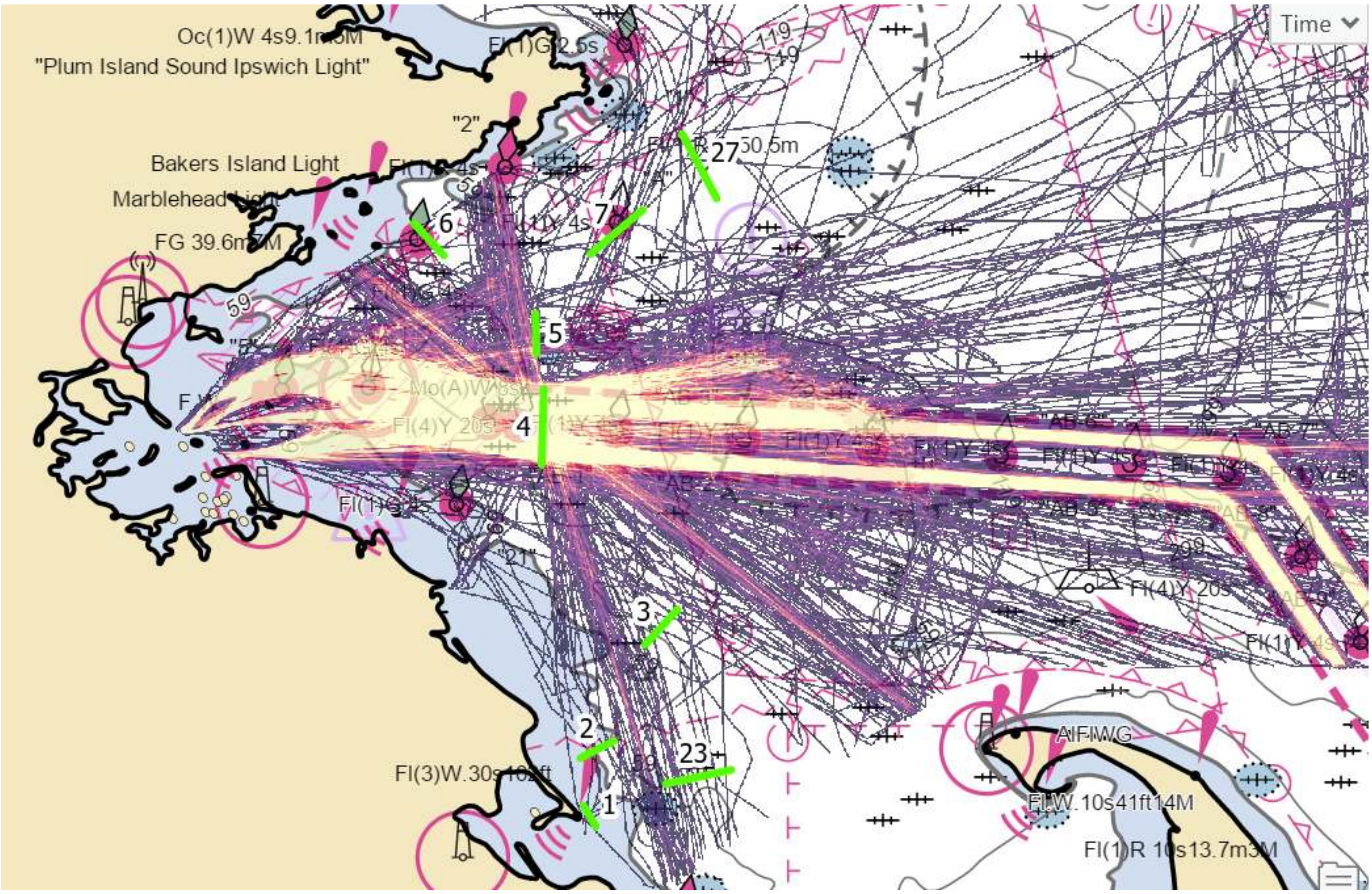


Figure 8: Vessel Traffic Density, Transits Crossing Area of Interest 4 in 2020 Only

Vessels moving between Boston and Gloucester near the coast (6) are primarily pleasure craft, with some tug-tow and fishing vessel presence as well. While the highest density of these vessels is observed near shore, some vessels also transit further north towards Portland, Portsmouth, or the islands north of the study area border. The traffic that appears to approach or exit Gloucester Harbor (7) shows more fishing and passenger vessel activity, with fewer pleasure craft and tug-tows.

A variety of vessel types were observed north of Boston (27) including fishing, pleasure craft, cargo/tanker, and tug-tow. Some vessels cross the Gulf of Maine diagonally while others move north/south.

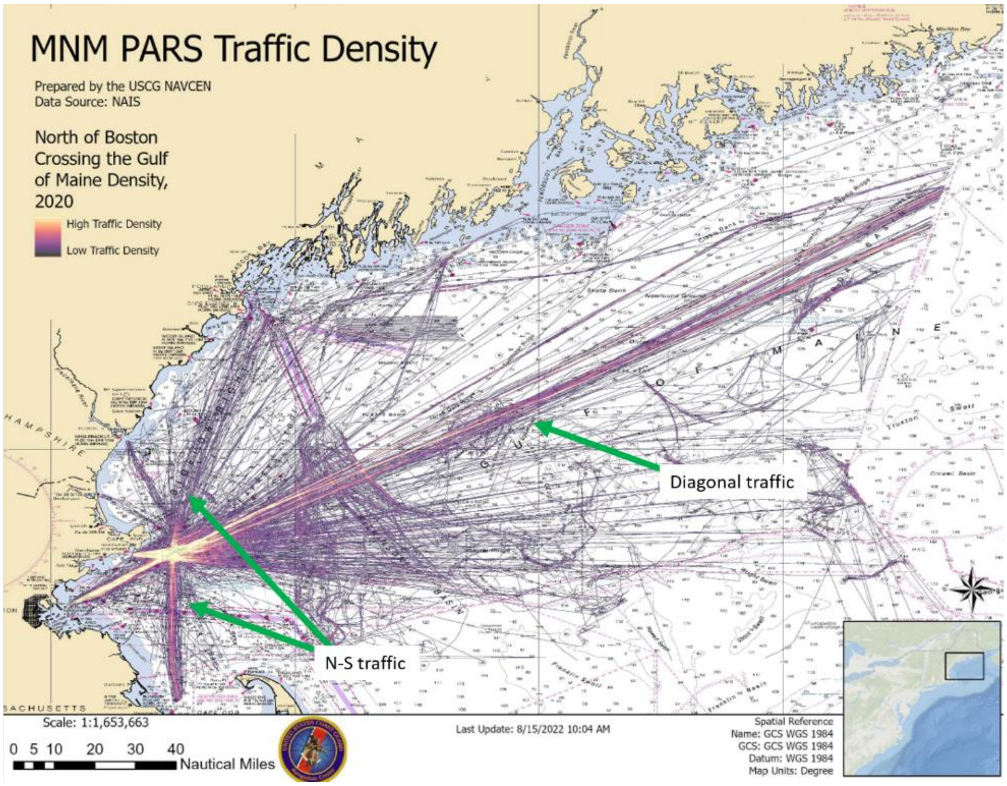


Figure 9: Vessel Traffic Density, Transits Crossing Area of Interest 27 in 2020 Only

The western two-way route, south of Boston (23) is primarily transited by tug-tows, with an occasional cargo ship. Vessels appear to use this route both to approach or depart Boston Harbor and to continue to Portland or Portsmouth further north in the study area.

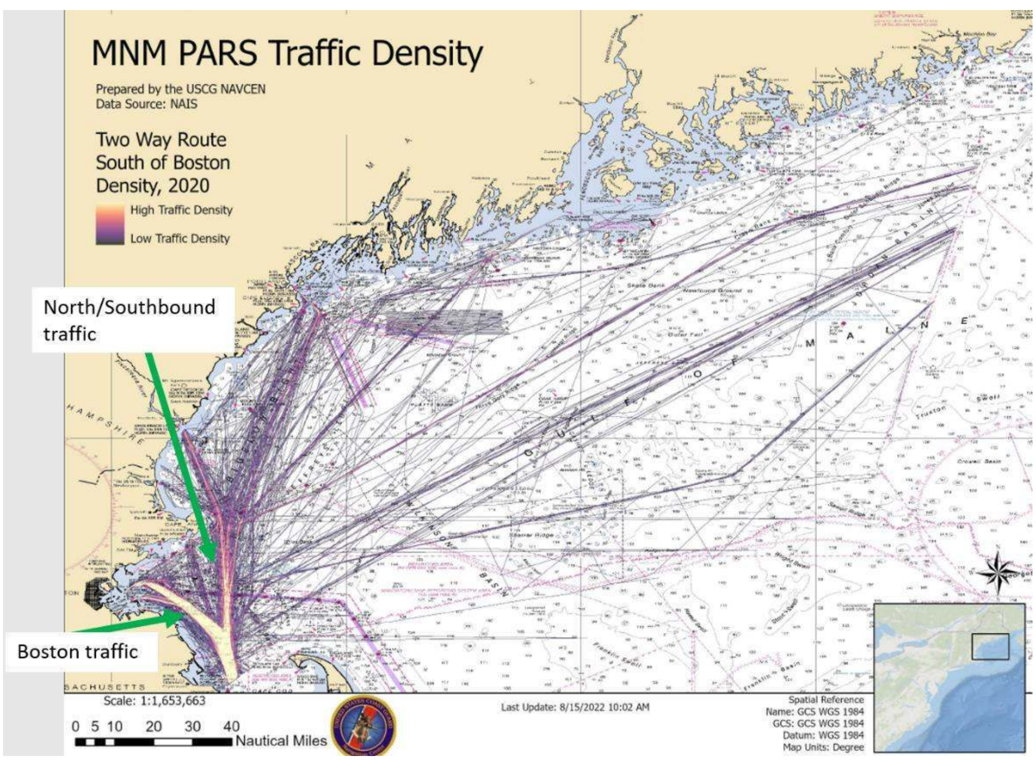


Figure 10: Vessel Traffic Density, Transits Crossing Area of Interest 23 in 2020 Only

Areas Near Portsmouth

The coastal areas north of Boston but south of Portsmouth (8-9) primarily show fishing vessel activity, with some pleasure craft. Similar activity was observed further offshore in areas of interest 24 and 26, in addition to some tug-tow vessels. Activity was similar on line 25 with a few more cargo or tank ships than in the other areas mentioned. These vessels appear to primarily transit between Boston and Portland.

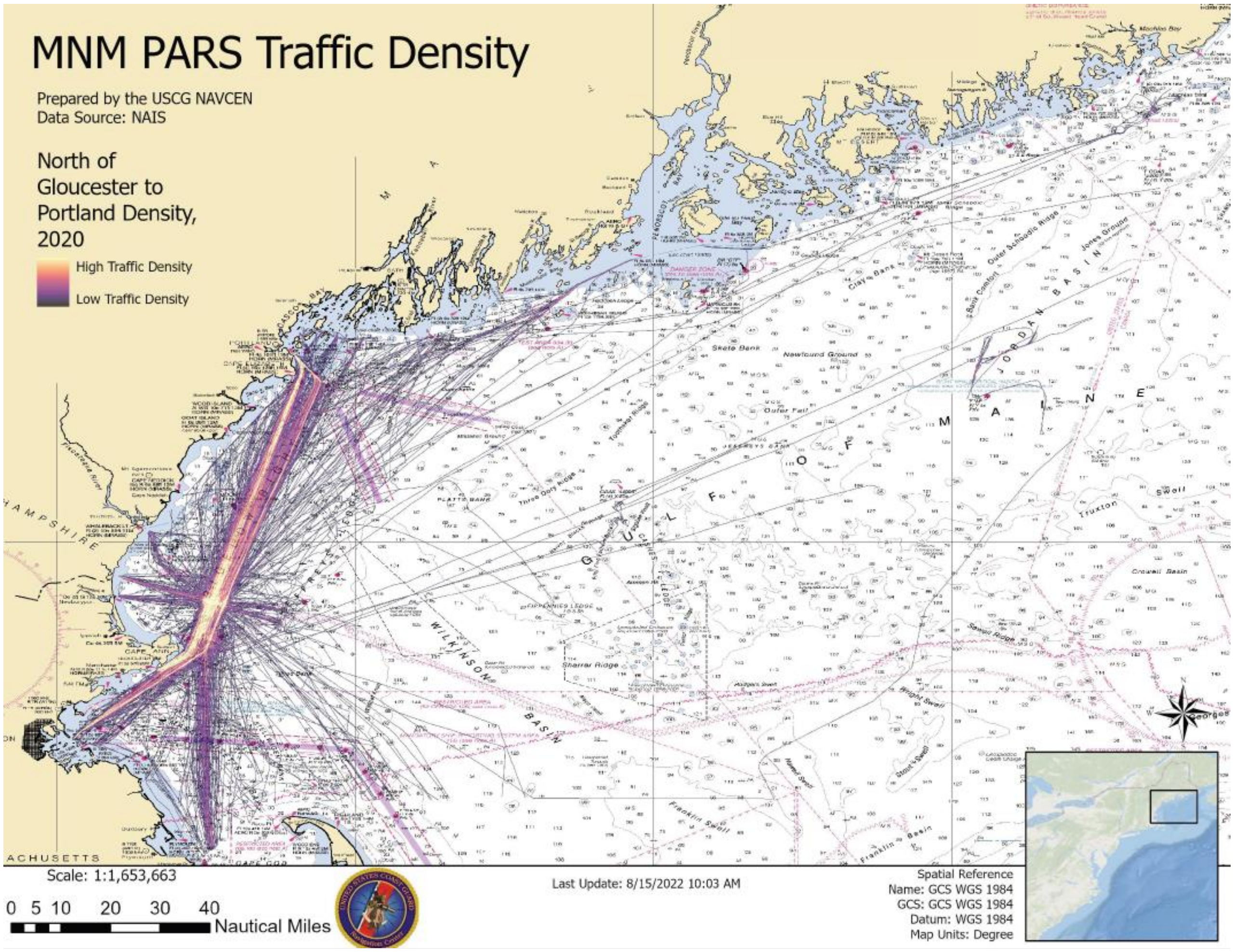


Figure 11: Vessel Traffic Density, Transits Crossing Area of Interest 25 in 2020 Only

Fishing vessel and pleasure craft transits are the most common types approaching Portsmouth (10), with the addition of activity by cargo/tank ships and tug-tows.

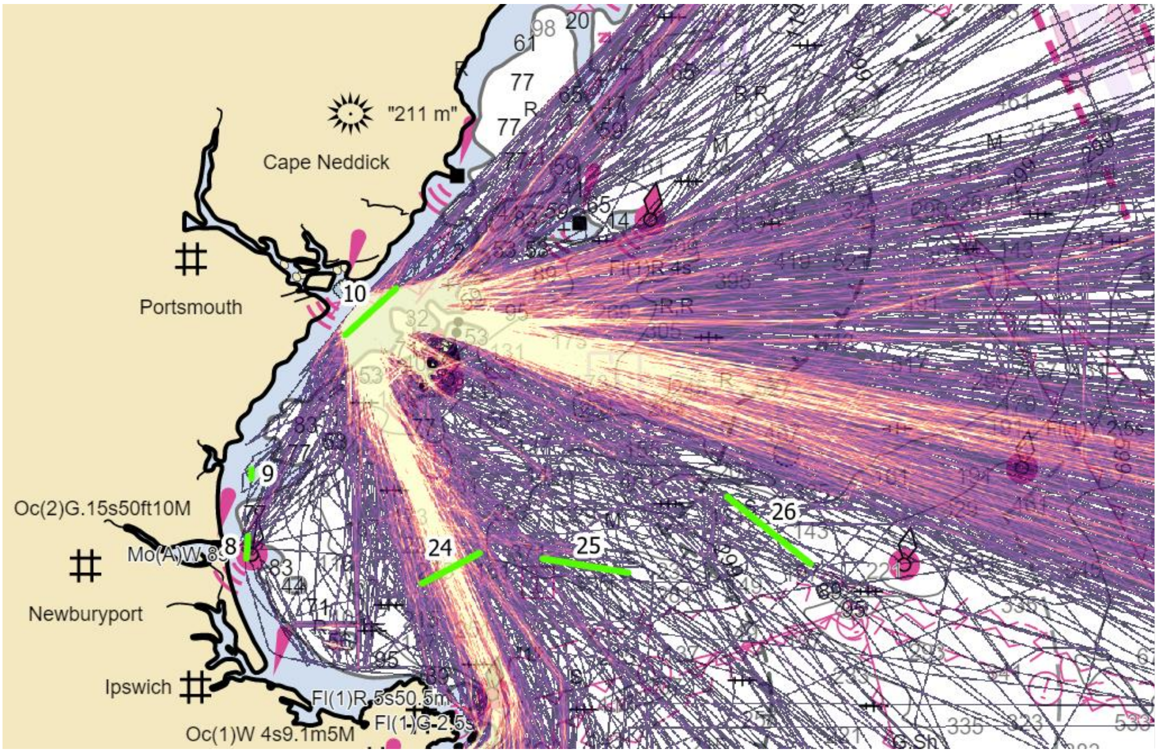


Figure 12: Vessel Traffic Density, Transits Crossing Area of Interest 10 in 2020 Only

Areas Near Portland

On the west side of the precautionary area, south of Portland (11), primarily pleasure craft and fishing vessels were observed. Within the TSSs and more central to the precautionary area (12, 13-14), more cargo and tank ship transits were seen, although fishing vessels, tug-tows, and pleasure craft also transit in this area. A few cargo and tank ships also transit just north of the precautionary area (13) although more pleasure craft were seen in this area than any other type. North of the TSSs and further east of Portland (28), there were also some cargo and tank ship transits recorded outside of the nearby established routing measures.

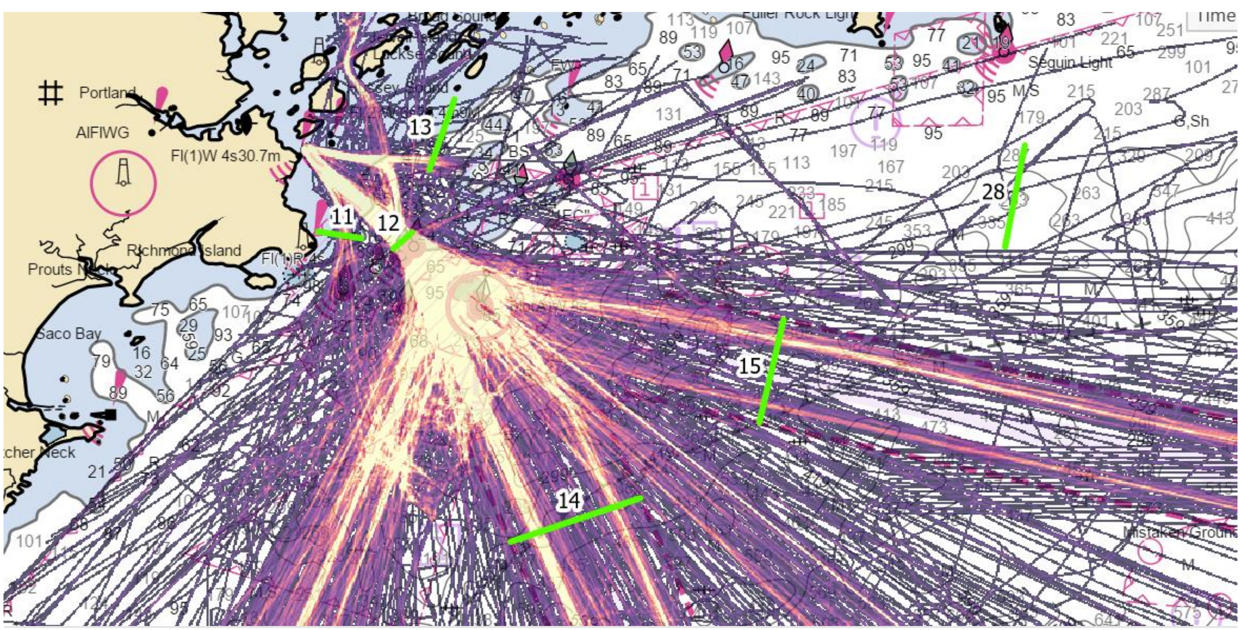


Figure 13: Vessel Traffic Density, Transits Crossing Area of Interest 12 in 2020 Only

Northern Areas

In the northern part of the study area, east of Portland, predominantly pleasure craft and fishing vessels were observed (16-22, 29). A few areas also showed some activity from larger cargo vessels or tug-tows in the recommended route (16, 20).

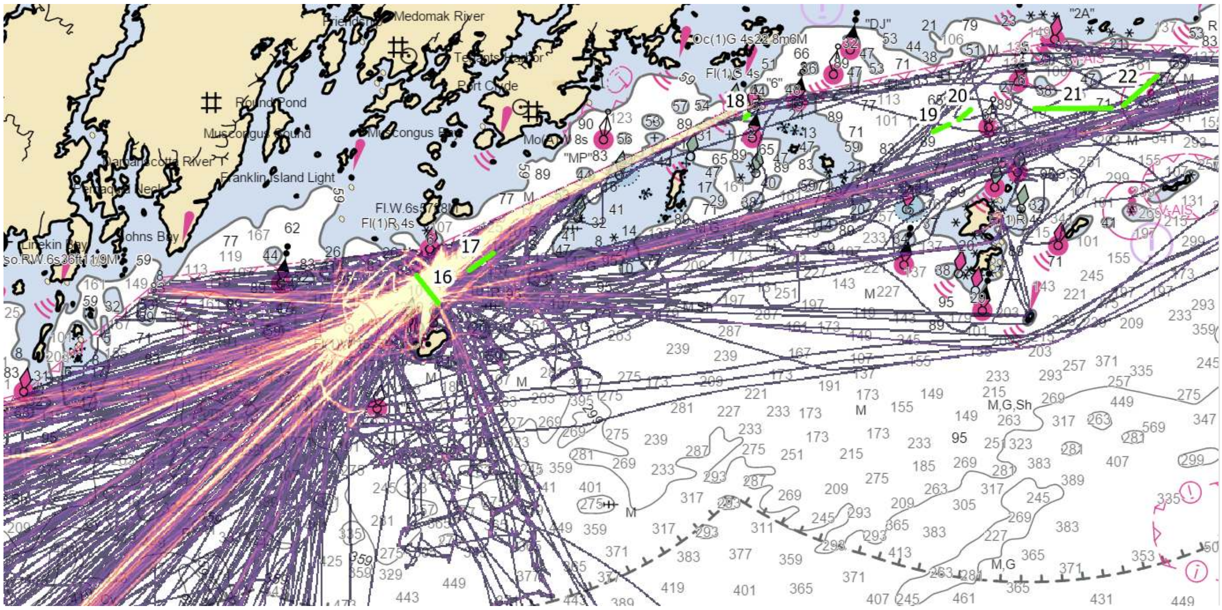


Figure 14: Vessel Traffic Density, Transits Crossing Area of Interest 16 in 2020 Only

WEA

A variety of vessel types historically transited through the proposed Wind Research Array, including smaller pleasure craft, fishing vessels, and larger commercial craft. Vessel origins or destinations that transited in this area varied and included locations throughout the study area.

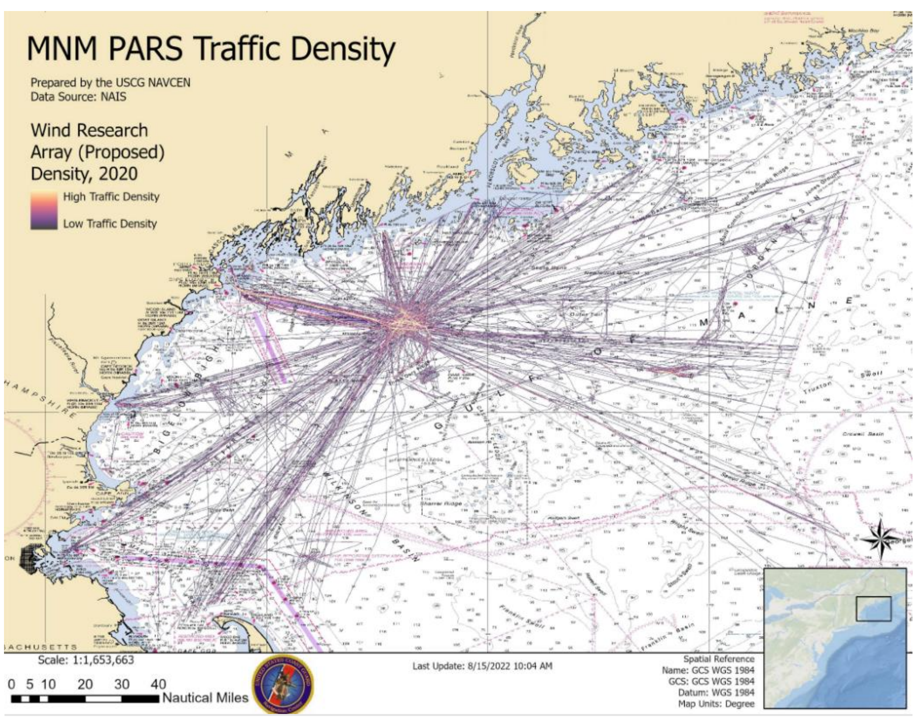


Figure 15: Vessel Traffic Density, Transits Crossing Area of Interest 30 in 2020 Only

Vessel Length Distributions

Vessel length distributions are reported by year in Figure 16 and Figure 17. In Figure 16, each track line with an associated length was counted, therefore some unique vessels are counted multiple times. In Figure 17, each unique vessel is counted once. Most vessels in the study area are between zero and 150 feet in length, which remained consistent over the years. Summary statistics associated with these vessel lengths are also shown in Table 6 and Table 7. Similar to the histograms, Table 6 is based on all track lines with associated lengths, while Table 7 is based on unique vessels only. Additional histograms of vessel lengths by vessel type and for certain areas of interest are also included in Attachment 2 – Vessel Length Histograms by Vessel Type. The additional histograms and summary statistics included in the Attachment are detailed in Table 8.

Note that for all data regarding vessel lengths, this information is self-reported and user-entered. Therefore, many vessels are missing associated dimensions used to calculate overall vessel length. It is also possible that reported dimensions are incorrect; for example, the fields are referenced to meters but the user may incorrectly enter a value that reflects feet. This report only considers and includes values between one and 400 meters. Beyond this filter, and a conversion of meters to feet for the presentation of the data, no additional filters or corrections were made to these data.

Year	Number of Tracks	Mean Vessel Length (ft)	Median Vessel Length (ft)	Maximum Vessel Length (ft)
2019	27654	139	72.2	1148
2020	28012	111	55.8	1201
2021	25398	114	59.1	1207

Table 6: Vessel Lengths by Track Line, Summary Statistics

Year	Number of Unique Vessels	Mean Vessel Length (ft)	Median Vessel Length (ft)	Maximum Vessel Length (ft)
2019	2906	156	52.5	1148
2020	2707	139	49.2	1201
2021	3085	127	49.2	1207

Table 7: Vessel Lengths by Unique Vessel, Summary Statistics

Area of Interest with Vessel Length Breakdown
Portsmouth, Line 10
Vinalhaven 2, Line 21
Two Way Route South of Boston, Line 23
North of Boston Crossing GOM, Line 27
North of Portland TSSs, Line 28

Vessel Group with Vessel Length Breakdown
Cargo or Tanker
Fishing
Other
Passenger
Pleasure Craft
Tug-Tow

Table 8: Additional Vessel Length Breakdowns in the Attachment

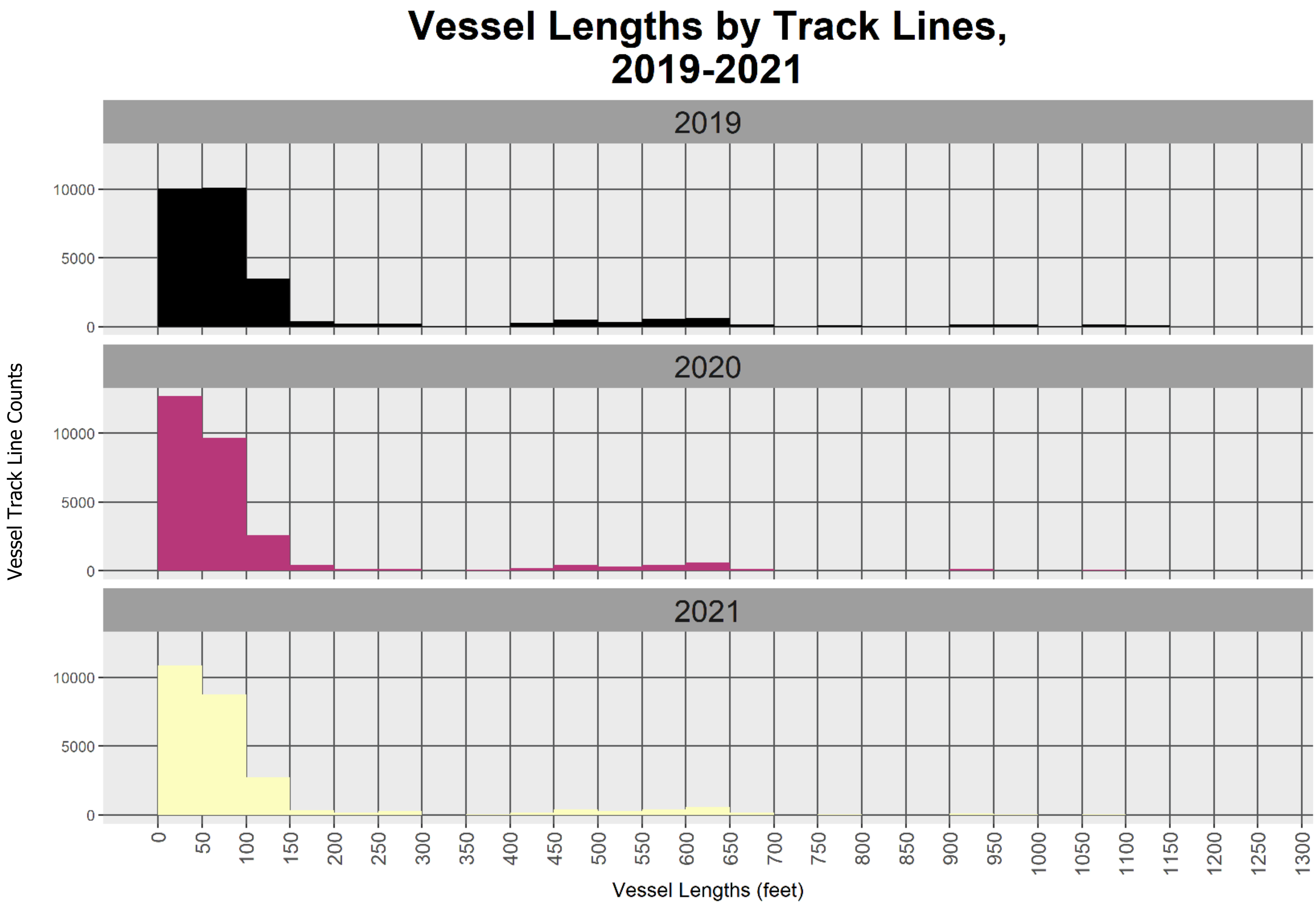


Figure 16: Histogram of Vessel Lengths (Feet) by Vessel Trips, 2019-2021

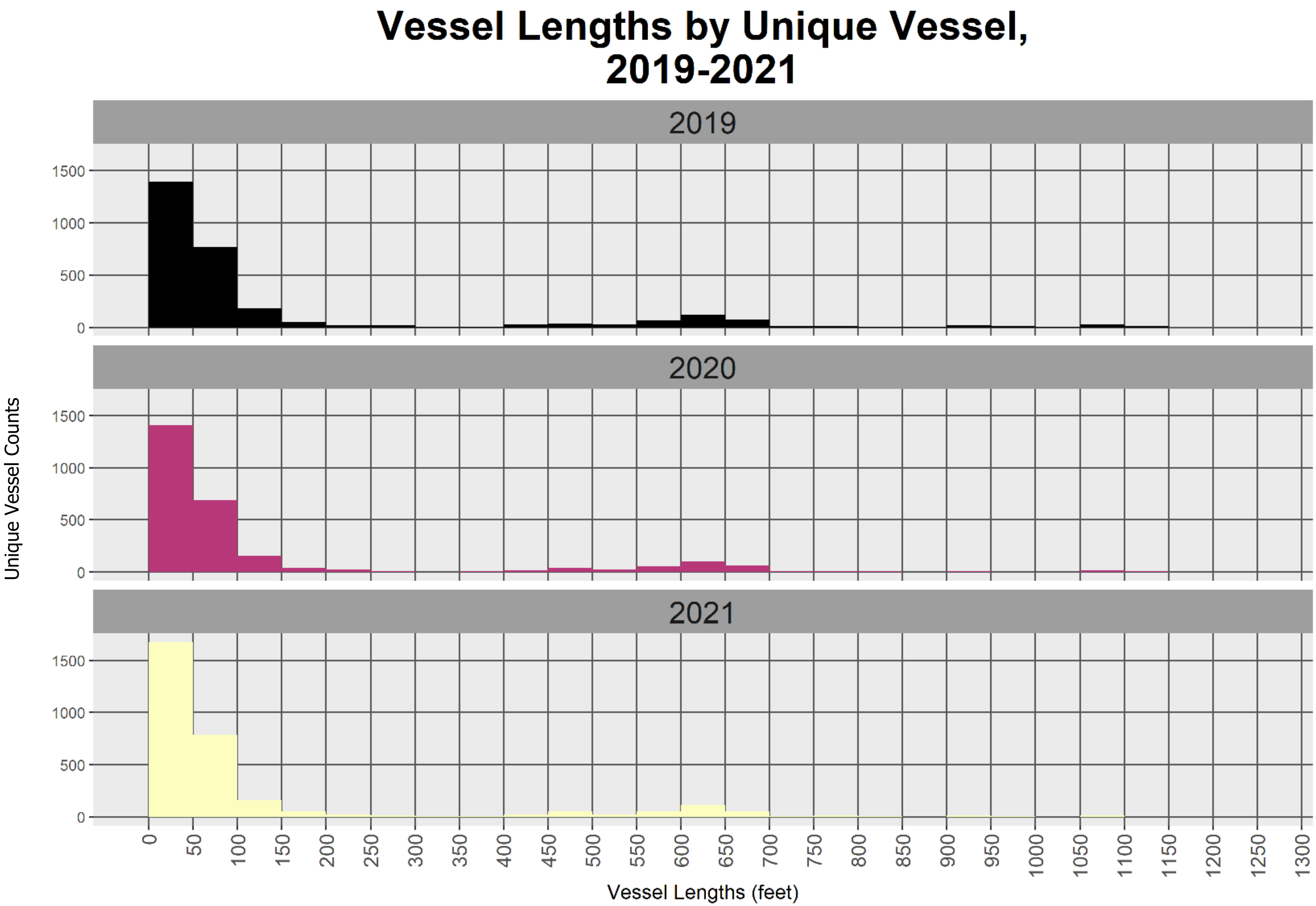


Figure 17: Histogram of Vessel Lengths (Feet) by Unique Vessel, 2019-2021

Vessel Traffic Visualizations

A set of vessel traffic visualizations (both traffic densities and summarize within graphics) by vessel type is provided in Attachment 3 – Vessel Traffic Visualizations. The graphics are organized by year and type in the attachment and are labelled as listed in Table 9 and Table 10.

The traffic patterns observed in the traffic densities for each year are consistent with the findings in the area of interest and traffic composition sections. For example, if many passenger vessel transits were counted in the areas of interest section for a particular inlet, the traffic density for that area also reflected a high density of passenger vessels. Specific observations from these visualizations about each vessel type are discussed in the following pages. It is important to note when analyzing the traffic densities that the color scale on each map is relative and similar colors are not directly comparable. Summarize within graphics, on the other hand, can are comparable to each other as they are shown on the same scale.

	Year		
Vessel Type	**2019**	**2020**	**2021**
All Vessels	D.19.1	D.20.1	D.21.1
Cargo	D.19.2	D.20.2	D.21.2
Fishing	D.19.3	D.20.3	D.21.3
Not Available	D.19.4	D.20.4	D.21.4
Other	D.19.5	D.20.5	D.21.5
Passenger	D.19.6	D.20.6	D.21.6
Pleasure Craft / Sailing	D.19.7	D.20.7	D.21.7
Tankers	D.19.8	D.20.8	D.21.8
Tug / Tow	D.19.9	D.20.9	D.21.9

Table 9: Traffic Density Labels Shown in Attachment 3

	Year		
Vessel Type	**2019**	**2020**	**2021**
All Vessels	S.19.1	S.20.1	S.21.1
Cargo	S.19.2	S.20.2	S.21.2
Fishing	S.19.3	S.20.3	S.21.3
Not Available	S.19.4	S.20.4	S.21.4
Other	S.19.5	S.20.5	S.21.5
Passenger	S.19.6	S.20.6	S.21.6
Pleasure Craft / Sailing	S.19.7	S.20.7	S.21.7
Tankers	S.19.8	S.20.8	S.21.8
Tug / Tow	S.19.9	S.20.9	S.21.9

Table 10: Summarize Within Labels Shown in Attachment 3

All Vessels

Traffic patterns for all vessel types represented by the AIS dataset remained consistent from 2019-2021, although 2020 showed the least traffic. High density areas included approaching and near Boston Harbor and Portland. Although not as dense as Boston or Portland, there were also higher density areas near Portsmouth.

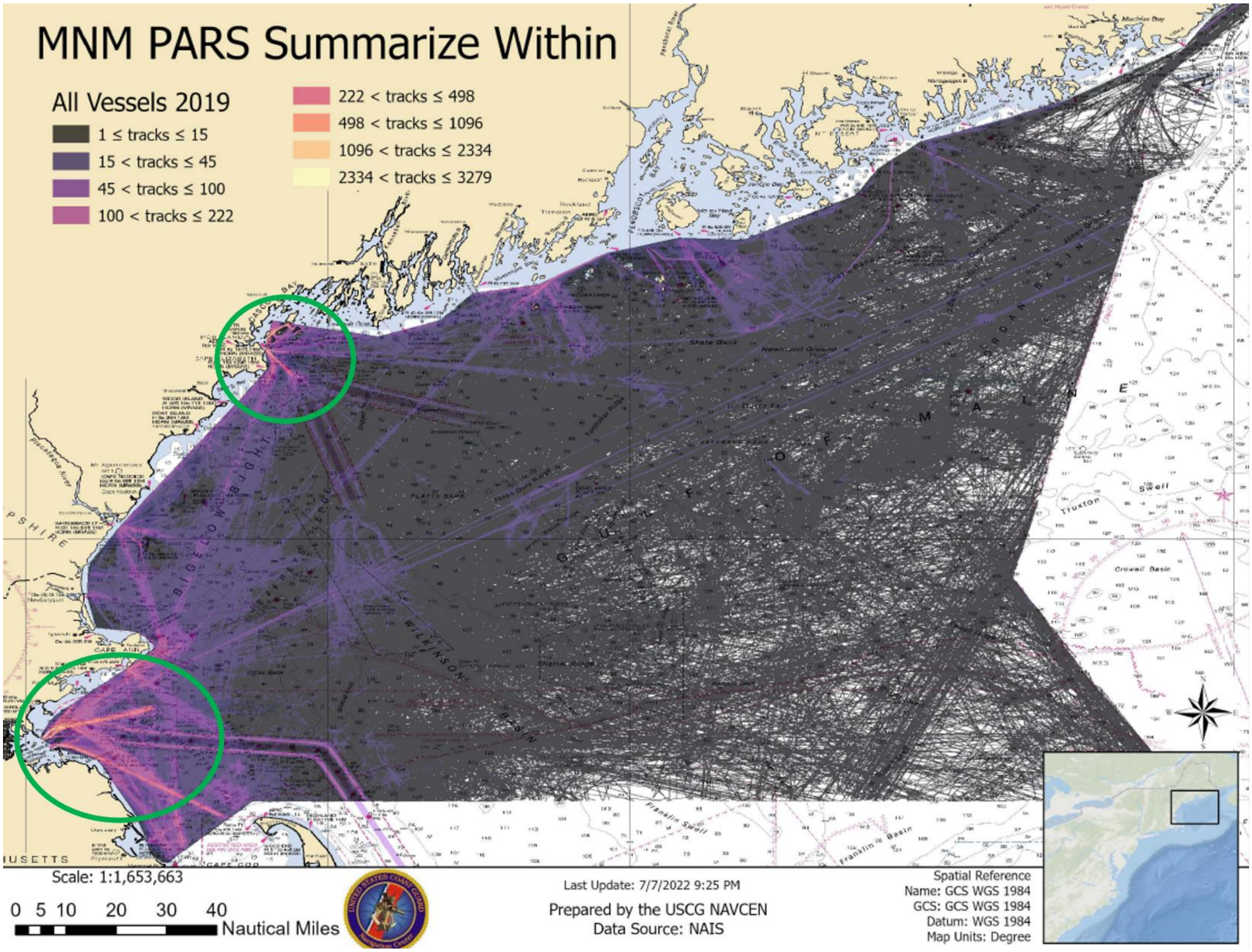


Figure 18: All Vessels Traffic Density Sample

Cargo and Tanker

Cargo and tanker transit patterns remained consistent from 2019-2021. The highest density of cargo and tanker vessel activity was observed approaching or departing Boston, through established TSSs and precautionary areas. Traffic was also observed near Portsmouth, and in the TSS and precautionary area near Portland. For cargo ships, traffic was consistently observed north of the established routing measures moving across the study area roughly west to east or east to west. This is labeled "Portland Northern Traffic" in Figure 19. Tankers consistently moved diagonally through the study area approaching or departing Boston, labelled "Diagonal Traffic" in Figure 19.

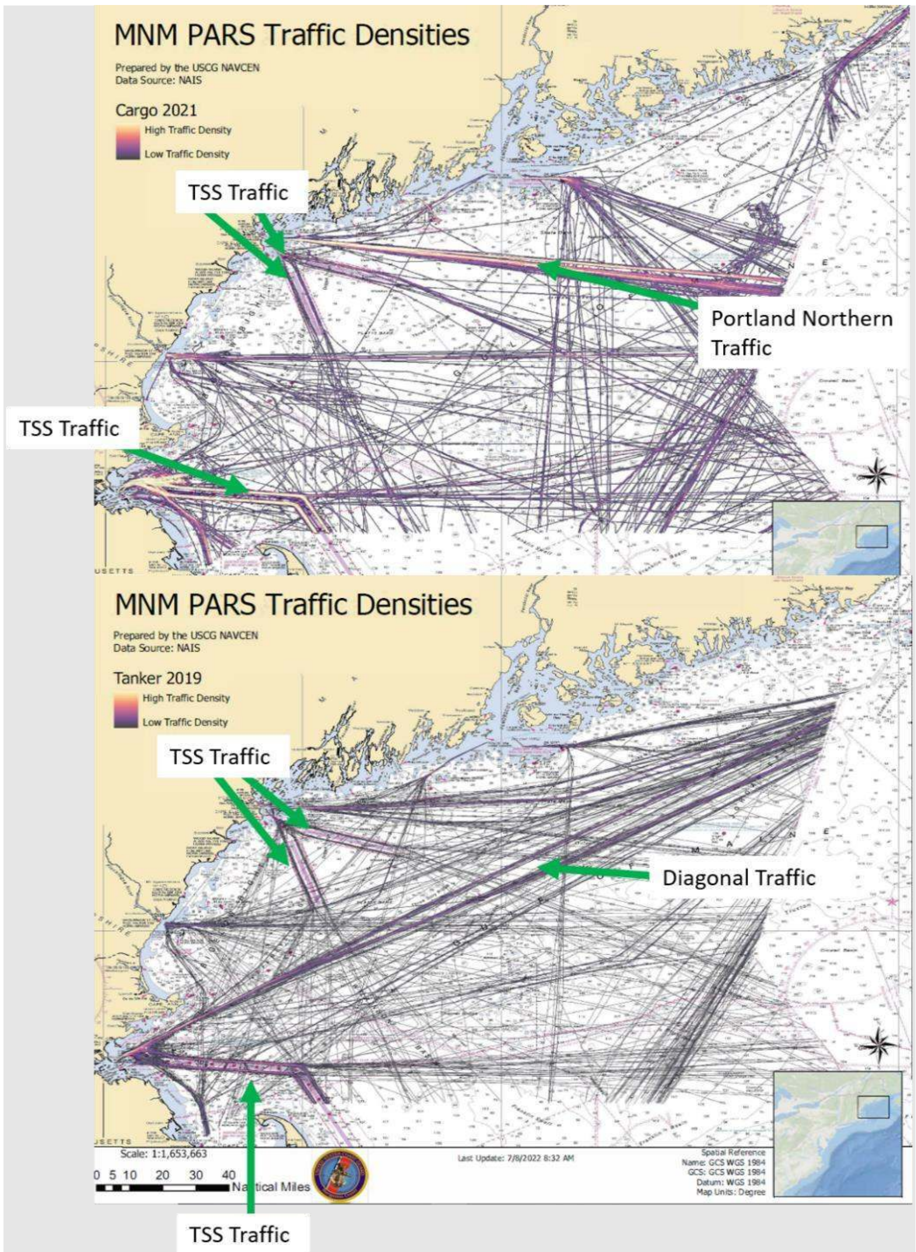


Figure 19: Cargo Vessels' Traffic Density Sample

Fishing

Fishing vessel patterns offshore showed some variation year to year, however, fishing vessels consistently operated throughout the study area. The high prevalence of fishing vessels seen crossing many of the areas of interest is consistent with the fishing vessel patterns seen in the traffic visualizations.

Not Available

The visualizations for vessels with the type 'not available' show similar activity to all vessels, with more activity closer to shore, suggesting that there are vessels with a variety of types in this category.

Other

Other vessels were primarily observed near Boston. Some activity was also present in the northern part of the study area.

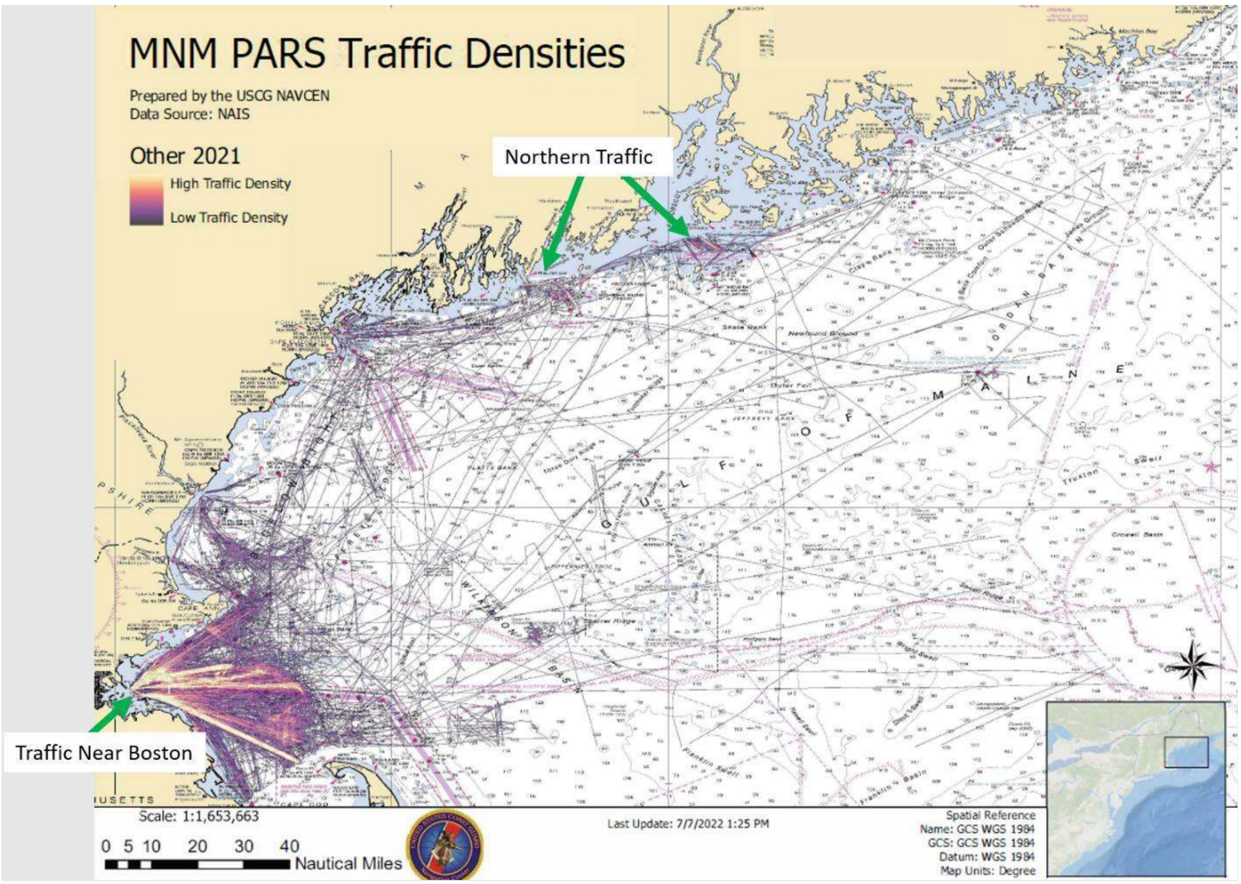


Figure 20: Other Vessels' Traffic Density Sample

Passenger

Passenger vessel traffic patterns showed some variation from 2019-2021. In 2020, traffic within the TSSs appears diminished compared to 2019 and 2021. Transits were observed more broadly across the study area in 2019 than in the other years. The area circled in Figure 21 that is east and north of Gloucester also appears to have had diminished activity in 2020.

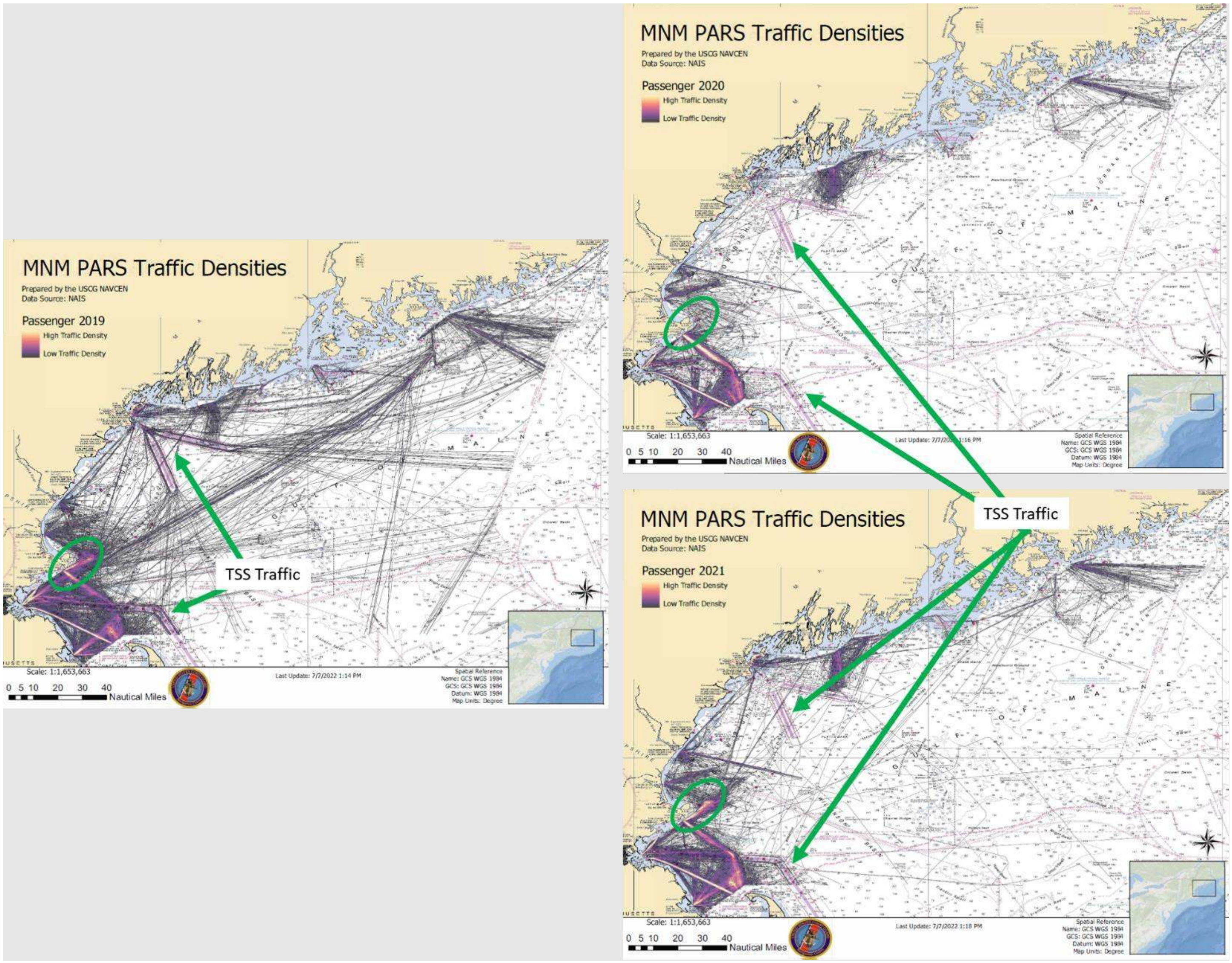


Figure 21: Passenger Vessels' Traffic Densities Comparison

Pleasure Craft/Sailing

The transit patterns for pleasure craft remained consistent from year to year, with higher density areas near the shoreline.

Tug/Tow

Tug-tow transits showed high density near Boston, Portland, and Portsmouth. There are consistently transits observed through Bigelow Bite to or from Portland, down the coast and out of the study area, or to Boston.

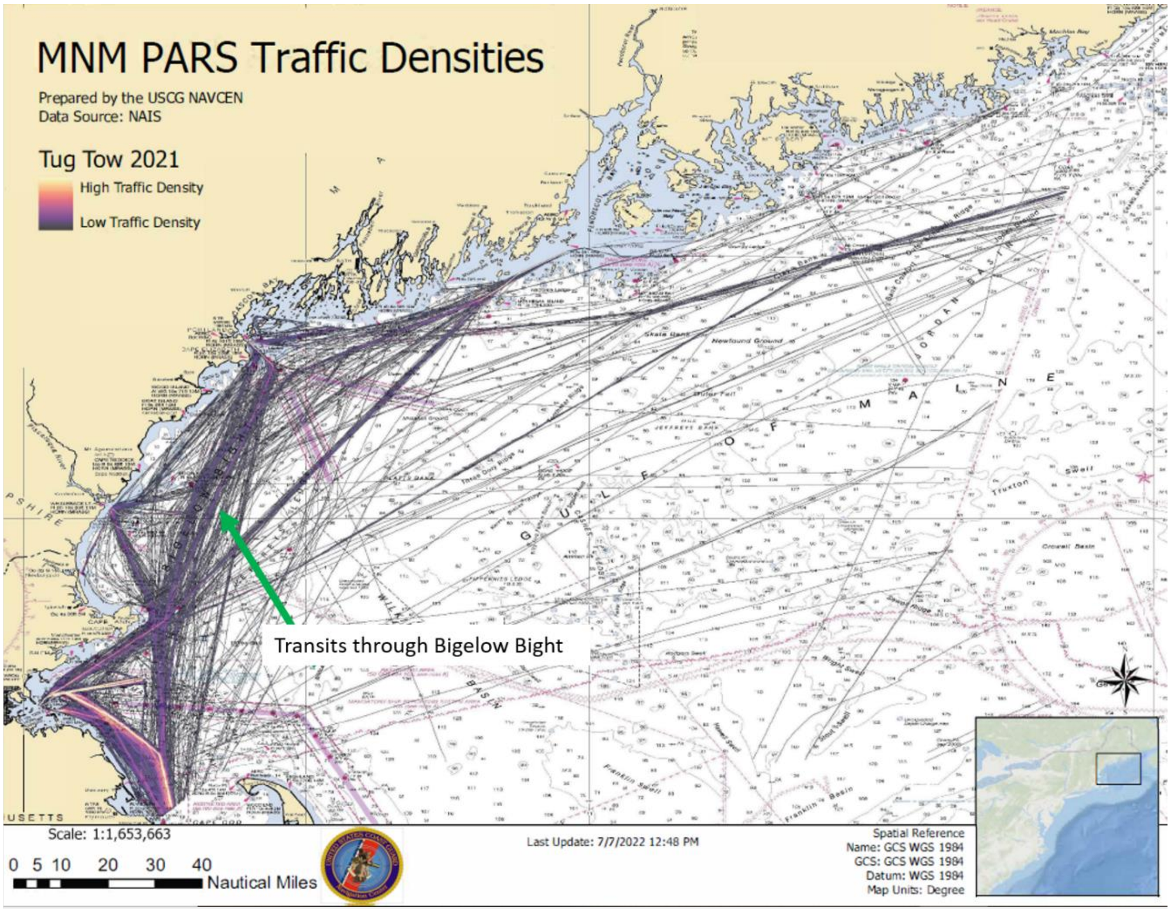
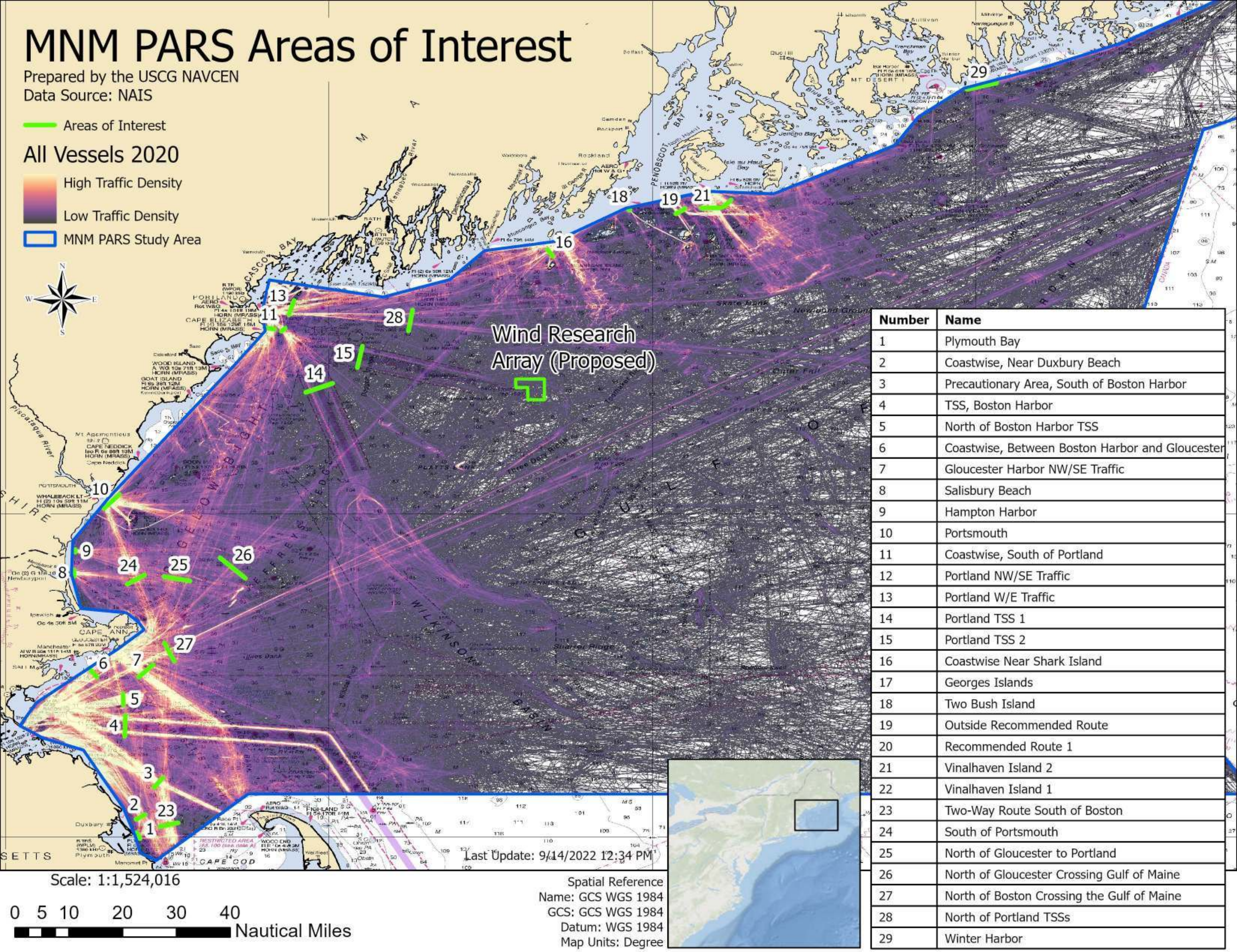


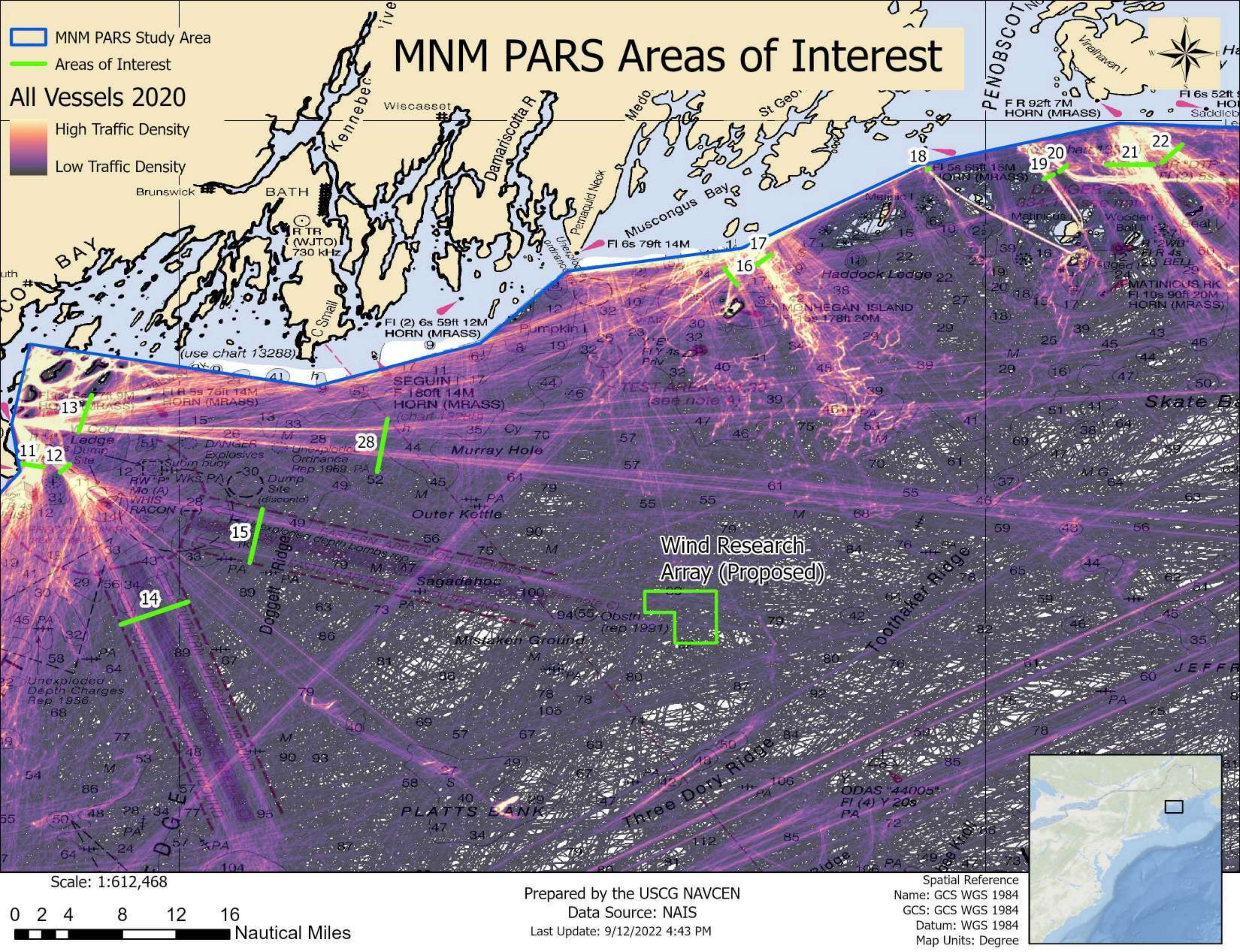
Figure 22: Tug Tow Vessels' Traffic Density Sample

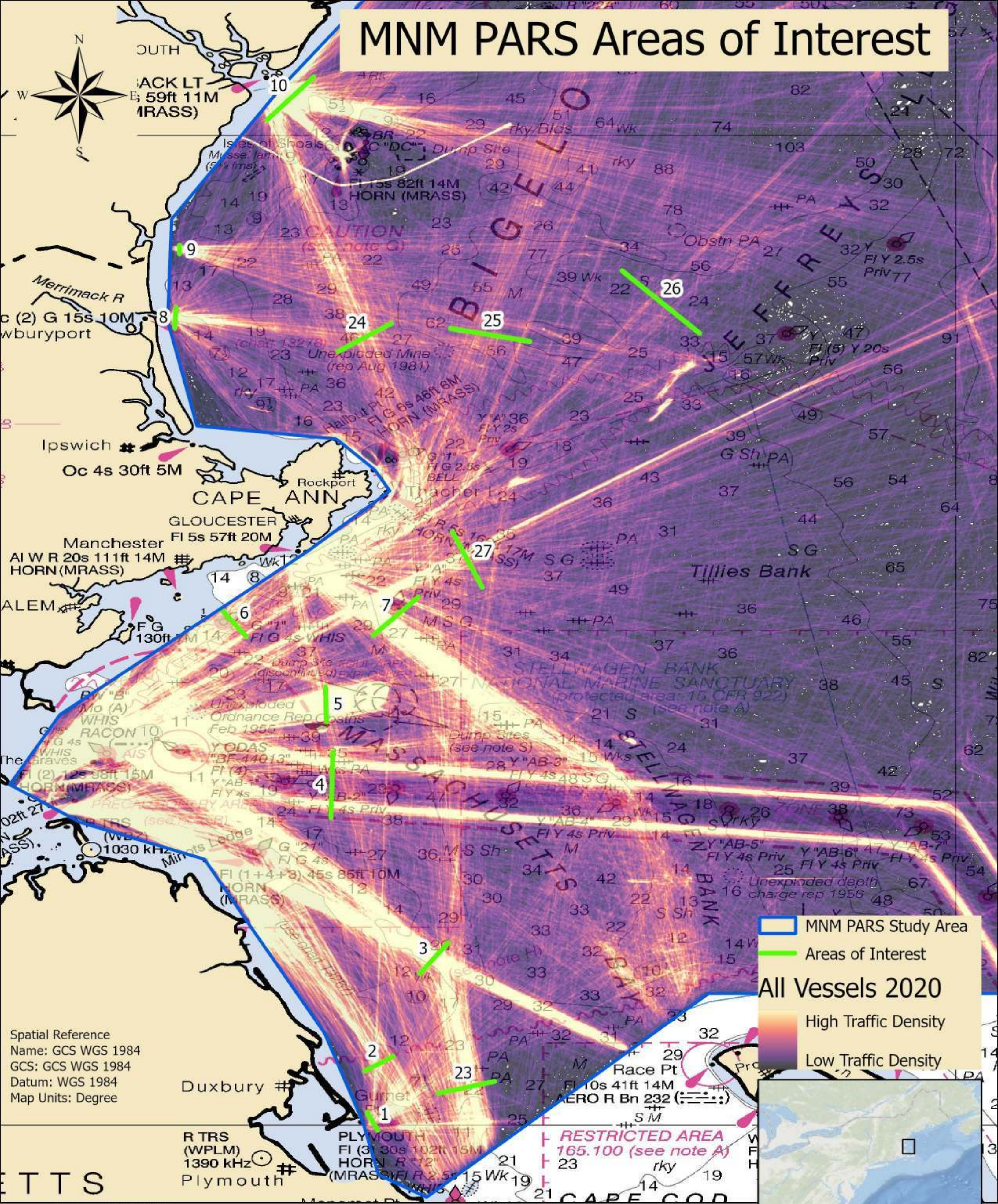
Attachment 1- Areas of Interest Data

Vessel traffic information for selected areas in the MNM PARS study area



Number	Name
1	Plymouth Bay
2	Coastwise, Near Duxbury Beach
3	Precautionary Area, South of Boston Harbor
4	TSS, Boston Harbor
5	North of Boston Harbor TSS
6	Coastwise, Between Boston Harbor and Gloucester
7	Gloucester Harbor NW/SE Traffic
8	Salisbury Beach
9	Hampton Harbor
10	Portsmouth
11	Coastwise, South of Portland
12	Portland NW/SE Traffic
13	Portland W/E Traffic
14	Portland TSS 1
15	Portland TSS 2
16	Coastwise Near Shark Island
17	Georges Islands
18	Two Bush Island
19	Outside Recommended Route
20	Recommended Route 1
21	Vinalhaven Island 2
22	Vinalhaven Island 1
23	Two-Way Route South of Boston
24	South of Portsmouth
25	North of Gloucester to Portland
26	North of Gloucester Crossing Gulf of Maine
27	North of Boston Crossing the Gulf of Maine
28	North of Portland TSSs
29	Winter Harbor


MNM PARS Areas of Interest
MNM PARS Study Area
Areas of Interest
All Vessels 2020
High Traffic Density
Low Traffic Density
11
12
13
14
15
16
17
18
19
20
21
22
28
Wind Research Array (Proposed)
Brunswick
BATH
Wiscasset
Kennebec
Damariscotta R
Pemaquid Neck
Muscongus Bay
St Geo.
PENOBSCOT
Vinalhaven I
Matinicus
Haddock Ledge
MONHEGAN ISLAND
Murray Hole
Outer Kettle
Sagadahoc
Doggett Ridge
Mistaken Ground
Toothaker Ridge
Three Dory Ridge
PLATTS BANK
Skate Ba
SEGUIN I
Scale: 1:612,468
0 2 4 8 12 16
Nautical Miles
Prepared by the USCG NAVCEN
Data Source: NAIS
Last Update: 9/12/2022 4:43 PM
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree



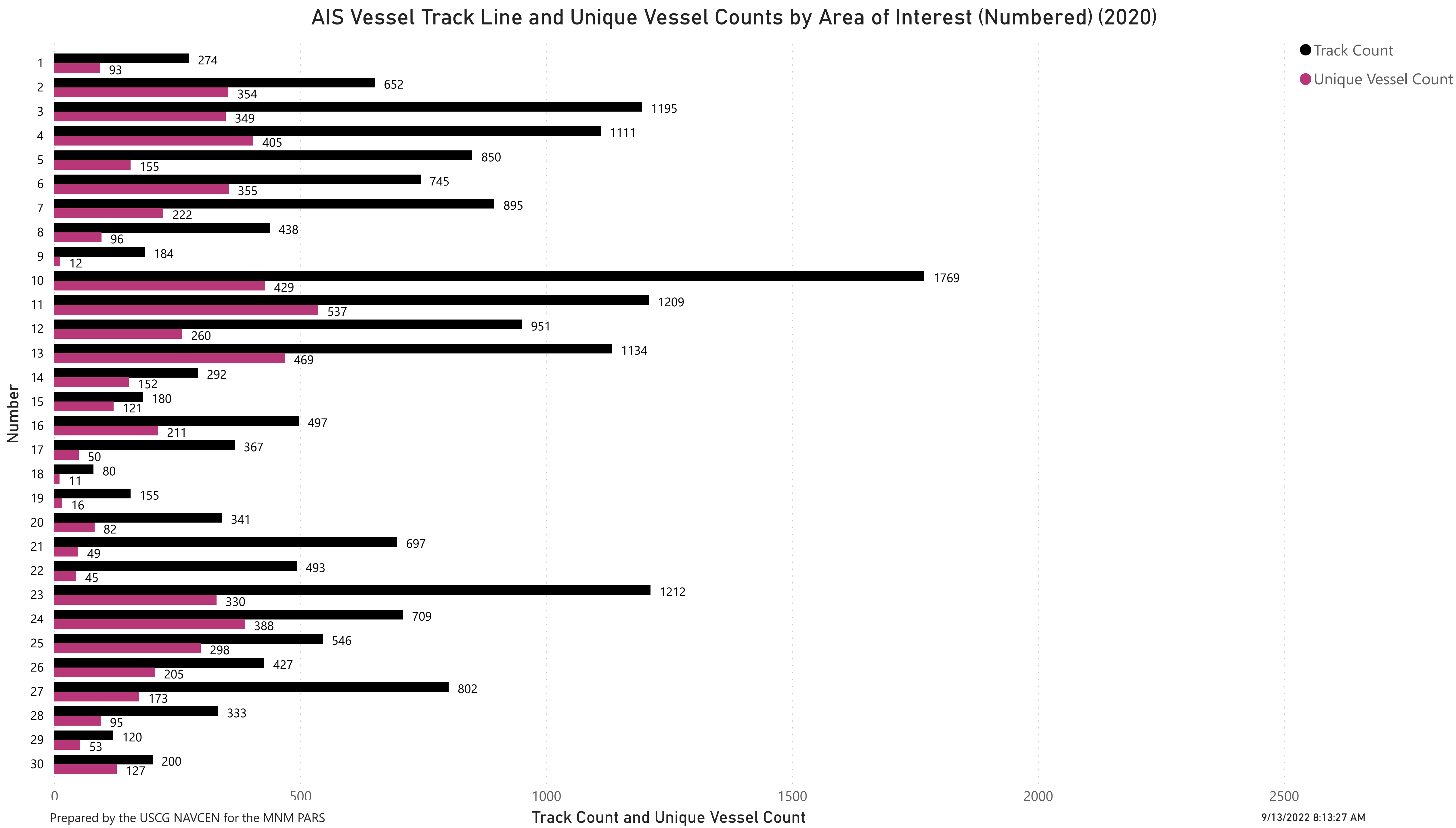
Scale: 1:520,197

0 1.5 3 6 9 12 Nautical Miles

Prepared by the USCG NAVCEN
Data Source: NAIS
Last Update: 8/15/2022 10:52 AM

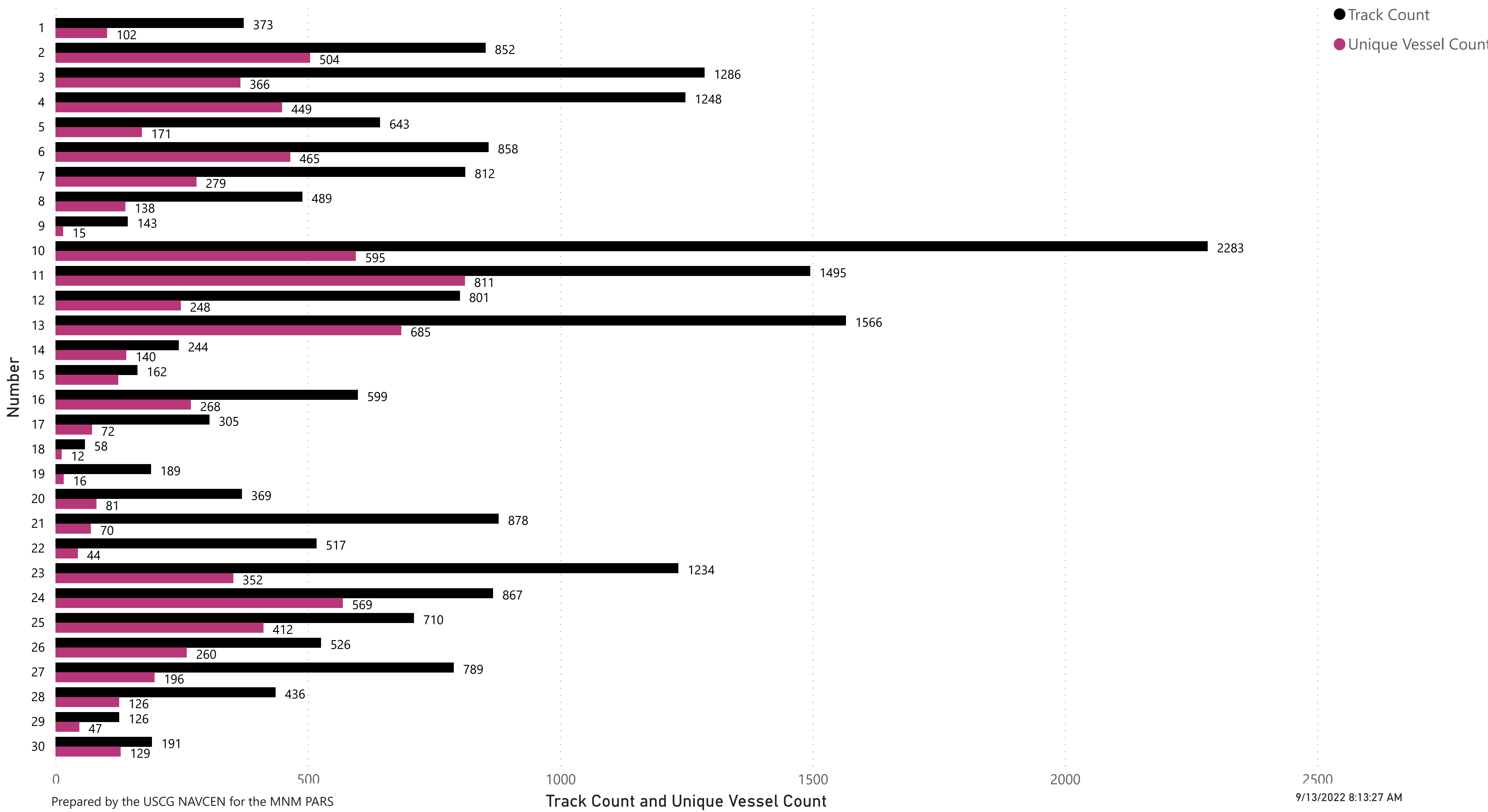
Name	Number (Linked)
Plymouth Bay	1
Coastwise, Near Duxsbury Beach	2
Precautionary Area, South of Boston Harbor	3
TSS, Boston Harbor	4
North of Boston Harbor TSS	5
Coastwise, Between Boston Harbor and Gloucester	6
Gloucester Harbor NW/SE Traffic	7
Salisbury Beach	8
Hampton Harbor	9
Portsmouth	10
Coastwise, South of Portland	11
Portland NW/SE Traffic	12
Portland W/E Traffic	13
Portland TSS 1	14
Portland TSS 2	15
Coastwise Near Shark Island	16
Georges Islands	17
Two Bush Island	18
Outside Recommended Route	19
Recommended Route 1	20
Vinalhaven Island 2	21
Vinalhaven Island 1	22
Two-Way Route South of Boston	23
South of Portsmouth	24
North of Gloucester to Portland	25
North of Gloucester Crossing Gulf of Maine	26
North of Boston Crossing Gulf of Maine	27
North of Portland TSSs	28
Winter Harbor	29
Wind Research Array (Proposed)	30

AIS Vessel Track Line and Unique Vessel Counts by Area of Interest (Numbered) (2019)



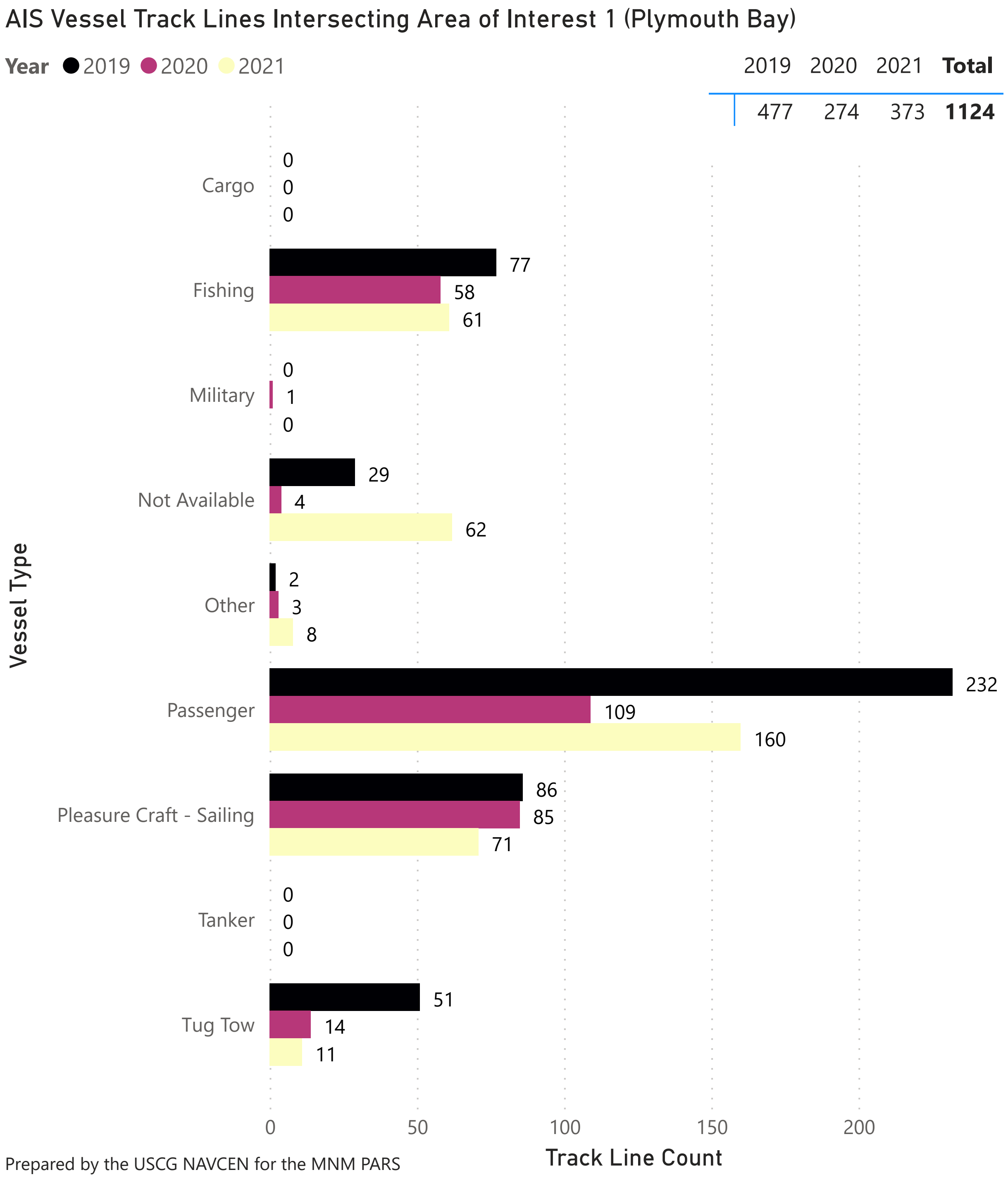
AIS Vessel Track Line and Unique Vessel Counts by Area of Interest (Numbered) (2020)
Track Count
Unique Vessel Count
Number
1
274
93
2
652
354
3
1195
349
4
1111
405
5
850
155
6
745
355
7
895
222
8
438
96
9
184
12
10
1769
429
11
1209
537
12
951
260
13
1134
469
14
292
152
15
180
121
16
497
211
17
367
50
18
80
11
19
155
16
20
341
82
21
697
49
22
493
45
23
1212
330
24
709
388
25
546
298
26
427
205
27
802
173
28
333
95
29
120
53
30
200
127
0
500
1000
1500
2000
2500
Track Count and Unique Vessel Count
Prepared by the USCG NAVCEN for the MNM PARS
9/13/2022 8:13:27 AM

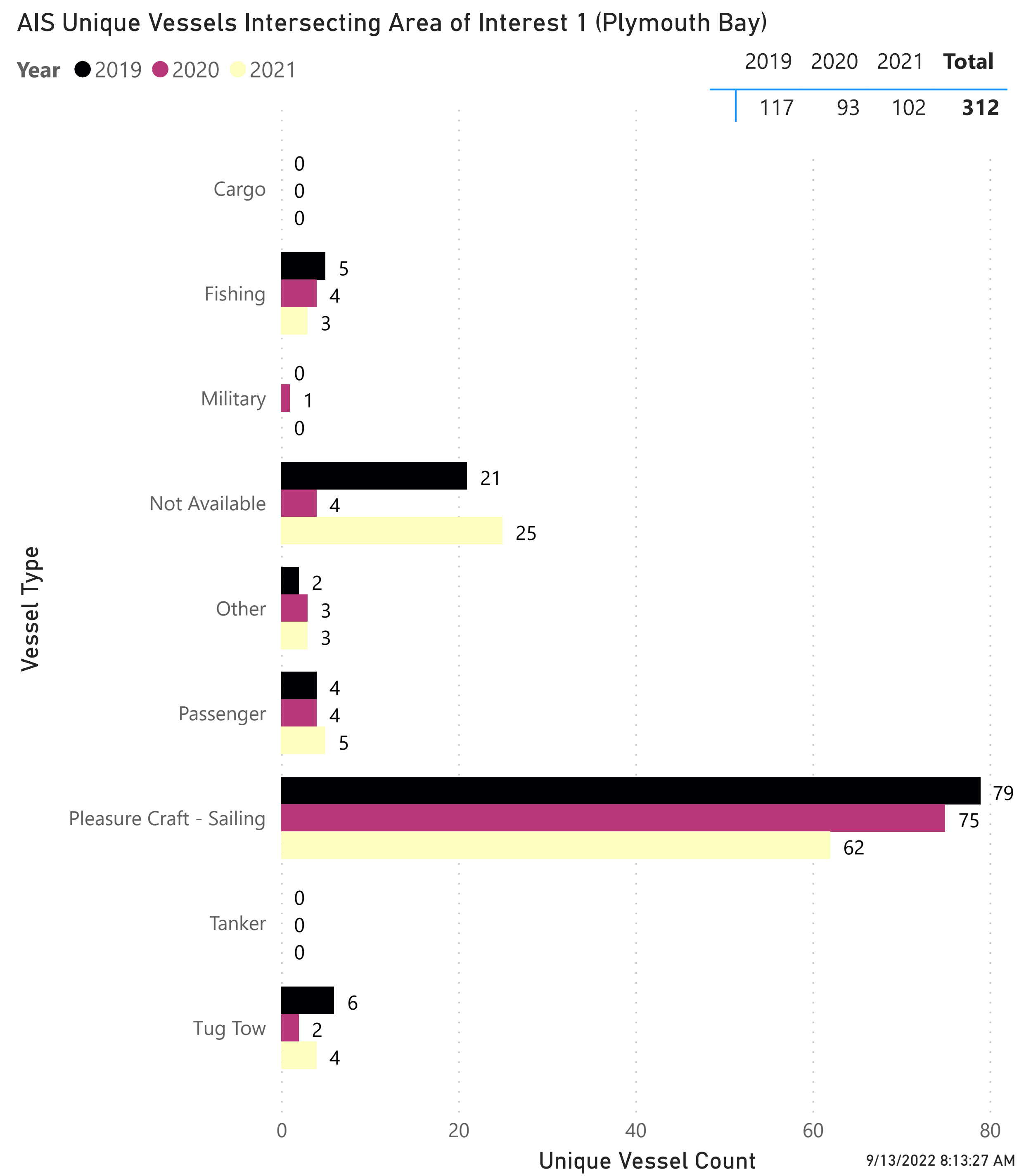
AIS Vessel Track Line and Unique Vessel Counts by Area of Interest (Numbered) (2021)



Prepared by the USCG NAVCEN for the MNM PARS

9/13/2022 8:13:27 AM





Prepared by the USCG NAVCEN for the MNM PARS

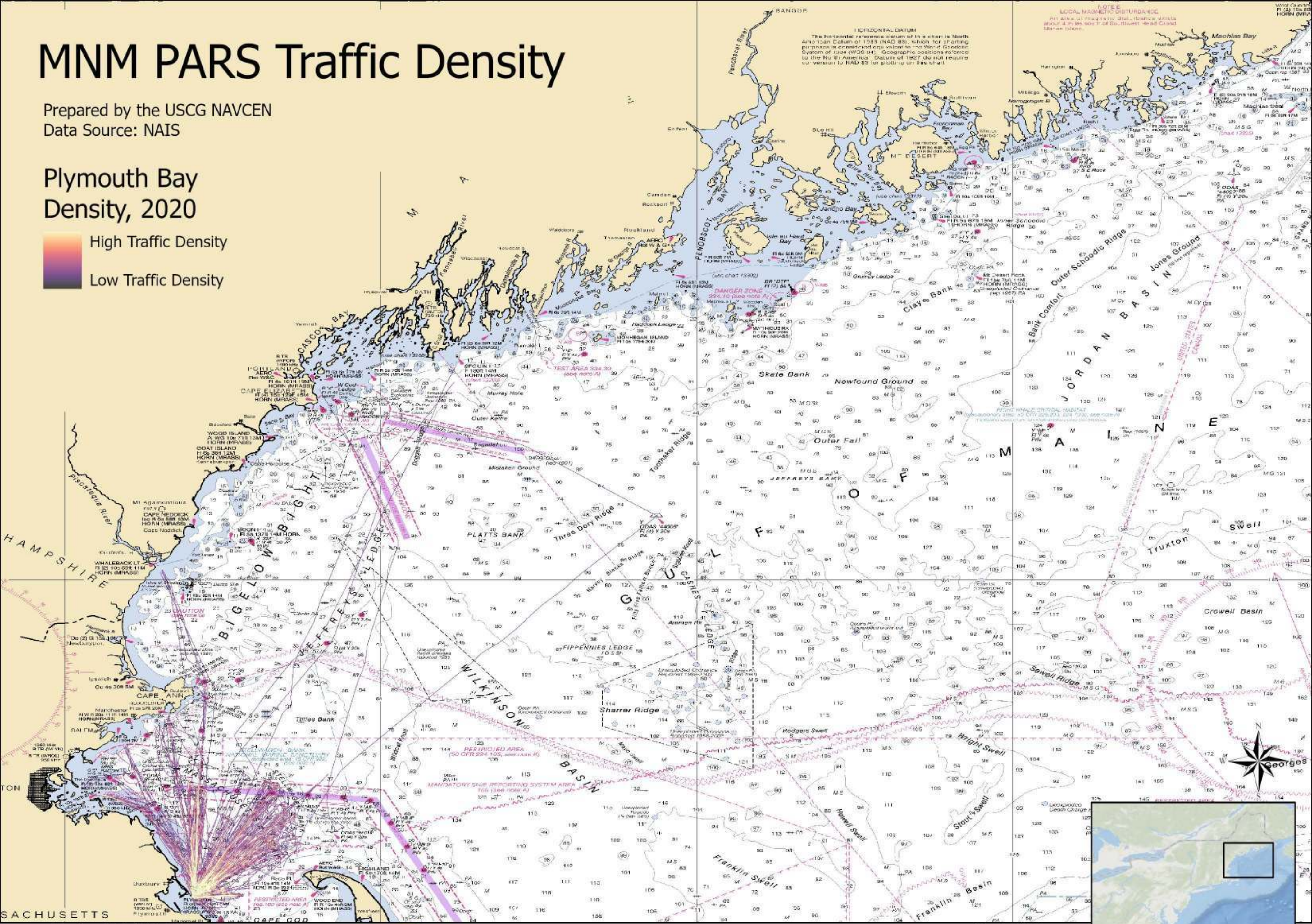
9/13/2022 8:13:27 AM

MNM PARS Traffic Density

Prepared by the USCG NAVCEN
Data Source: NAIS

Plymouth Bay
Density, 2020

High Traffic Density
Low Traffic Density



Scale: 1:1,653,663

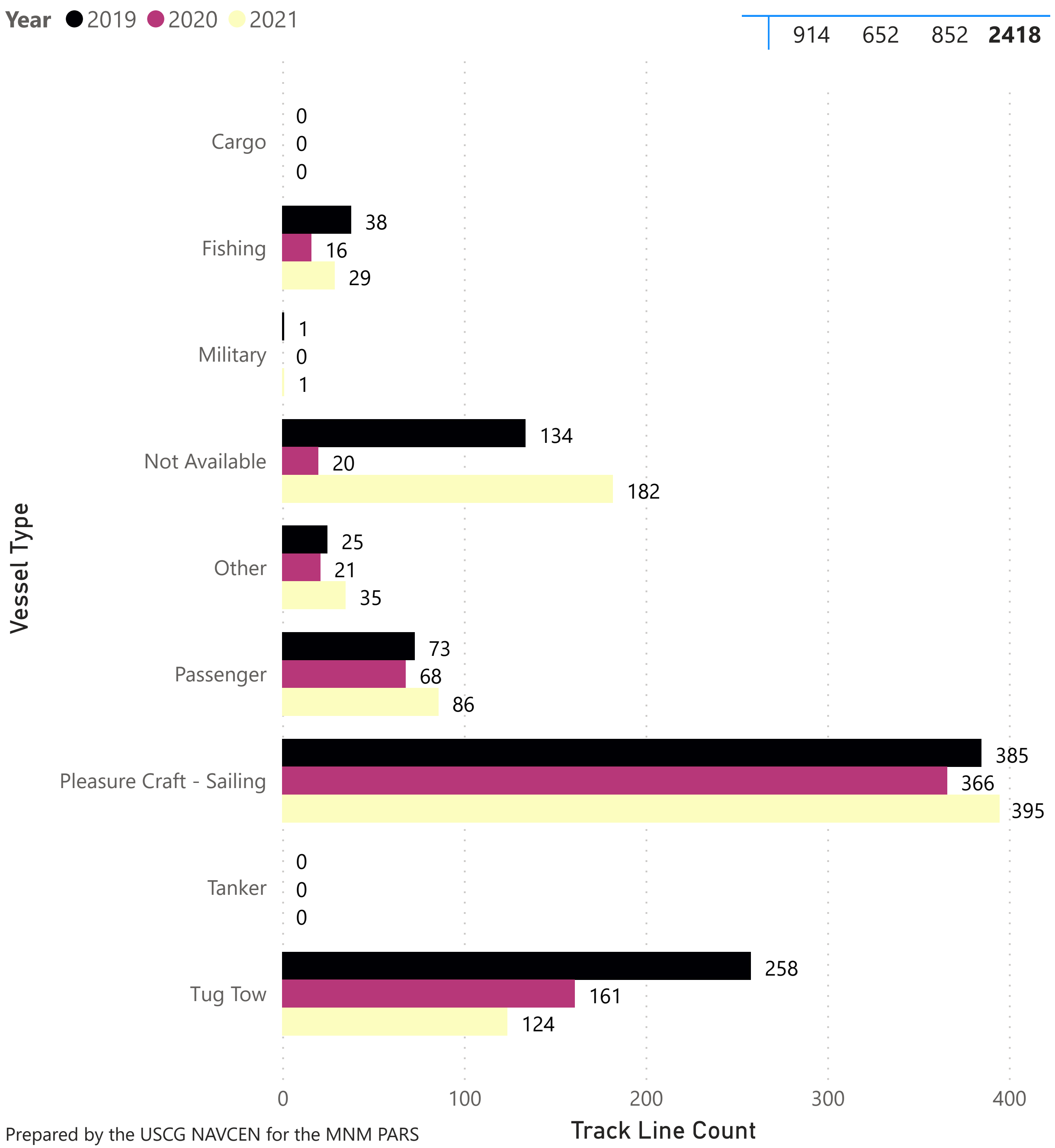
0 5 10 20 30 40 Nautical Miles

Last Update: 9/23/2022 2:58 PM

Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

AIS Vessel Track Lines Intersecting Area of Interest 2 (Coastwise, Near Duxsbury Beach)

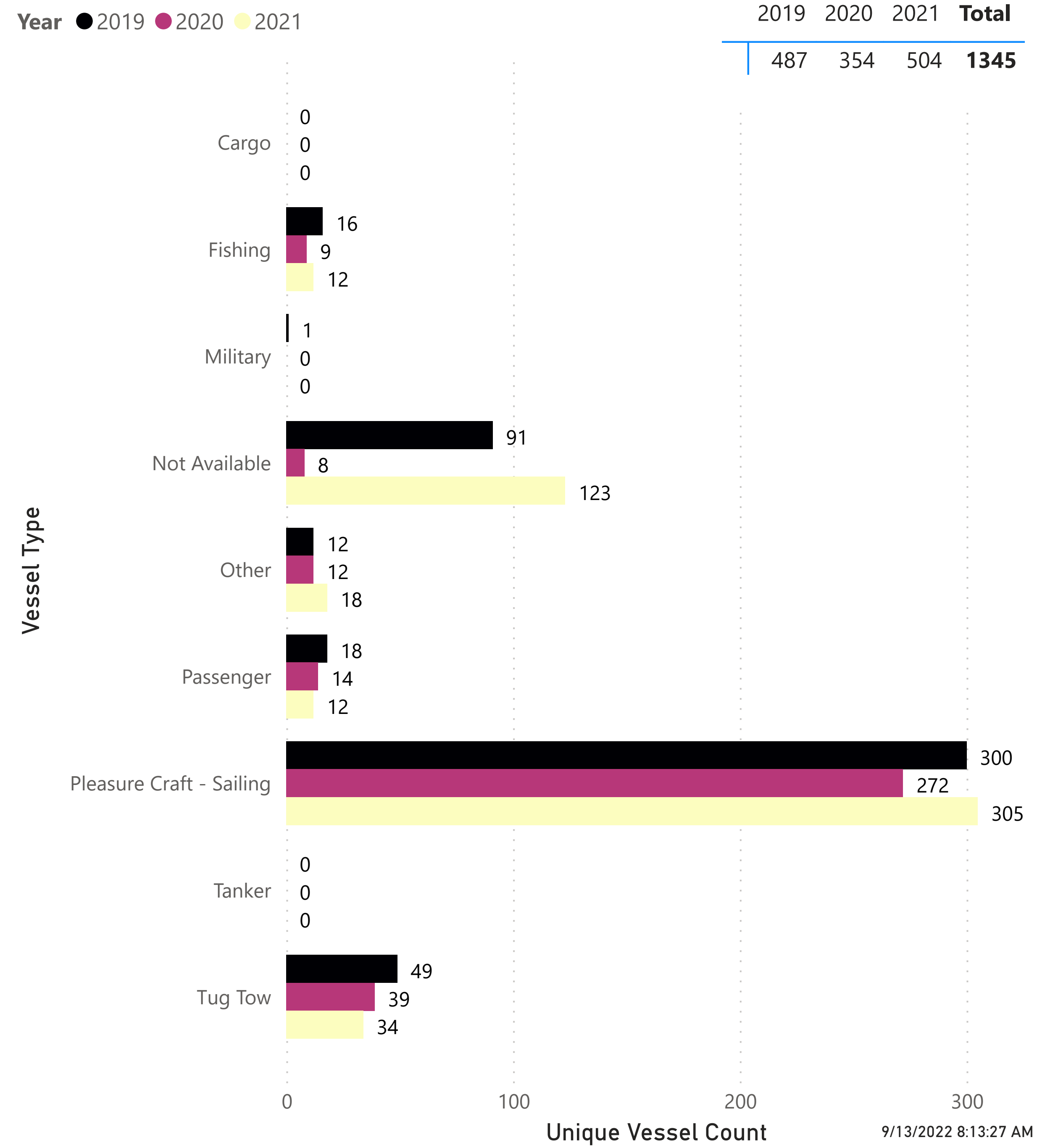
2019	2020	2021	**Total**
914	652	852	**2418**



Prepared by the USCG NAVCEN for the MNM PARS

AIS Unique Vessels Intersecting Area of Interest 2 (Coastwise, Near Duxsbury Beach)

2019	2020	2021	**Total**
487	354	504	**1345**



9/13/2022 8:13:27 AM

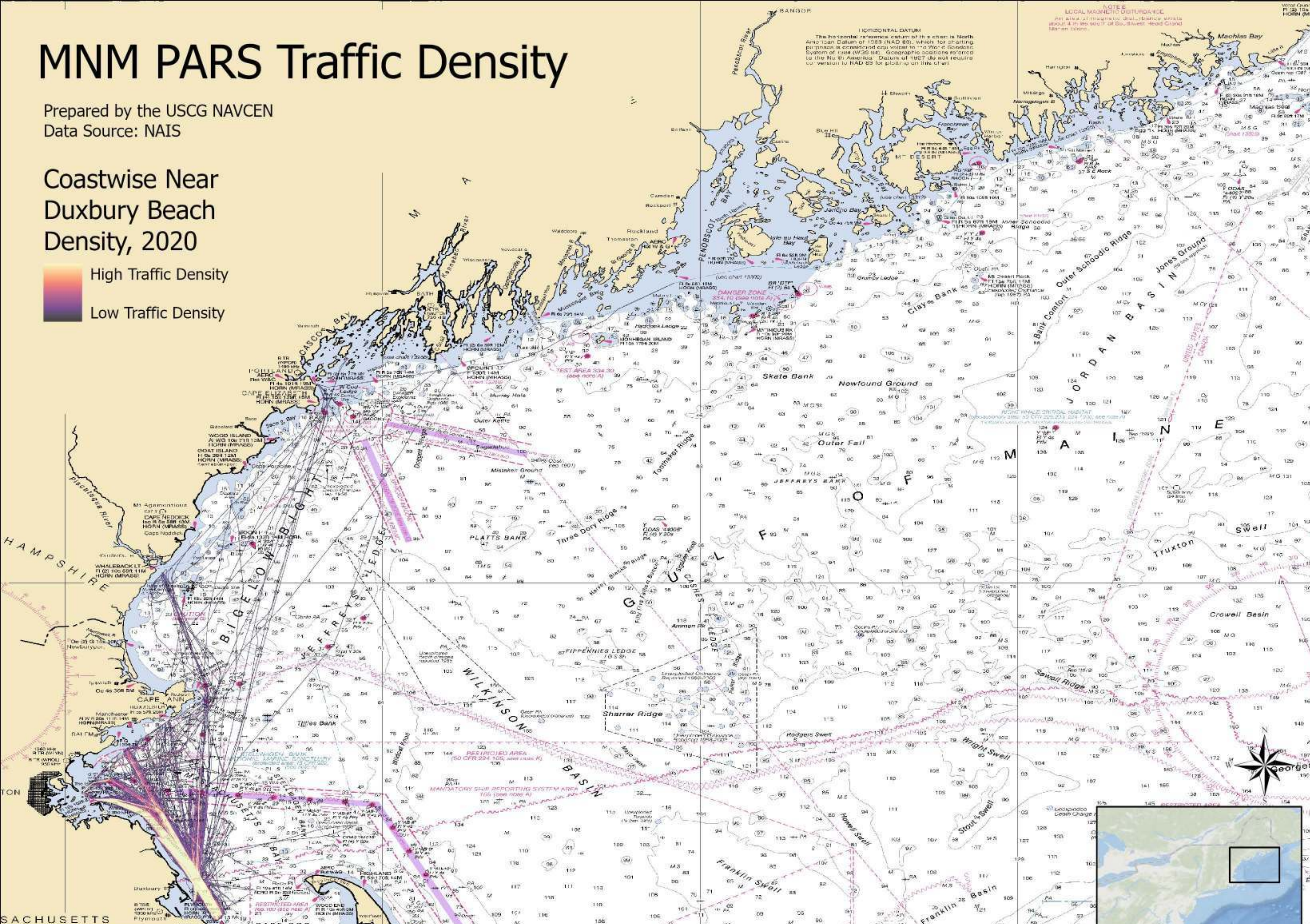
MNM PARS Traffic Density

Prepared by the USCG NAVCEN
Data Source: NAIS

Coastwise Near
Duxbury Beach
Density, 2020

High Traffic Density

Low Traffic Density



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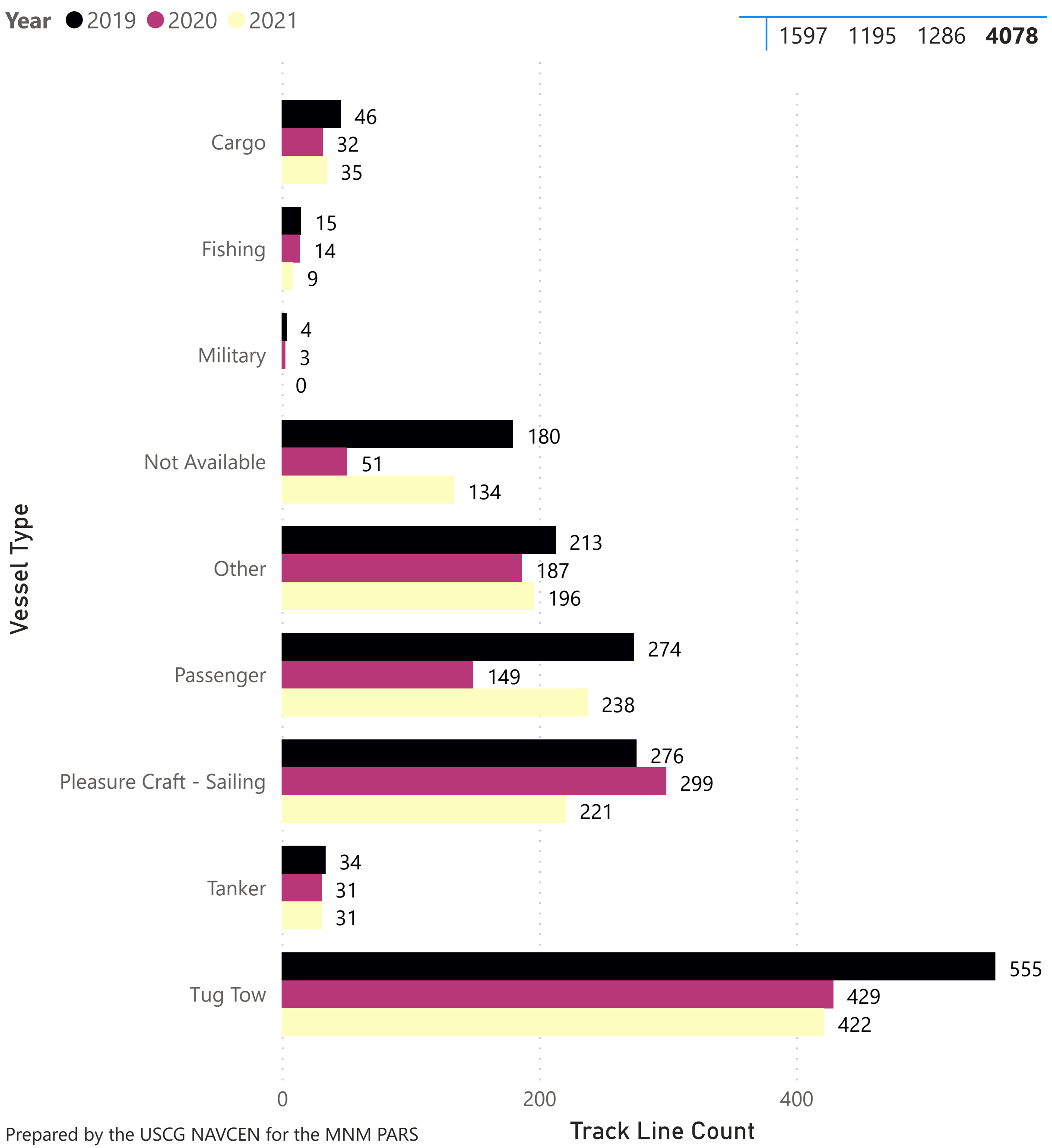
0 5 10 20 30 40 Nautical Miles

Last Update: 9/23/2022 2:54 PM

Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

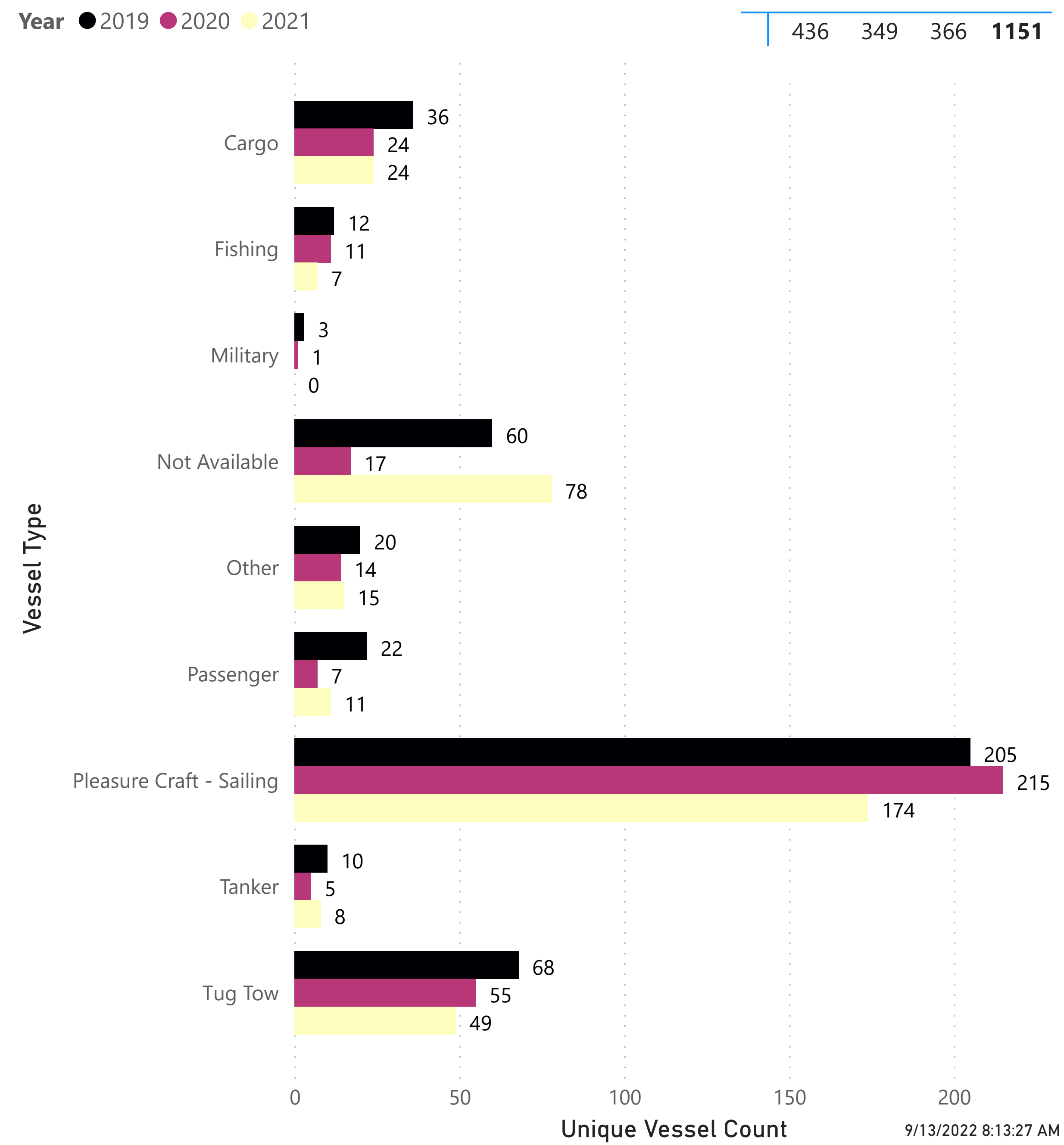
AIS Vessel Track Lines Intersecting Area of Interest 3 (Precautionary Area, South of Boston Harbor)

2019	2020	2021	**Total**
1597	1195	1286	**4078**



AIS Unique Vessels Intersecting Area of Interest 3 (Precautionary Area, South of Boston Harbor)

2019	2020	2021	**Total**
436	349	366	**1151**



Prepared by the USCG NAVCEN for the MNM PARS

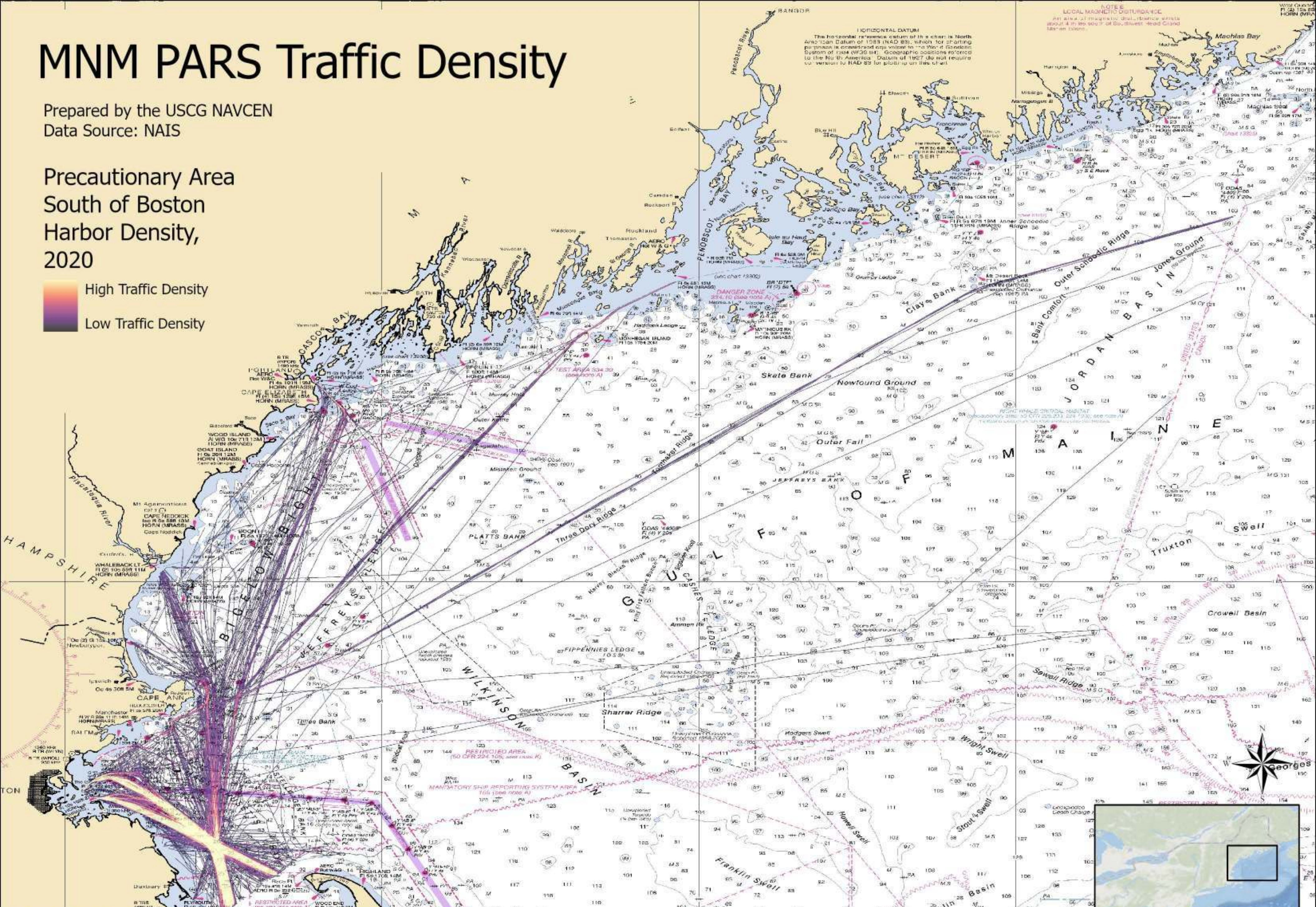
9/13/2022 8:13:27 AM

MNM PARS Traffic Density

Prepared by the USCG NAVCEN
Data Source: NAIS

Precautionary Area South of Boston Harbor Density, 2020

High Traffic Density
Low Traffic Density



Scale: 1:1,653,663

0 5 10 20 30 40 Nautical Miles

Last Update: 9/23/2022 3:01 PM

Spatial Reference
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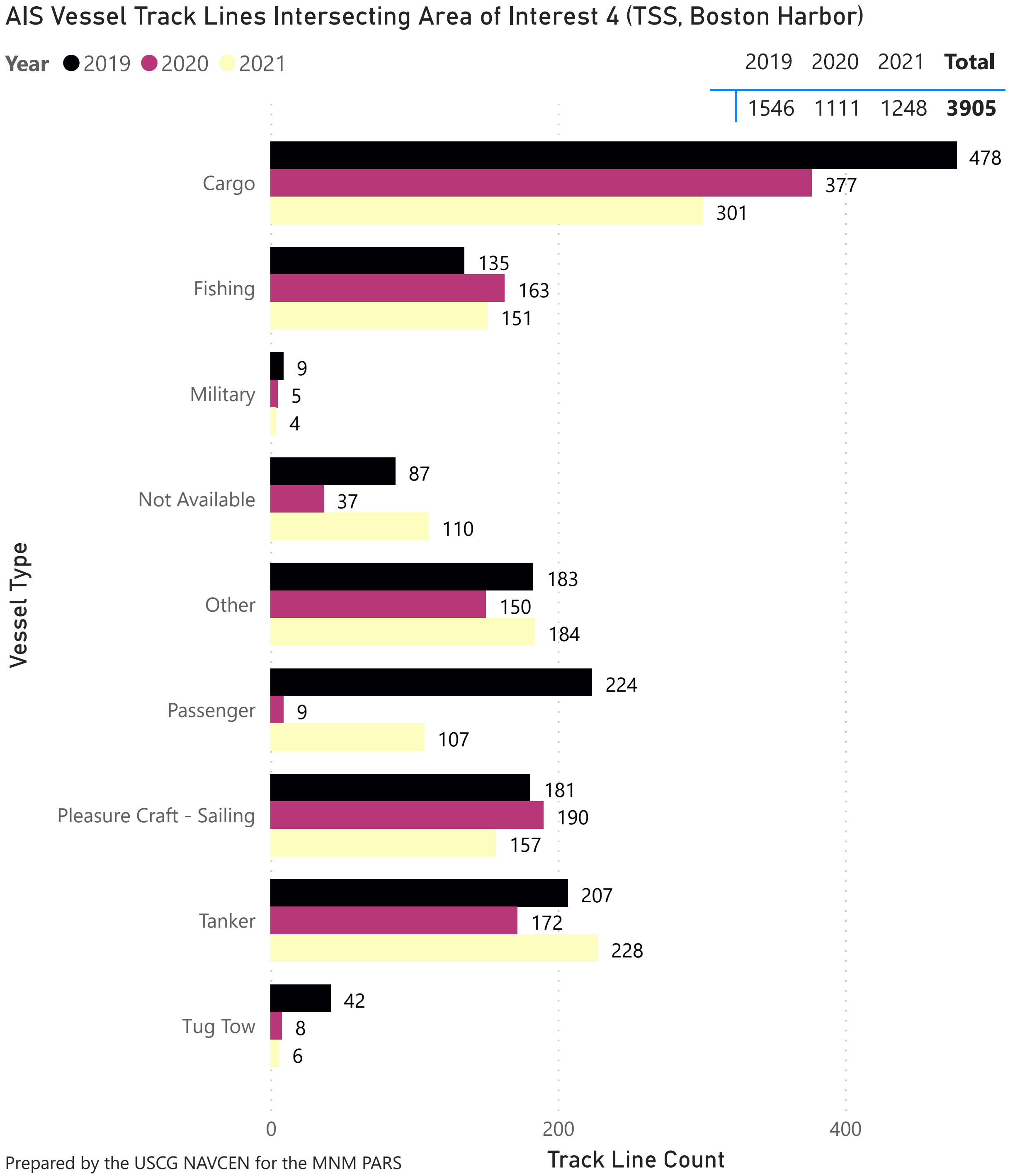
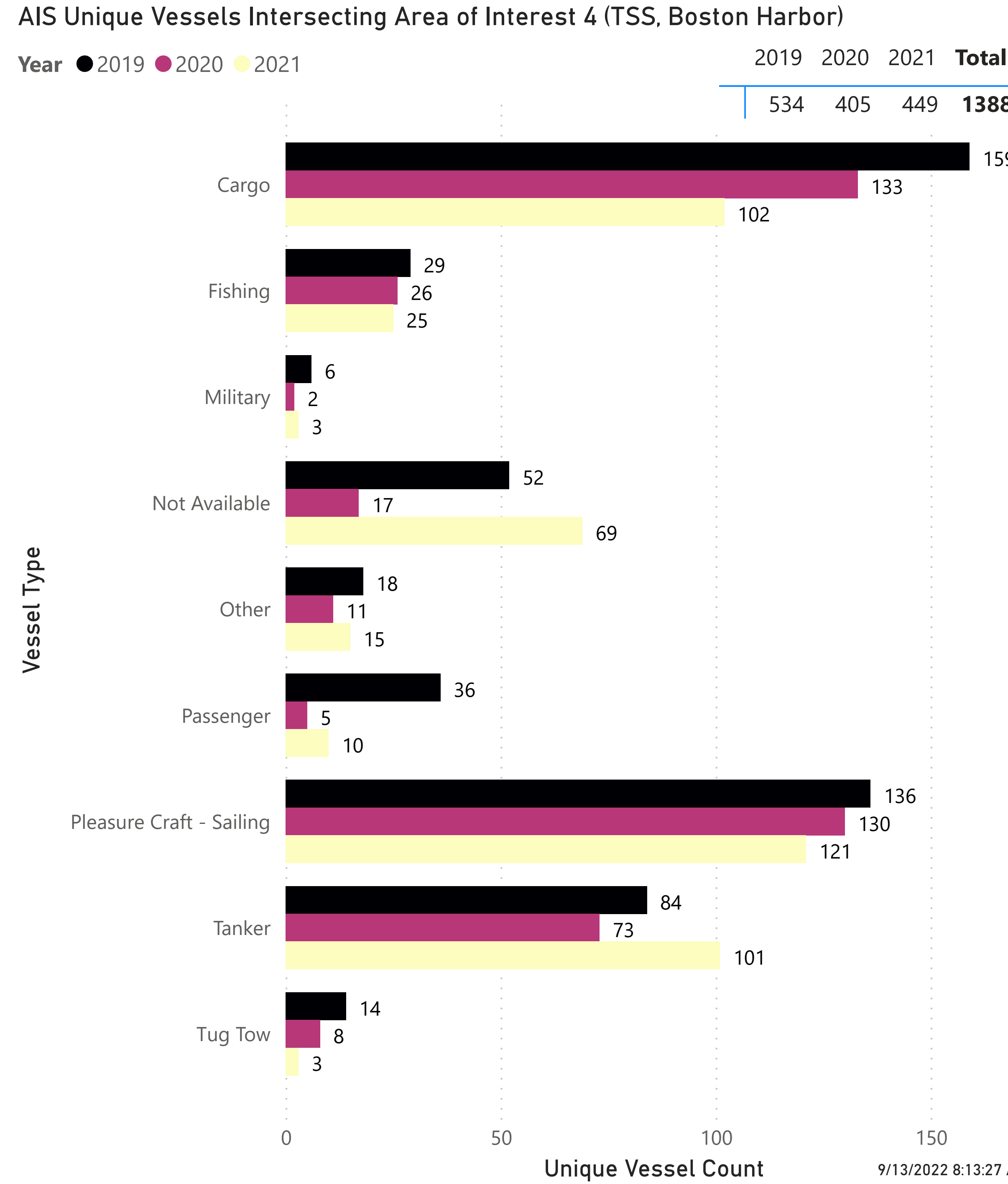
Datum: WGS 1984
Map Units: Degree





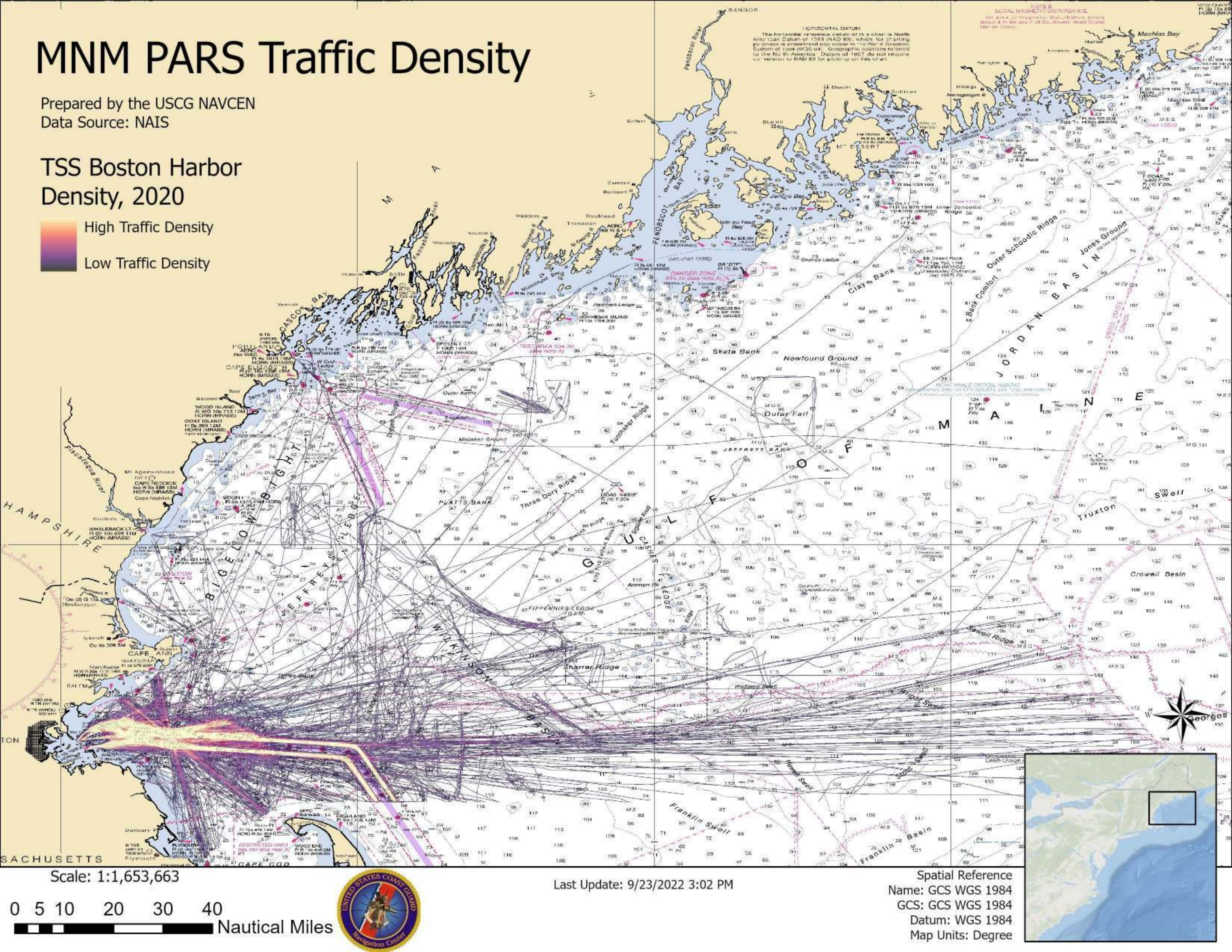
Prepared by the USCG NAVCEN for the MNM PARS

9/13/2022 8:13:27 AM

MNM PARS Traffic Density

Prepared by the USCG NAVCEN
Data Source: NAIS

TSS Boston Harbor Density, 2020



Scale: 1:1,653,663

0 5 10 20 30 40 Nautical Miles

Last Update: 9/23/2022 3:02 PM

Spatial Reference
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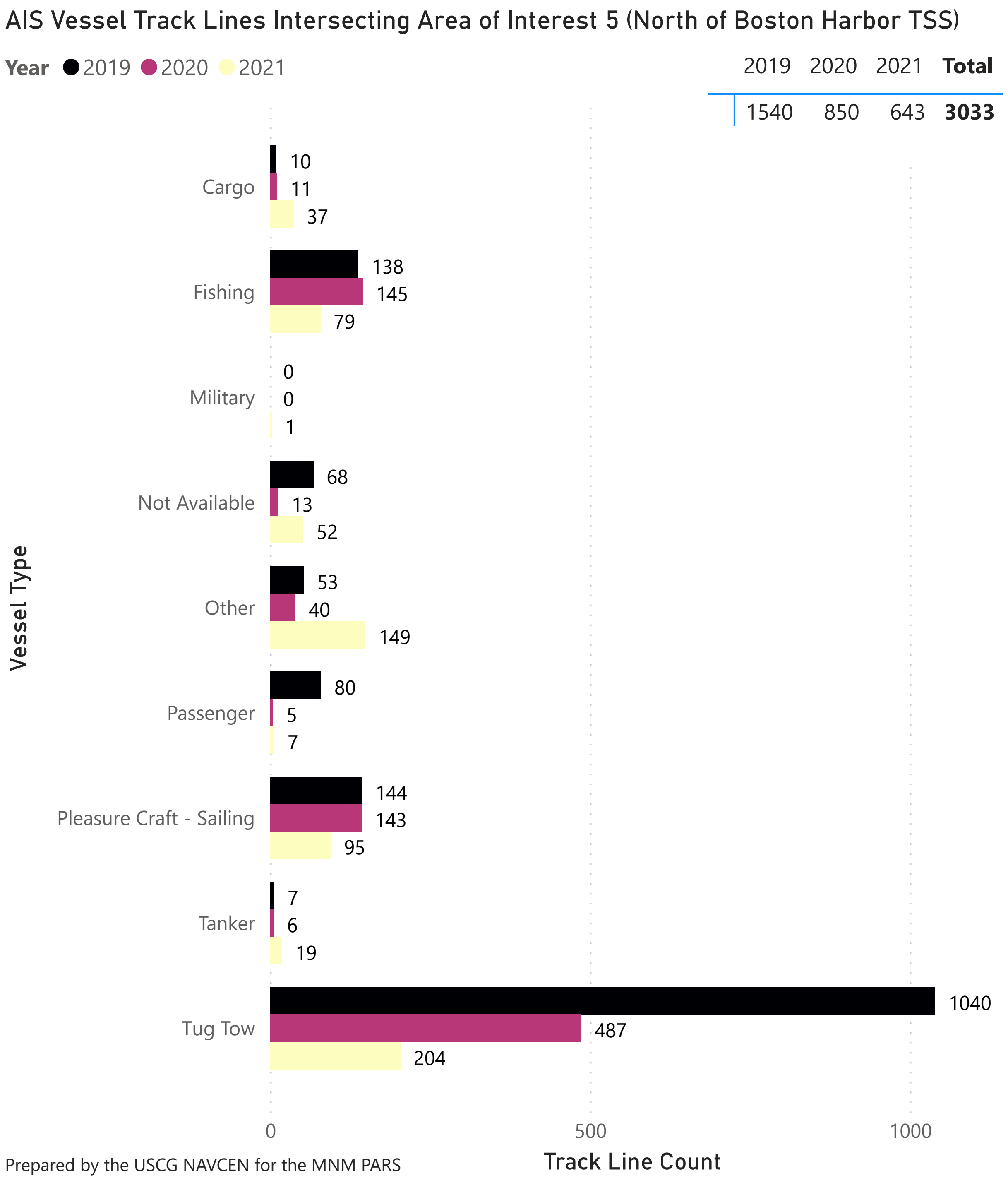
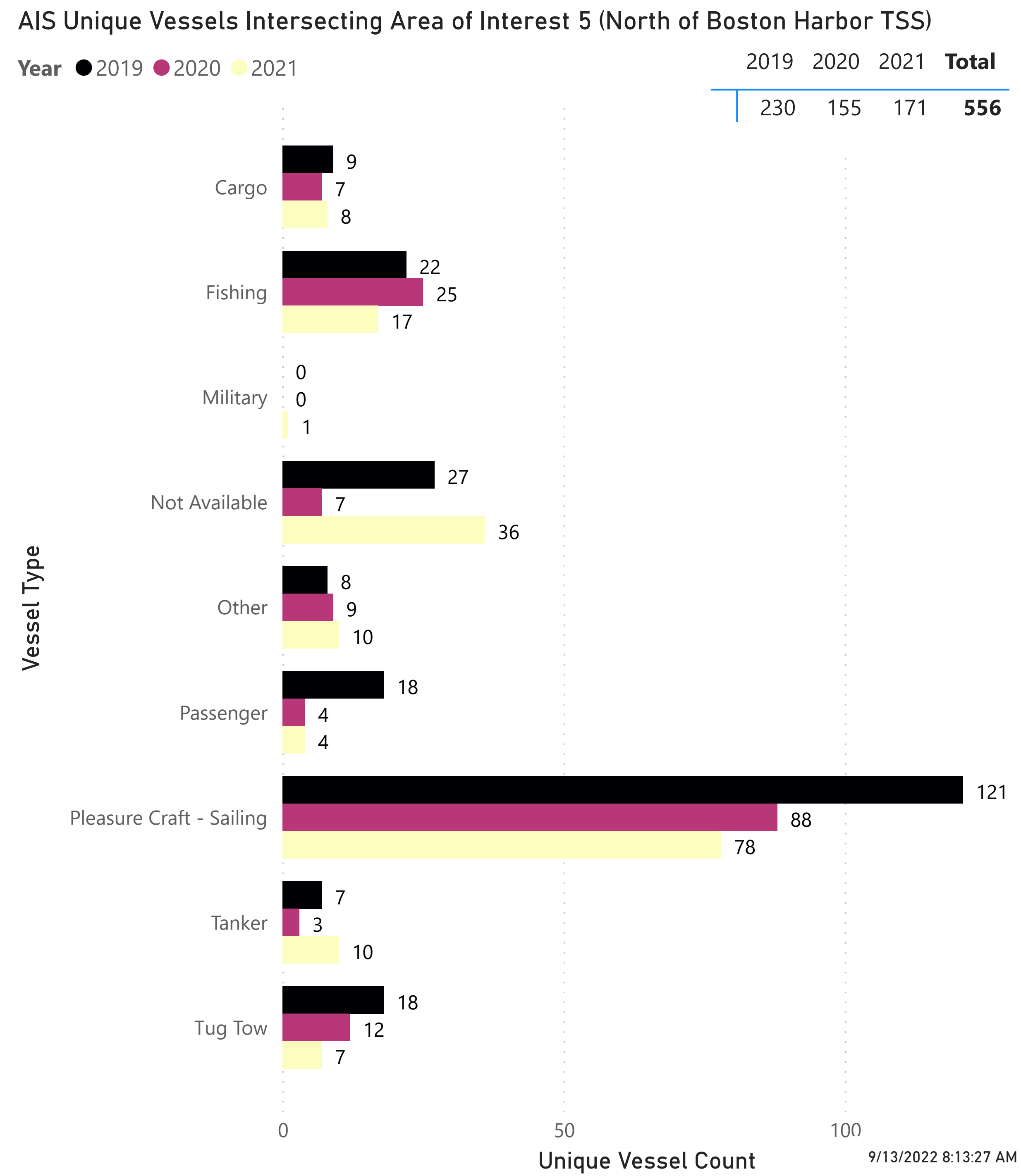
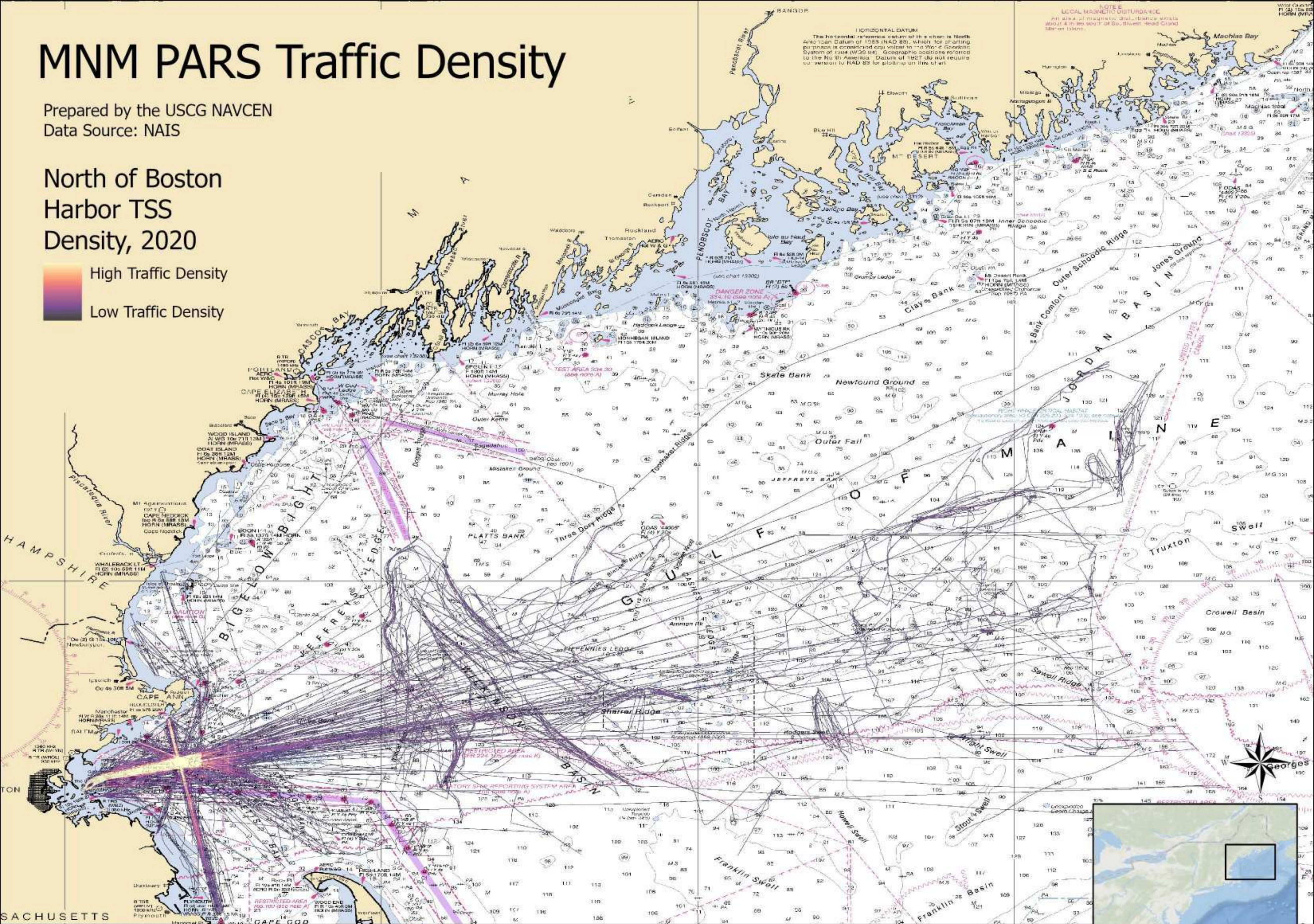
Datum: WGS 1984
Map Units: Degree


AIS Vessel Track Lines Intersecting Area of Interest 5 (North of Boston Harbor TSS)
Year 2019 2020 2021
2019 2020 2021 Total
1540 850 643 3033
Vessel Type
Cargo 10 11 37
Fishing 138 145 79
Military 0 0 1
Not Available 68 13 52
Other 53 40 149
Passenger 80 5 7
Pleasure Craft - Sailing 144 143 95
Tanker 7 6 19
Tug Tow 1040 487 204
0 500 1000
Track Line Count
Prepared by the USCG NAVCEN for the MNM PARS


AIS Unique Vessels Intersecting Area of Interest 5 (North of Boston Harbor TSS)
Year 2019 2020 2021
2019 2020 2021 Total
230 155 171 556
Vessel Type
Cargo 9 7 8
Fishing 22 25 17
Military 0 0 1
Not Available 27 7 36
Other 8 9 10
Passenger 18 4 4
Pleasure Craft - Sailing 121 88 78
Tanker 7 3 10
Tug Tow 18 12 7
0 50 100
Unique Vessel Count
9/13/2022 8:13:27 AM



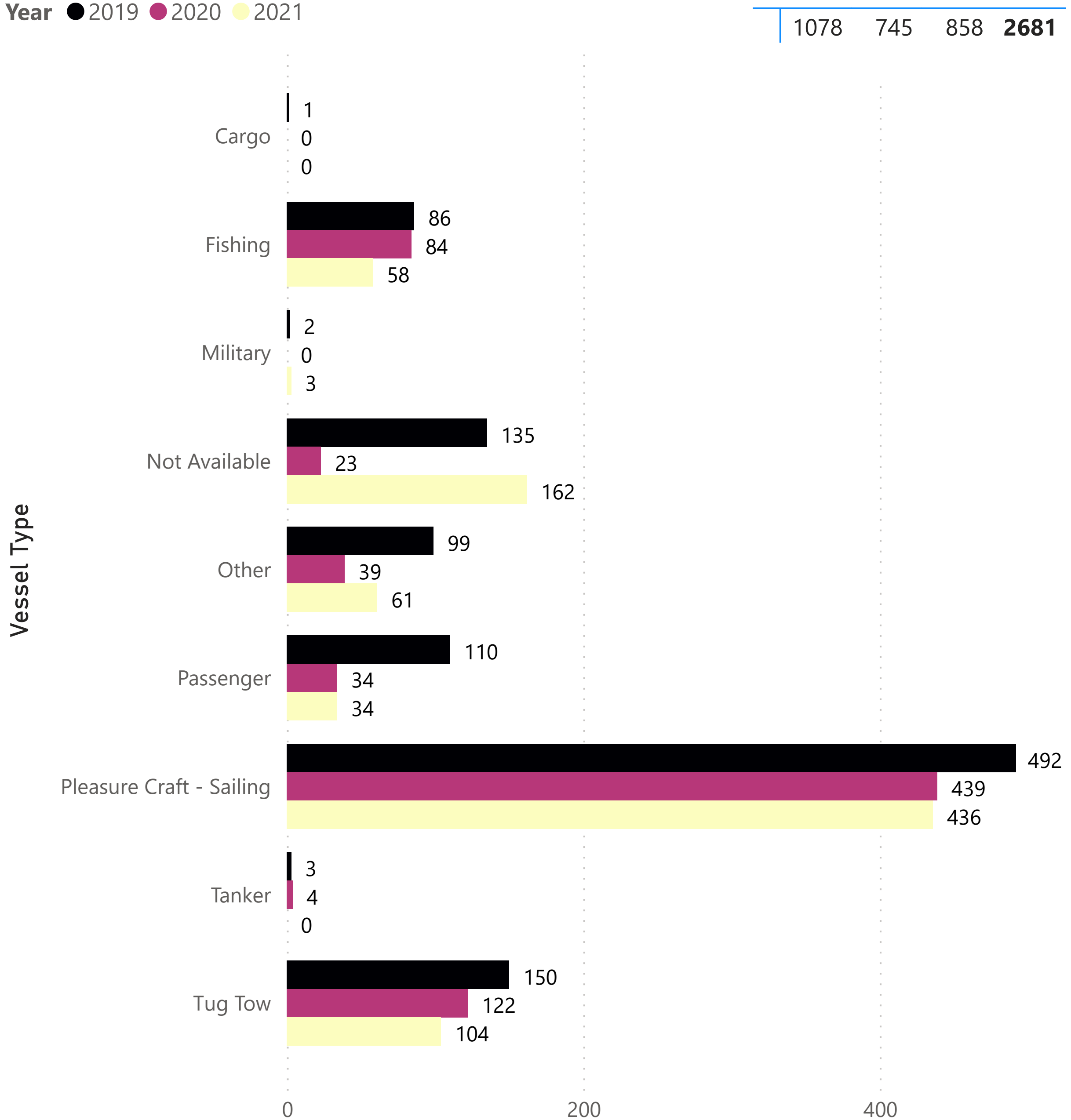
Scale: 1:1,653,663

0 5 10 20 30 40
Nautical Miles

Last Update: 9/23/2022 2:56 PM

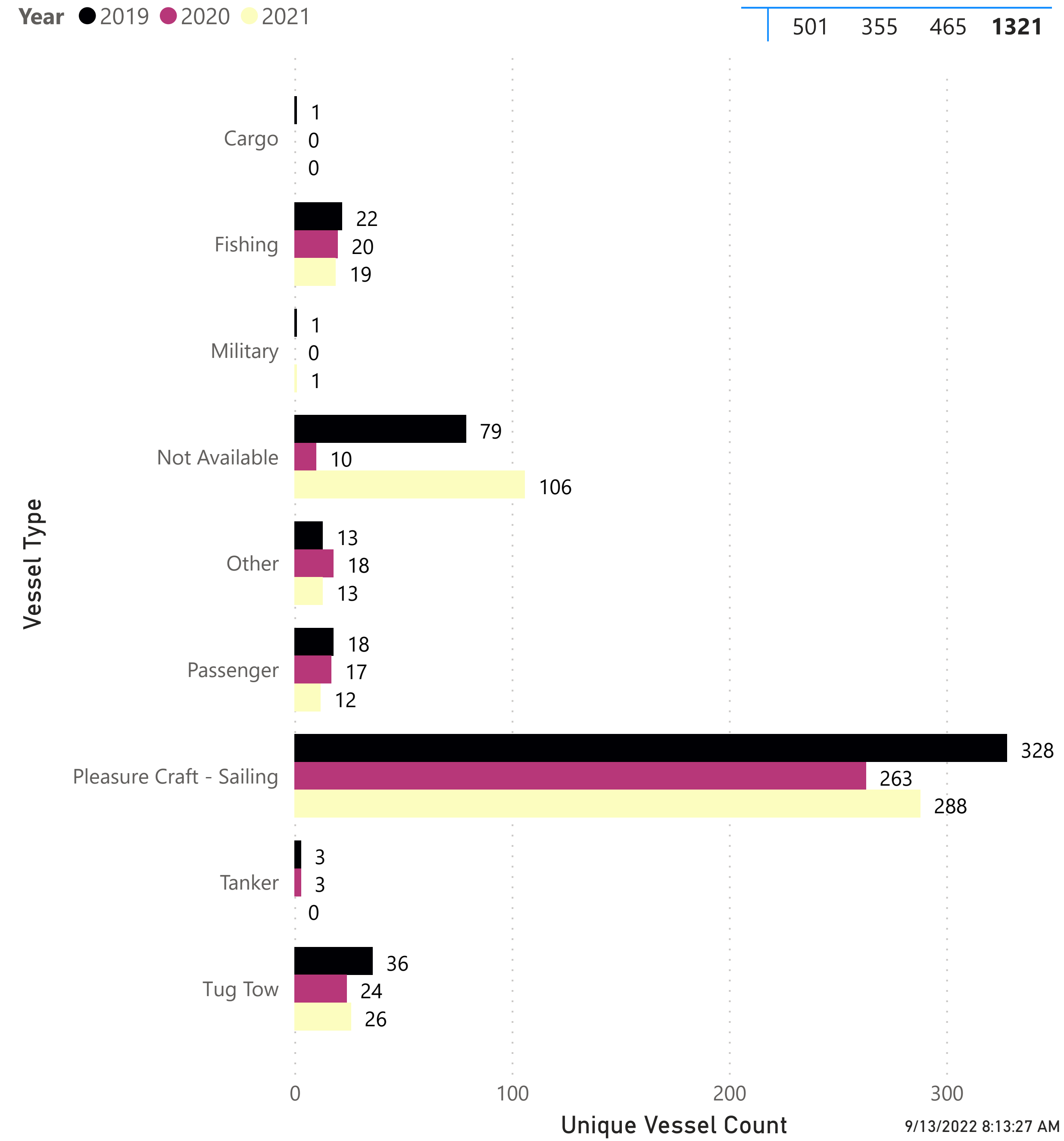
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

AIS Vessel Track Lines Intersecting Area of Interest 6 (Coastwise, Between Boston Harbor and Gloucester)



Prepared by the USCG NAVCEN for the MNM PARS

AIS Unique Vessels Intersecting Area of Interest 6 (Coastwise, Between Boston Harbor and Gloucester)



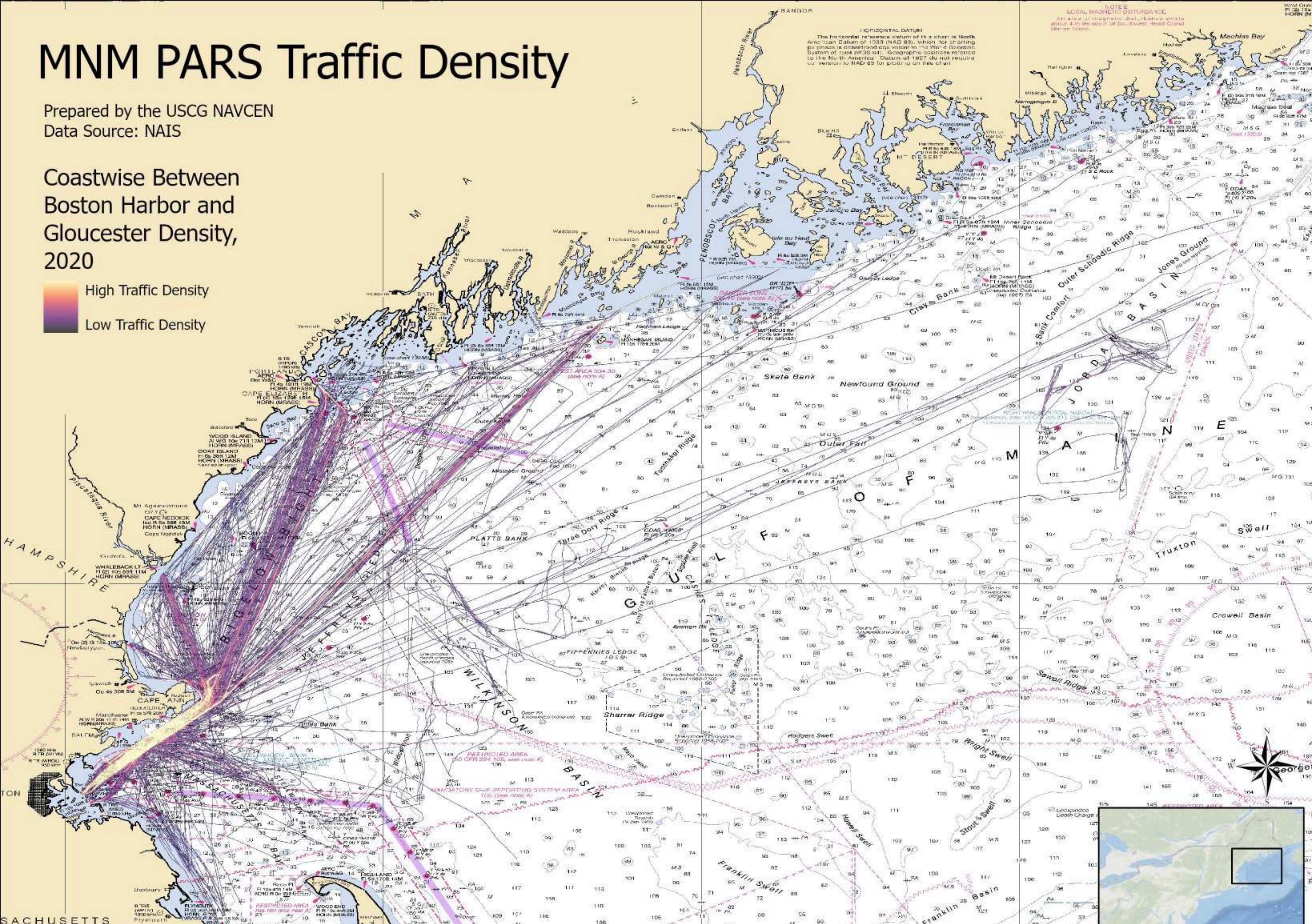
9/13/2022 8:13:27 AM

MNM PARS Traffic Density

Prepared by the USCG NAVCEN
Data Source: NAIS

Coastwise Between Boston Harbor and Gloucester Density, 2020

High Traffic Density
Low Traffic Density



Scale: 1:1,653,663

0 5 10 20 30 40 Nautical Miles

Last Update: 9/23/2022 2:54 PM

Spatial Reference
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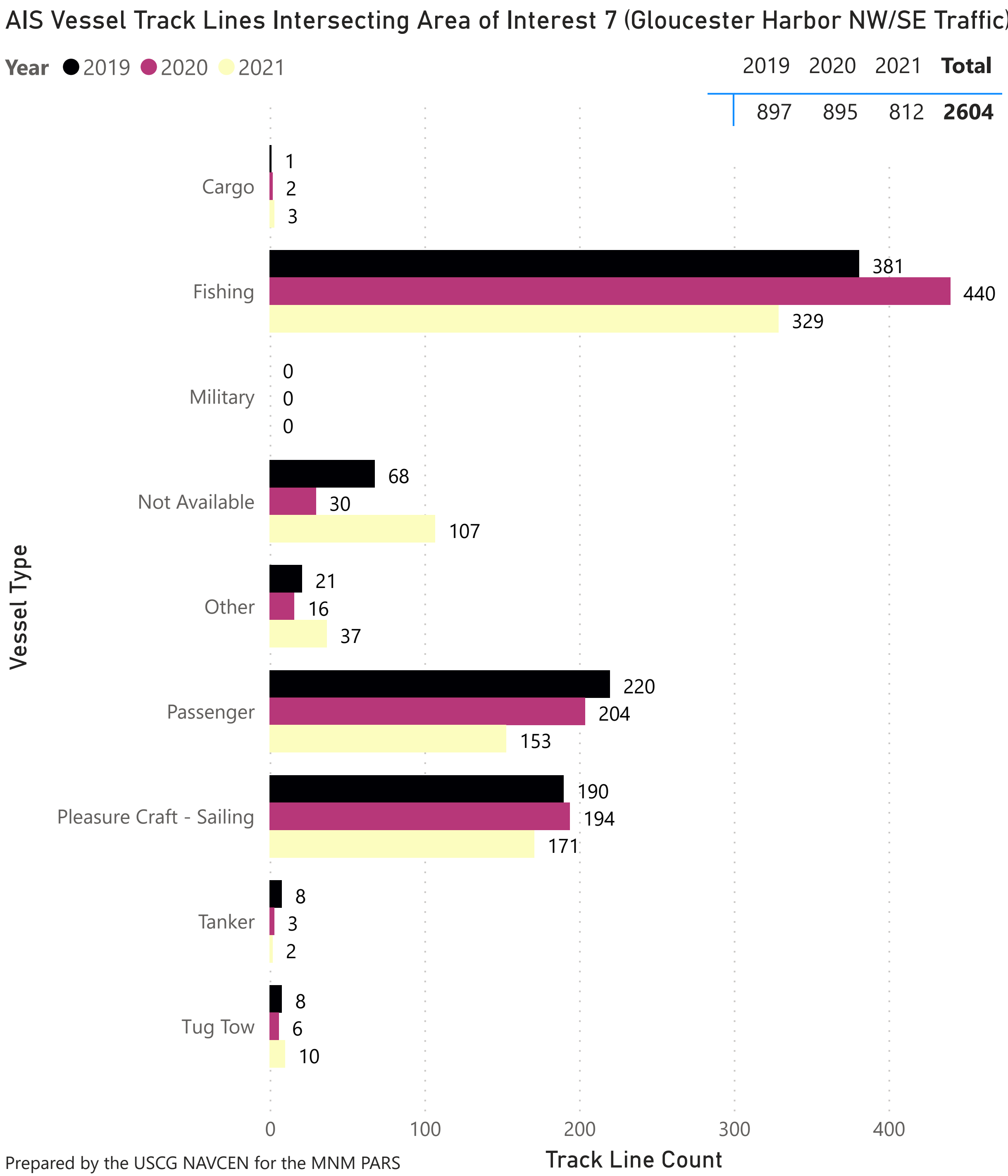
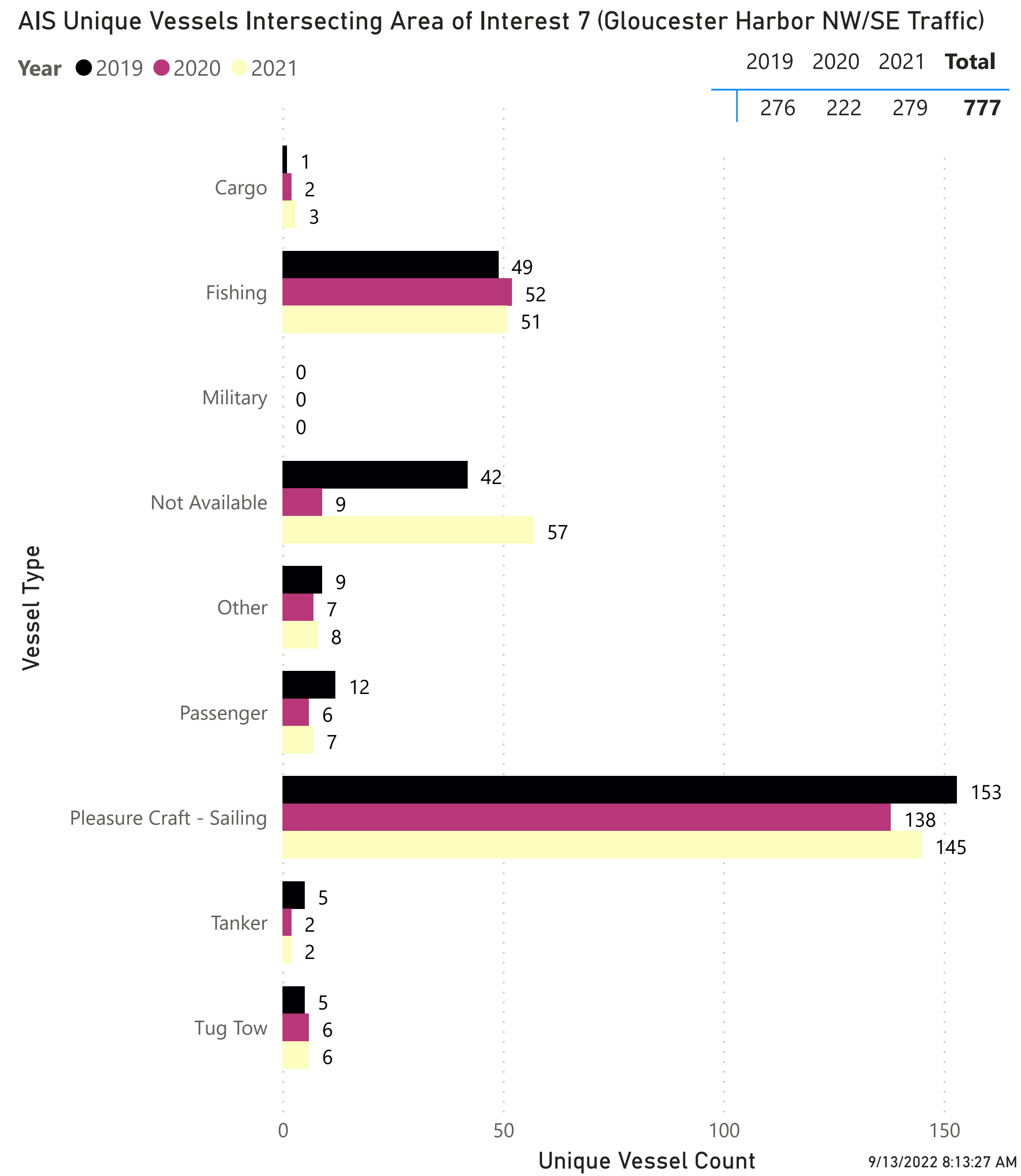
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree



Prepared by the USCG NAVCEN for the MNM PARS



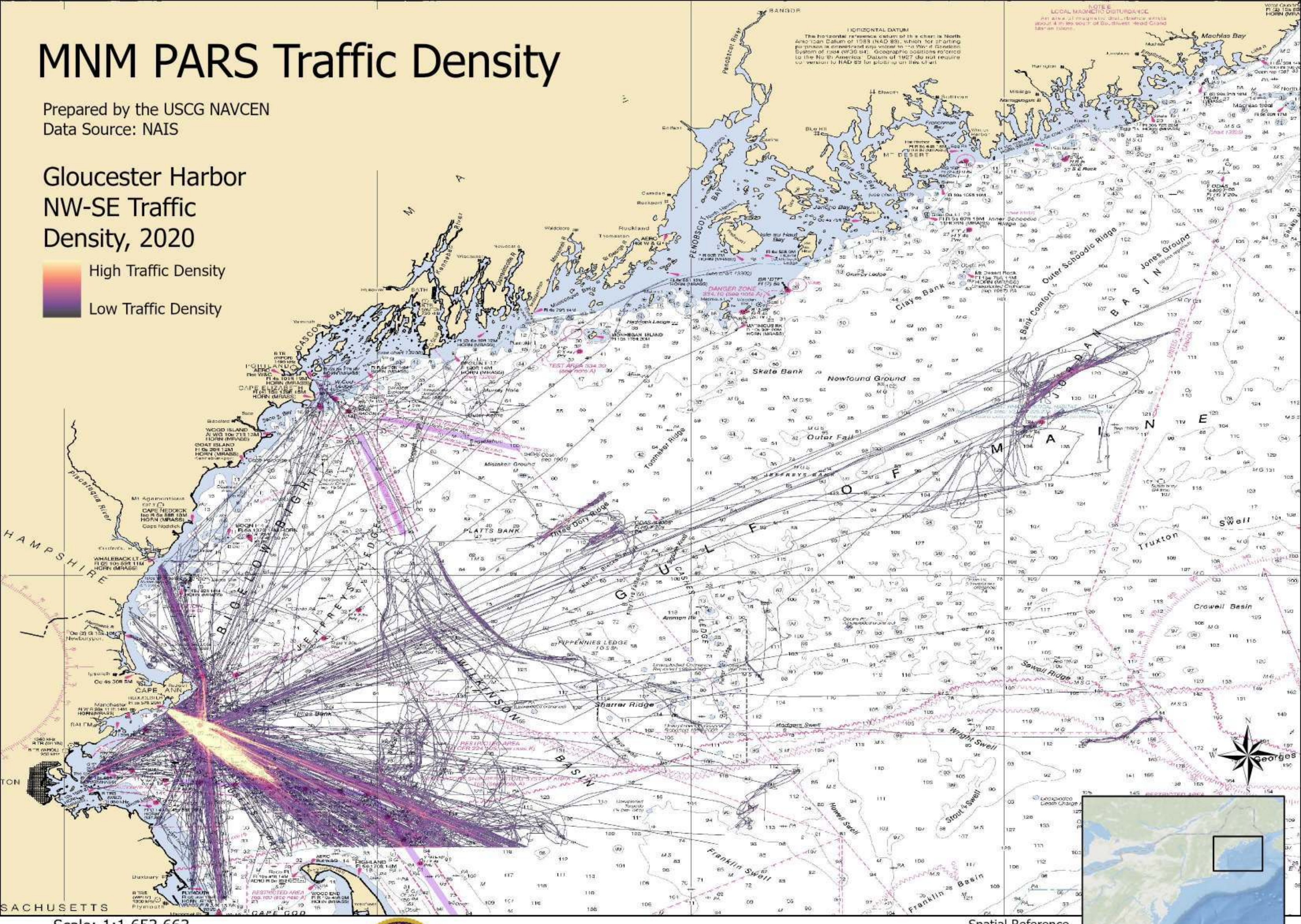
9/13/2022 8:13:27 AM

MNM PARS Traffic Density

Prepared by the USCG NAVCEN
Data Source: NAIS

Gloucester Harbor
NW-SE Traffic
Density, 2020

High Traffic Density
Low Traffic Density



Scale: 1:1,653,663

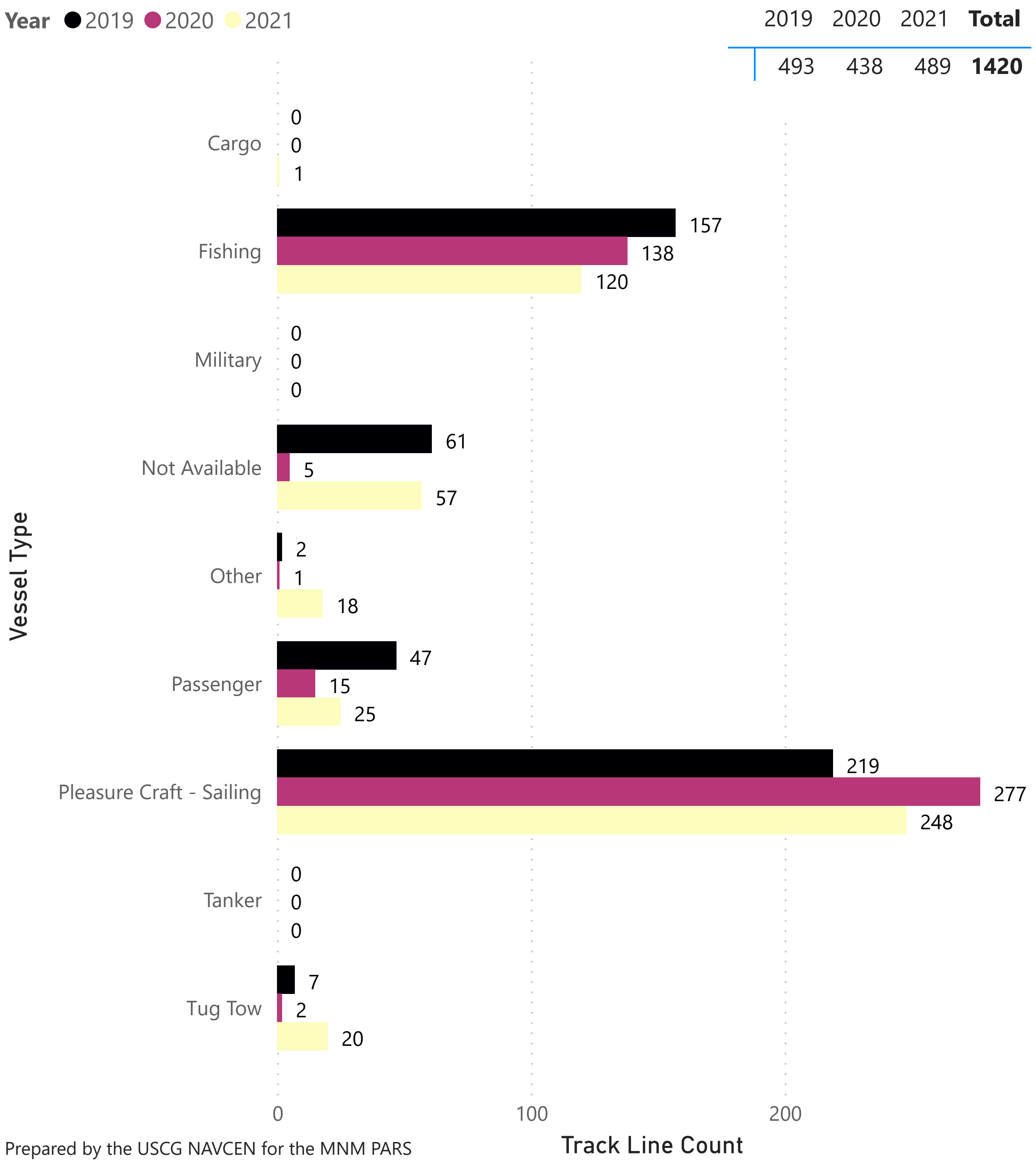
0 5 10 20 30 40 Nautical Miles

Last Update: 9/23/2022 2:56 PM

Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

AIS Vessel Track Lines Intersecting Area of Interest 8 (Salisbury Beach)

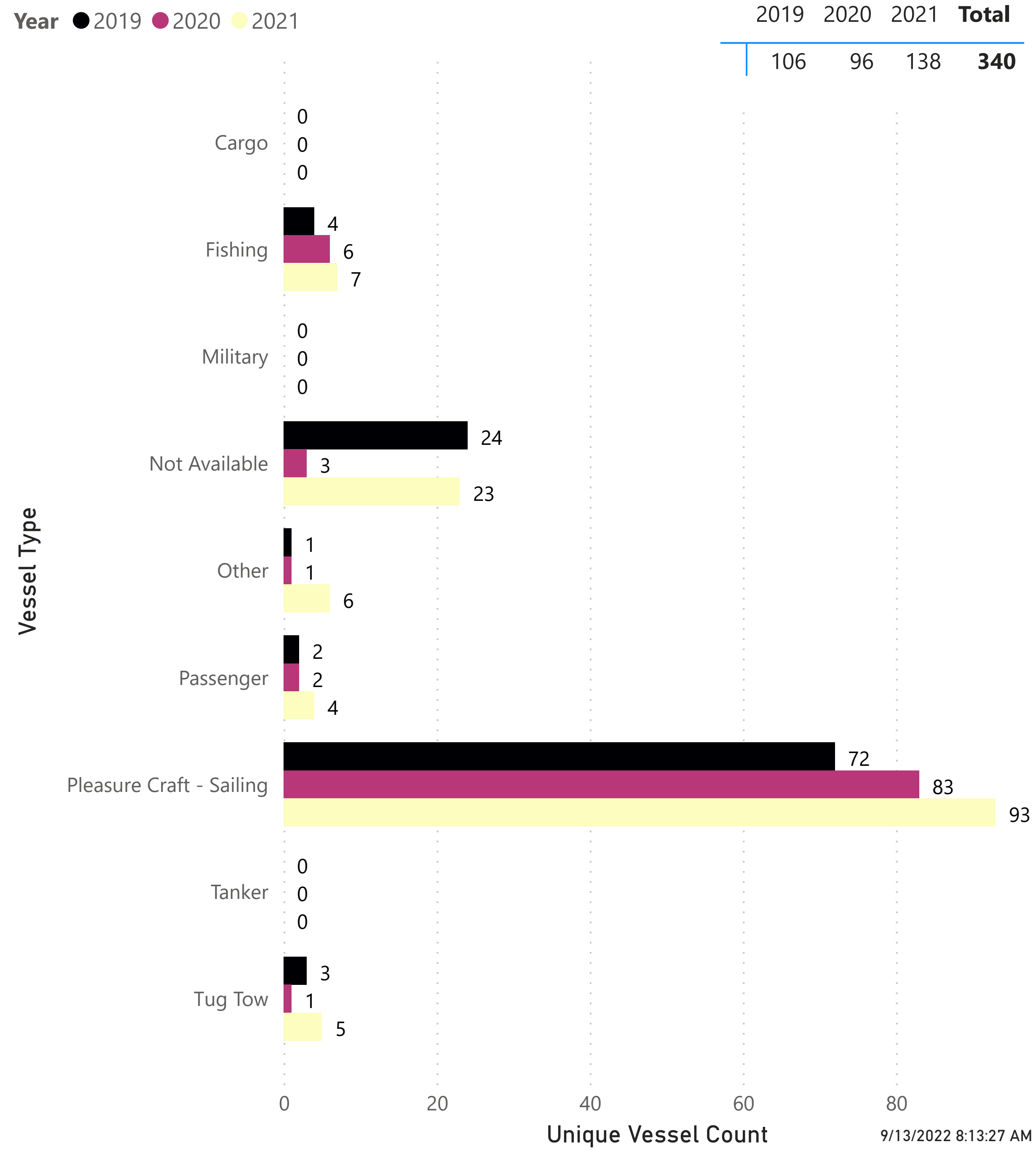
2019	2020	2021	Total
493	438	489	**1420**



Prepared by the USCG NAVCEN for the MNM PARS

AIS Unique Vessels Intersecting Area of Interest 8 (Salisbury Beach)

2019	2020	2021	Total
106	96	138	**340**



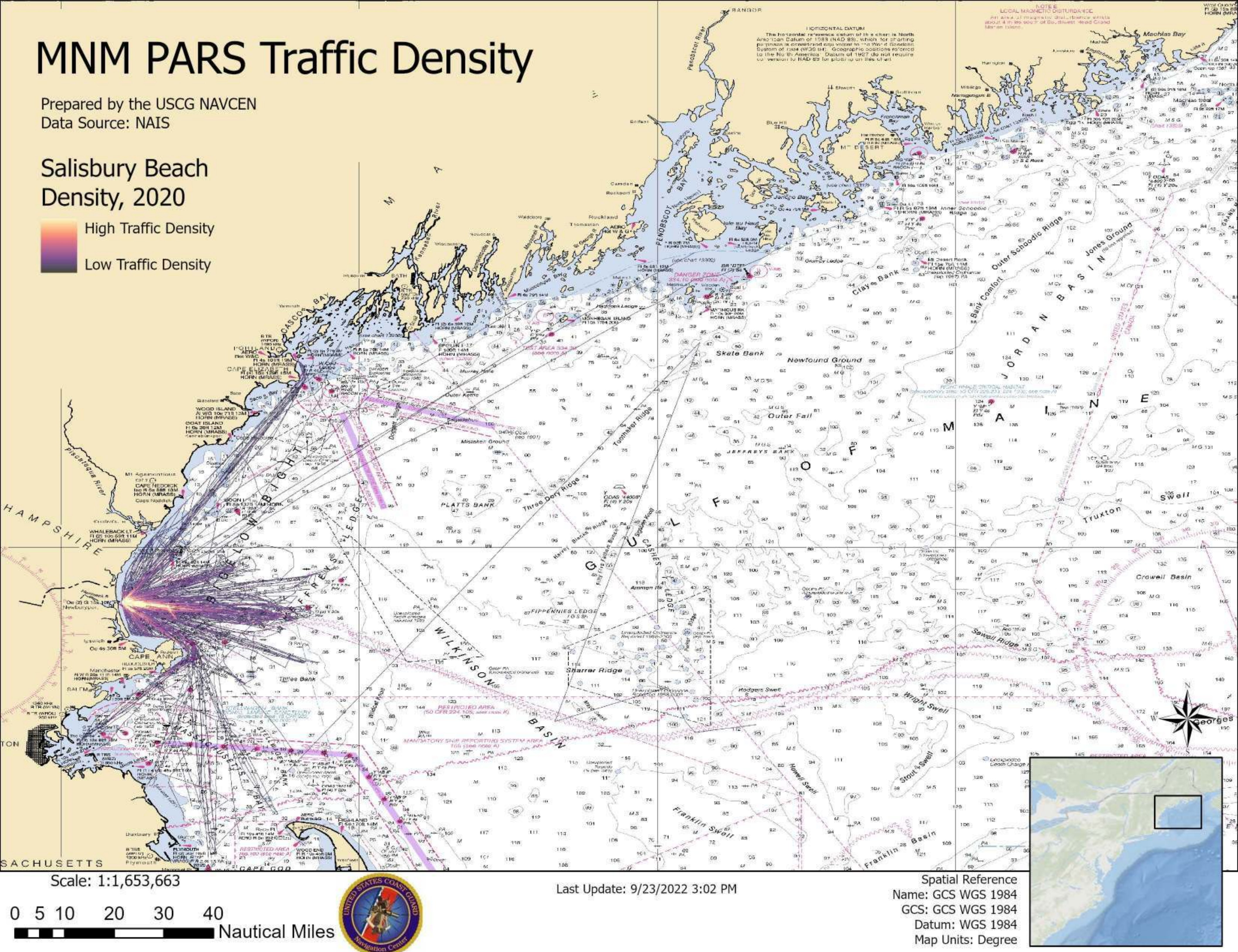
9/13/2022 8:13:27 AM

MNM PARS Traffic Density

Prepared by the USCG NAVCEN
Data Source: NAIS

Salisbury Beach Density, 2020

High Traffic Density
Low Traffic Density

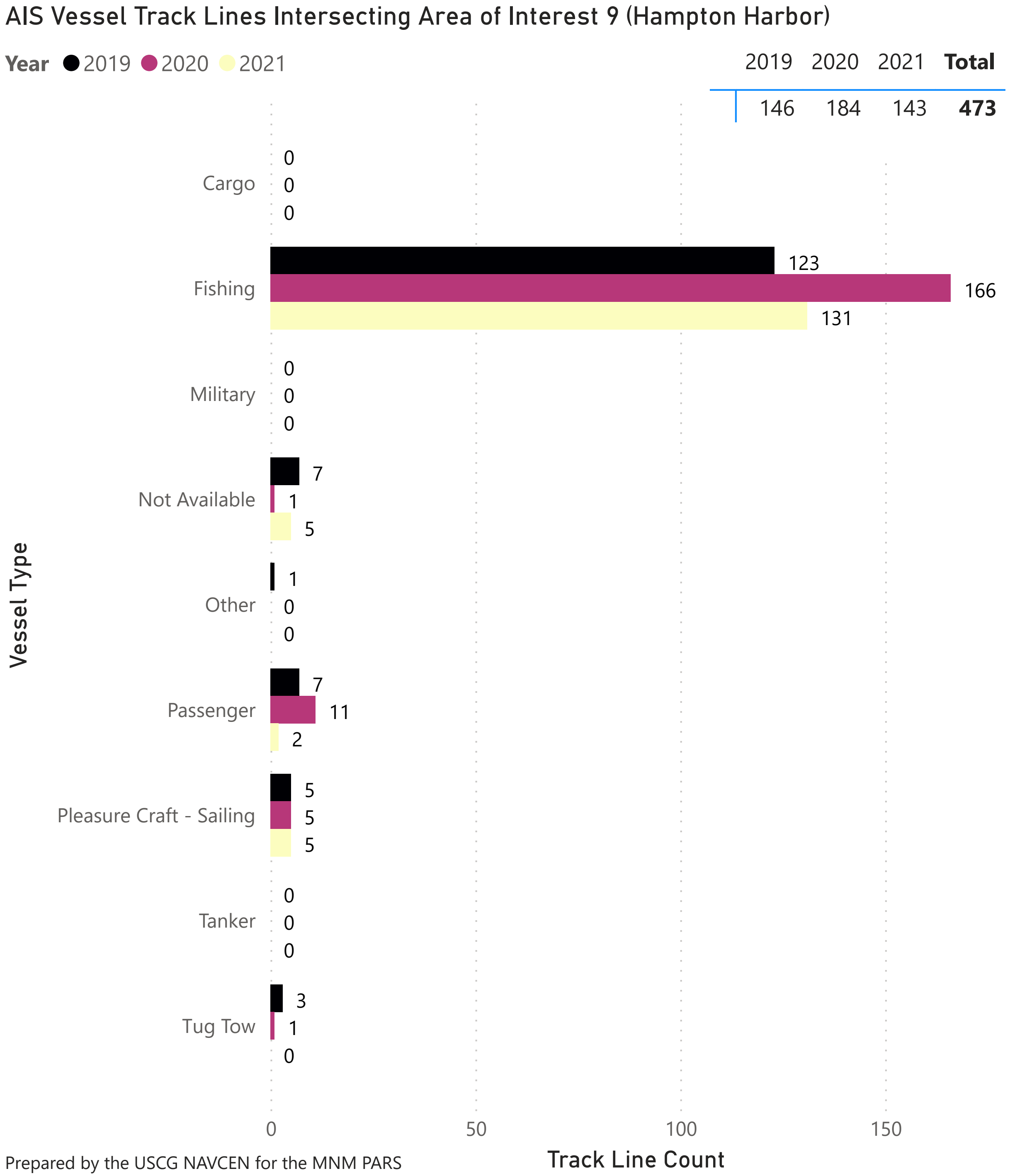


Scale: 1:1,653,663

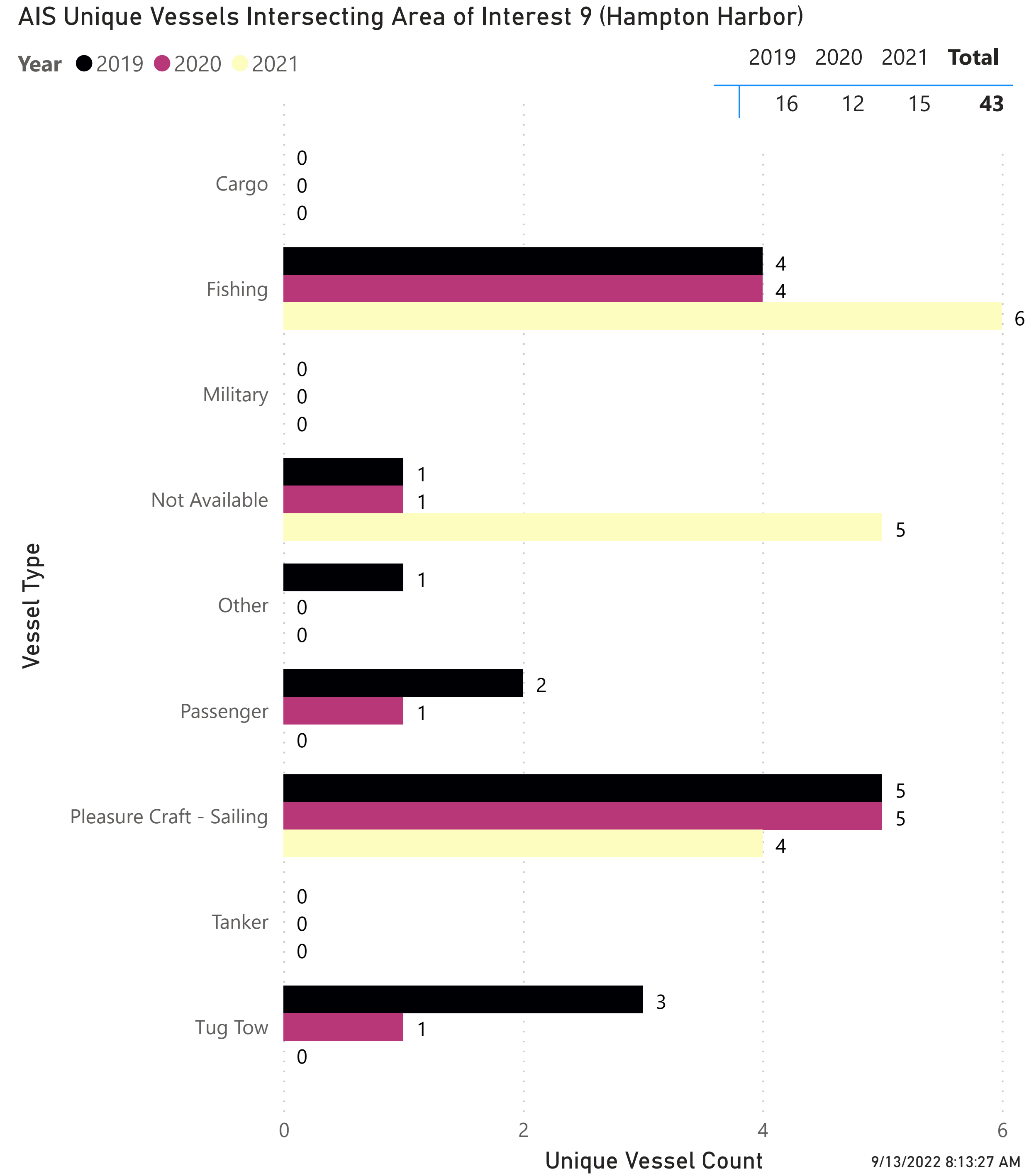
0 5 10 20 30 40
Nautical Miles

Last Update: 9/23/2022 3:02 PM

Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree



Prepared by the USCG NAVCEN for the MNM PARS



9/13/2022 8:13:27 AM

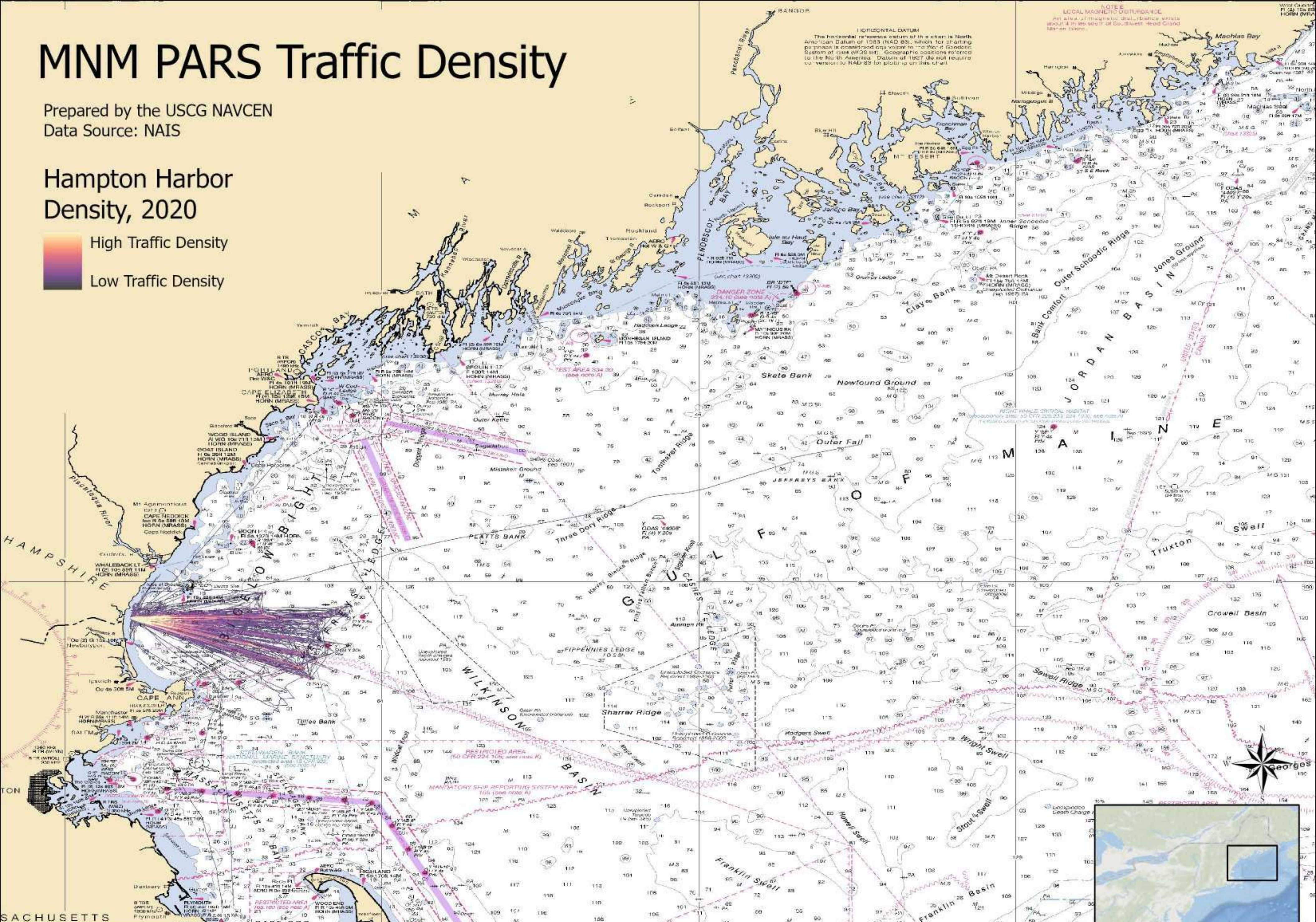
MNM PARS Traffic Density

Prepared by the USCG NAVCEN
Data Source: NAIS

Hampton Harbor Density, 2020

High Traffic Density

Low Traffic Density



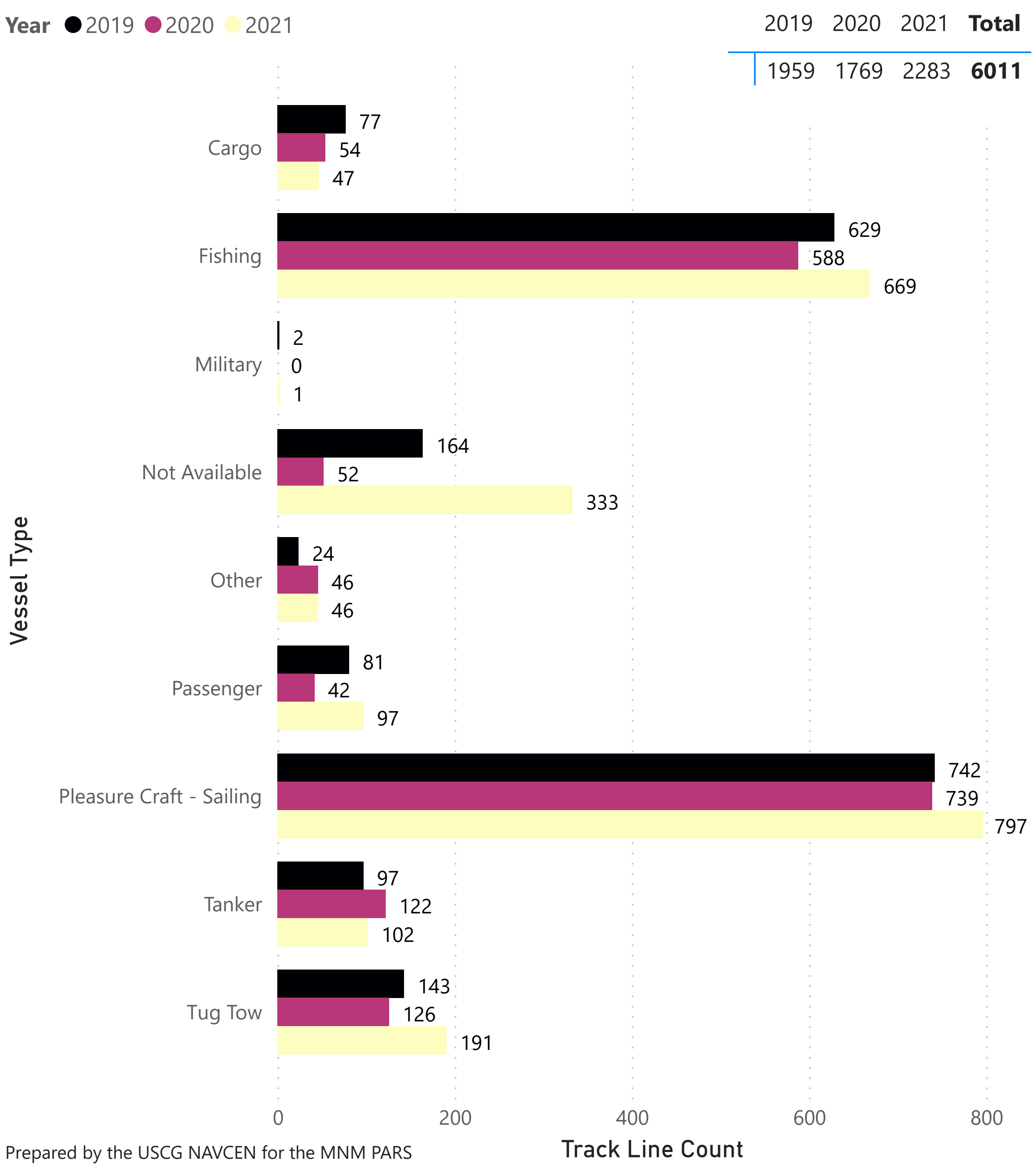
Scale: 1:1,653,663

0 5 10 20 30 40 Nautical Miles

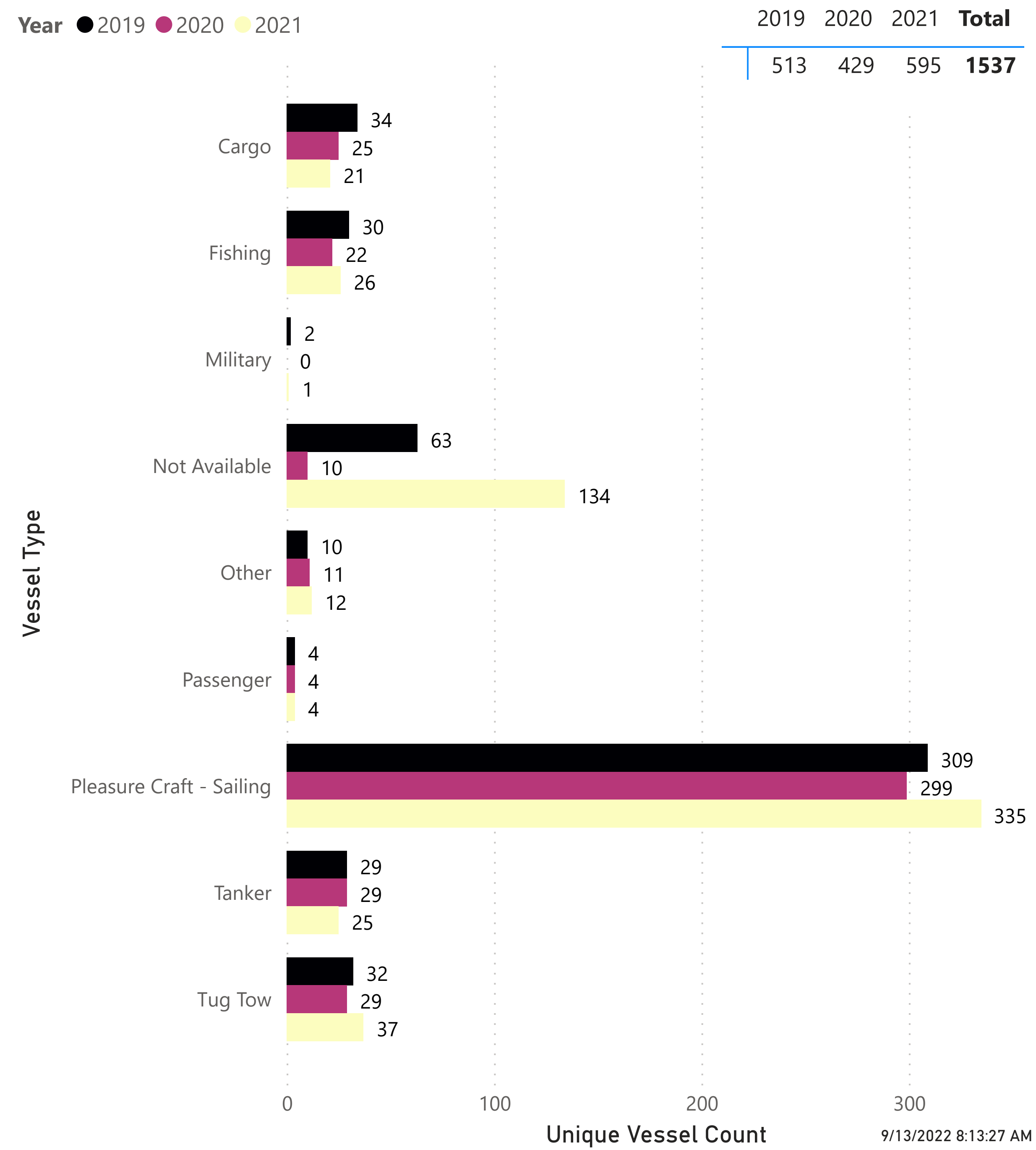
Last Update: 9/23/2022 2:56 PM

Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

AIS Vessel Track Lines Intersecting Area of Interest 10 (Portsmouth)



AIS Unique Vessels Intersecting Area of Interest 10 (Portsmouth)

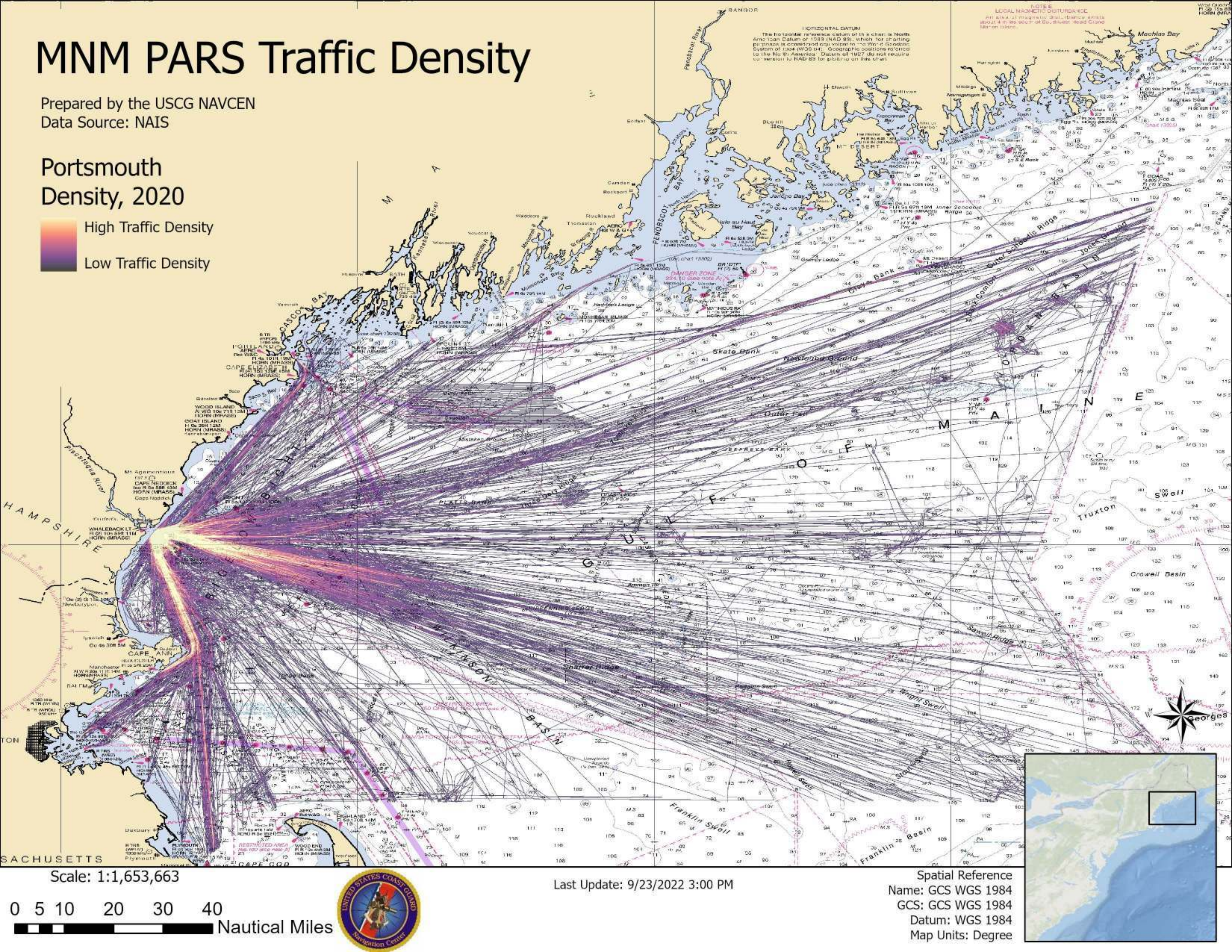


Prepared by the USCG NAVCEN for the MNM PARS

9/13/2022 8:13:27 AM

MNM PARS Traffic Density

Prepared by the USCG NAVCEN
Data Source: NAIS



Scale: 1:1,653,663

0 5 10 20 30 40 Nautical Miles

Last Update: 9/23/2022 3:00 PM

Spatial Reference
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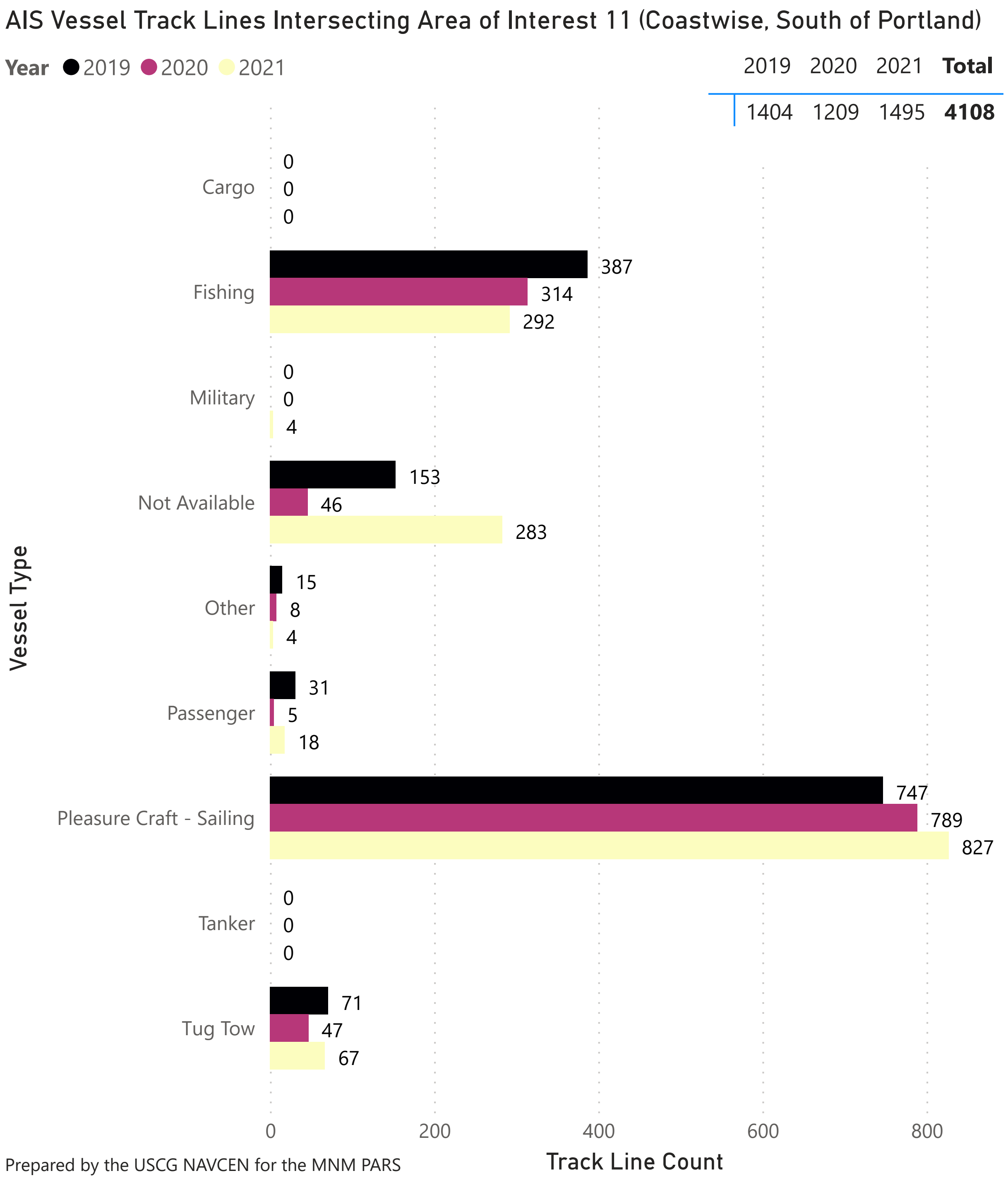
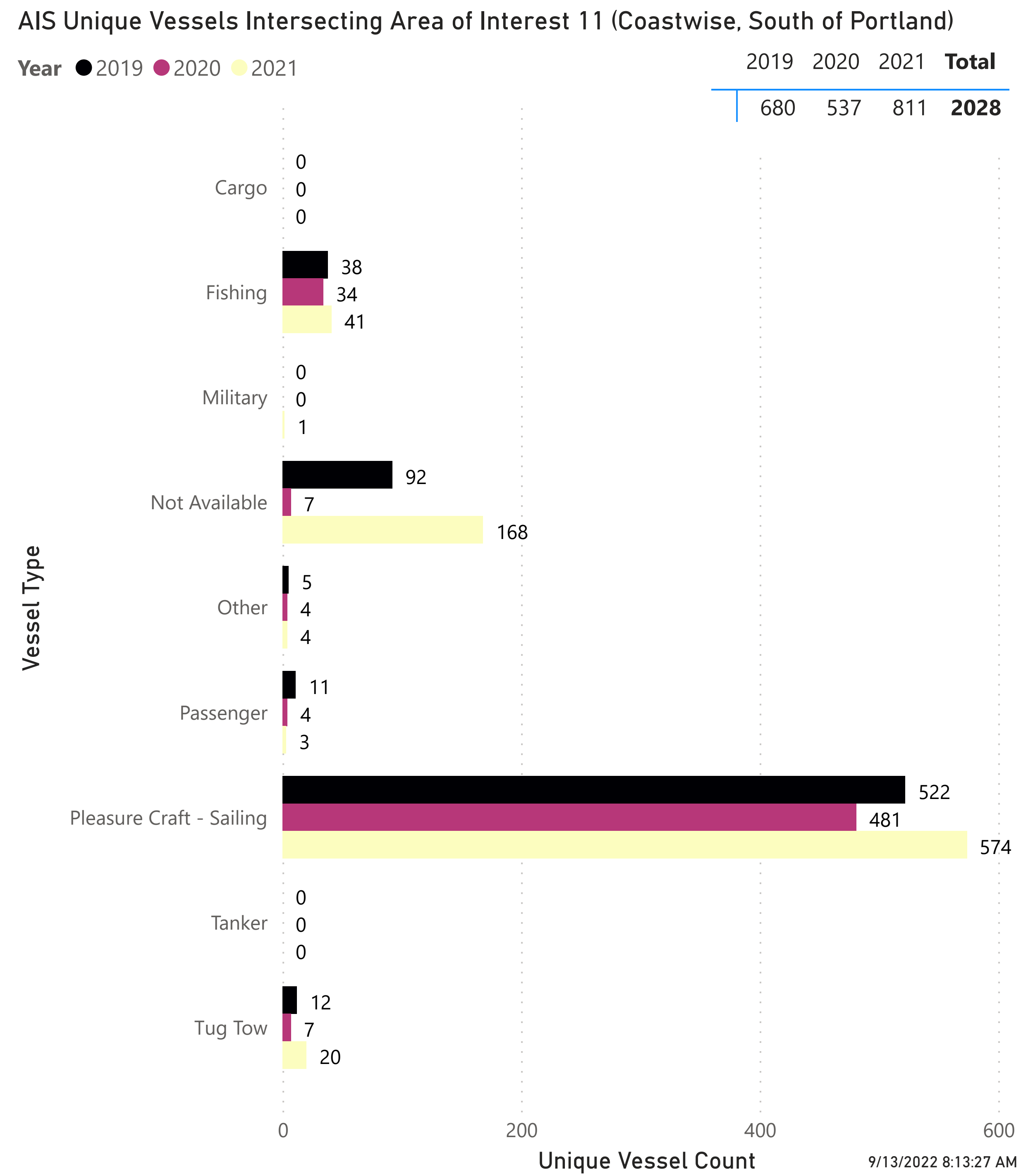
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree



Prepared by the USCG NAVCEN for the MNM PARS

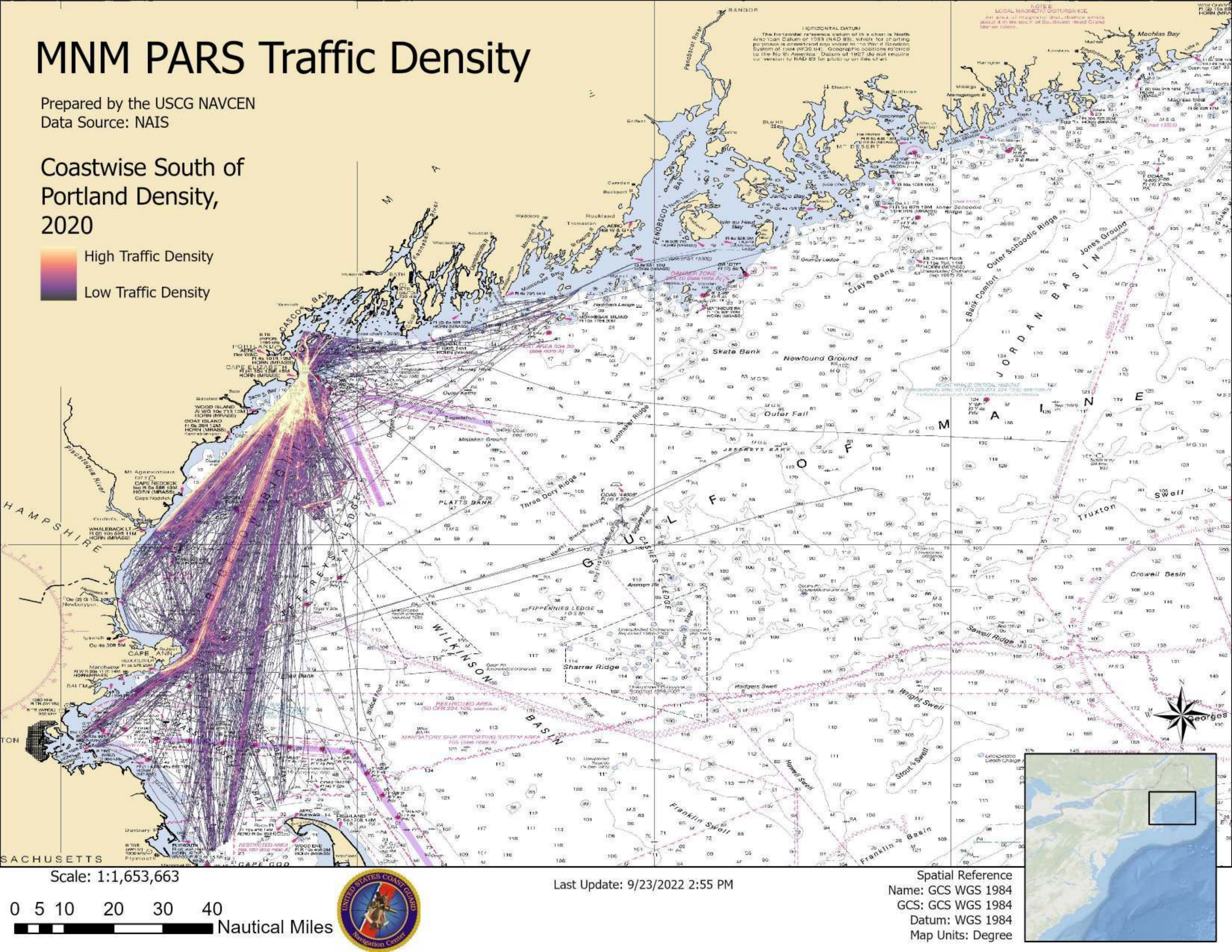


9/13/2022 8:13:27 AM

MNM PARS Traffic Density

Prepared by the USCG NAVCEN
Data Source: NAIS

Coastwise South of Portland Density, 2020



Scale: 1:1,653,663

0 5 10 20 30 40 Nautical Miles

Last Update: 9/23/2022 2:55 PM

Spatial Reference
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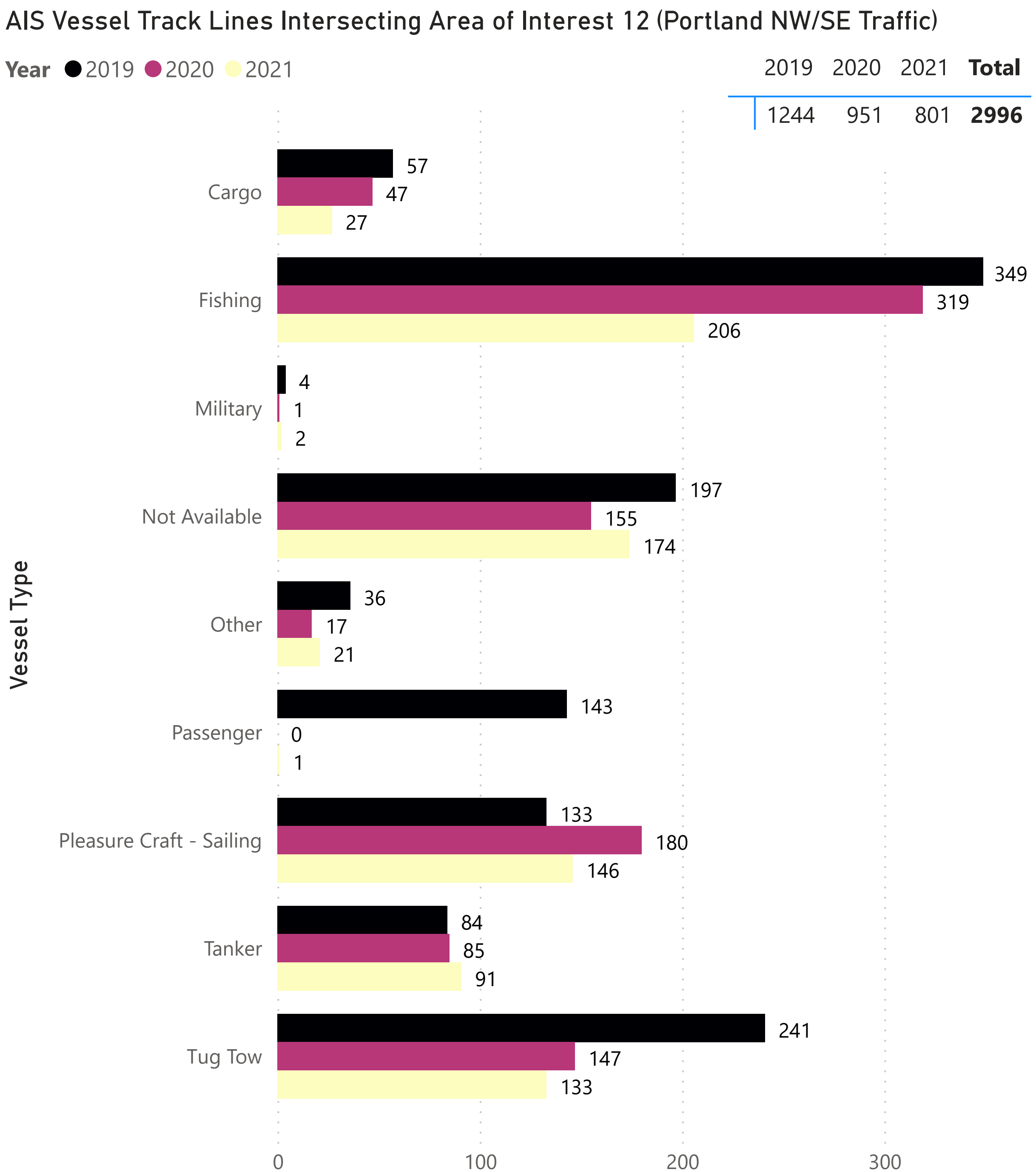
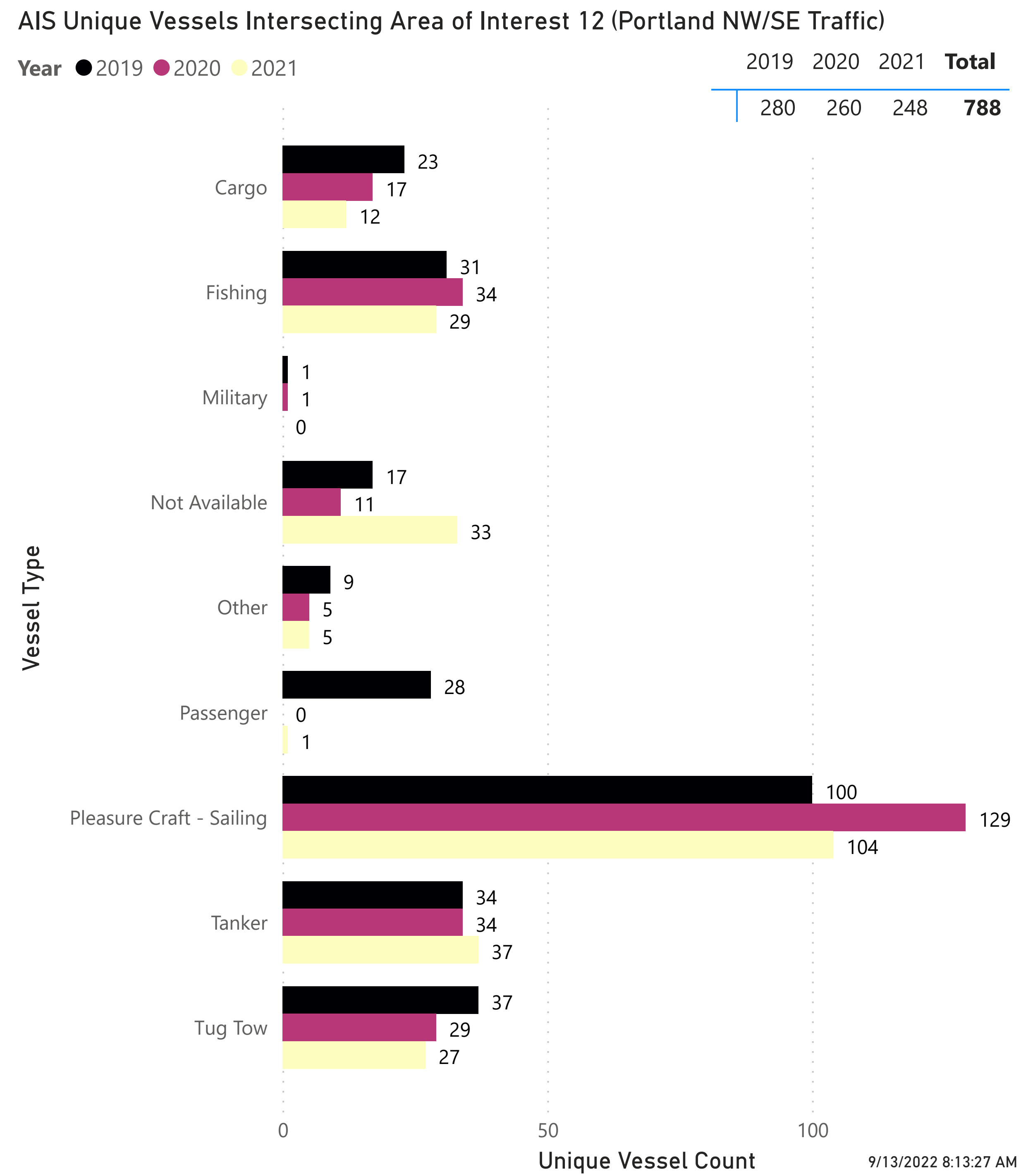
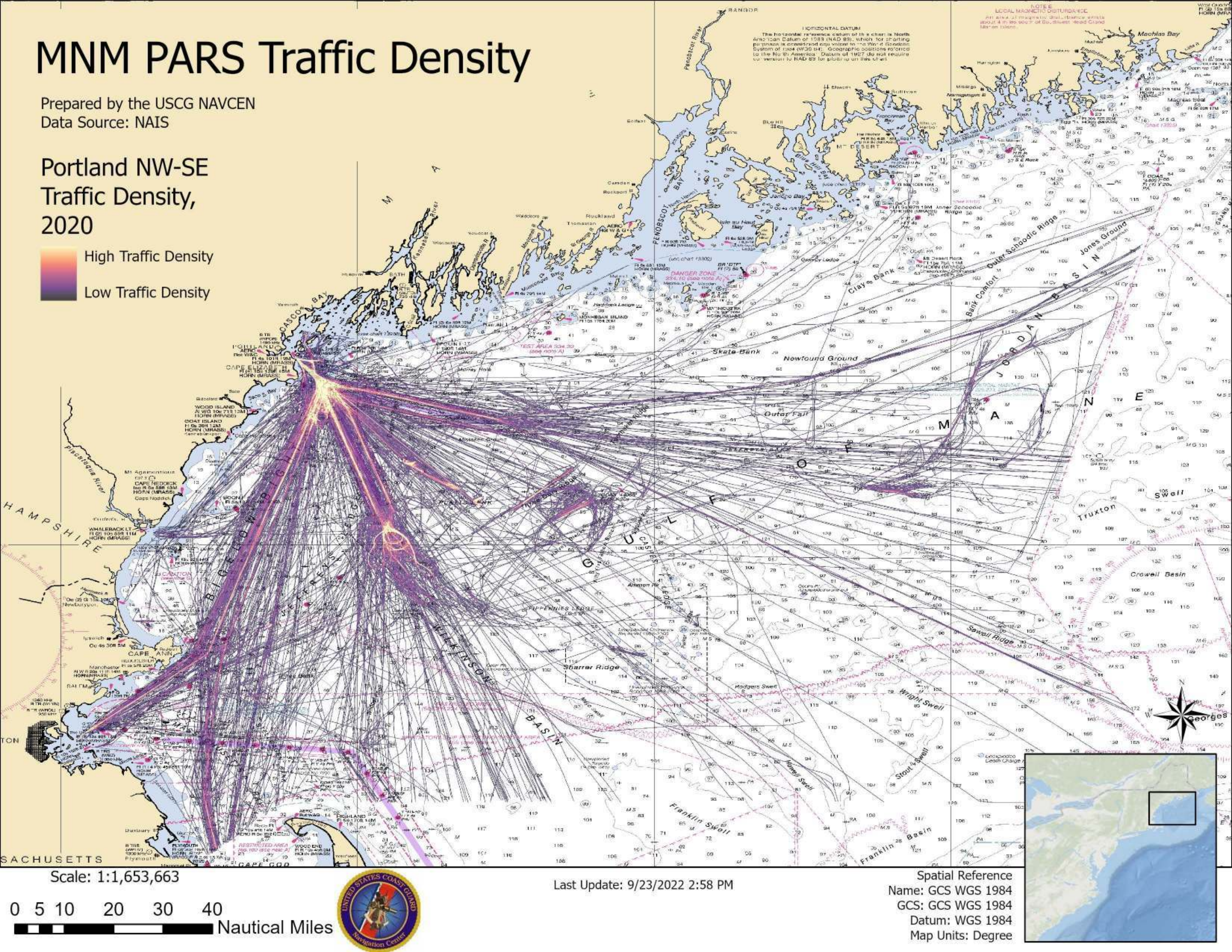
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree



Prepared by the USCG NAVCEN for the MNM PARS



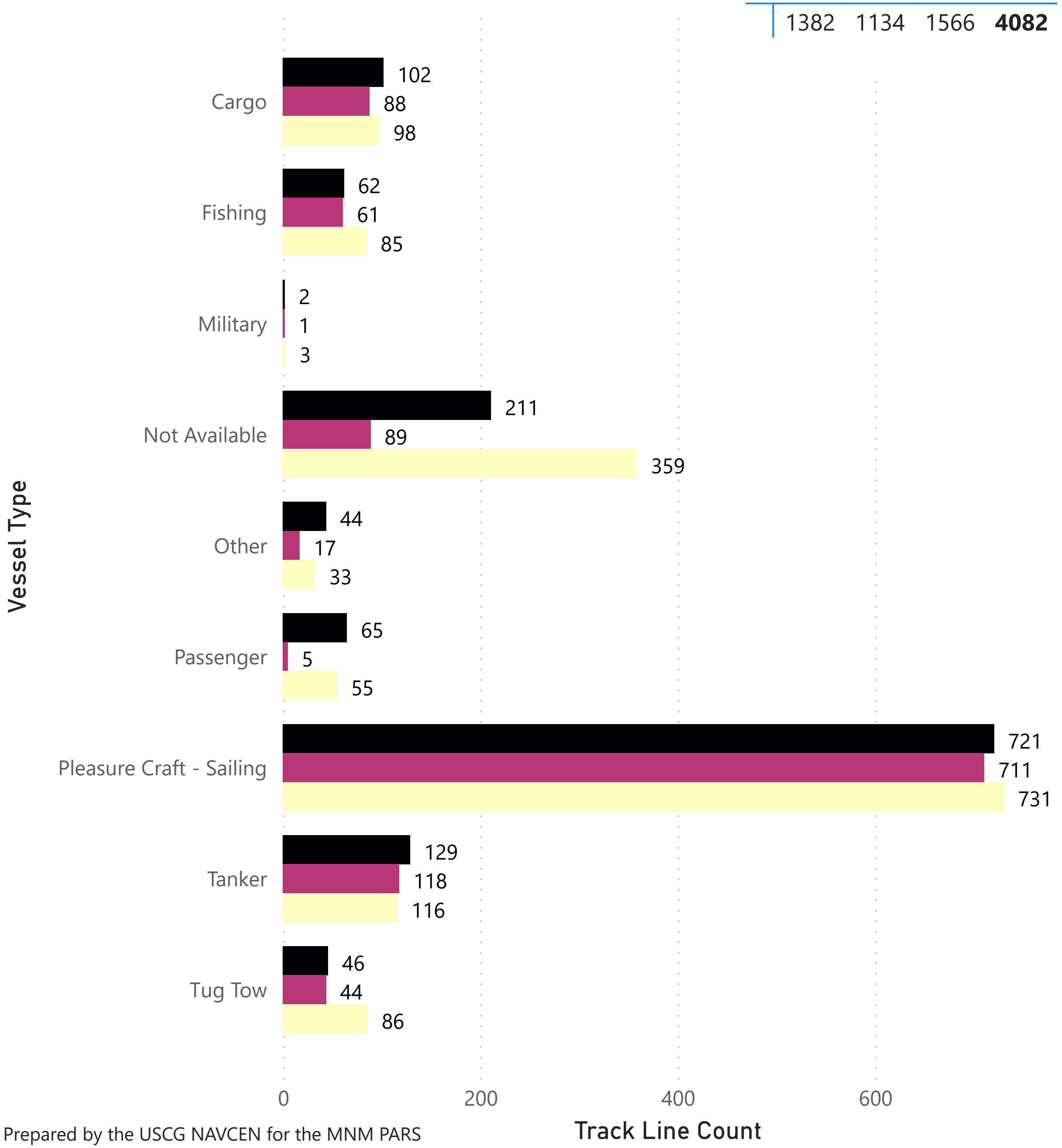
9/13/2022 8:13:27 AM


MNM PARS Traffic Density
Prepared by the USCG NAVCEN
Data Source: NAIS
Portland NW-SE Traffic Density, 2020
High Traffic Density
Low Traffic Density
GULF OF MAINE
JORDAN BASIN
WILKINSON BASIN
JEFFREYS LEDGE
Jones Ground
Outer Schoodic Ridge
Clay Bank
Newfound Ground
Skate Bank
Outer Fall
Truxton Swell
Crowell Basin
Sharrer Ridge
Rodgers Swell
Wright Swell
Stout Swell
Franklin Swell
Franklin Basin
Sewall Ridge
Mt Desert
Machias Bay
Bangor
Rockland
Portland
Cape Elizabeth
Cape Ann
Cape Cod
Hampshire
Sachusetts
Scale: 1:1,653,663
0 5 10 20 30 40
Nautical Miles
United States Coast Guard
Navigation Center
Last Update: 9/23/2022 2:58 PM
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

AIS Vessel Track Lines Intersecting Area of Interest 13 (Portland W/E Traffic)

Year ● 2019 ● 2020 ● 2021

2019	2020	2021	Total
1382	1134	1566	**4082**

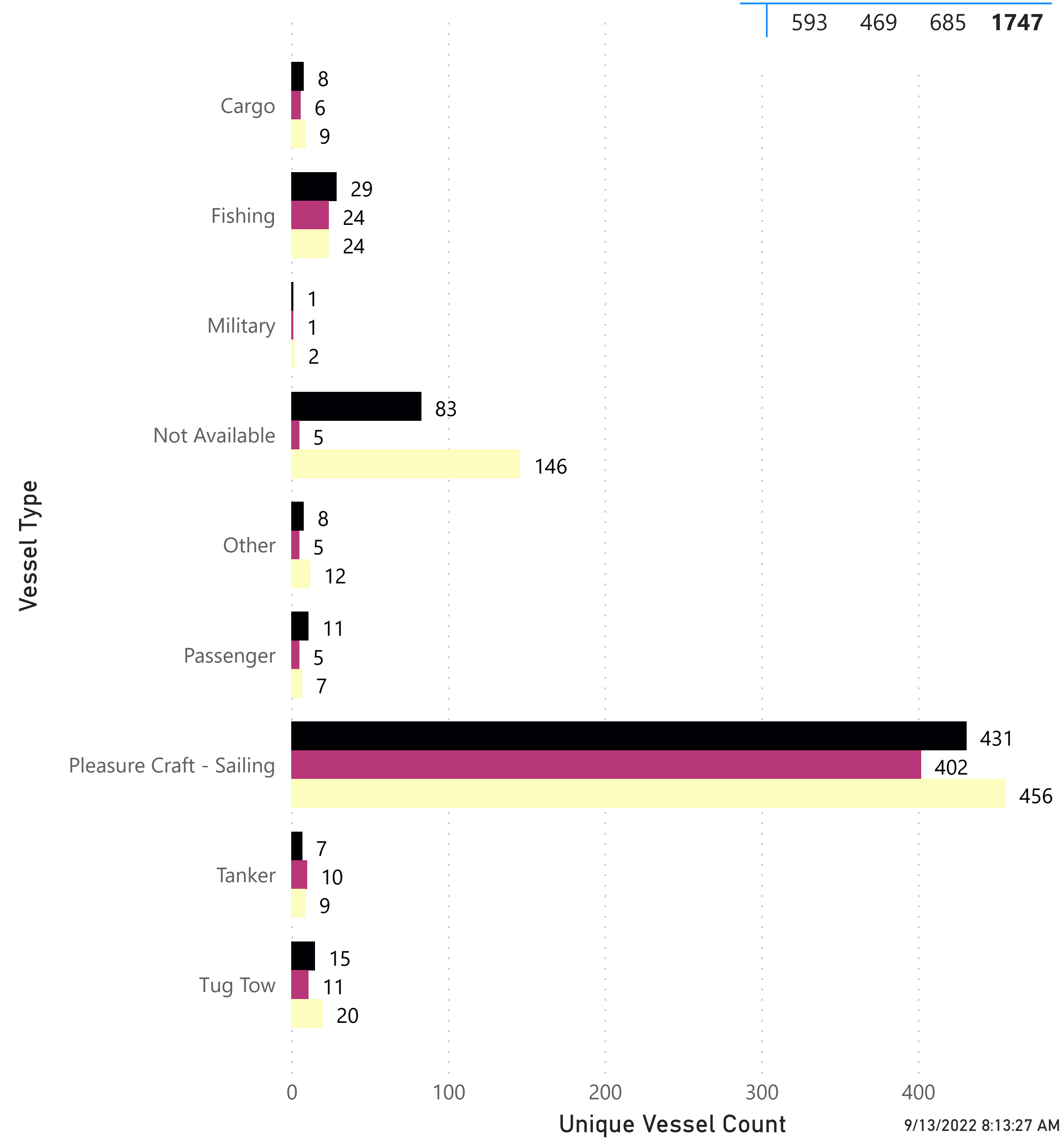


Prepared by the USCG NAVCEN for the MNM PARS

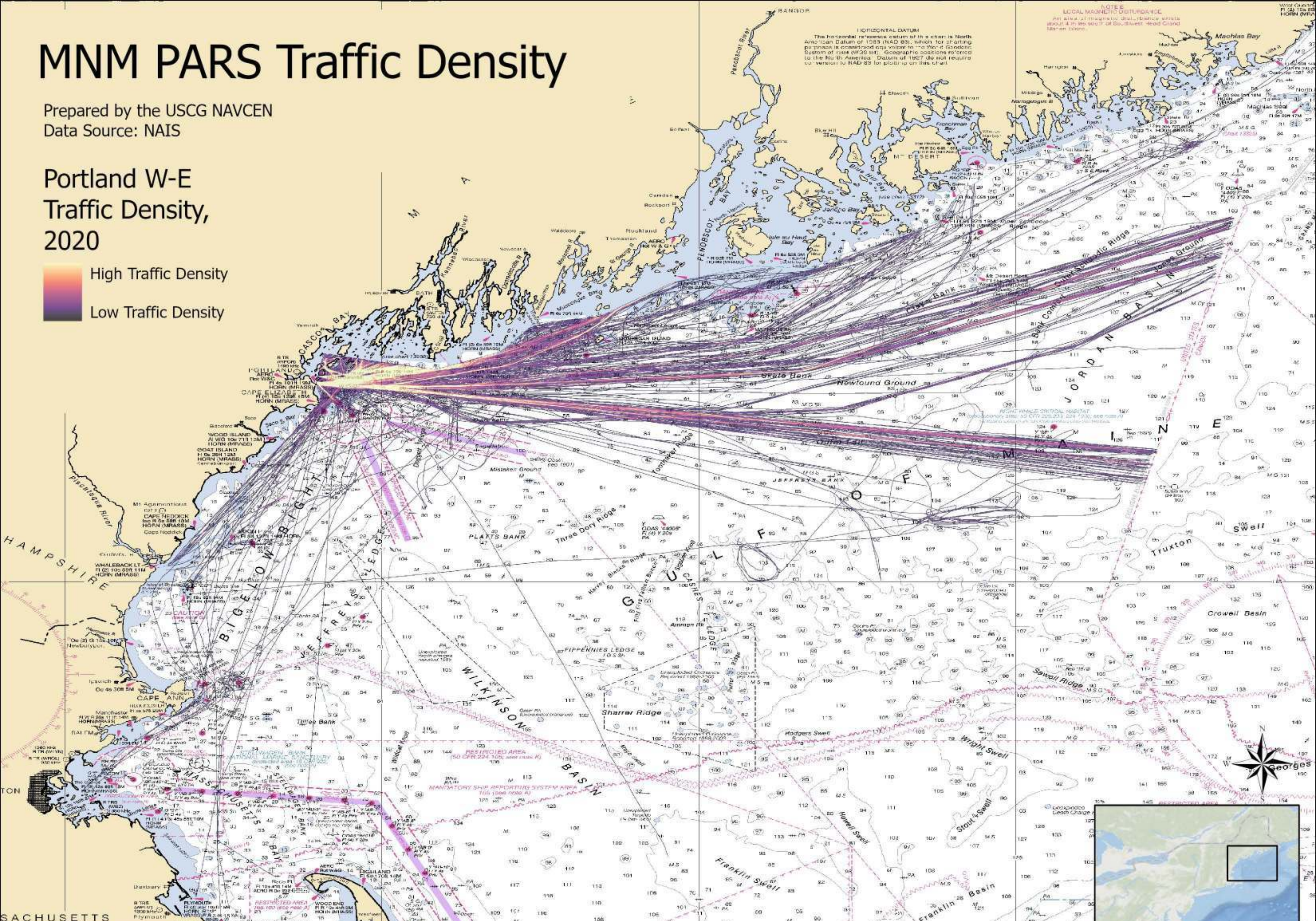
AIS Unique Vessels Intersecting Area of Interest 13 (Portland W/E Traffic)

Year ● 2019 ● 2020 ● 2021

2019	2020	2021	Total
593	469	685	**1747**



9/13/2022 8:13:27 AM

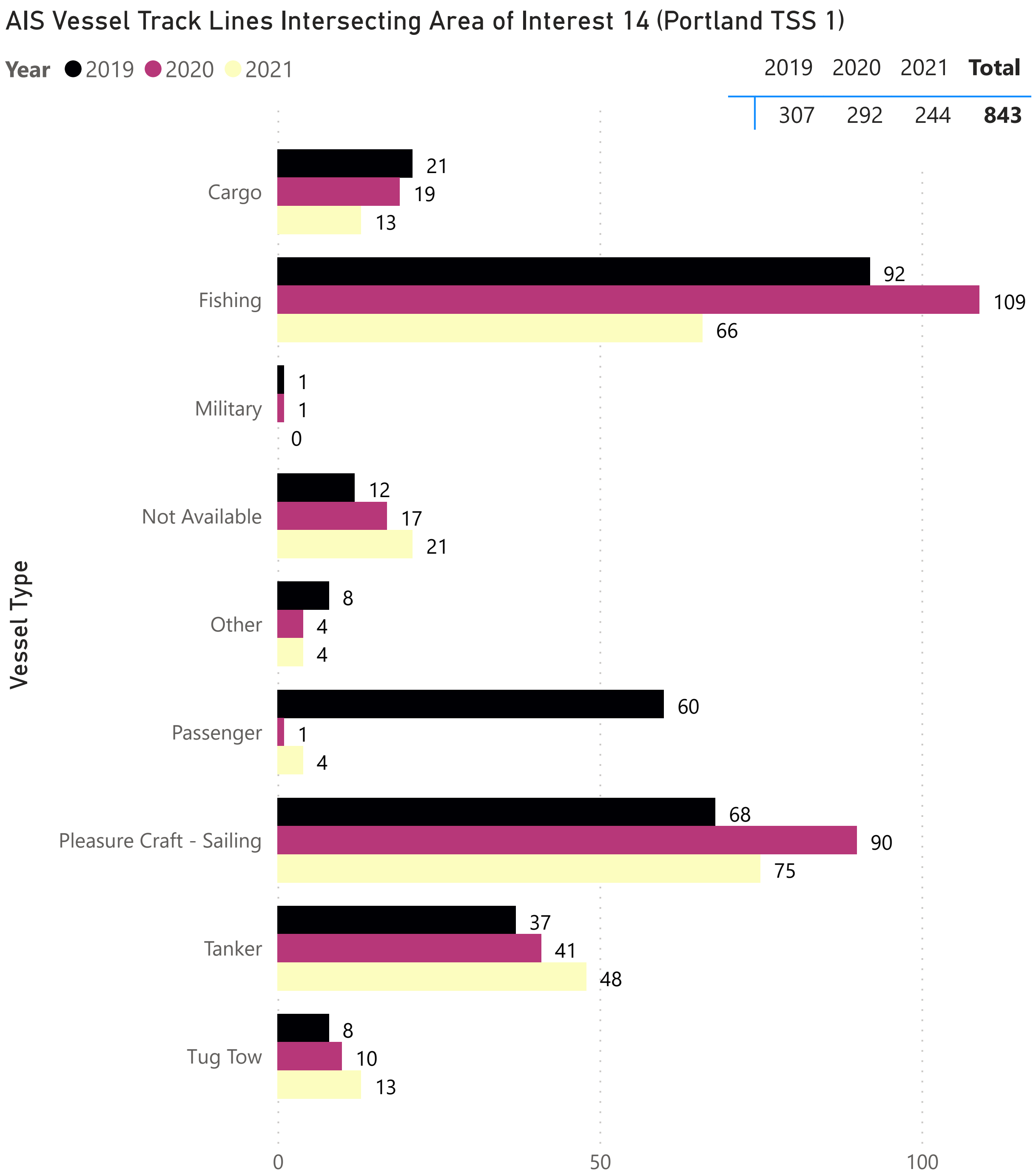


Scale: 1:1,653,663

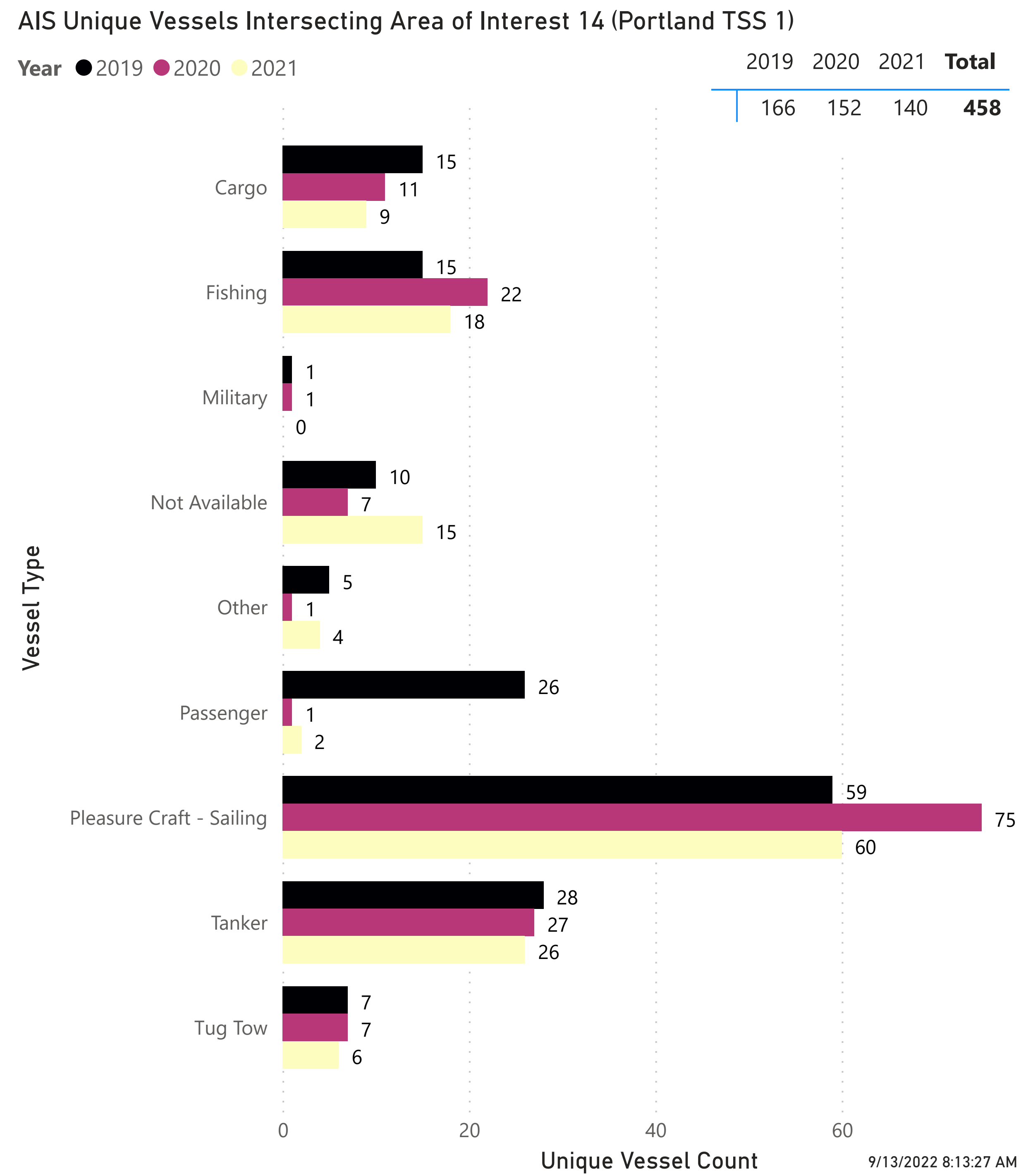
0 5 10 20 30 40 Nautical Miles

Last Update: 9/23/2022 2:59 PM

Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree



Prepared by the USCG NAVCEN for the MNM PARS



9/13/2022 8:13:27 AM

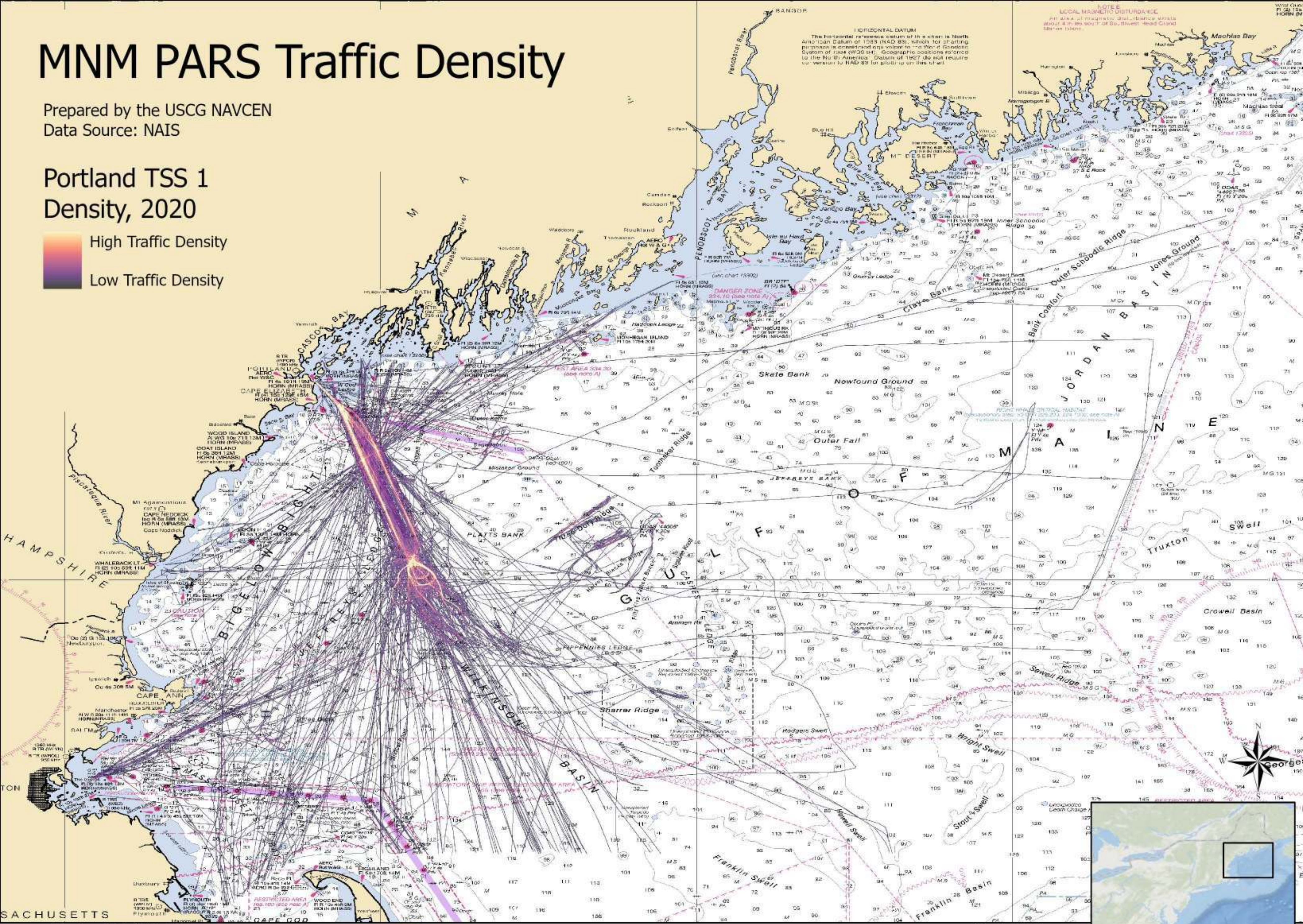
MNM PARS Traffic Density

Prepared by the USCG NAVCEN
Data Source: NAIS

Portland TSS 1 Density, 2020

High Traffic Density

Low Traffic Density

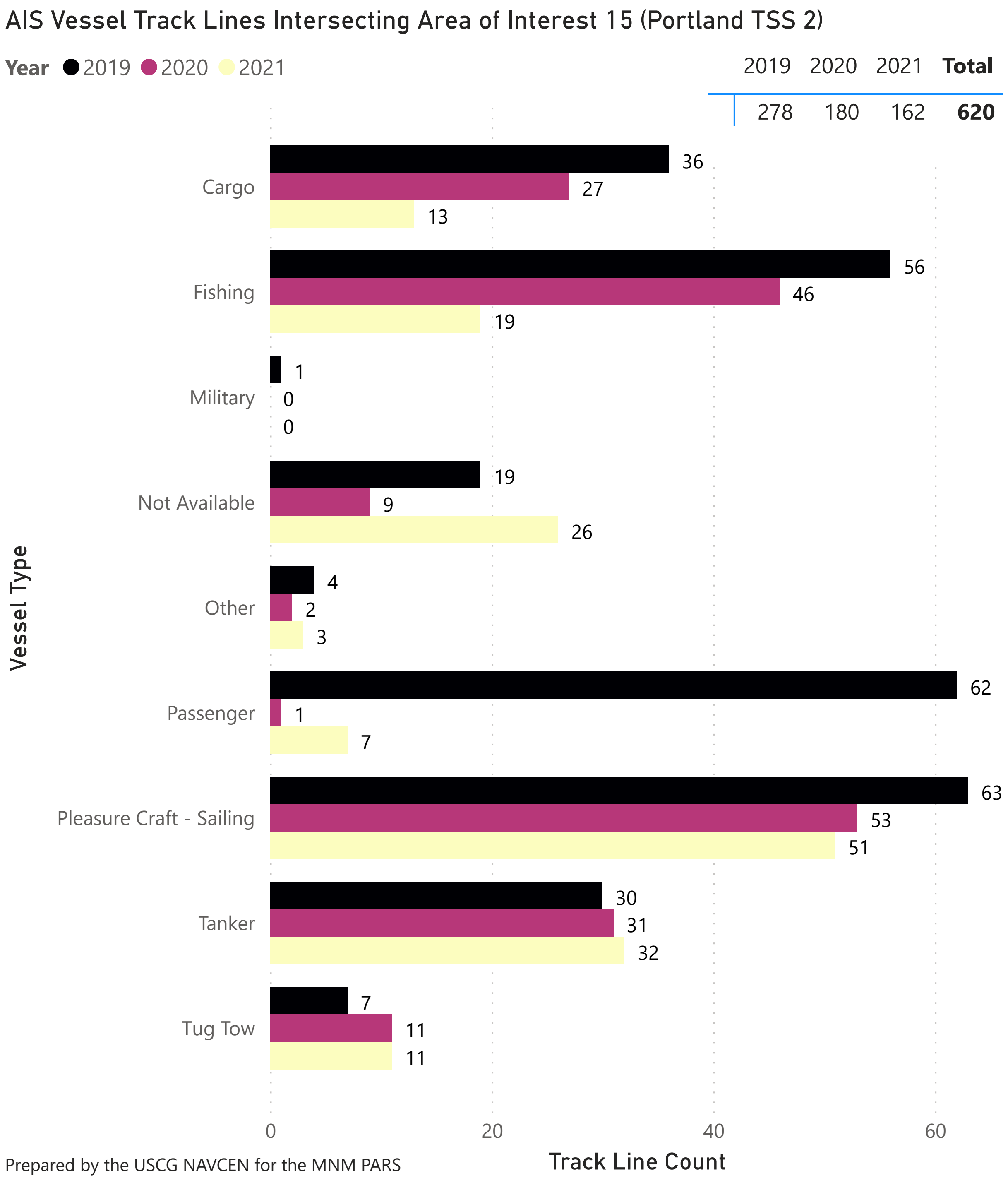


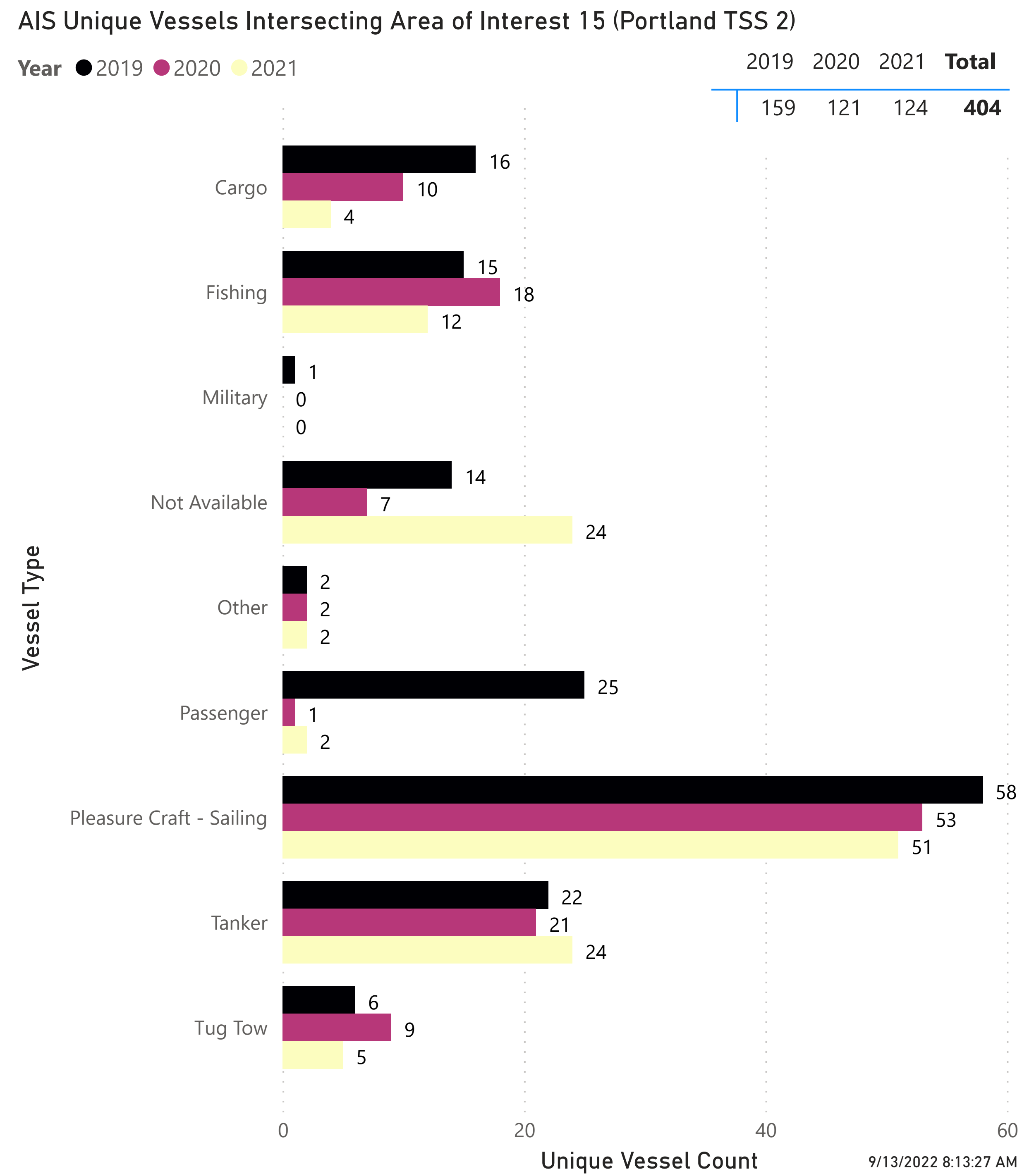
Scale: 1:1,653,663

0 5 10 20 30 40 Nautical Miles

Last Update: 9/23/2022 2:58 PM

Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree


AIS Vessel Track Lines Intersecting Area of Interest 15 (Portland TSS 2)
Year 2019 2020 2021
2019 2020 2021 Total
278 180 162 620
Vessel Type
Cargo 36 27 13
Fishing 56 46 19
Military 1 0 0
Not Available 19 9 26
Other 4 2 3
Passenger 62 1 7
Pleasure Craft - Sailing 63 53 51
Tanker 30 31 32
Tug Tow 7 11 11
0 20 40 60
Track Line Count
Prepared by the USCG NAVCEN for the MNM PARS

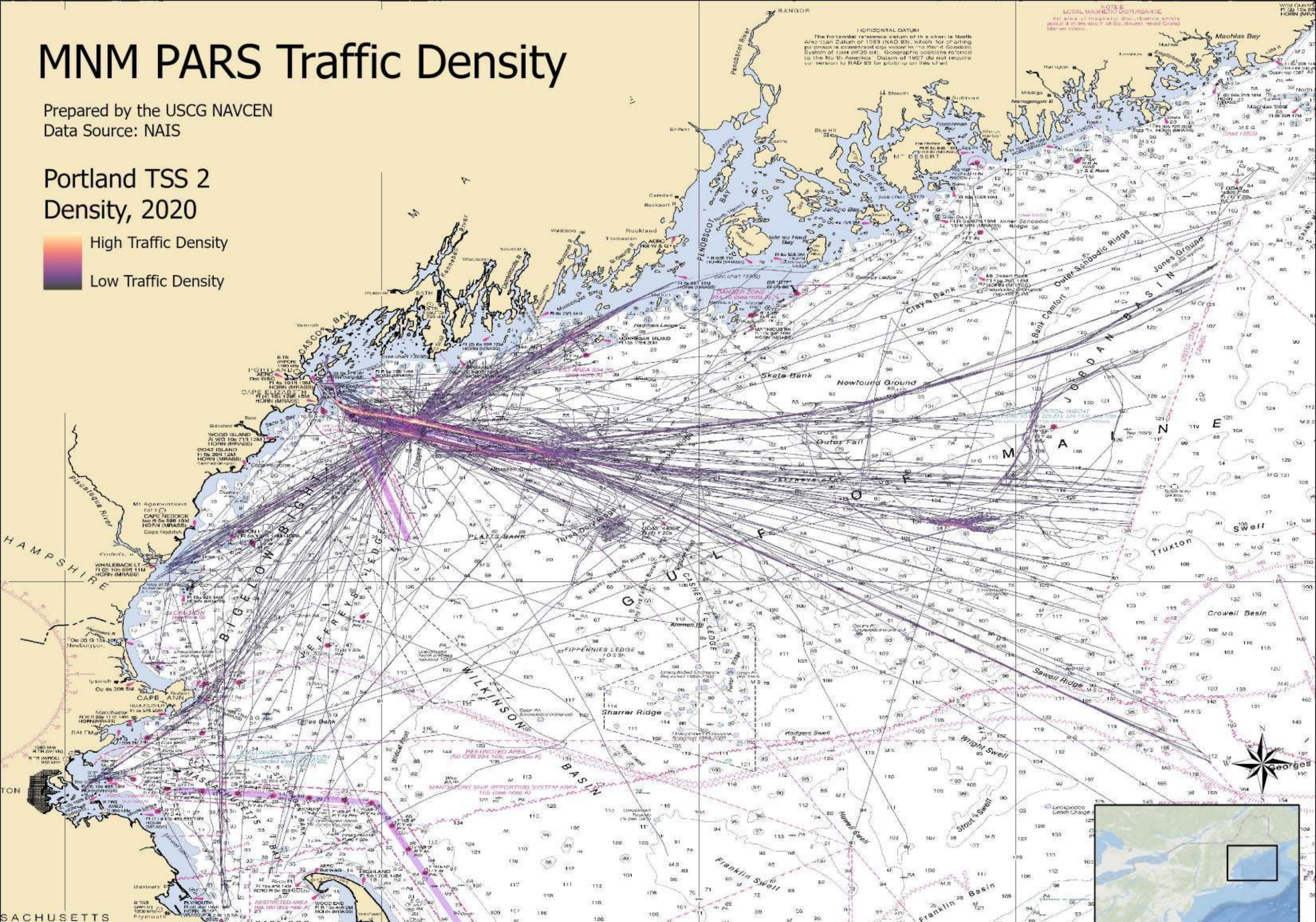

AIS Unique Vessels Intersecting Area of Interest 15 (Portland TSS 2)
Year 2019 2020 2021
2019 2020 2021 Total
159 121 124 404
Vessel Type
Cargo 16 10 4
Fishing 15 18 12
Military 1 0 0
Not Available 14 7 24
Other 2 2 2
Passenger 25 1 2
Pleasure Craft - Sailing 58 53 51
Tanker 22 21 24
Tug Tow 6 9 5
0 20 40 60
Unique Vessel Count
9/13/2022 8:13:27 AM

MNM PARS Traffic Density

Prepared by the USCG NAVCEN
Data Source: NAIS

Portland TSS 2
Density, 2020

High Traffic Density
Low Traffic Density

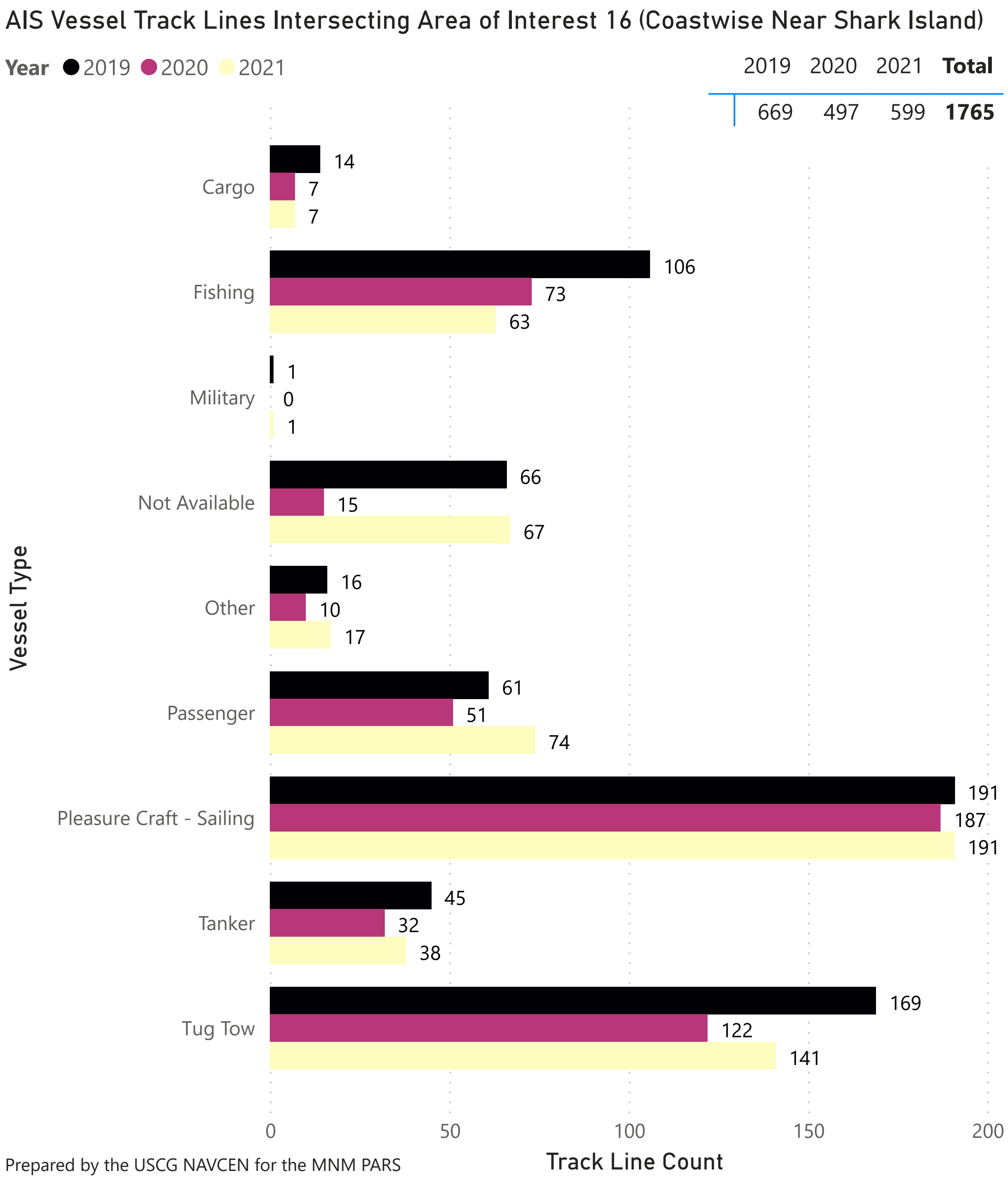


Scale: 1:1,653,663

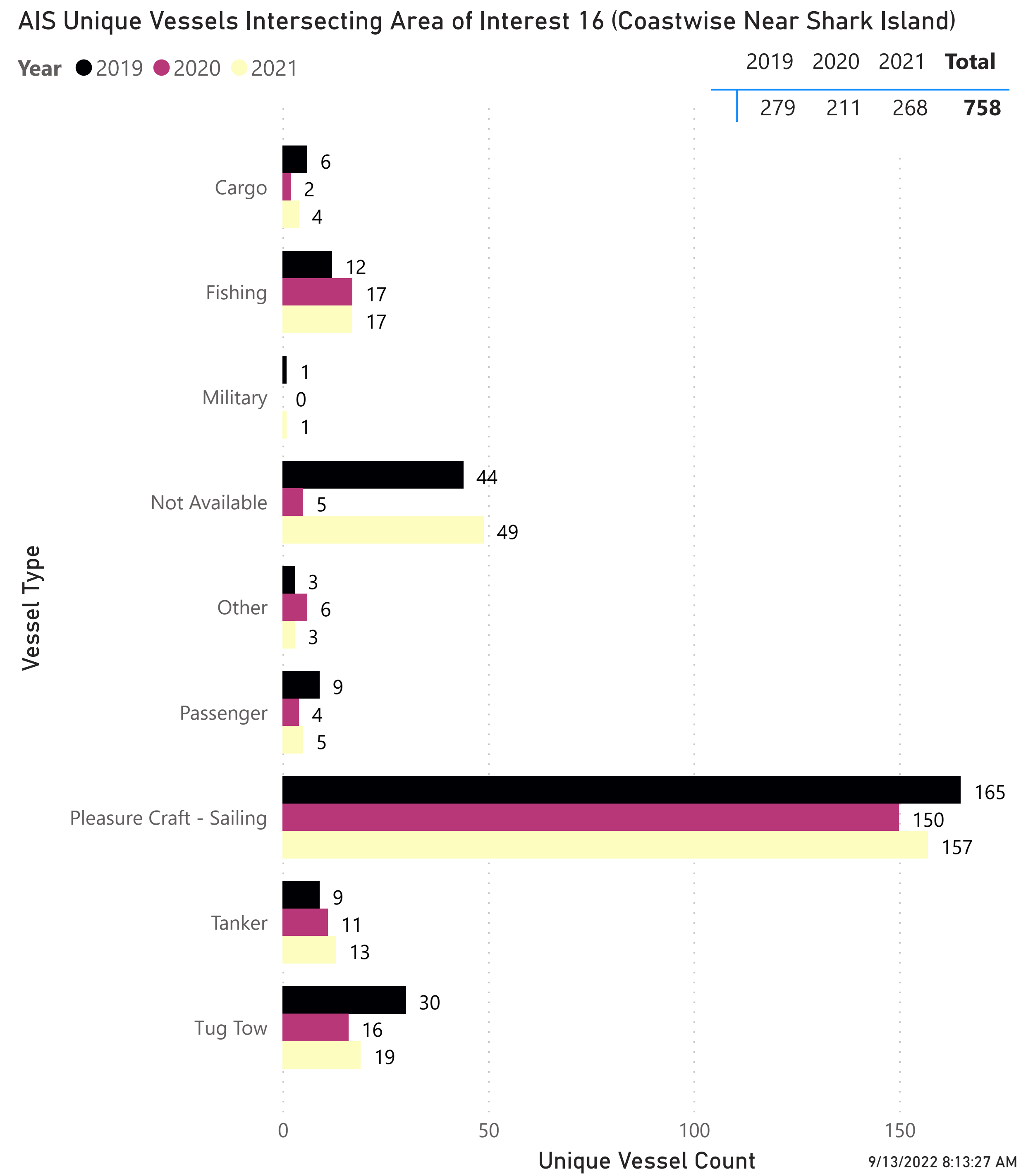
0 5 10 20 30 40 Nautical Miles

Last Update: 9/23/2022 2:59 PM

Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree



Prepared by the USCG NAVCEN for the MNM PARS

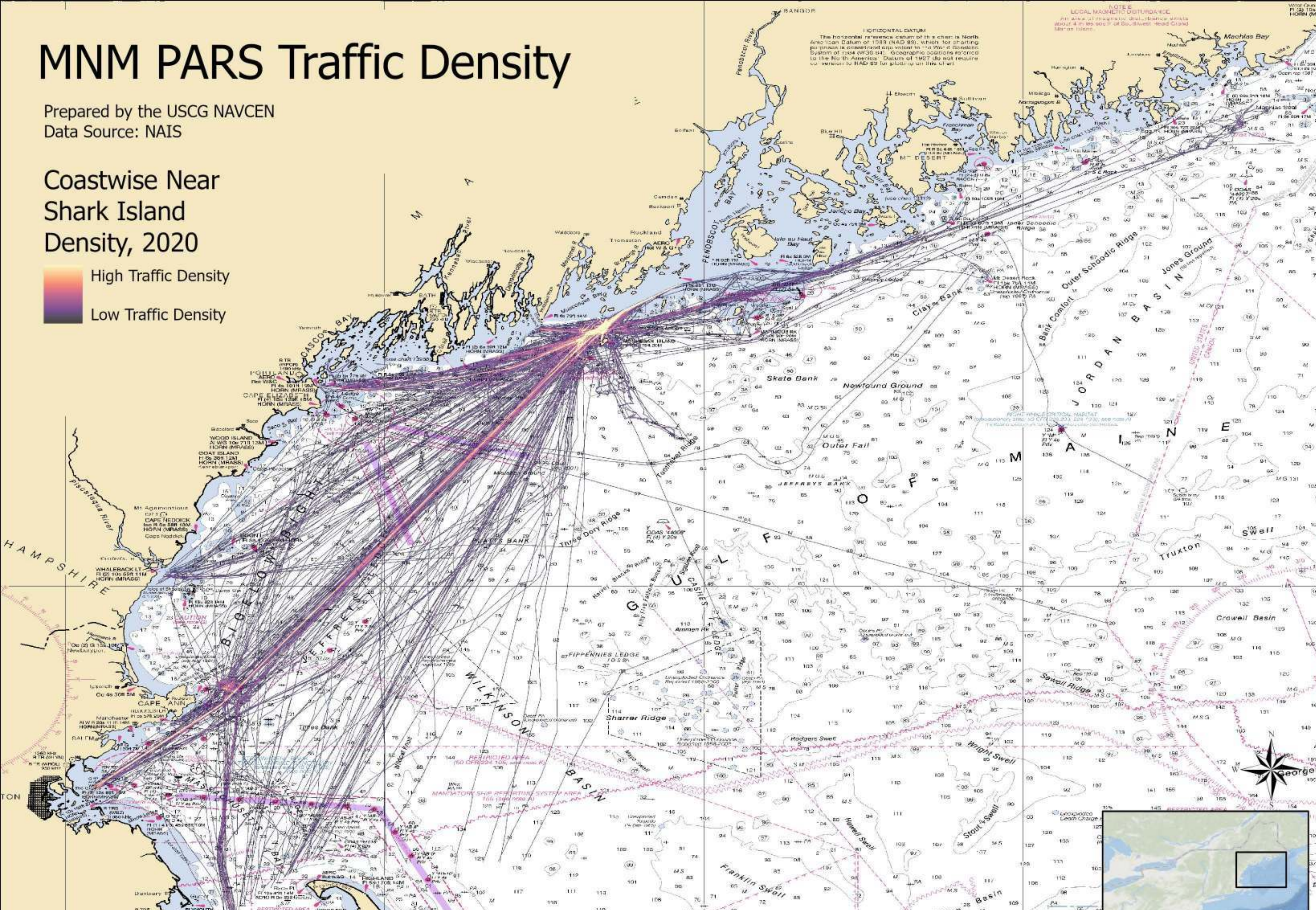


9/13/2022 8:13:27 AM

MNM PARS Traffic Density

Prepared by the USCG NAVCEN
Data Source: NAIS

Coastwise Near Shark Island Density, 2020

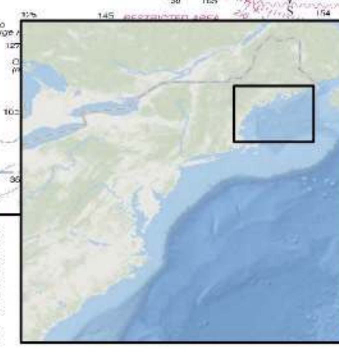


Scale: 1:1,653,663

0 5 10 20 30 40 Nautical Miles

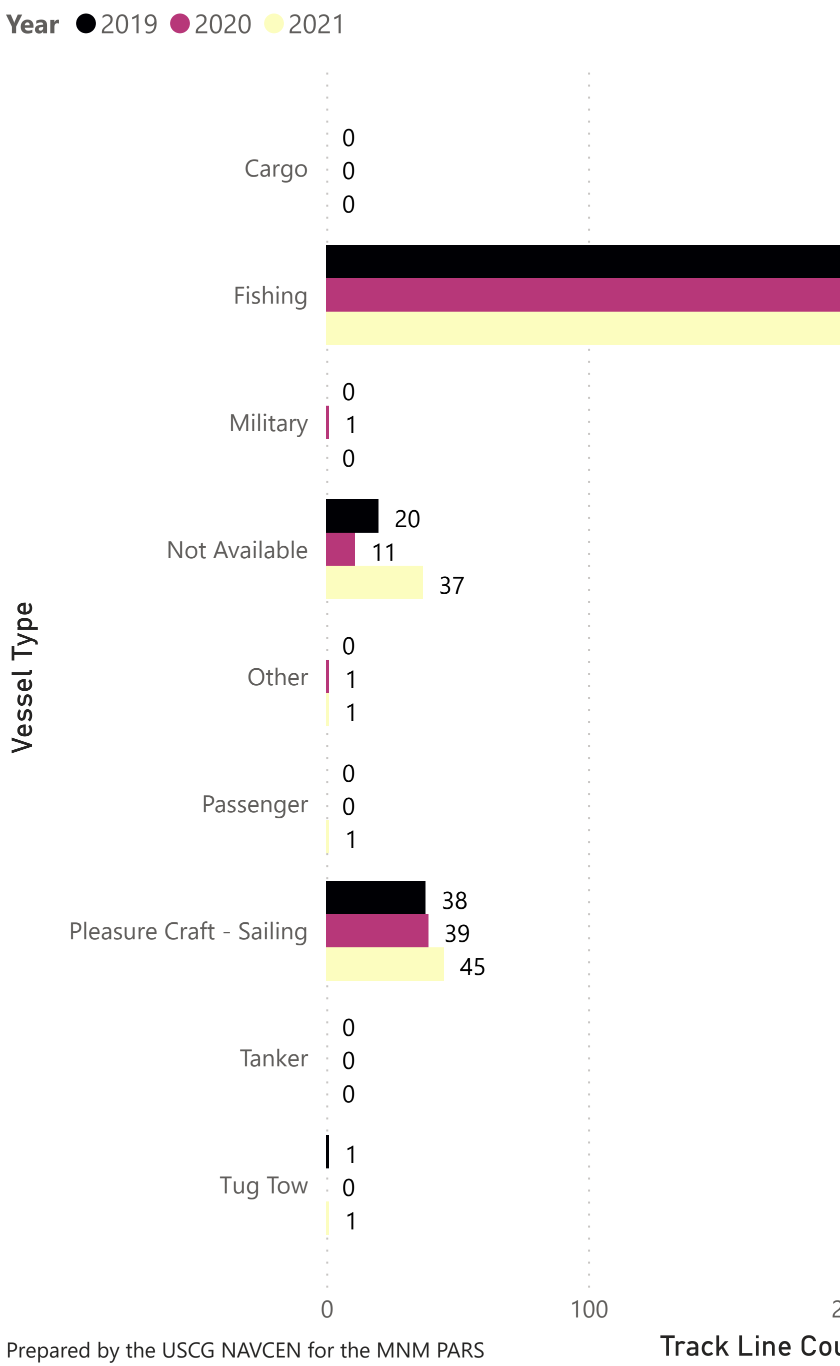
Last Update: 9/23/2022 2:55 PM

Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree



AIS Vessel Track Lines Intersecting Area of Interest 17 (Georges Islands)

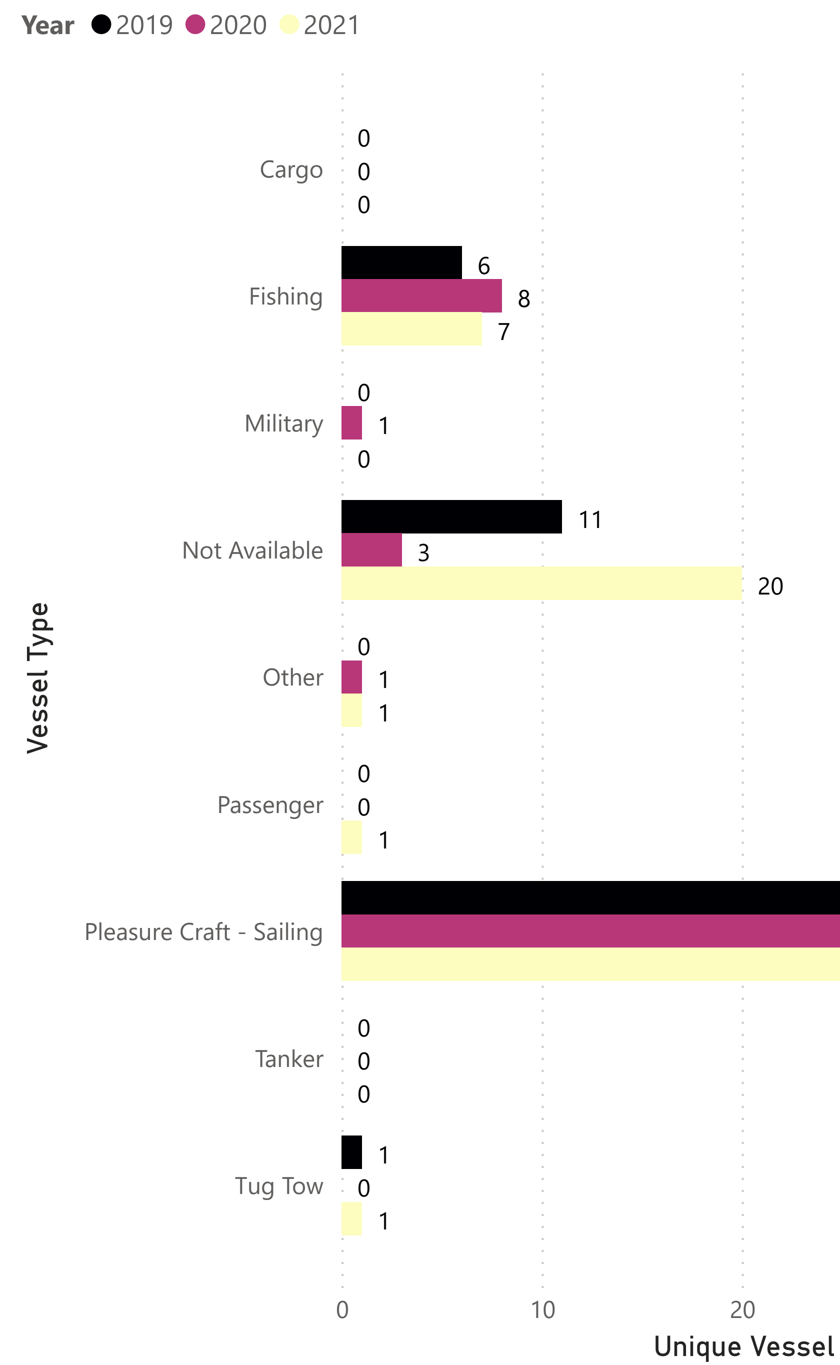
2019	2020	2021	Total
281	367	305	**953**



Prepared by the USCG NAVCEN for the MNM PARS

AIS Unique Vessels Intersecting Area of Interest 17 (Georges Islands)

2019	2020	2021	Total
54	50	72	**176**



9/13/2022 8:13:27 AM

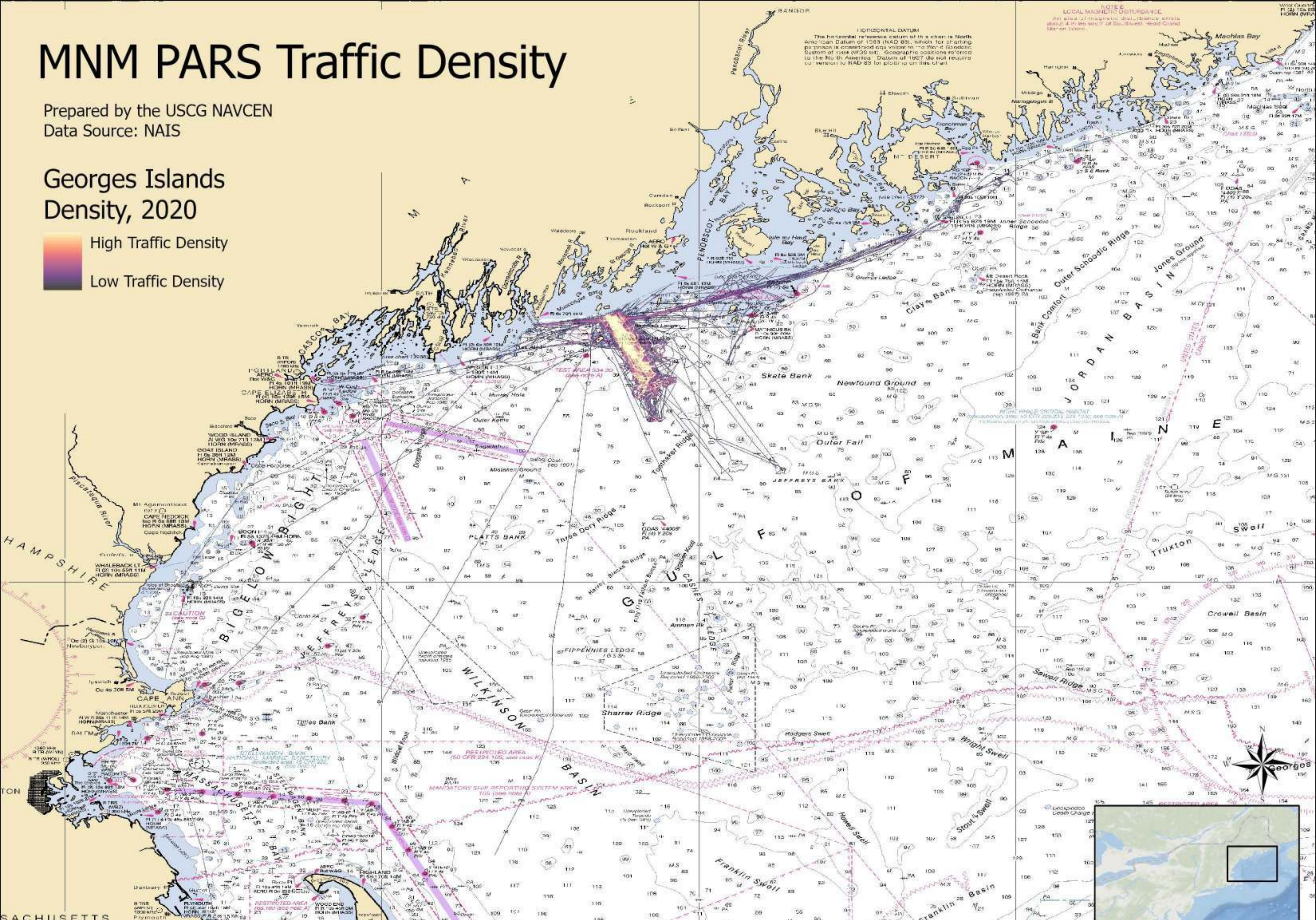
MNM PARS Traffic Density

Prepared by the USCG NAVCEN
Data Source: NAIS

Georges Islands Density, 2020

High Traffic Density

Low Traffic Density



Scale: 1:1,653,663

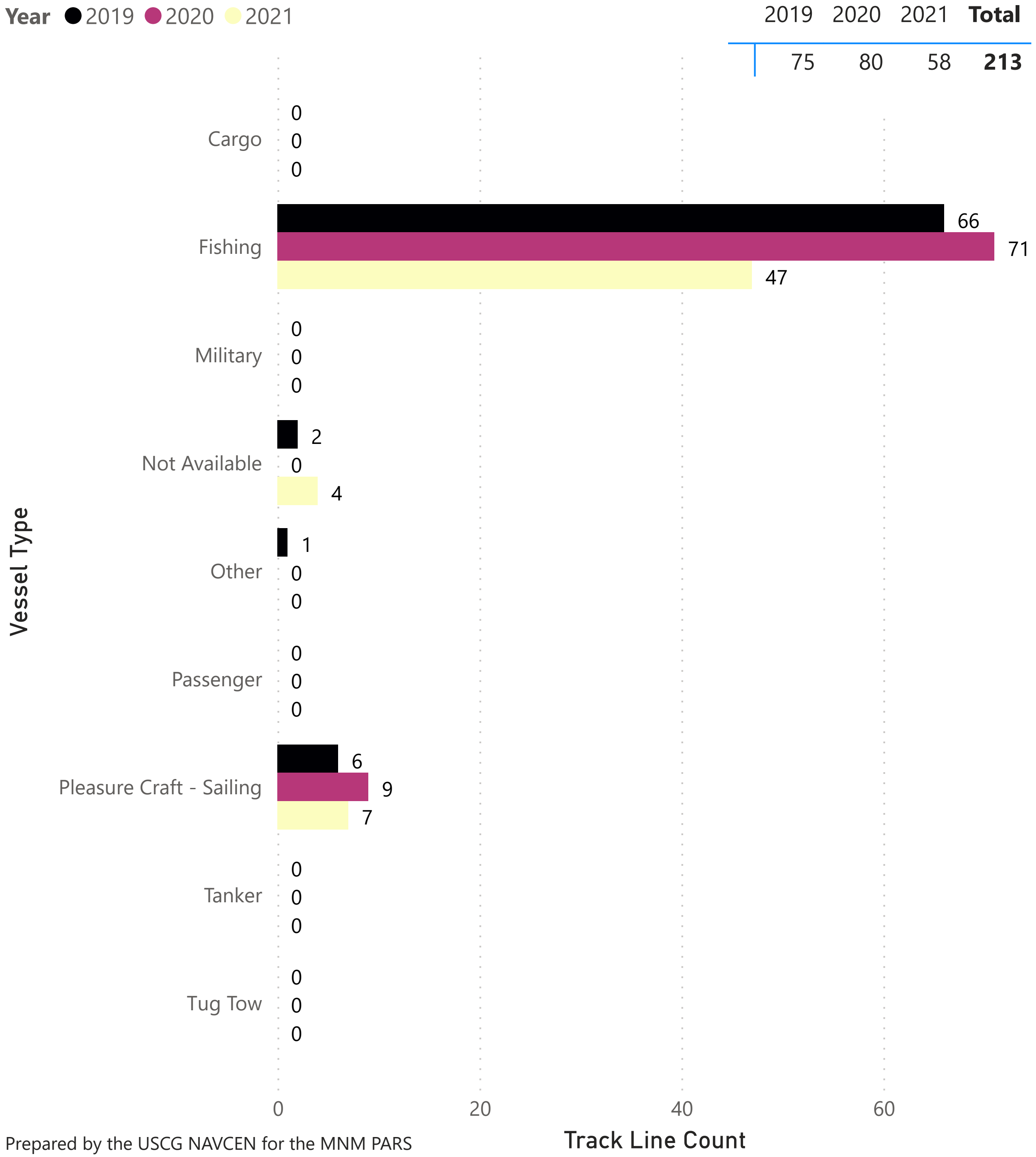
0 5 10 20 30 40 Nautical Miles

Last Update: 9/23/2022 2:55 PM

Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

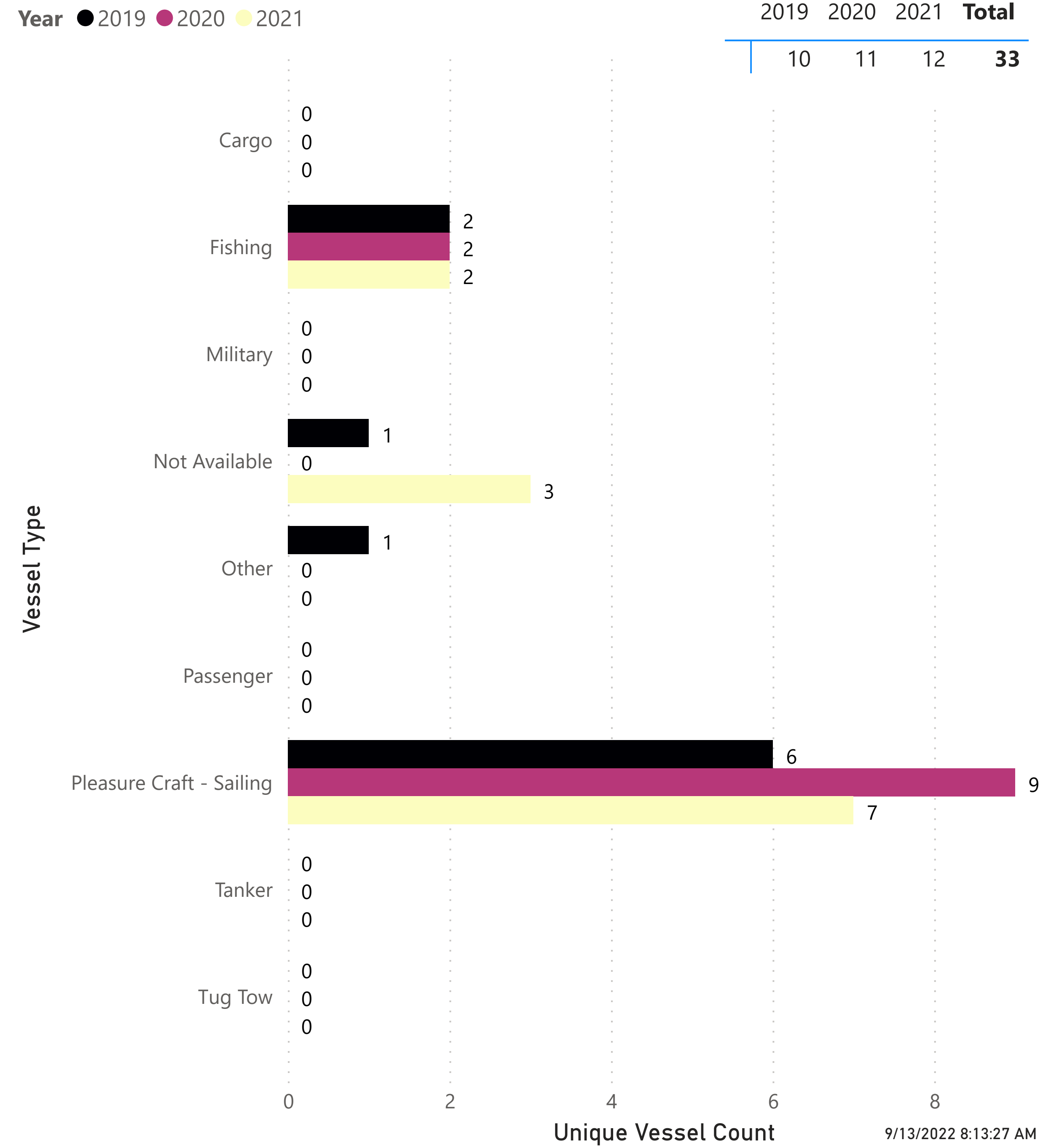
AIS Vessel Track Lines Intersecting Area of Interest 18 (Two Bush Island)

2019	2020	2021	Total
75	80	58	**213**



AIS Unique Vessels Intersecting Area of Interest 18 (Two Bush Island)

2019	2020	2021	Total
10	11	12	**33**



Prepared by the USCG NAVCEN for the MNM PARS

9/13/2022 8:13:27 AM

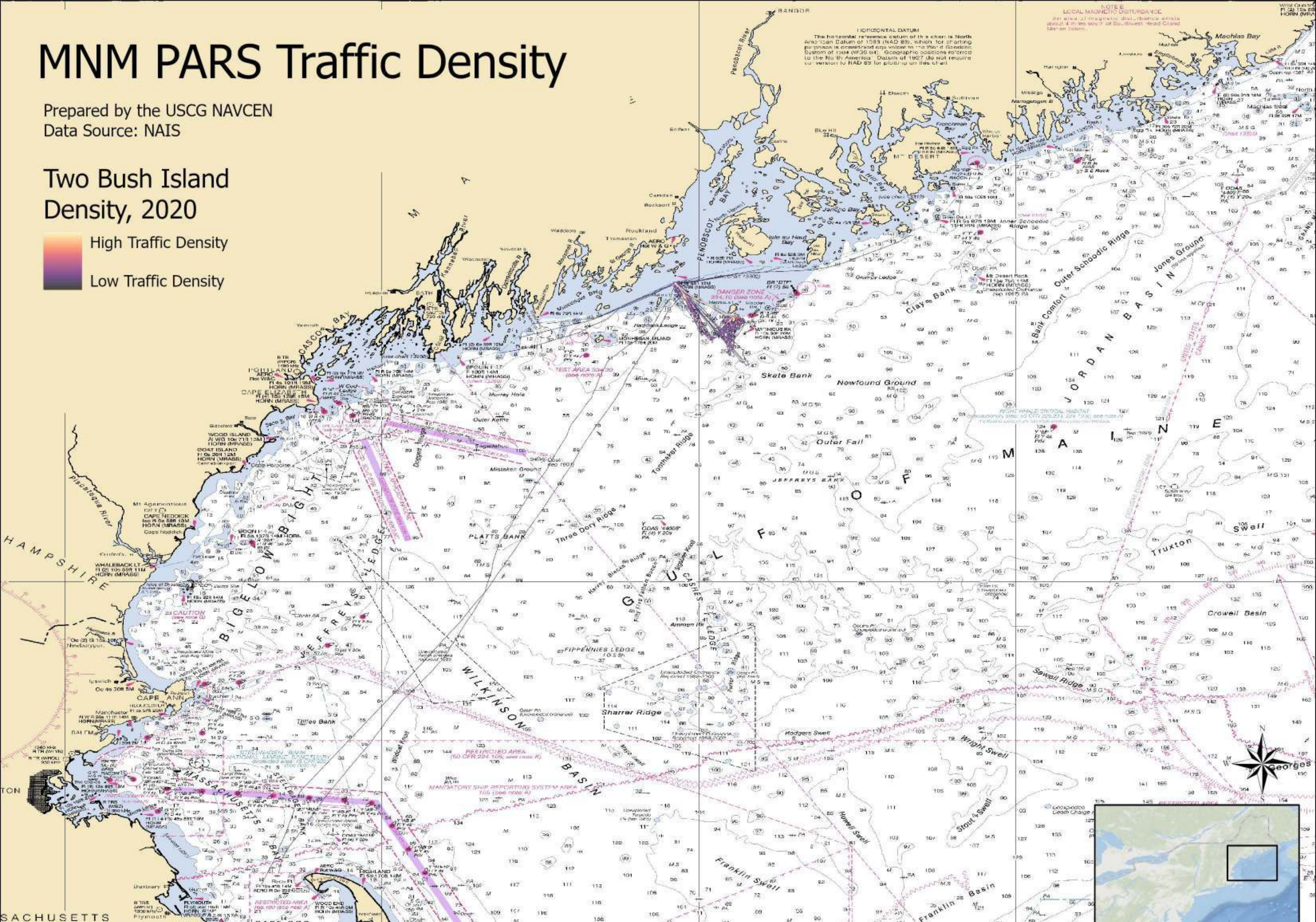
MNM PARS Traffic Density

Prepared by the USCG NAVCEN
Data Source: NAIS

Two Bush Island Density, 2020

High Traffic Density

Low Traffic Density



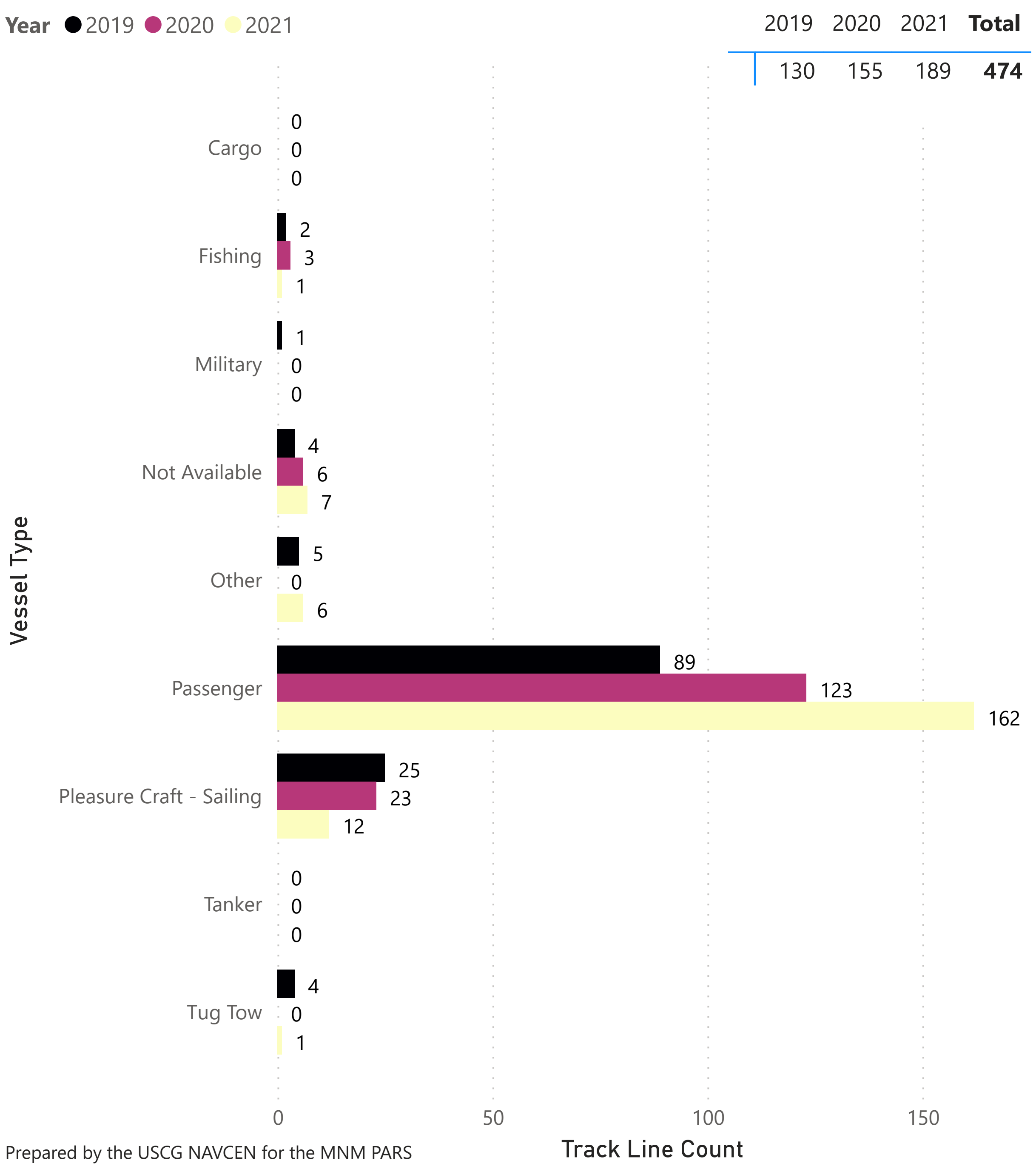
Scale: 1:1,653,663

0 5 10 20 30 40 Nautical Miles

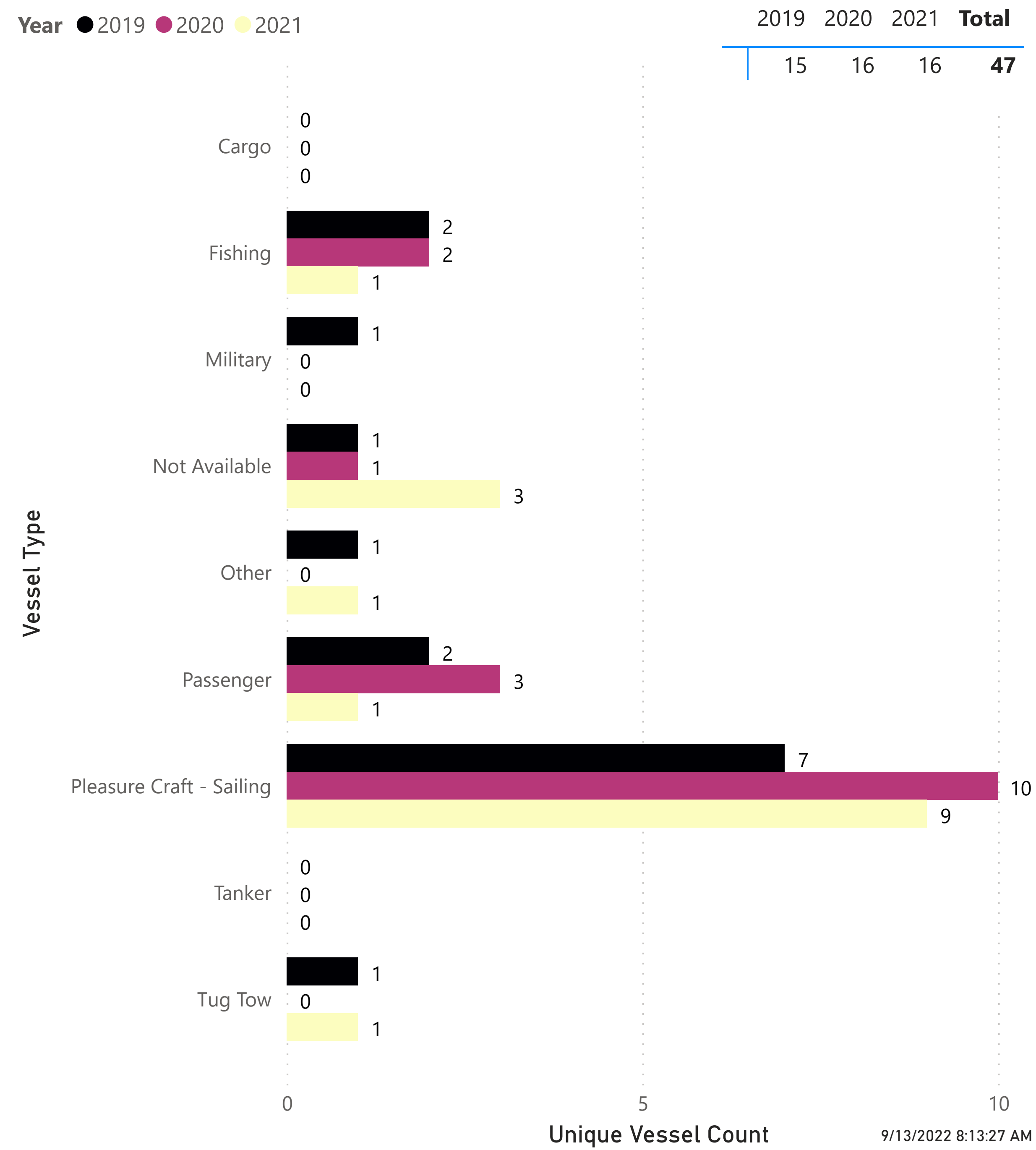
Last Update: 9/23/2022 3:02 PM

Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

AIS Vessel Track Lines Intersecting Area of Interest 19 (Outside Recommended Route)



AIS Unique Vessels Intersecting Area of Interest 19 (Outside Recommended Route)



Prepared by the USCG NAVCEN for the MNM PARS

9/13/2022 8:13:27 AM

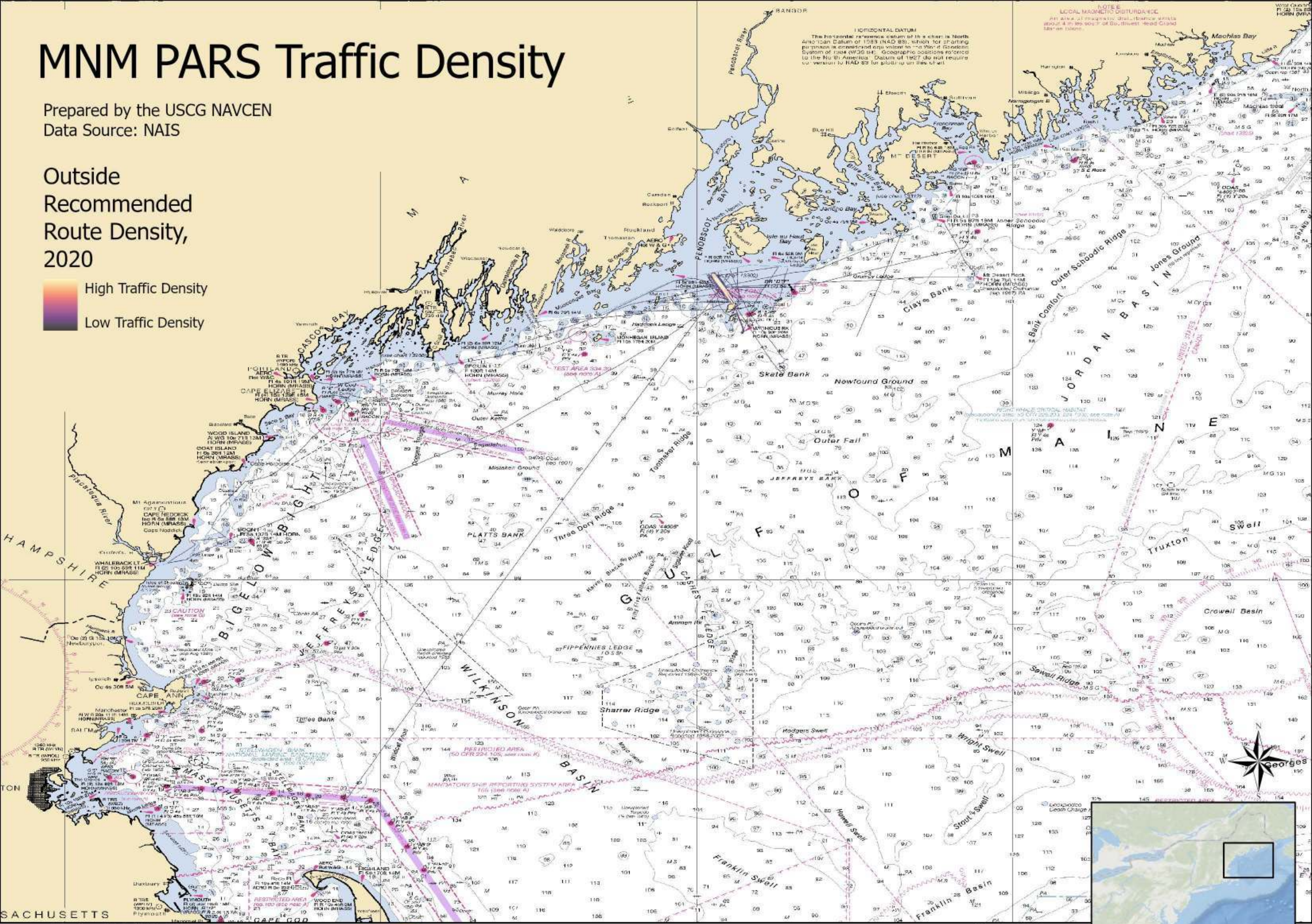
MNM PARS Traffic Density

Prepared by the USCG NAVCEN
Data Source: NAIS

Outside Recommended Route Density, 2020

High Traffic Density

Low Traffic Density



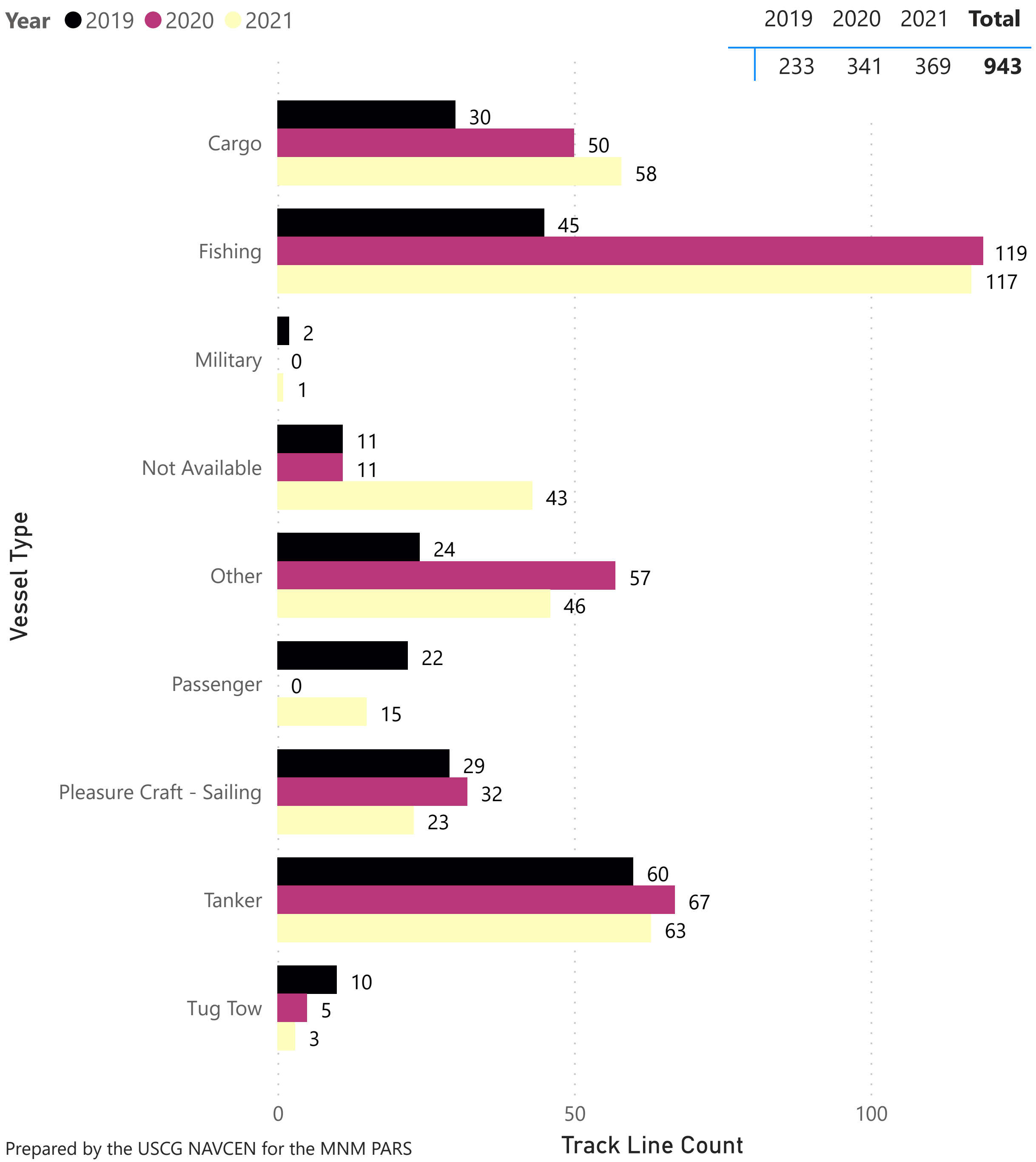
Scale: 1:1,653,663

0 5 10 20 30 40 Nautical Miles

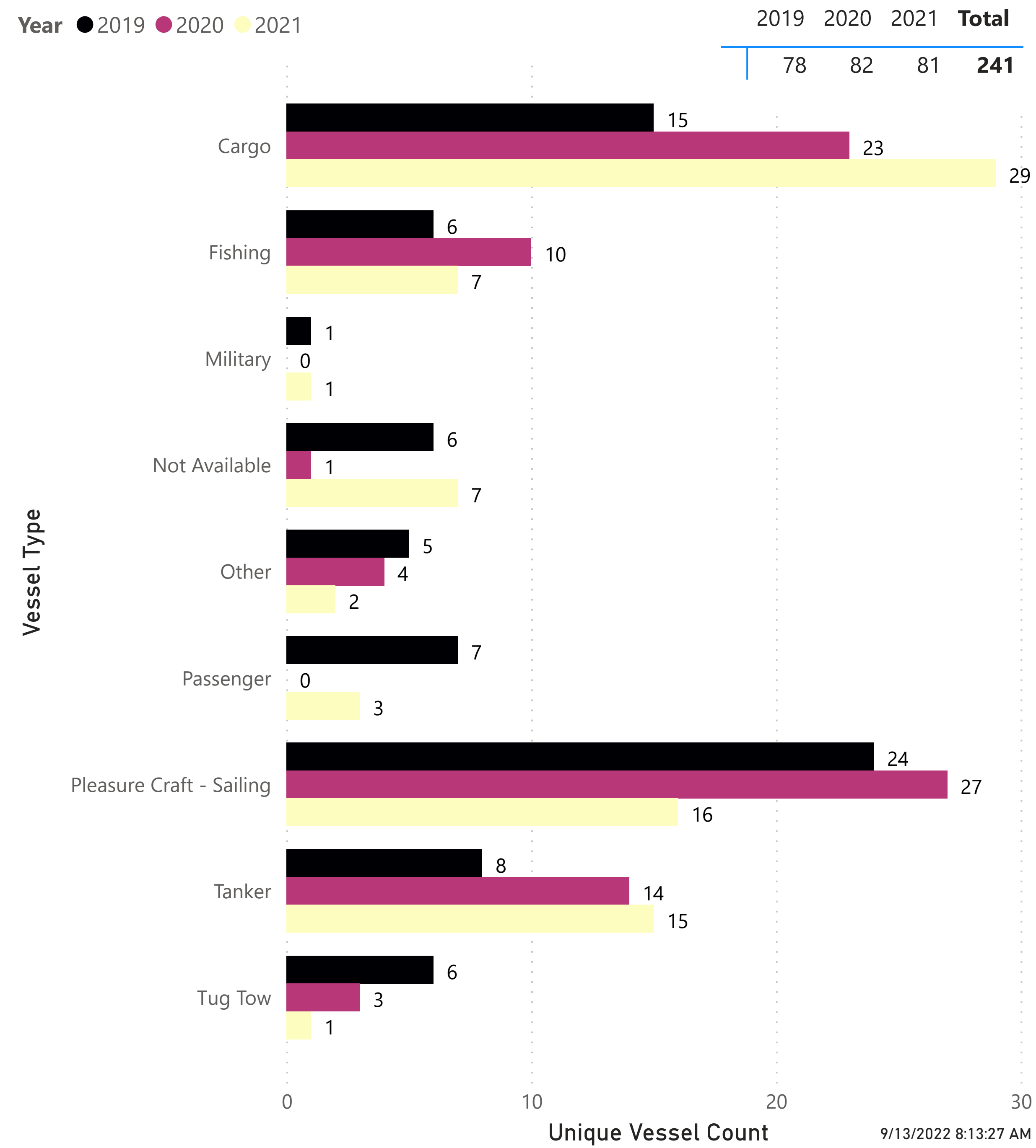
Last Update: 9/23/2022 2:57 PM

Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

AIS Vessel Track Lines Intersecting Area of Interest 20 (Recommended Route 1)



AIS Unique Vessels Intersecting Area of Interest 20 (Recommended Route 1)



Prepared by the USCG NAVCEN for the MNM PARS

9/13/2022 8:13:27 AM

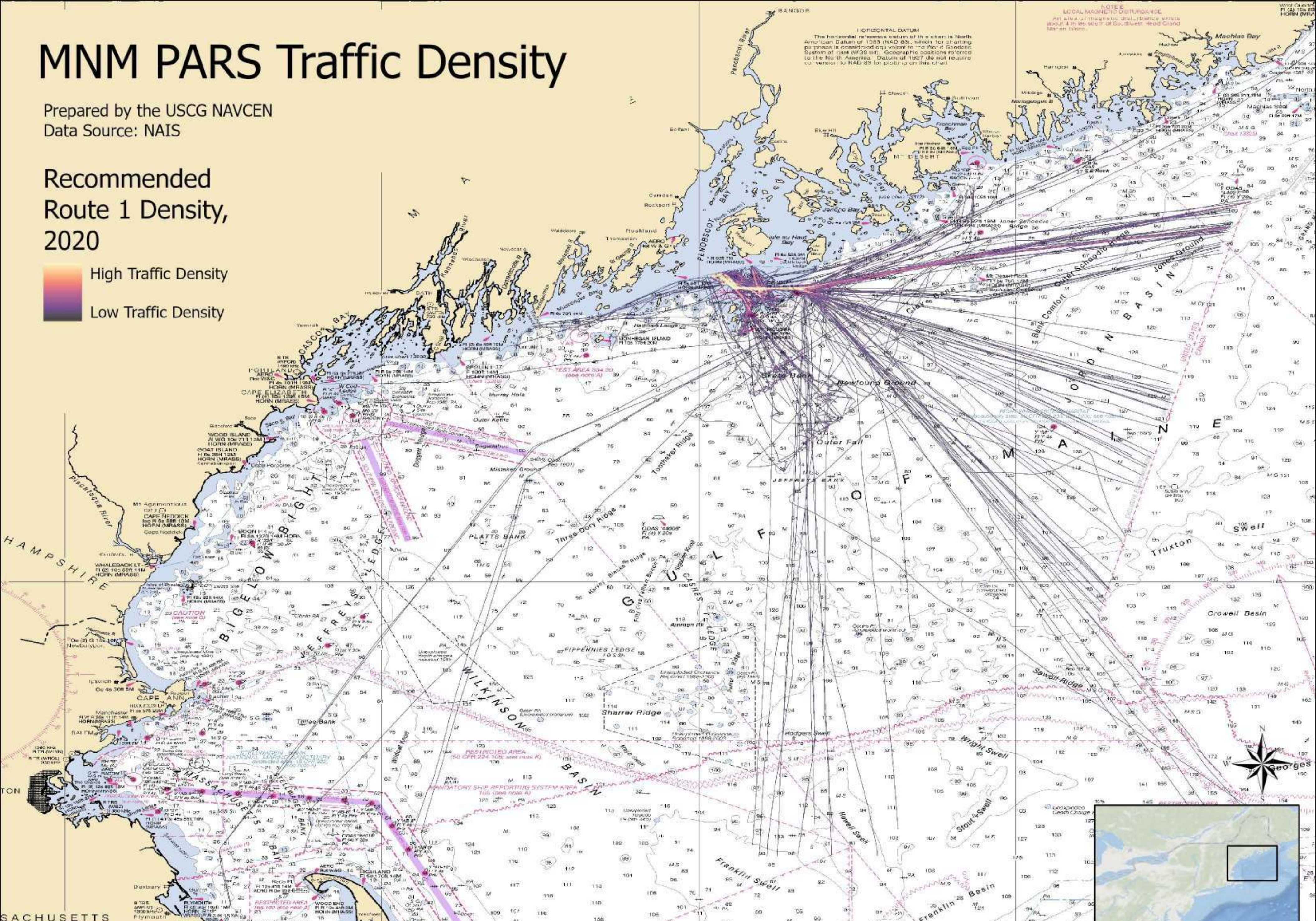
MNM PARS Traffic Density

Prepared by the USCG NAVCEN
Data Source: NAIS

Recommended Route 1 Density, 2020

High Traffic Density

Low Traffic Density



Scale: 1:1,653,663

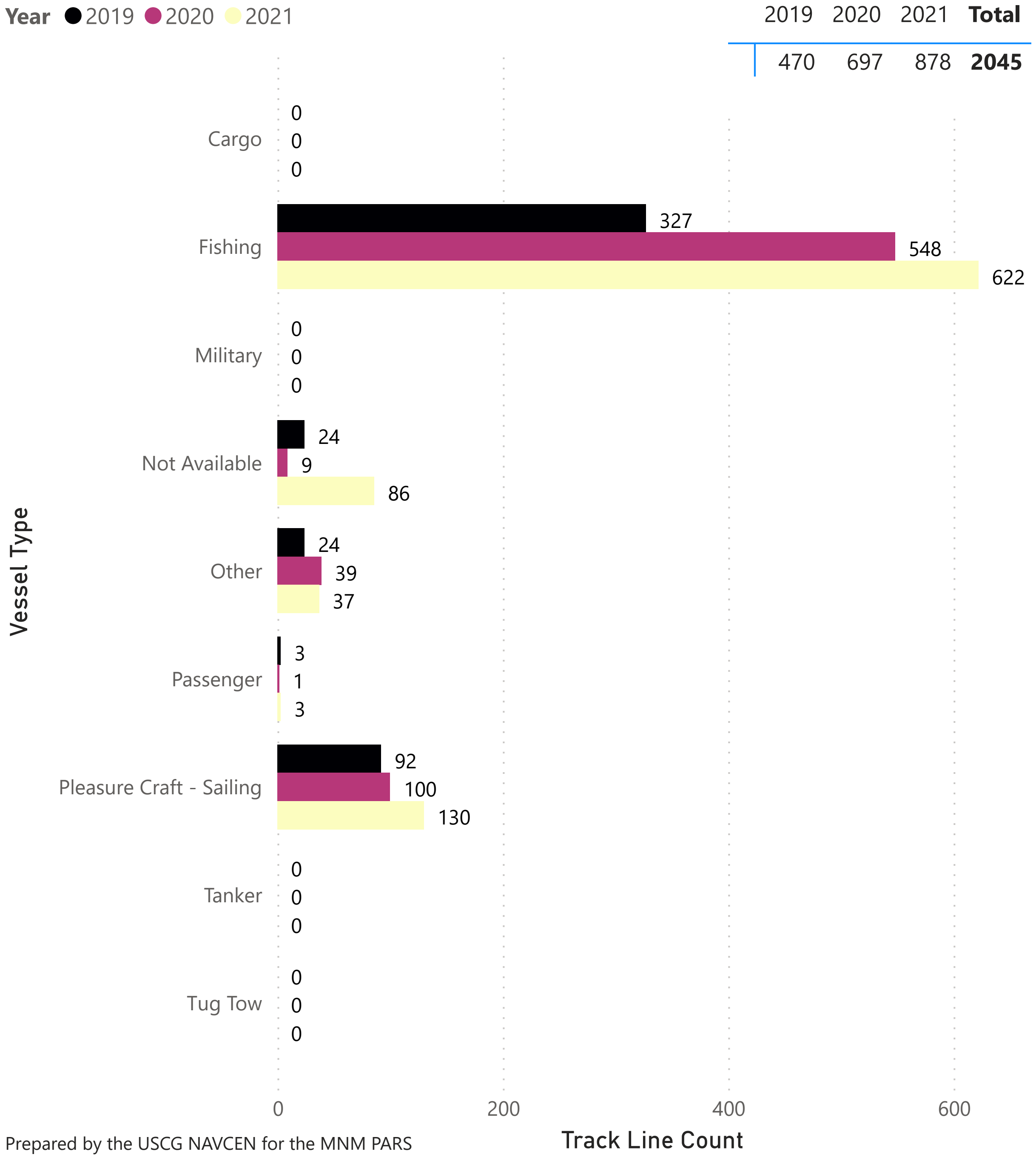
0 5 10 20 30 40 Nautical Miles

Last Update: 9/23/2022 3:01 PM

Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

AIS Vessel Track Lines Intersecting Area of Interest 21 (Vinalhaven Island 2)

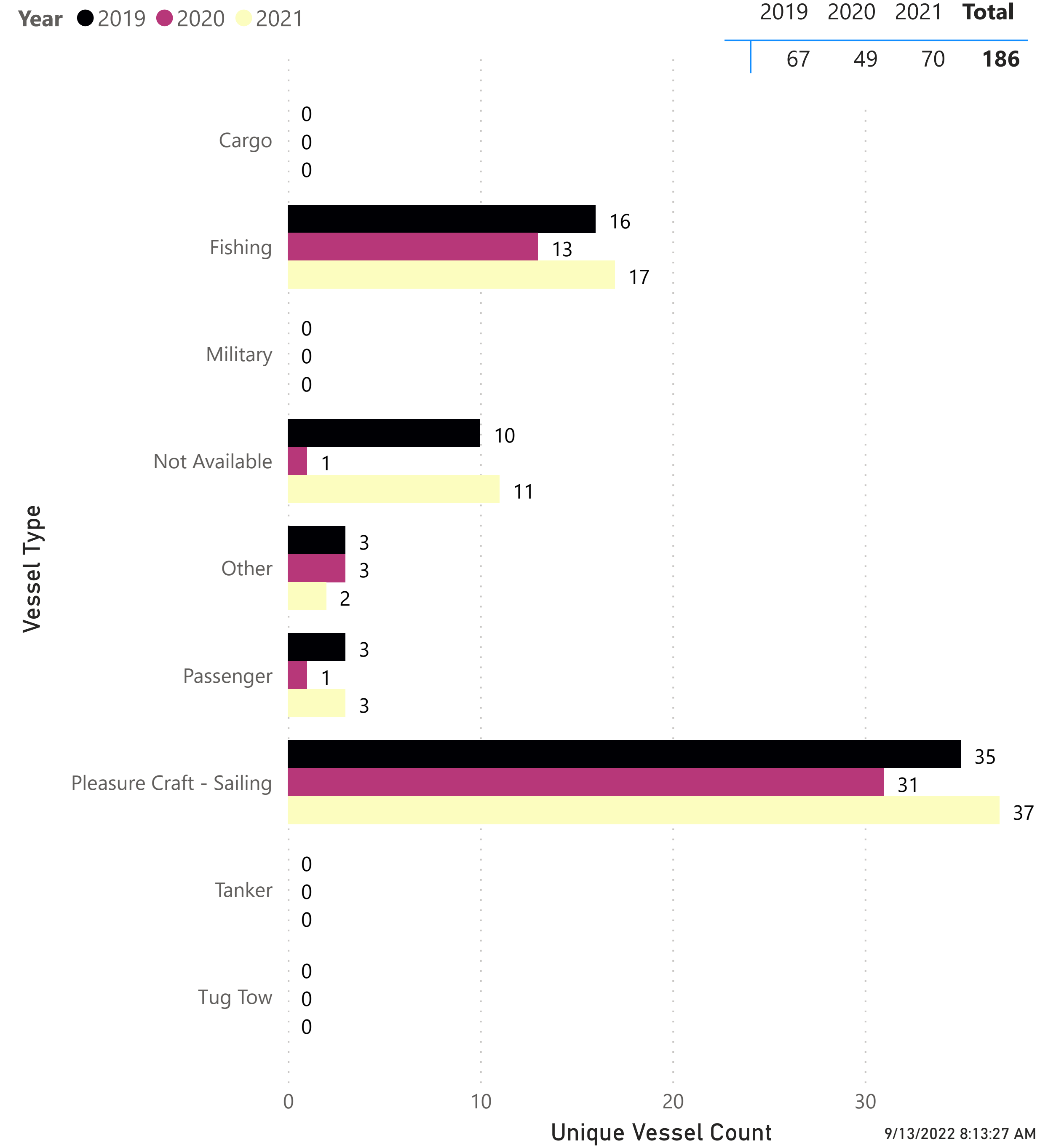
2019	2020	2021	Total
470	697	878	**2045**



Prepared by the USCG NAVCEN for the MNM PARS

AIS Unique Vessels Intersecting Area of Interest 21 (Vinalhaven Island 2)

2019	2020	2021	Total
67	49	70	**186**



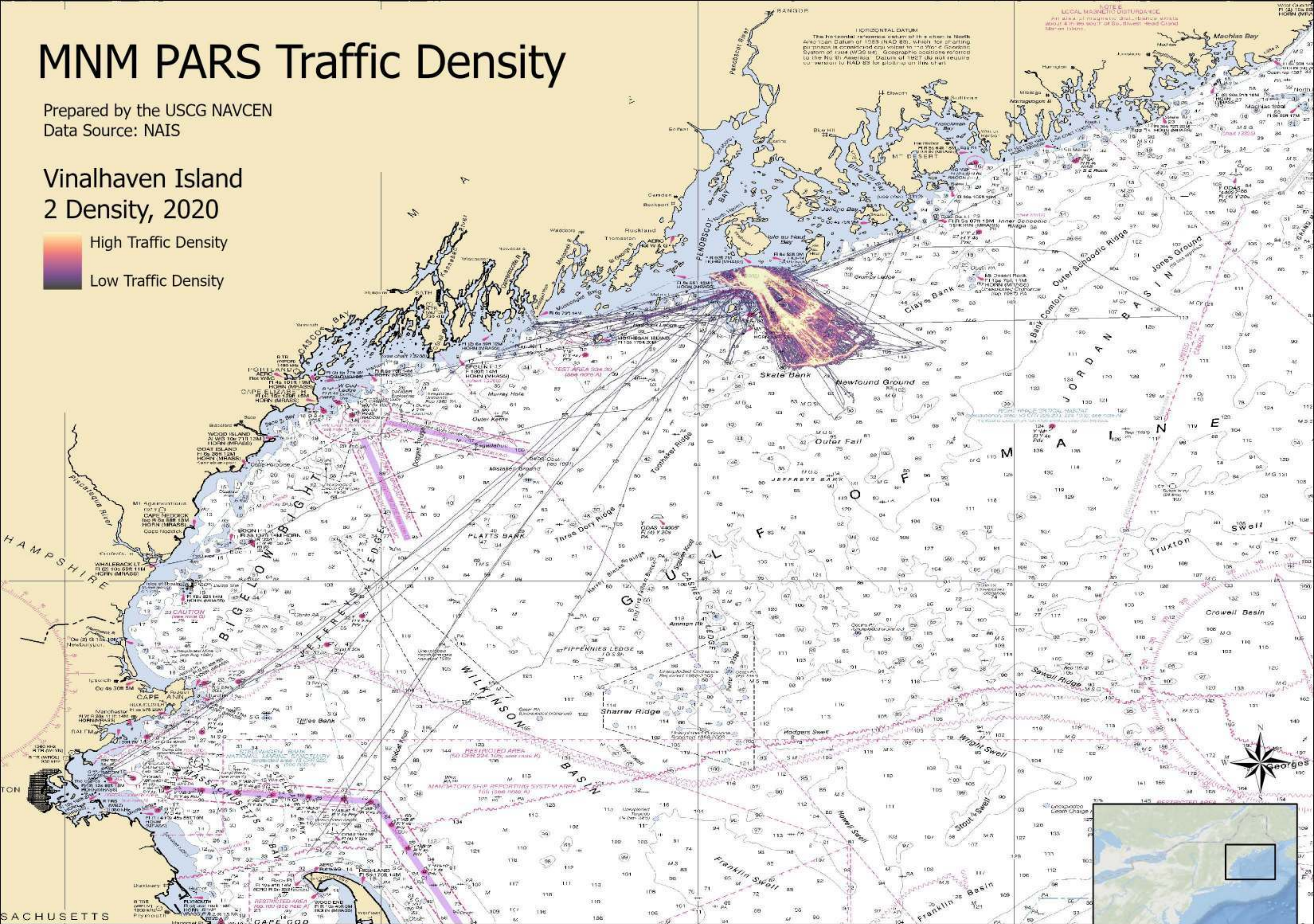
9/13/2022 8:13:27 AM

MNM PARS Traffic Density

Prepared by the USCG NAVCEN
Data Source: NAIS

Vinalhaven Island
2 Density, 2020

High Traffic Density
Low Traffic Density



Scale: 1:1,653,663

0 5 10 20 30 40
Nautical Miles

Last Update: 9/23/2022 3:03 PM

Spatial Reference
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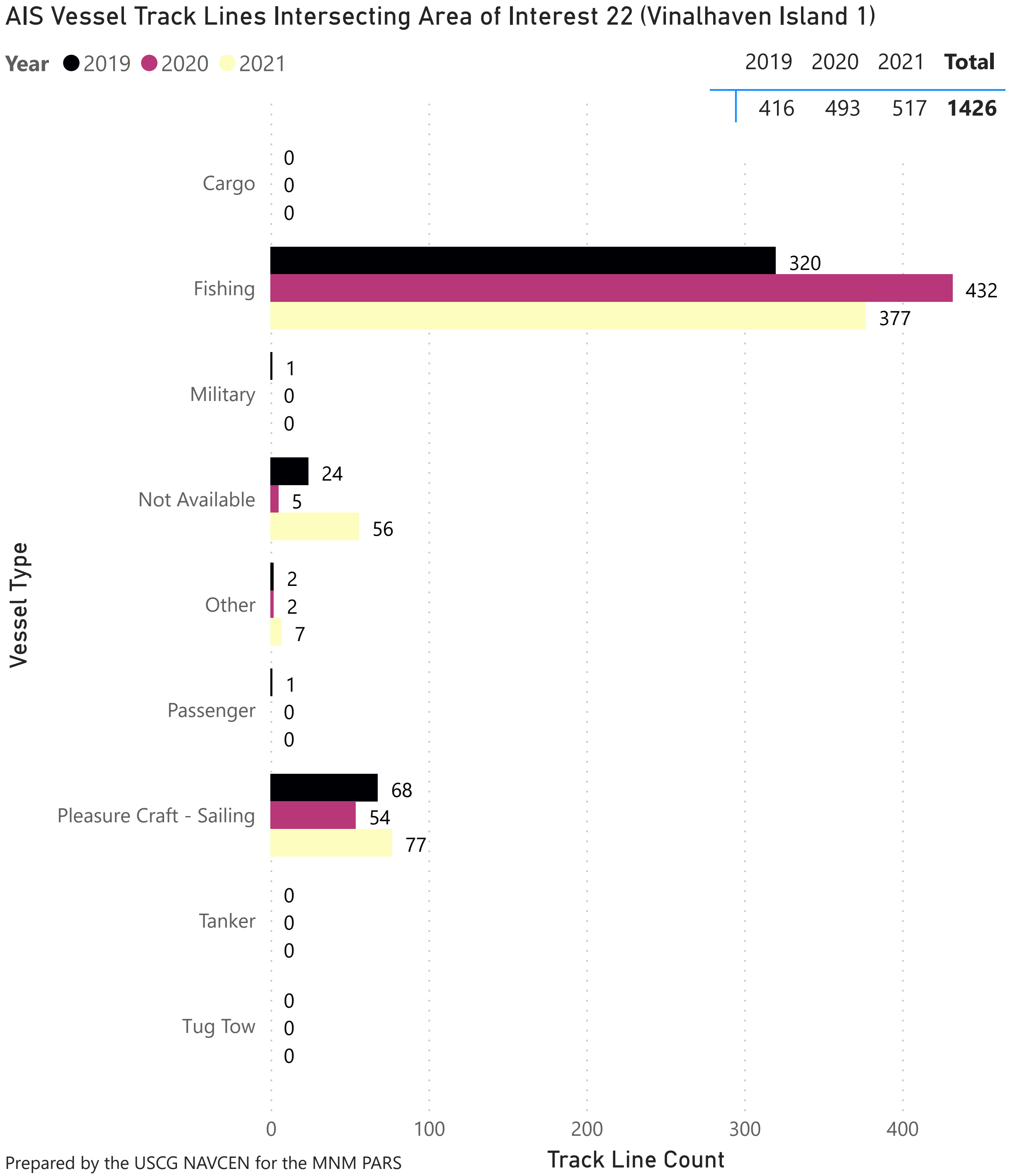
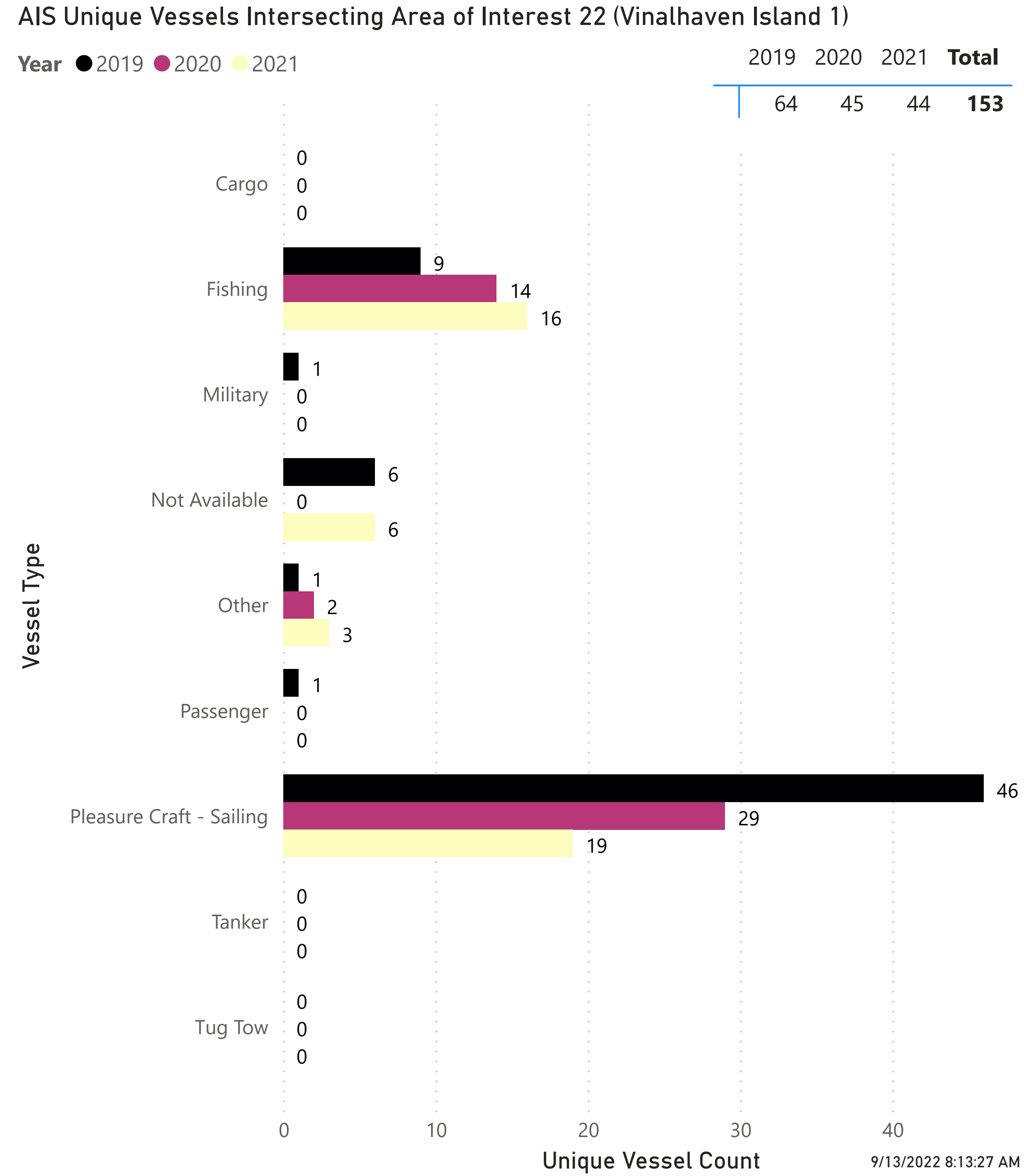
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree





Prepared by the USCG NAVCEN for the MNM PARS

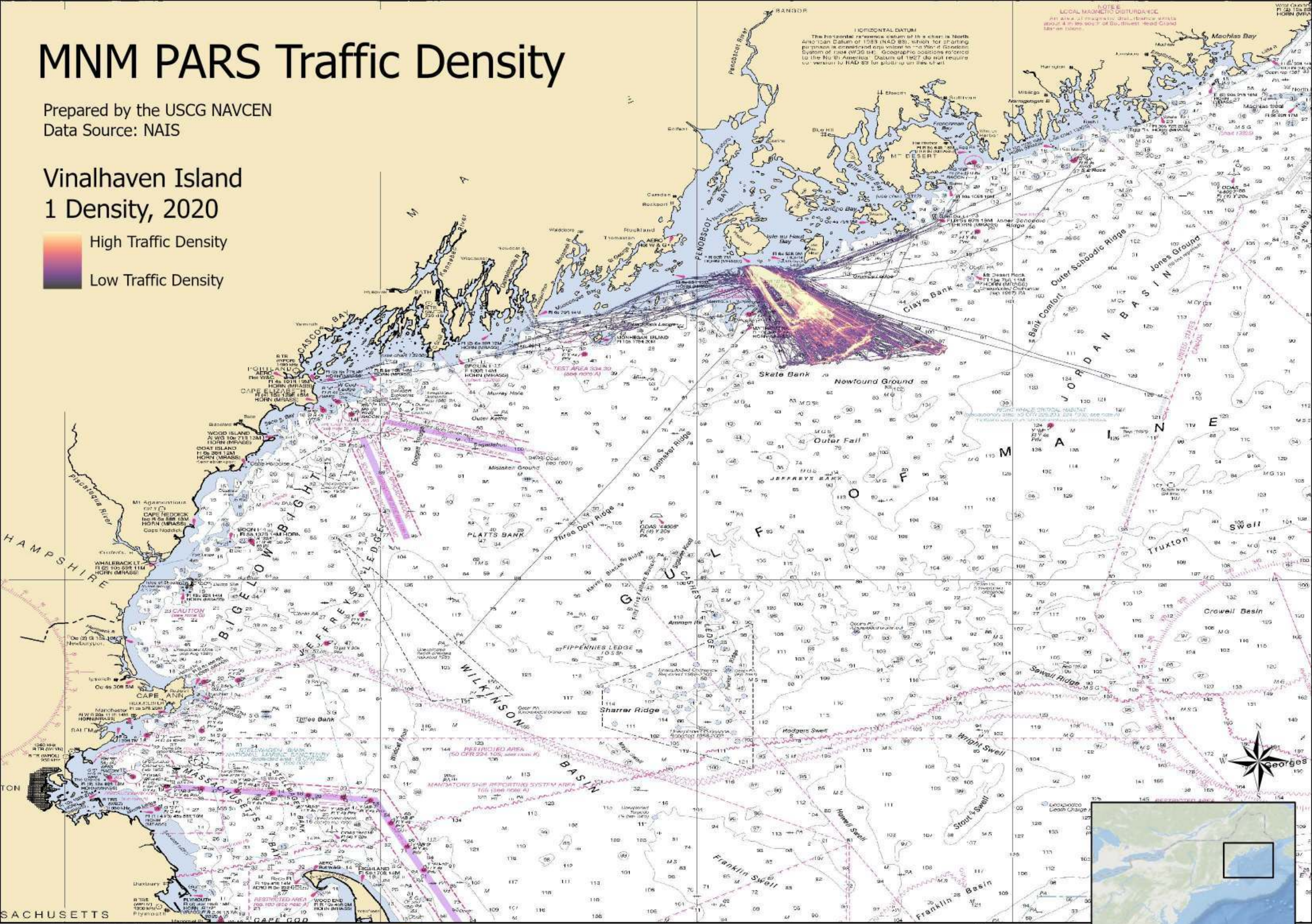
9/13/2022 8:13:27 AM

MNM PARS Traffic Density

Prepared by the USCG NAVCEN
Data Source: NAIS

Vinalhaven Island
1 Density, 2020

High Traffic Density
Low Traffic Density



Scale: 1:1,653,663

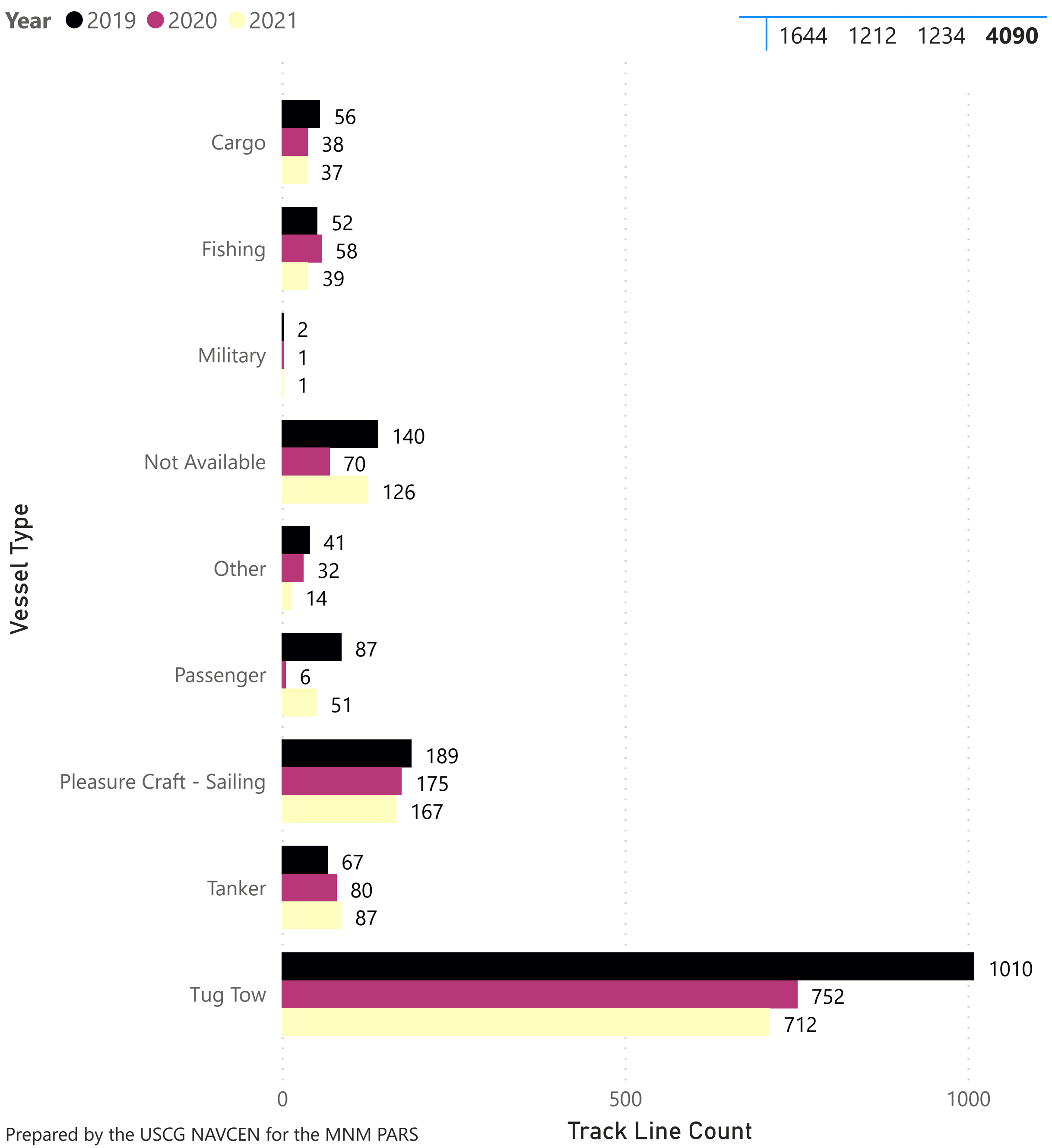
0 5 10 20 30 40
Nautical Miles

Last Update: 9/23/2022 3:03 PM

Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

AIS Vessel Track Lines Intersecting Area of Interest 23 (Two-Way Route South of Boston)

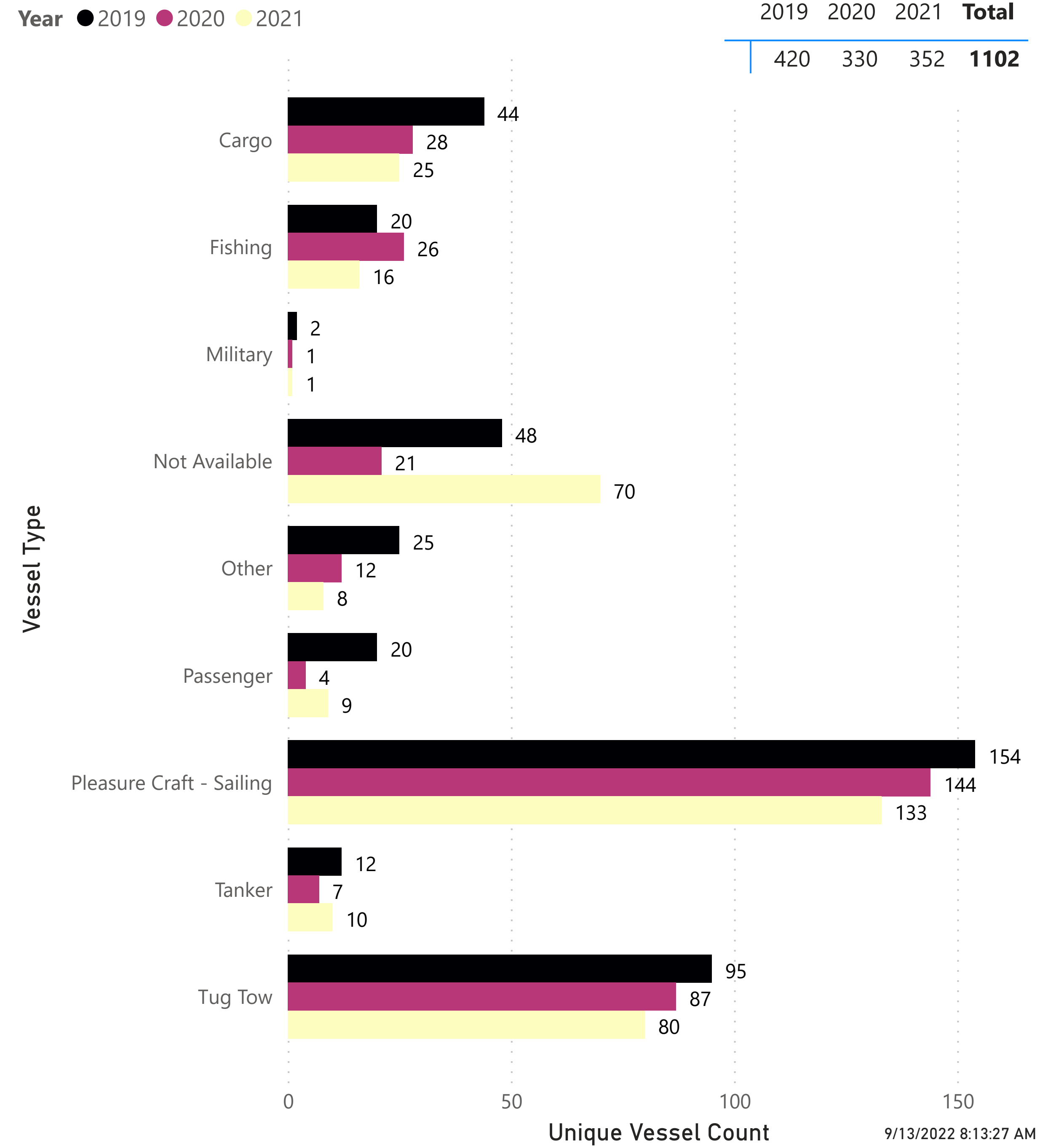
2019	2020	2021	**Total**
1644	1212	1234	**4090**



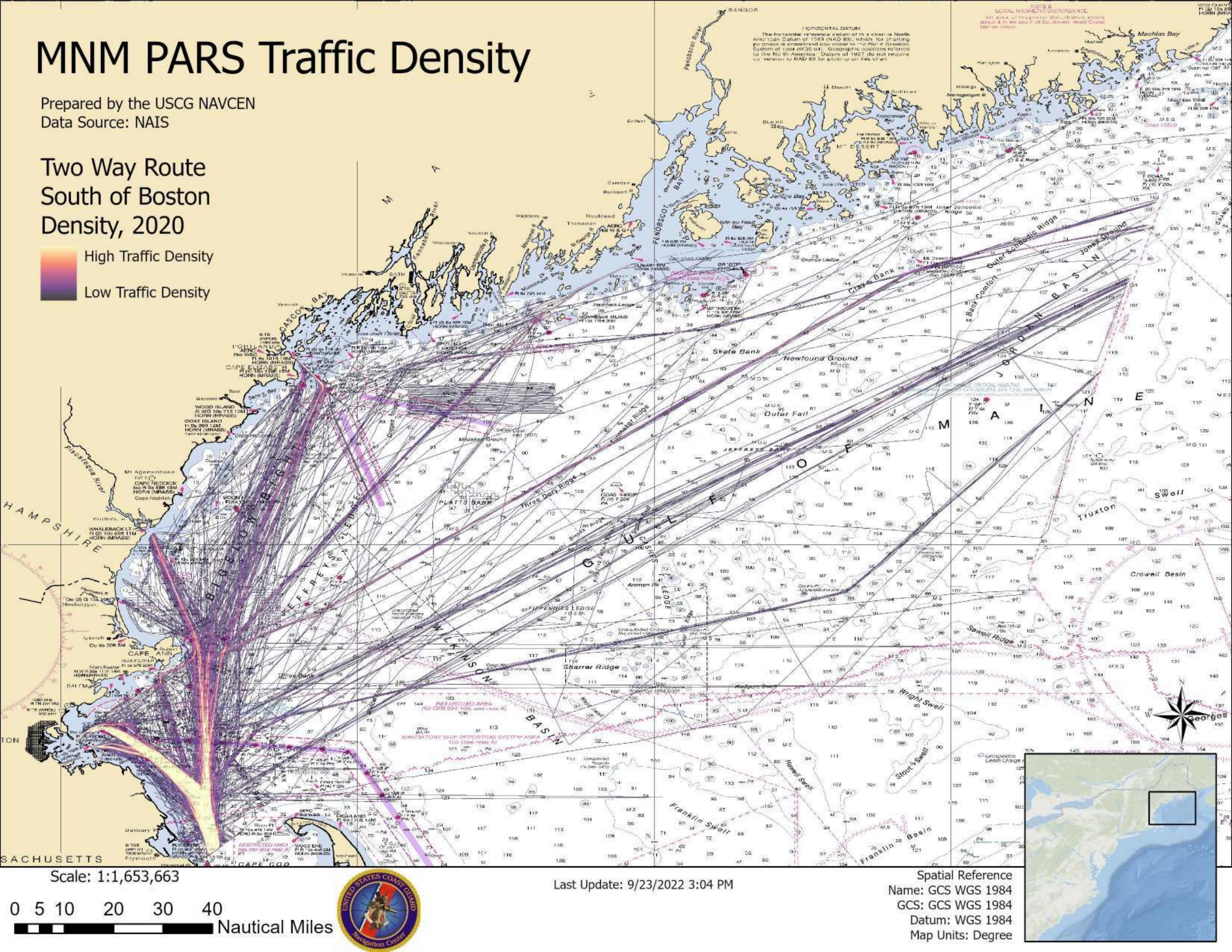
Prepared by the USCG NAVCEN for the MNM PARS

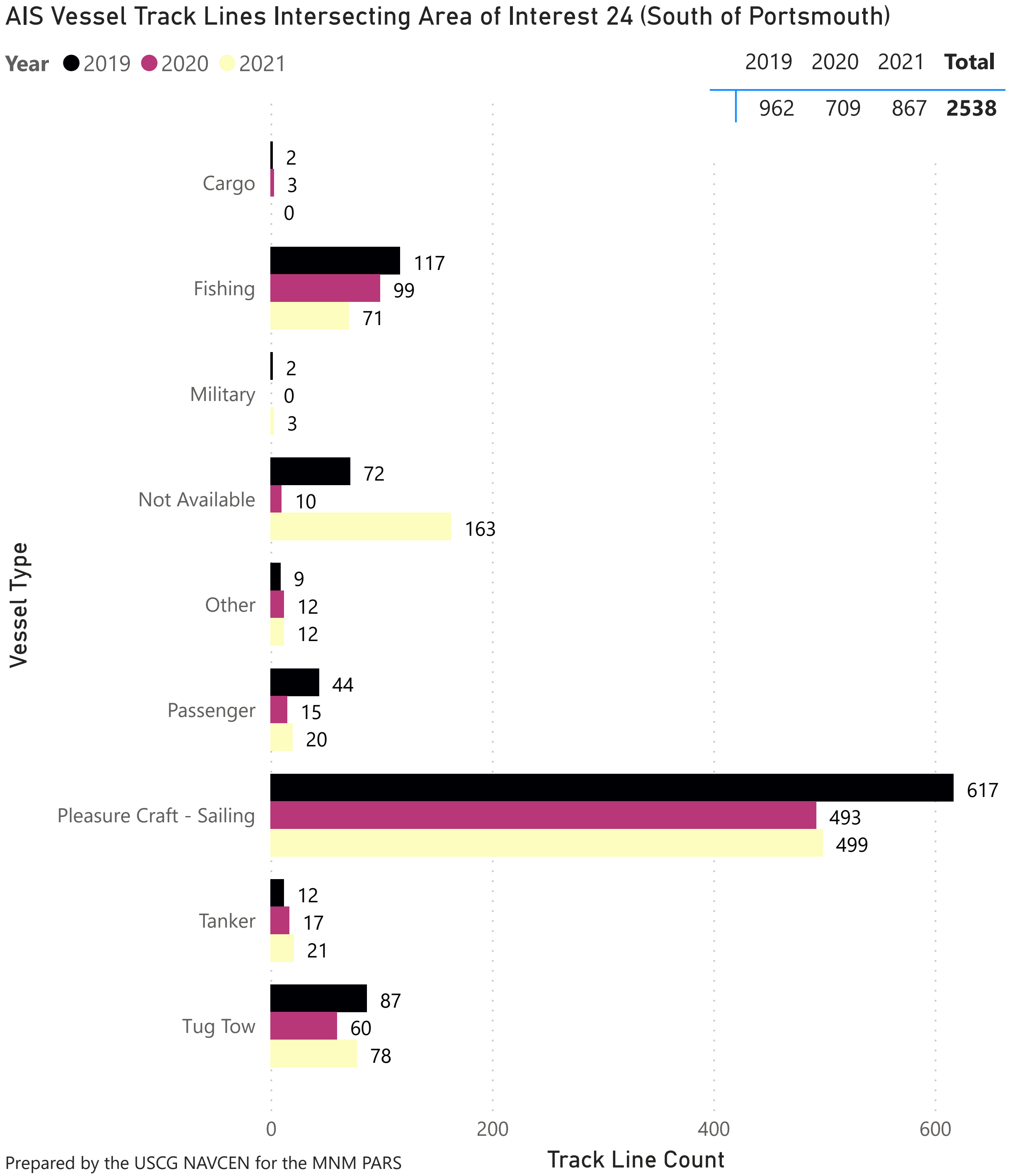
AIS Unique Vessels Intersecting Area of Interest 23 (Two-Way Route South of Boston)

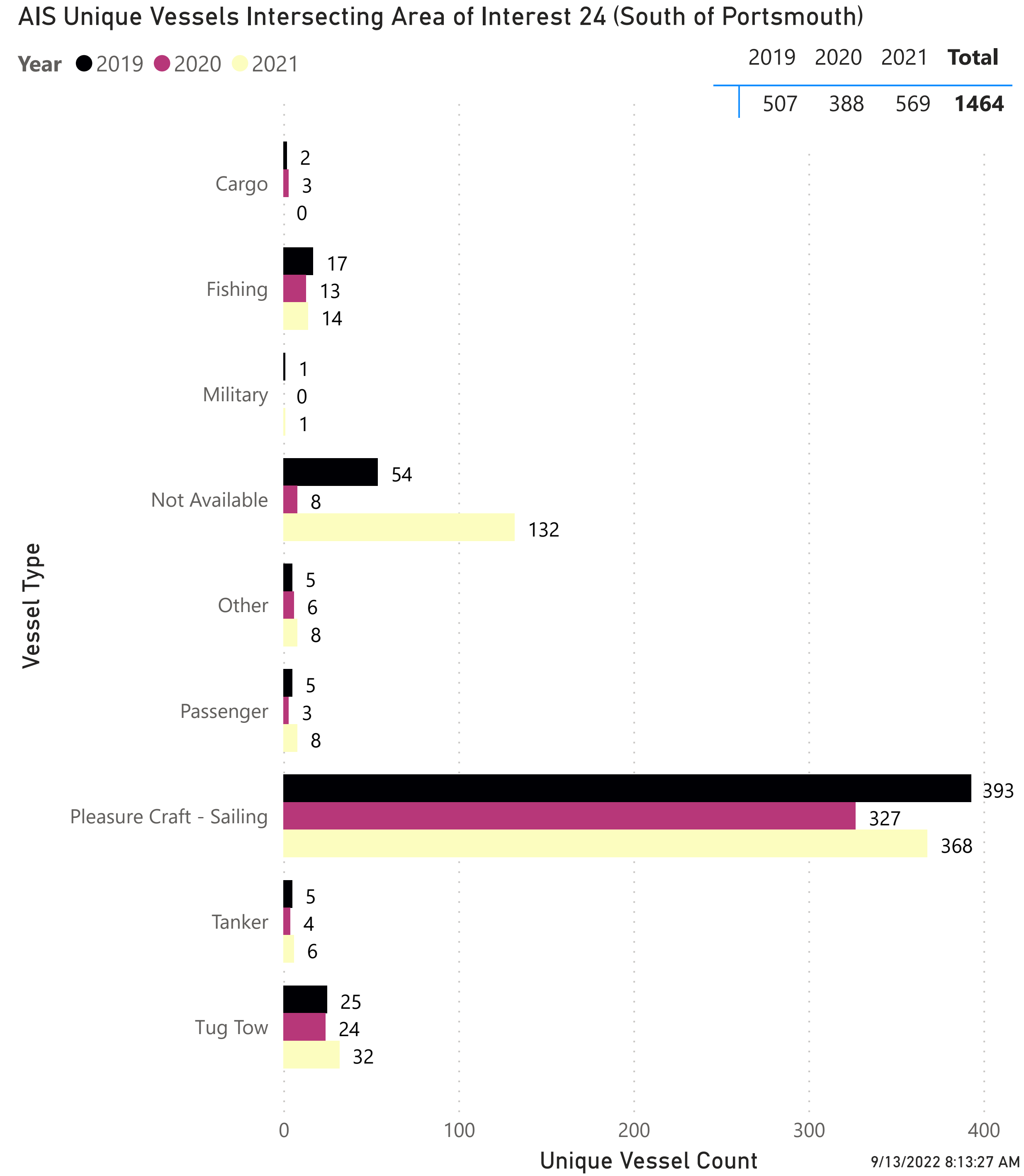
2019	2020	2021	**Total**
420	330	352	**1102**



9/13/2022 8:13:27 AM


MNM PARS Traffic Density
Prepared by the USCG NAVCEN
Data Source: NAIS
Two Way Route
South of Boston
Density, 2020
High Traffic Density
Low Traffic Density
GULF OF MAINE
JORDAN BASIN
WILKINSON BASIN
BIGELOW BIGHT
Scale: 1:1,653,663
0 5 10 20 30 40
Nautical Miles
Last Update: 9/23/2022 3:04 PM
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree





Prepared by the USCG NAVCEN for the MNM PARS

9/13/2022 8:13:27 AM

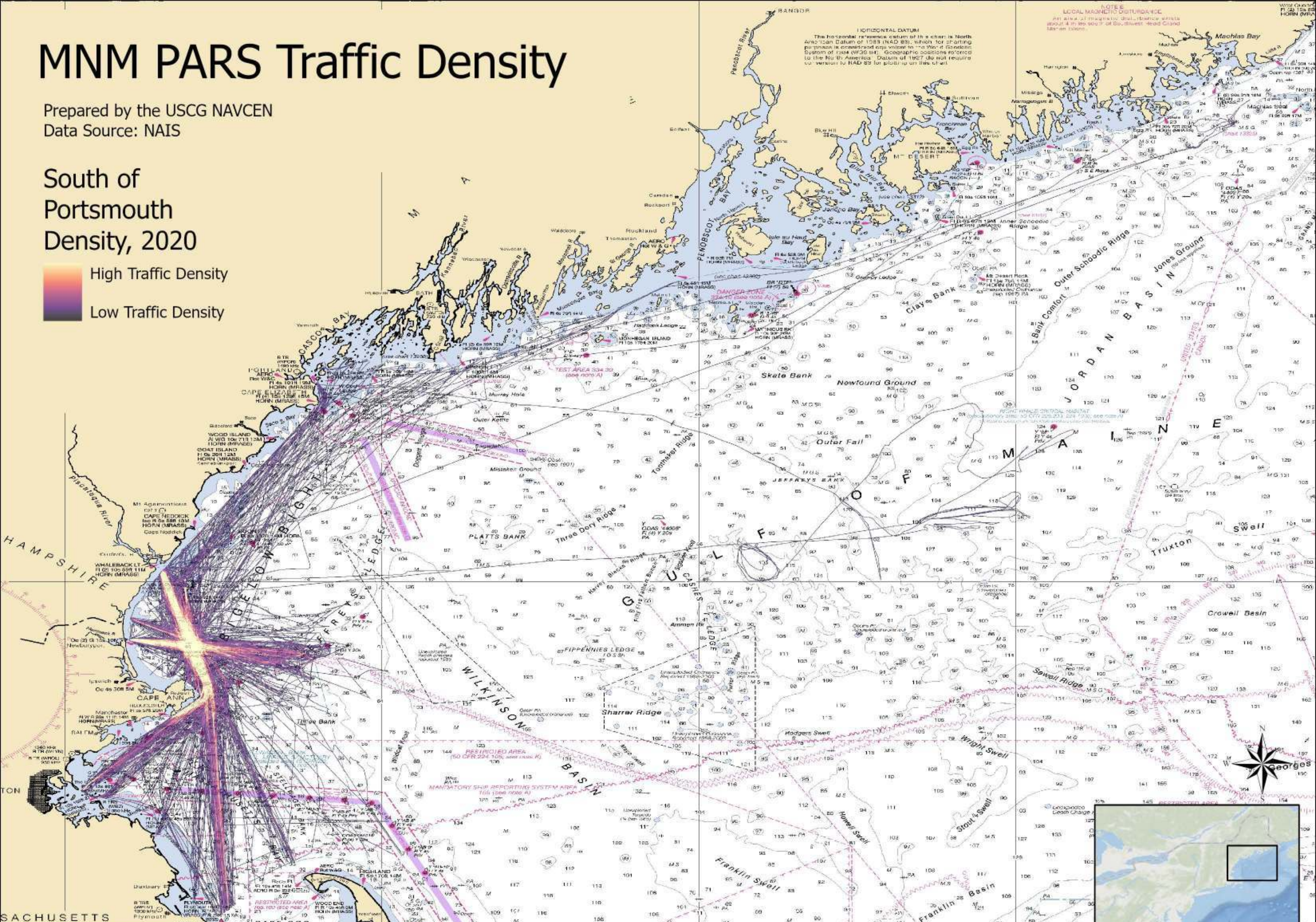
MNM PARS Traffic Density

Prepared by the USCG NAVCEN
Data Source: NAIS

South of Portsmouth Density, 2020

High Traffic Density

Low Traffic Density



Scale: 1:1,653,663

0 5 10 20 30 40 Nautical Miles

Last Update: 9/23/2022 3:04 PM

Spatial Reference
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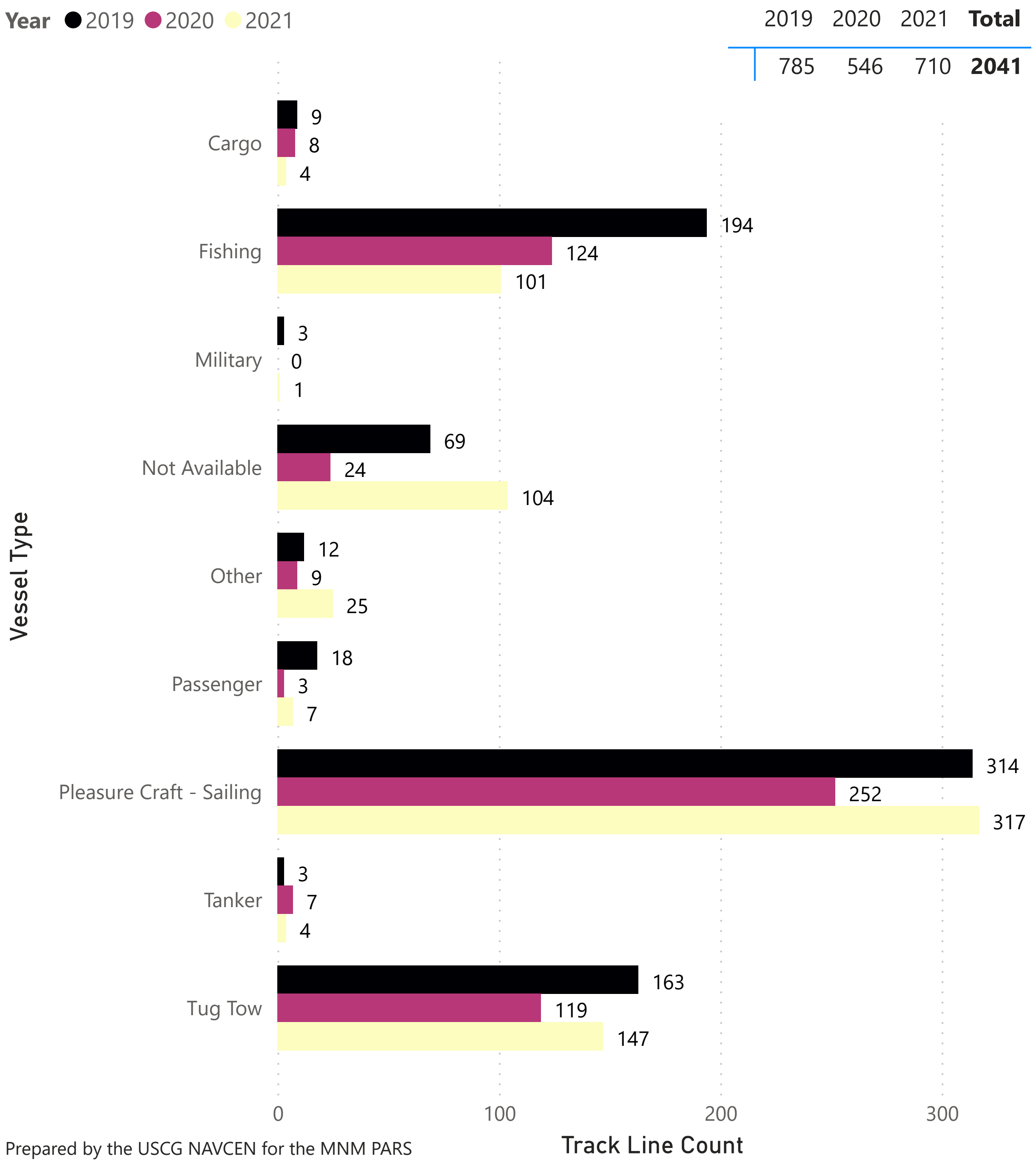
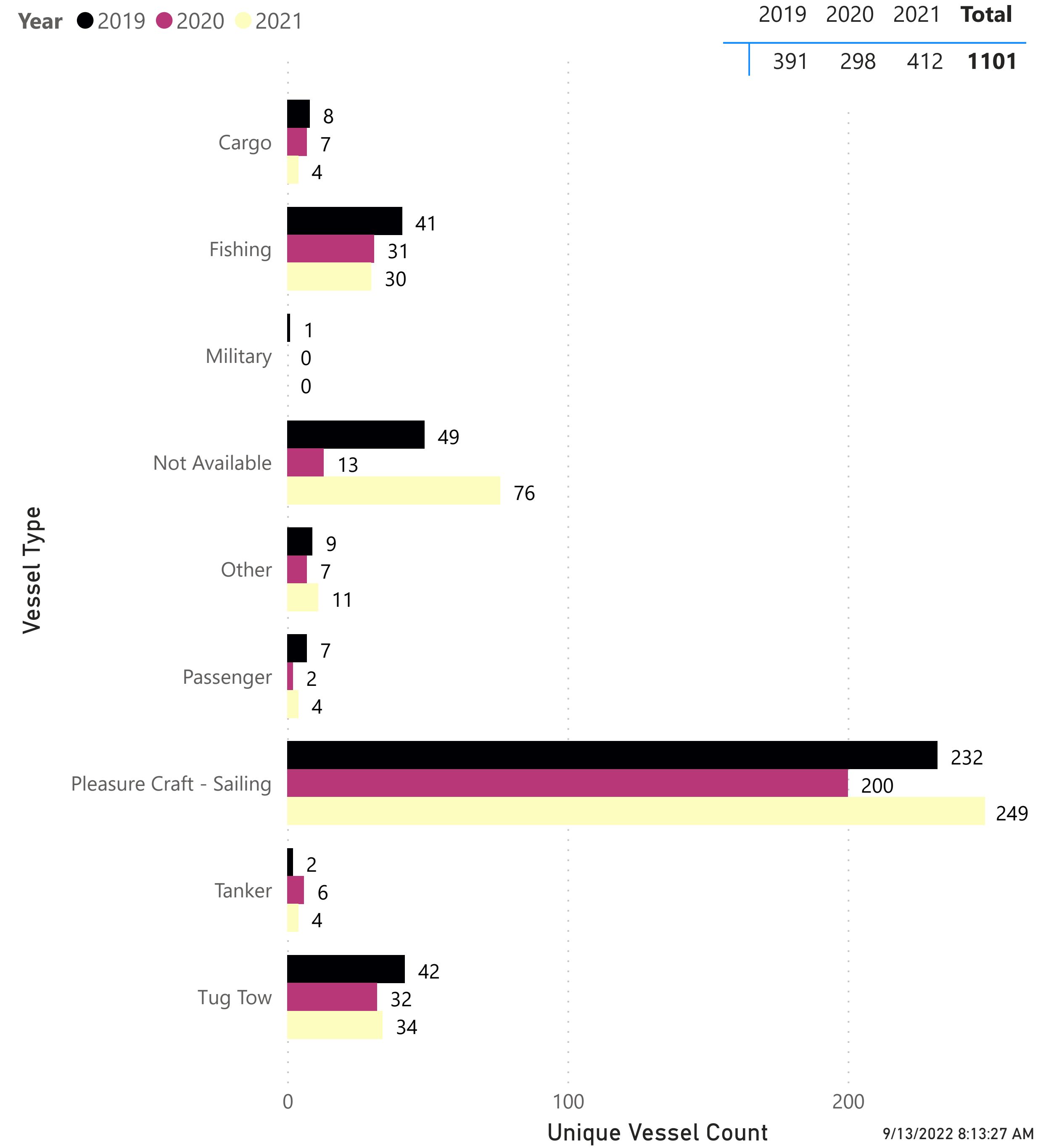
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

AIS Vessel Track Lines Intersecting Area of Interest 25 (North of Gloucester to Portland)



AIS Unique Vessels Intersecting Area of Interest 25 (North of Gloucester to Portland)



Prepared by the USCG NAVCEN for the MNM PARS

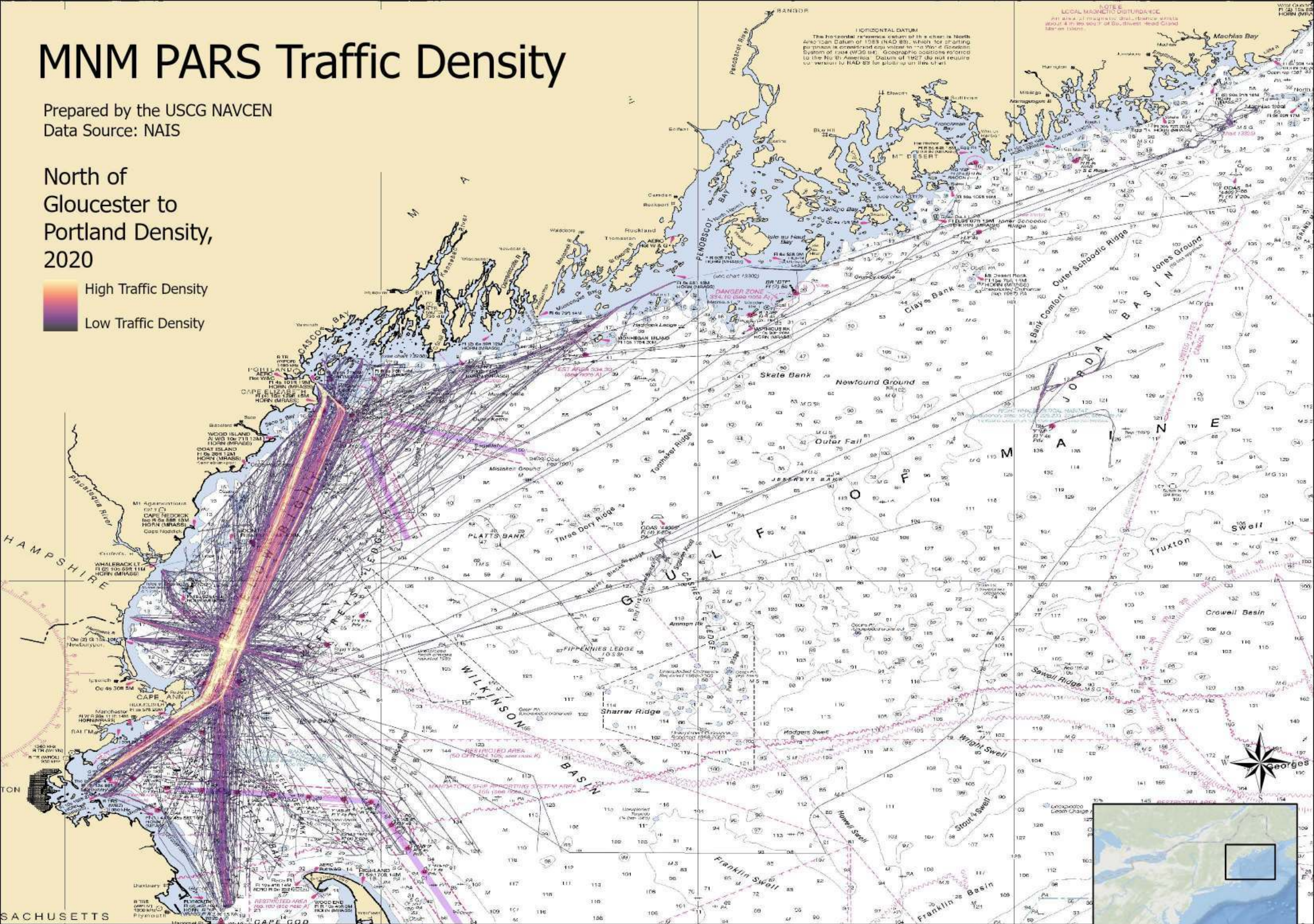
9/13/2022 8:13:27 AM

MNM PARS Traffic Density

Prepared by the USCG NAVCEN
Data Source: NAIS

North of Gloucester to Portland Density, 2020

High Traffic Density
Low Traffic Density



Scale: 1:1,653,663

0 5 10 20 30 40 Nautical Miles

Last Update: 9/23/2022 3:05 PM

Spatial Reference
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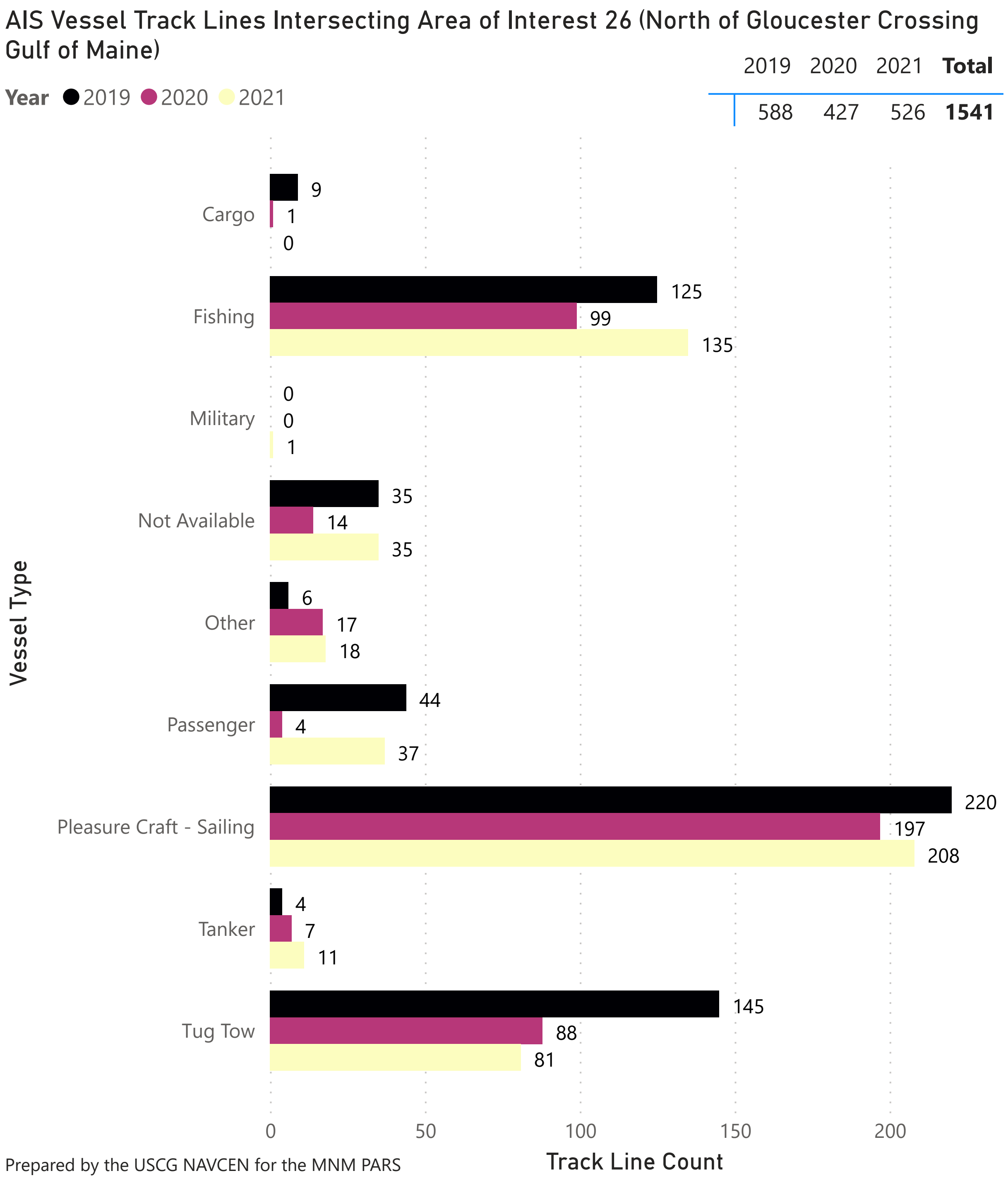
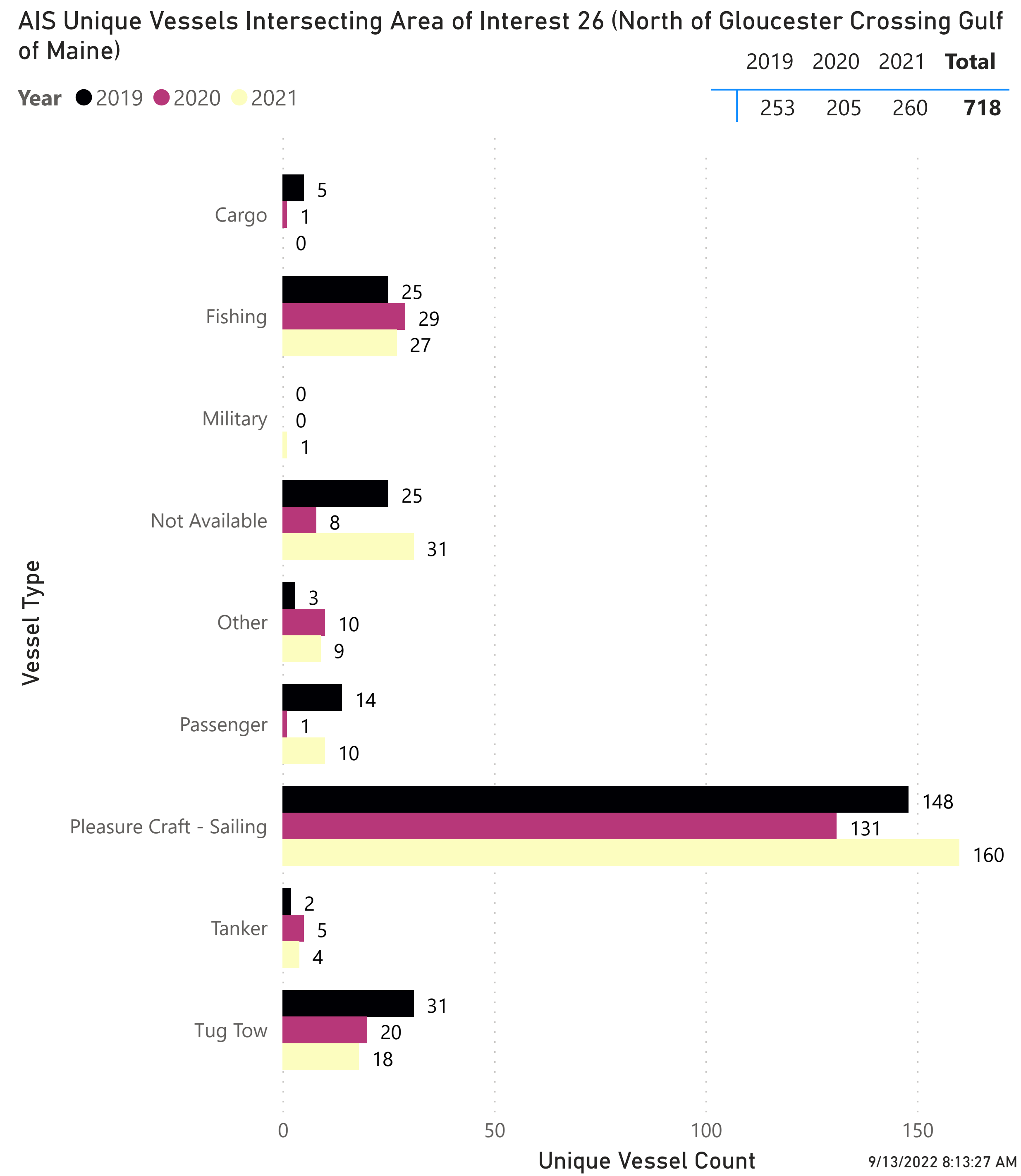
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

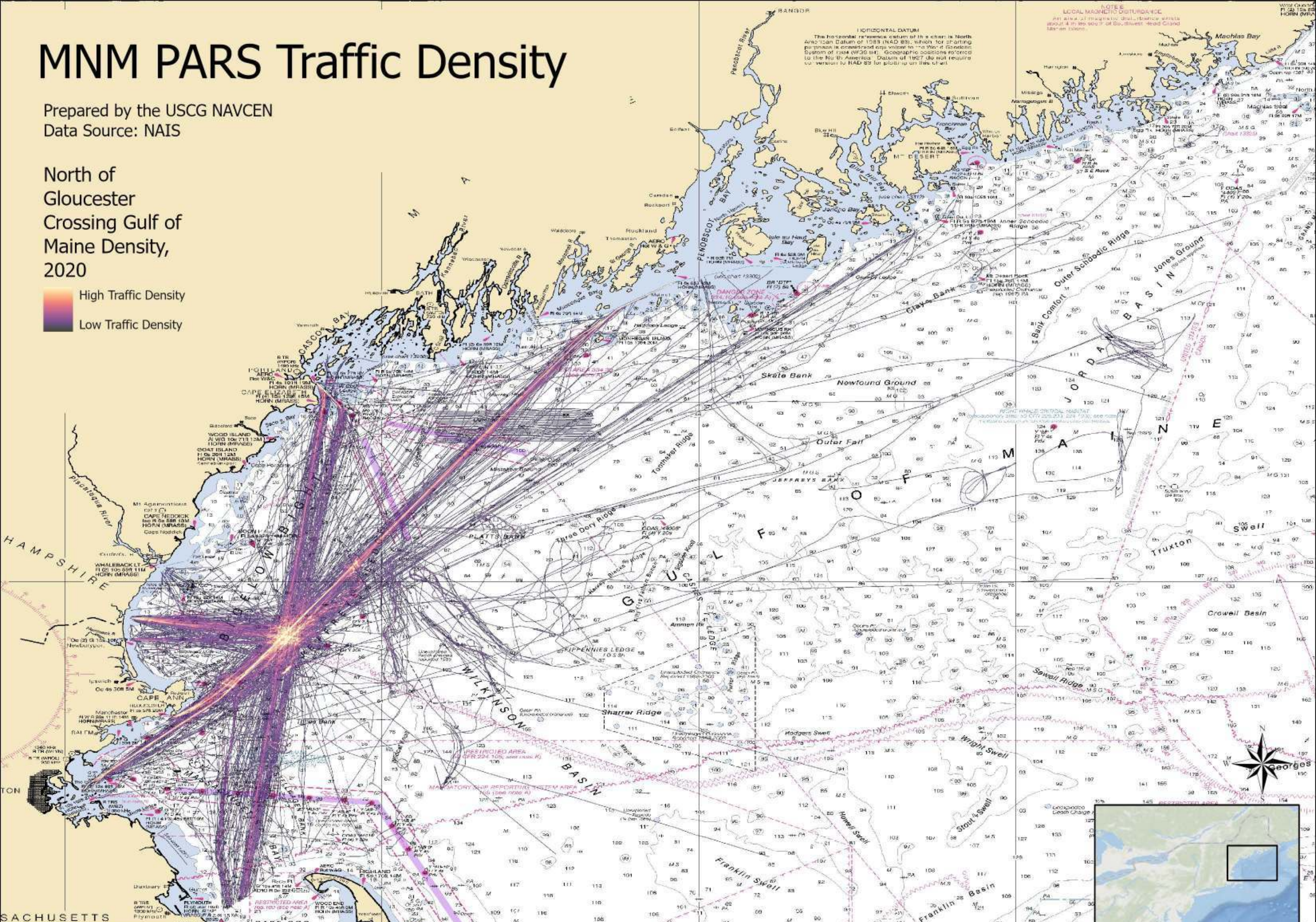


Prepared by the USCG NAVCEN for the MNM PARS



9/13/2022 8:13:27 AM

MNM PARS Traffic Density



Scale: 1:1,653,663

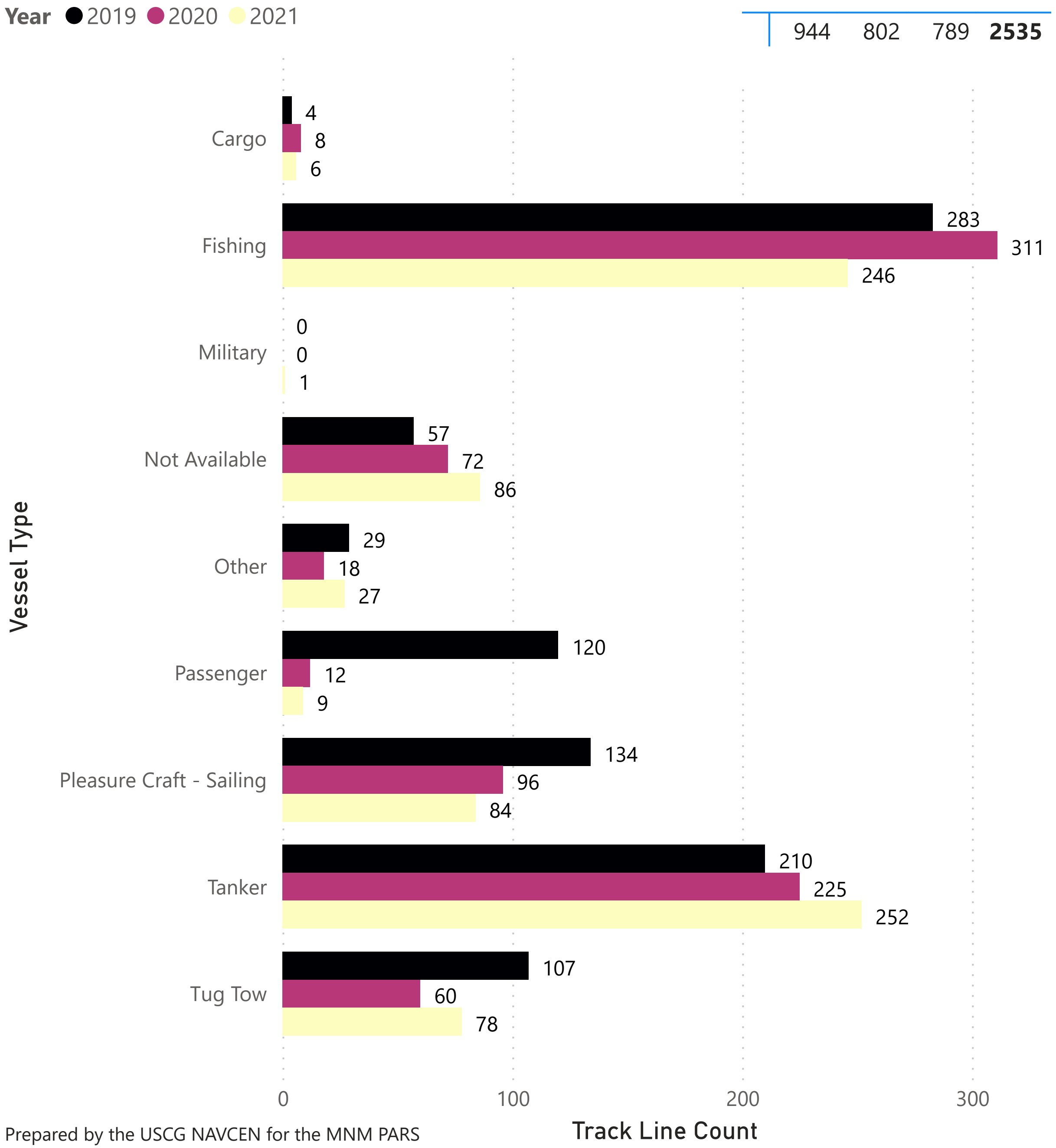
0 5 10 20 30 40 Nautical Miles

Last Update: 9/23/2022 3:05 PM

Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

AIS Vessel Track Lines Intersecting Area of Interest 27 (North of Boston Crossing Gulf of Maine)

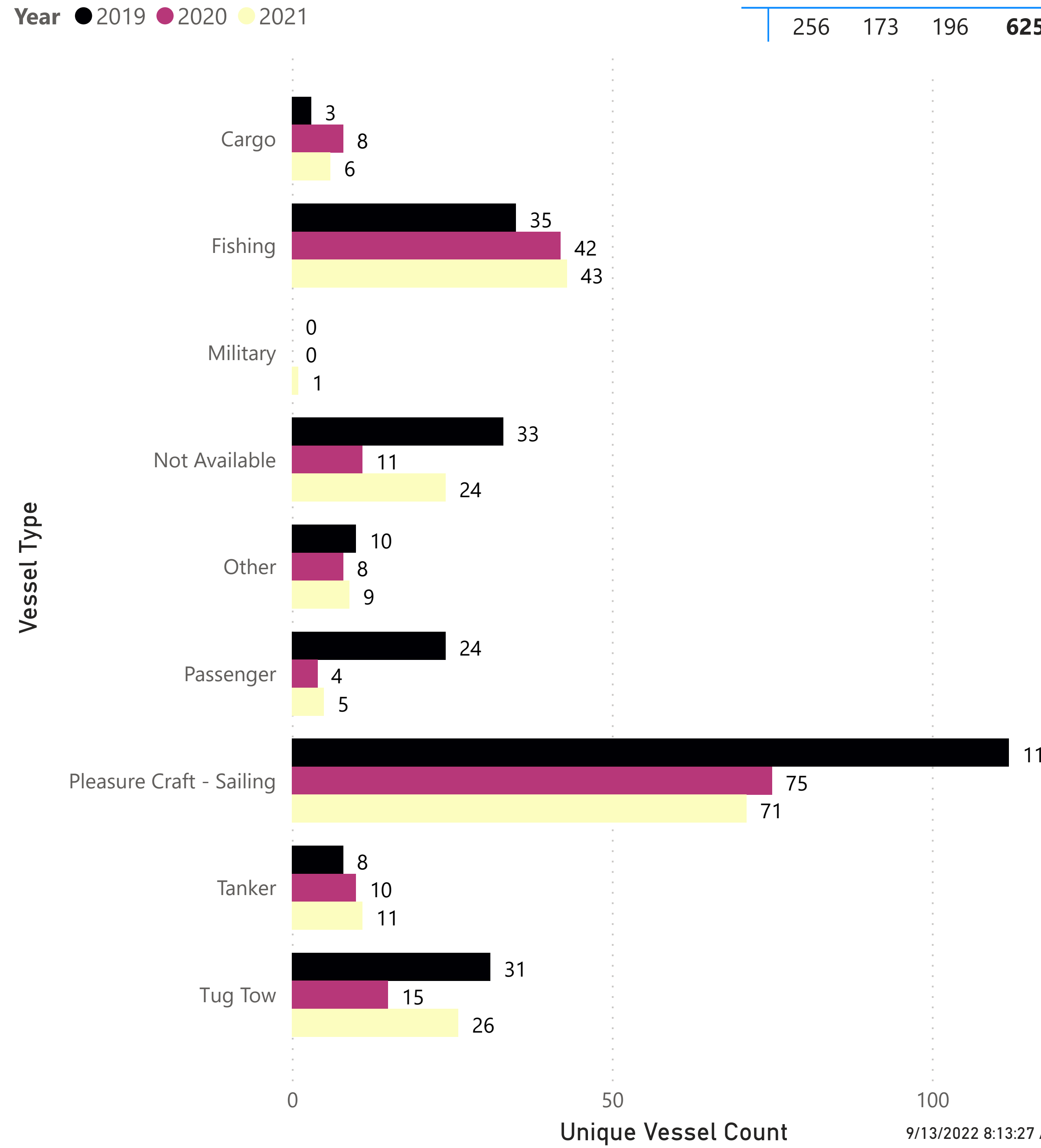
2019	2020	2021	**Total**
944	802	789	**2535**



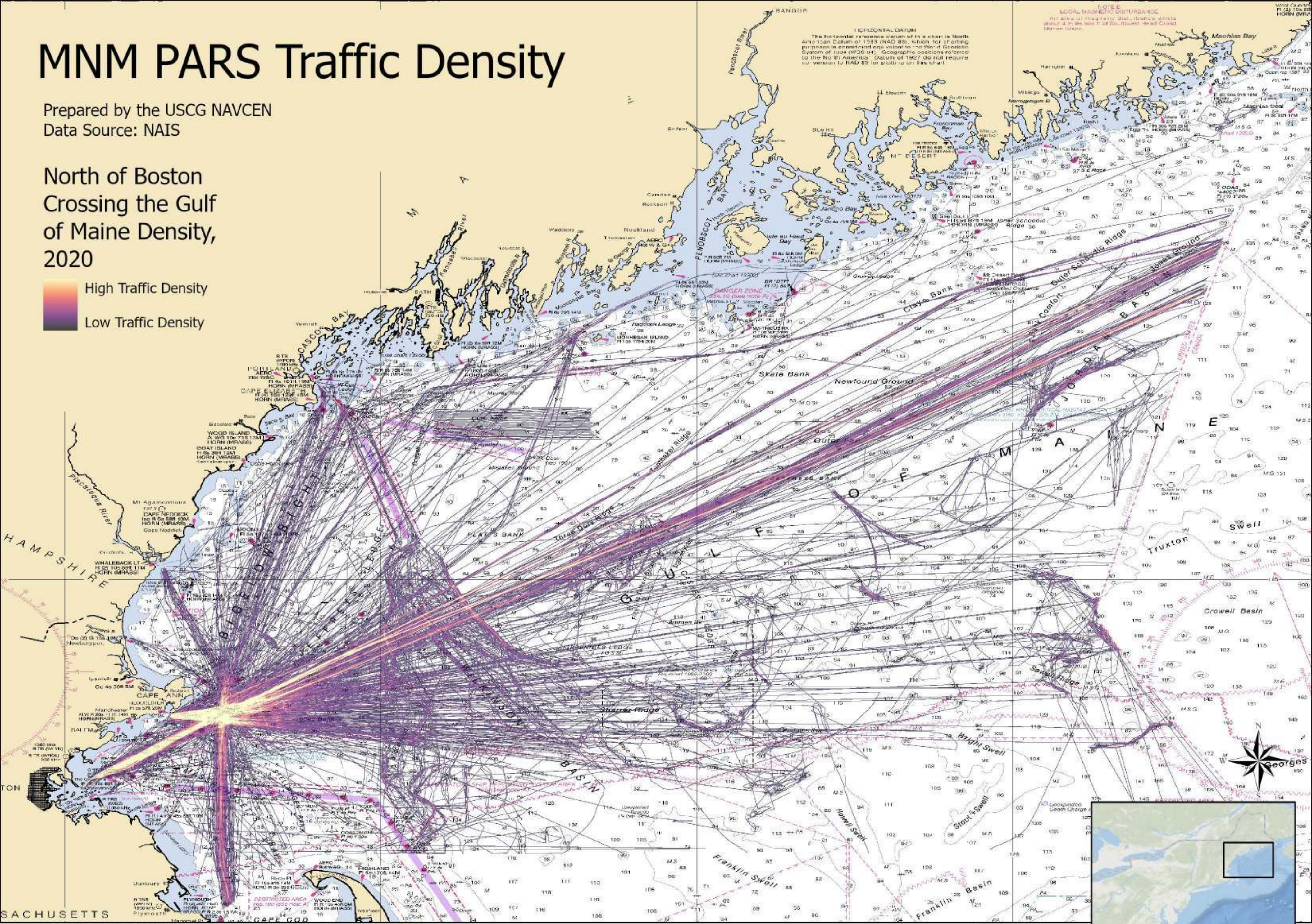
Prepared by the USCG NAVCEN for the MNM PARS

AIS Unique Vessels Intersecting Area of Interest 27 (North of Boston Crossing Gulf of Maine)

2019	2020	2021	**Total**
256	173	196	**625**



9/13/2022 8:13:27 AM



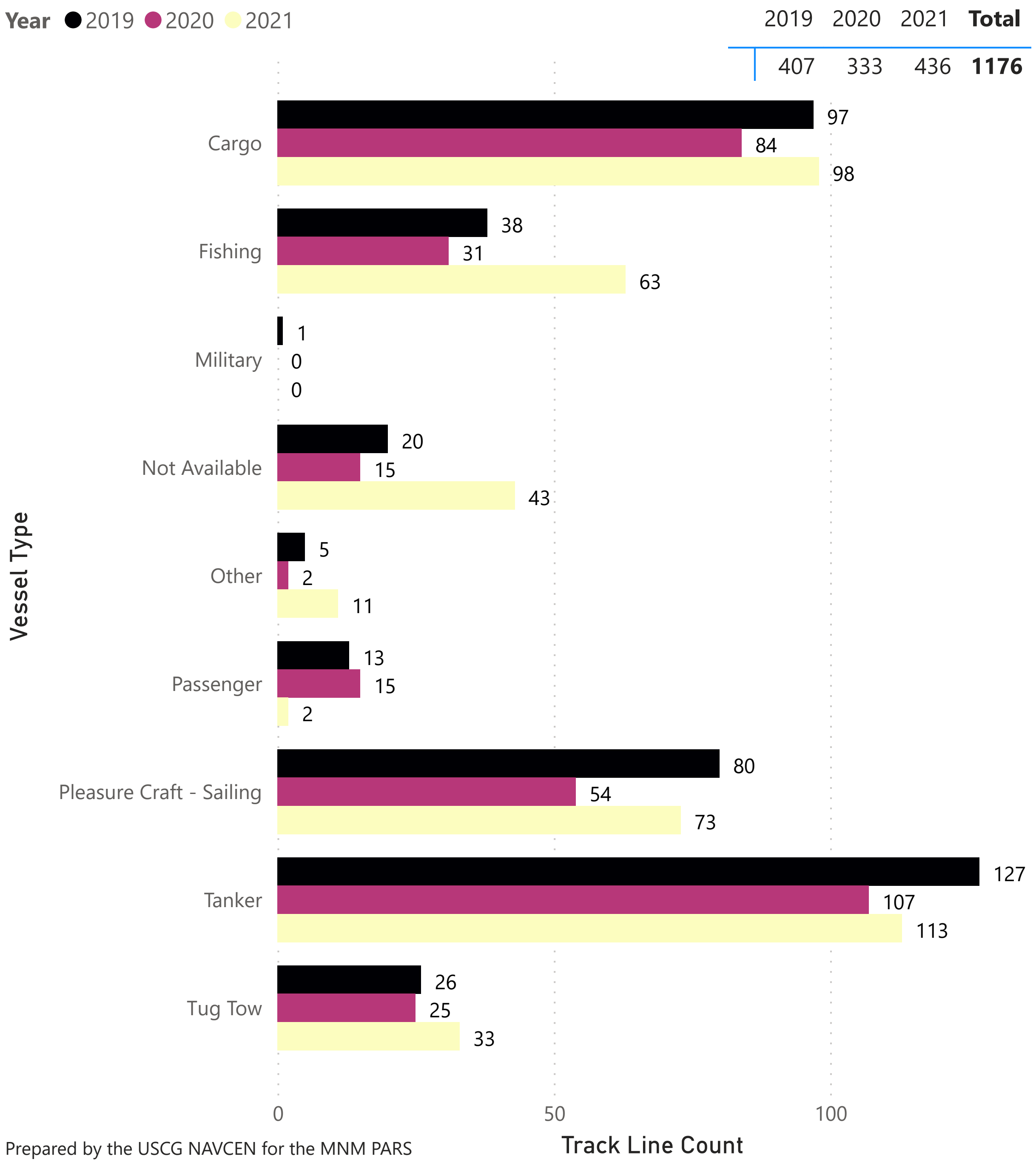
Scale: 1:1,653,663

0 5 10 20 30 40 Nautical Miles

Last Update: 9/23/2022 3:06 PM

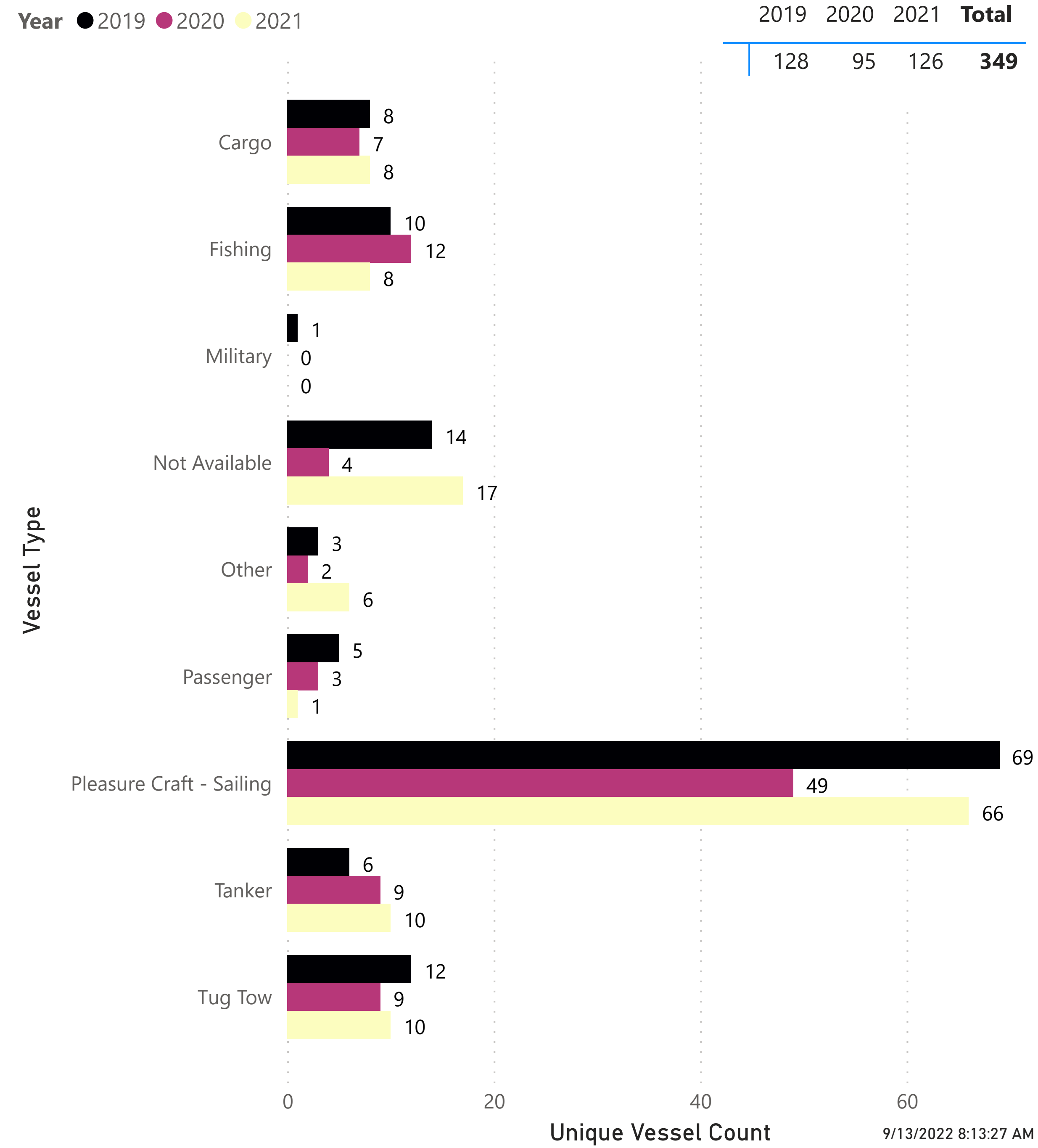
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

AIS Vessel Track Lines Intersecting Area of Interest 28 (North of Portland TSSs)



Prepared by the USCG NAVCEN for the MNM PARS

AIS Unique Vessels Intersecting Area of Interest 28 (North of Portland TSSs)



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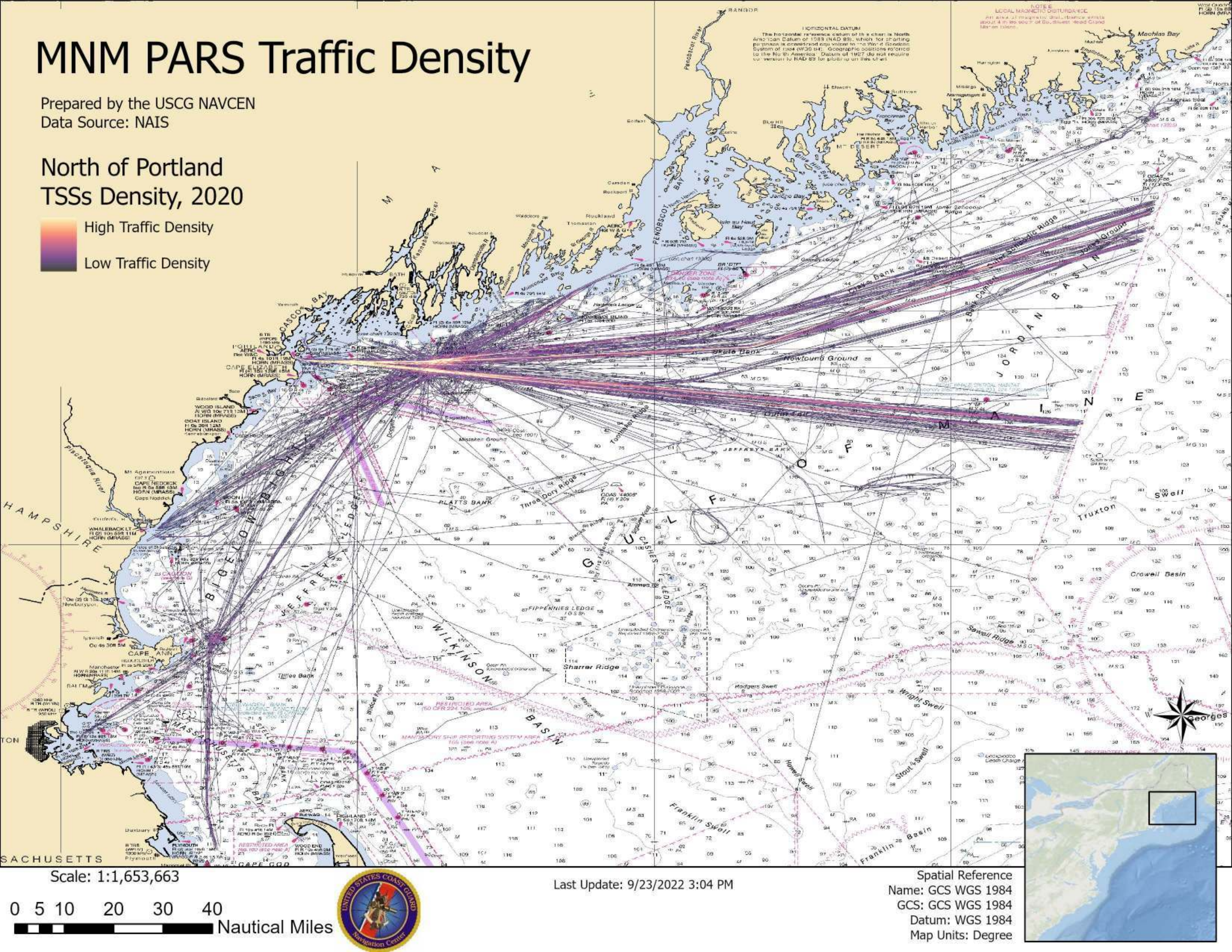
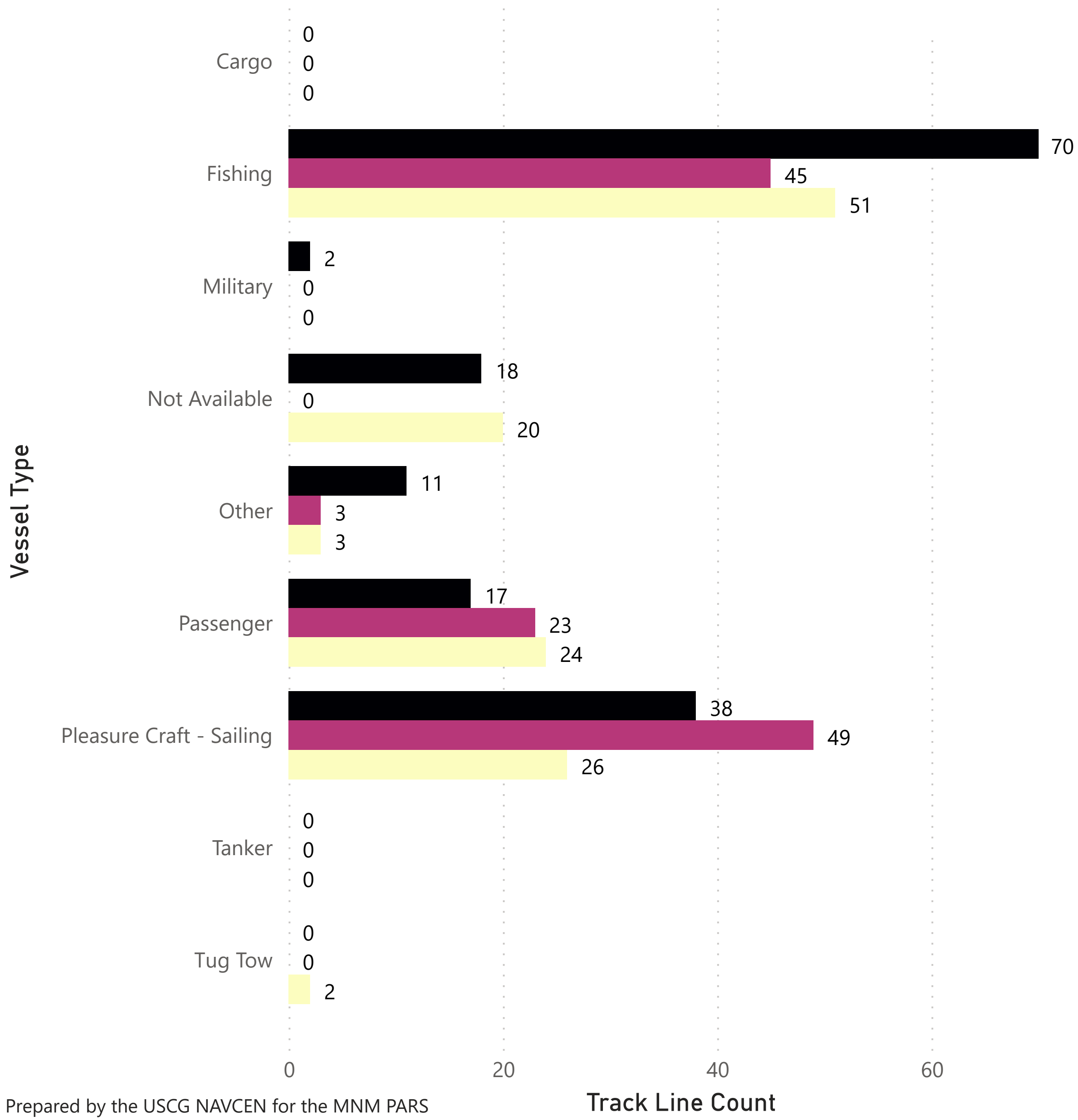

MNM PARS Traffic Density
Prepared by the USCG NAVCEN
Data Source: NAIS
North of Portland
TSSs Density, 2020
High Traffic Density
Low Traffic Density
Scale: 1:1,653,663
0 5 10 20 30 40
Nautical Miles
Last Update: 9/23/2022 3:04 PM
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree
UNITED STATES COAST GUARD
Navigation Center
GULF OF MAINE
JORDAN BASIN
WILKINSON BASIN
BIGELOW BIGHT
JEFFREYS LEDGE
PORTLAND
CAPE ELIZABETH
CASCO BAY
PENOBSCOT BAY
MT DESERT
CAPE ANN
CAPE COD
HAMPSHIRE
MASSACHUSETTS BAY
Machias Bay
Platts Bank
Three Dory Ridge
Cashes Ledge
Fippennies Ledge
Sharrer Ridge
Newfound Ground
Truxton Swell
Crowell Basin
Franklin Basin
Franklin Swell
Wright Swell
Sewell Ridge
Rodgers Swell
Stout Swell
Howell Swell
Jeffreys Bank
Mistaken Ground
Tillies Bank
Georges
Bangor
Rockland
Camden
Bath
Plymouth
Duxbury
Ipswich
Manchester
Newburyport
HORIZONTAL DATUM

AIS Vessel Track Lines Intersecting Area of Interest 29 (Winter Harbor)

Year ● 2019 ● 2020 ● 2021

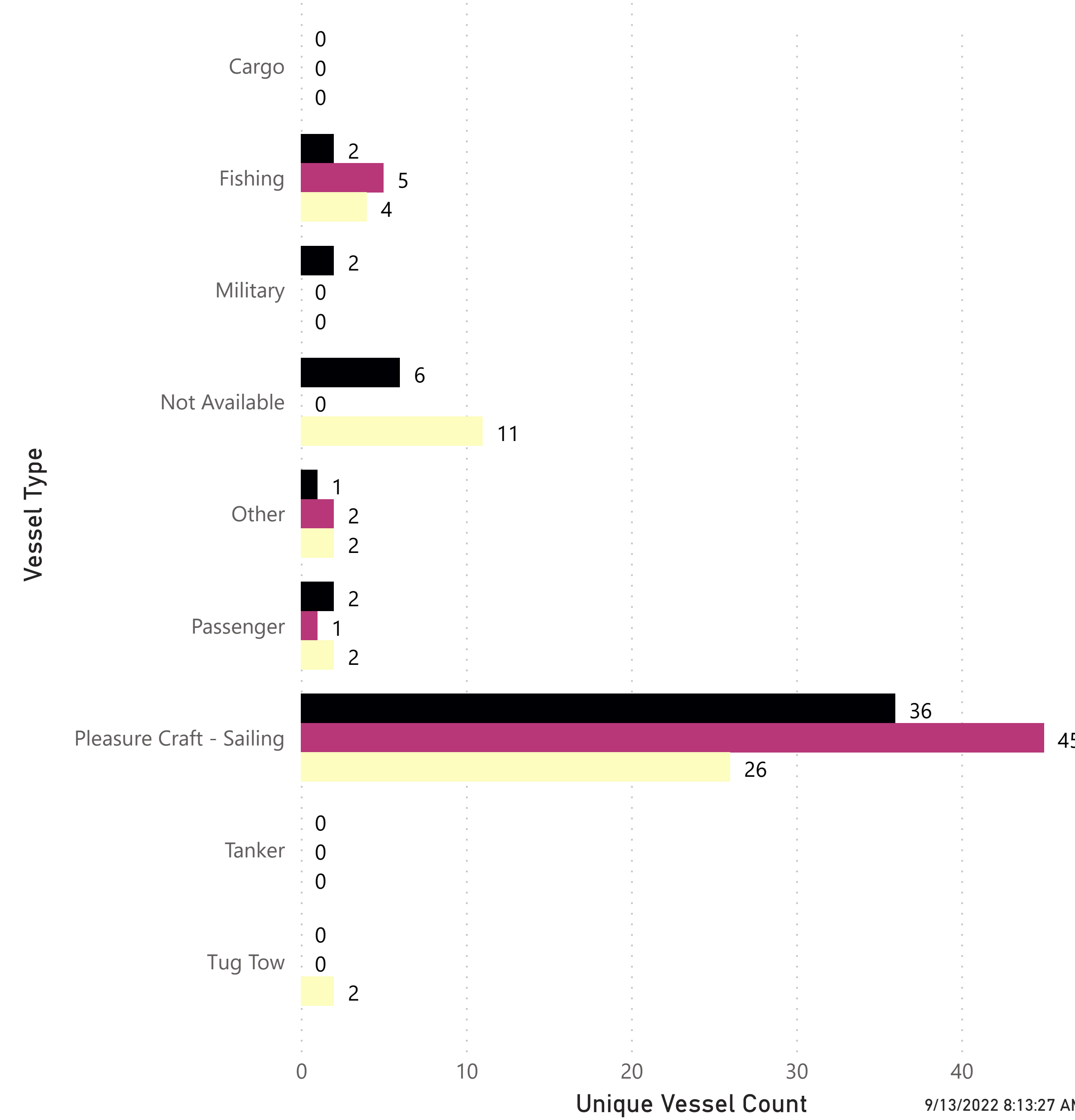
2019	2020	2021	Total
156	120	126	**402**



AIS Unique Vessels Intersecting Area of Interest 29 (Winter Harbor)

Year ● 2019 ● 2020 ● 2021

2019	2020	2021	Total
49	53	47	**149**



Prepared by the USCG NAVCEN for the MNM PARS

9/13/2022 8:13:27 AM

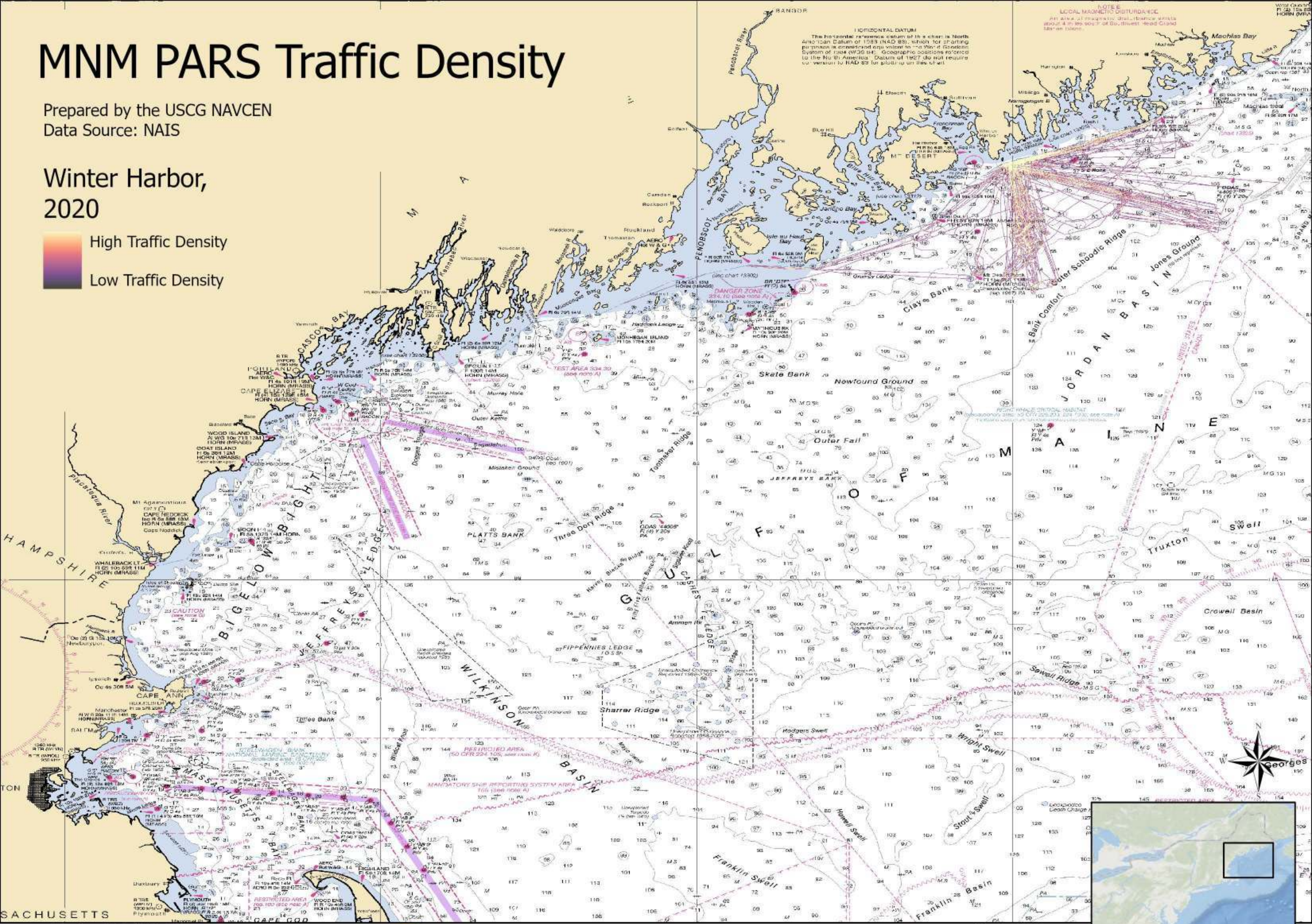
MNM PARS Traffic Density

Prepared by the USCG NAVCEN
Data Source: NAIS

Winter Harbor, 2020

High Traffic Density

Low Traffic Density



Scale: 1:1,653,663

0 5 10 20 30 40 Nautical Miles

Last Update: 9/23/2022 2:54 PM

Spatial Reference
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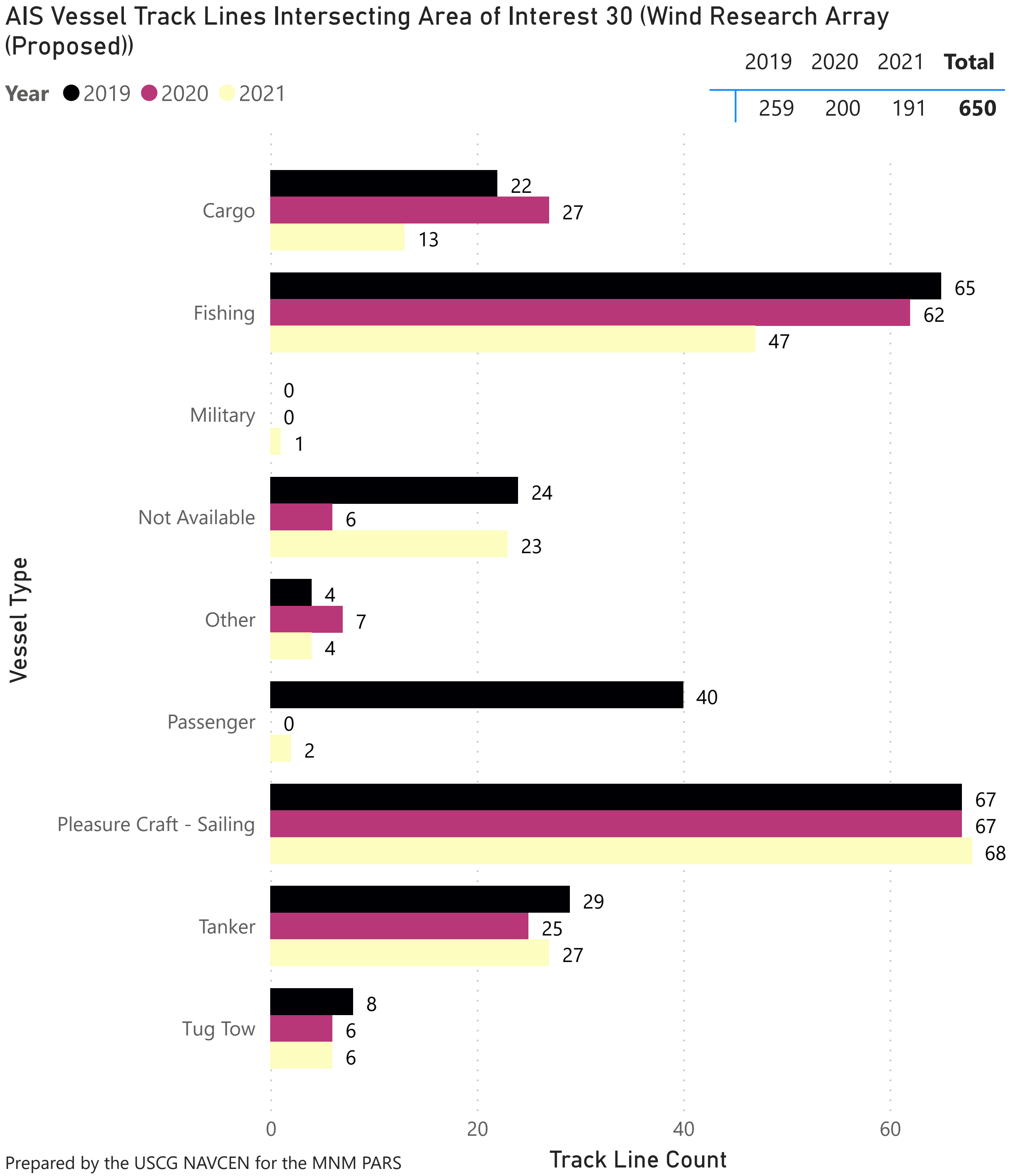
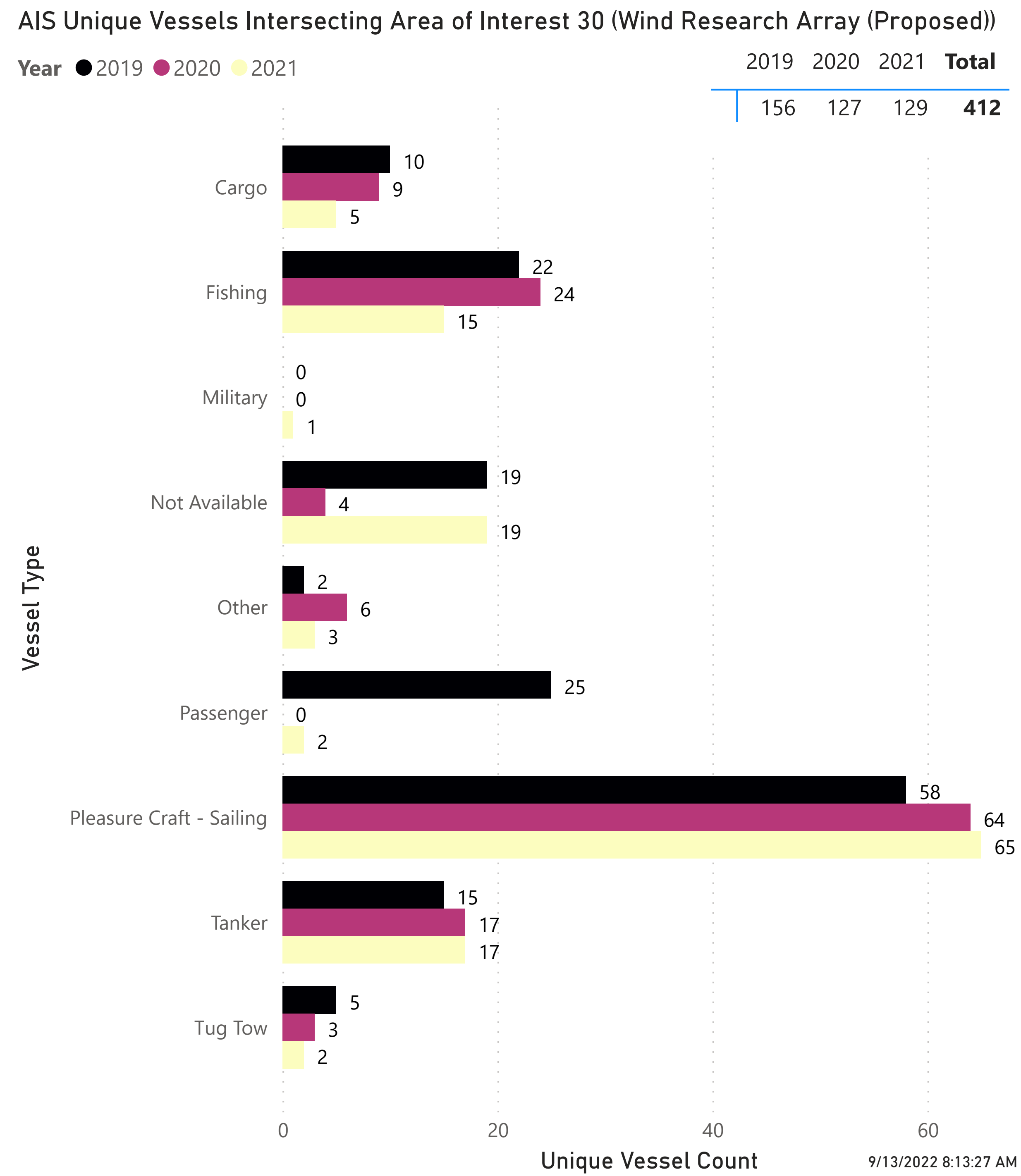
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree



Prepared by the USCG NAVCEN for the MNM PARS



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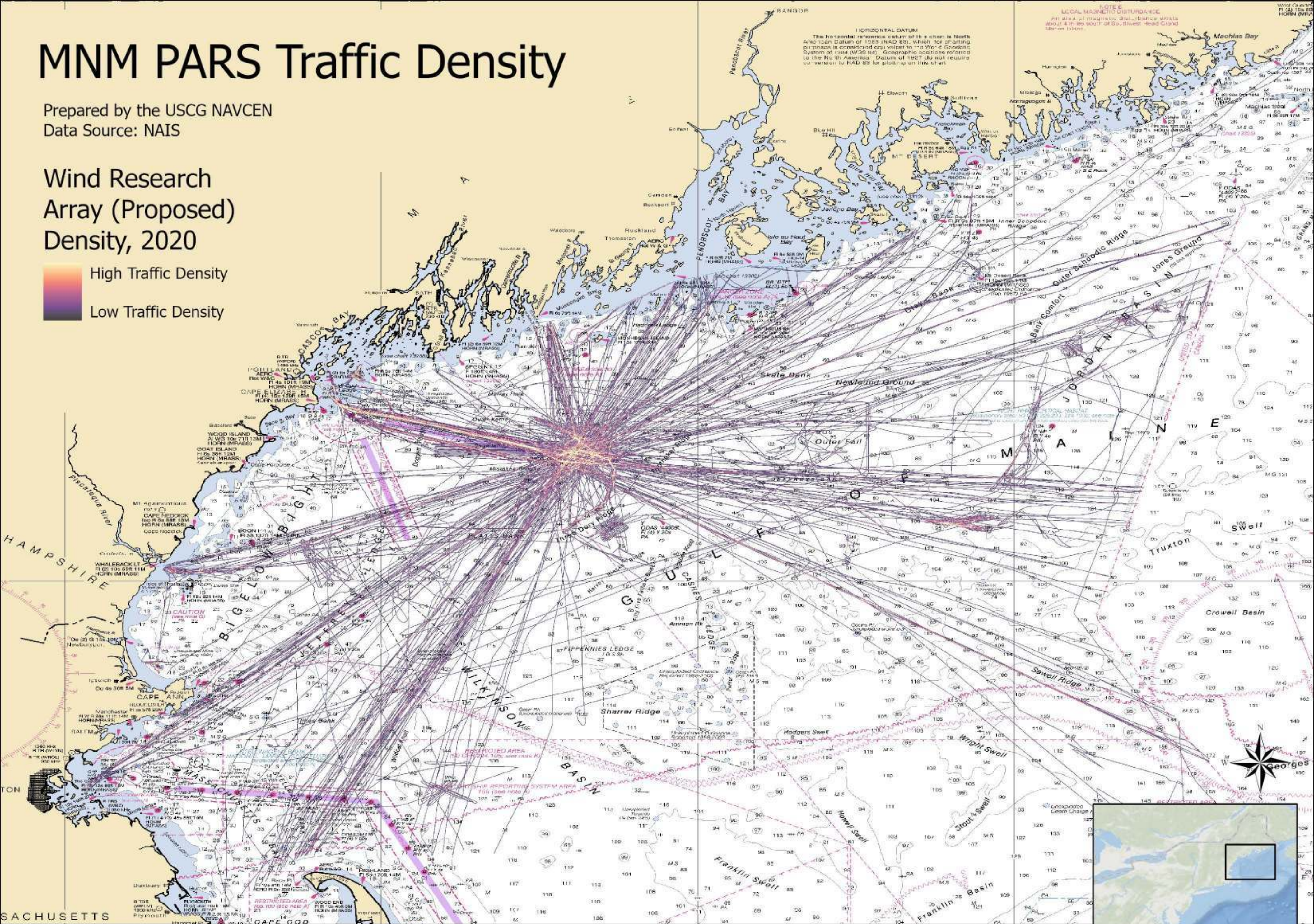


Scale: 1:1,653,663

0 5 10 20 30 40 Nautical Miles

Last Update: 9/23/2022 3:06 PM

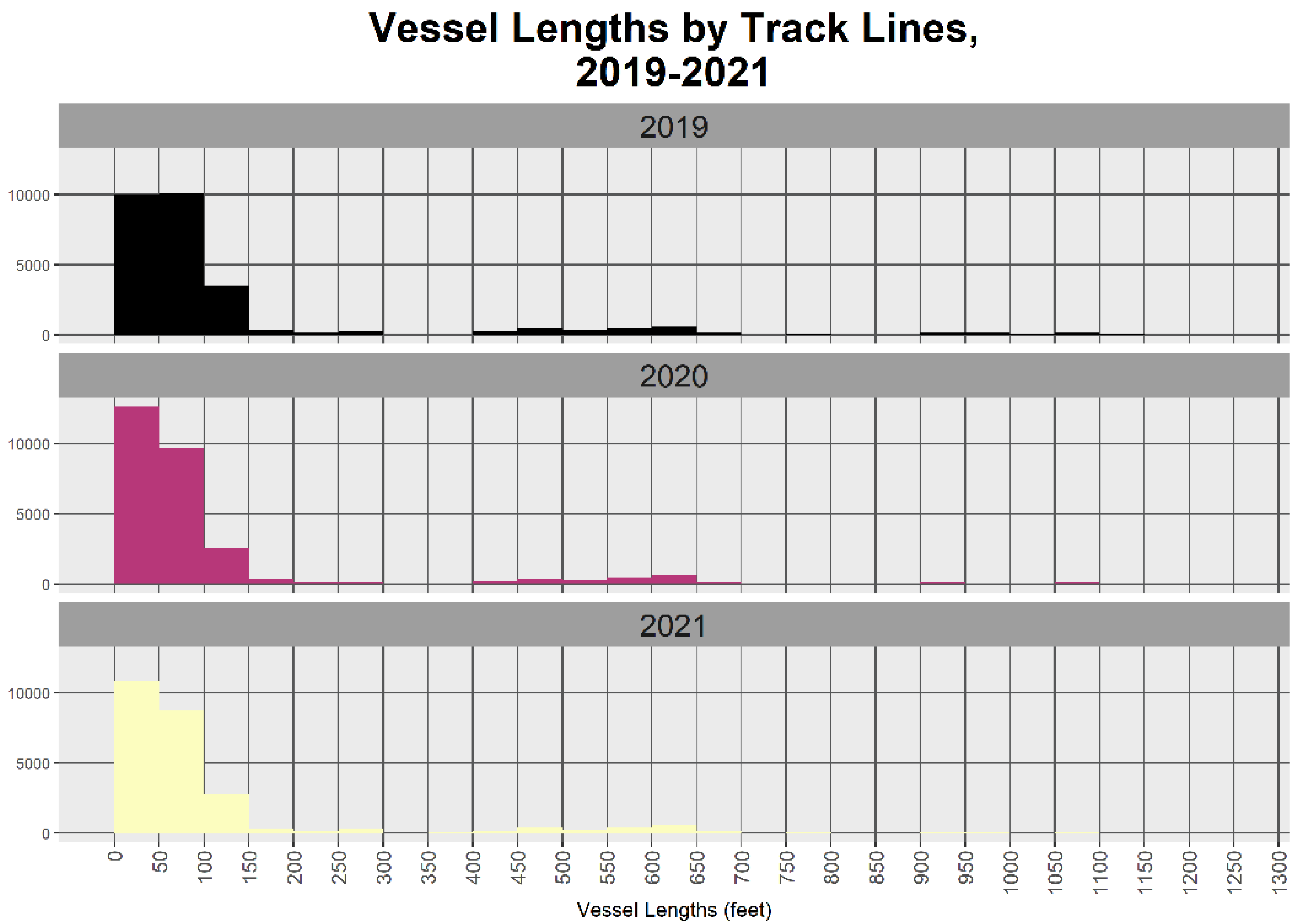
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Attachment 2 - Vessel Length Breakdowns

Information about vessel lengths in the study area and certain areas of interest

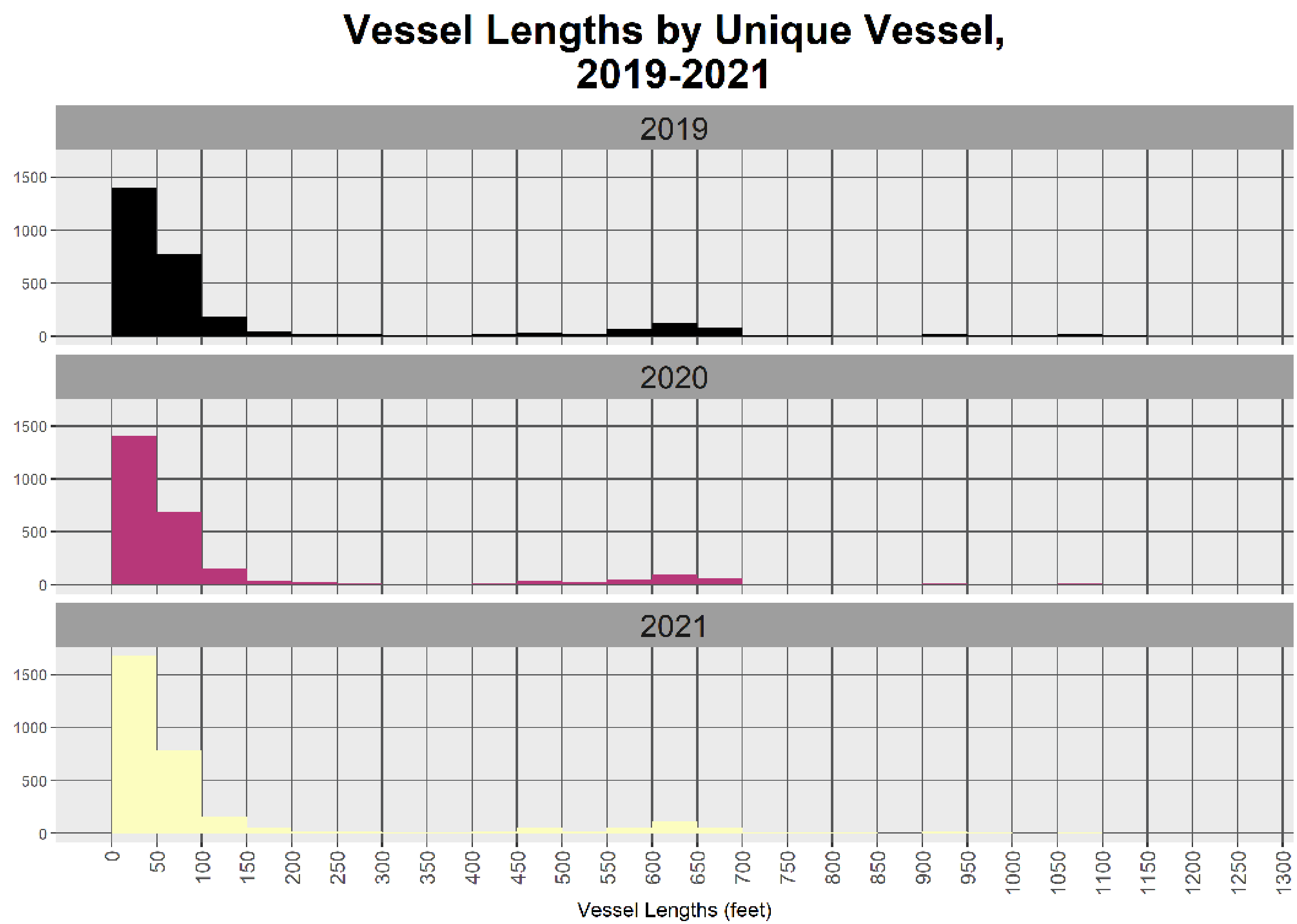
All Tracks

Year	Number of Tracks	Mean Vessel Length (ft)	Median Vessel Length (ft)	Maximum Vessel Length (ft)
2019	27654	139	72.2	1148
2020	28012	111	55.8	1201
2021	25398	114	59.1	1207



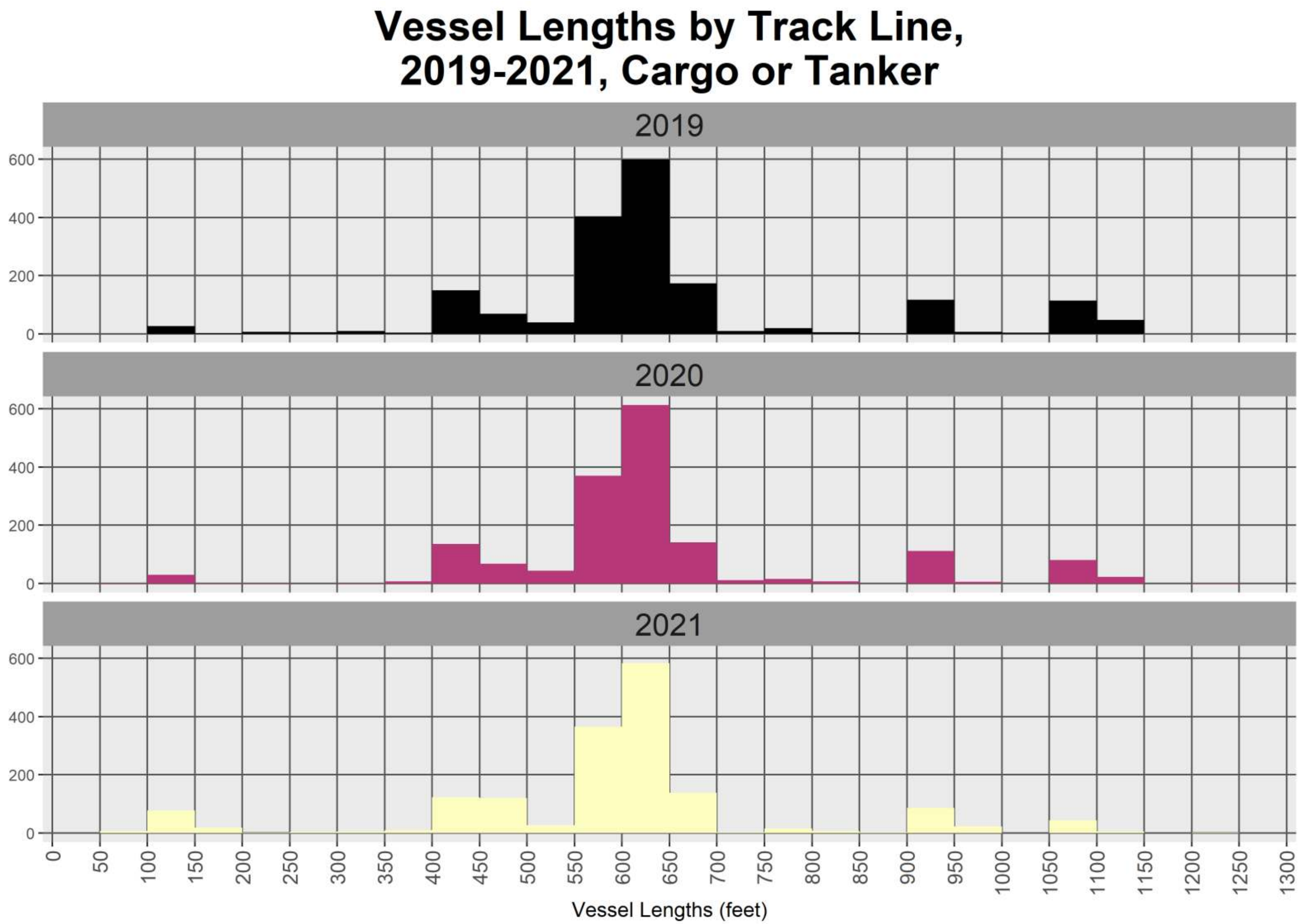
Unique Vessels

Year	Number of Unique Vessels	Mean Vessel Length (ft)	Median Vessel Length (ft)	Maximum Vessel Length (ft)
2019	2906	156	52.5	1148
2020	2707	139	49.2	1201
2021	3085	127	49.2	1207



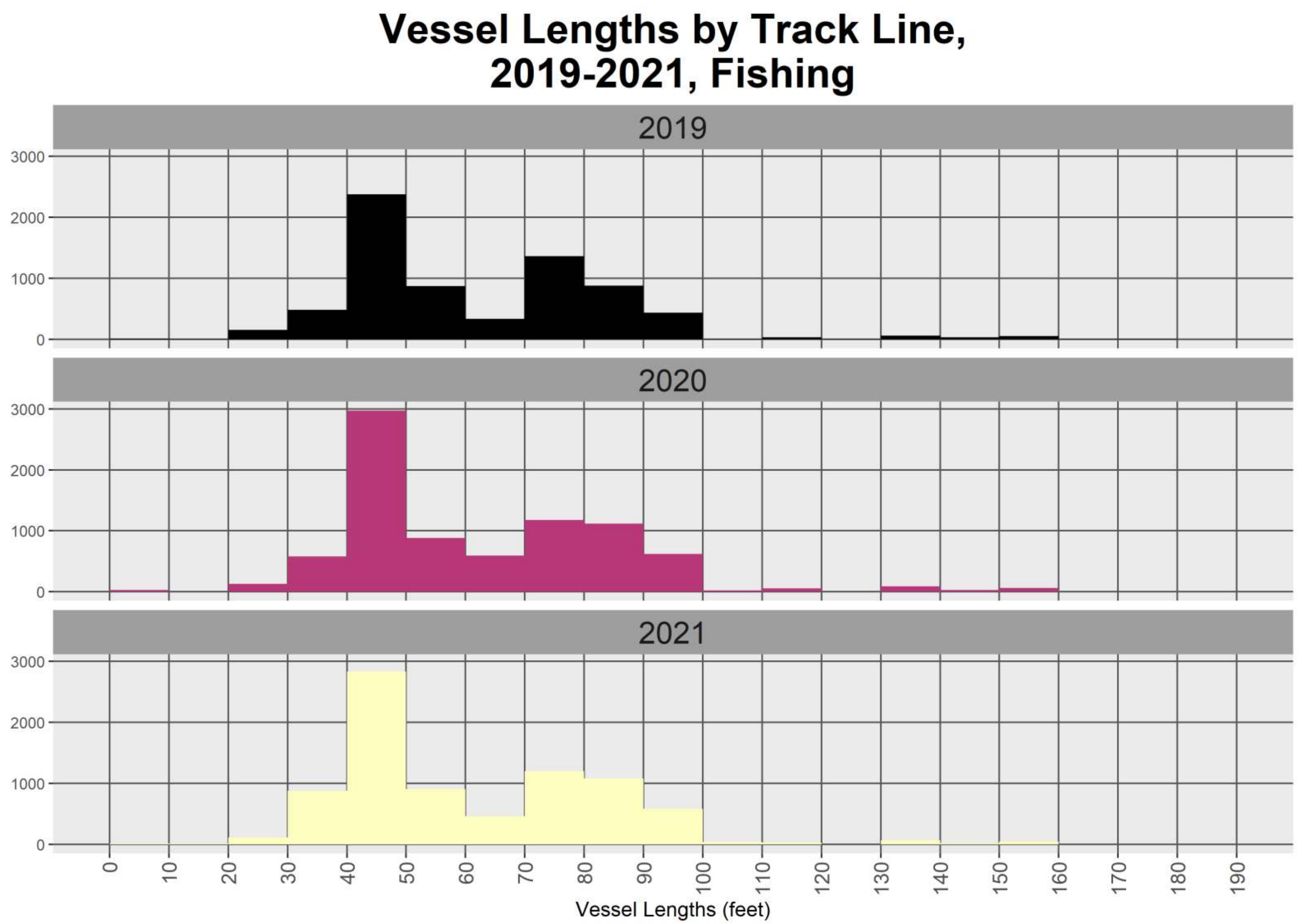
Cargo or Tanker

Year	Number of Tracks	Mean Vessel Length (ft)	Median Vessel Length (ft)	Maximum Vessel Length (ft)
2019	1812	645	600	1148
2020	1664	633	604	1201
2021	1668	590	600	1207



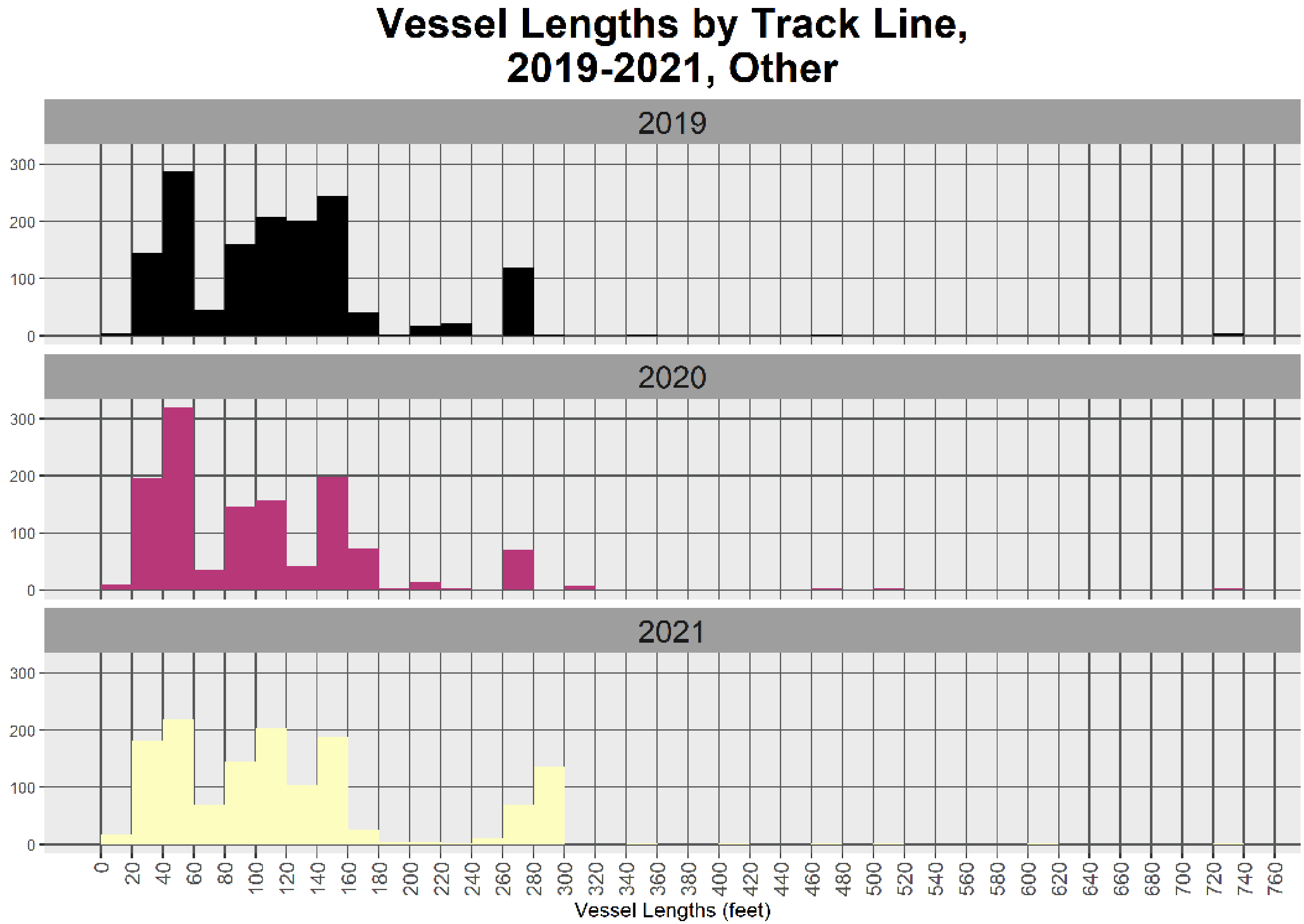
Fishing

Year	Number of Tracks	Mean Vessel Length (ft)	Median Vessel Length (ft)	Maximum Vessel Length (ft)
2019	7102	63.2	55.8	187
2020	8348	63.3	55.8	154
2021	8257	61.7	52.5	154



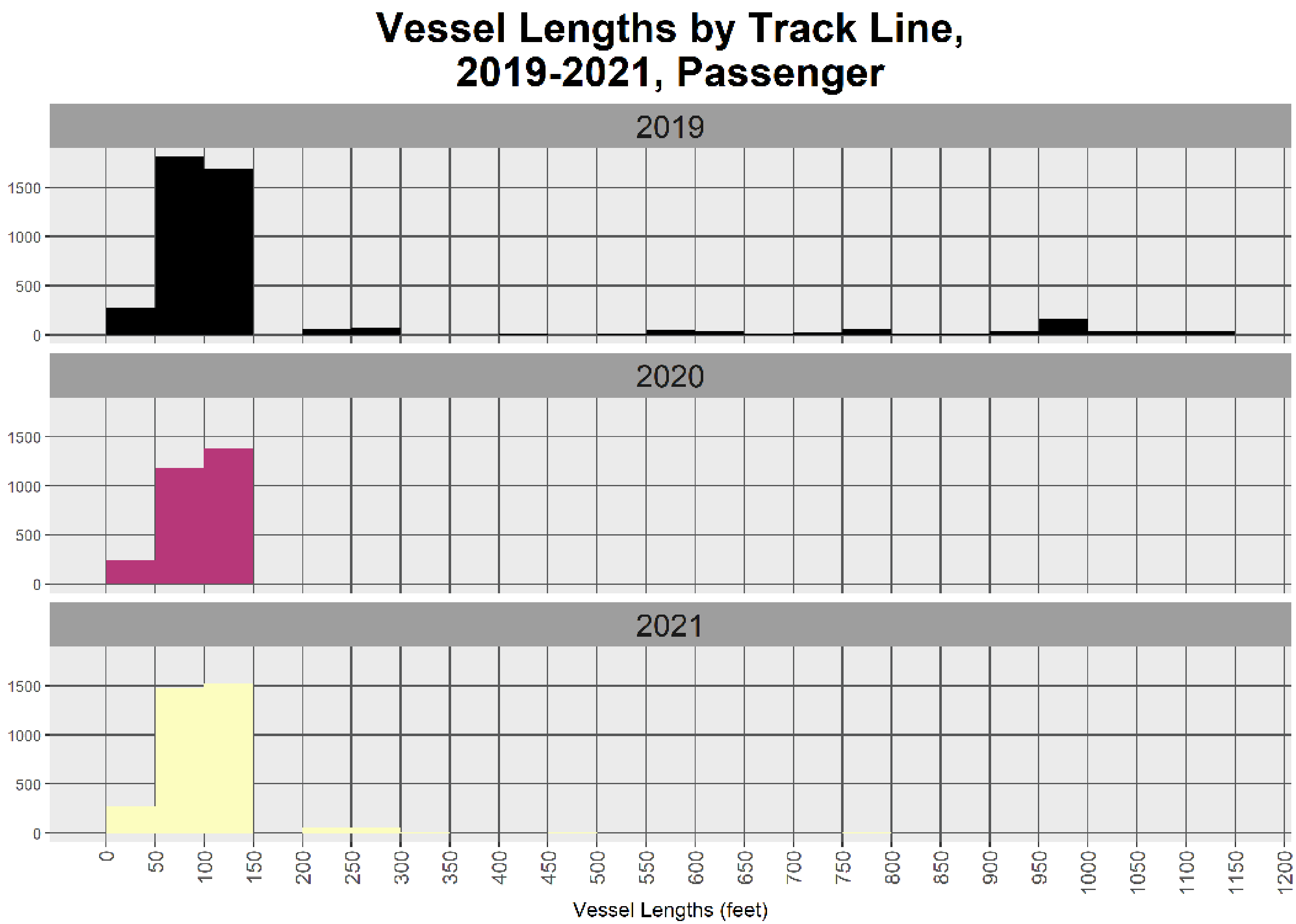
Other

Year	Number of Tracks	Mean Vessel Length (ft)	Median Vessel Length (ft)	Maximum Vessel Length (ft)
2019	1505	114	108	722
2020	1277	101	95.1	722
2021	1386	122	108	722



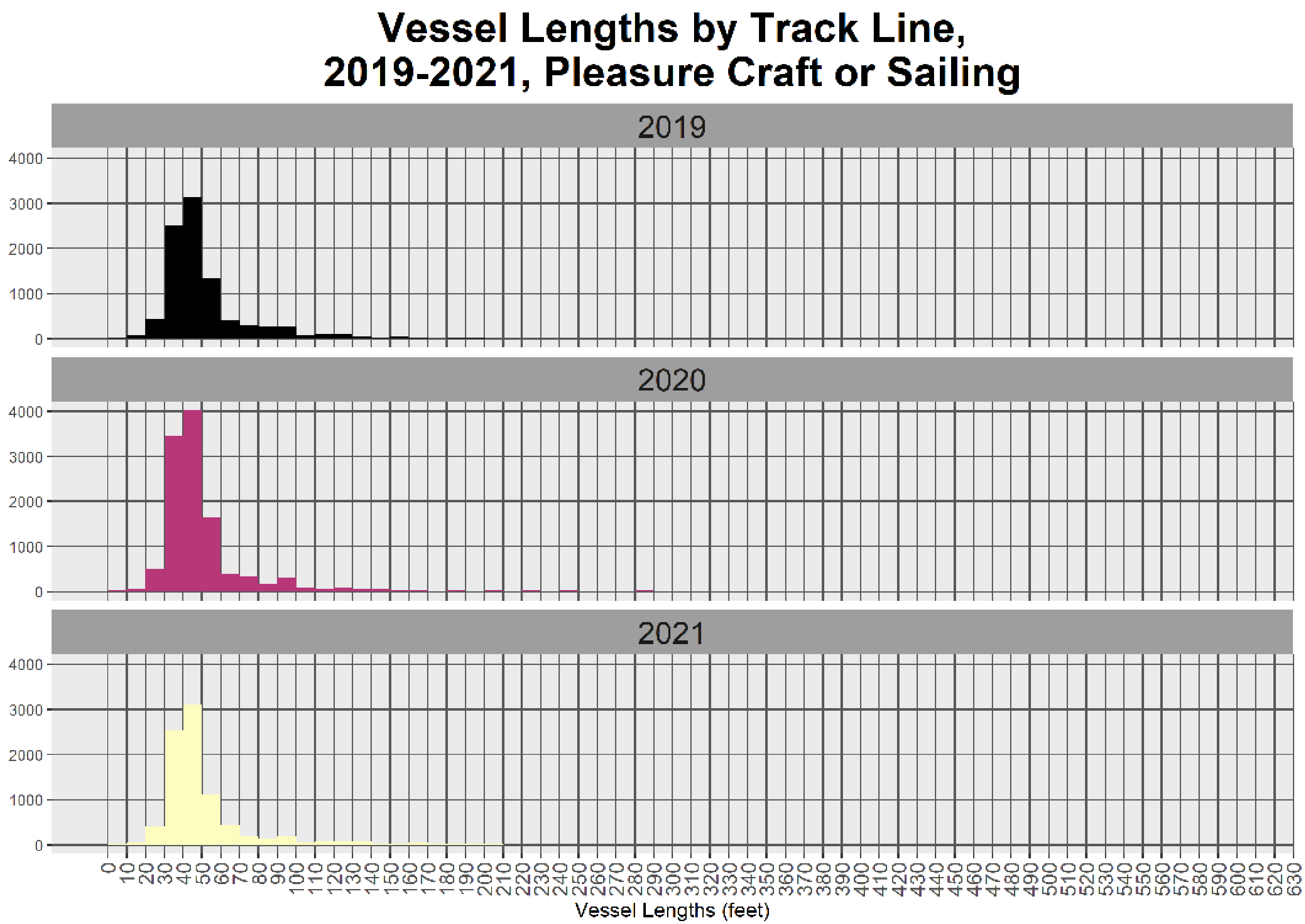
Passenger

Year	Number of Tracks	Mean Vessel Length (ft)	Median Vessel Length (ft)	Maximum Vessel Length (ft)
2019	4430	188	102	1142
2020	2832	98.7	98.4	965
2021	3416	102	98.4	781



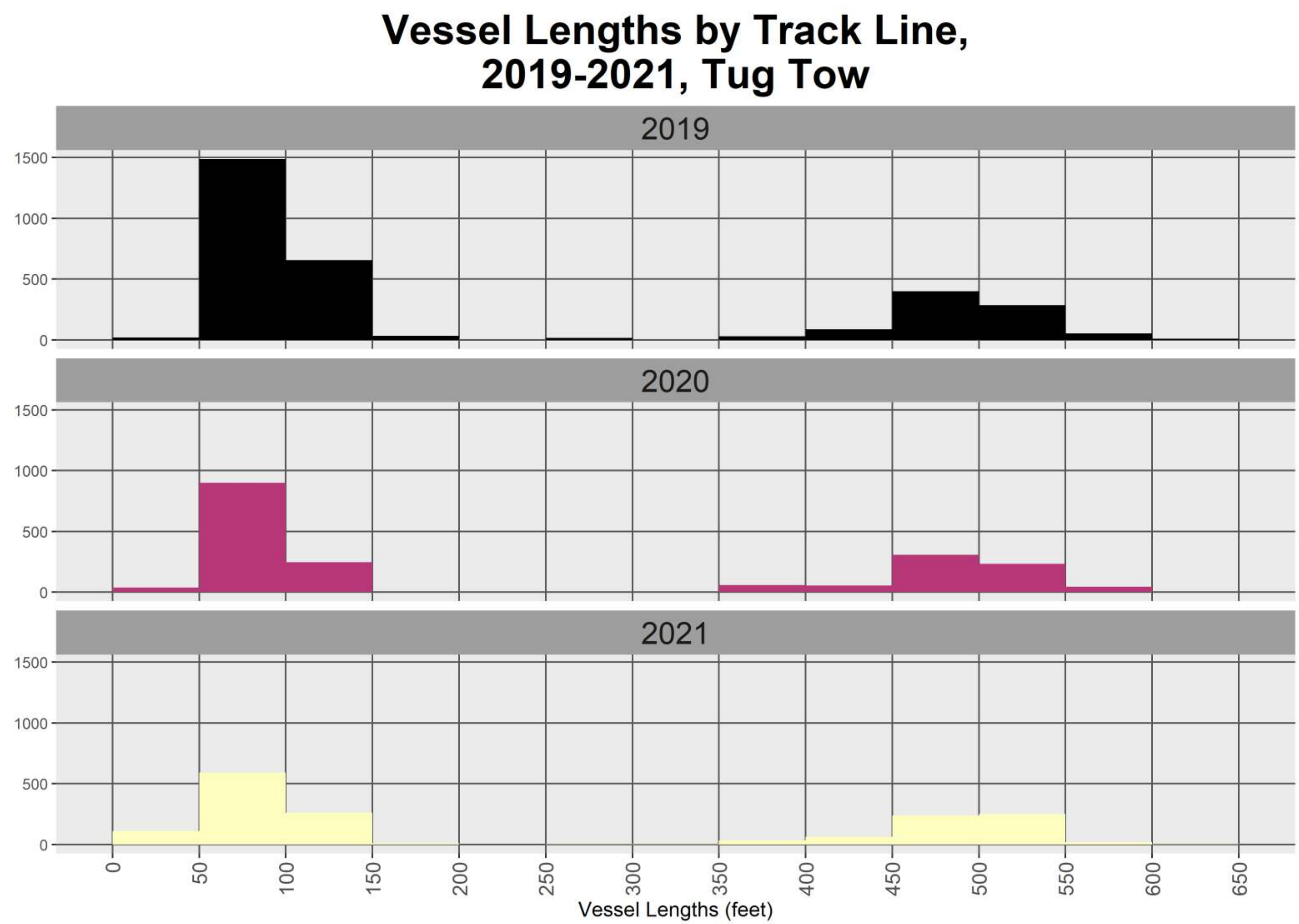
Pleasure Craft

Year	Number of Tracks	Mean Vessel Length (ft)	Median Vessel Length (ft)	Maximum Vessel Length (ft)
2019	9290	53	45.9	371
2020	11624	53.6	45.9	597
2021	8687	52.1	45.9	290



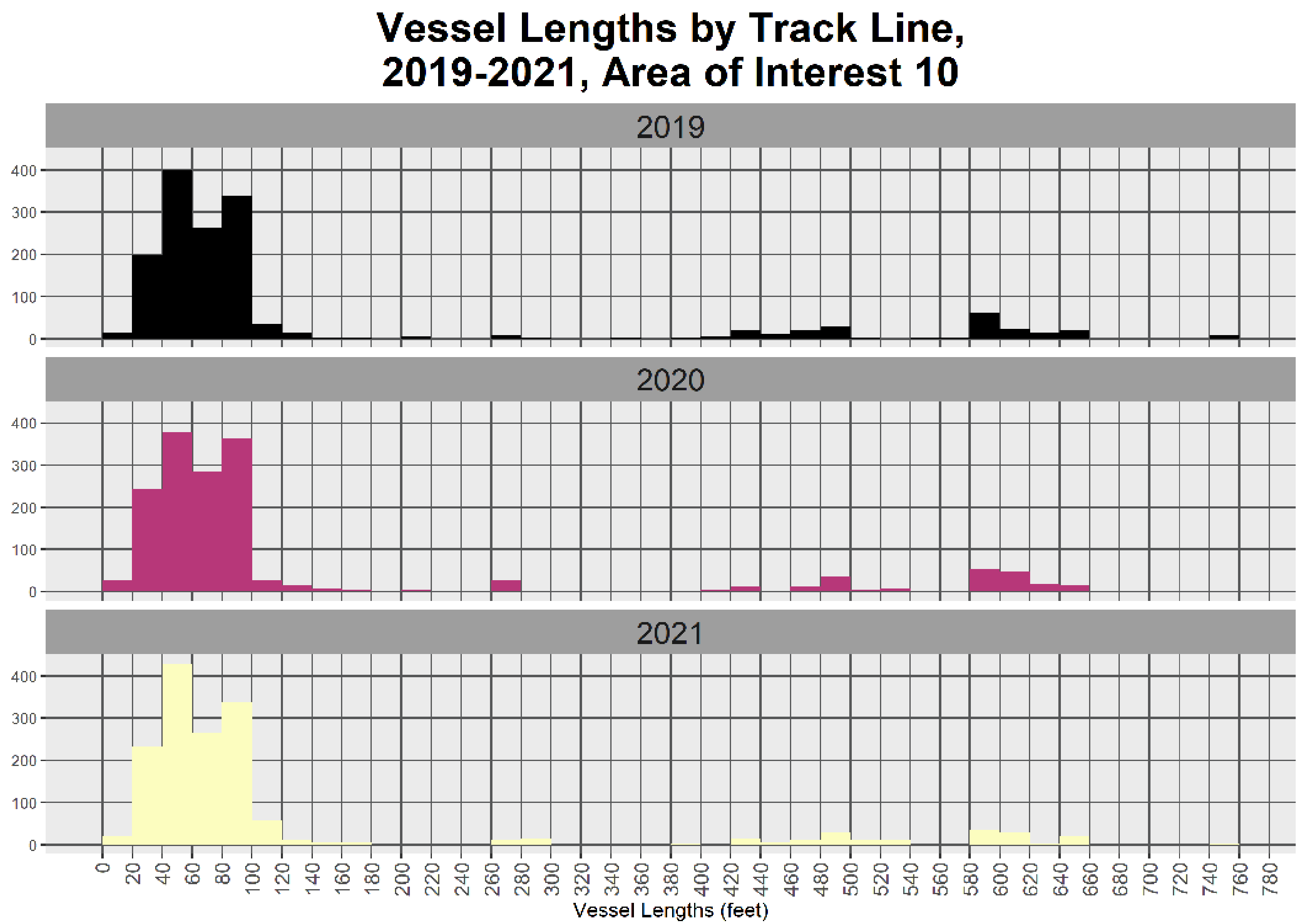
Tug Tow

Year	Number of Tracks	Mean Vessel Length (ft)	Median Vessel Length (ft)	Maximum Vessel Length (ft)
2019	3074	208	102	607
2020	1880	240	102	594
2021	1581	246	108	604



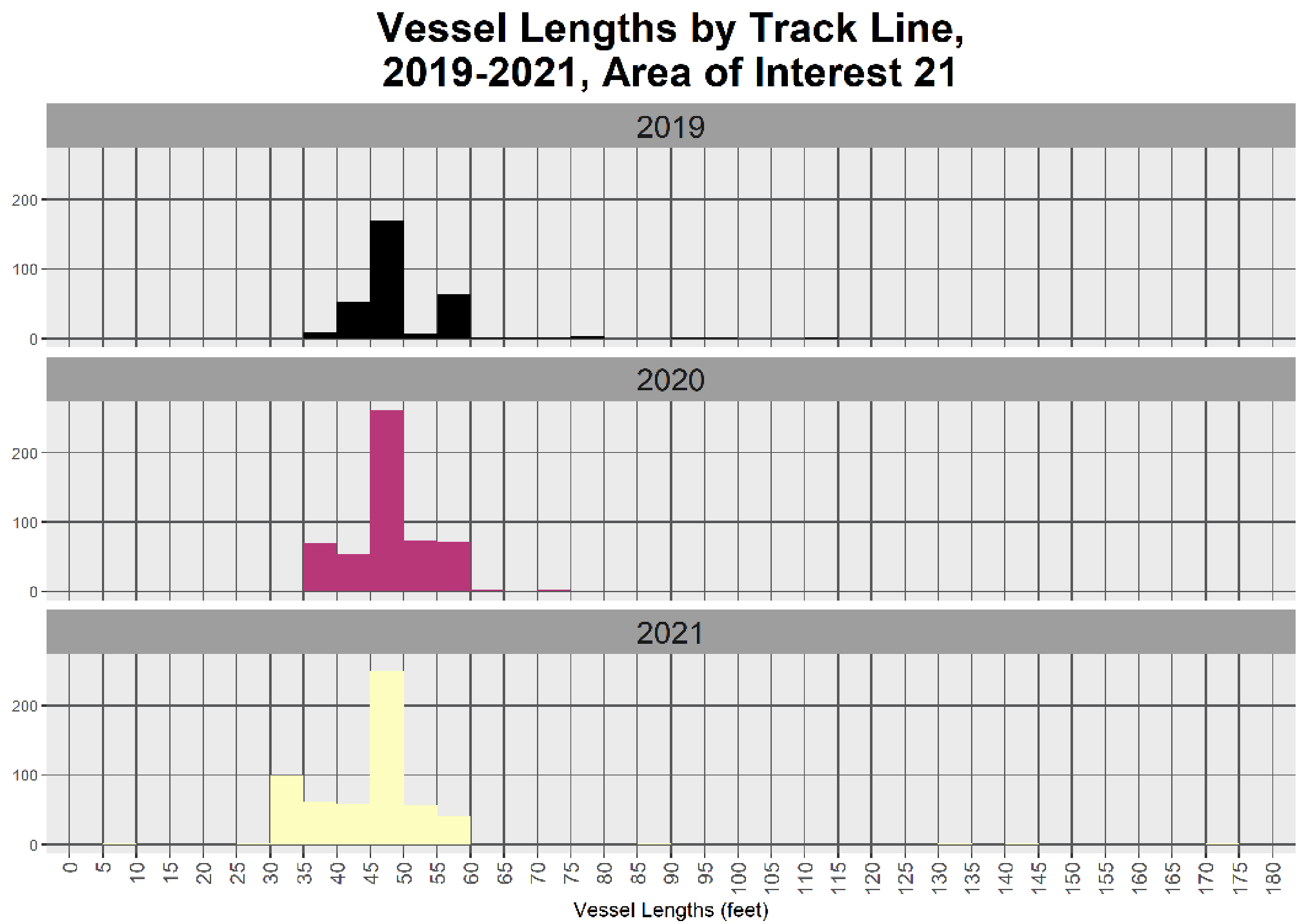
Portsmouth, Line 10

Year	Number of Tracks	Mean Vessel Length (ft)	Median Vessel Length (ft)	Maximum Vessel Length (ft)
2019	1514	141	78.7	751
2020	1599	136	78.7	751
2021	1564	122	75.5	751



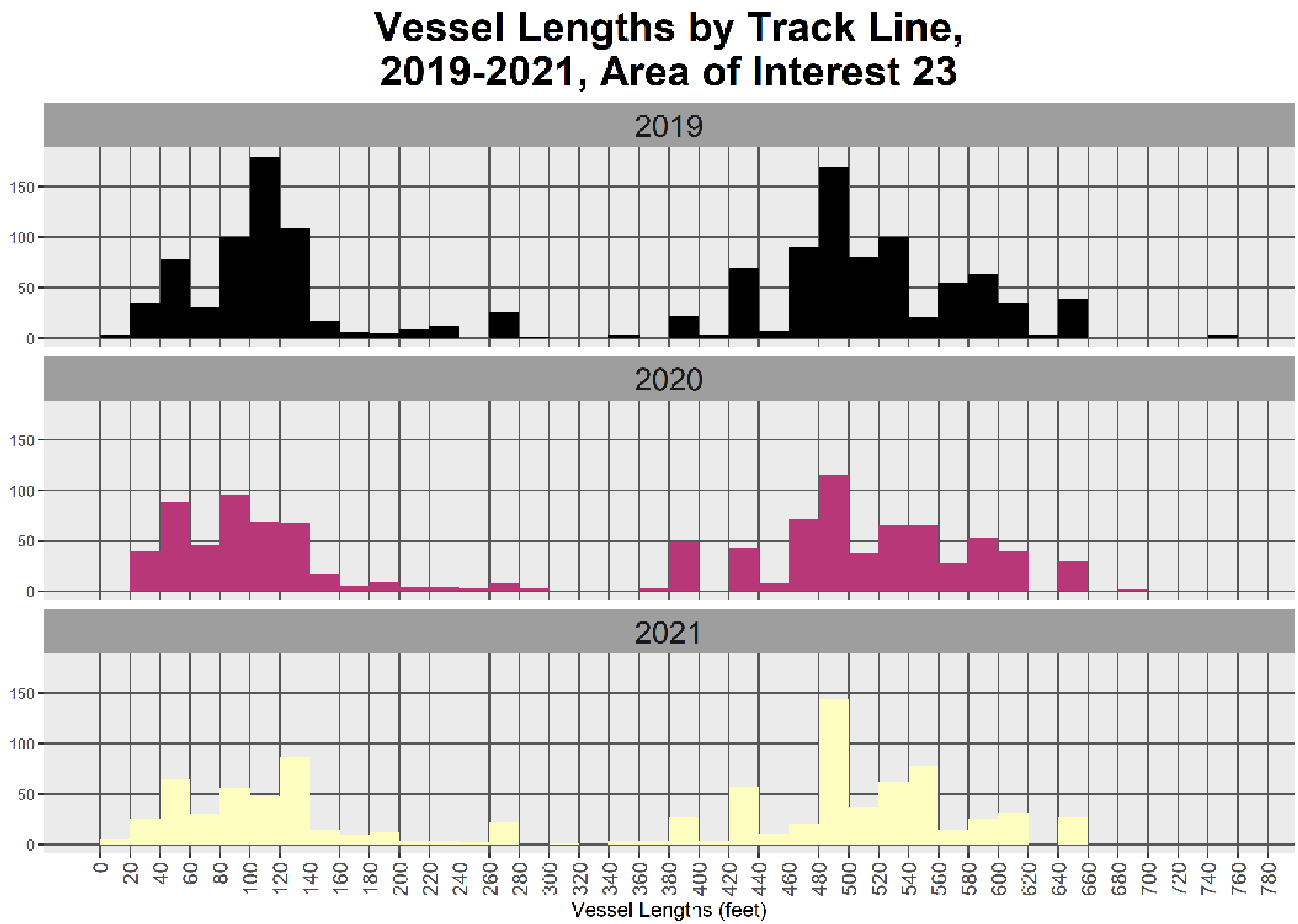
Vinalhaven 2, Line 21

Year	Number of Tracks	Mean Vessel Length (ft)	Median Vessel Length (ft)	Maximum Vessel Length (ft)
2019	312	50	49.2	115
2020	537	48.3	45.9	174
2021	571	45.1	45.9	174



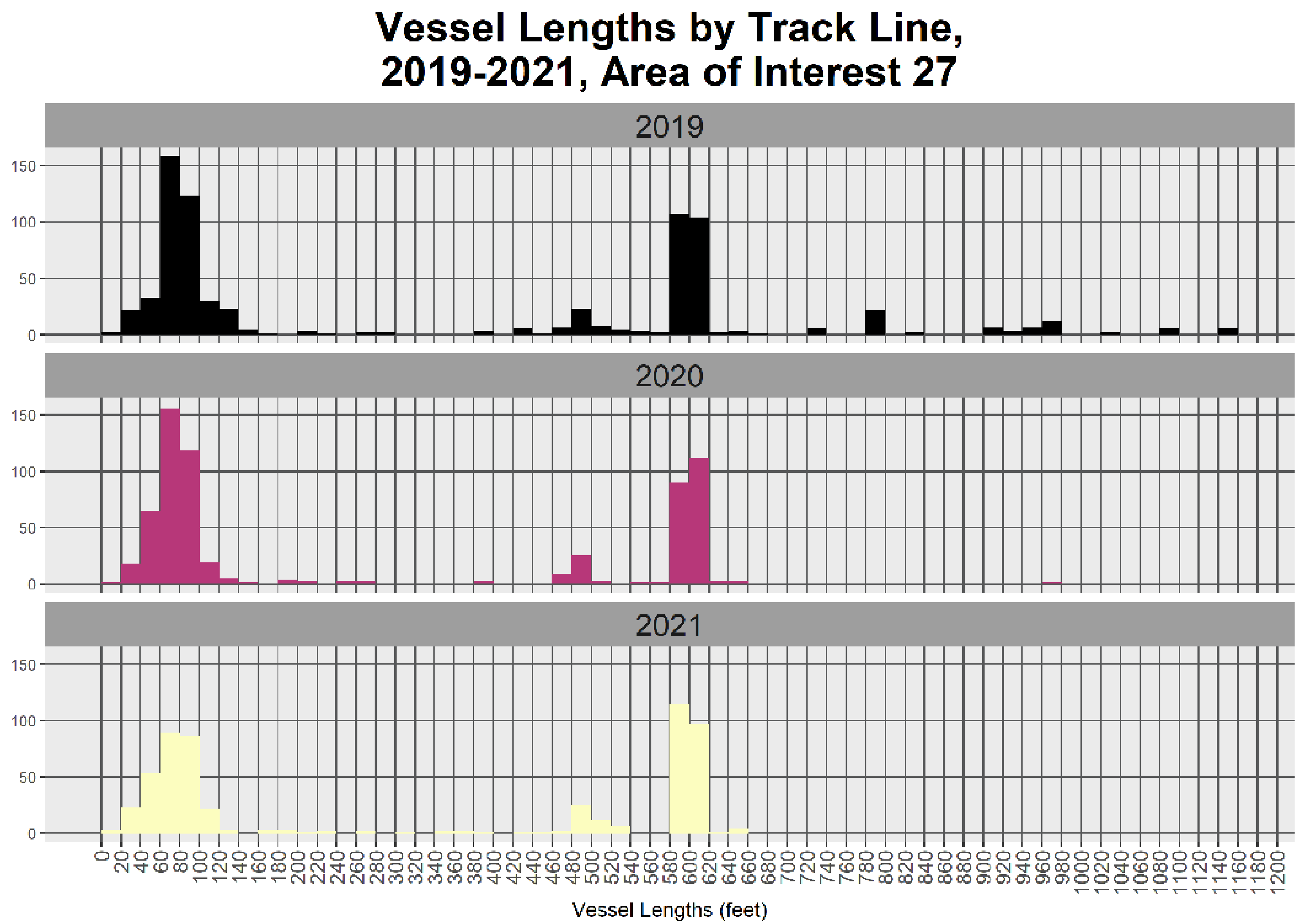
Two Way Route South of Boston, Line 23

Year	Number of Tracks	Mean Vessel Length (ft)	Median Vessel Length (ft)	Maximum Vessel Length (ft)
2019	1373	336	430	748
2020	1073	336	430	686
2021	927	346	436	656



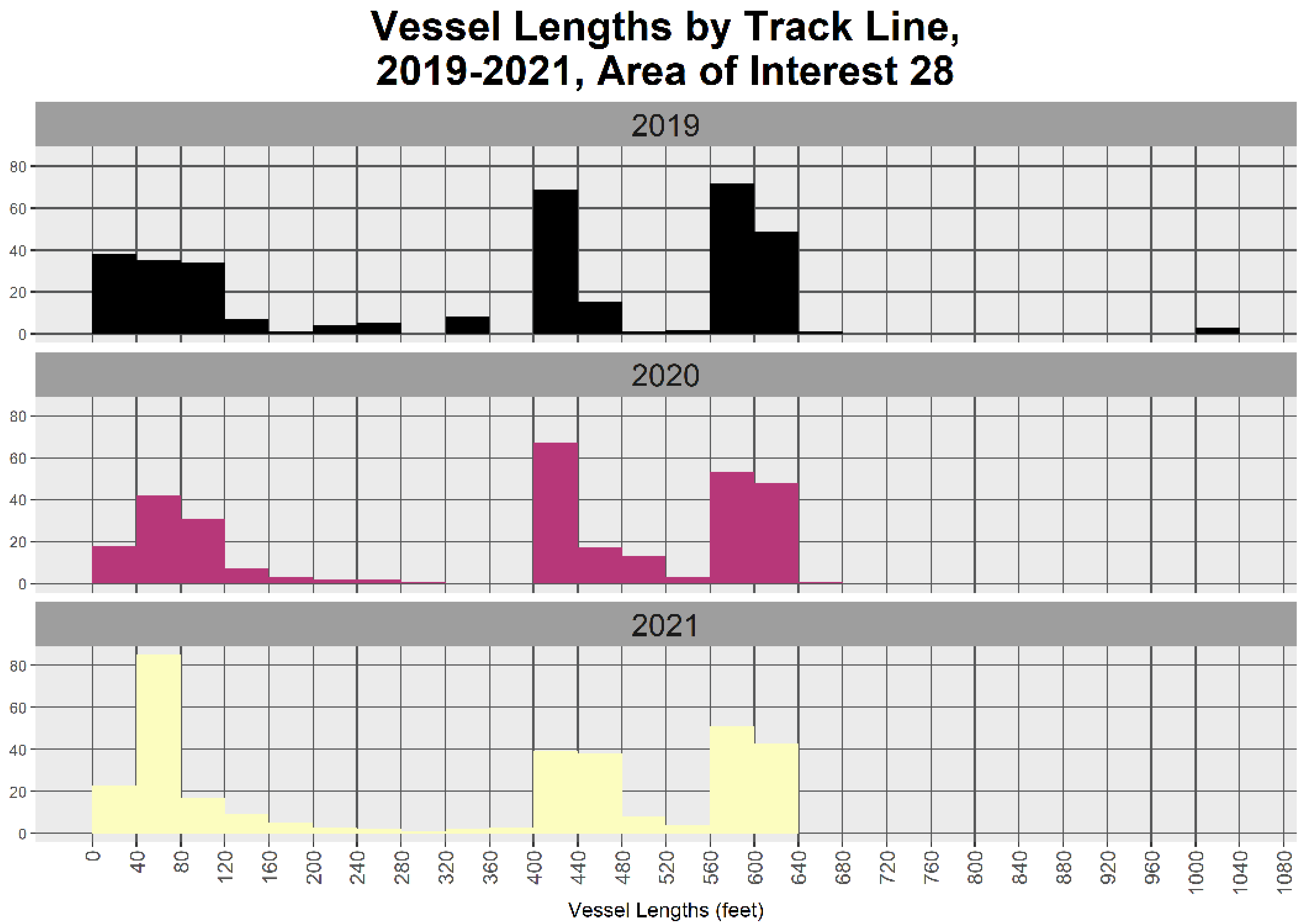
North of Boston Crossing GOM, Line 27

Year	Number of Tracks	Mean Vessel Length (ft)	Median Vessel Length (ft)	Maximum Vessel Length (ft)
2019	745	340	121	1142
2020	644	275	91.9	965
2021	559	319	162	656



North Portland TSSs, Line 28

Year	Number of Tracks	Mean Vessel Length (ft)	Median Vessel Length (ft)	Maximum Vessel Length (ft)
2019	344	369	427	1020
2020	308	372	427	653
2021	333	328	427	610

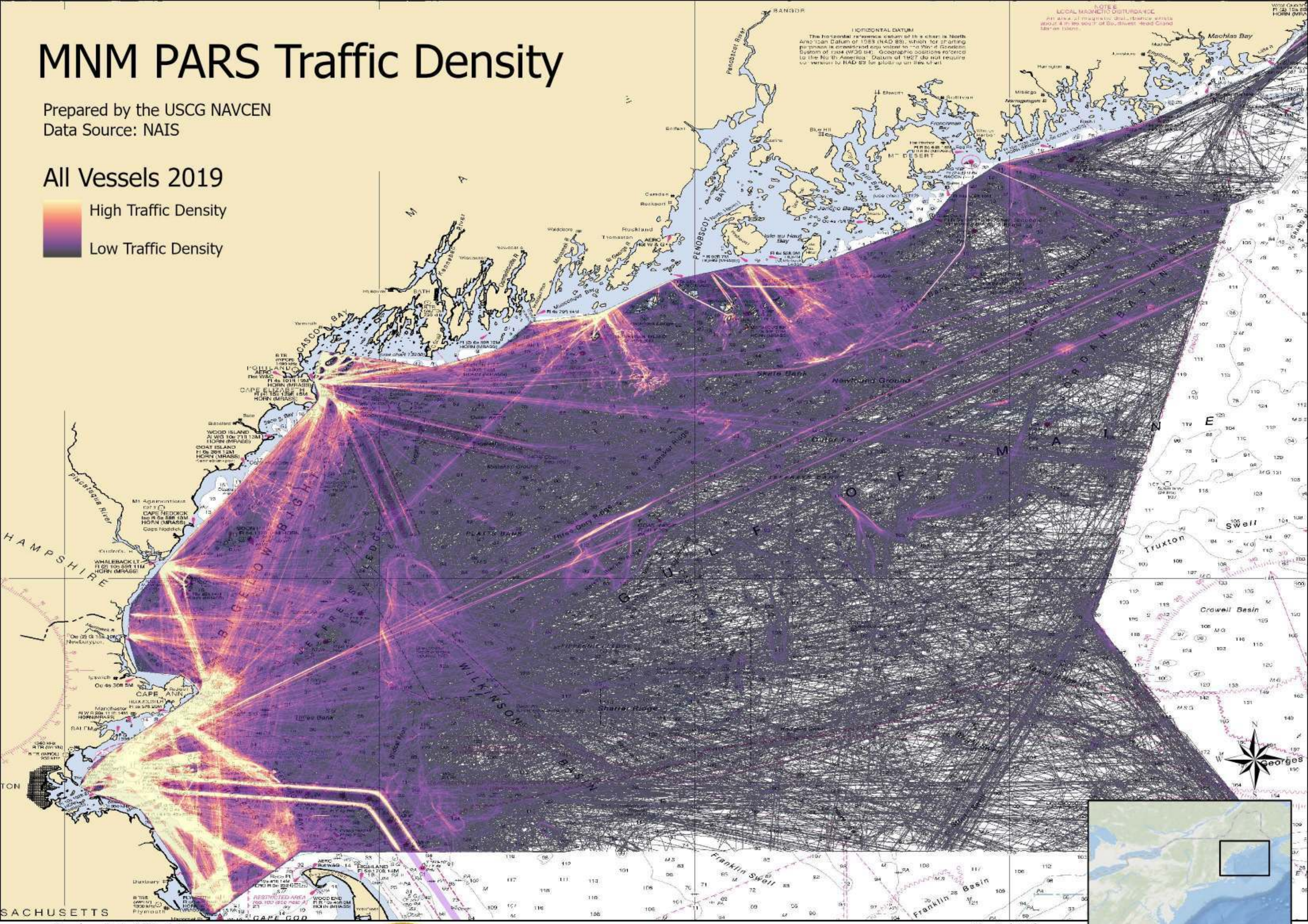


Attachment 3- Vessel Traffic Visualizations

Traffic Density Graphics (Years are linked)								
All Vessels	**Cargo**	**Fishing**	**Not Available**	**Other**	**Passenger**	**Pleasure Craft/Sailing**	**Tanker**	**Tug/Tow**
2019	2019	2019	2019	2019	2019	2019	2019	2019
2020	2020	2020	2020	2020	2020	2020	2020	2020
2021	2021	2021	2021	2021	2021	2021	2021	2021

Summarize Within Graphics (Years are linked)								
All Vessels	**Cargo**	**Fishing**	**Not Available**	**Other**	**Passenger**	**Pleasure Craft/Sailing**	**Tanker**	**Tug/Tow**
2019	2019	2019	2019	2019	2019	2019	2019	2019
2020	2020	2020	2020	2020	2020	2020	2020	2020
2021	2021	2021	2021	2021	2021	2021	2021	2021

Traffic Densities



Scale: 1:1,653,663

0 5 10 20 30 40 Nautical Miles

Last Update: 9/14/2022 7:23 PM

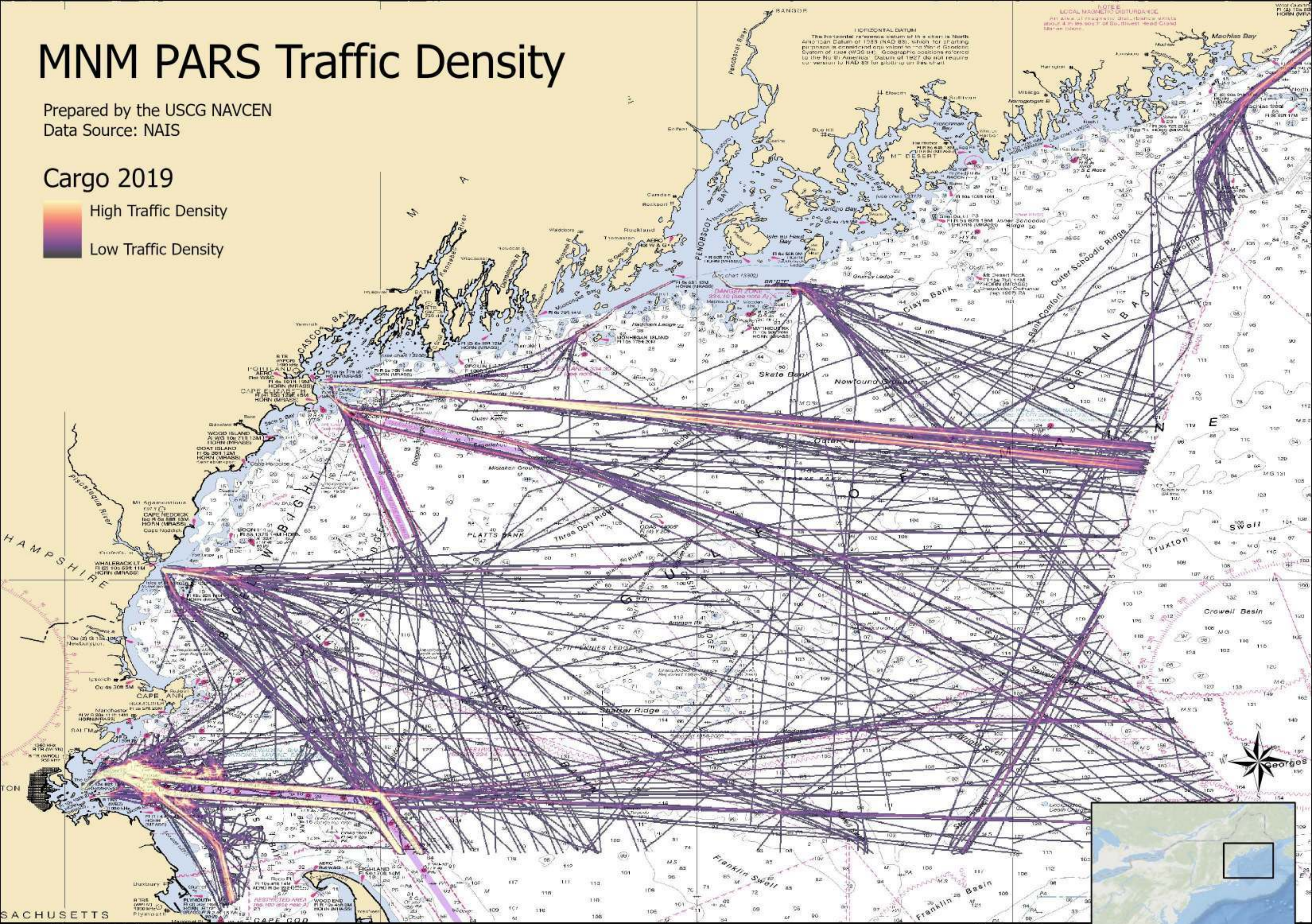
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

MNM PARS Traffic Density

Prepared by the USCG NAVCEN
Data Source: NAIS

Cargo 2019

High Traffic Density
Low Traffic Density



Scale: 1:1,653,663

0 5 10 20 30 40 Nautical Miles

Last Update: 9/14/2022 7:22 PM

Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

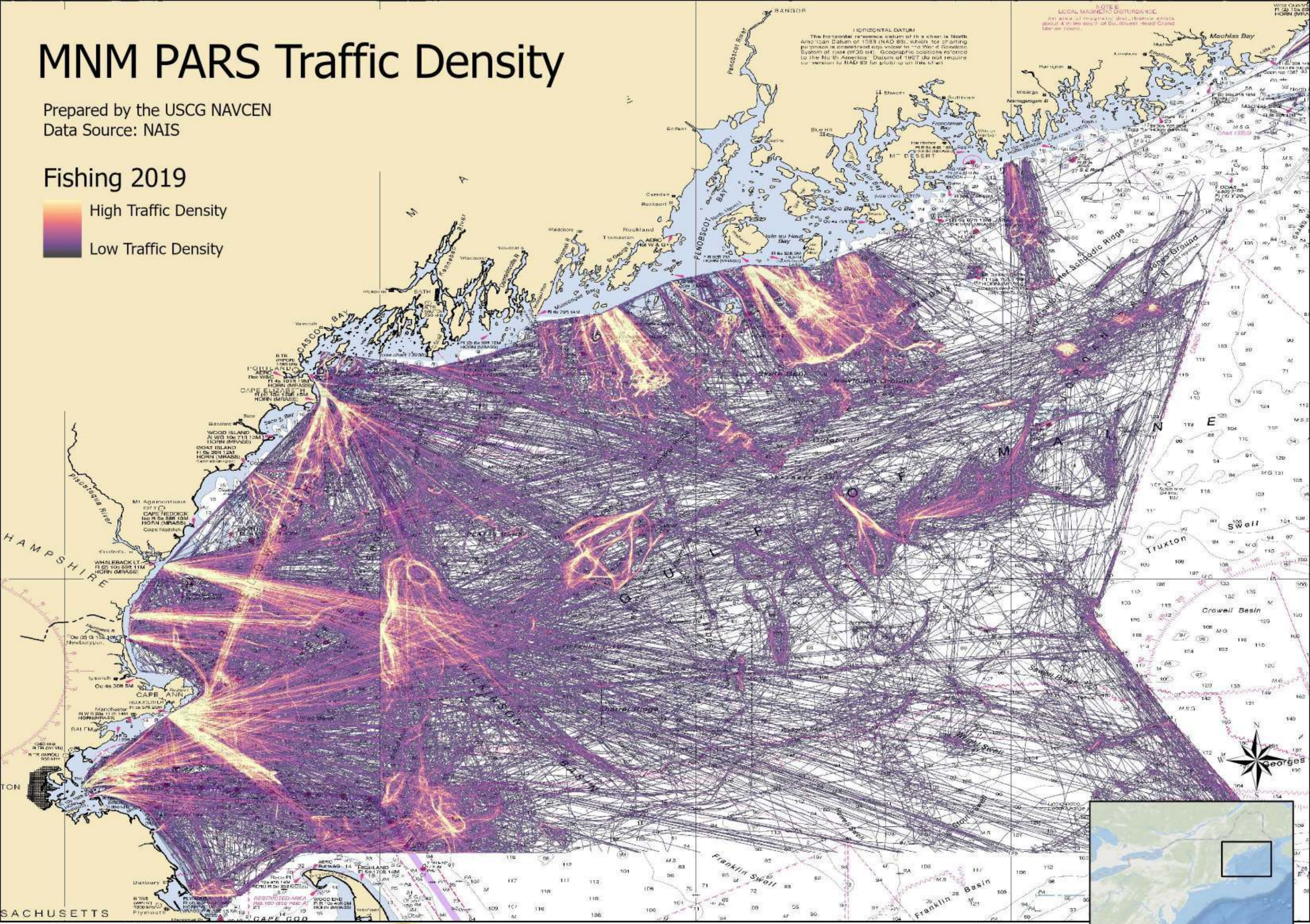
MNM PARS Traffic Density

Prepared by the USCG NAVCEN
Data Source: NAIS

Fishing 2019

High Traffic Density

Low Traffic Density

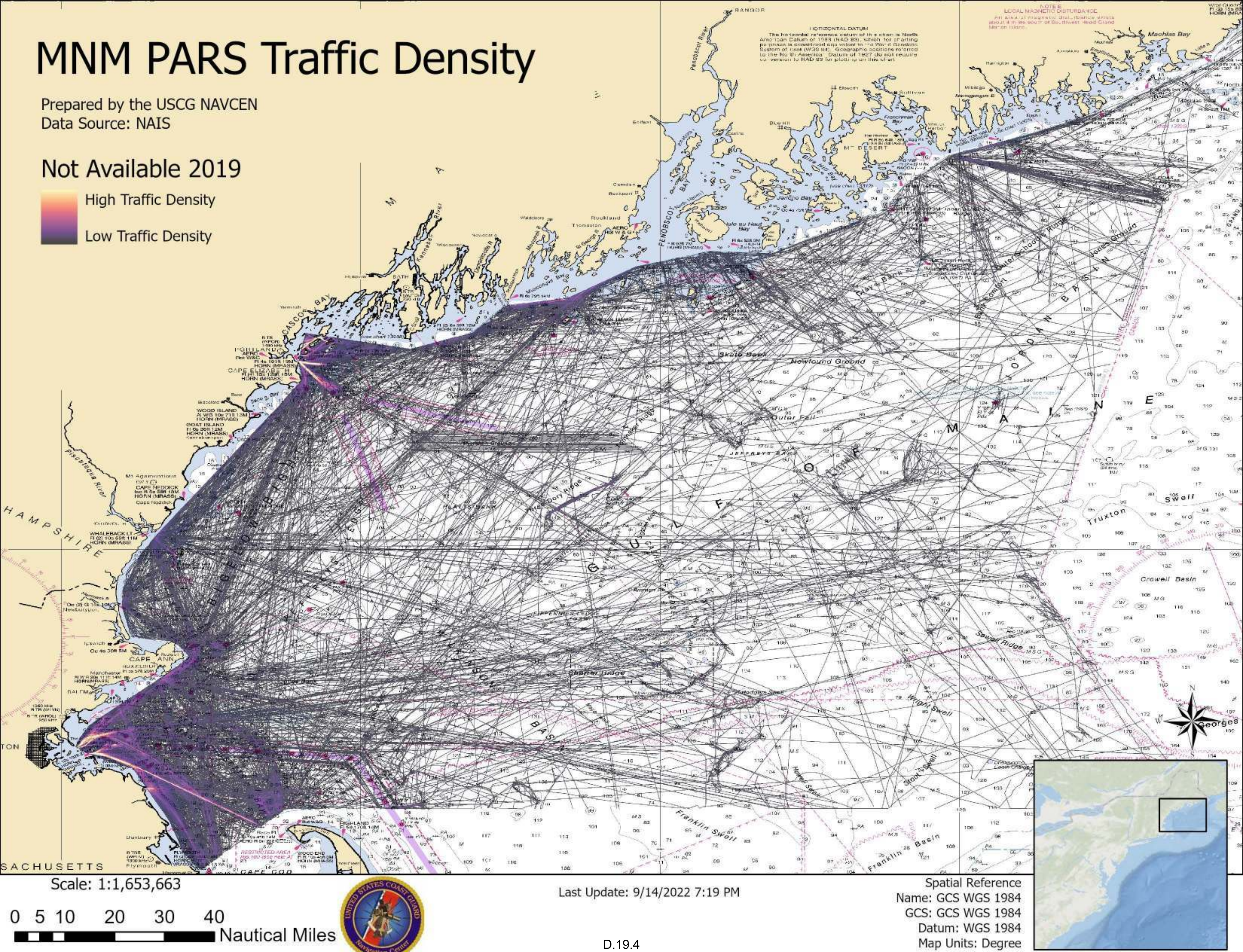


Scale: 1:1,653,663

0 5 10 20 30 40 Nautical Miles

Last Update: 9/14/2022 7:21 PM

Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

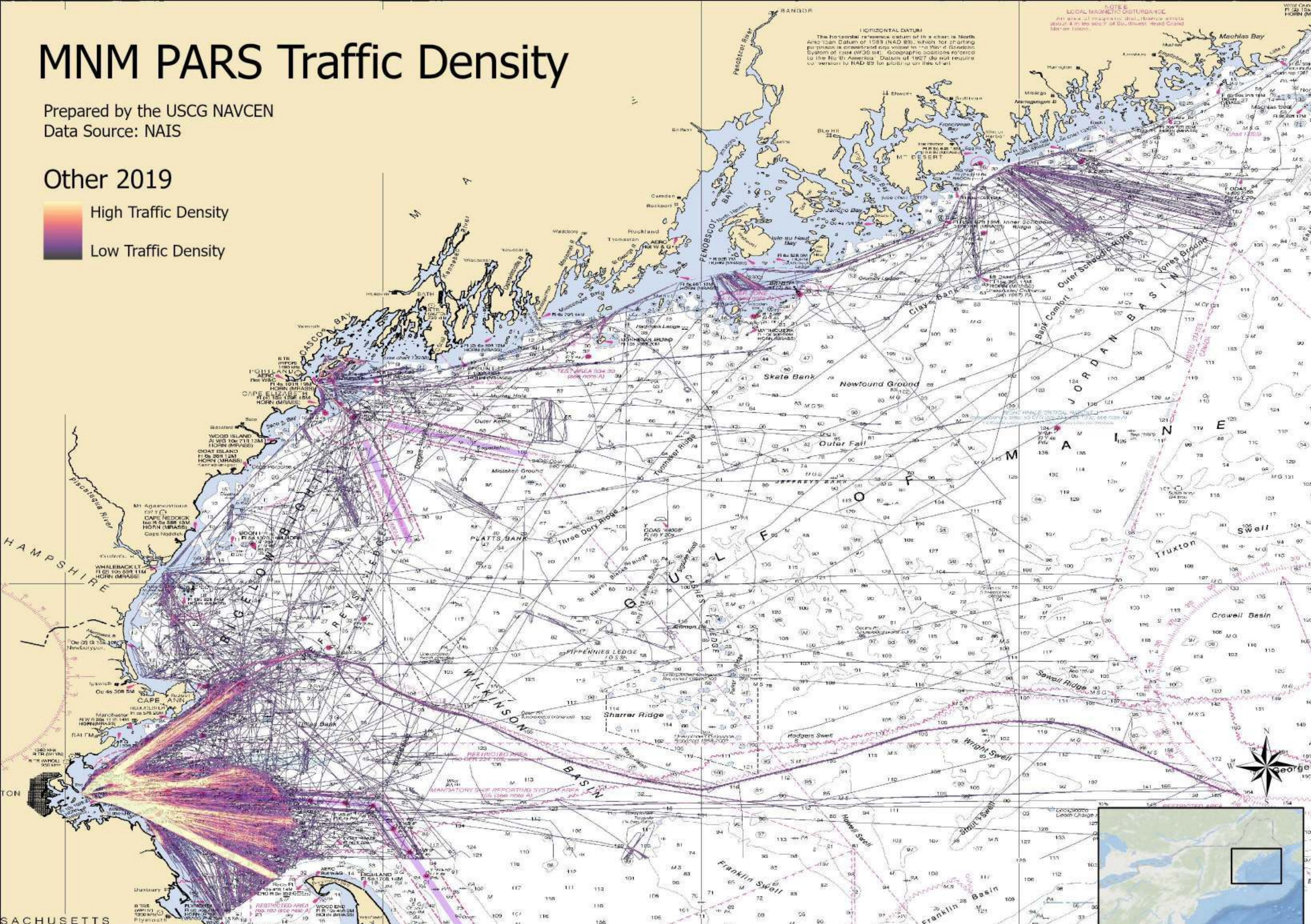


Scale: 1:1,653,663

0 5 10 20 30 40 Nautical Miles

Last Update: 9/14/2022 7:19 PM

Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

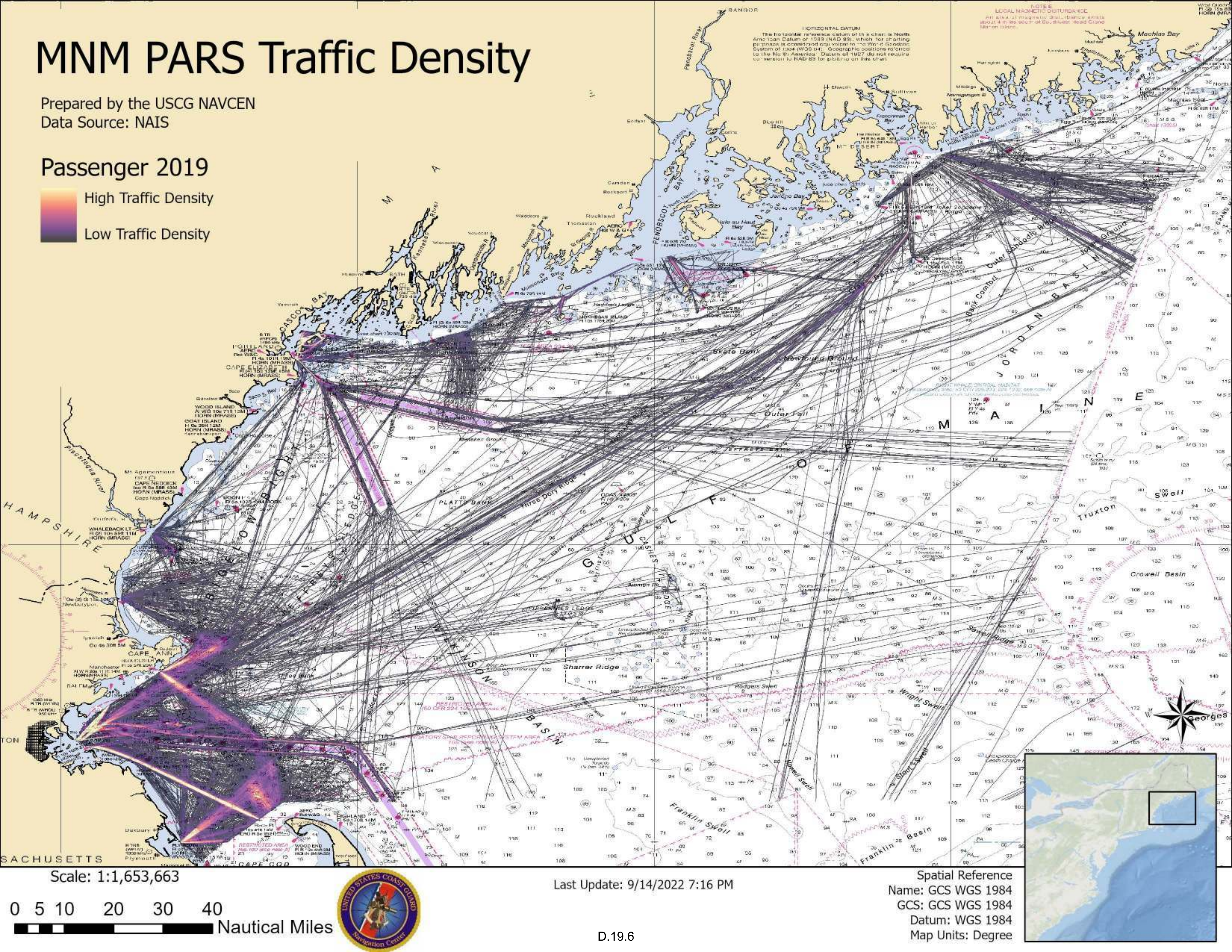


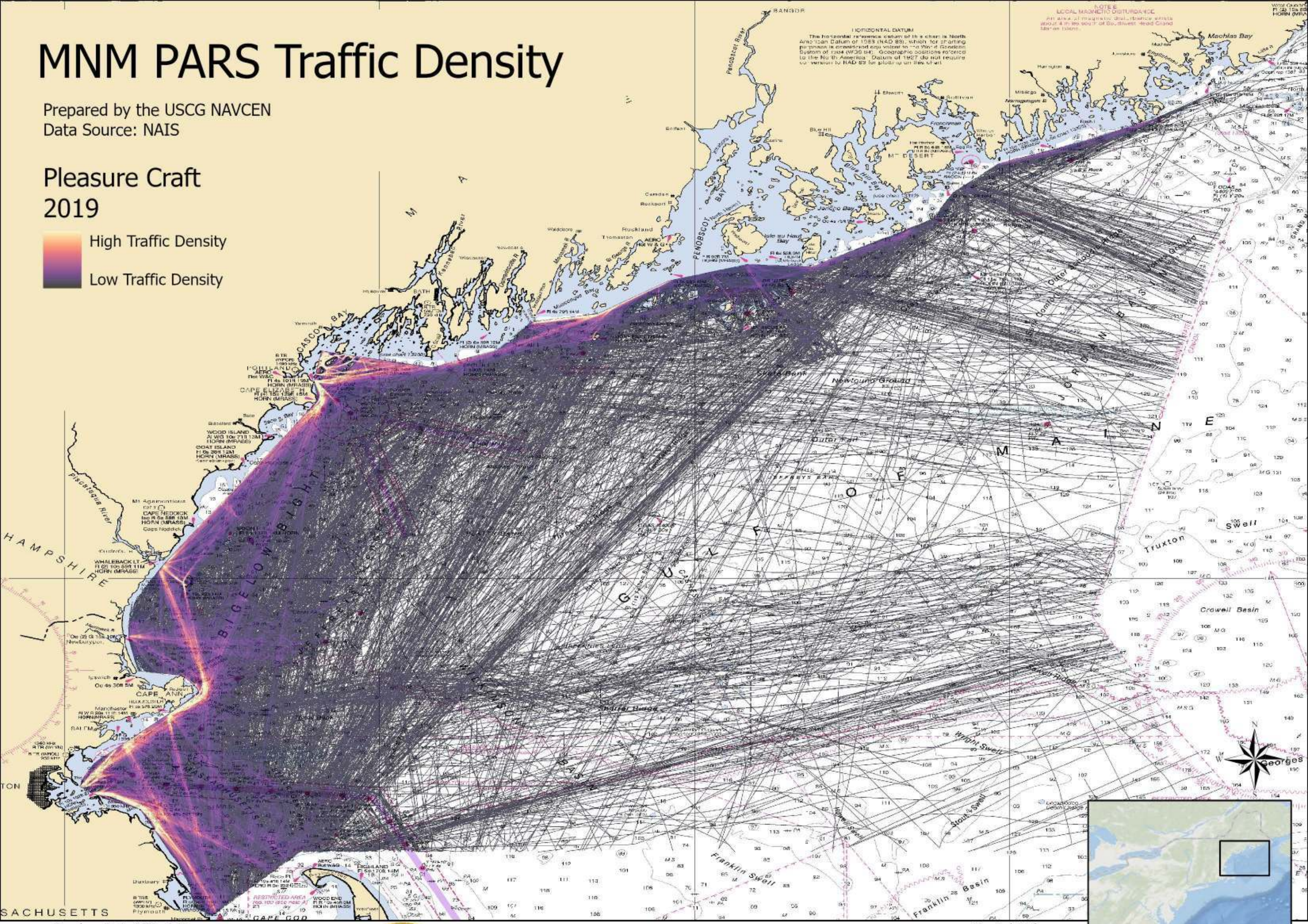
Scale: 1:1,653,663

0 5 10 20 30 40 Nautical Miles

Last Update: 9/14/2022 7:18 PM

Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree


MNM PARS Traffic Density
Prepared by the USCG NAVCEN
Data Source: NAIS
Passenger 2019
High Traffic Density
Low Traffic Density
GULF OF MAINE
JORDAN BASIN
WILKINSON BASIN
CASCO BAY
PORTLAND
CAPE ANN
CAPE COD
Scale: 1:1,653,663
0 5 10 20 30 40
Nautical Miles
Last Update: 9/14/2022 7:16 PM
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

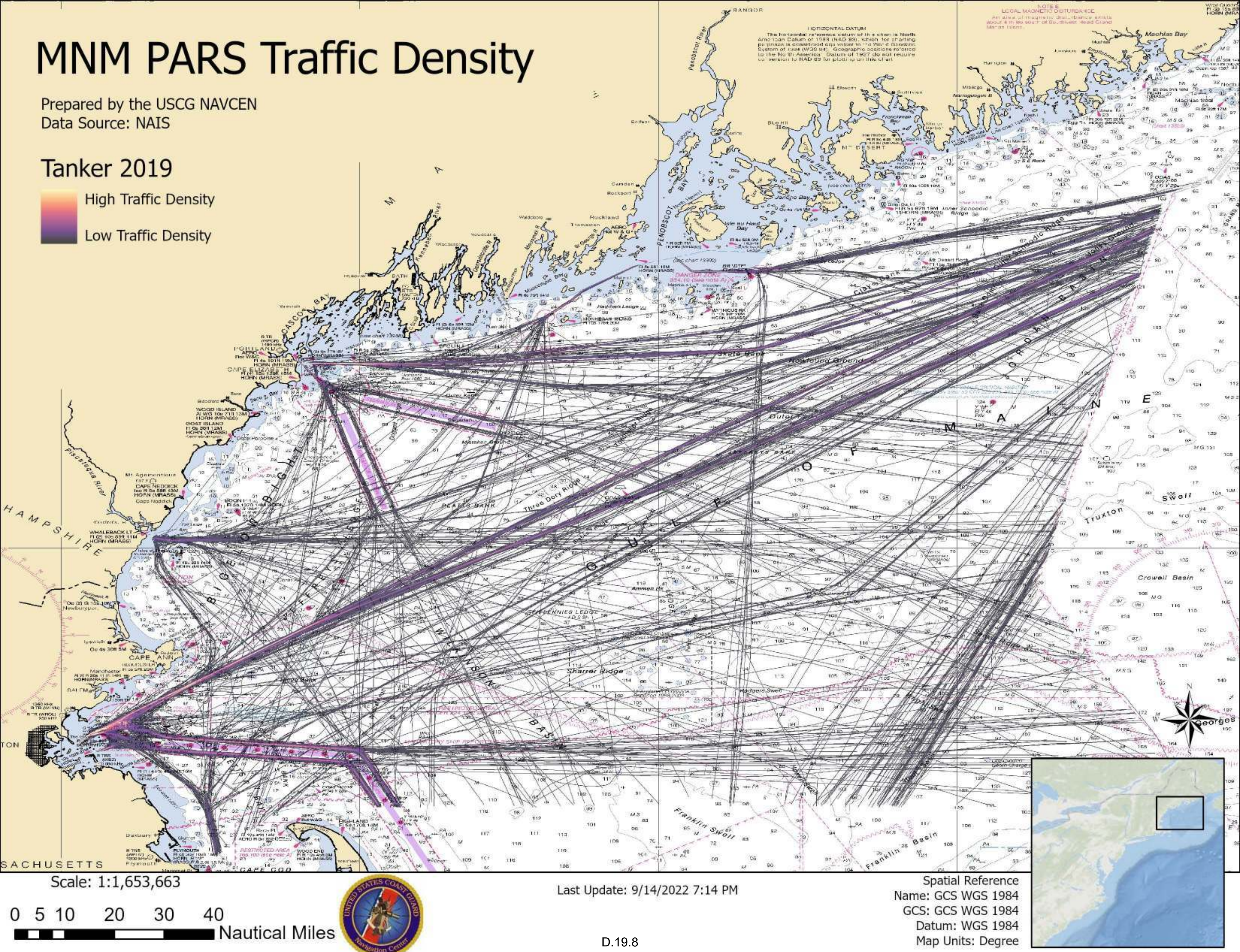


Scale: 1:1,653,663

0 5 10 20 30 40 Nautical Miles

Last Update: 9/14/2022 7:15 PM

Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

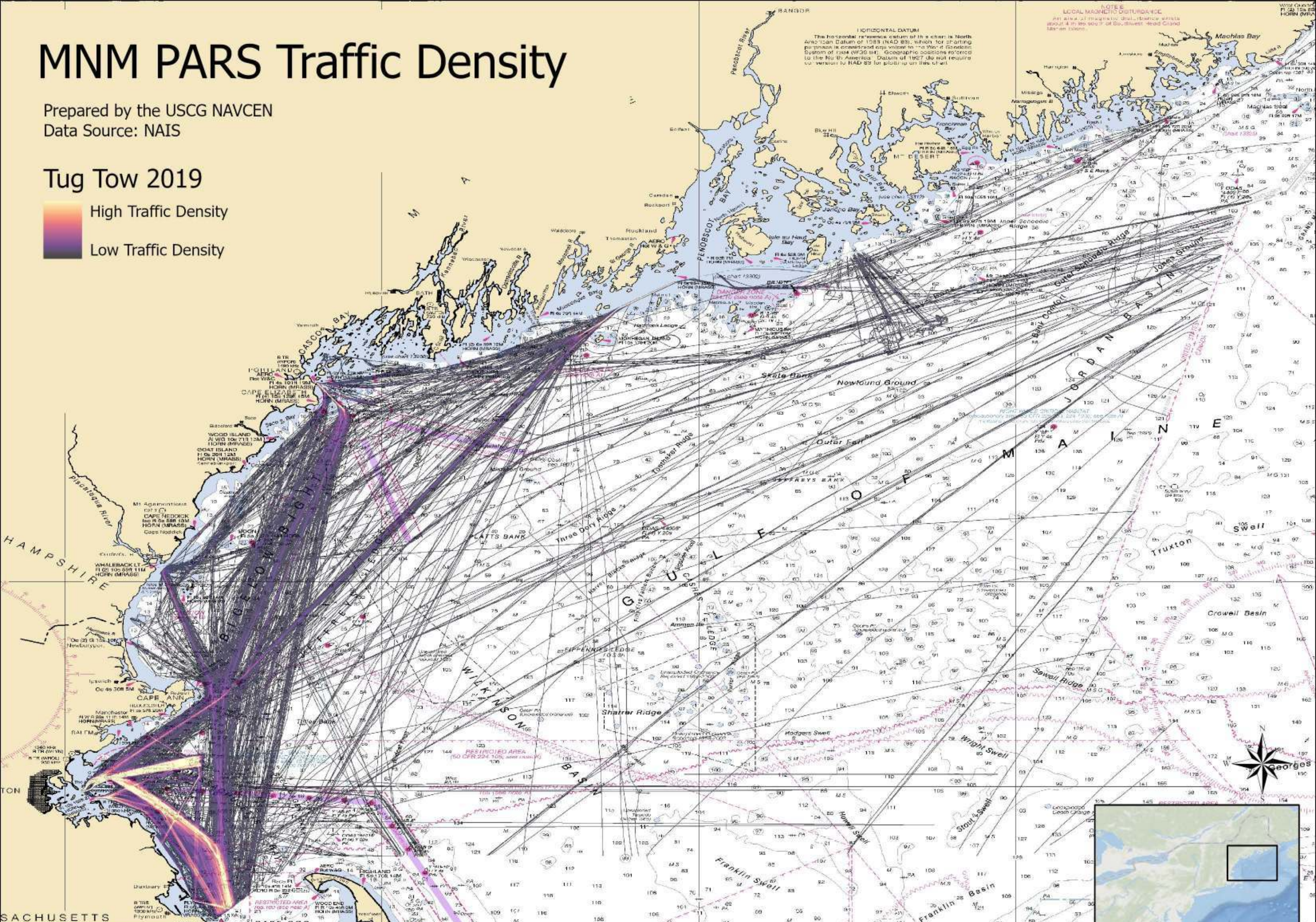

MNM PARS Traffic Density
Prepared by the USCG NAVCEN
Data Source: NAIS
Tanker 2019
High Traffic Density
Low Traffic Density
Scale: 1:1,653,663
0 5 10 20 30 40
Nautical Miles
Last Update: 9/14/2022 7:14 PM
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree
UNITED STATES COAST GUARD
Navigation Center
GULF OF MAINE

MNM PARS Traffic Density

Prepared by the USCG NAVCEN
Data Source: NAIS

Tug Tow 2019

High Traffic Density
Low Traffic Density

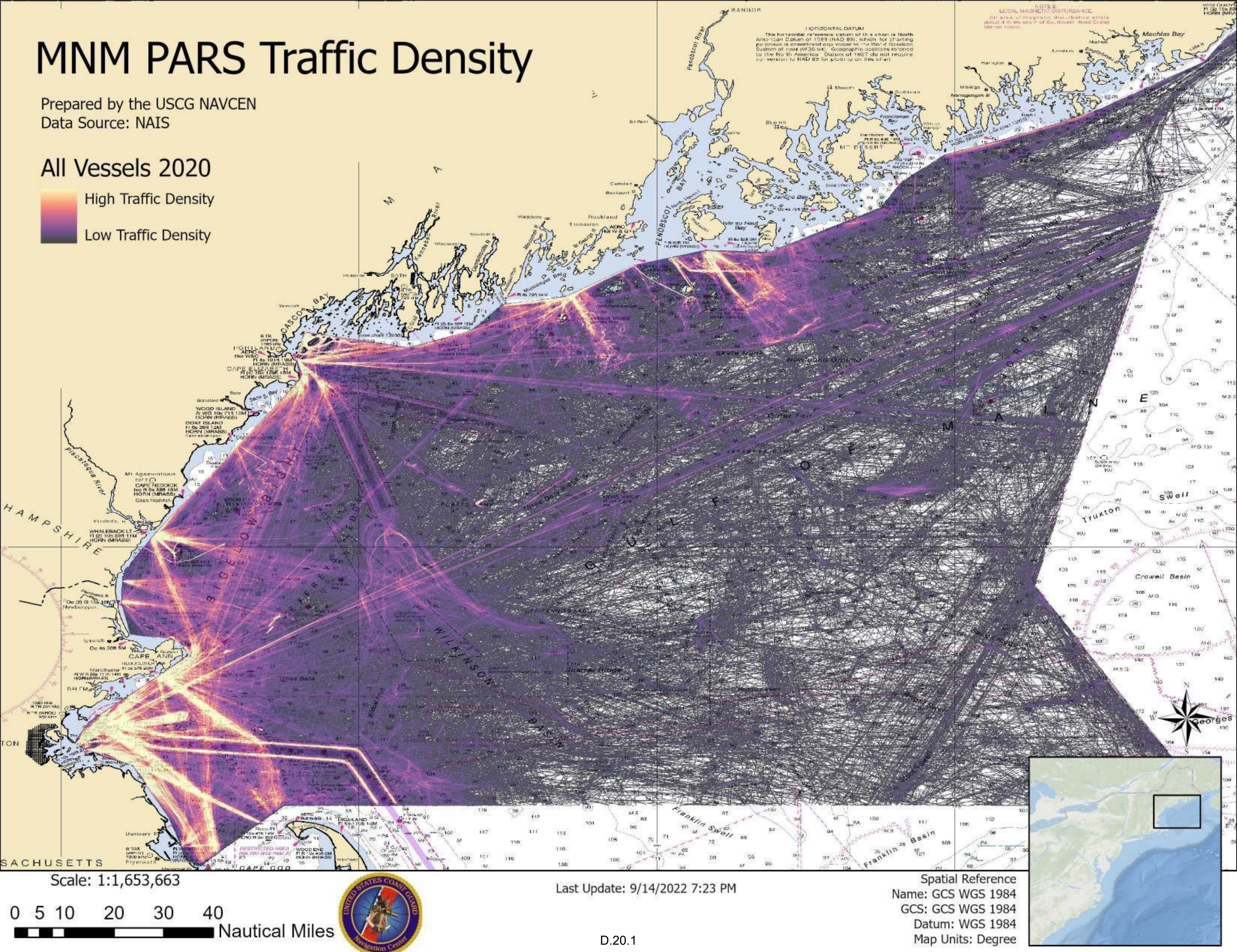


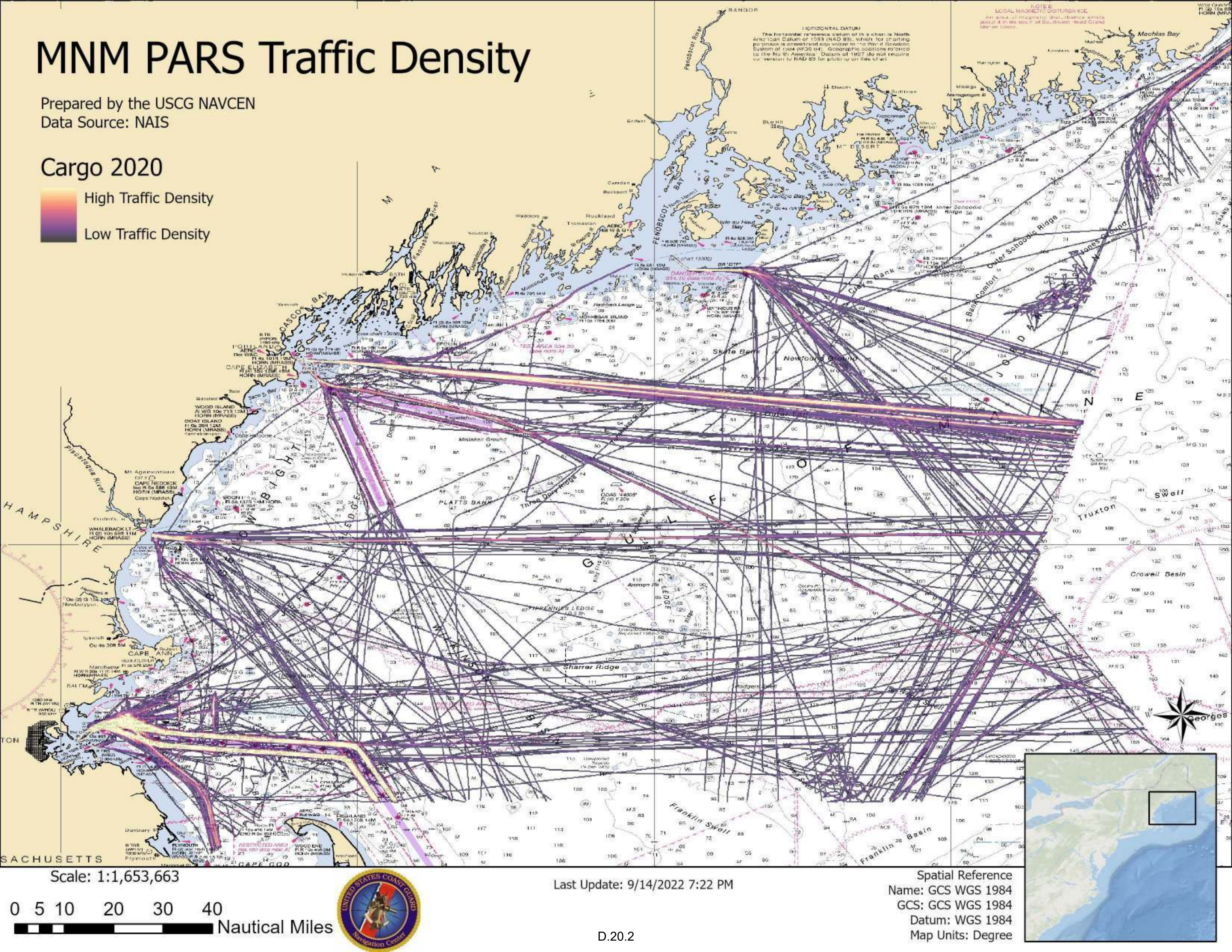
Scale: 1:1,653,663

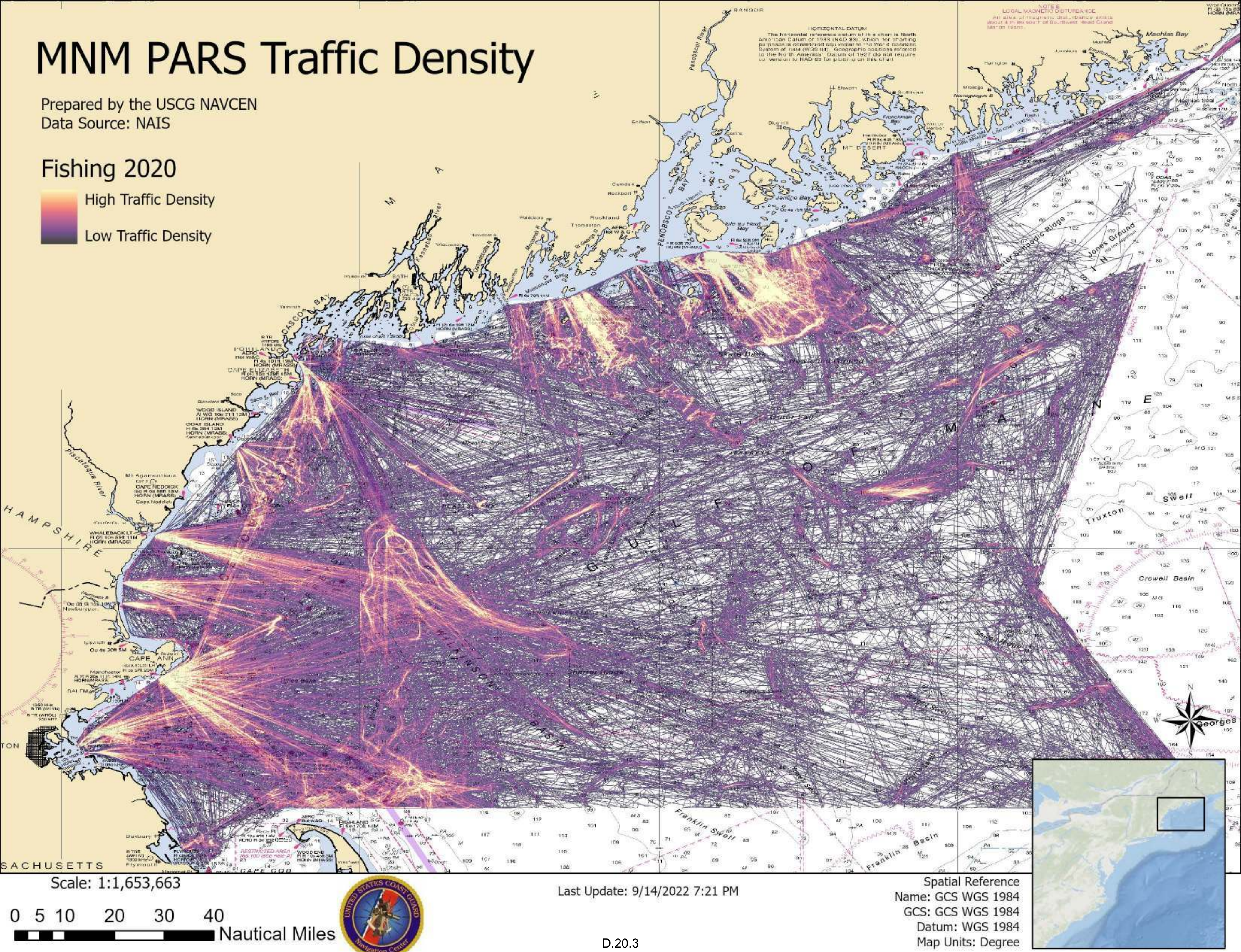
0 5 10 20 30 40 Nautical Miles

Last Update: 9/14/2022 7:14 PM

Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree


MNM PARS Traffic Density
Prepared by the USCG NAVCEN
Data Source: NAIS
All Vessels 2020
High Traffic Density
Low Traffic Density
Scale: 1:1,653,663
0 5 10 20 30 40
Nautical Miles
Last Update: 9/14/2022 7:23 PM
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree
GULF OF MAINE
JORDAN BASIN
WILKINSON BASIN
BIGELOW BIGHT
JEFFREYS LEDGE
CASCO BAY
PENOBSCOT BAY
CAPE ANN
HAMPSHIRE
SACHUSETTS
Franklin Swell
Franklin Basin
Crowell Basin
Truxton Swell
Machias Bay


MNM PARS Traffic Density
Prepared by the USCG NAVCEN
Data Source: NAIS
Cargo 2020
High Traffic Density
Low Traffic Density
Scale: 1:1,653,663
0 5 10 20 30 40
Nautical Miles
Last Update: 9/14/2022 7:22 PM
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

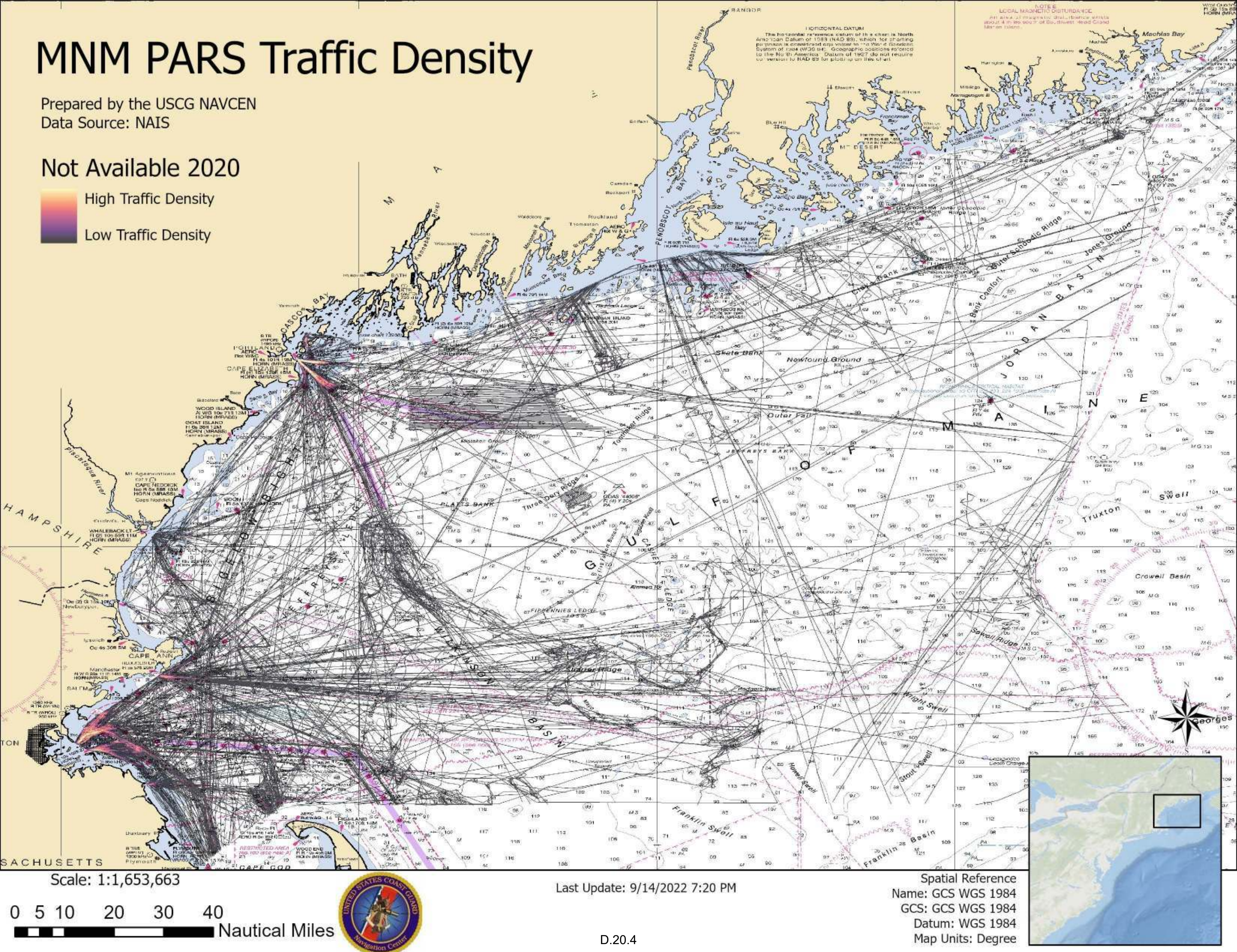

MNM PARS Traffic Density
Prepared by the USCG NAVCEN
Data Source: NAIS
Fishing 2020
High Traffic Density
Low Traffic Density
Scale: 1:1,653,663
0 5 10 20 30 40
Nautical Miles
Last Update: 9/14/2022 7:21 PM
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree
G U L F O F M A I N E
WILKINSON BASIN
HAMPSHIRE
SACHUSETTS
Jones Ground
Crowell Basin
Franklin Swell
Franklin Basin
Truxton Swell
Machias Bay

MNM PARS Traffic Density

Prepared by the USCG NAVCEN
Data Source: NAIS

Not Available 2020

High Traffic Density
Low Traffic Density



Scale: 1:1,653,663

0 5 10 20 30 40 Nautical Miles

Last Update: 9/14/2022 7:20 PM

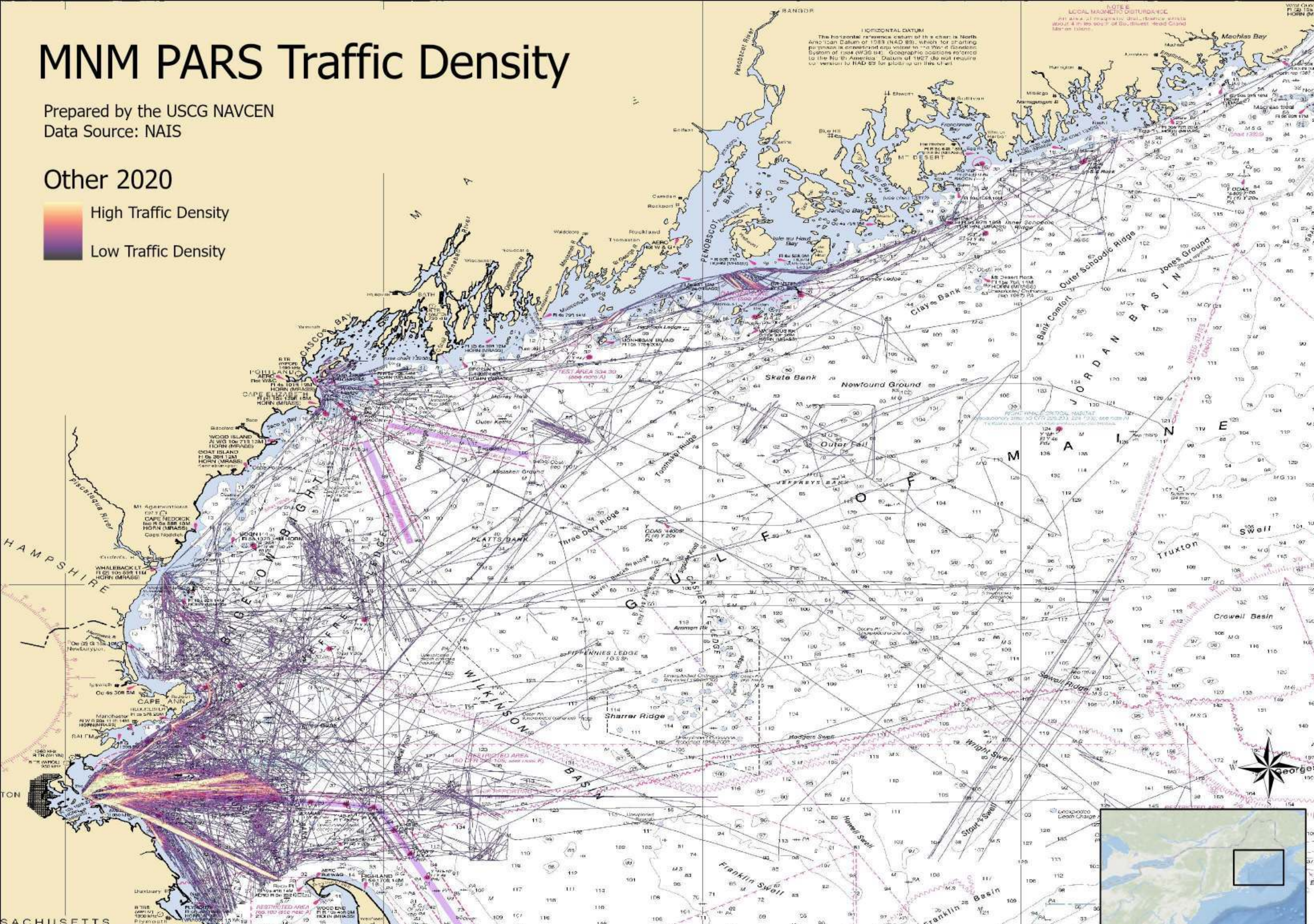
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

MNM PARS Traffic Density

Prepared by the USCG NAVCEN
Data Source: NAIS

Other 2020

High Traffic Density
Low Traffic Density



Scale: 1:1,653,663

0 5 10 20 30 40 Nautical Miles

Last Update: 9/14/2022 7:18 PM

Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

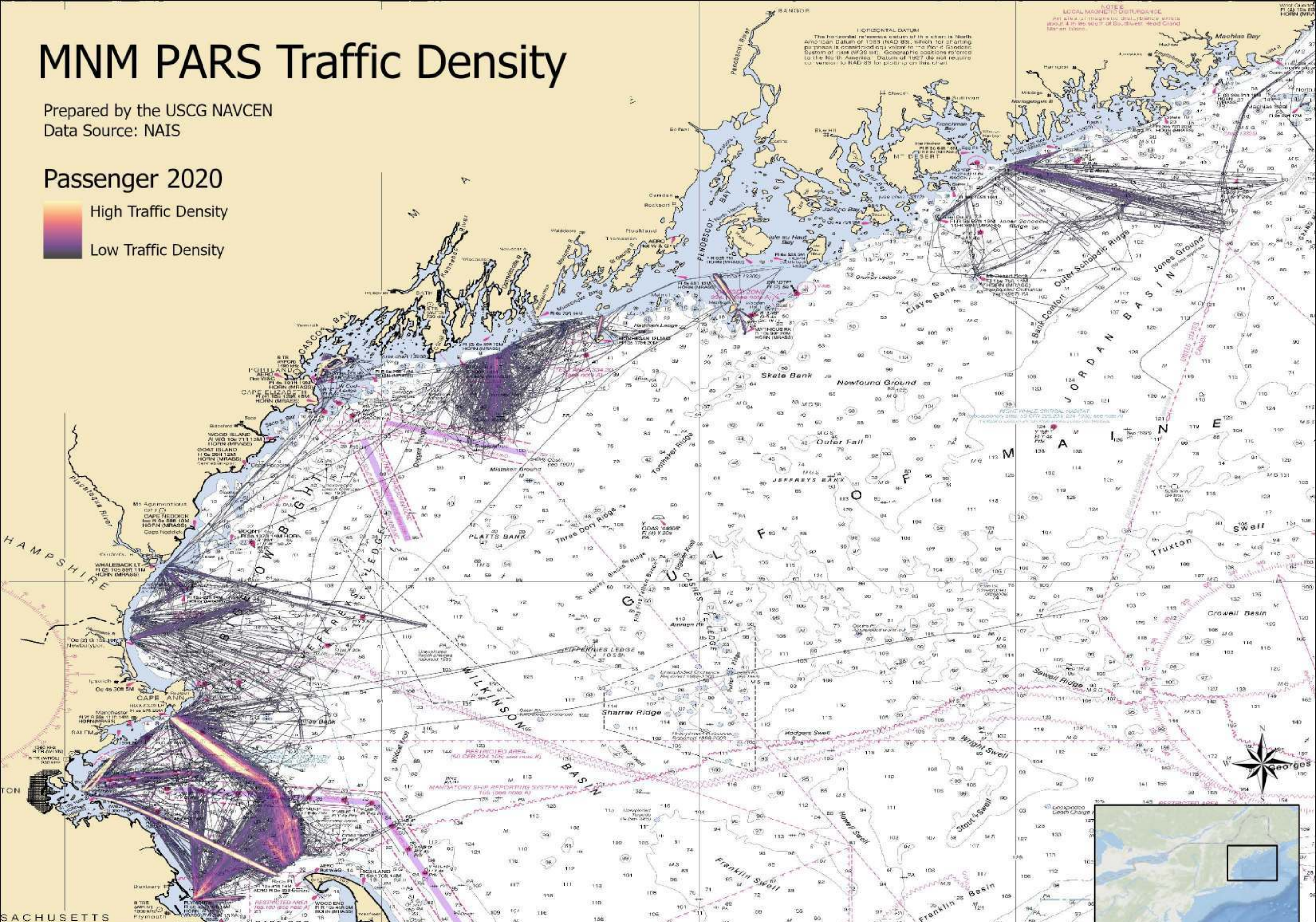
MNM PARS Traffic Density

Prepared by the USCG NAVCEN
Data Source: NAIS

Passenger 2020

High Traffic Density

Low Traffic Density



Scale: 1:1,653,663

0 5 10 20 30 40 Nautical Miles

Last Update: 9/14/2022 7:17 PM

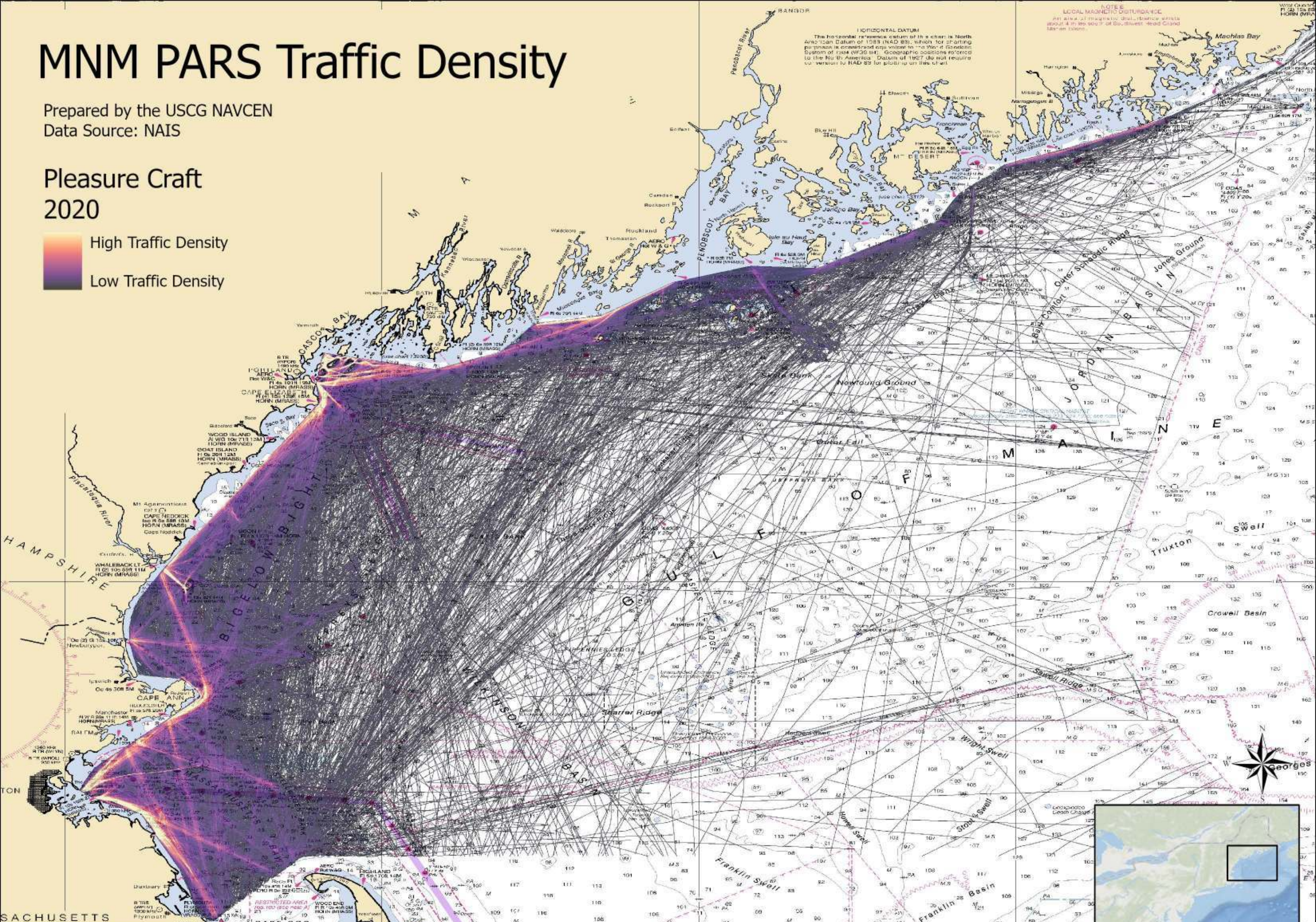
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

MNM PARS Traffic Density

Prepared by the USCG NAVCEN
Data Source: NAIS

Pleasure Craft
2020

High Traffic Density
Low Traffic Density



Scale: 1:1,653,663

0 5 10 20 30 40 Nautical Miles

Last Update: 9/14/2022 7:16 PM

Spatial Reference
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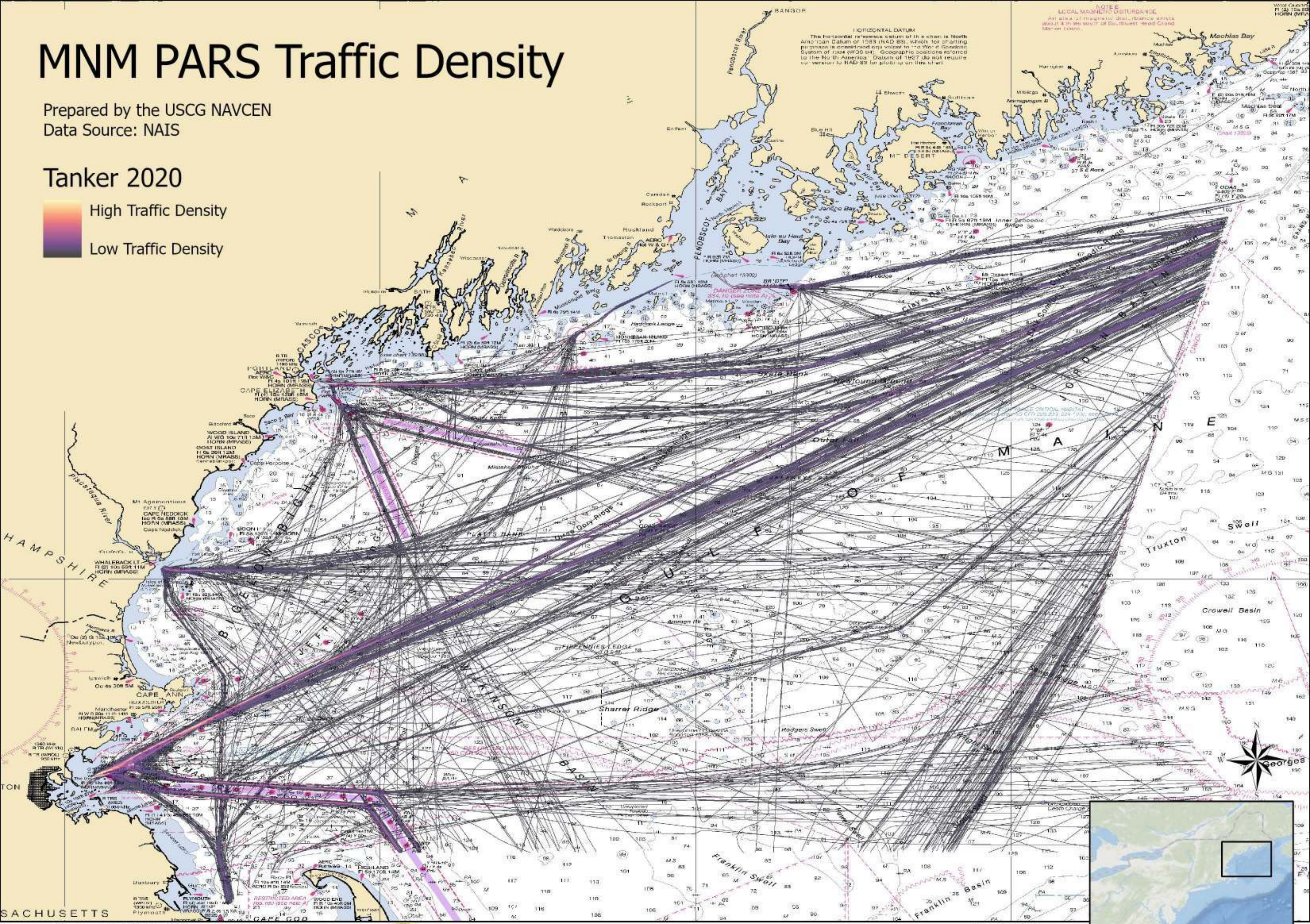
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

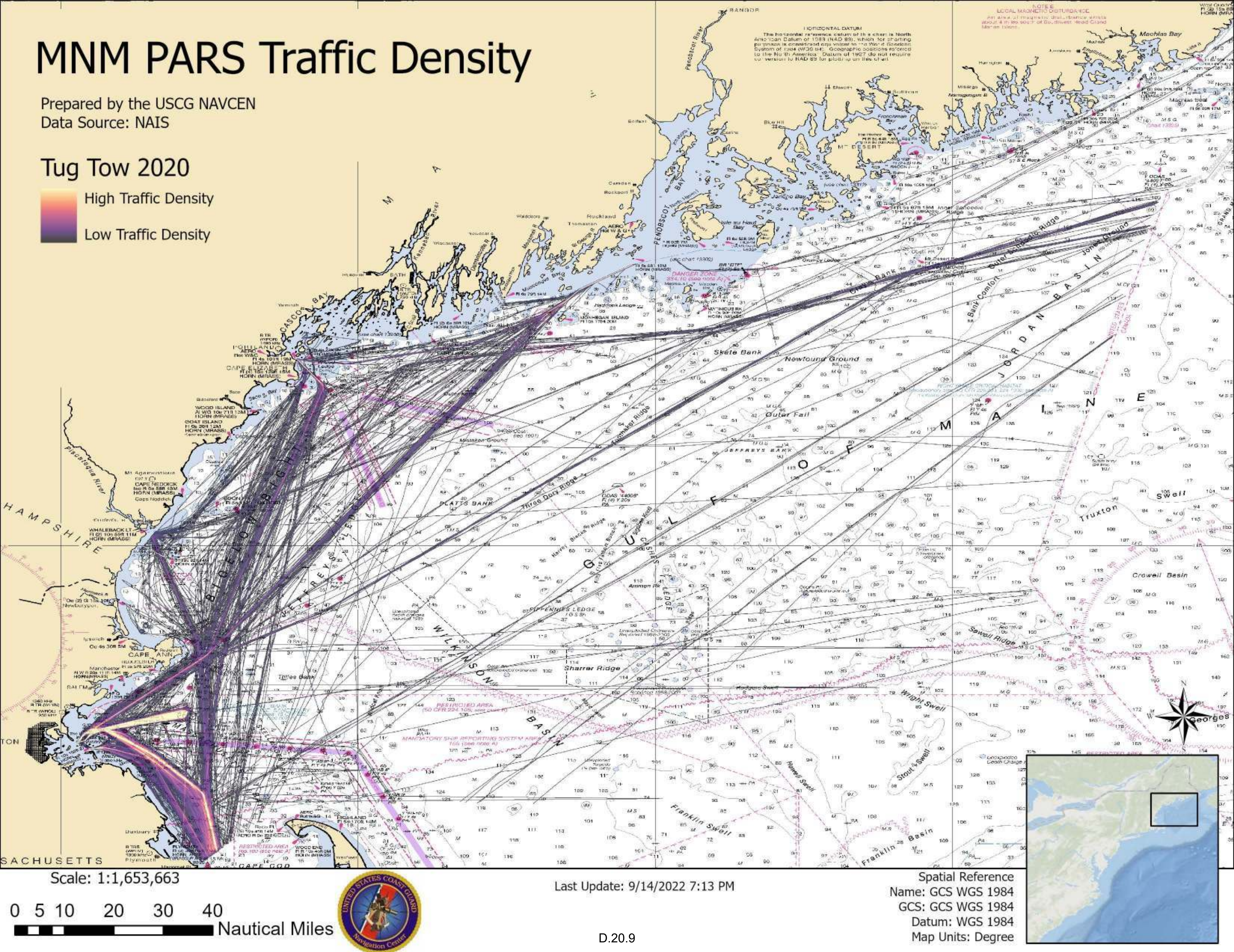


Scale: 1:1,653,663

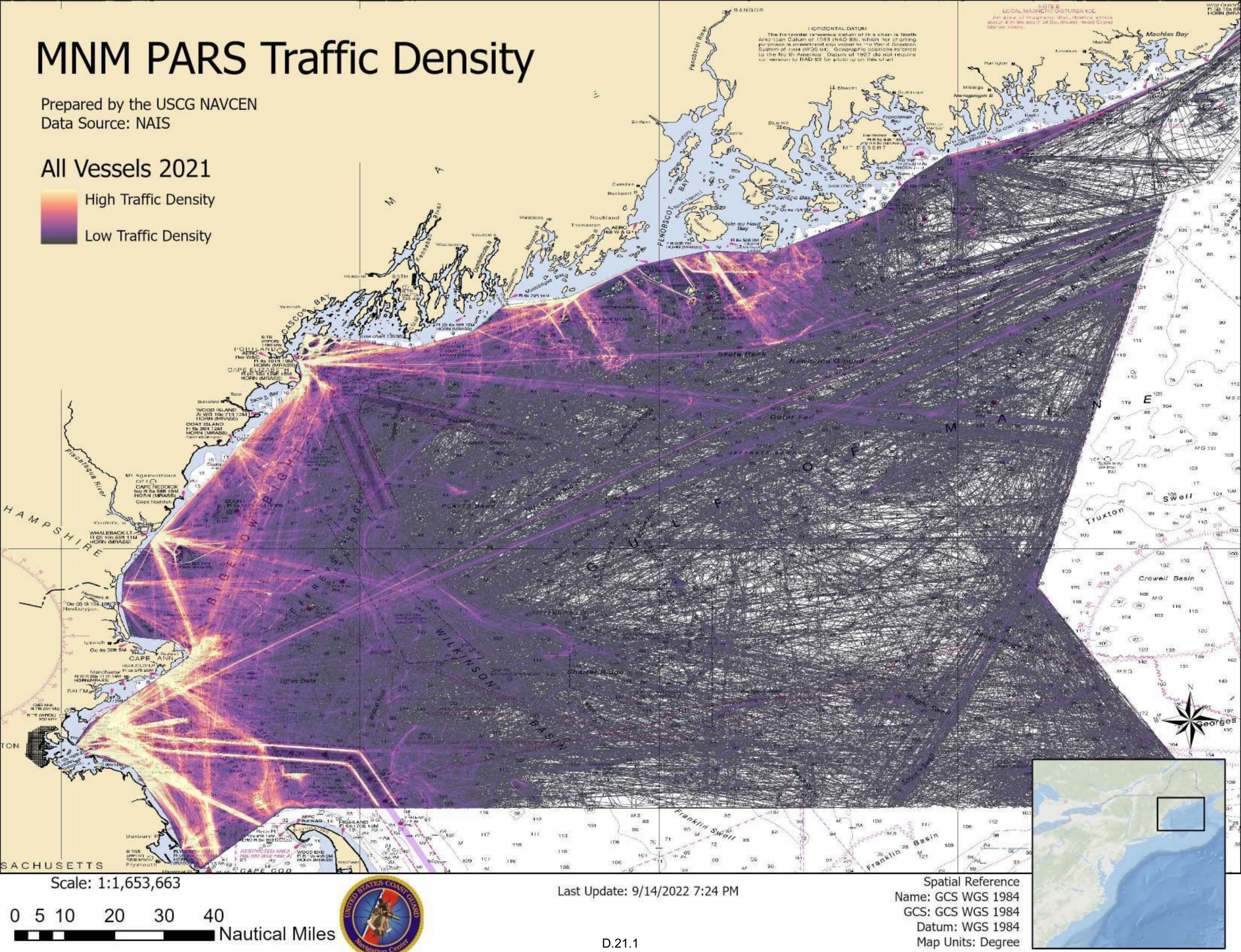
0 5 10 20 30 40 Nautical Miles

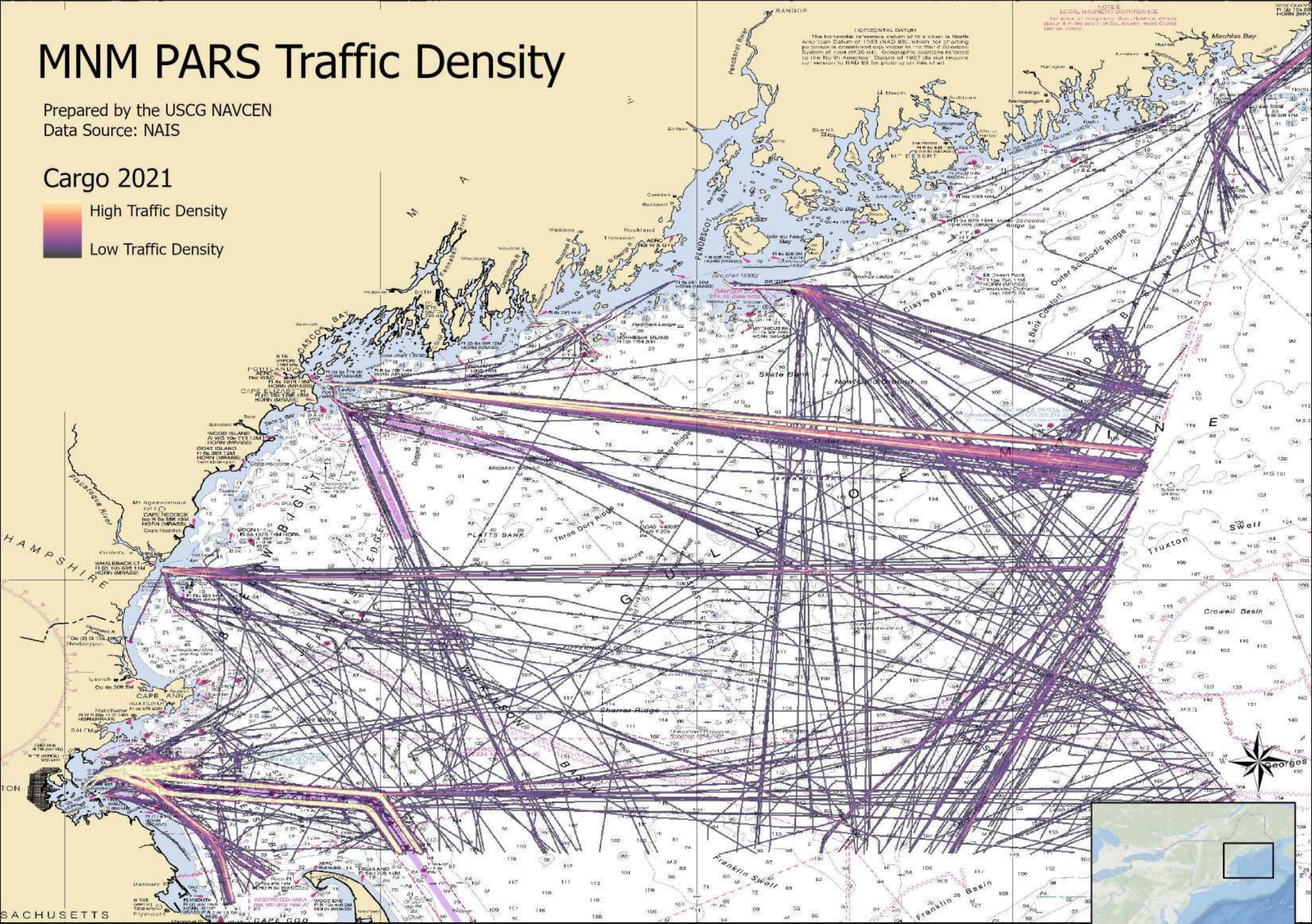
Last Update: 9/14/2022 7:15 PM

Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree



MNM PARS Traffic Density
Prepared by the USCG NAVCEN
Data Source: NAIS
Tug Tow 2020
High Traffic Density
Low Traffic Density
GULF OF MAINE
JORDAN BASIN
WILKINSON BASIN
BIGELOW BIGHT
JEFFREYS LEDGE
Skate Bank
Newfound Ground
Outer Fall
JEFFREYS BANK
PLATTS BANK
Three Dory Ridge
Sharrer Ridge
Crowell Basin
Truxton Swell
Sewell Ridge
Wright Swell
Franklin Swell
Franklin Basin
Stout Swell
Howell Swell
Machias Bay
PENOBSCOT BAY
CASCO BAY
CAPE ANN
CAPE ELIZABETH
HAMPSHIRE
SACHUSETTS
Scale: 1:1,653,663
0 5 10 20 30 40
Nautical Miles
Last Update: 9/14/2022 7:13 PM
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree


MNM PARS Traffic Density
Prepared by the USCG NAVCEN
Data Source: NAIS
All Vessels 2021
High Traffic Density
Low Traffic Density
Scale: 1:1,653,663
0 5 10 20 30 40
Nautical Miles
Last Update: 9/14/2022 7:24 PM
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree
GULF OF MAINE
BIGELOW BIGHT
JEFFREYS LEDGE
WILKINSON BASIN
JORDAN BASIN
CASCO BAY
HAMPSHIRE
SACHUSETTS
CAPE ANN
Georges
Truxton Swell
Crowell Basin
Franklin Swell
Franklin Basin



Scale: 1:1,653,663

0 5 10 20 30 40 Nautical Miles

Last Update: 9/14/2022 7:22 PM

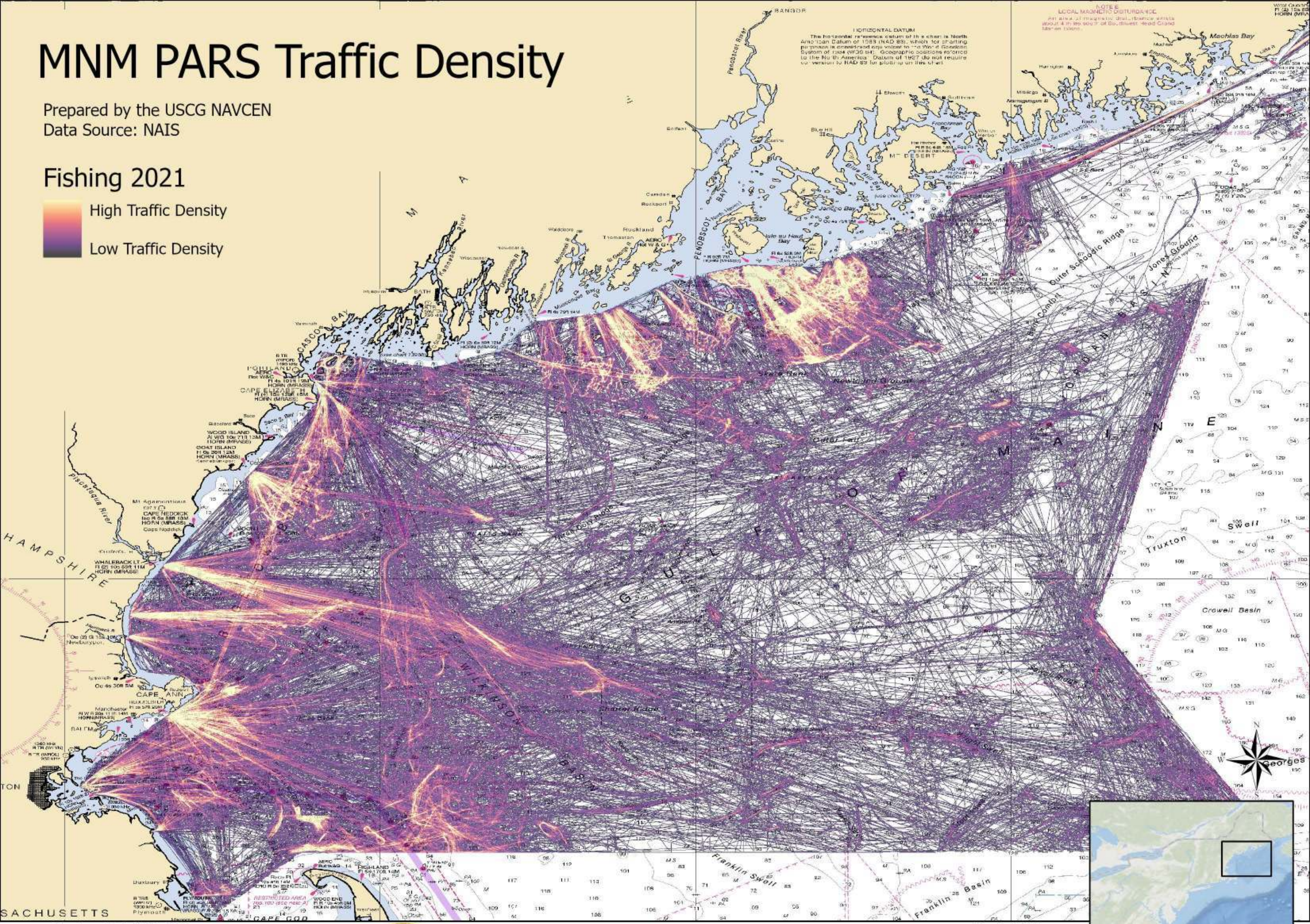
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

MNM PARS Traffic Density

Prepared by the USCG NAVCEN
Data Source: NAIS

Fishing 2021

High Traffic Density
Low Traffic Density



Scale: 1:1,653,663

0 5 10 20 30 40 Nautical Miles

Last Update: 9/14/2022 7:21 PM

Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

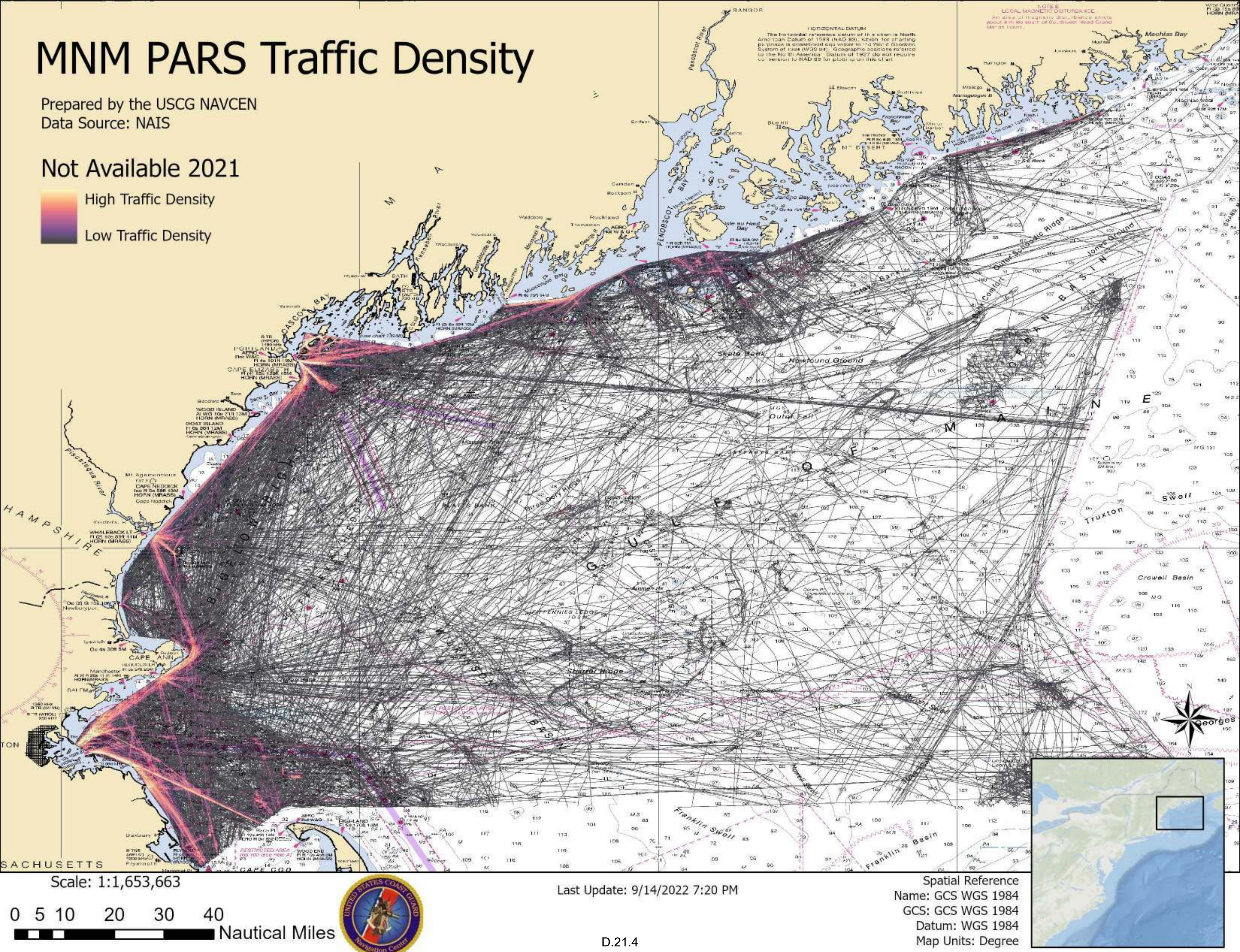
MNM PARS Traffic Density

Prepared by the USCG NAVCEN
Data Source: NAIS

Not Available 2021

High Traffic Density

Low Traffic Density



Scale: 1:1,653,663

0 5 10 20 30 40 Nautical Miles

Last Update: 9/14/2022 7:20 PM

Spatial Reference
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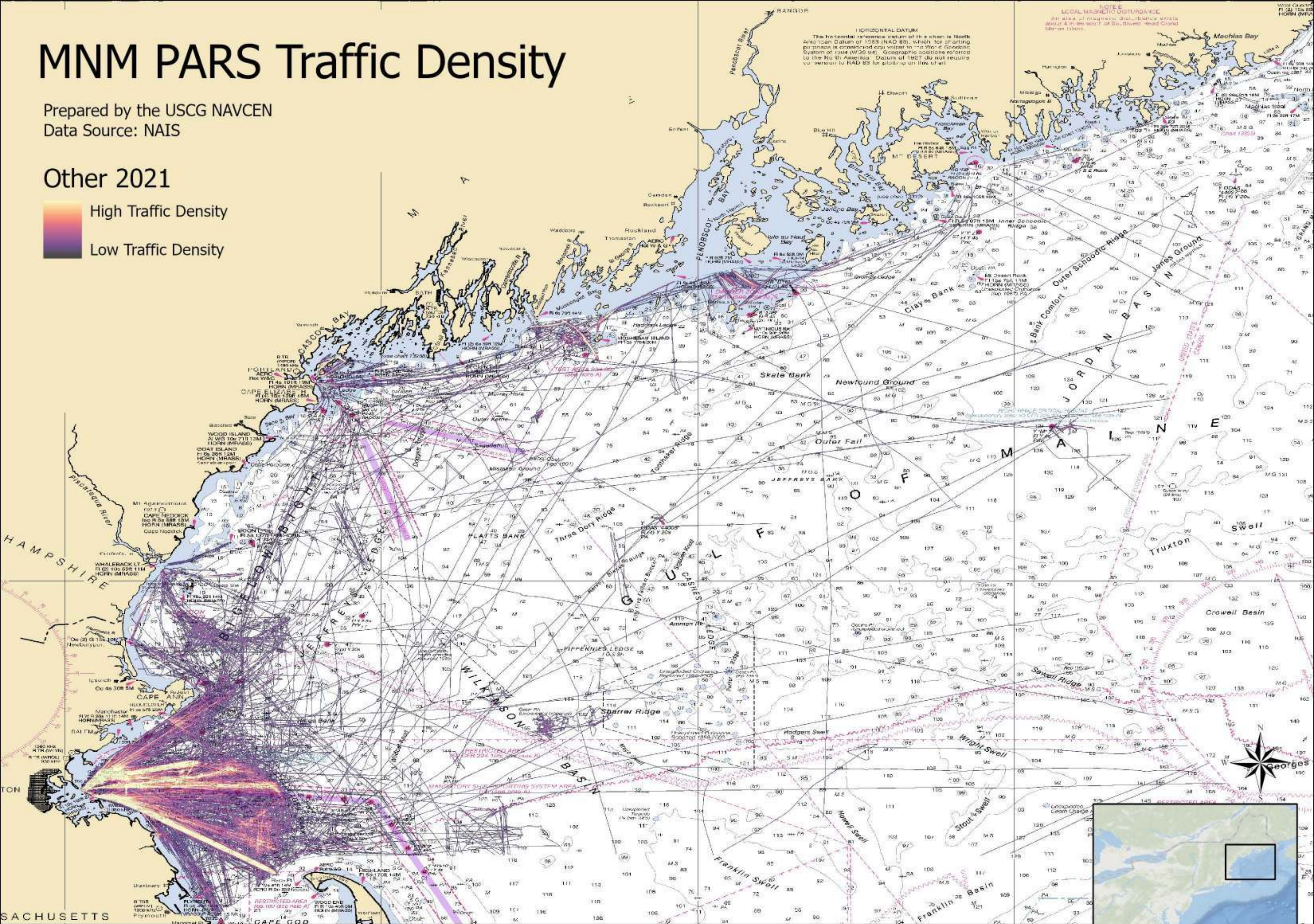
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree



Scale: 1:1,653,663

0 5 10 20 30 40 Nautical Miles

Last Update: 9/14/2022 7:19 PM

Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

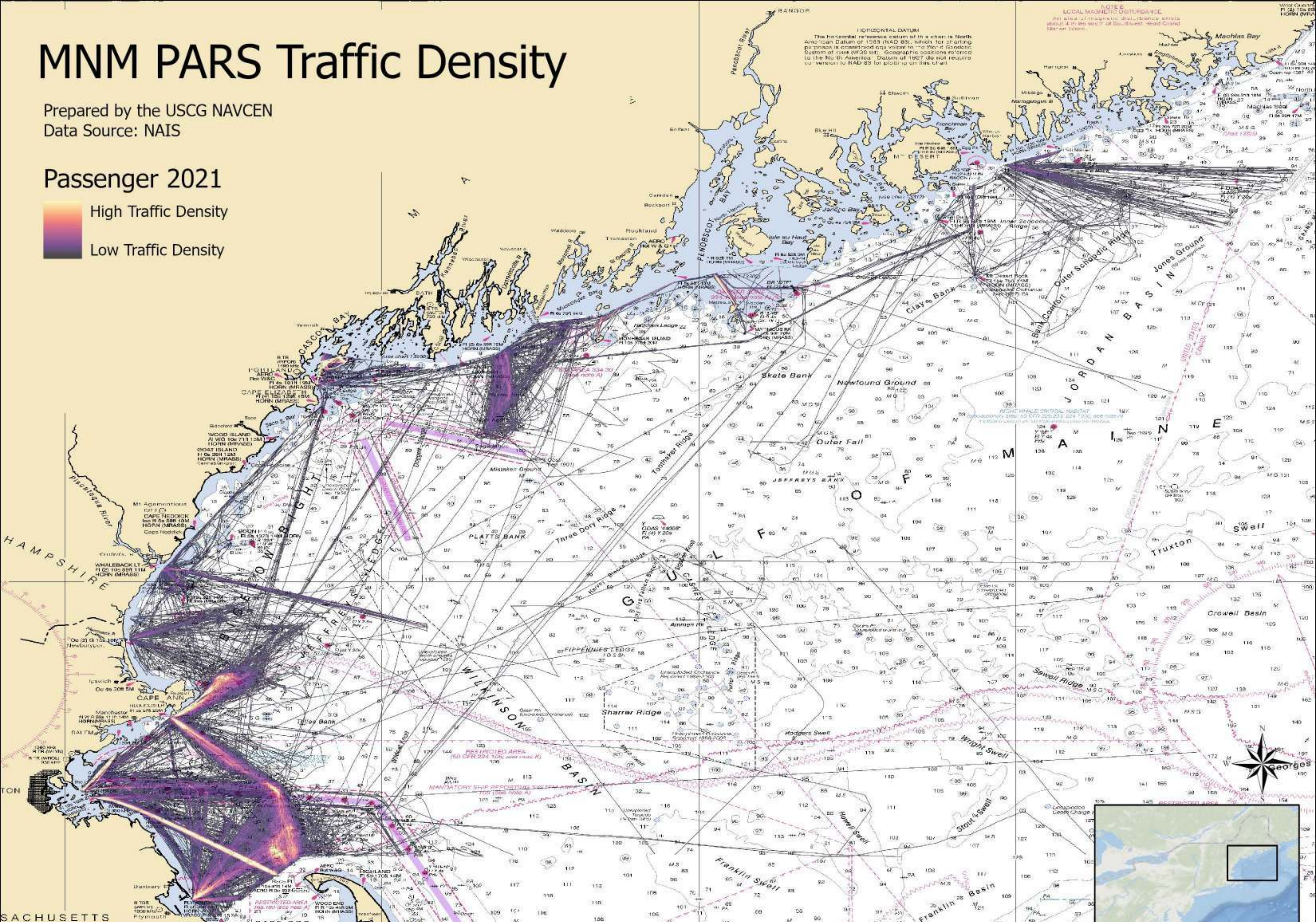
MNM PARS Traffic Density

Prepared by the USCG NAVCEN
Data Source: NAIS

Passenger 2021

High Traffic Density

Low Traffic Density

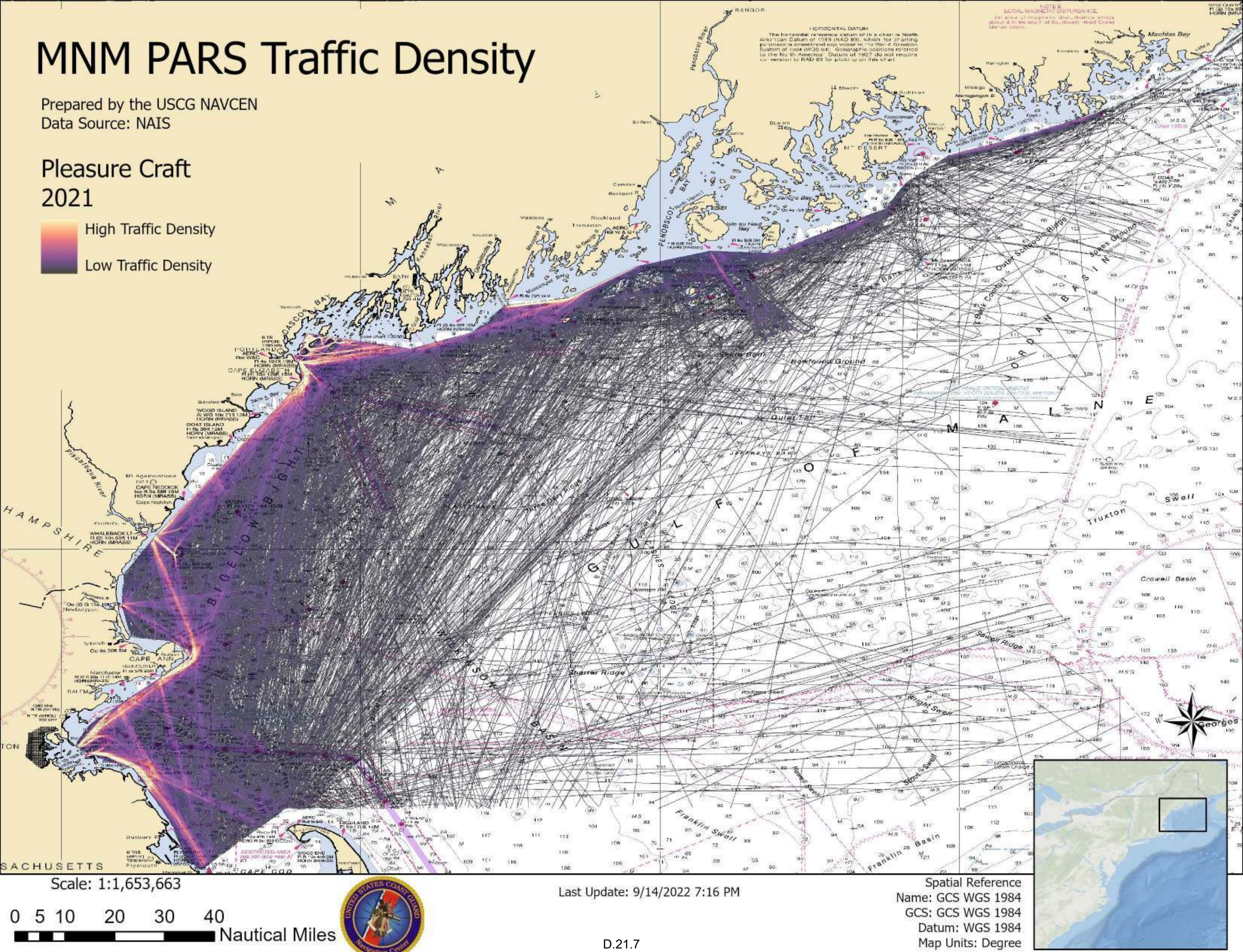


Scale: 1:1,653,663

0 5 10 20 30 40 Nautical Miles

Last Update: 9/14/2022 7:17 PM

Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree



Scale: 1:1,653,663

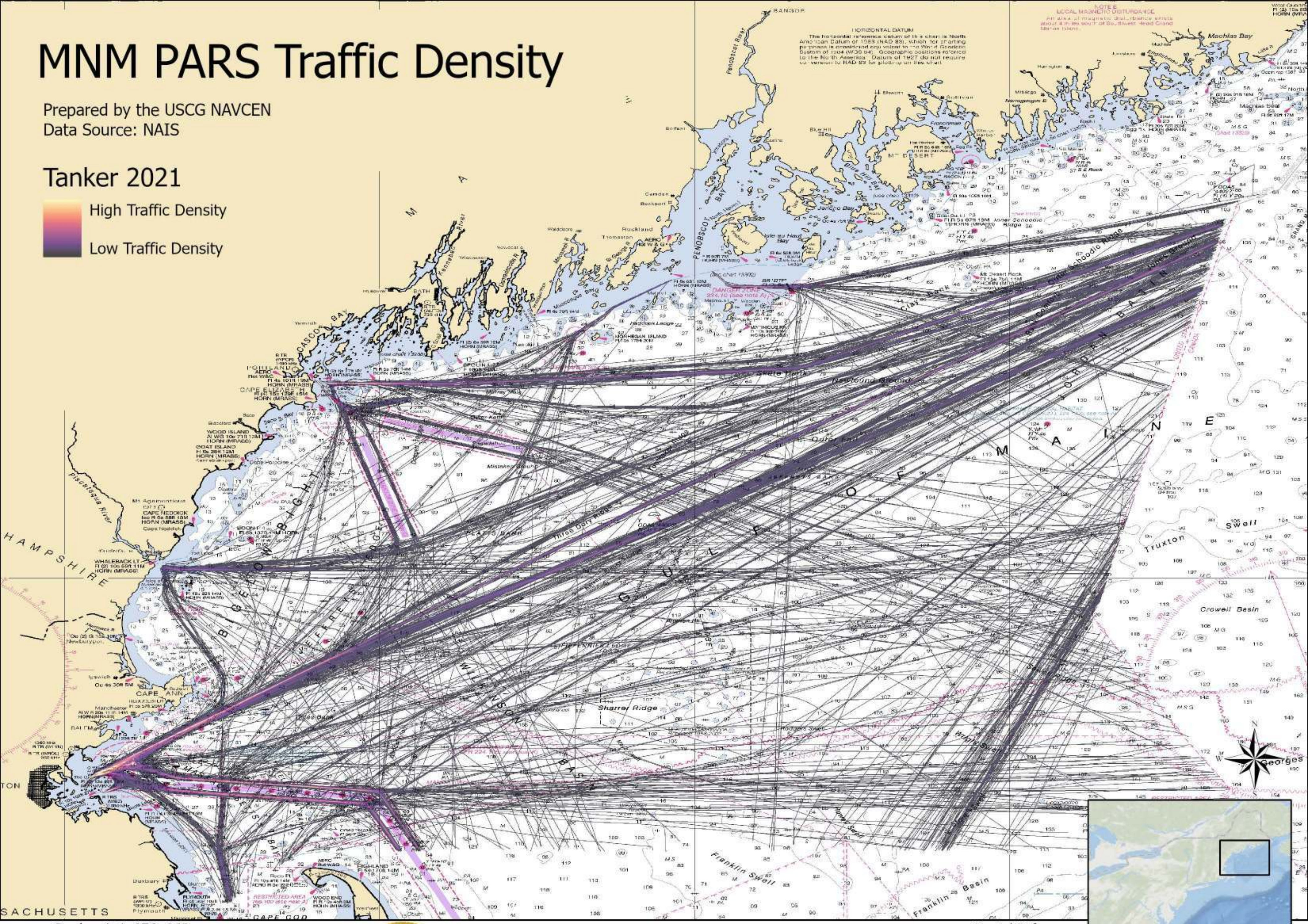
0 5 10 20 30 40 Nautical Miles

Last Update: 9/14/2022 7:16 PM

Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

MNM PARS Traffic Density

Prepared by the USCG NAVCEN
Data Source: NAIS



Scale: 1:1,653,663

0 5 10 20 30 40 Nautical Miles

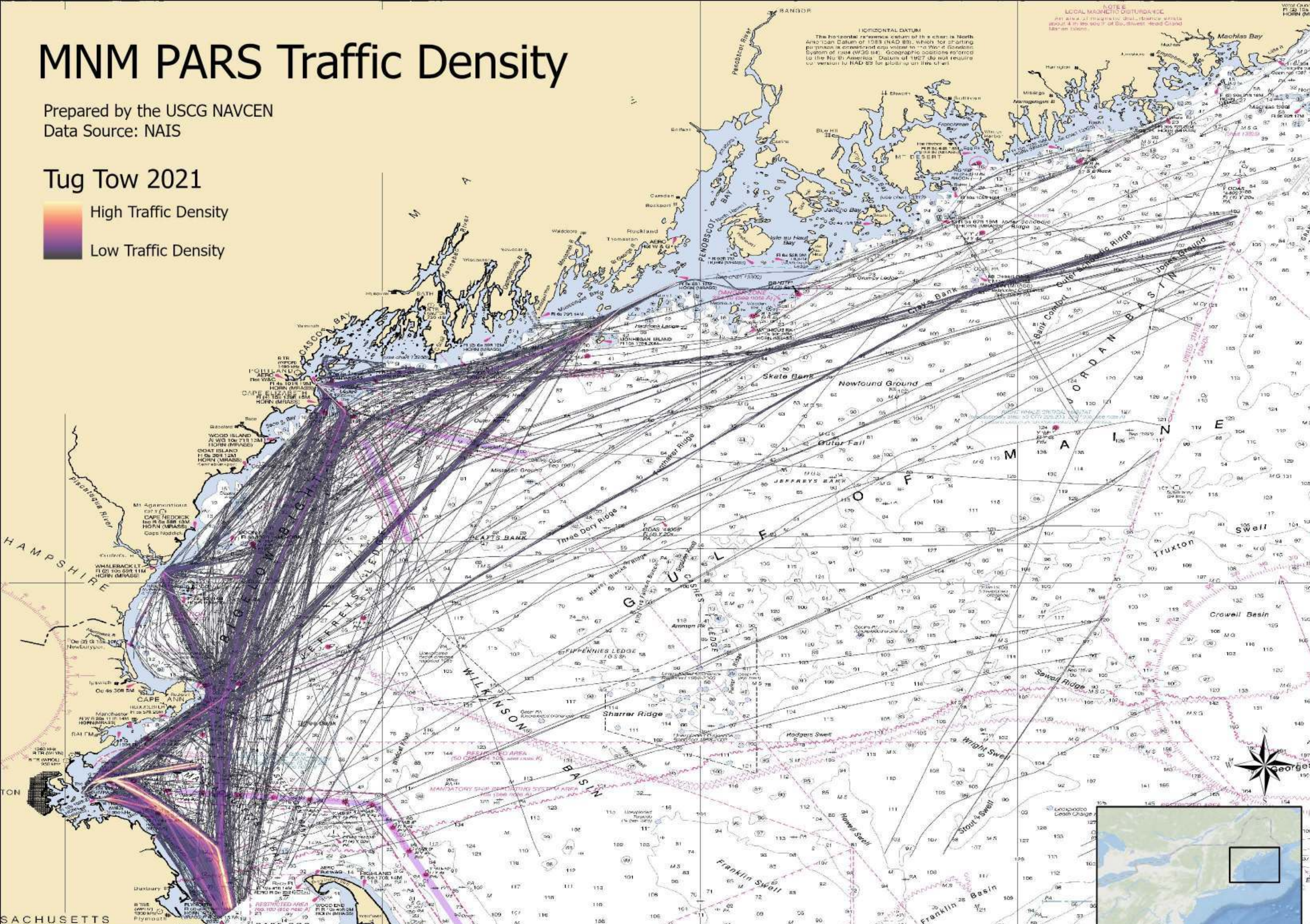
Last Update: 9/14/2022 7:15 PM

Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

MNM PARS Traffic Density

Prepared by the USCG NAVCEN
Data Source: NAIS

Tug Tow 2021



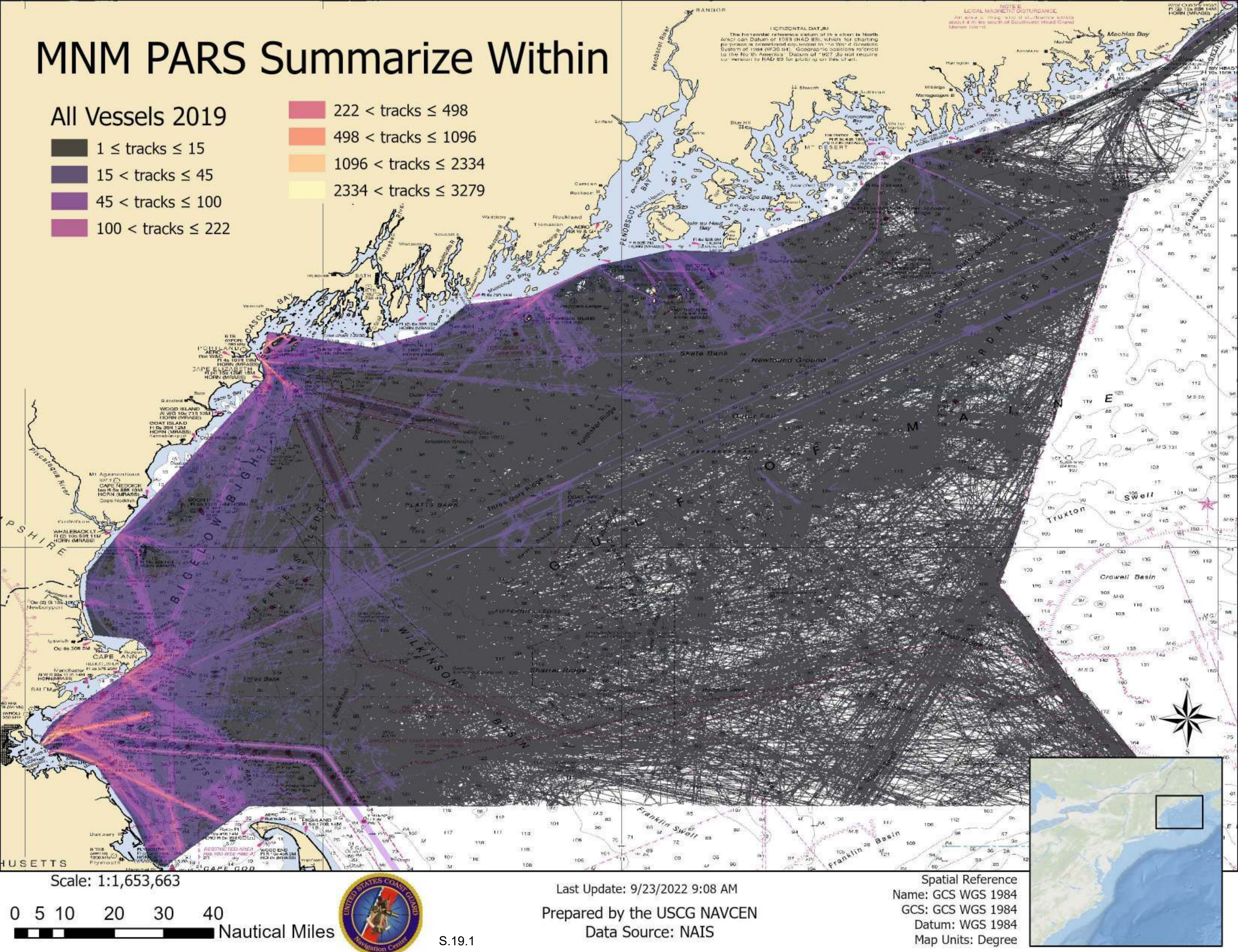
Scale: 1:1,653,663

0 5 10 20 30 40 Nautical Miles

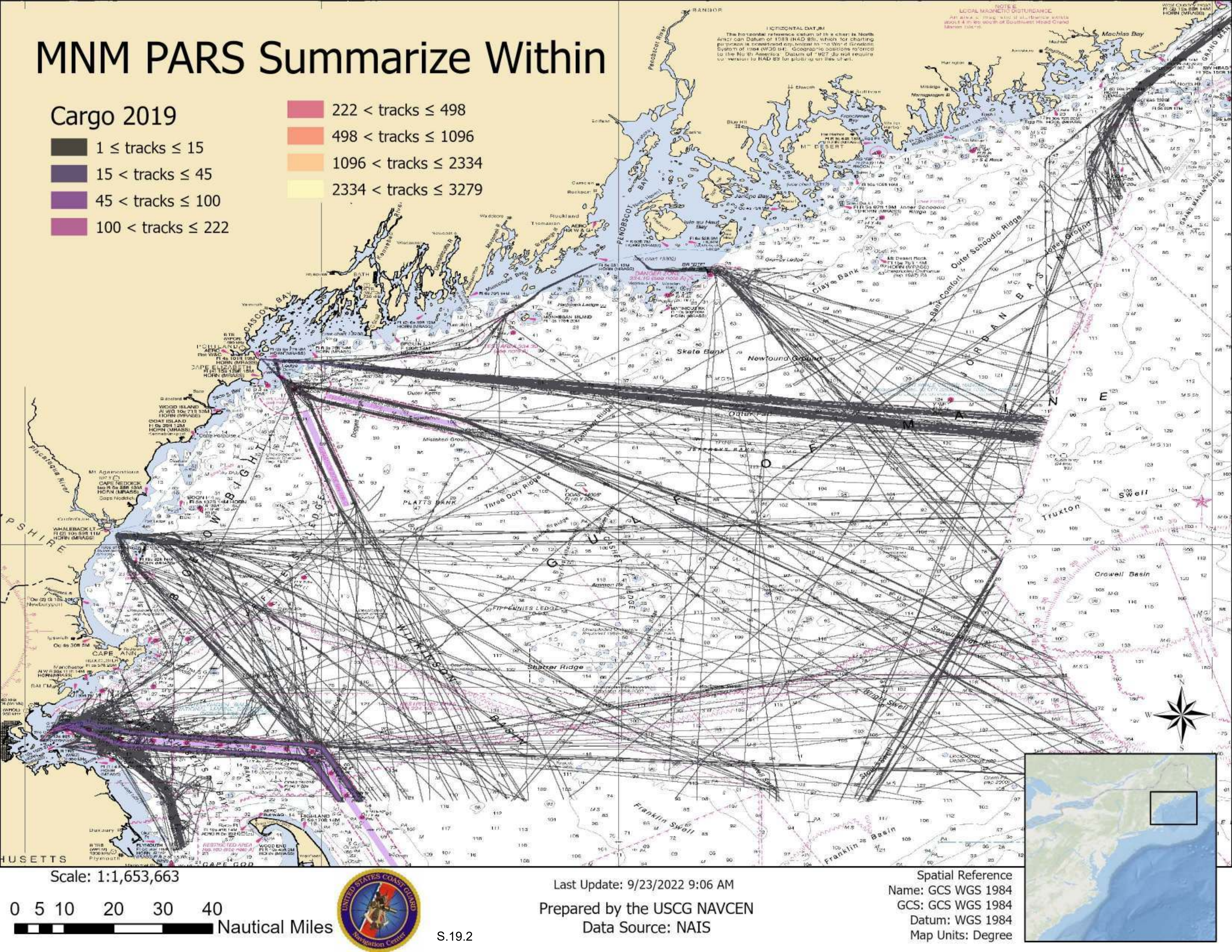
Last Update: 9/14/2022 7:13 PM

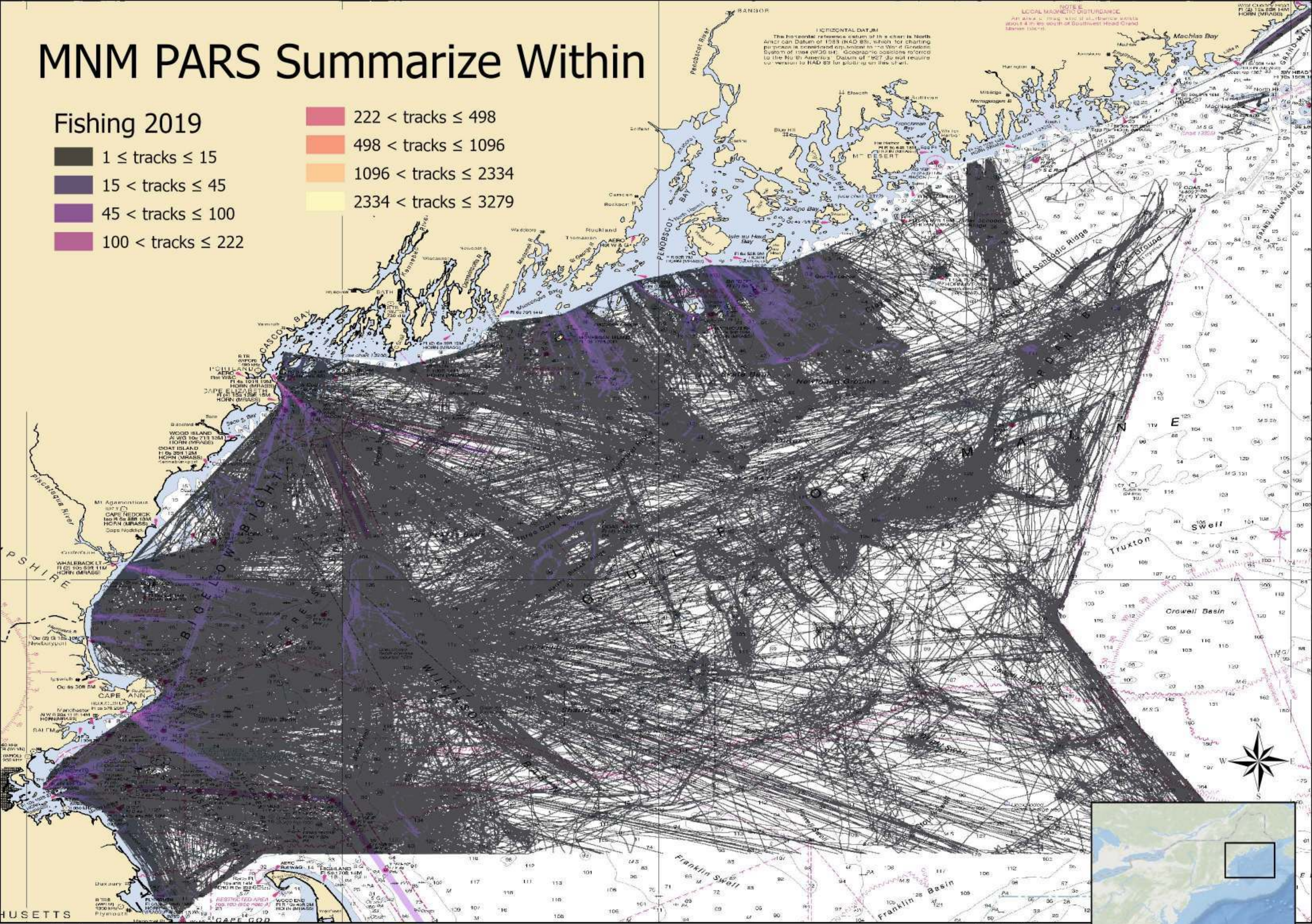
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Summarize Within Graphics



MNM PARS Summarize Within
All Vessels 2019
1 ≤ tracks ≤ 15
15 < tracks ≤ 45
45 < tracks ≤ 100
100 < tracks ≤ 222
222 < tracks ≤ 498
498 < tracks ≤ 1096
1096 < tracks ≤ 2334
2334 < tracks ≤ 3279
GULF OF MAINE
JORDAN BASIN
WILKINSON BASIN
BIGELOW BIGHT
JEFFREYS LEDGE
PENOBSCOT BAY
CASCO BAY
Machias Bay
Crowell Basin
Franklin Swell
Franklin Basin
Truxton Swell
Scale: 1:1,653,663
0 5 10 20 30 40
Nautical Miles
Last Update: 9/23/2022 9:08 AM
Prepared by the USCG NAVCEN
Data Source: NAIS
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree


MNM PARS Summarize Within
Cargo 2019
1 ≤ tracks ≤ 15
15 < tracks ≤ 45
45 < tracks ≤ 100
100 < tracks ≤ 222
222 < tracks ≤ 498
498 < tracks ≤ 1096
1096 < tracks ≤ 2334
2334 < tracks ≤ 3279
Scale: 1:1,653,663
0 5 10 20 30 40
Nautical Miles
Last Update: 9/23/2022 9:06 AM
Prepared by the USCG NAVCEN
Data Source: NAIS
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree



Scale: 1:1,653,663

0 5 10 20 30 40 Nautical Miles

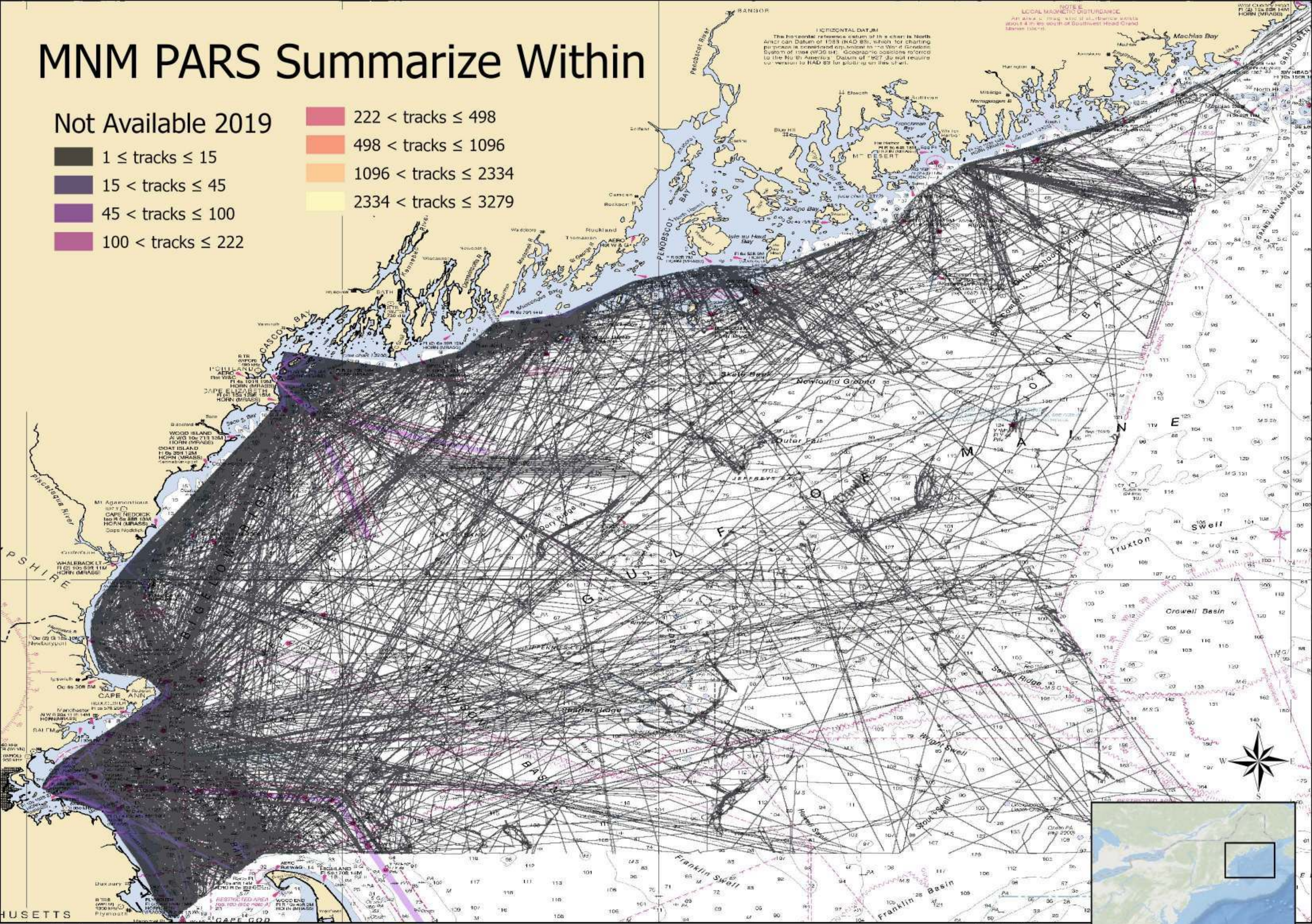
Last Update: 9/23/2022 8:57 AM

Prepared by the USCG NAVCEN
Data Source: NAIS

Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

S.19.3

MNM PARS Summarize Within



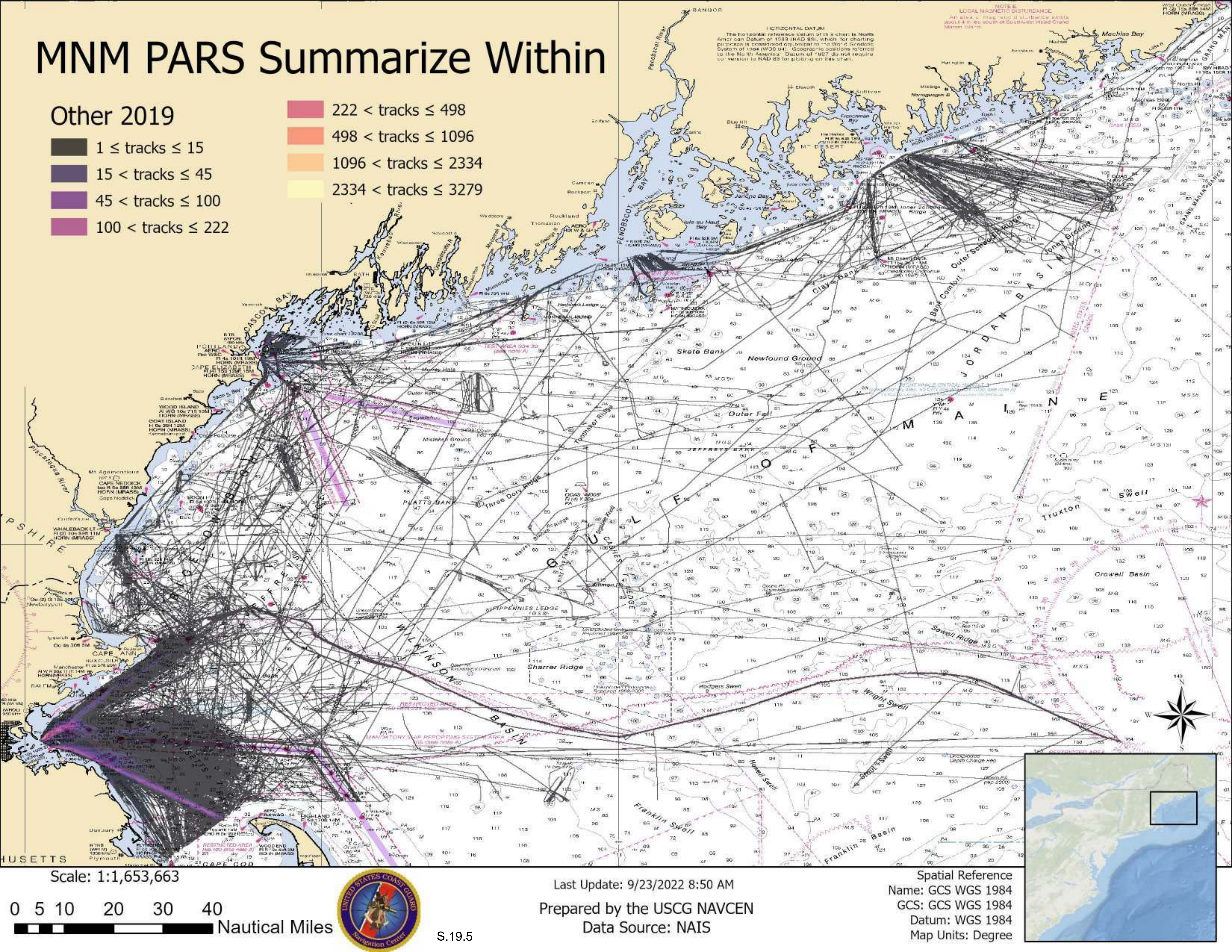
Scale: 1:1,653,663

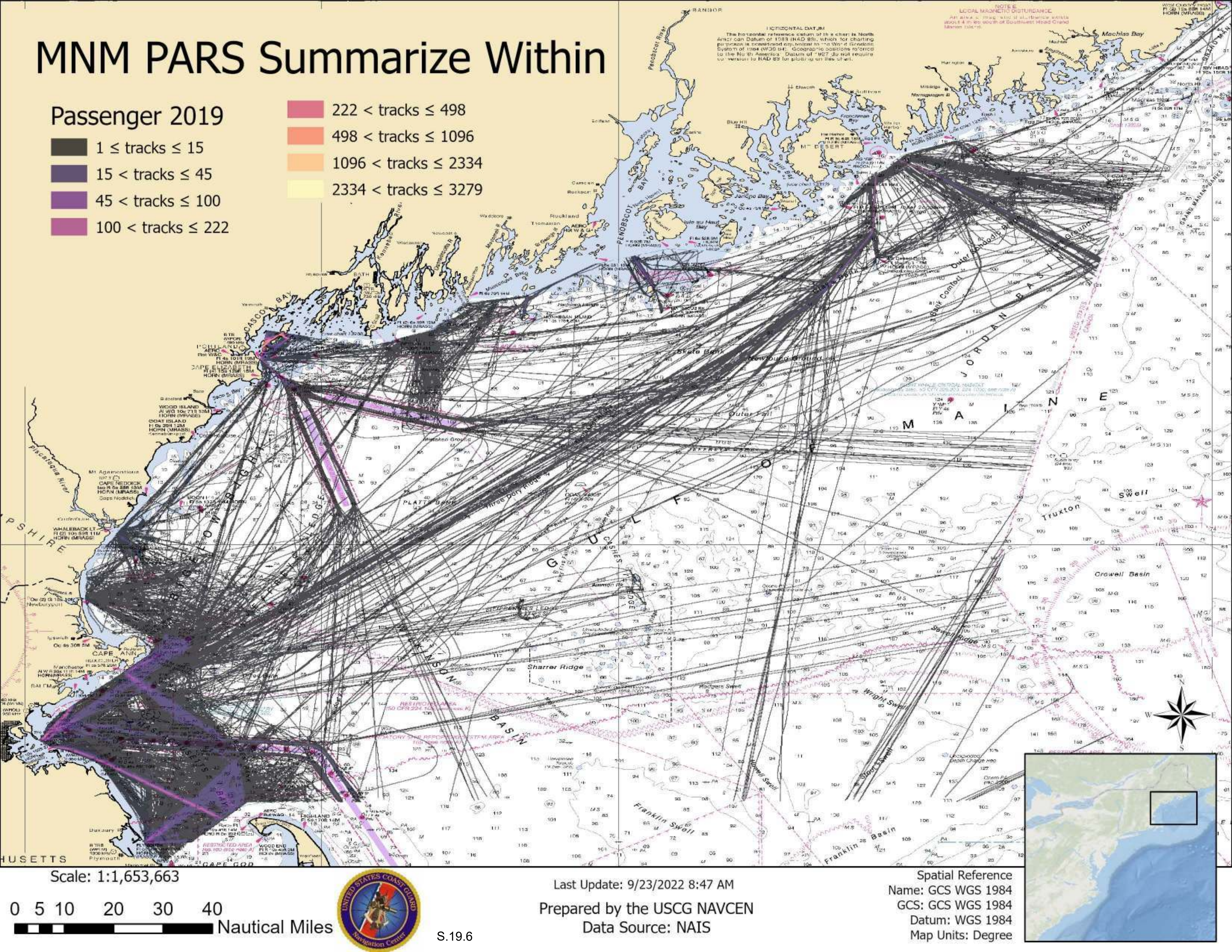
0 5 10 20 30 40 Nautical Miles

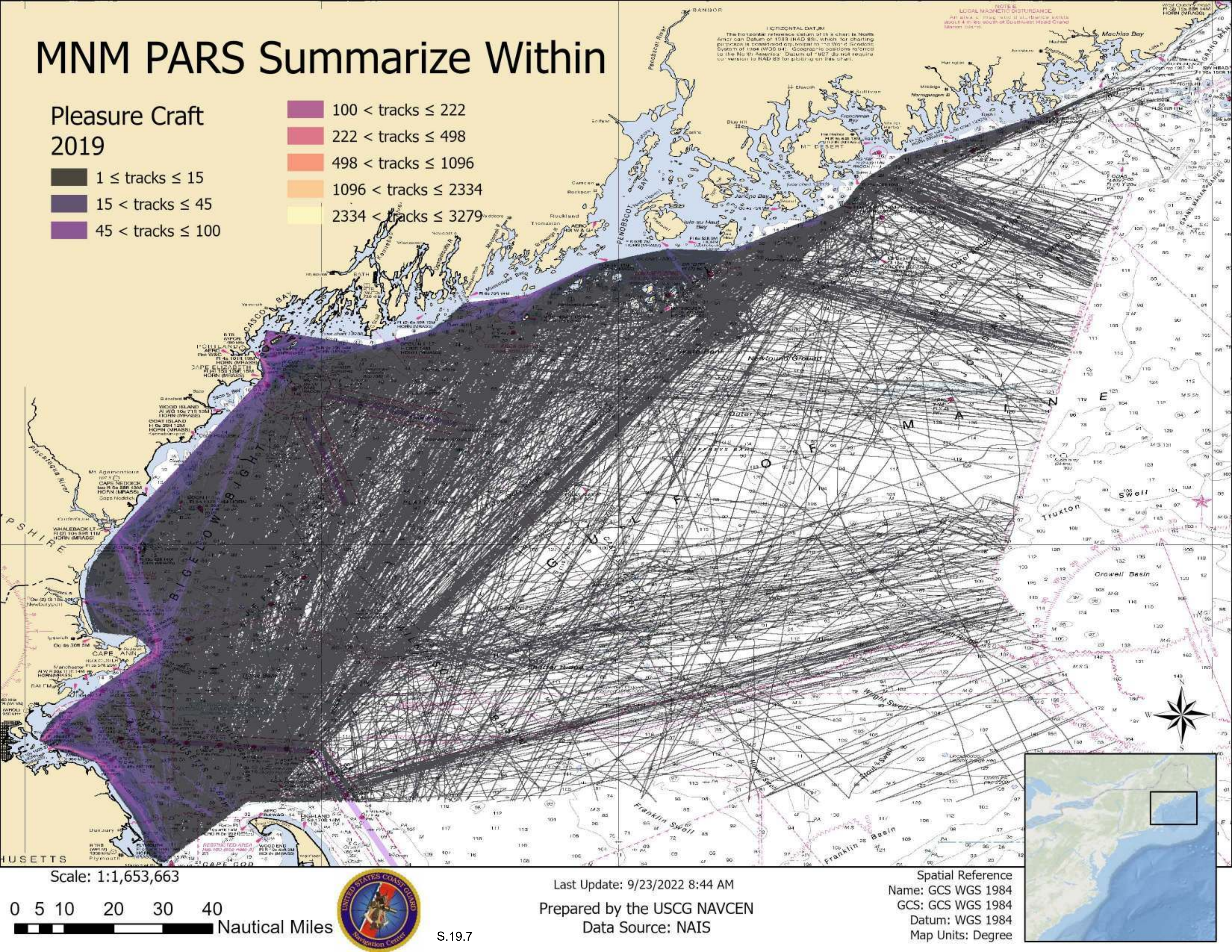
Last Update: 9/23/2022 8:53 AM

Prepared by the USCG NAVCEN
Data Source: NAIS

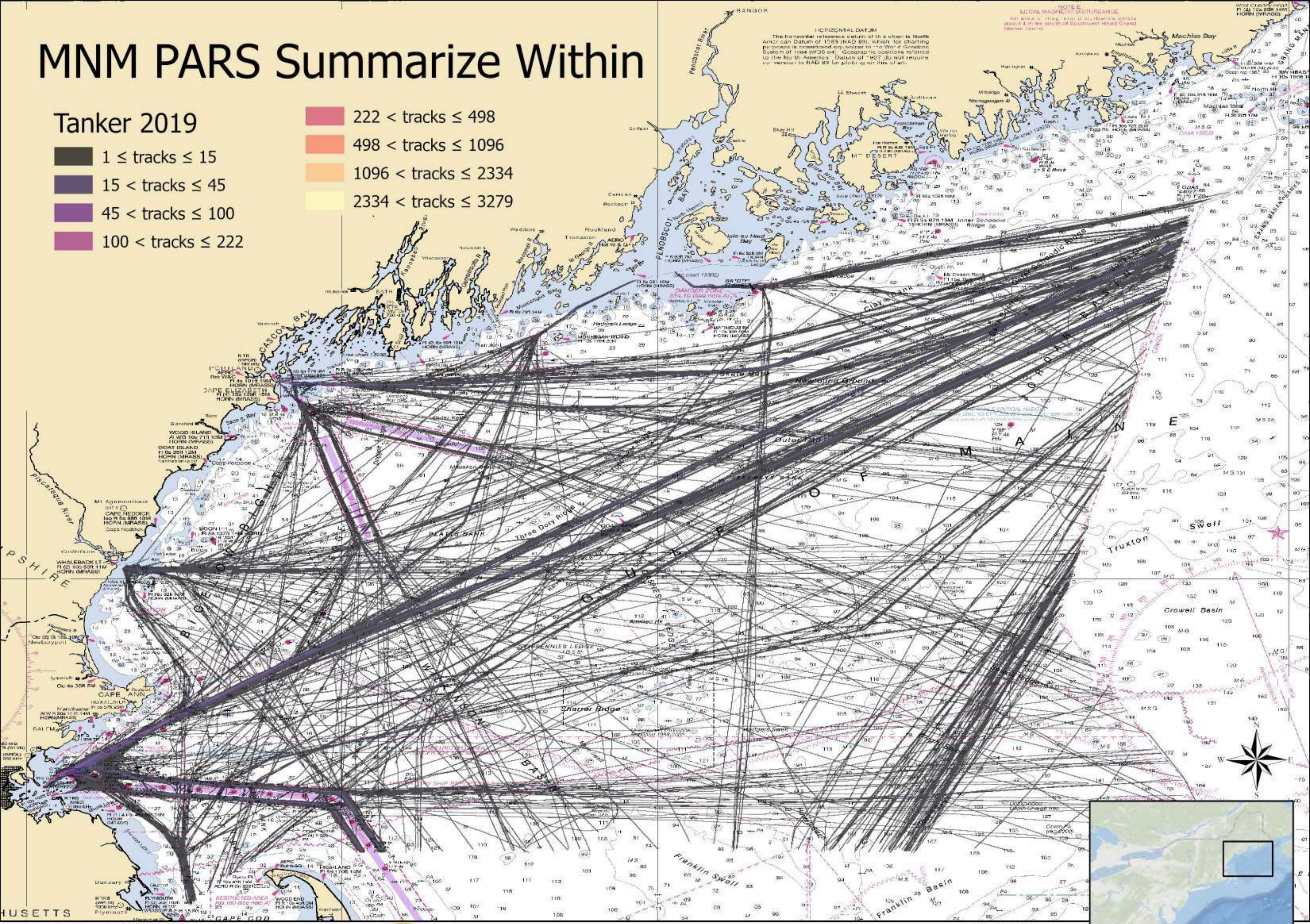
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree


MNM PARS Summarize Within
Other 2019
1 ≤ tracks ≤ 15
15 < tracks ≤ 45
45 < tracks ≤ 100
100 < tracks ≤ 222
222 < tracks ≤ 498
498 < tracks ≤ 1096
1096 < tracks ≤ 2334
2334 < tracks ≤ 3279
GULF OF MAINE
JORDAN BASIN
WILKINSON BASIN
Scale: 1:1,653,663
0 5 10 20 30 40
Nautical Miles
Last Update: 9/23/2022 8:50 AM
Prepared by the USCG NAVCEN
Data Source: NAIS
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree


MNM PARS Summarize Within
Passenger 2019
1 ≤ tracks ≤ 15
15 < tracks ≤ 45
45 < tracks ≤ 100
100 < tracks ≤ 222
222 < tracks ≤ 498
498 < tracks ≤ 1096
1096 < tracks ≤ 2334
2334 < tracks ≤ 3279
Scale: 1:1,653,663
0 5 10 20 30 40
Nautical Miles
Last Update: 9/23/2022 8:47 AM
Prepared by the USCG NAVCEN
Data Source: NAIS
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree


MNM PARS Summarize Within
Pleasure Craft
2019
1 ≤ tracks ≤ 15
15 < tracks ≤ 45
45 < tracks ≤ 100
100 < tracks ≤ 222
222 < tracks ≤ 498
498 < tracks ≤ 1096
1096 < tracks ≤ 2334
2334 < tracks ≤ 3279
Scale: 1:1,653,663
0 5 10 20 30 40
Nautical Miles
Last Update: 9/23/2022 8:44 AM
Prepared by the USCG NAVCEN
Data Source: NAIS
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

MNM PARS Summarize Within



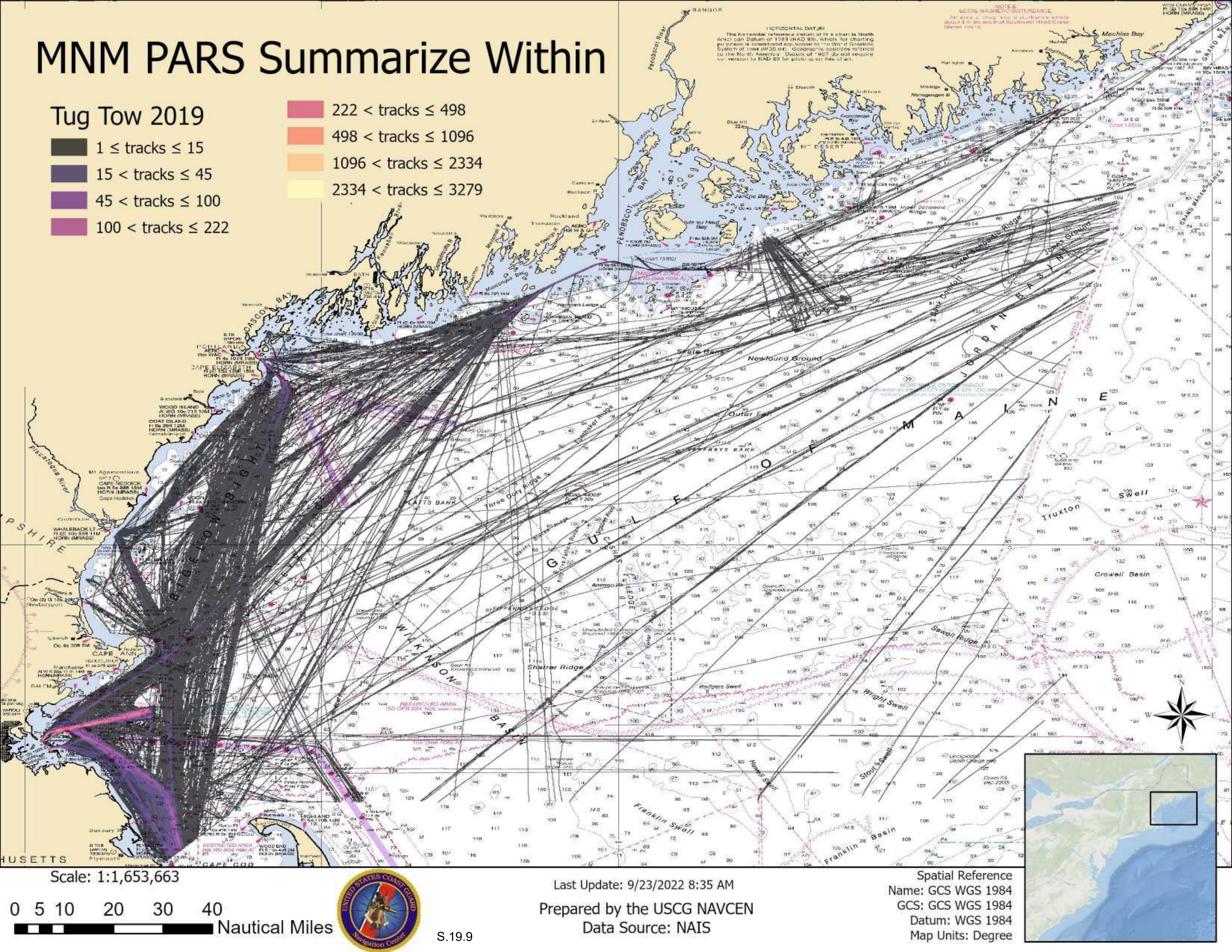
Scale: 1:1,653,663

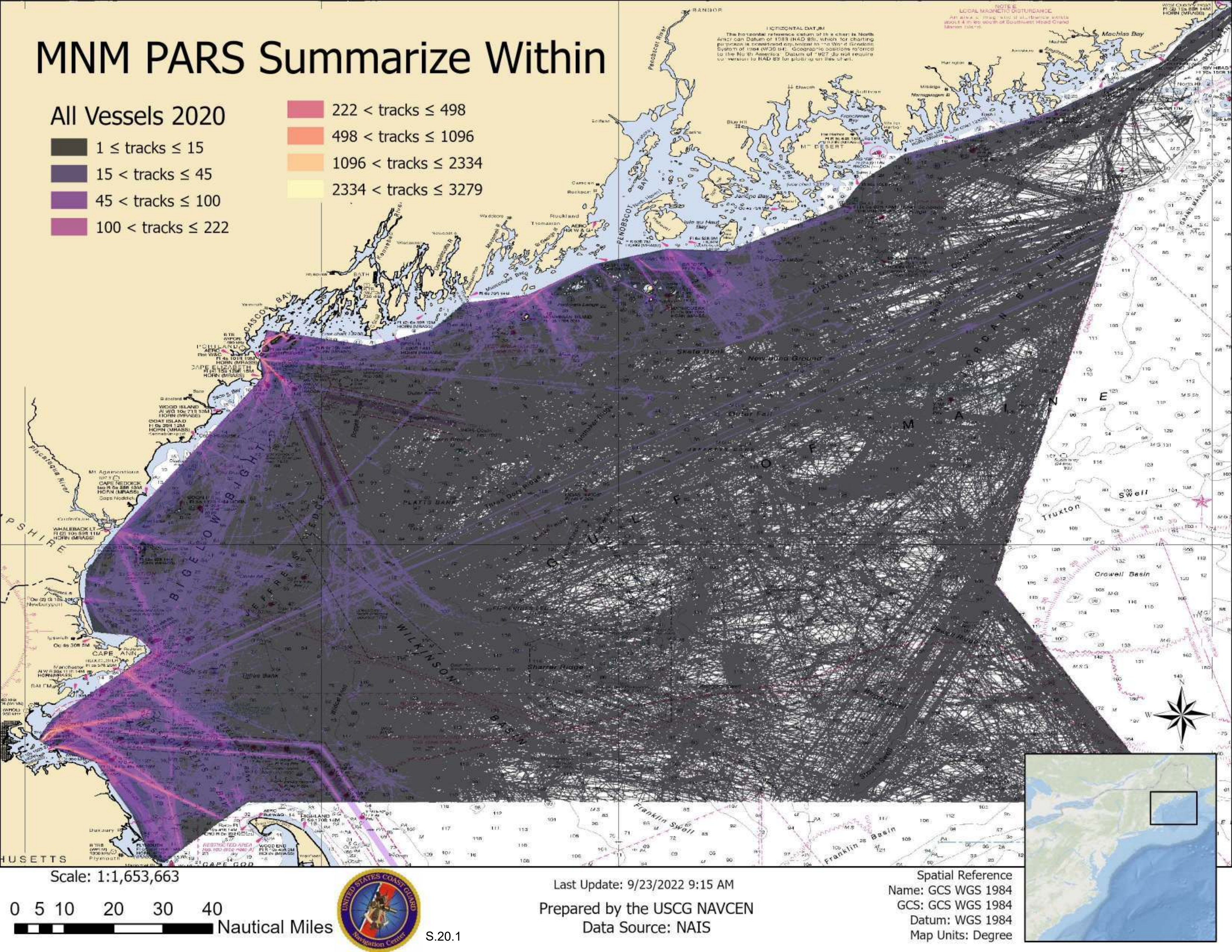
0 5 10 20 30 40 Nautical Miles

Last Update: 9/23/2022 8:37 AM

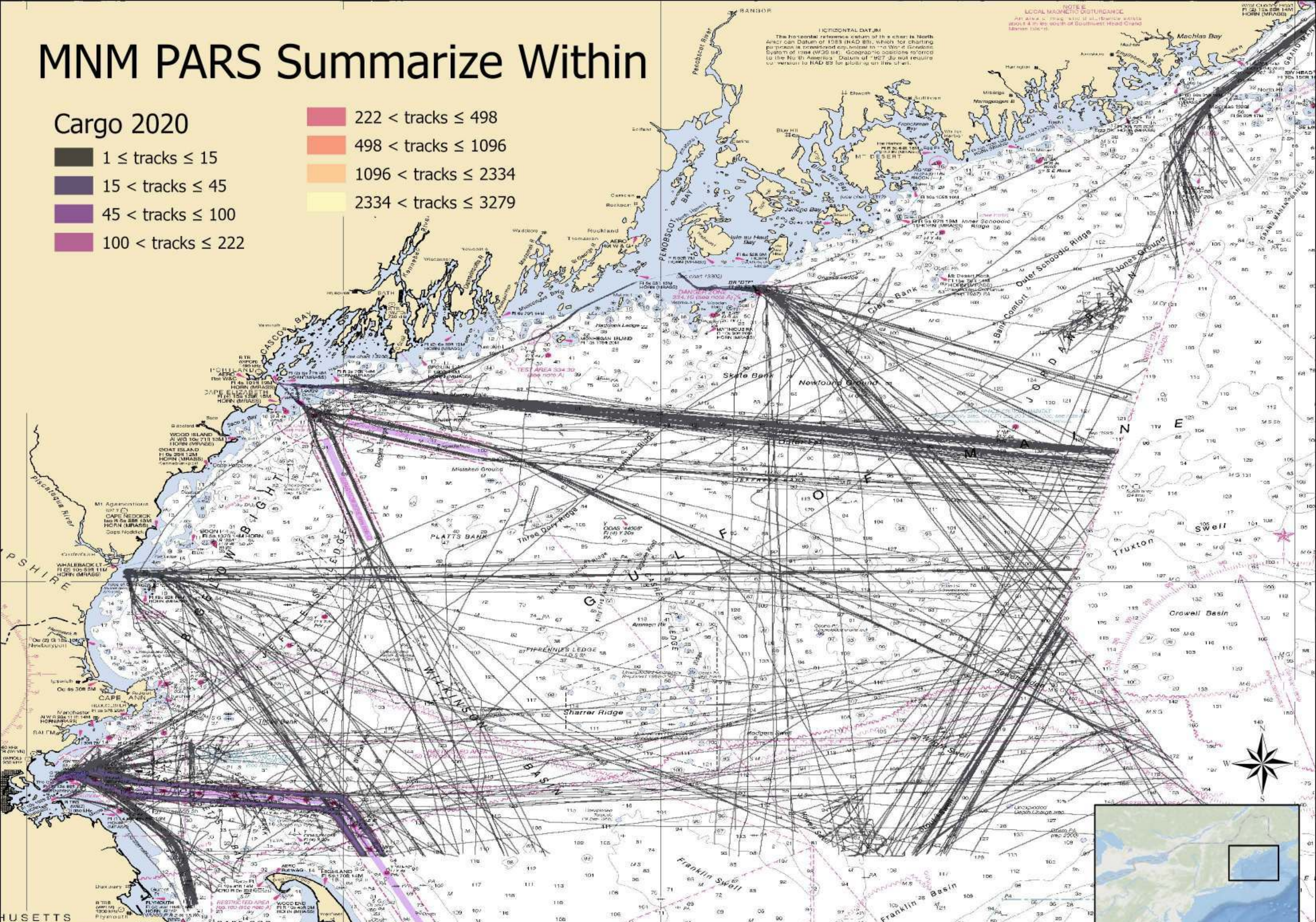
Prepared by the USCG NAVCEN
Data Source: NAIS

Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree


MNM PARS Summarize Within
Tug Tow 2019
1 ≤ tracks ≤ 15
15 < tracks ≤ 45
45 < tracks ≤ 100
100 < tracks ≤ 222
222 < tracks ≤ 498
498 < tracks ≤ 1096
1096 < tracks ≤ 2334
2334 < tracks ≤ 3279
GULF OF MAINE
BIGELOW BIGHT
JORDAN BASIN
WILKINSON BASIN
Newfound Ground
Jeffreys Bank
Platts Bank
Three Dory Ridge
Crowell Basin
Truxton Swell
Sewall Ridge
Wright Swell
Franklin Swell
Franklin Basin
Rodgers Swell
Shatter Ridge
Cape Ann
Cape Cod
Machias Bay
Mt Desert
Penobscot Bay
Casco Bay
Scale: 1:1,653,663
0 5 10 20 30 40
Nautical Miles
Last Update: 9/23/2022 8:35 AM
Prepared by the USCG NAVCEN
Data Source: NAIS
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree


MNM PARS Summarize Within
All Vessels 2020
1 ≤ tracks ≤ 15
15 < tracks ≤ 45
45 < tracks ≤ 100
100 < tracks ≤ 222
222 < tracks ≤ 498
498 < tracks ≤ 1096
1096 < tracks ≤ 2334
2334 < tracks ≤ 3279
GULF OF MAINE
JORDAN BASIN
WILKINSON BASIN
BIGELOW BIGHT
JEFFREYS LEDGE
MASSACHUSETTS BAY
CASCO BAY
PENOBSCOT BAY
CAPE ANN
CAPE COD
Crowell Basin
Franklin Swell
Franklin Basin
Truxton Swell
Scale: 1:1,653,663
0 5 10 20 30 40
Nautical Miles
Last Update: 9/23/2022 9:15 AM
Prepared by the USCG NAVCEN
Data Source: NAIS
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

S.20.1



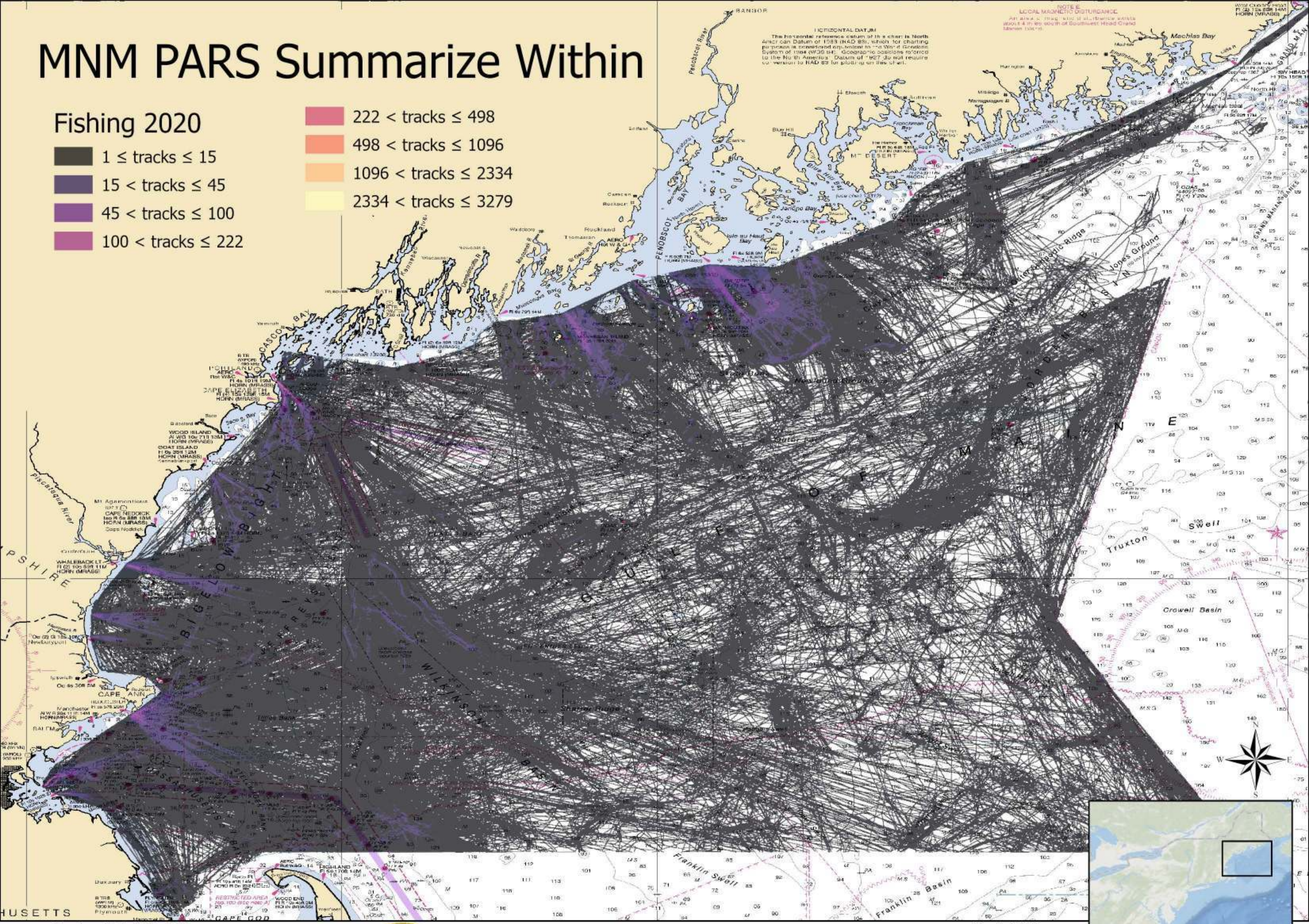
Scale: 1:1,653,663

0 5 10 20 30 40 Nautical Miles

Last Update: 9/23/2022 9:07 AM

Prepared by the USCG NAVCEN
Data Source: NAIS

Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree



Scale: 1:1,653,663

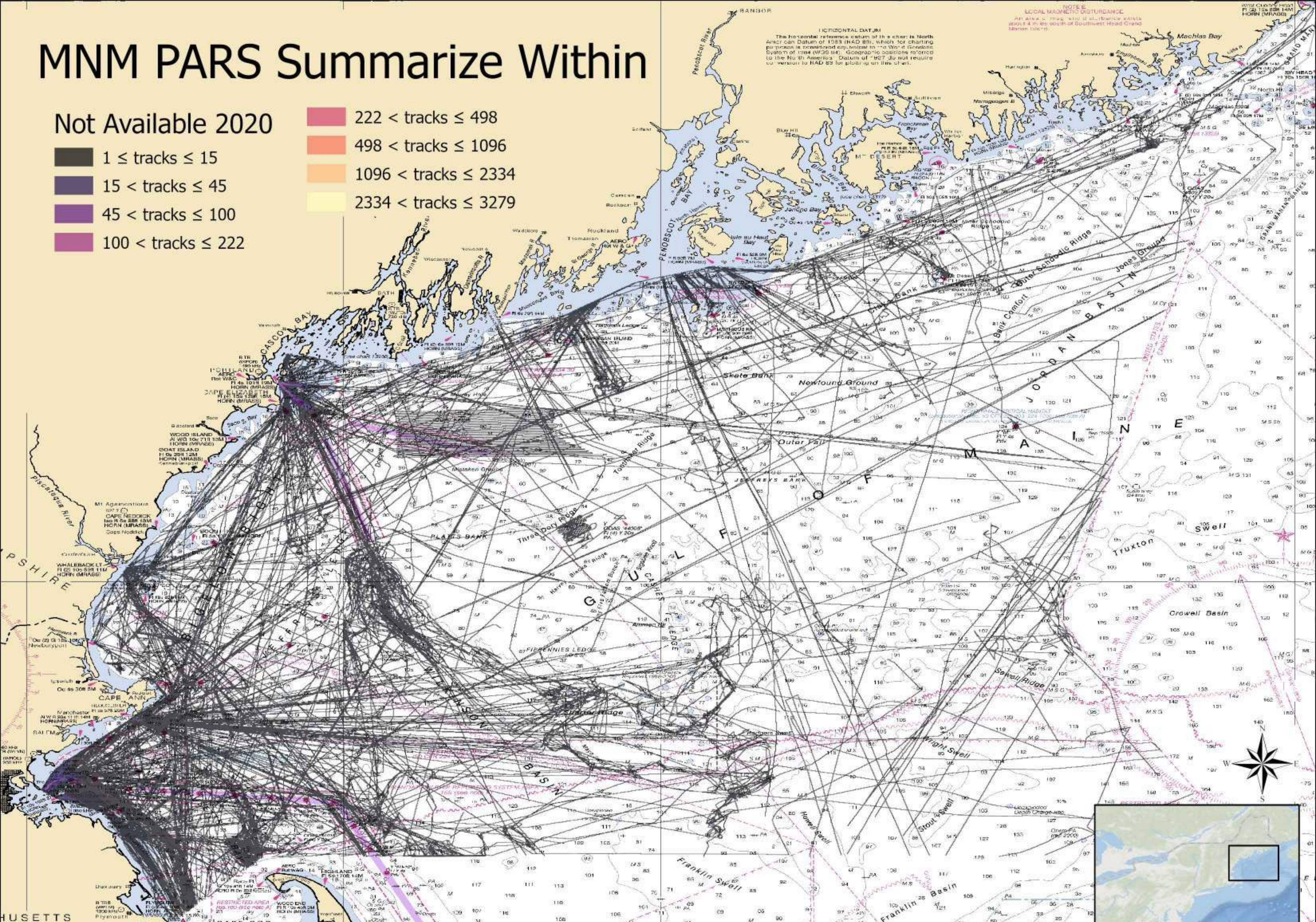
0 5 10 20 30 40 Nautical Miles

Last Update: 9/23/2022 9:00 AM

Prepared by the USCG NAVCEN
Data Source: NAIS

Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

MNM PARS Summarize Within



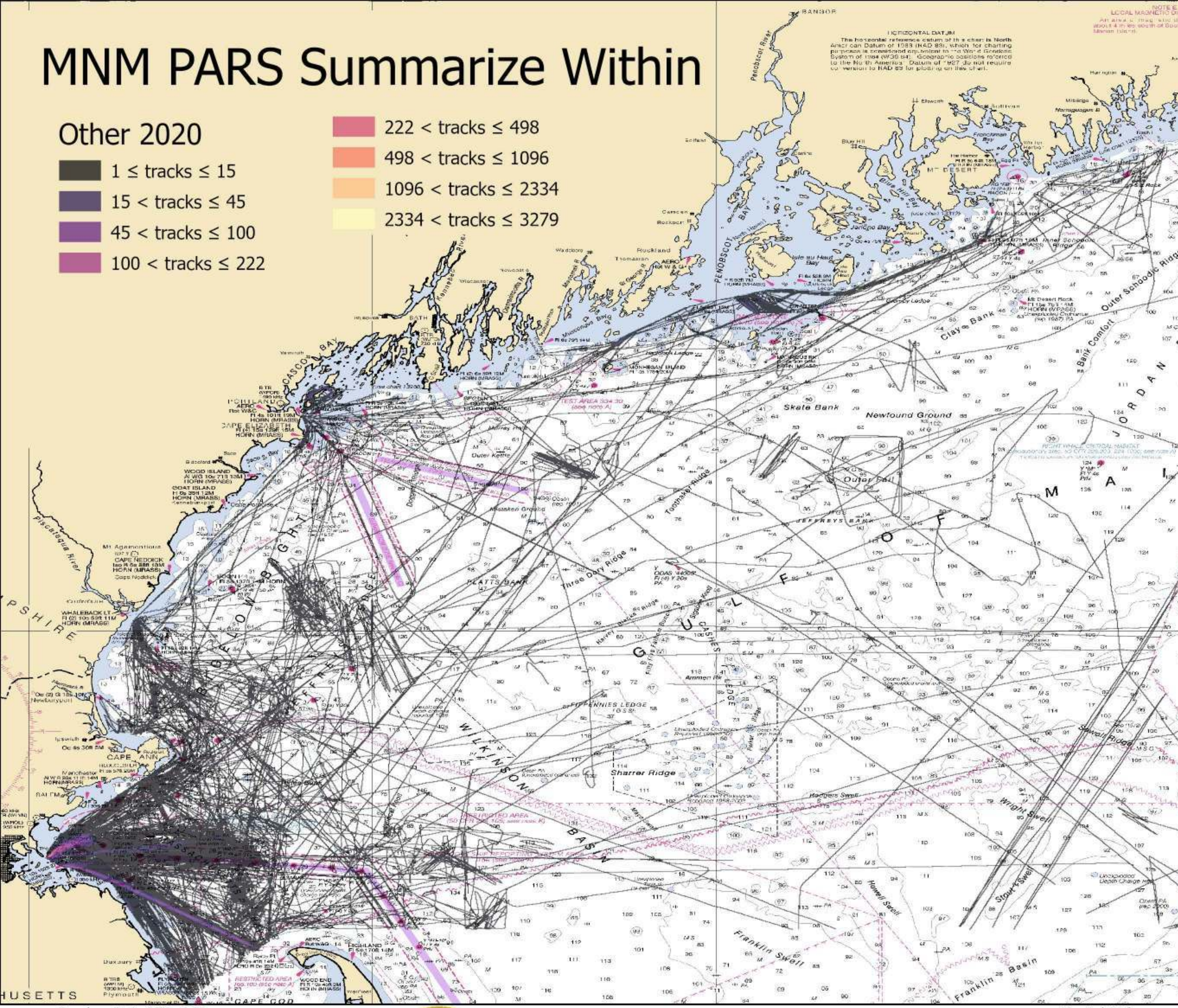
Last Update: 9/23/2022 8:55 AM

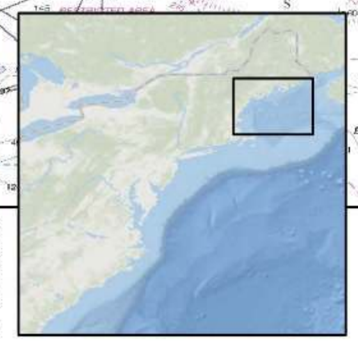
Prepared by the USCG NAVCEN
Data Source: NAIS

Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

S.20.4

MNM PARS Summarize Within





Scale: 1:1,653,663

0 5 10 20 30 40 Nautical Miles

Last Update: 9/23/2022 8:51 AM

Prepared by the USCG NAVCEN
Data Source: NAIS

Spatial Reference
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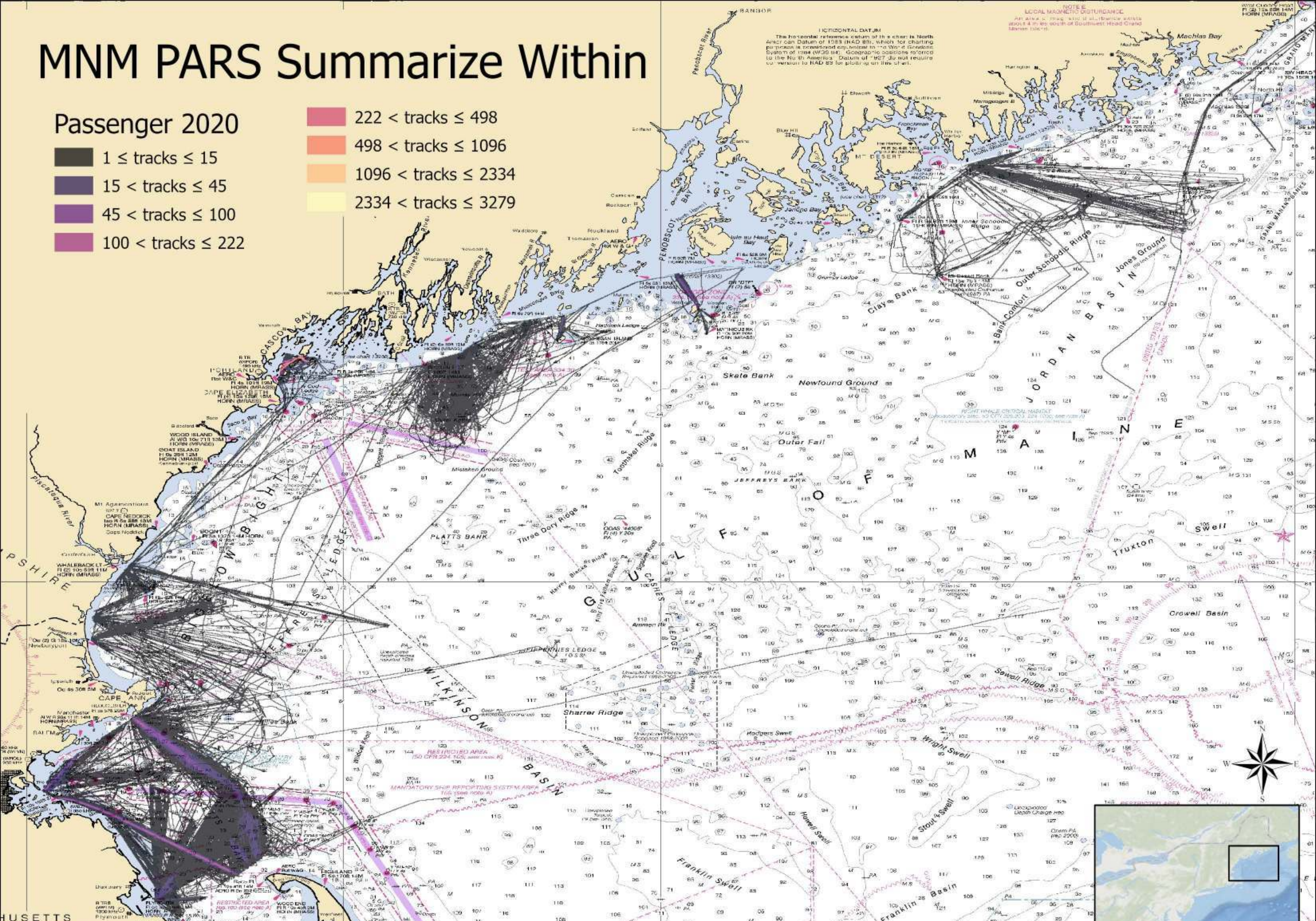
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree



Scale: 1:1,653,663

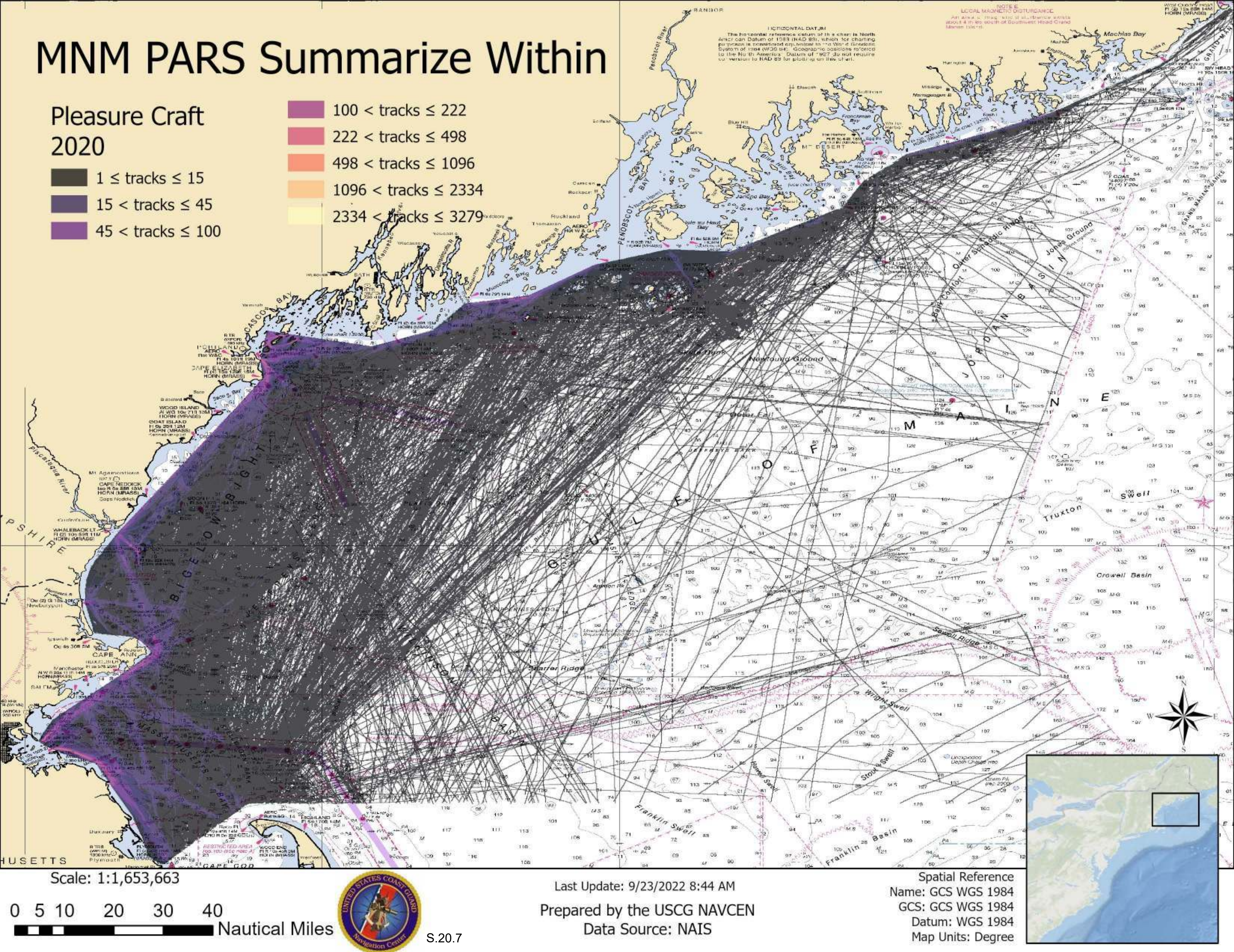
0 5 10 20 30 40 Nautical Miles

Last Update: 9/23/2022 8:49 AM

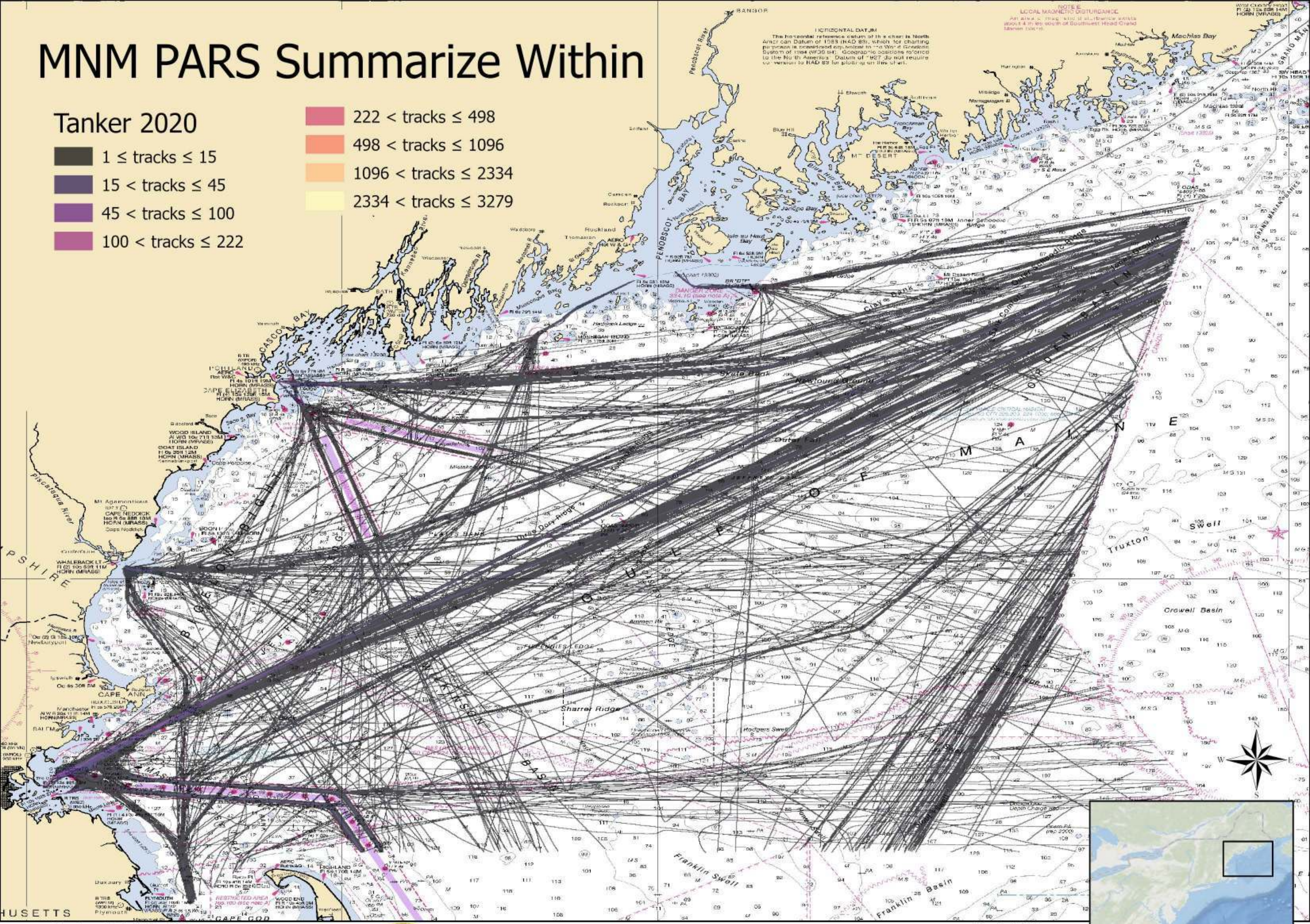
Prepared by the USCG NAVCEN
Data Source: NAIS

Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

S.20.6


MNM PARS Summarize Within
Pleasure Craft
2020
1 ≤ tracks ≤ 15
15 < tracks ≤ 45
45 < tracks ≤ 100
100 < tracks ≤ 222
222 < tracks ≤ 498
498 < tracks ≤ 1096
1096 < tracks ≤ 2334
2334 < tracks ≤ 3279
GULF OF MAINE
JORDAN BASIN
Crowell Basin
Franklin Basin
Franklin Swell
Wright Swell
Scale: 1:1,653,663
0 5 10 20 30 40
Nautical Miles
Last Update: 9/23/2022 8:44 AM
Prepared by the USCG NAVCEN
Data Source: NAIS
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

MNM PARS Summarize Within



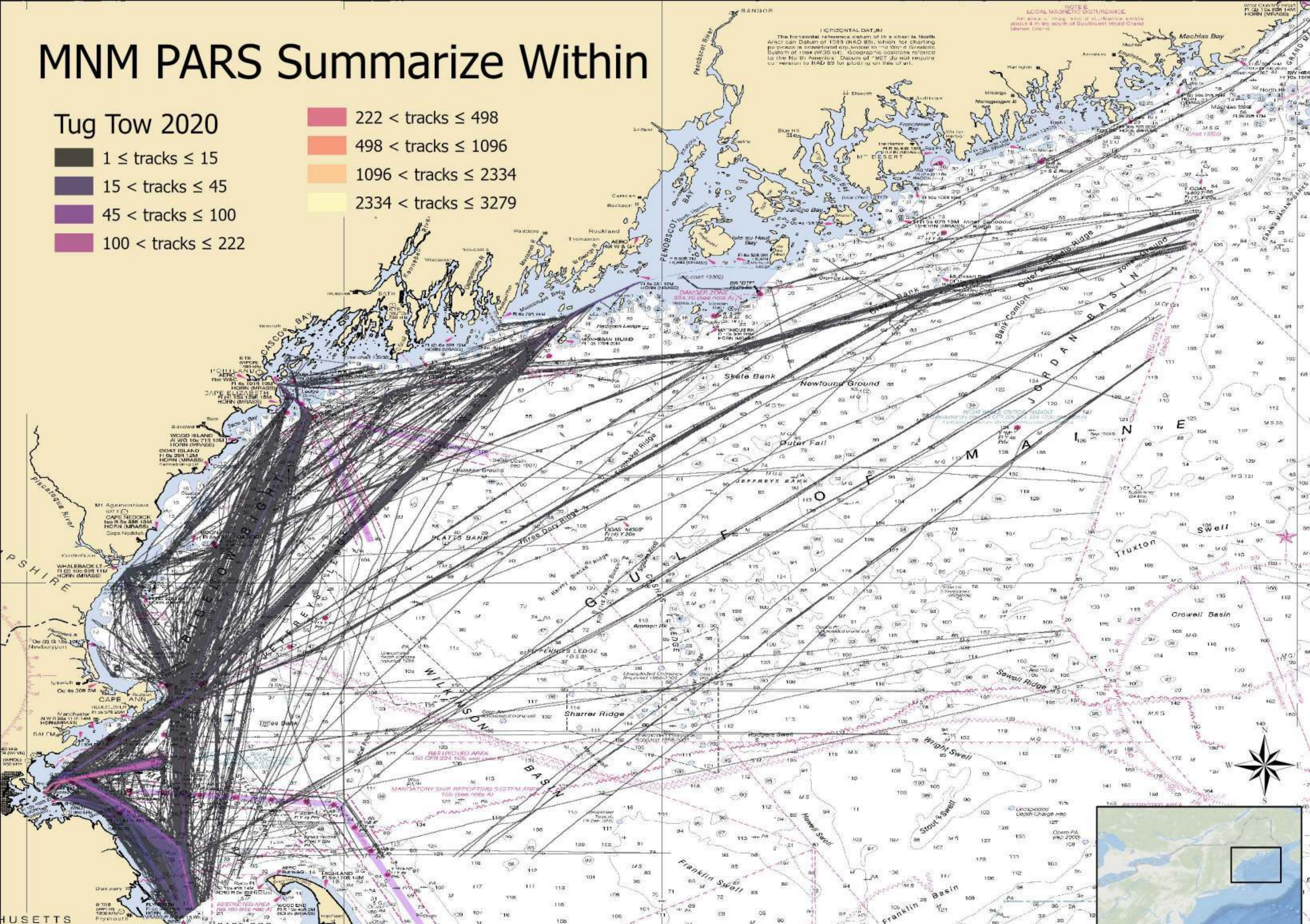
Last Update: 9/23/2022 8:39 AM

Prepared by the USCG NAVCEN
Data Source: NAIS

Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

S.20.8

MNM PARS Summarize Within



Scale: 1:1,653,663

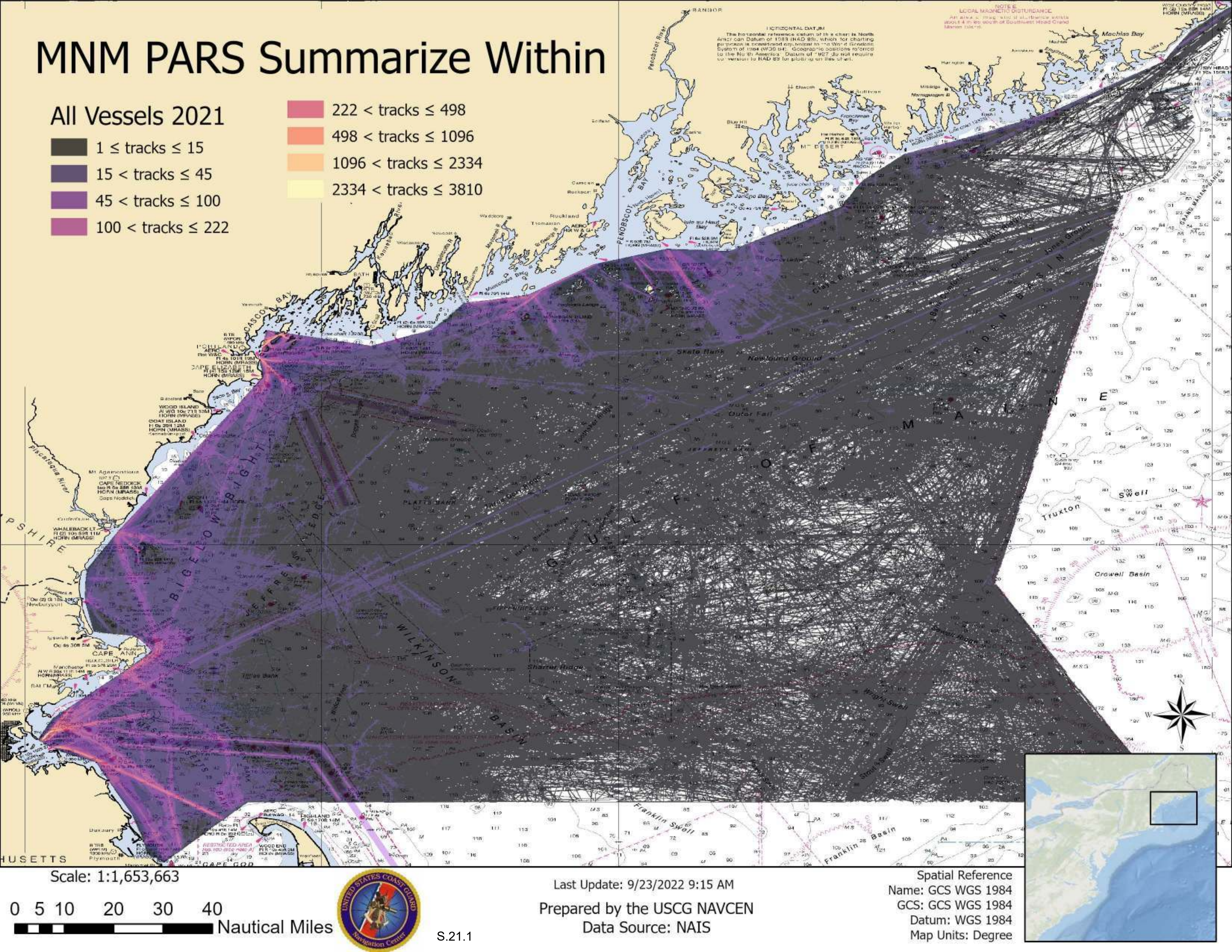
0 5 10 20 30 40
Nautical Miles

Last Update: 9/23/2022 8:35 AM

Prepared by the USCG NAVCEN
Data Source: NAIS

Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

MNM PARS Summarize Within

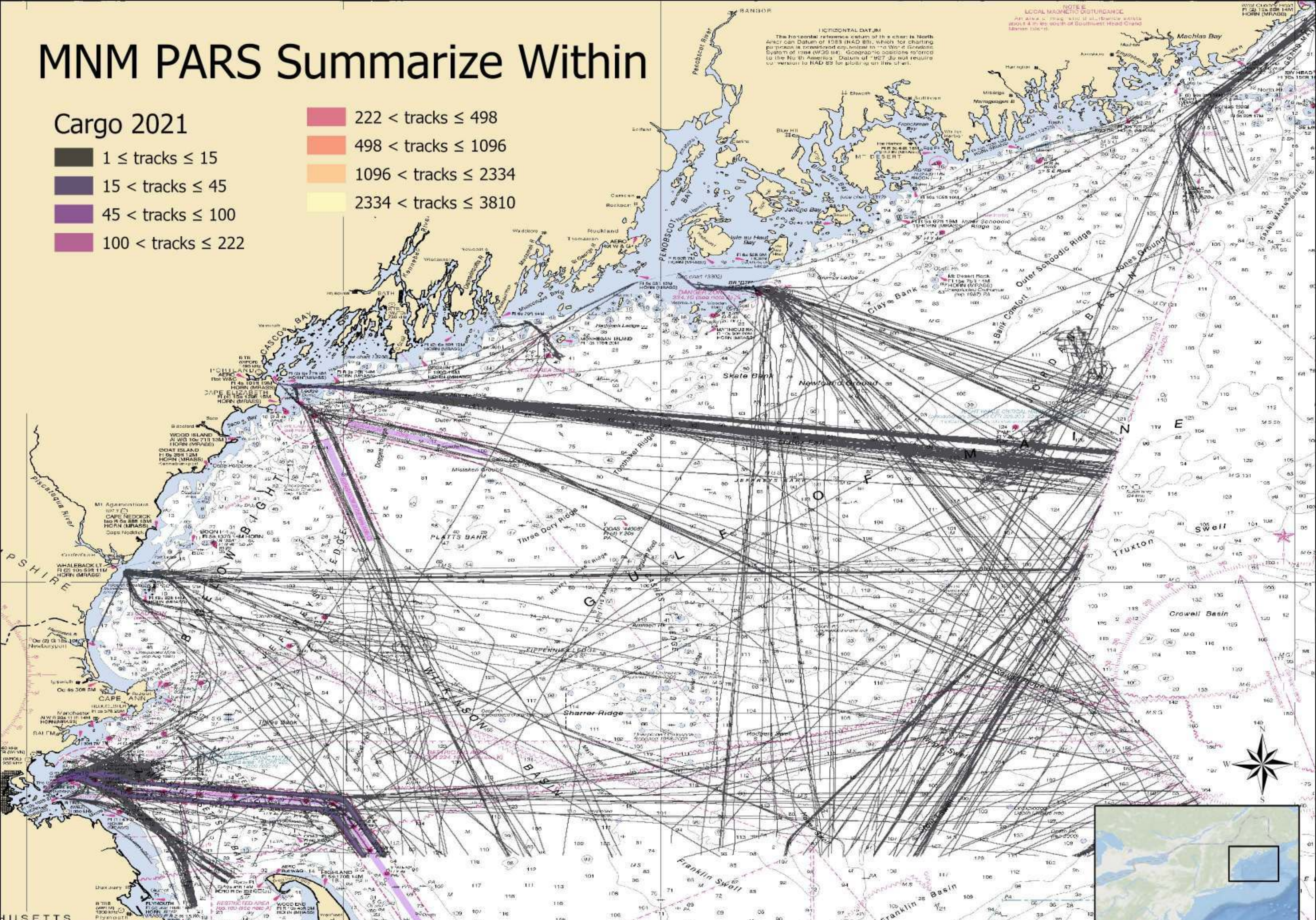


Last Update: 9/23/2022 9:15 AM

Prepared by the USCG NAVCEN
Data Source: NAIS

Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

MNM PARS Summarize Within



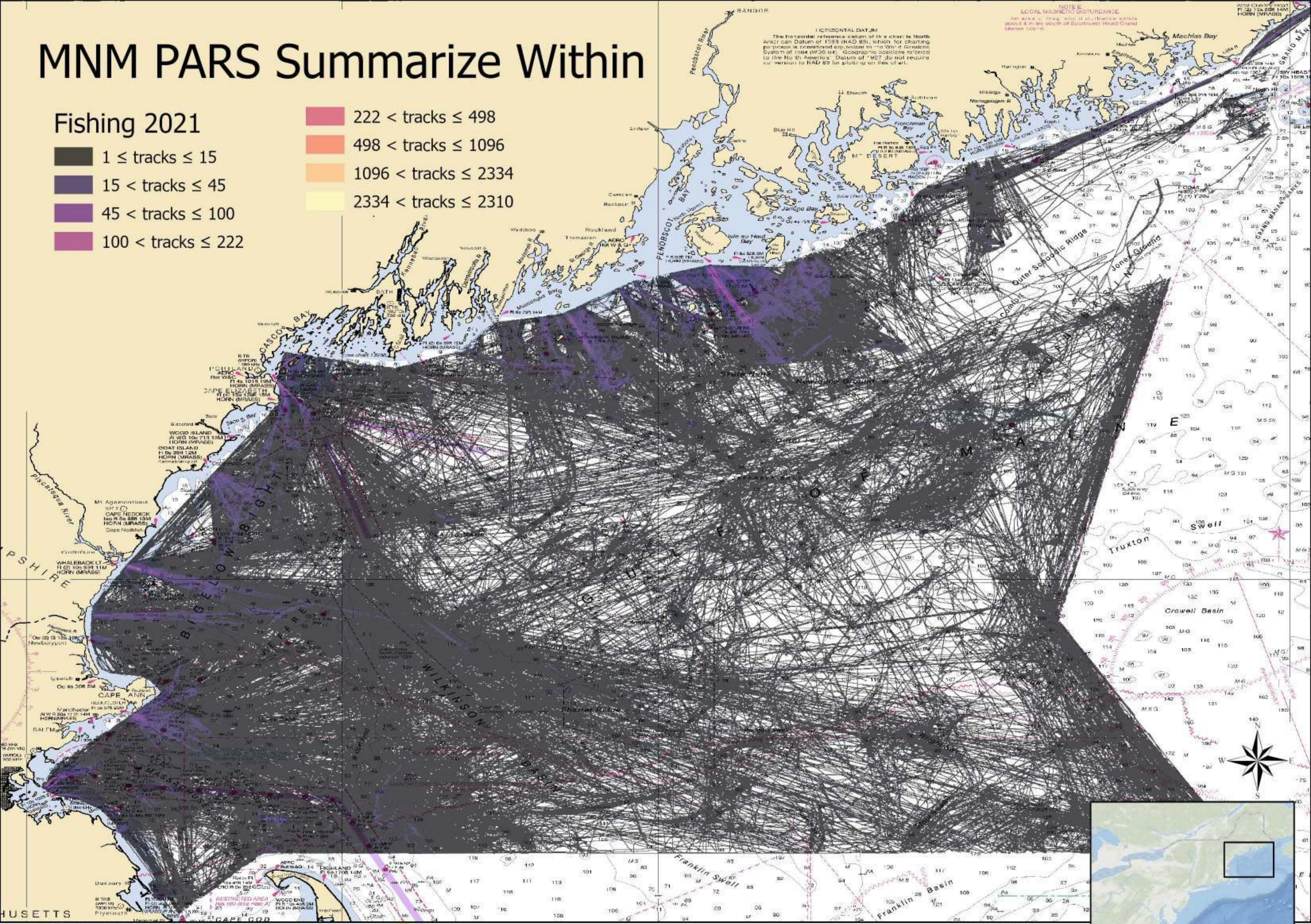
Scale: 1:1,653,663

0 5 10 20 30 40 Nautical Miles

Last Update: 9/23/2022 9:08 AM

Prepared by the USCG NAVCEN
Data Source: NAIS

Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree



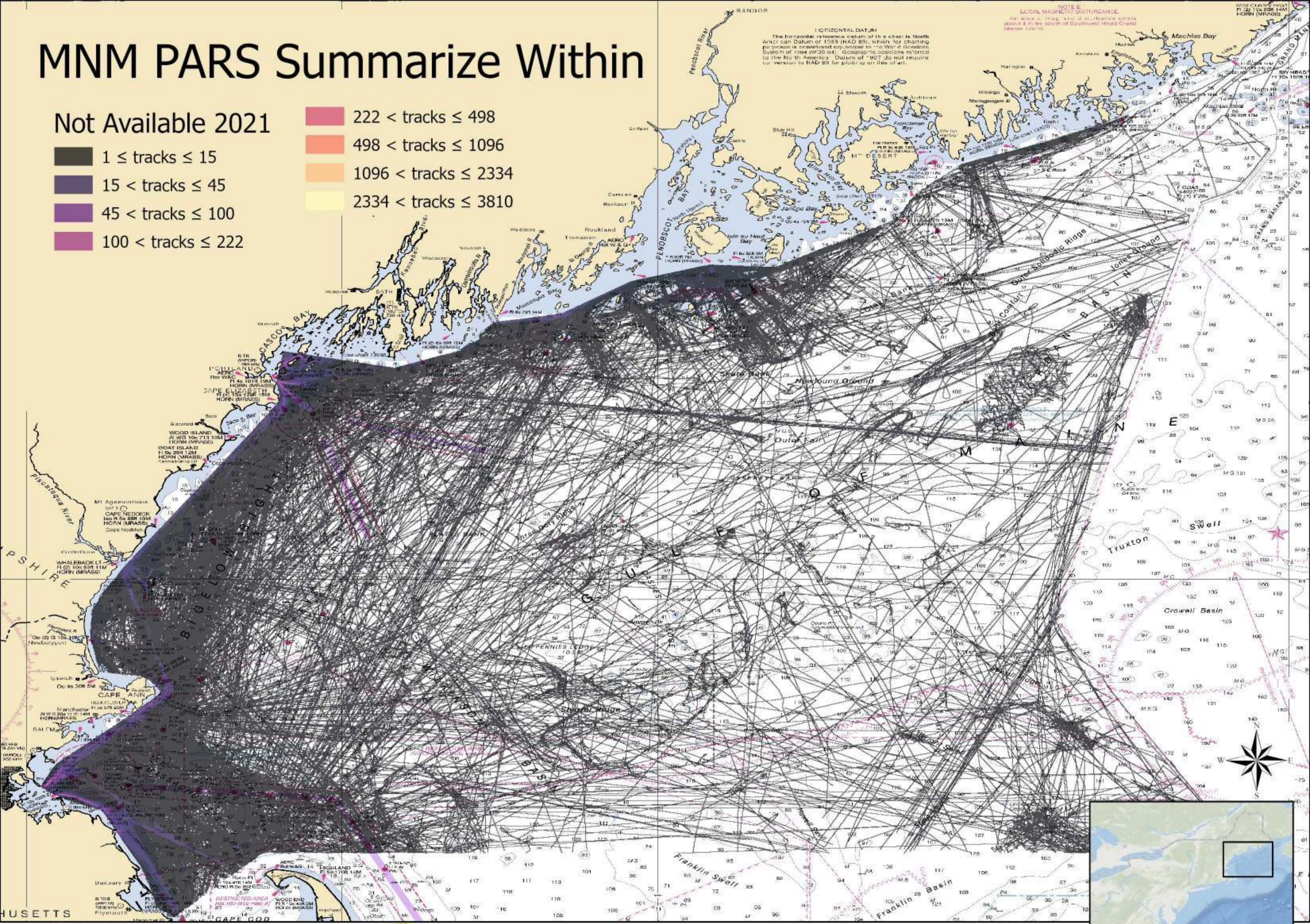
Scale: 1:1,653,663

0 5 10 20 30 40
Nautical Miles

Last Update: 9/23/2022 9:03 AM

Prepared by the USCG NAVCEN
Data Source: NAIS

Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree



Scale: 1:1,653,663

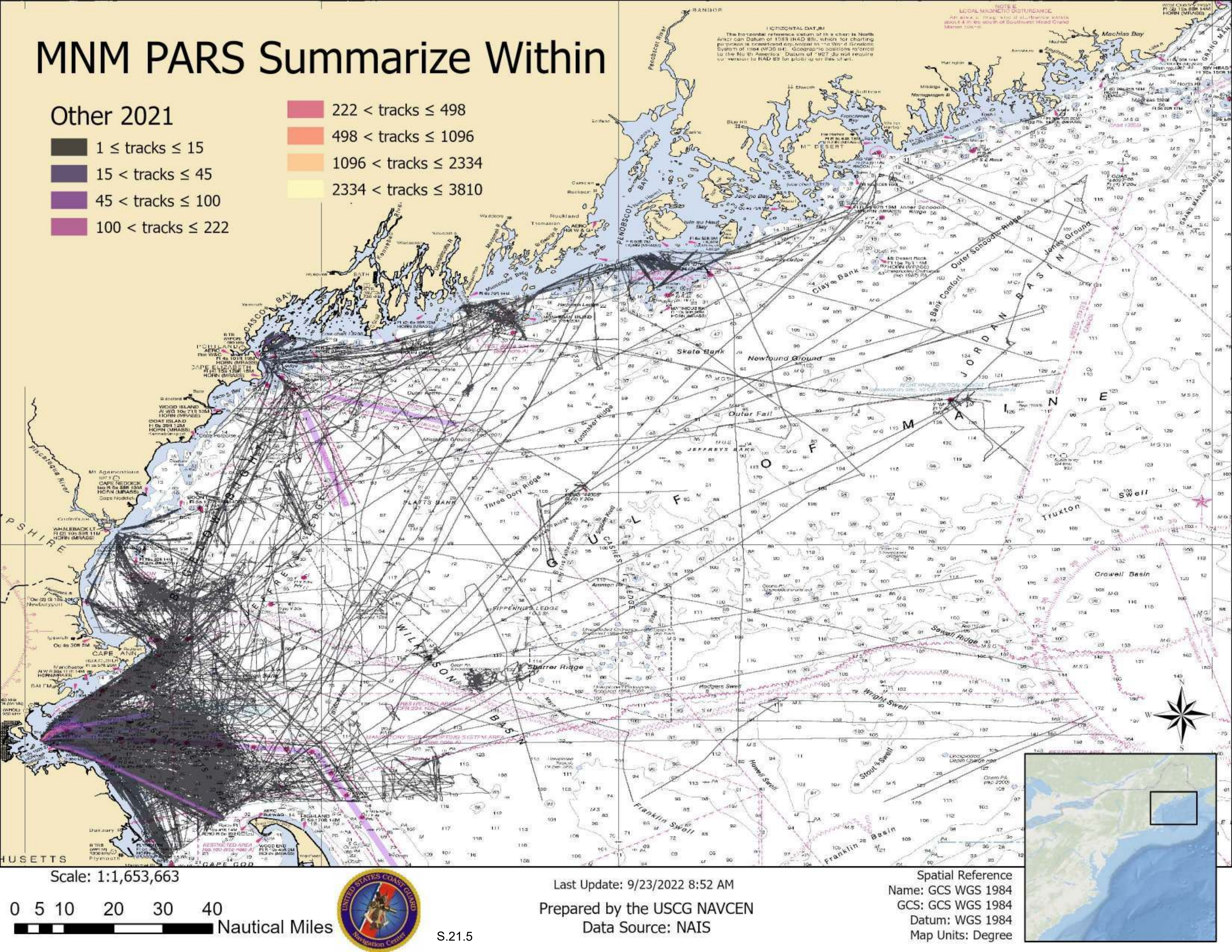
0 5 10 20 30 40 Nautical Miles

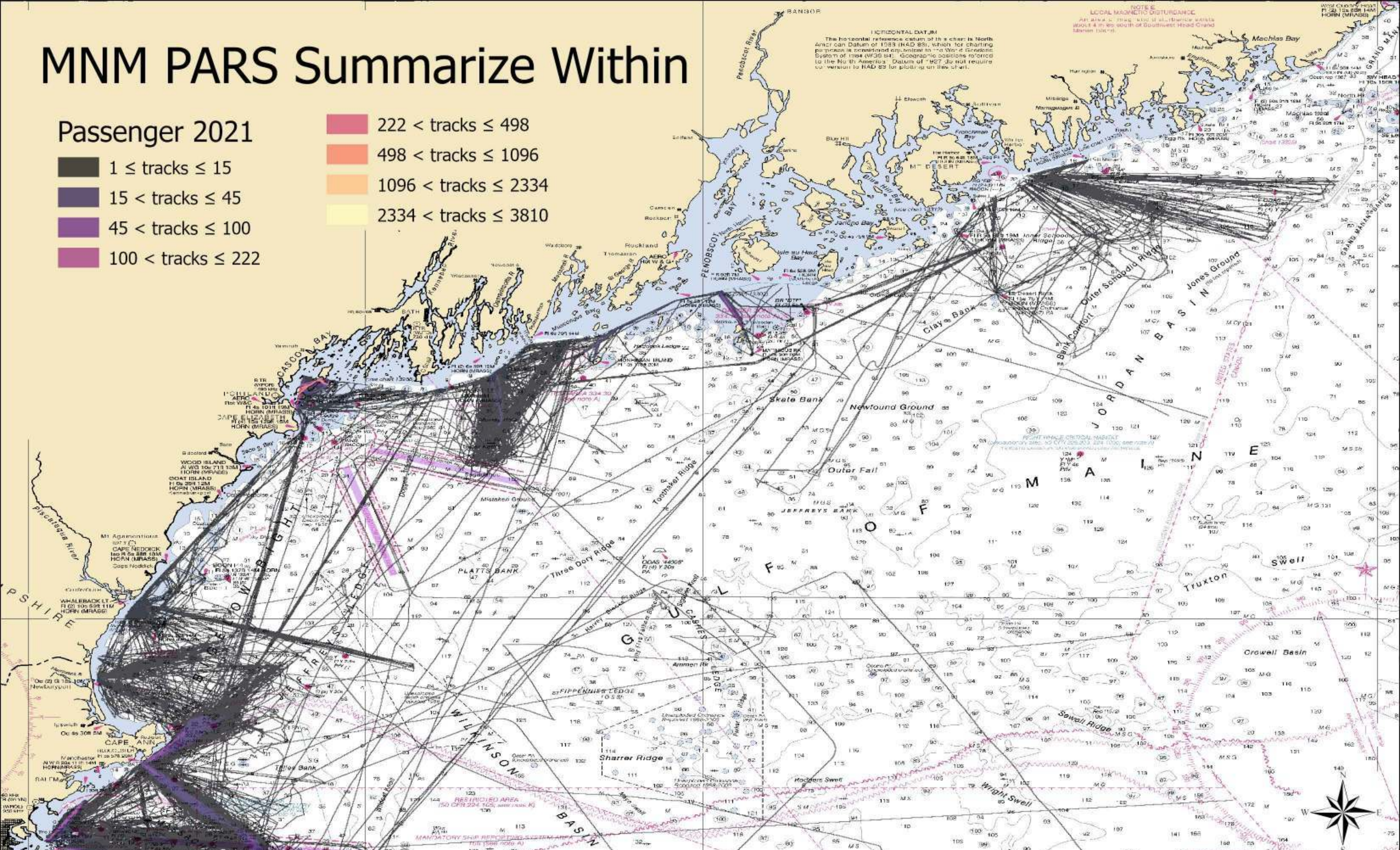
Last Update: 9/23/2022 8:57 AM

Prepared by the USCG NAVCEN
Data Source: NAIS

S.21.4

Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree


MNM PARS Summarize Within
Other 2021
1 ≤ tracks ≤ 15
15 < tracks ≤ 45
45 < tracks ≤ 100
100 < tracks ≤ 222
222 < tracks ≤ 498
498 < tracks ≤ 1096
1096 < tracks ≤ 2334
2334 < tracks ≤ 3810
GULF OF MAINE
JORDAN BASIN
WILKINSON BASIN
Scale: 1:1,653,663
0 5 10 20 30 40
Nautical Miles
Last Update: 9/23/2022 8:52 AM
Prepared by the USCG NAVCEN
Data Source: NAIS
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

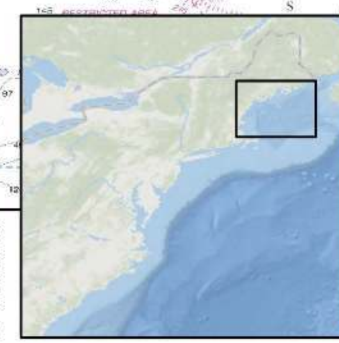


Scale: 1:1,653,663

0 5 10 20 30 40
Nautical Miles

Last Update: 9/23/2022 8:49 AM

Prepared by the USCG NAVCEN
Data Source: NAIS



Spatial Reference
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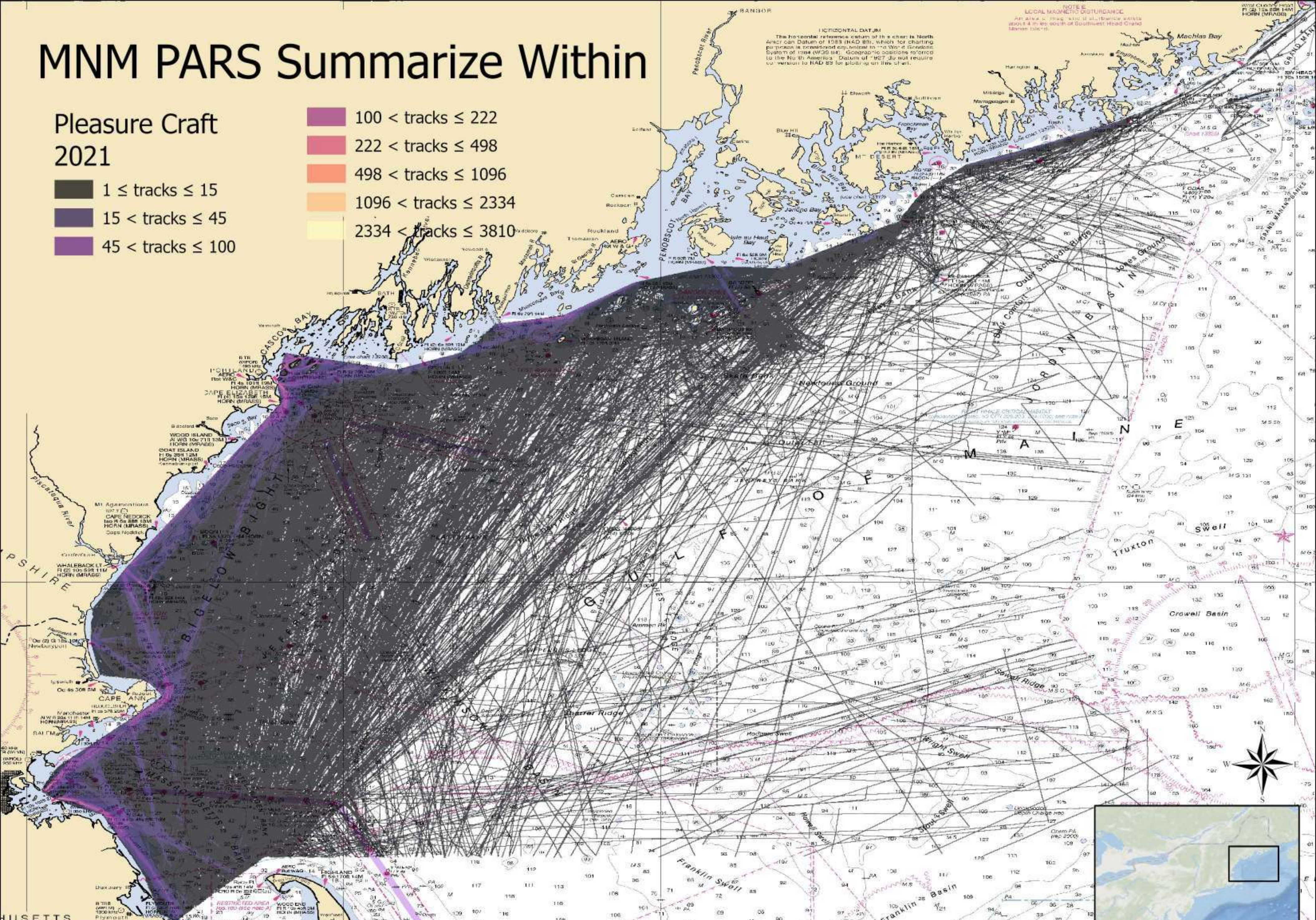
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

MNM PARS Summarize Within



Scale: 1:1,653,663

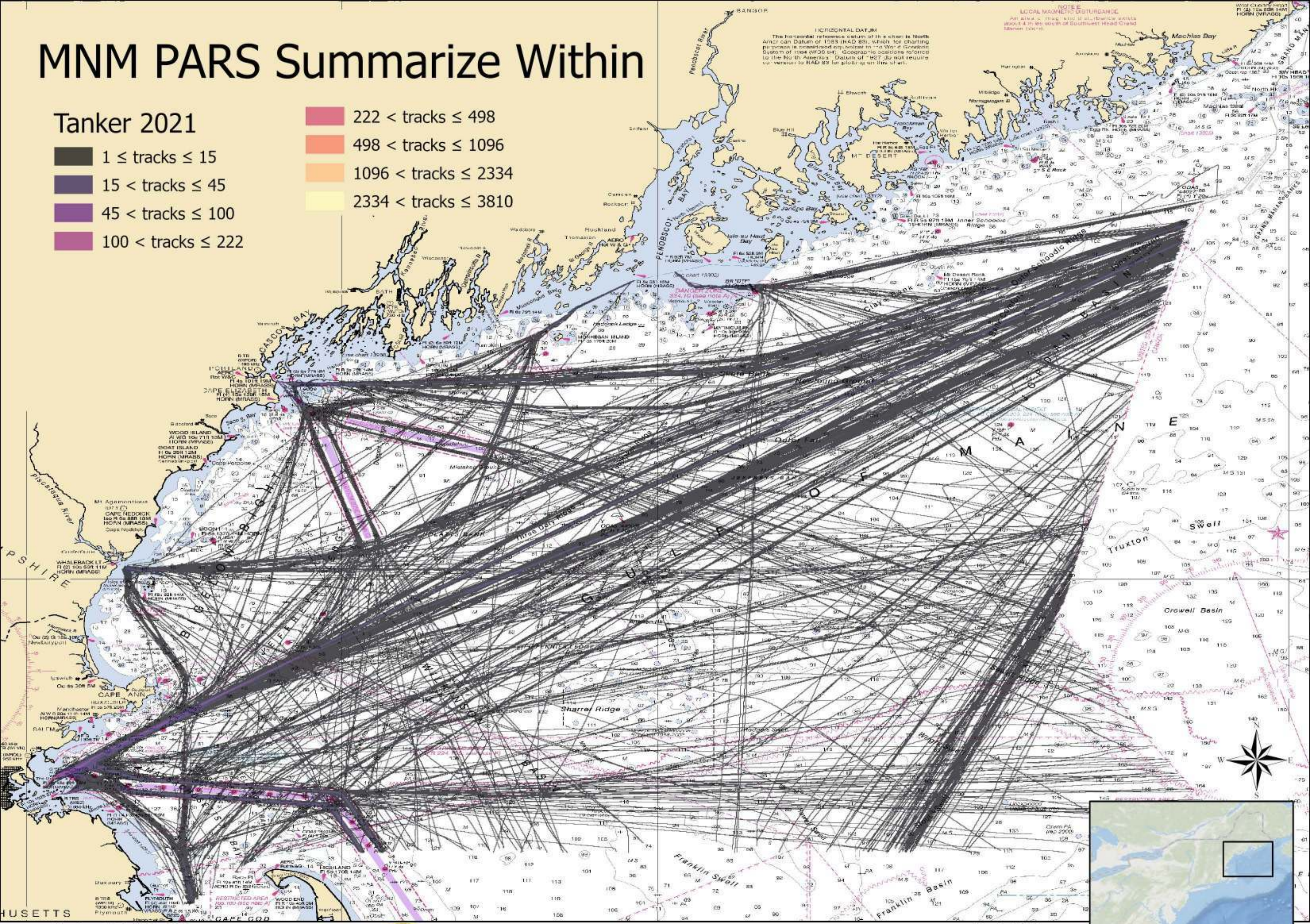
0 5 10 20 30 40 Nautical Miles

Last Update: 9/23/2022 8:46 AM

Prepared by the USCG NAVCEN
Data Source: NAIS

Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

MNM PARS Summarize Within



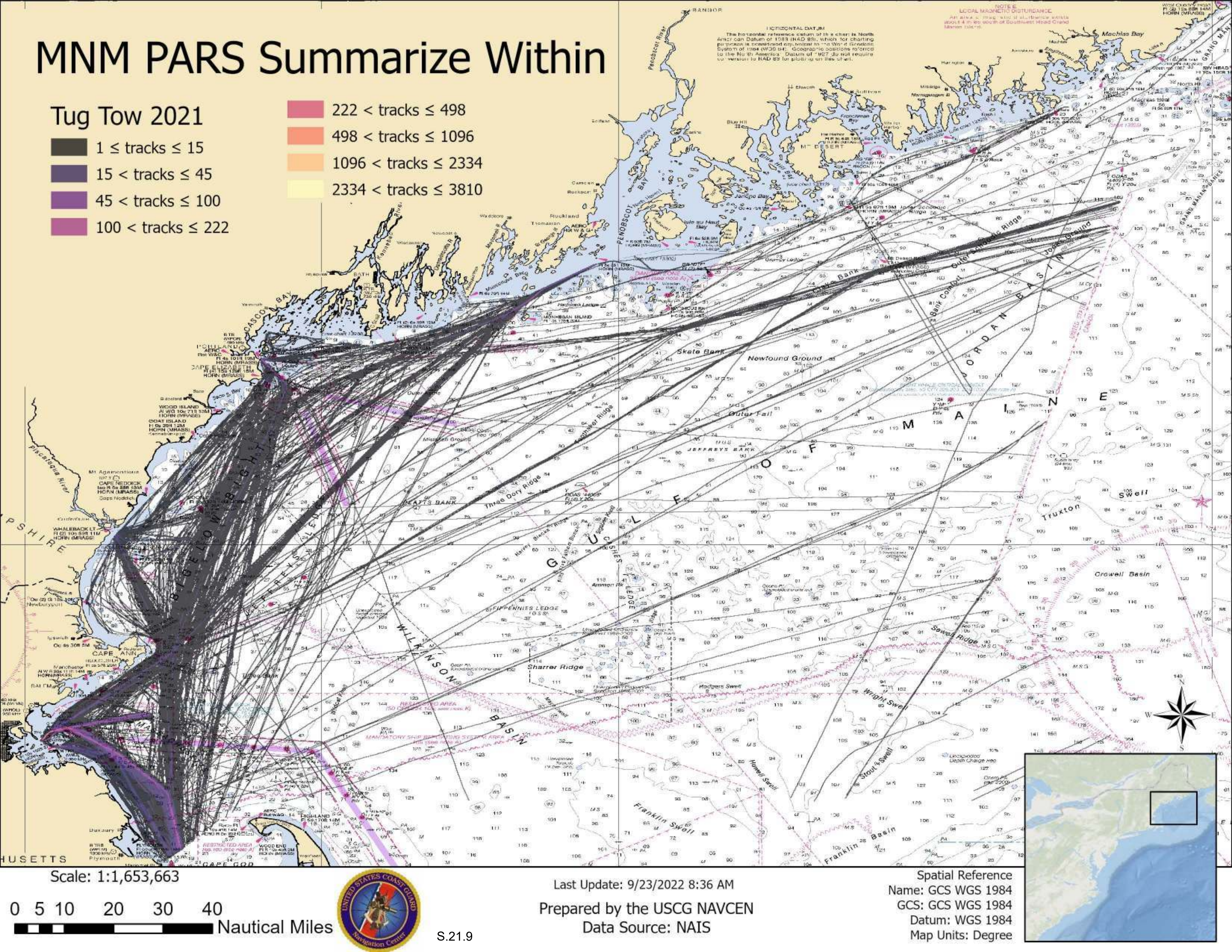
Scale: 1:1,653,663

0 5 10 20 30 40 Nautical Miles

Last Update: 9/23/2022 8:40 AM

Prepared by the USCG NAVCEN
Data Source: NAIS

Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree


MNM PARS Summarize Within
Tug Tow 2021
1 ≤ tracks ≤ 15
15 < tracks ≤ 45
45 < tracks ≤ 100
100 < tracks ≤ 222
222 < tracks ≤ 498
498 < tracks ≤ 1096
1096 < tracks ≤ 2334
2334 < tracks ≤ 3810
GULF OF MAINE
Scale: 1:1,653,663
0 5 10 20 30 40
Nautical Miles
Last Update: 9/23/2022 8:36 AM
Prepared by the USCG NAVCEN
Data Source: NAIS
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Attachment 4 - NOAA Fisheries Vessel Monitoring System Data Summary

Contents

Figures

Tables

Introduction and Background

This attachment to the "Enclosure 1 to the Port Access Route Study: Approaches to Maine, New Hampshire, and Massachusetts – Vessel Traffic Summary" contains an overview of fishing vessel traffic using Vessel Monitoring System (VMS) data. These data are collected and maintained by National Oceanic and Atmospheric Administration (NOAA) Fisheries. The sharing and use of these data satisfies the criteria of section 1881a(b)(1)(H) of the Magnuson-Stevens Fisheries Management and Conservation Act.

50 CFR § Part 648 details the VMS complete requirements for fishing vessels in the Northeast United States. Generally, fishing vessels in the northeast of the United States are required to carry a VMS if they are permitted to engage in the following fisheries: scallop, monkfish, surfclam, ocean quahog, herring, mackerel, and longfin squid, among others. Vessels must transmit at least once per hour, or at least twice per hour for scallopers.

Data, Software, and Methodology

VMS data from NOAA from 2012 to 2021 was obtained for the MNM PARS study area (as defined in the Federal Register, Agency Docket Number USCG-2022-0047) for this report.

Vessel Tracks and Unique Vessels

Vessel tracks were created in ArcGIS using VMS data points and time stamps. The documentation number for the vessel was used as the unique vessel identifier. A time split of three hours was used for these tracks. If no point was recorded for over three hours of the previous point, the track was ended. Each unique documentation number was tallied to determine the number of unique vessels in the dataset.

Vessel Traffic Densities

Traffic densities were created using ArcGIS's line density function. Densities are calculated by enumerating the length of transits per square mile ($\frac{\text{Miles transited(year)}}{mile^2}$) and are represented on a black, purple, orange, to yellow scale with black as lowest density and yellow as highest. These calculations are carried out independently for each traffic density, thus each density is shown on a different scale that best represents the data in each case.

Additionally, visualizations similar in appearance to the traffic densities were created using ArcGIS's summarize within (geo-analytics) function. The tool enumerates track lines that pass through 200 square meter bins throughout the specified area. Each bin is then displayed on a graduated color scale depending on the number of crossings recorded for that bin. The color scale is black, purple, orange, to yellow with black as the lowest count and yellow as the highest count. The scale selected for each graphic is based on the year of data with the most transits, for all vessels. This scale is kept consistent between all graphics, therefore, these graphics can be directly compared to one another.

Overall Traffic Patterns

The overall traffic patterns section of this addendum contains a numerical breakdown of vessel tracks by year, as well as a count of unique vessels.

Activity Declaration Codes

Vessels using VMS transmit an Activity Declaration Code which provides information about general areas the vessel intends to fish, type of gear, and type of species intended for the catch. Each Activity Declaration Code contains 7 components: CCC-PPP-AADGTB. The name of each component is included in Table 1. Each vessel track has an associated declaration code.

Component	Name
CCC	Plan Code
PPP	Program Code
AA	Area Identifier
D	Days-at-Sea Code
G	Gear Type
T	Trip Modifier
B	Broad Stock Area

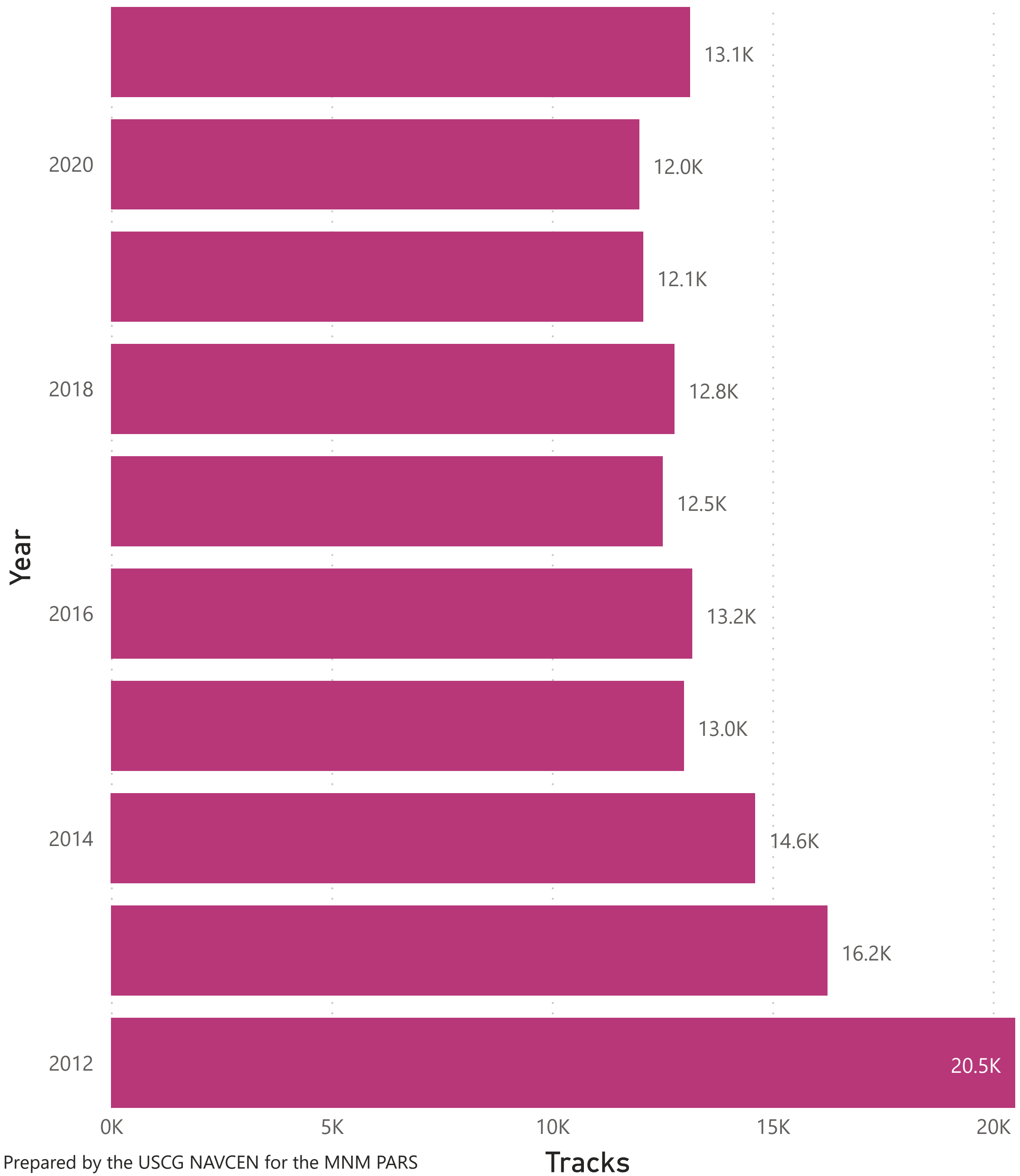
Table 1: Activity Declaration Code Components

Using the plan code component, traffic visualizations were created for vessels with the code Declare Out of Fishery (DOF). The gear types for the DOF tracks were also tallied and presented in bar charts.

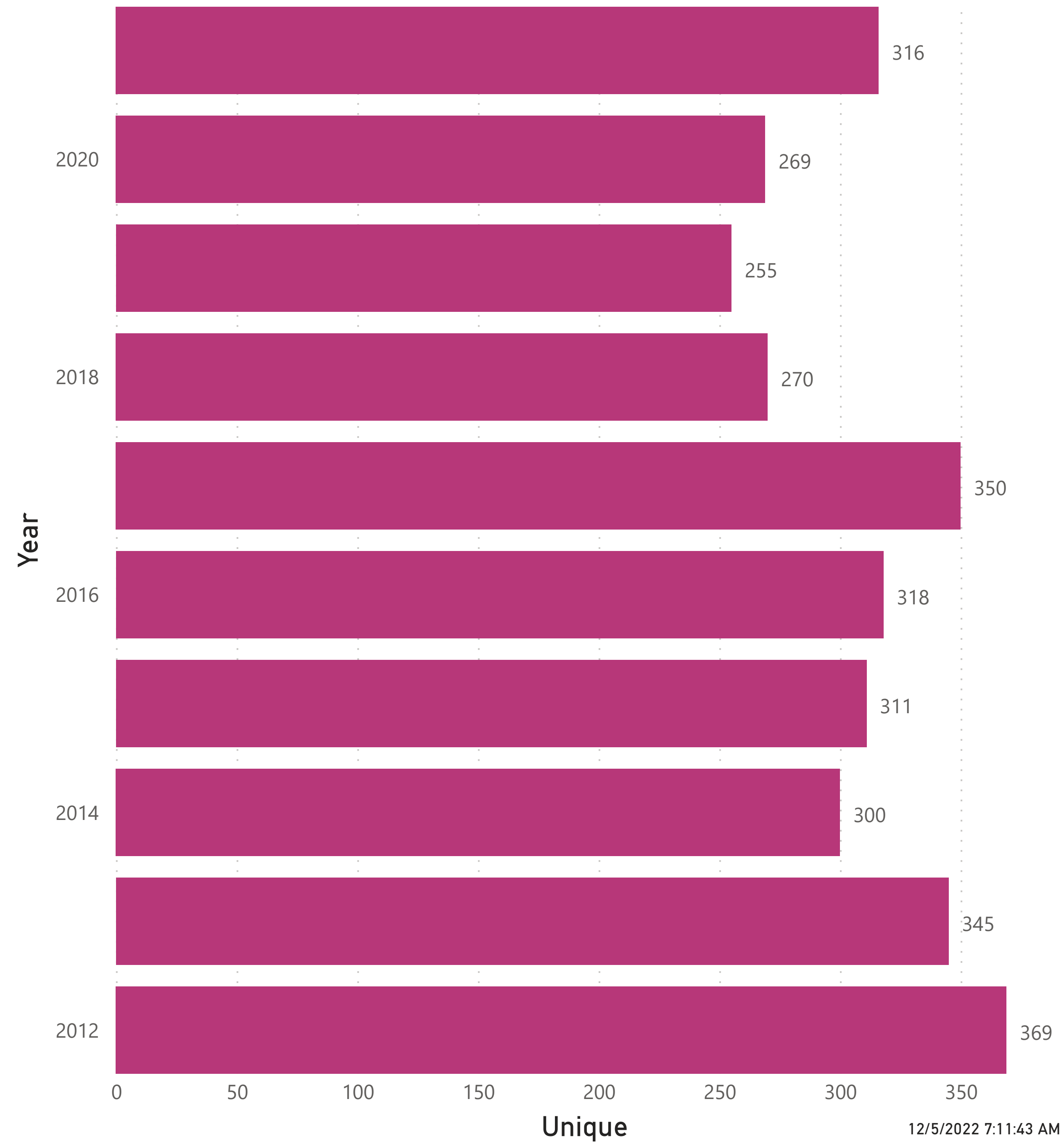
Overall Traffic Patterns

The number of tracks found between 2012 and 2021 in the data set were mostly consistent over time, as seen in Figure 1. More tracks were observed in 2012, although the number of unique vessels in 2012 was only slightly higher than the next closest year (2017).

Number of VMS Vessel Tracks by Year



Number of Unique VMS Vessels by Year



Prepared by the USCG NAVCEN for the MNM PARS

12/5/2022 7:11:43 AM

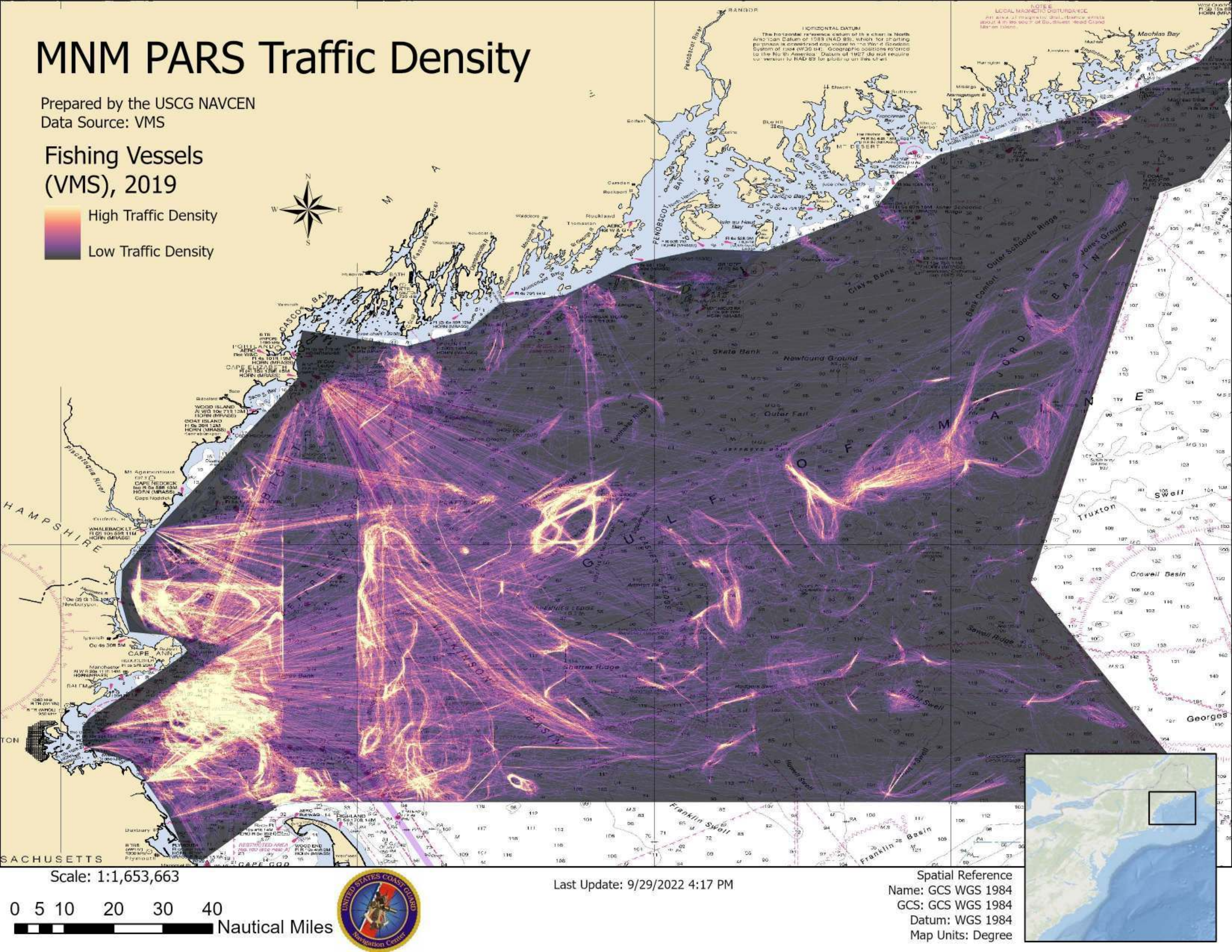
Comparing VMS and AIS Fishing Vessel Traffic

Comparing the traffic densities produced using AIS and VMS data show similar traffic patterns. The VMS vessel traffic densities and summarize within graphics for 2019-2021 are included in the following pages, 7-12.

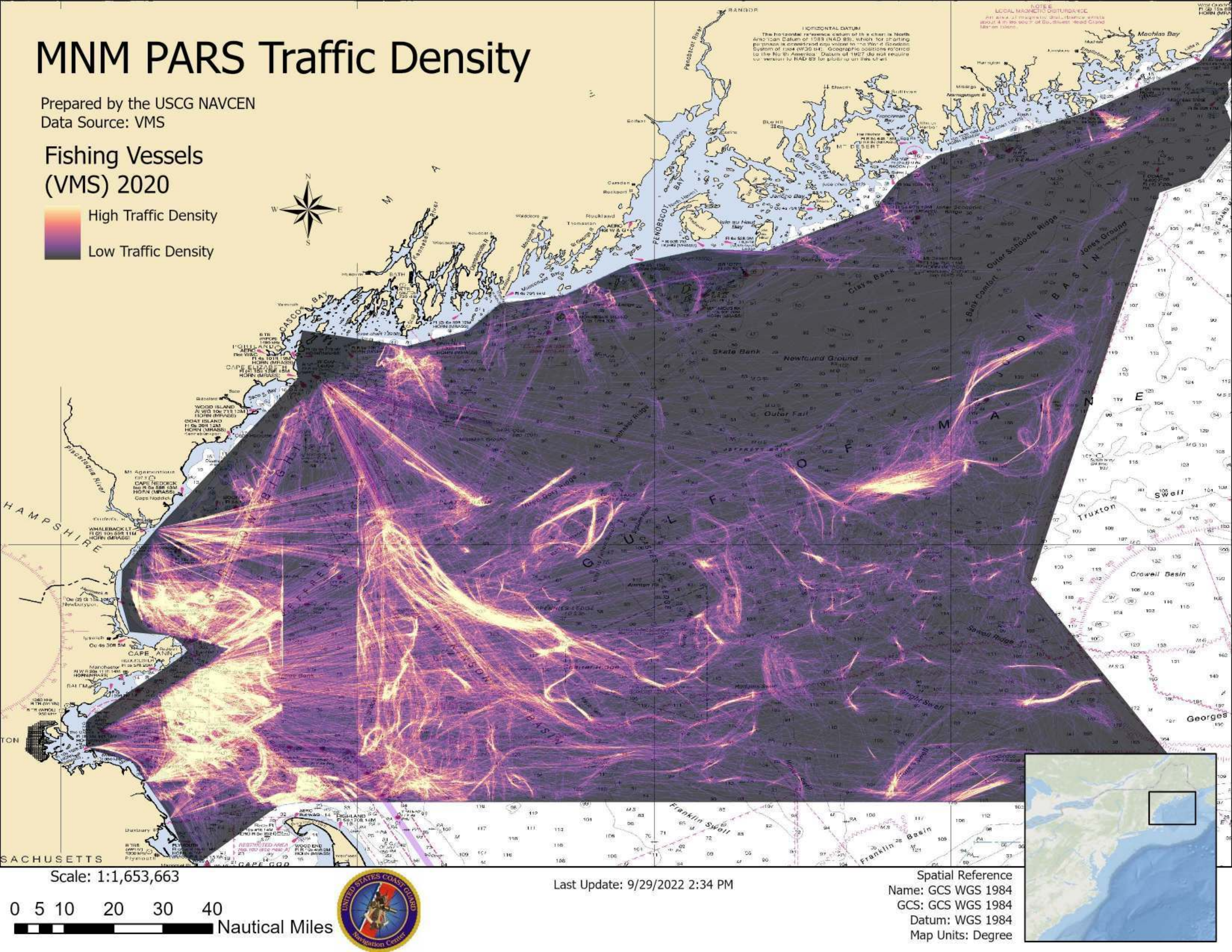
There are fishing vessels that transmit both on VMS and AIS. However, these data lacked a standard vessel identifier to use to determine the overlap between the unique vessels found in the datasets. Therefore, it is assumed that some vessels are double counted between AIS and VMS, but the exact overlap is unknown. Additionally, transmission and carriage requirements are significantly different for AIS and VMS. Therefore, number of track lines should not be directly compared between AIS and VMS since it is not a like-to-like comparison.

Activity Declaration Codes

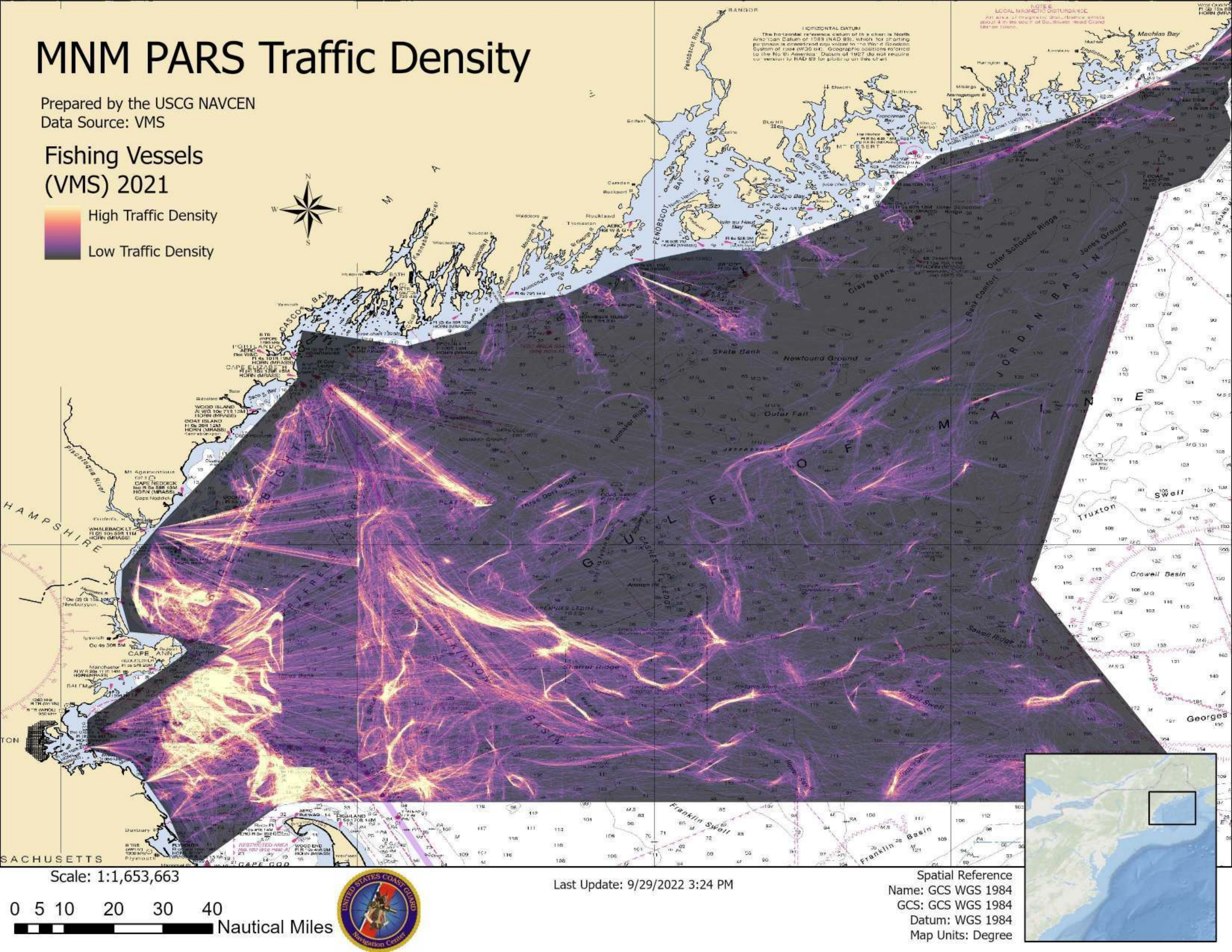
Visualizations of vessels with the code DOF are included in this section. For the track lines with this plan code, the breakdown of the gear types associated with each of these track lines were also tallied and presented in a bar charts. These graphics are included in pages 13-15.



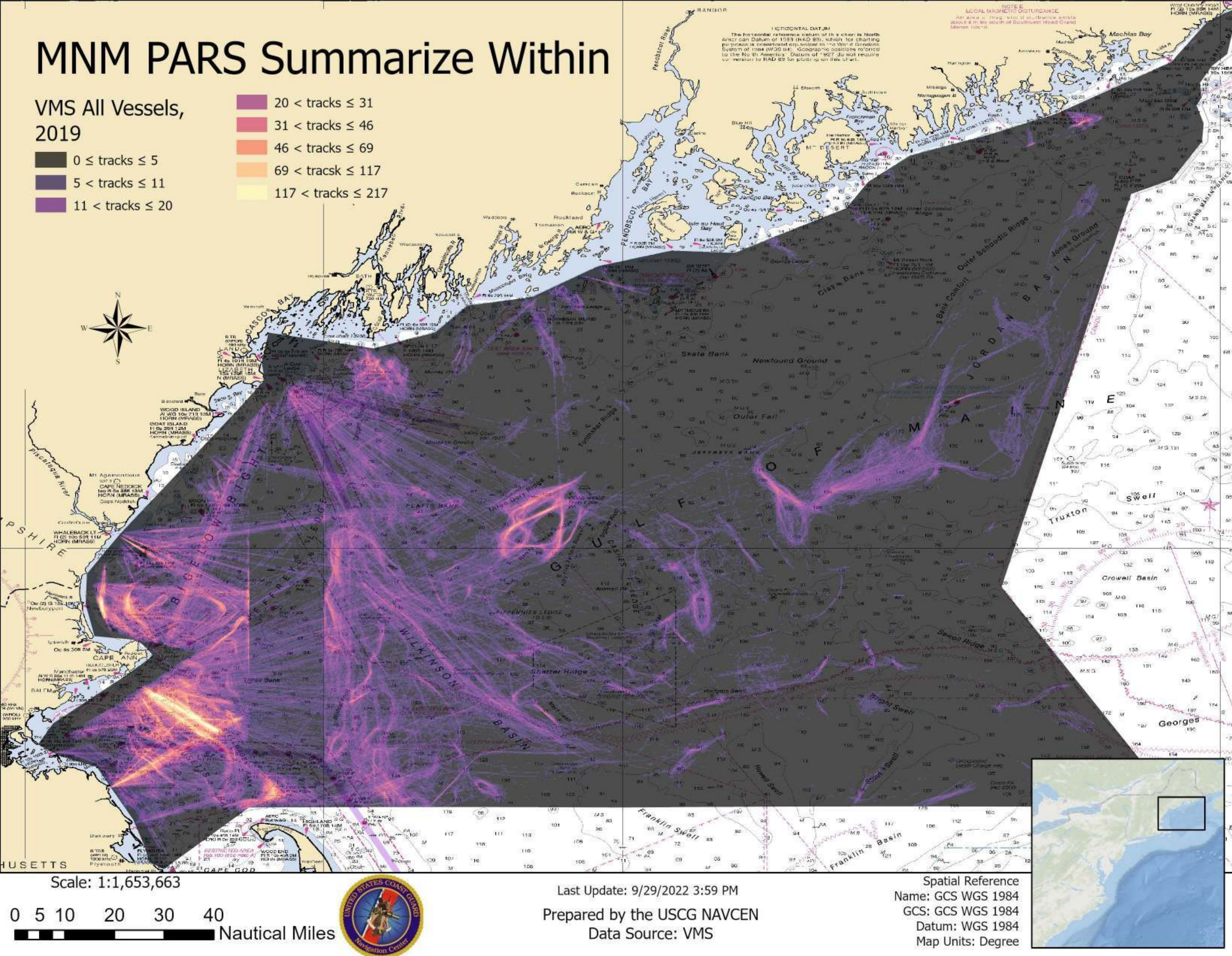
MNM PARS Traffic Density
Prepared by the USCG NAVCEN
Data Source: VMS
Fishing Vessels
(VMS), 2019
High Traffic Density
Low Traffic Density
N
E
S
W
HAMPSHIRE
SACHUSETTS
GULF OF MAINE
JORDAN BASIN
WILKINSON BASIN
Franklin Swell
Franklin Basin
Crowell Basin
Truxton Swell
Georges
Skate Bank
Newfound Ground
Outer Fall
Clay Bank
Outer Schoodic Ridge
Jones Ground
Sewell Ridge
Scale: 1:1,653,663
0 5 10 20 30 40
Nautical Miles
UNITED STATES COAST GUARD
Navigation Center
Last Update: 9/29/2022 4:17 PM
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree



MNM PARS Traffic Density
Prepared by the USCG NAVCEN
Data Source: VMS
Fishing Vessels
(VMS) 2020
High Traffic Density
Low Traffic Density
GULF OF MAINE
JORDAN BASIN
Skate Bank
Newfound Ground
Outer Fall
Clays Bank
Outer Schoodic Ridge
Jones Ground
Truxton
Swell
Crowell Basin
Franklin Swell
Franklin Basin
Georges
HAMPSHIRE
SACHUSETTS
CAPE ANN
CASCO BAY
PENOBSCOT BAY
Machias Bay
Scale: 1:1,653,663
0 5 10 20 30 40
Nautical Miles
UNITED STATES COAST GUARD
Navigation Center
Last Update: 9/29/2022 2:34 PM
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree


MNM PARS Traffic Density
Prepared by the USCG NAVCEN
Data Source: VMS
Fishing Vessels
(VMS) 2021
High Traffic Density
Low Traffic Density
GULF OF MAINE
JORDAN BASIN
WILKINSON BASIN
Skate Bank
Newfound Ground
Outer Fall
Clay Bank
Outer Schoodic Ridge
Jones Ground
Truxton Swell
Crowell Basin
Georges
Franklin Swell
Franklin Basin
Machias Bay
HAMPSHIRE
SACHUSETTS
CAPE COD
CAPE ANN
CASCO BAY
PENOBSCOT BAY
Scale: 1:1,653,663
0 5 10 20 30 40
Nautical Miles
UNITED STATES COAST GUARD
Navigation Center
Last Update: 9/29/2022 3:24 PM
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

MNM PARS Summarize Within



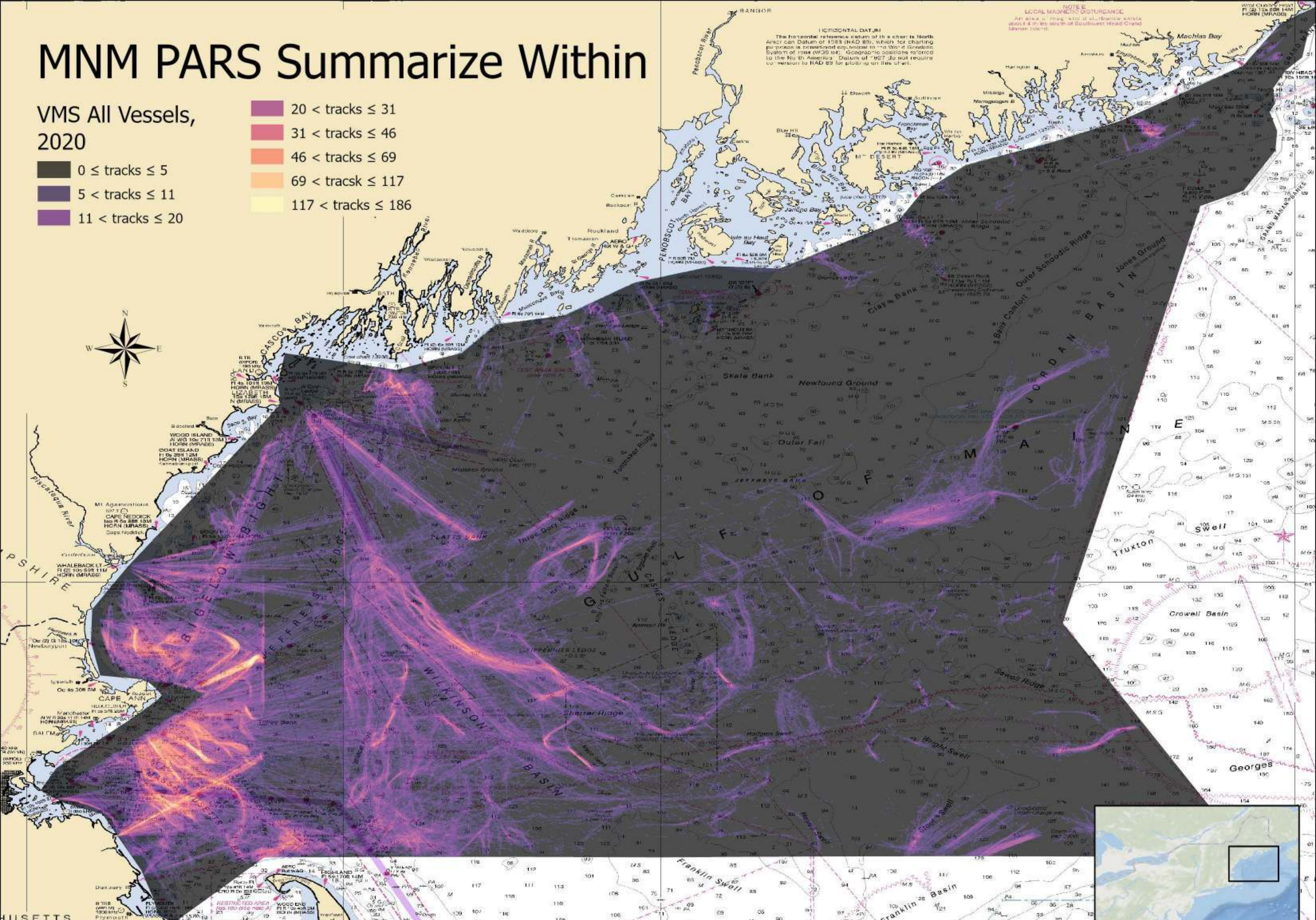
Scale: 1:1,653,663

0 5 10 20 30 40 Nautical Miles

Last Update: 9/29/2022 3:59 PM

Prepared by the USCG NAVCEN
Data Source: VMS

Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree



Scale: 1:1,653,663

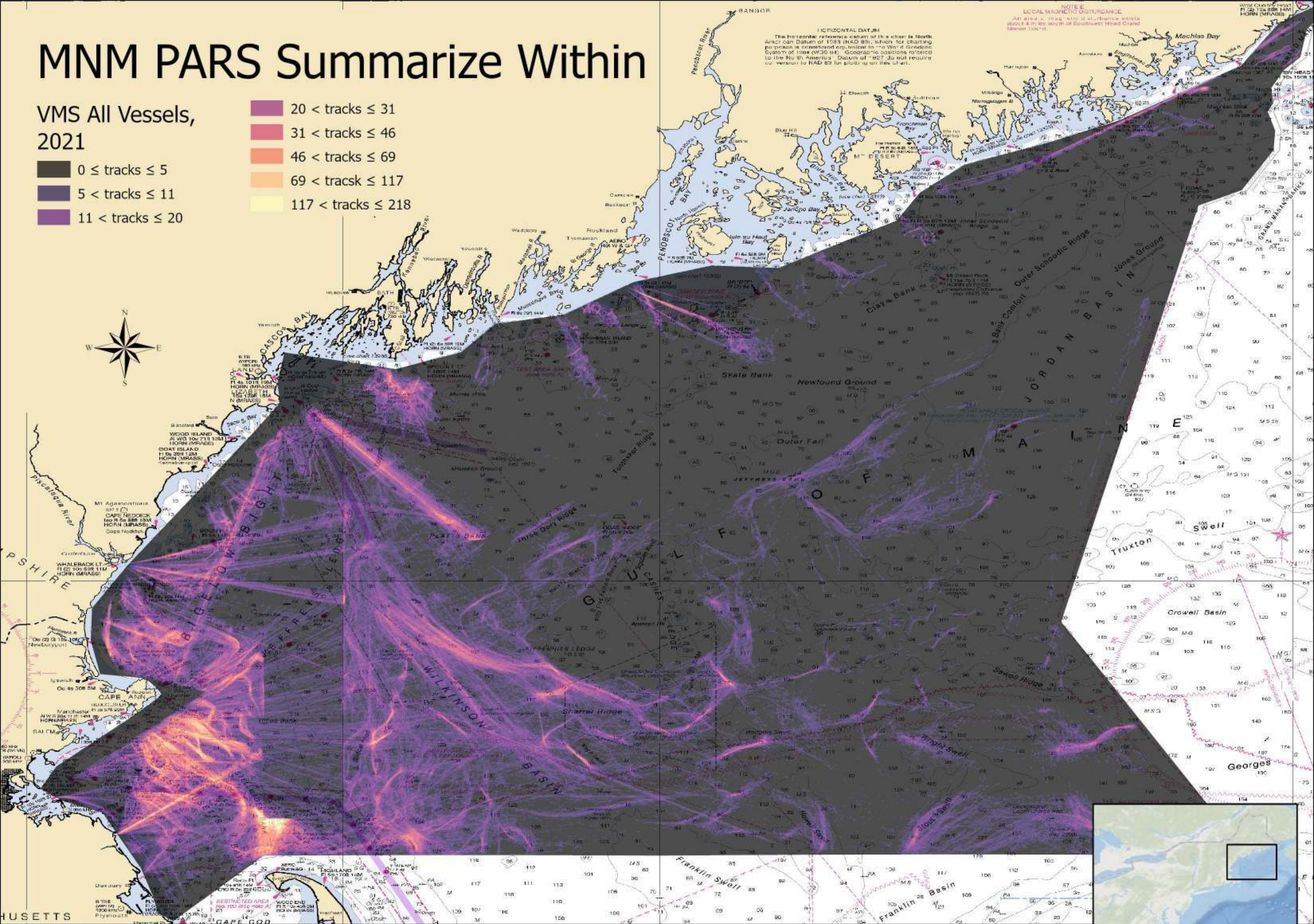
0 5 10 20 30 40 Nautical Miles

Last Update: 9/29/2022 3:53 PM

Prepared by the USCG NAVCEN
Data Source: VMS

Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

MNM PARS Summarize Within



Scale: 1:1,653,663

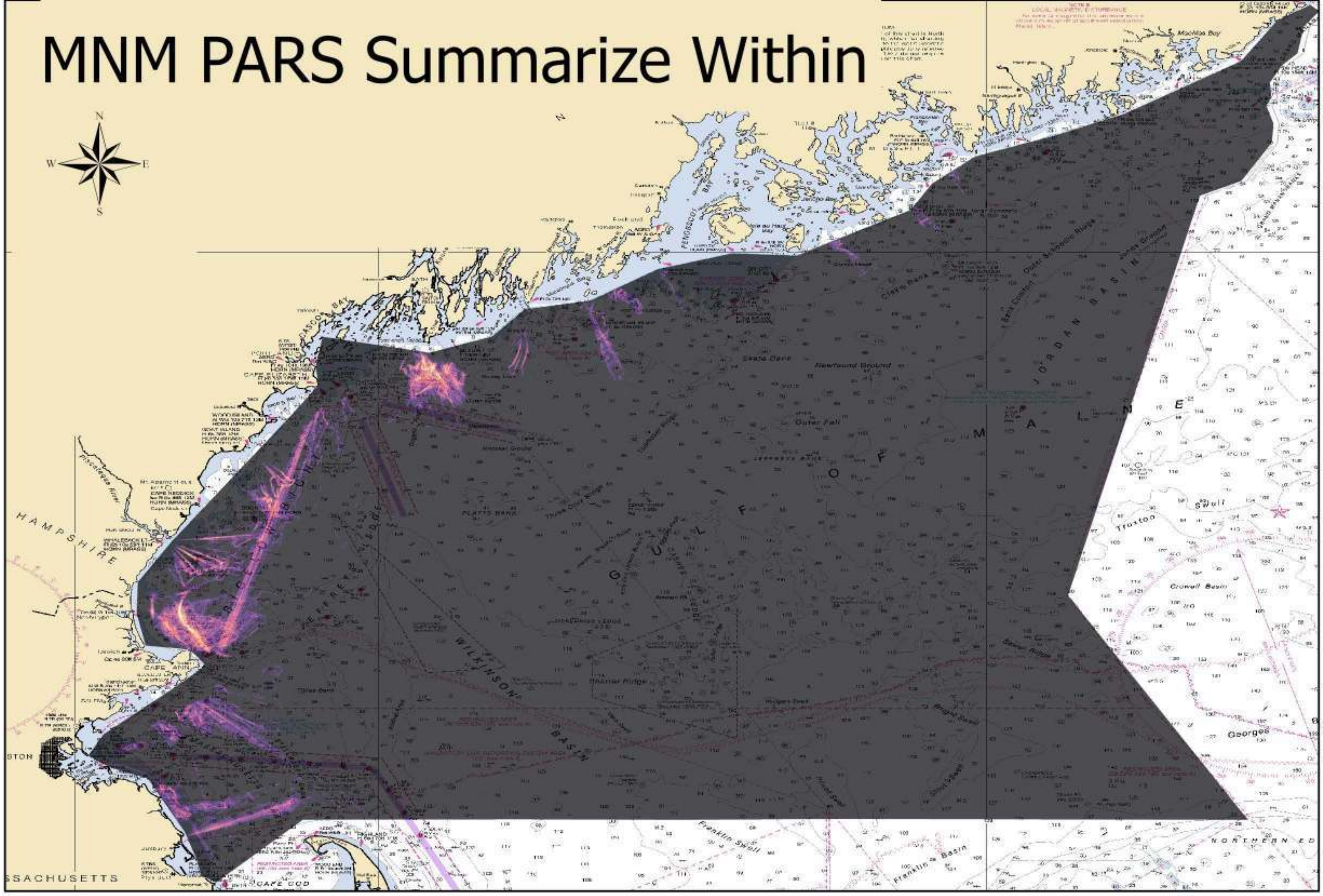
0 5 10 20 30 40
Nautical Miles

Last Update: 9/29/2022 4:04 PM

Prepared by the USCG NAVCEN
Data Source: VMS

Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

MNM PARS Summarize Within



VMS Declare Out of Fishery, 2019

- 0 ≤ tracks ≤ 5
- 5 < tracks ≤ 10
- 10 < tracks ≤ 15
- 15 < tracks ≤ 25
- 25 < tracks ≤ 40
- 40 < tracks ≤ 62

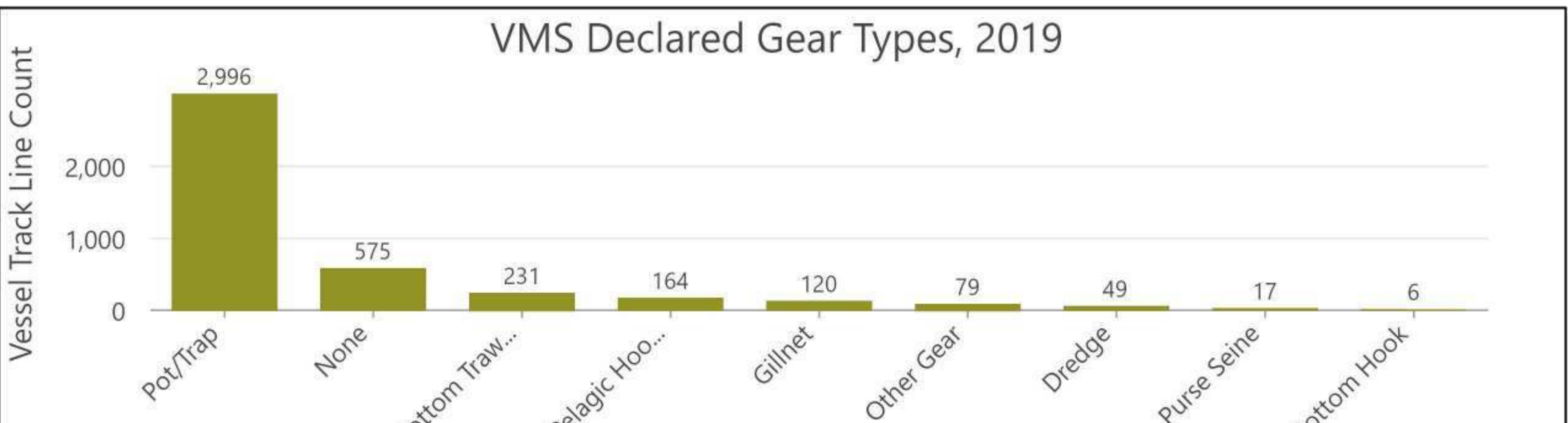
Last Update: 9/29/2022 6:12 PM

Prepared by the USCG NAVCEN
Data Source: VMS

Scale: 1:2,336,379

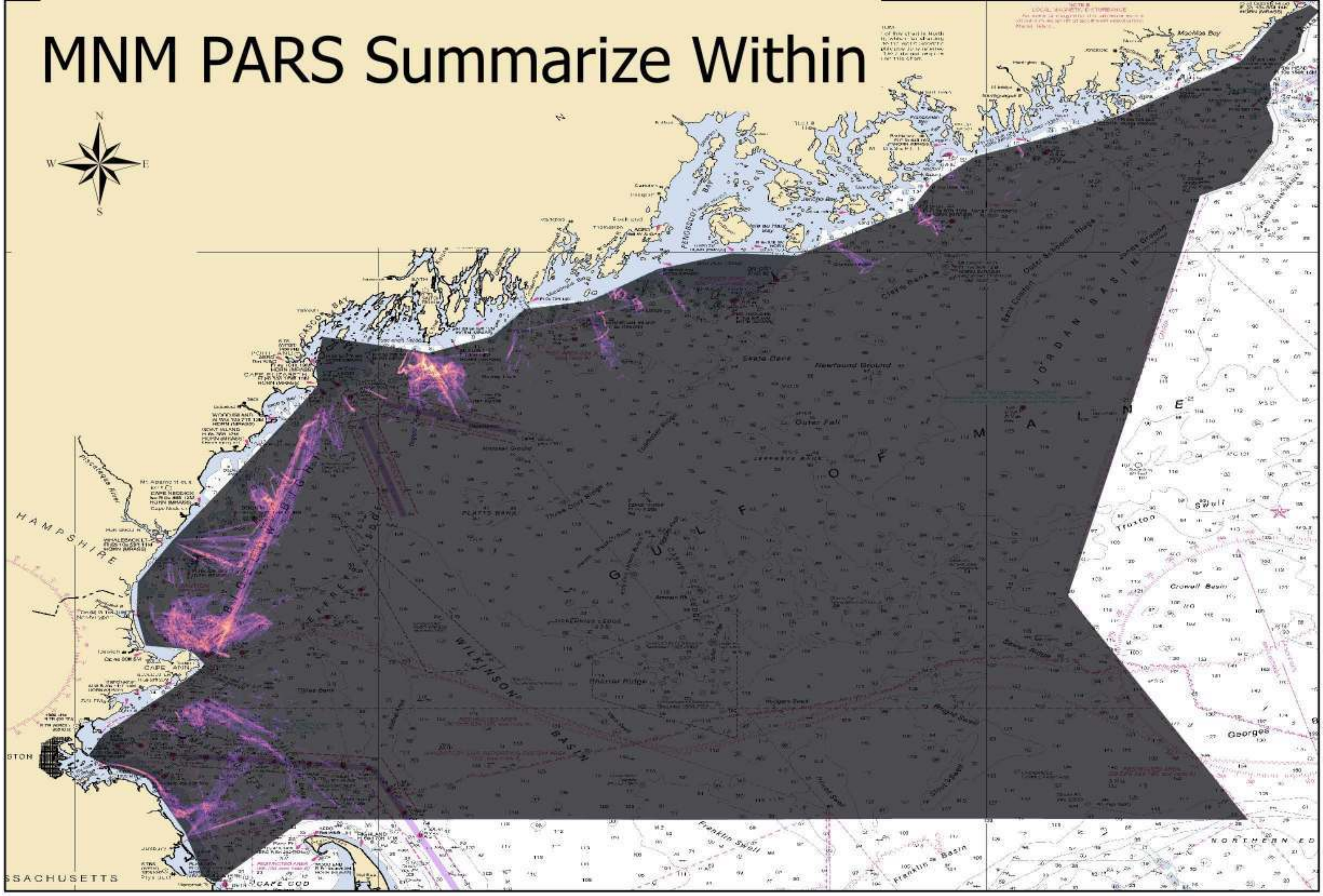
0 12.5 25 50 75 100 Nautical Miles

Spatial Reference
Name: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree



Gear types are for vessels with plan code "Declare out of fishery" in the subject year.

MNM PARS Summarize Within



VMS Declare Out of Fishery, 2020

- 0 ≤ tracks ≤ 5
- 5 < tracks ≤ 10
- 10 < tracks ≤ 15
- 15 < tracks ≤ 25
- 25 < tracks ≤ 40
- 40 < tracks ≤ 71

Last Update: 9/29/2022 6:07 PM

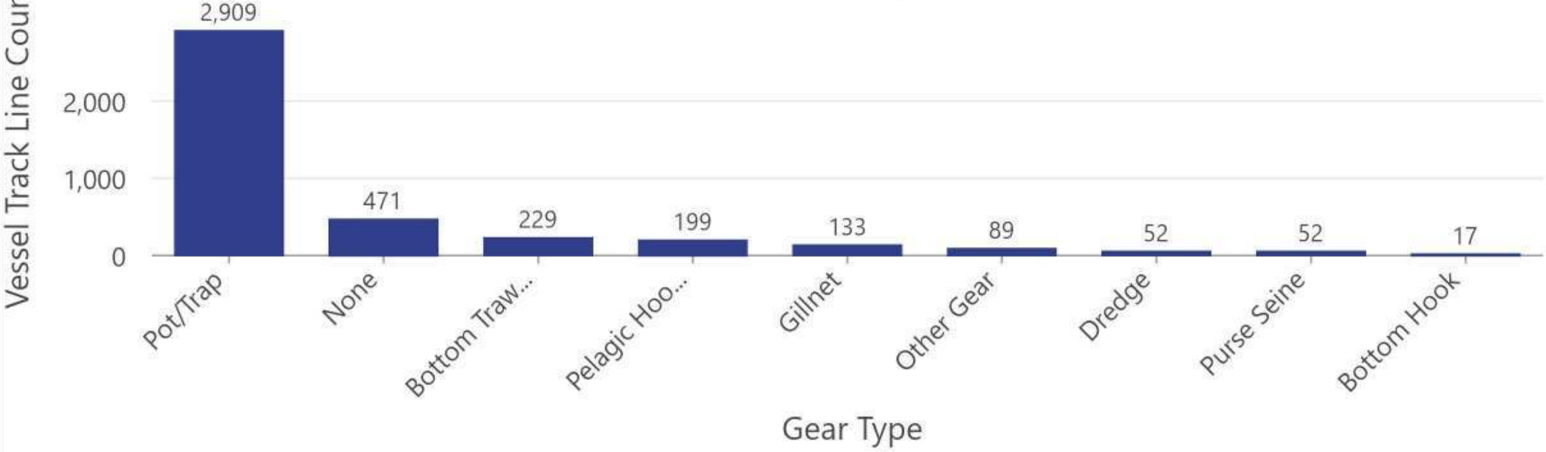
Prepared by the USCG NAVCEN
Data Source: VMS

Scale: 1:2,336,379

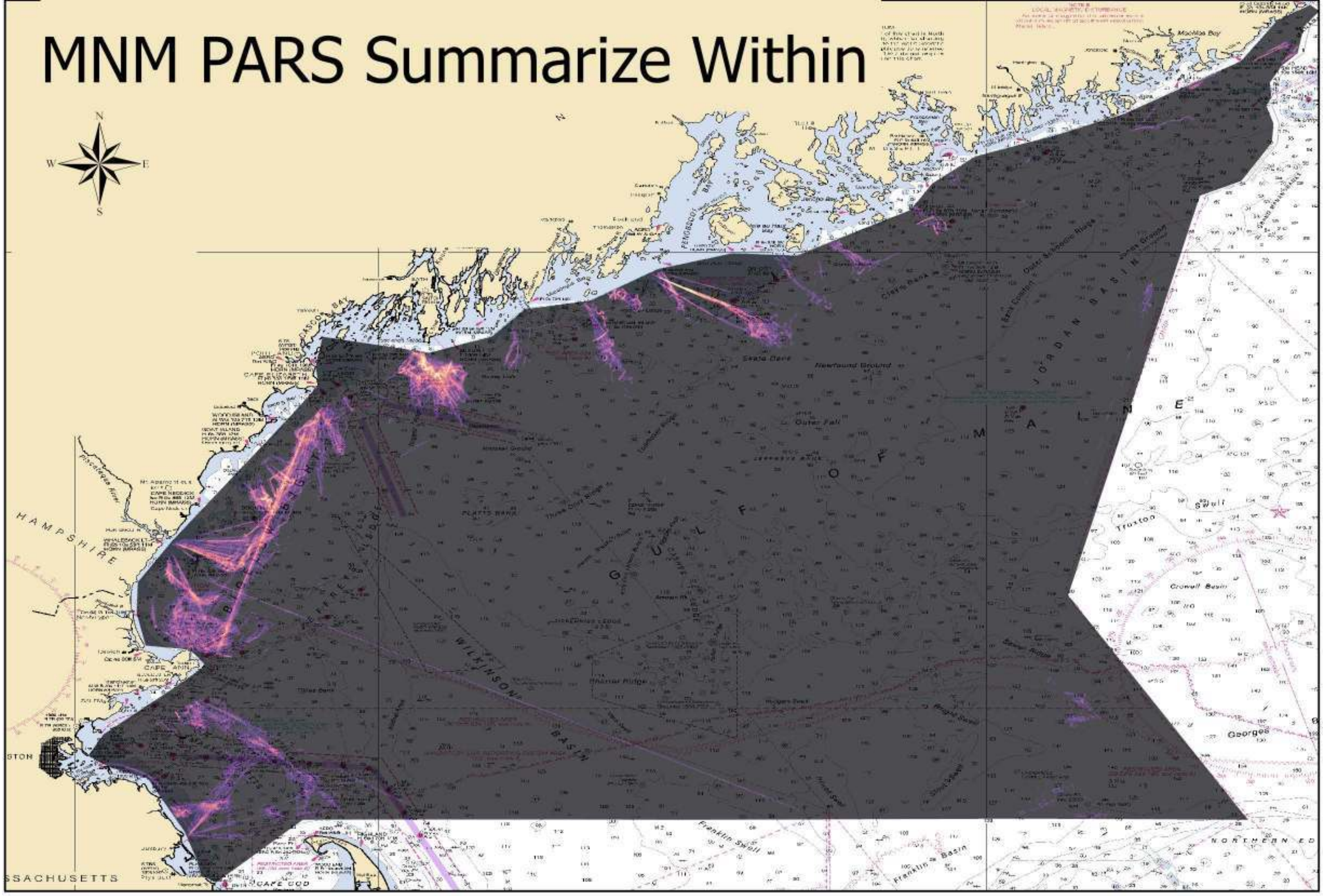
0 12.5 25 50 75 100 Nautical Miles

Spatial Reference
Name: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

VMS Declared Gear Types, 2020



Gear types are for vessels with plan code "Declare out of fishery" in the subject year.



VMS Declare Out of Fishery, 2021

- 0 ≤ tracks ≤ 5
- 5 < tracks ≤ 10
- 10 < tracks ≤ 15
- 15 < tracks ≤ 25
- 25 < tracks ≤ 40
- 40 < tracks ≤ 97

Last Update: 9/29/2022 5:41 PM

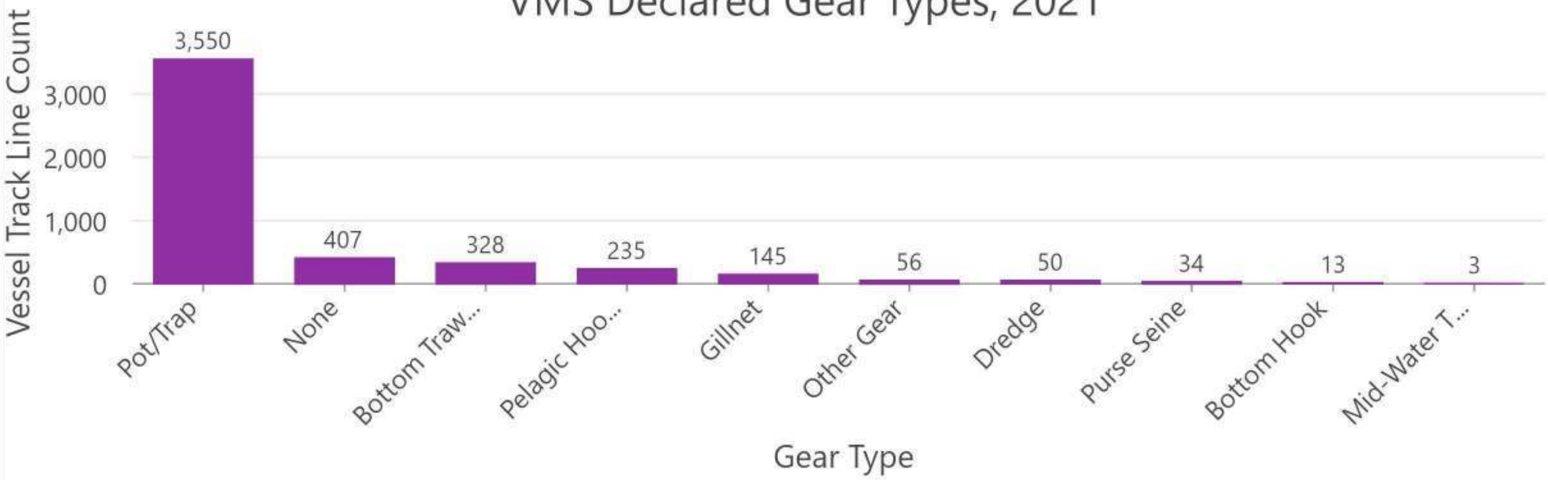
Prepared by the USCG NAVCEN
Data Source: VMS

Scale: 1:2,336,379

0 12.5 25 50 75 100 Nautical Miles

Spatial Reference
Name: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

VMS Declared Gear Types, 2021



Gear types are for vessels with plan code "Declare out of fishery" in the subject year.

ENCLOSURE 2

Federal Register Notice
(87 FR 18800)

below the poverty level, belonging to a racial or ethnic minority group, and/or having a disability.

Descriptions of previous National Surveys of OAA Participants can be found under the section on OAA Performance Information on ACL's website at: *https://acl.gov/programs/performance-older-americans-act-programs.* Copies of the survey instruments and data from previous National Surveys of OAA Participants can be found and queried using the Aging, Independence, and Disability (AGID) Program Data Portal at *http://www.agid.acl.gov/.*

Estimated Program Burden: ACL estimates the burden associated with this collection of information as follows:

Respondent/data collection activity	Number of respondents	Responses per respondent	Hours per response	Annual burden hours	Cost per hour	Annual burden (cost)
Rotating Module on Emergency Preparedness	6,000	1	.2	1,200	$25	$30,000

Dated: March 25, 2022.

Alison Barkoff,

Acting Administrator and Assistant Secretary for Aging.

[FR Doc. 2022–06783 Filed 3–30–22; 8:45 am]

BILLING CODE 4154–01–P

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

[Docket No. USCG–2022–0047]

Port Access Route Study: Approaches to Maine, New Hampshire, and Massachusetts

AGENCY: Coast Guard, DHS.

ACTION: Notice of study; request for comments.

SUMMARY: The Coast Guard is conducting a Port Access Route Study (PARS) to evaluate the adequacy of existing vessel routing measures and determine whether additional vessel routing measures are necessary for port approaches to Maine, New Hampshire, Massachusetts, and international and domestic transit areas in the First Coast Guard District area of responsibility (AOR). The Approaches to Maine, New Hampshire, and Massachusetts PARS (MNMPARS) will 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, changing vessel traffic patterns, weather conditions, or navigational difficulty. Vessel routing measures, which include traffic separation schemes, two-way routes, recommended tracks, deep-water routes, precautionary areas, and areas to be avoided, are implemented to reduce risk of marine casualties. The recommendations of the study may subsequently be implemented through rulemakings or in accordance with international agreements.

DATES: All comments and related material must be received on or before May 16, 2022. Commenters should be aware that the electronic Federal Docket Management System will not accept comments after midnight, Eastern Daylight Time, on the last day of the comment period.

ADDRESSES: You may submit comments identified by docket number USCG–2022–0047 using the Federal eRulemaking Portal (*http://www.regulations.gov*). See the ''Public Participation and Request for Comments'' portion of the **SUPPLEMENTARY INFORMATION** section for further instructions on submitting comments.

FOR FURTHER INFORMATION CONTACT: If you have questions about this notice of study, call or email LTJG Thomas Davis, First Coast Guard District (dpw), U.S. Coast Guard: telephone (617) 223–8632, email *SMB-D1Boston-MNMPARS@uscg.mil.*

SUPPLEMENTARY INFORMATION:

I. Table of Abbreviations

ACPARS Atlantic Coast Port Access Route Study
AIS Automatic Identification System
COMDTINST Commandant Instruction
DHS Department of Homeland Security
EEZ Exclusive Economic Zone
MNMPARS Approaches to Maine, New Hampshire, and Massachusetts Port Access Route Study
MTS Marine Transportation System
PARS Port Access Route Study
TSS Traffic Separation Scheme
USCG United States Coast Guard

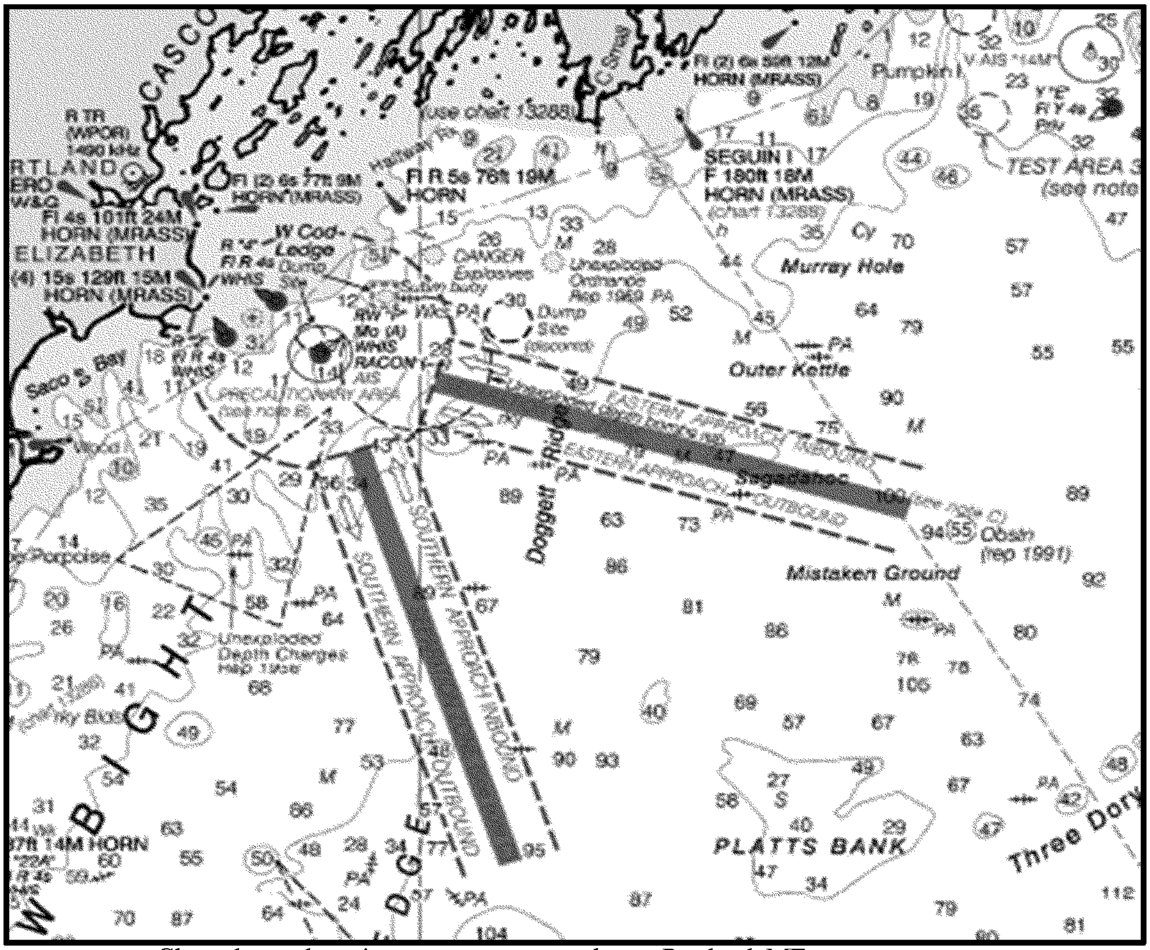
II. Background and Purpose

A. *Requirements for Port Access Route Studies:* Under Section 70003 of Title 46 of the United States Code, the Commandant of the U.S. Coast Guard may designate necessary fairways and traffic separation schemes (TSSs) to provide safe access routes for vessels proceeding to and from U.S. ports. The designation of fairways and TSSs recognizes the paramount right of navigation over all other uses in the designated areas.

Before establishing or adjusting fairways or TSSs, the Coast Guard must conduct a PARS, *i.e.,* a study of potential traffic density and the need for safe access routes for vessels. Through the study process, the Coast Guard must coordinate with federal, state, tribal, and foreign state agencies (where appropriate) and consider the views of maritime community representatives, environmental groups, and other stakeholders. The primary purpose of this coordination is, to the extent practicable, to reconcile the need for safe access routes with other reasonable waterway uses such as anchorages, construction, operation of renewable energy facilities, marine sanctuary operations, commercial and recreational activities, and other uses.

In addition to aiding in the establishment of new or adjusting existing fairways or TSSs, this PARS may recommend establishing or amending other vessel routing measures. Examples of other routing measures include two-way routes, recommended tracks, deep-water routes (for the benefit primarily of ships whose ability to maneuver is constrained by their draft), precautionary areas (where ships must navigate with particular caution), and areas to be avoided (for reasons of exceptional danger or especially sensitive ecological environmental factors).

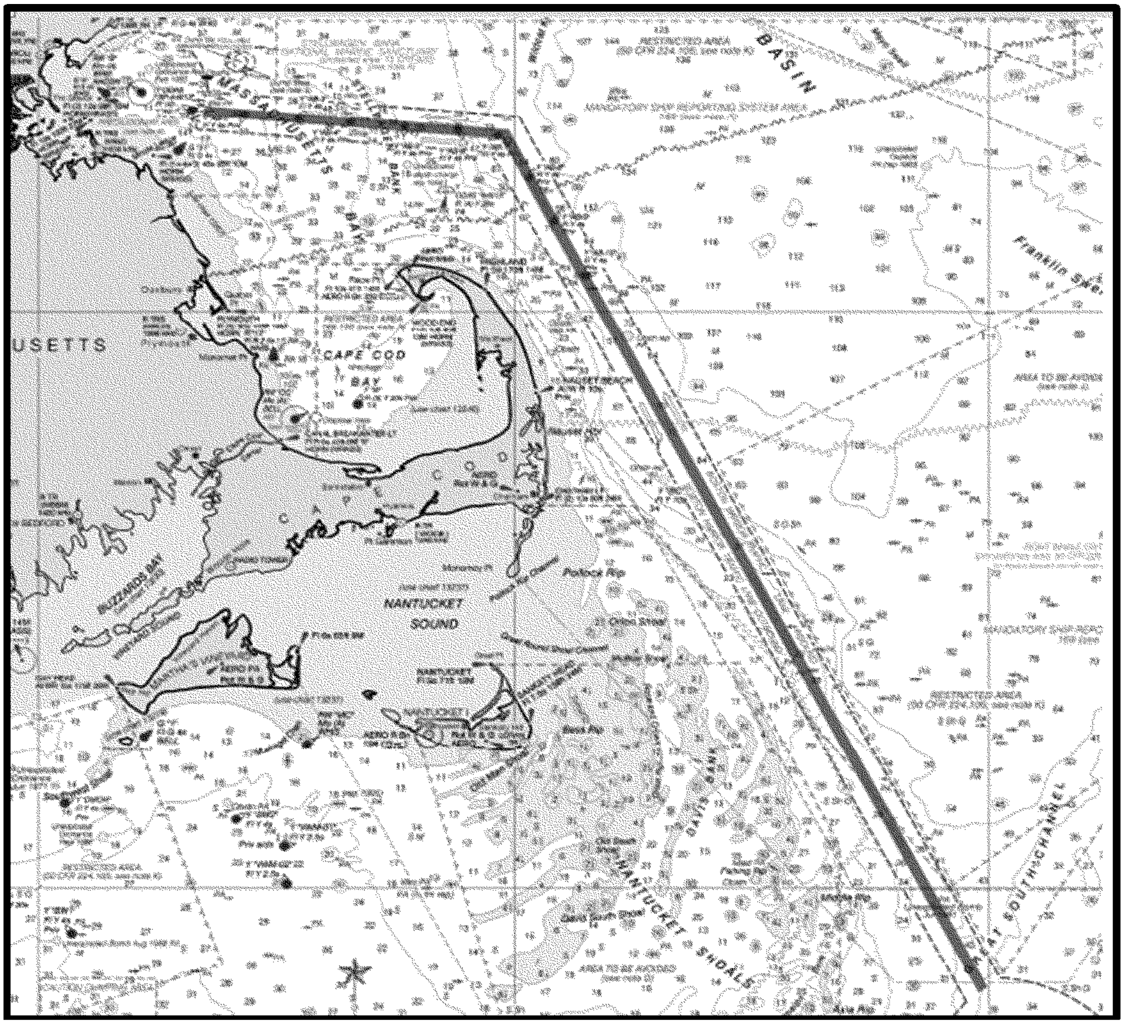
BILLING CODE 9110–04–P



Charted vessel routing measures approaches to Portland, ME.

B. *Previous Port Access Route Studies within this Study Area:* The Coast Guard established the TSS in the approaches to Portland, ME, in 1978. In 2005, the Coast Guard published a notice of study in the **Federal Register** (70 FR 7067; February 10, 2005) announcing a PARS to Evaluate the Vessel Routing Measures in the Approaches to Portland, ME, and Casco Bay, ME. The PARS was completed in 2006 and concluded that no amendment to the TSS was needed.

The TSS in the approach to Boston, MA was established in 1973 and was amended in 1983, 2007, and 2009. In 2005, the Coast Guard announced in the **Federal Register** (70 FR 8312; February 18, 2005) a PARS of Potential Vessel Routing Measures to Reduce Vessel Strikes of North Atlantic Right Whales. The completed PARS was published in the **Federal Register** (71 FR 29876; May 24, 2006) and recommended realigning and amending the location and size of the western portion of the TSS in the approach to Boston, MA. The TSS was revised in 2007 and the new configuration appeared on nautical charts soon thereafter.



Charted vessel routing measures approaches to Boston, MA.

BILLING CODE 9110–04–C

In 2016, the Coast Guard published a notice of its Atlantic Coast Port Access Route Study (ACPARS) in the **Federal Register** (81 FR 13307; March 14, 2016) and announced the study report as final in the **Federal Register** (82 FR 16510; April 5, 2017). The ACPARS analyzed the Atlantic Coast waters seaward of existing port approaches within the U.S. Exclusive Economic Zone (EEZ). Information provided by stakeholders and Automatic Identification System (AIS) vessel traffic data was used to identify and verify deep draft and coastwise navigation routes typically followed by ships engaged in commerce between international and domestic U.S. ports.

C. *Need for a New Port Access Route Study:* In 2019, the Coast Guard announced a new study of routes used by ships to access ports on the Atlantic Coast of the United States in the **Federal Register** (84 FR 9541; March 15, 2019). This study supplemented and built upon the ACPARS by conducting a series of PARSs to examine ports along the Atlantic Coast that are economically significant, that support military or critical national defense operations, and any related international entry and departure transit areas that are integral to the safe, efficient, and unimpeded flow of commerce to/from major international shipping lanes. The MNMPARS will be conducted in support of the ACPARS initiative.

III. Information Requested

The study area encompasses a very large region (20,500 square nautical miles), bounded by the states of Maine, New Hampshire, and Massachusetts, and the Canadian provinces of Nova Scotia and New Brunswick. The purpose of this notice is to announce commencement of this PARS to examine the First Coast Guard District's portion of the Gulf of Maine, the New Hampshire Seacoast, and the Massachusetts Bay, and to solicit public comments. We encourage you to participate in the study process by submitting comments in response to this notice. Comments should address impacts to navigation in the area of study resulting from factors such as offshore development, increased vessel traffic, changing vessel traffic patterns, weather conditions, or navigational difficulty.

IV. Public Participation and Request for Comments

We encourage you to participate in this study by submitting comments and related materials.

A. *Submitting Comments:* To submit your comment online, go to *http://www.regulations.gov,* and insert ''USCG–2022–0047'' in the ''search box.'' Click ''Search''. Then click ''Comment.'' The ''Comment'' button can be found on the following pages:

- Docket Details page when a document within the docket is open for comment,
- Document Details page when the document is open for comment, and

• Document Search Tab with all search results open for comment displaying a ''Comment'' button.

Clicking ''Comment'' on any of the above pages will display the comment form. You can enter your comment on the form, attach files (maximum of 20 files up to 10MB each), and choose whether to identify yourself as an individual, an organization, or anonymously. Be sure to complete all required fields depending on which identity you have chosen. Once you have completed all required fields and chosen an identity, the ''Submit Comment'' button is enabled. Upon completion, you will receive a Comment Tracking Number for your comment. For additional step by step instructions, please see the Frequently Asked Questions page on *http://www.regulations.gov* or by clicking *https://www.regulations.gov/faq.*

We accept anonymous comments. Comments we post to *http://www.regulations.gov* will include any personal information you have provided.

We review all comments and materials received during the comment period, but we may choose not to post off-topic, inappropriate, or duplicate comments that we receive.

B. *How do I find and browse for posted comments on Regulations.gov.* On the previous version of *Regulations.gov*, users browsed for comments on the Docket Details page. However, since comments are made on individual documents, not dockets, new *Regulations.gov* organizes comments under their corresponding document. To access comments and documents submitted to this draft version of the study report go to *http://www.regulations.gov,* and insert ''USCG–2022–0047'' in the ''search box.'' Click ''Search.'' Then scroll down to and click on the ''notice'' entitled ''Port Access Route Study: Notice of availability of draft report and public information session; request for comments.'' This will open to the ''Document Details'' page. Then click on the ''Browse Comments'' tab. On the comment tab, you can search and filter comments. Note: If no comments have been posted to a document, the ''Comments'' tab will not appear on the Document Details page.

C. *If you need additional help navigating the new Regulations.gov.* For additional step by step instructions to submit a comment or to view submitted comments or other documents please see the Frequently Asked Questions (FAQs) at *http://www.regulations.gov/faqs* or call or email the person in the **FOR FURTHER INFORMATION CONTACT** section of this document for alternate instructions.

D. *Privacy Act:* Anyone can search the electronic form of comments received into any of our dockets by the name of the individual submitting the comment (or signing the comment, if submitted on behalf of an association, business, labor union, etc.). You may review a Privacy Act, system of records notice regarding DHS's eRulemaking in the March 11, 2020 issue of the **Federal Register** (85 FR 14226).

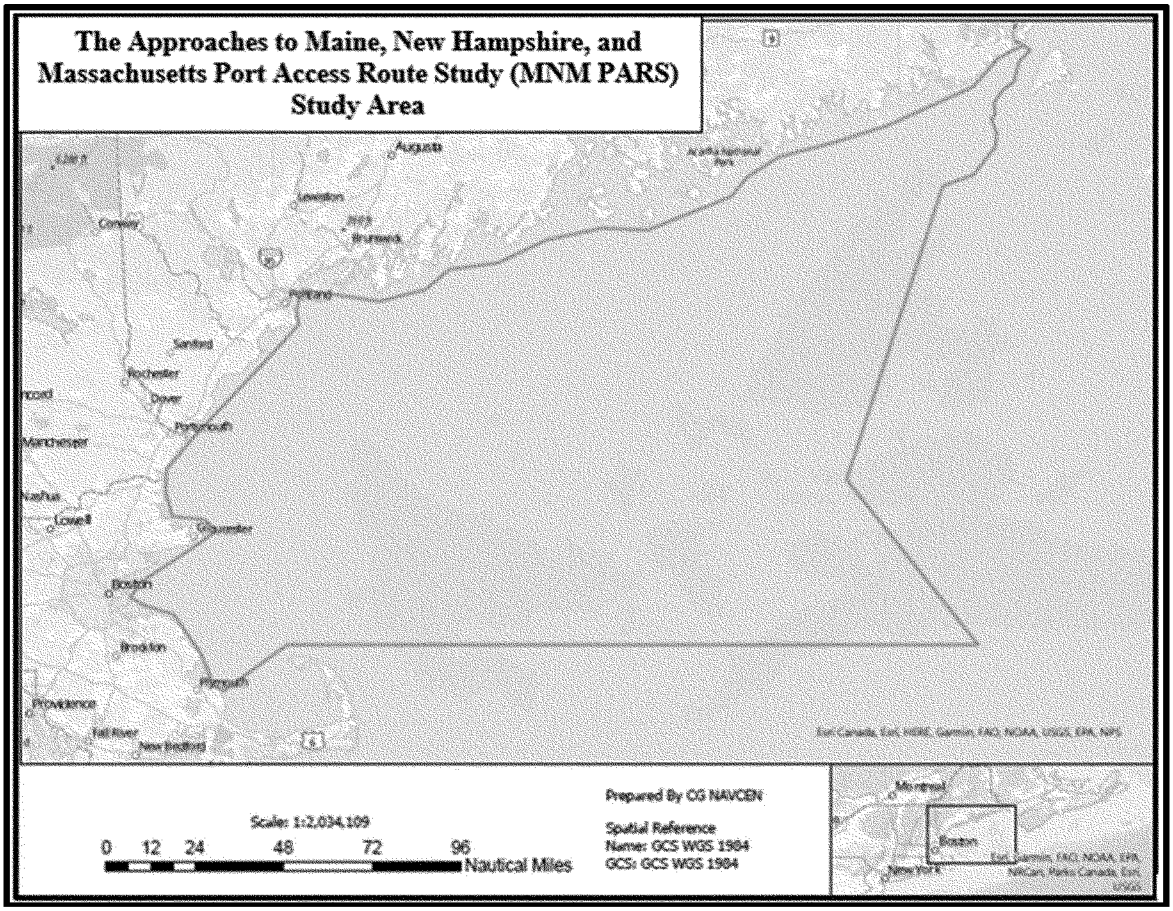
V. MNMPARS: Timeline, Study Area, and Process

The First Coast Guard District will conduct this PARS. The study will commence upon publication of this notice and may take 12 months or more to complete.

The study area will include the Gulf of Maine, the New Hampshire Seacoast, and Massachusetts Bay regions within the First Coast Guard District AOR encompassed by a line connecting the following geographic positions:

- 41°55′ N 70°33′ W
- 42°08′ N 70°15′ W
- 42°08′ N 67°08′17″ W

then proceeding north along the outermost extent of the EEZ and U.S./Canadian border and thence along the coast line back to the origin. This area extends approximately 175 nautical miles seaward and covers approximately 20,500 square nautical miles. An illustration showing the study area is below.



Chartlet showing the MNMPARS Study Area.

Analyses will be conducted in accordance with COMDTINST 16003.2B, Marine Planning to Operate and Maintain the Marine Transportation System (MTS) and Implement National Policy. Instruction is available at *https://media.defense.gov/2019/Jul/10/2002155400/-1/-1/0/CI_16003_2B.PDF.*

We will publish the results of the PARS in the **Federal Register**. It is possible that the study may validate the status quo (no routing measures) and conclude that no changes are necessary. It is also possible that the study may recommend one or more changes to address navigational safety and the efficiency of vessel traffic management. The recommendations may lead to future rulemakings or appropriate international agreements.

VI. Future Actions

In Person Public Meetings: Although the Coast Guard prefers and highly encourages all comments and related material be submitted directly to the electronic docket we do understand the value that in person public meetings will add to the study. Therefore, the Coast Guard intends to hold public meetings at various locations throughout the study area as the 2022 study process continues. For this initial comment period we ask that you make your comments directly to the docket, addressing impacts to navigation in the area of study resulting from factors such as offshore development, increased vessel traffic, changing vessel traffic patterns, weather conditions, or navigational difficulty. We anticipate that these early comments will inform us as to prevalent concerns and how best to use our limited resources when scheduling meeting locations.

Future public meetings will be announced by a notice in the **Federal Register**.

This notice is published under the authority of 5 U.S.C. 552(a).

Dated: March 22, 2022.

T.G. Allan Jr.,

Rear Admiral, U.S. Coast Guard, Commander, First Coast Guard District.

[FR Doc. 2022–06818 Filed 3–30–22; 8:45 am]

BILLING CODE 9110–04–P

DEPARTMENT OF HOMELAND SECURITY

Federal Emergency Management Agency

[Docket ID FEMA–2022–0002]

Changes in Flood Hazard Determinations

AGENCY: Federal Emergency Management Agency, Department of Homeland Security.

ACTION: Notice.

SUMMARY: New or modified Base (1-percent annual chance) Flood Elevations (BFEs), base flood depths, Special Flood Hazard Area (SFHA) boundaries or zone designations, and/or regulatory floodways (hereinafter referred to as flood hazard determinations) as shown on the indicated Letter of Map Revision (LOMR) for each of the communities listed in the table below are finalized. Each LOMR revises the Flood Insurance Rate Maps (FIRMs), and in some cases the Flood Insurance Study (FIS) reports, currently in effect for the listed communities.

ENCLOSURE 3

Marine Safety Information Bulletin

22-002

Marine Safety Information Bulletin

Commander
First Coast Guard District
Prevention Division
408 Atlantic Ave
Boston, MA 02210

MSIB Number: 22-002
Date: February 22, 2022
Contact: LTJG Thomas Davis
E-Mail: SMB-D1Boston-MNMPARS@uscg.mil

Port Access Route Study: Approaches to Maine, New Hampshire, and Massachusetts

This bulletin provides advance notice for a Port Access Route Study (PARS) to encourage maximum stakeholder participation in the study process.

1. The Coast Guard intends to publish a Notice of Study in the Federal Register announcing the commencement of an Approaches to Maine, New Hampshire, and Massachusetts Port Access Route Study (MNMPARS). The purpose of this study will be to evaluate the adequacy of existing vessel routing measures and determine whether additional vessel 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, changing vessel types and traffic patterns, weather conditions, or navigational difficulty. Examples of potential measures could include traffic separation schemes, two-way routes, recommended tracks, deep-water routes, precautionary areas, and areas to be avoided. The recommendations of the study may subsequently be implemented through rulemakings or in accordance with international agreements.

2. The PARS will commence upon publication of the Notice of Study in the Federal Register and will cover an approximate 20,500 square nautical mile study area that includes the Gulf of Maine, the New Hampshire Seacoast, and the Massachusetts Bay region within the First Coast Guard District Area of Responsibility (AOR). Through the study process, we will coordinate with federal, state, tribal, and foreign 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.

3. This advance notice is provided to increase awareness of the upcoming PARS and to promote stakeholder participation in the study process. We encourage you to participate in this study by submitting comments and related materials that address impacts to safe navigation within the area of study. The Notice of Study will include a 45 day comment period and instructions for submitting comments.

4. For questions regarding this Marine Safety Information Bulletin contact LTJG Thomas Davis, Waterways Management at First Coast Guard District, telephone (617) 223-8632, e-mail SMB-D1Boston-MNMPARS@uscg.mil.

Captain Richard J. Schultz, First Coast Guard District Chief of Prevention, sends

ENCLOSURE 4

Marine Safety Information Bulletin

22-003

Marine Safety Information Bulletin

Commander
First Coast Guard District
Prevention Division
408 Atlantic Ave
Boston, MA 02210

MSIB Number: 22-003
Date: April 1, 2022
Contact: LTJG Thomas Davis
E-Mail: SMB-D1Boston-MNMPARS@uscg.mil

Port Access Route Study: Approaches to Maine, New Hampshire, and Massachusetts

This bulletin addresses the notice of study for the Approaches to Maine, New Hampshire, and Massachusetts Port Access Route Study.

1. The Coast Guard has commenced an Approaches to Maine, New Hampshire, and Massachusetts Port Access Route Study (MNMPARS). The purpose of this study will be to evaluate the adequacy of existing vessel routing measures and determine whether additional vessel routing measures are necessary for port approaches to Maine, New Hampshire, Massachusetts, and international and domestic transit areas in the First Coast Guard District area of responsibility. The MNMPARS will 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, changing vessel traffic patterns, weather conditions, or navigational difficulty. Vessel routing measures, which include traffic separation schemes, two-way routes, recommended tracks, deep-water routes, precautionary areas, and areas to be avoided, are implemented to reduce risk of marine casualties. The recommendations of the study may subsequently be implemented through rulemakings or in accordance with international agreements.

2. The Notice of Study is available under Federal Register docket number USCG-2022-0047, and can be accessed through the federal portal at https://www.regulations.gov/search?filter=uscg-2022-0047.

3. To submit your comment online, go to https://www.regulations.gov, insert "USCG-2022-0047" in the "search box". Click "Search" and then click "Comment". We will consider all comments and material received on or before May 16, 2022.

4. For questions regarding this Marine Safety Information Bulletin contact LTJG Thomas Davis, Waterways Management at First Coast Guard District, telephone (617) 223-8632, e-mail SMB-D1Boston-MNMPARS@uscg.mil.

Captain Richard J. Schultz, First Coast Guard District Chief of Prevention, sends

ENCLOSURE 5

Federal Register Supplemental Notice

(87 FR 38418)

Substance Abuse and Mental Health Services Administration's (SAMHSA) Center for Substance Abuse Treatment (CSAT) National Advisory Council (NAC) will meet on August 30, 2022, 12:00 p.m.–4:30 p.m. (EDT).

The meeting is open to the public and will include consideration of minutes from the SAMHSA CSAT NAC meeting of April 27, 2022, a discussion with SAMHSA leadership, and a discussion on the Office of Recovery. It will also cover updates on CSAT activities from the Office of the Director (OD); the Division of Pharmacologic Therapies (DPT); the State Opioid Response Program (SOR); the Division of State and Community Assistance (DSCA); the Division of Services Improvement (DSI), and a discussion on Behavioral Health Workforce.

The meeting will be conducted via Zoom and telephone only and registration is required to participate. Interested persons may present data, information, or views, orally or in writing, on issues pending before the Council. Presentations from the public will be scheduled at the conclusion of the meeting. Individuals interested in making oral presentations must notify the contact person, Tracy Goss, CSAT NAC Designated Federal Officer (DFO) on or before August 12, 2022. Up to three minutes will be allotted for each approved public comment as time permits. Written comments received in advance of the meeting will be considered for inclusion in the official record.

To attend virtually, submit written or brief oral comments, or request special accommodation for persons with disabilities, please register on-line at *https://snacregister.samhsa.gov,* or communicate with the CSAT NAC DFO (see information below).

Meeting information and a roster of Council members may be obtained by accessing the SAMHSA Committee website at *https://www.samhsa.gov/about-us/advisory-councils/csat-national-advisory-council,* or by contacting the DFO.

Council Name: SAMHSA's Center for Substance Abuse Treatment National Advisory Council.

Date/Time/Type: August 30, 2022, 12:00 p.m.–4:30 p.m. EDT, OPEN.

Place: SAMHSA, 5600 Fishers Lane, Rockville, Maryland 20857 (Virtual).

Contact: Tracy Goss, Designated Federal Officer, CSAT National Advisory Council, 5600 Fishers Lane, Rockville, Maryland 20857 (mail), Telephone: (240) 276–0759, Email: *tracy.goss@samhsa.hhs.gov*.

Dated: June 21, 2022.

Carlos Castillo,

Committee Management Officer, SAMHSA.

[FR Doc. 2022–13724 Filed 6–27–22; 8:45 am]

BILLING CODE 4162–20–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Substance Abuse and Mental Health Services Administration

Fiscal Year (FY) 2022 Notice of Supplemental Funding Opportunity

AGENCY: Substance Abuse and Mental Health Services Administration, HHS.

ACTION: Notice of intent to award supplemental funding.

SUMMARY: This is a notice of intent to award supplemental funding to the Addiction Technology Transfer Centers (ATTC) Regional Centers and ATTC National Coordinating Office (NCO) recipients funded in FY 2017 under Notice of Funding Opportunities (NOFO) TI–17–005. It will inform the public that the Substance Abuse and Mental Health Services Administration (SAMHSA) is supporting administrative supplements, which are consistent with the scope of the initial FY 2017 awards, of up to $740,298 each for one-year to the ten ATTC Regional Centers and ATTC NCO for a total funding amount of $8,143,285. These grant recipients were funded in FY 2017 under the ATTC Cooperative Agreements, funding announcement TI–17–005 and have a project end date of September 29, 2022. The supplemental funds will be used to extend the program services for all 11 ATTCs from September 30, 2022 to September 29, 2023. The proposed 12-month extension will allow SAMHSA to align the project periods of the ATTCs with those of the Mental Health Technology Transfer Centers (MHTTC) and Prevention Technology Transfer Centers (PTTC) networks so that all three networks can compete together for the next five-year funding cycle of the Technology Transfer Centers (TTC) program. The TTC program is comprised of the three network programs (ATTC, PTTC and MHTTC), which all use the same training and technical assistance platform. If the three networks are competed in different years and new organizations become award recipients of this cooperative agreement program, the structure of this common platform may be compromised. By competing them at the same time, if changes occur in award recipients, the new award recipients will be able to restructure the website and training platform within the first three months of the new funding cycle without disruptions.

SUPPLEMENTARY INFORMATION:

Funding Opportunity Title: Addiction Technology Transfer Centers (ATTC) Cooperative Agreements NOFO TI–17–005.

Assistance Listing Number: 93.243

Authority: ATTC cooperative agreements are authorized under Section 509 of the Public Health Service Act, as amended.

Justification: Eligibility for this supplemental funding is limited to the ten ATTC Regional Centers and one NCO funded in FY 2017 under the ATTC Cooperative Agreements funding announcement TI–17–005, as they are currently providing regionally-focused treatment and recovery training activities that will continue to be funded through this supplement.

FOR FURTHER INFORMATION CONTACT: Twyla Adams, Substance Abuse and Mental Health Services Administration, 5600 Fishers Lane, Rockville, MD 20857, telephone (240) 276–1576; email: *twyla.adams@samhsa.hhs.gov*

Carlos Graham,

Reports Clearance Officer.

[FR Doc. 2022–13616 Filed 6–27–22; 8:45 am]

BILLING CODE 4162–20–P

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

[Docket No. USCG–2022–0047]

Port Access Route Study: Approaches to Maine, New Hampshire, and Massachusetts

AGENCY: Coast Guard, DHS.

ACTION: Notification of inquiry and public meetings; request for comments.

SUMMARY: The Coast Guard is seeking additional information related to the notice of study that was published on March 31, 2022, regarding the Approaches to Maine, New Hampshire, and Massachusetts Port Access Route Study (MNMPARS). Following a review of preliminary data and submitted comments, we have identified several areas of additional inquiry related to the study. We invite your comments and responses to the proposed questions and information requests as well as all other comments that address potential impacts to navigation within the area of study.

DATES: Comments and related material must be received on or before August

29, 2022. Commenters should be aware that the electronic Federal Docket Management System will not accept comments after midnight Eastern Daylight Time on the last day of the comment period.

Although the Coast Guard highly encourages comments and related material to be submitted directly to the electronic docket, five in-person public meetings will be held to provide an opportunity for oral comment on Tuesday, August 2, 2022, from 3 p.m. to 5 p.m., on Wednesday, August 3, 2022, from 3 p.m. to 5 p.m., on Wednesday, August 10, 2022, from 3 p.m. to 5 p.m., on Thursday, August 11, 2022, from 3 p.m. to 5 p.m., and on Wednesday, August 17, 2022, from 3 p.m. to 5 p.m. In addition, a virtual public meeting will also be held on Thursday, August 18, 2022, from 6 p.m. to 8 p.m. via webinar and teleconference to provide an oral comment opportunity for those unable to attend the in-person events. See the ''Public Participation and Request for Comments'' portion of the **SUPPLEMENTARY INFORMATION** section for more information on the public meeting dates, times, and locations.

ADDRESSES: You may submit comments identified by docket number USCG–2022–0047 using the Federal eRulemaking Portal *http://www.regulations.gov.* See the ''Public Participation and Request for Comments'' portion of the **SUPPLEMENTARY INFORMATION** section for further instructions on submitting comments.

FOR FURTHER INFORMATION CONTACT: If you have questions about this supplemental notice of study, call or email LTJG Thomas Davis, First Coast Guard District (dpw), U.S. Coast Guard; telephone (617) 223–8632, email *SMB-D1Boston-MNMPARS@uscg.mil.*

SUPPLEMENTARY INFORMATION:

I. Table of Abbreviations

ACPARS Atlantic Coast Port Access Route Study
AIS Automatic Identification System
COMDTINST Commandant Instruction
DHS Department of Homeland Security
EEZ Exclusive Economic Zone
MNMPARS Approaches to Maine, New Hampshire, and Massachusetts Port Access Route Study
MTS Marine Transportation System
PARS Port Access Route Study
TSS Traffic Separation Scheme
USCG United States Coast Guard

II. Background and Purpose

On March 31, 2022, the Coast Guard published a Notice of Study; request for comments entitled ''Port Access Route Study (PARS): Approaches to Maine, New Hampshire, and Massachusetts'' in the **Federal Register** (87 FR 18800). The purpose of the MNMPARS is to evaluate the adequacy of existing vessel routing measures and determine whether additional vessel routing measures are necessary for port approaches to Maine, New Hampshire, and Massachusetts and international and domestic transit areas in the First Coast Guard District area of responsibility. This undertaking is required by 46 U.S.C. 70003, which calls for the Coast Guard to conduct a PARS prior to establishing fairways or traffic separation schemes (TSSs).

The public was afforded a 45-day comment period during which the Coast Guard received 14 comments in response to the **Federal Register** Notice and various other outreach efforts. A review of available data and submitted comments has identified additional opportunities for inquiry that may help inform several aspects of the study.

All comments and supporting documents are available in a public docket and can be viewed at *http://www.regulations.gov.* In the ''Search'' box insert ''USCG–2022–0047'' and click ''Search.'' Then scroll down to and click on the ''notice'' entitled ''Port Access Route Study: Approaches to Maine, New Hampshire, and Massachusetts.'' This will open to the ''Document Details'' page. Then click on the ''Browse Comments'' tab. On the comment tab, you can search and filter comments.

III. Information Requested

The Coast Guard is seeking responses to various *general* and *port specific* questions to gain additional insight into issues impacting regional navigation. Where possible and appropriate, please provide sources or other amplifying information to back up or explain your responses. Also, please provide as much relevant detail as possible when describing your position on a subject and how you've reached your conclusion.

A. *General Questions:* Have maritime community members experienced or do they anticipate any impacts to navigation in the areas within or adjacent to the Gulf of Maine, the New Hampshire Seacoast, or Massachusetts Bay?

1. How will vessel navigation routes change as a result of planned or potential future developments?

2. What current waterway operations affect navigation? In what way?

3. Are there strains on the current vessel routing systems?

4. Are modifications to existing vessel routing measures needed to address hazards and improve efficiency? If so, please describe.

5. Does the maritime community request additional routing measures, other than those that currently exist? Please be as specific as possible.

B. *Port Specific Questions:* Analysis of AIS data suggests several primary vessel traffic patterns are used to access principal ports within the study area. Based on observed traffic density and public comment, the Coast Guard requests the following feedback:

1. Are alternate routes that bypass traffic lanes in the approaches to Portland used as a matter of convenience or hazard avoidance? If so, in what regard? Please be specific.

2. Should the Portland Eastern and Southern Approach TSS be amended to better accommodate inbound/outbound traffic between Portland, Boston, and Canada? In what ways would changes be beneficial or counterproductive?

3. Are additional routing measures needed to provide greater safety for towing vessel traffic transiting offshore of Massachusetts, New Hampshire, and Maine? If so, what type of measures and how would they be beneficial?

4. Are additional routing measures, such as a Northeast Approach TSS, necessary to support Massachusetts Bay/Boston commercial traffic?

5. Is a Navigational Safety Fairway necessary to accommodate vessel traffic from Boston to the Bay of Fundy?

6. Are additional or amendments to current routing measures needed for approaches to other port areas including Eastport, Searsport, and Portsmouth?

IV. Public Participation and Request for Comments

We encourage you to participate in this study by submitting responses to these questions and any other relevant comments and related materials.

A. *Submitting Comments:* To submit your comment online, go to *http://www.regulations.gov,* and insert ''USCG–2022–0047'' in the ''search box.'' Click ''Search''. Then click ''Comment.'' The ''Comment'' button can be found on the following pages:

- Docket Details page when a document within the docket is open for comment,
- Document Details page when the document is open for comment, and
- Document Search Tab with all search results open for comment displaying a ''Comment'' button.

Clicking ''Comment'' on any of the above pages will display the comment form. You can enter your comment on the form, attach files (maximum of 20 files up to 10MB each), and choose whether to identify yourself as an individual, an organization, or anonymously. Be sure to complete all required fields depending on which identity you have chosen. Once you have completed all required fields and chosen an identity, the ''Submit Comment'' button is enabled. Upon completion, you will receive a Comment Tracking Number for your comment. For additional step by step instructions, please see the Frequently Asked Questions page on *http://www.regulations.gov or by clicking https://www.regulations.gov/faq.*

We accept anonymous comments. Comments we post to *http://www.regulations.gov* will include any personal information you have provided. We review all comments and materials received during the comment period, but we may choose not to post off-topic, inappropriate, or duplicate comments that we receive.

B. *Public Meetings:* The Coast Guard plans to host six public meetings, five in-person and one virtual, to receive oral comments on this notice. If you bring written comments to the in-person public meetings, you may submit them to LTJG Thomas Davis and they will be added to the online public docket. We recommend that you include your name and preferred method of contact in the body of your document so that we can contact you if we have questions regarding your submission. We will provide a written summary of the oral comments received and will place that summary in the docket. The public meeting schedule is as follows:

1. *Portsmouth, NH:* The first public meeting on Tuesday, August 2, 2022, from 3 p.m. to 5 p.m., will be held at the NH Department of Environmental Services, 222 International Drive, Suite 175, Portsmouth, NH 03801.

2. *Salem, MA:* The second public meeting on Wednesday, August 3, 2022, from 3 p.m. to 5 p.m., will be held at the Winter Island Function Hall, 50 Winter Island Road, Salem, MA 01970.

3. *Jonesport, ME:* The third public meeting on Wednesday, August 10, 2022, from 3 p.m. to 5 p.m., will be held at USCG Station Jonesport, 9 Bridge Street, Jonesport, ME 04649.

4. *Belfast, ME:* The fourth public meeting on Thursday, August 11, 2022, from 3 p.m. to 5 p.m., will be held at the University of Maine Hutchinson Center, Conference Room 138, 80 Belmont Avenue, Belfast, ME 04915.

5. *Portland, ME:* The fifth public meeting on Wednesday, August 17, 2022, from 3 p.m. to 5 p.m., will be held at the International Marine Terminal, 454 Commercial Street, Portland, ME 0410.

6. The sixth public meeting will be held virtually via Zoom and teleconference on Thursday, August 18, 2022, from 6 p.m. to 8 p.m.

A link and login instructions for the virtual meeting, as well as additional information regarding the in-person meetings, will be posted to the ''News and Events'' section of the CG Sector Boston Homeport website at *https://homeport.uscg.mil/port-directory/boston* and the CG Sector Northern New England Homeport website at *https://homeport.uscg.mil/port-directory/northern-new-england-(portland-maine),* by July 18, 2022.

C. *How do I find and browse for posted comments on Regulations.gov:* On the previous version of *Regulations.gov,* users browsed for comments on the Docket Details page. However, since comments are made on individual documents, not dockets, new *Regulations.gov* organizes comments under their corresponding document. To access comments and documents submitted to this notice go to *http://www.regulations.gov* and insert ''USCG–2022–0047'' in the ''search box.'' Click ''Search.'' Then scroll down to and click on the ''notice'' entitled ''Port Access Route Study: Notification of inquiry and public meetings; request for comments.'' This will open to the ''Document Details'' page. Then click on the ''Browse Comments'' tab. On the comment tab, you can search and filter comments. Note: If no comments have been posted to a document, the ''Comments'' tab will not appear on the Document Details page.

D. *If you need additional help navigating the new Regulations.gov:* For additional step by step instructions to submit a comment or to view submitted comments or other documents please see the Frequently Asked Questions (FAQs) at *http://www.regulations.gov/faqs* or call or email the person in the **FOR FURTHER INFORMATION CONTACT** section of this document for alternate instructions.

E. *Privacy Act:* Anyone can search the electronic form of comments received into any of our dockets by the name of the individual submitting the comment (or signing the comment, if submitted on behalf of an association, business, labor union, etc.). You may review a Privacy Act system of records notice regarding DHS's eRulemaking in the March 11, 2020 issue of the **Federal Register** (85 FR 14226).

This notice is published under the authority of 5 U.S.C. 552(a).

Dated: June 10, 2022.

J.W. Mauger,

Rear Admiral, U.S. Coast Guard, Commander, First Coast Guard District.

[FR Doc. 2022–13272 Filed 6–27–22; 8:45 am]

BILLING CODE 9110–04–P

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

[Docket No. FR–6289–N–04]

Withdrawal of Notice of Intent To Establish a Tribal Intergovernmental Advisory Committee; Request for Comments on Committee Structure

AGENCY: Office of the General Counsel (HUD).

ACTION: Withdrawal; notice.

SUMMARY: By this notice HUD is withdrawing a notice published on June 22, 2022, announcing HUD's intention to form the Department's first standing Tribal advisory committee. The June 22, 2022, publication was an erroneous republication of a notice HUD previously published on November 15, 2022. By separate notice published in today's **Federal Register**, HUD is reopening a request for nominations for HUD's Tribal Intergovernmental Advisory Committee (TIAC) for an additional thirty days.

FOR FURTHER INFORMATION CONTACT: Aaron Santa Anna, Associate General Counsel, Legislation and Regulations Division, Office of General Counsel, Department of Housing and Urban Development, 451 7th Street SW, Room 10278, Washington, DC 20410–0500, telephone (202) 708–1793 (this is not a toll-free number).

SUPPLEMENTARY INFORMATION: On June 22, 2022 (87 FR 37351), HUD erroneously published a notice titled ''Notice of Intent To Establish a Tribal Intergovernmental Advisory Committee; Request for Comments on Committee Structure.'' HUD previously published this notice on November 15, 2022 (86 FR 62051). By today's notice, HUD is withdrawing the June 22, 2022, publication. Elsewhere in today's **Federal Register** HUD is publishing a notice reopening a request for nominations for HUD's Tribal Intergovernmental Advisory Committee (TIAC) for an additional thirty days.

Aaron Santa Anna,

Associate General Counsel for the Office of Legislation and Regulations.

[FR Doc. 2022–13698 Filed 6–27–22; 8:45 am]

BILLING CODE 4210–67–P

ENCLOSURE 6

Marine Safety Information Bulletin

22-004

Marine Safety Information Bulletin

Commander
First Coast Guard District
Prevention Division
408 Atlantic Ave
Boston, MA 02210

MSIB Number: 22-004
Date: June 28, 2022
Contact: LTJG Thomas Davis
E-Mail: SMB-D1Boston-MNMPARS@uscg.mil

Port Access Route Study: Approaches to Maine, New Hampshire, and Massachusetts

This bulletin addresses a Notification of Inquiry and Public Meetings for the Approaches to Maine, New Hampshire, and Massachusetts Port Access Route Study.

1. On March 31, 2022, the First Coast Guard District commenced an Approaches to Maine, New Hampshire, and Massachusetts Port Access Route Study (MNMPARS) to evaluate the adequacy of existing vessel routing measures and determine whether additional vessel routing measures are necessary for port approaches to Maine, New Hampshire, Massachusetts, and international and domestic transit areas in the First Coast Guard District area of responsibility.

2. On June 28, 2022, following a review of available data and comments received, the First Coast Guard District published a Notification of Inquiry and Public Meetings (87 FR 38418). We invite your comments and responses to several proposed questions and all other comments related to navigation safety within the study area. The notification is available under Federal Register docket number USCG-2022-0047, and can be accessed by searching the docket number at https://www.regulations.gov

3. To review the notification and submit your comments online, go to https://www.regulations.gov/document/USCG-2022-0047-0017 and then click “Comment”. We will consider all comments and materials received on or before August 29, 2022.

4. The First Coast Guard District will host the following six public meetings to provide the opportunity for oral comments. Additional details, including directions and login information for the virtual session, can be found under the “News and Events” section of the Sector Northern New England Homeport page at https://homeport.uscg.mil/port-directory/northern-new-england-(portland-maine) and the Sector Boston Homeport page at https://homeport.uscg.mil/port-directory/boston.

August 2, 2022	NH Dept. of Environmental Services; Portsmouth, NH	3 p.m.
August 3, 2022	Winter Island Function Hall; Salem, MA	3 p.m.
August 10, 2022	USCG Station Jonesport; Jonesport, ME	3 p.m.
August 11, 2022	UMaine Hutchinson Center; Belfast, ME	3 p.m.
August 17, 2022	International Marine Terminal; Portland, ME	3 p.m.
August 18, 2022	Zoom and Teleconference (Virtual)	6 p.m.

5. For questions regarding this Marine Safety Information Bulletin contact LTJG Thomas Davis, Waterways Management at First Coast Guard District, telephone (617) 223-8632, e-mail SMB-D1Boston-MNMPARS@uscg.mil.

Commander Trevor C. Cowan, Acting First Coast Guard District Chief of Prevention, sends

This release has been issued for public information and notification purposes only.

ENCLOSURE 7

Marine Safety Information Bulletin

22-006

Marine Safety Information Bulletin

Commander
First Coast Guard District
Prevention Division
408 Atlantic Ave
Boston, MA 02210

MSIB Number: 22-006
Date: July 19, 2022
Contact: LTJG Thomas Davis
E-Mail: SMB-D1Boston-MNMPARS@uscg.mil

Port Access Route Study: Approaches to Maine, New Hampshire, and Massachusetts

This bulletin addresses updates to several public meeting formats for the Approaches to Maine, New Hampshire, and Massachusetts Port Access Route Study (MNMPARS).

1. On June 28, 2022, the First Coast Guard District published a Notification of Inquiry and Public Meetings (87 FR 38418) to supplement the Approaches to Maine, New Hampshire, and Massachusetts Port Access Route Study. To improve accessibility and encourage stakeholder participation, the following schedule has been updated to include additional virtual and teleconference options.

August 2, 2022	NH Dept. of Environmental Services 222 International Drive, Suite 175; Portsmouth, NH 03801 Zoom Meeting Link: https://www.zoomgov.com/j/1614544611 Meeting ID: 161 454 4611	3 p.m.
August 3, 2022	Winter Island Function Hall 50 Winter Island Road; Salem, MA 01970 Zoom Meeting Link: https://www.zoomgov.com/j/1612074196 Meeting ID: 161 207 4196	3 p.m.
August 10, 2022	USCG Station Jonesport (In-Person Only) 9 Bridge Street; Jonesport, ME 04649	3 p.m.
August 11, 2022	UMaine Hutchinson Center; Belfast, ME 80 Belmont Ave, Room 138; Belfast, ME 04915 Zoom Meeting Link: https://www.zoomgov.com/j/1609290404 Meeting ID: 160 929 0404	3 p.m.
August 17, 2022	International Marine Terminal 454 Commercial Street; Portland, ME 04101 Zoom Meeting Link: https://www.zoomgov.com/j/1611621140 Meeting ID: 161 162 1140	3 p.m.
August 18, 2022	Zoom and Teleconference (Virtual Only) Zoom Meeting Link: https://www.zoomgov.com/j/1618777095 Meeting ID: 161 877 7095	6 p.m.

2. These sessions, in-person and virtual, are open to all interested parties. To attend one of the hybrid/virtual sessions, go to the “Zoom Meeting Link” at the meeting start time and the host will let you in. To attend

by teleconference (audio only), you may dial either (646) 828-7666 or (551) 285-1373 and enter the corresponding "Meeting ID" when prompted.

3. Although not required, it is asked that you please register for the meeting you plan to attend by contacting LTJG Thomas Davis via email at SMB-D1Boston-MNMPARS@uscg.mil. Please include the following information:
    - Your first and last name
    - The organization you represent (if any)
    - Whether you will be attending in-person/virtual (if applicable)
    - Whether you intend to make a public comment

4. To review the PARS docket or to submit your comments online, go to https://www.regulations.gov/document/USCG-2022-0047-0017 and then click "Comment". We will consider all comments and materials received on or before August 29, 2022

5. For questions regarding this Marine Safety Information Bulletin contact LTJG Thomas Davis, Waterways Management at First Coast Guard District, telephone (617) 223-8632, e-mail SMB-D1Boston-MNMPARS@uscg.mil.

Captain Richard J. Schultz, First Coast Guard District Chief of Prevention, sends

ENCLOSURE 8

Federal Register Notice
Availability of Draft Report
(88 FR 83)

that the test facility has met minimum standards. HHS does not allow IITFs to conduct oral fluid testing.

HHS-Certified Laboratories Approved To Conduct Oral Fluid Drug Testing

In accordance with the Mandatory Guidelines using Oral Fluid dated October 25, 2019 (84 FR 57554), the following HHS-certified laboratories meet the minimum standards to conduct drug and specimen validity tests on oral fluid specimens:

At this time, there are no laboratories certified to conduct drug and specimen validity tests on oral fluid specimens.

HHS-Certified Instrumented Initial Testing Facilities Approved To Conduct Urine Drug Testing

In accordance with the Mandatory Guidelines using Urine dated January 23, 2017 (82 FR 7920), the following HHS-certified IITFs meet the minimum standards to conduct drug and specimen validity tests on urine specimens:

Dynacare, 6628 50th Street NW, Edmonton, AB Canada T6B 2N7, 780–784–1190 (Formerly: Gamma-Dynacare Medical Laboratories)

HHS-Certified Laboratories Approved To Conduct Urine Drug Testing

In accordance with the Mandatory Guidelines using Urine dated January 23, 2017 (82 FR 7920), the following HHS-certified laboratories meet the minimum standards to conduct drug and specimen validity tests on urine specimens:

Alere Toxicology Services, 1111 Newton St., Gretna, LA 70053, 504–361–8989/800–433–3823 (Formerly: Kroll Laboratory Specialists, Inc., Laboratory Specialists, Inc.)

Alere Toxicology Services, 450 Southlake Blvd., Richmond, VA 23236, 804–378–9130 (Formerly: Kroll Laboratory Specialists, Inc., Scientific Testing Laboratories, Inc.; Kroll Scientific Testing Laboratories, Inc.)

Clinical Reference Laboratory, Inc., 8433 Quivira Road, Lenexa, KS 66215–2802, 800–445–6917

Desert Tox, LLC, 5425 E Bell Rd., Suite 125, Scottsdale, AZ 85254, 602–457–5411/623–748–5045

DrugScan, Inc., 200 Precision Road, Suite 200, Horsham, PA 19044, 800–235–4890

Dynacare*, 245 Pall Mall Street, London, ONT, Canada N6A 1P4, 519–679–1630 (Formerly: Gamma-Dynacare Medical Laboratories)

ElSohly Laboratories, Inc., 5 Industrial Park Drive, Oxford, MS 38655, 662–236–2609

Laboratory Corporation of America Holdings, 7207 N Gessner Road, Houston, TX 77040, 713–856–8288/800–800–2387

Laboratory Corporation of America Holdings, 69 First Ave., Raritan, NJ 08869, 908–526–2400/800–437–4986 (Formerly: Roche Biomedical Laboratories, Inc.)

Laboratory Corporation of America Holdings, 1904 TW Alexander Drive, Research Triangle Park, NC 27709, 919–572–6900/800–833–3984 (Formerly: LabCorp Occupational Testing Services, Inc., CompuChem Laboratories, Inc.; CompuChem Laboratories, Inc., A Subsidiary of Roche Biomedical Laboratory; Roche CompuChem Laboratories, Inc., A Member of the Roche Group)

Laboratory Corporation of America Holdings, 1120 Main Street, Southaven, MS 38671, 866–827–8042/800–233–6339 (Formerly: LabCorp Occupational Testing Services, Inc.; MedExpress/National Laboratory Center)

LabOne, Inc. d/b/a Quest Diagnostics, 10101 Renner Blvd., Lenexa, KS 66219, 913–888–3927/800–873–8845 (Formerly: Quest Diagnostics Incorporated; LabOne, Inc.; Center for Laboratory Services, a Division of LabOne, Inc.)

Legacy Laboratory Services Toxicology, 1225 NE 2nd Ave., Portland, OR 97232, 503–413–5295/800–950–5295

MedTox Laboratories, Inc., 402 W. County Road D, St. Paul, MN 55112, 651–636–7466/800–832–3244

Minneapolis Veterans Affairs Medical Center, Forensic Toxicology Laboratory, 1 Veterans Drive, Minneapolis, MN 55417, 612–725–2088. Testing for Veterans Affairs (VA) Employees Only

Pacific Toxicology Laboratories, 9348 DeSoto Ave., Chatsworth, CA 91311, 800–328–6942 (Formerly: Centinela Hospital Airport Toxicology Laboratory)

Phamatech, Inc., 15175 Innovation Drive, San Diego, CA 92128, 888–635–5840

Quest Diagnostics Incorporated, 400 Egypt Road, Norristown, PA 19403, 610–631–4600/877–642–2216 (Formerly: SmithKline Beecham Clinical Laboratories; SmithKline Bio-Science Laboratories)

US Army Forensic Toxicology Drug Testing Laboratory, 2490 Wilson St., Fort George G. Meade, MD 20755–5235, 301–677–7085, Testing for Department of Defense (DoD) Employees Only

* The Standards Council of Canada (SCC) voted to end its Laboratory Accreditation Program for Substance Abuse (LAPSA) effective May 12, 1998. Laboratories certified through that program were accredited to conduct forensic urine drug testing as required by U.S. Department of Transportation (DOT) regulations. As of that date, the certification of those accredited Canadian laboratories will continue under DOT authority. The responsibility for conducting quarterly performance testing plus periodic on-site inspections of those LAPSA-accredited laboratories was transferred to the U.S. HHS, with the HHS' NLCP contractor continuing to have an active role in the performance testing and laboratory inspection processes. Other Canadian laboratories wishing to be considered for the NLCP may apply directly to the NLCP contractor just as U.S. laboratories do.

Upon finding a Canadian laboratory to be qualified, HHS will recommend that DOT certify the laboratory (**Federal Register**, July 16, 1996) as meeting the minimum standards of the Mandatory Guidelines published in the **Federal Register** on January 23, 2017 (82 FR 7920). After receiving DOT certification, the laboratory will be included in the monthly list of HHS-certified laboratories and participate in the NLCP certification maintenance program.

Anastasia Marie Donovan,

Public Health Advisor, Division of Workplace Programs.

[FR Doc. 2022–28506 Filed 12–30–22; 8:45 am]

BILLING CODE 4160–20–P

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

[Docket No. USCG–2022–0047]

Port Access Route Study: Approaches to Maine, New Hampshire, and Massachusetts

AGENCY: Coast Guard, DHS.

ACTION: Notice of availability of draft report; request for comments.

SUMMARY: On March 31, 2022, the Coast Guard published a notice of study and request for comments announcing commencement of an Approaches to Maine, New Hampshire, and Massachusetts Port Access Route Study (MNMPARS). This notice announces the availability of a draft report for public review and comment. The Coast Guard is seeking public comments on the content, proposed routing measures, and development of the report. The recommendations of this study may lead

to future rulemakings or appropriate international agreements.

DATES: All comments and related material must be received on or before February 2, 2022. Commenters should be aware that the electronic Federal Docket Management System will not accept comments after midnight, Eastern Daylight Time, on the last day of the comment period.

ADDRESSES: You may submit comments identified by docket number USCG–2022–0047 using the Federal eRulemaking Portal (*http://www.regulations.gov*). See the ''Public Participation and Request for Comments'' portion of the **SUPPLEMENTARY INFORMATION** section for further instructions on viewing the draft report and submitting comments.

FOR FURTHER INFORMATION CONTACT: If you have questions about this notice, call or email LTJG Thomas Davis, First Coast Guard District (dpw), U.S. Coast Guard: telephone (617) 223–8632, email *SMB-D1Boston-MNMPARS@uscg.mil.*

SUPPLEMENTARY INFORMATION:

I. Table of Abbreviations

DHS Department of Homeland Security
MNMPARS Approaches to Maine, New Hampshire, and Massachusetts Port Access Route Study
PARS Port Access Route Study
TSS Traffic Separation Scheme
USCG United States Coast Guard

II. Background and Purpose

Under section 70003 of title 46 of the United States Code (46 U.S.C. 70003(c)), the Commandant of the U.S. Coast Guard (USCG) may designate necessary fairways and traffic separation schemes (TSSs) to provide safe access routes for vessels proceeding to and from U.S. ports. The designation of fairways and TSSs recognizes the paramount right of navigation over all other uses in the designated areas.

Before establishing or adjusting fairways or TSSs, the USCG must conduct a Port Access Route Study (PARS), *i.e.,* a study of potential traffic density and the need for safe access routes for vessels. Through the study process, the USCG must coordinate with federal, state, tribal, and foreign state agencies (where appropriate) and consider the views of maritime community representatives, environmental groups, and other stakeholders. The primary purpose of this coordination is, to the extent practicable, to reconcile the need for safe access routes with other reasonable waterway uses such as anchorages, construction, operation of renewable energy facilities, marine sanctuary operations, commercial and recreational activities, and other uses.

On March 31, 2022, the Coast Guard commenced an Approaches to Maine, New Hampshire, and Massachusetts Port Access Route Study (MNMPARS) by publishing a notice of study and request for comments in the **Federal Register** (87 FR 18800). The purpose of the MNMPARS is to evaluate the adequacy of existing vessel routing measures and determine whether additional vessel routing measures are necessary for port approaches to Maine, New Hampshire, and Massachusetts and international and domestic transit areas in the First Coast Guard District area of responsibility.

On June 28, 2022, the First Coast Guard District published a 60-day Notification of Inquiry and Public Meetings; request for comments (87 FR 38418). This supplemental notice announced a schedule for six public meetings and sought additional public comments concerning more specific navigational safety issues. The notification requested responses to several general and port-specific questions that were based on analysis of historical traffic data and public comments received from the original Notice of Study. Of the six public meetings, four were conducted in both in-person and virtual formats, one was in-person only, and one was virtual only.

During both comment periods a total of 30 comments were submitted by representatives of the maritime community, Federal and State governmental agencies, environmental groups, non-governmental organizations, and other stakeholders. Comments were provided during public meetings, via email, and submitted directly to the electronic docket. Oral comments provided during public meetings can be viewed in the individual meeting recordings posted to the ''Documents'' section of the public docket.

The USCG is opening this third MNMPARS comment period to facilitate transparent public feedback on the content and findings included in the draft report of this study.

III. Information Requested

The USCG is seeking all public comments on the content and recommendations contained in the study draft report. All comments received will be reviewed and considered before a final version of the PARS is announced in the **Federal Register**.

IV. Public Participation and Request for Comments

We encourage you to participate in the study process by commenting on the content and development of the draft report.

A. *Viewing the draft version of the report:* To view the draft version of the MNMPARS report in the docket, go to *http://www.regulations.gov,* and insert ''USCG–2022–0047'' in the ''search box''. Click ''Search''. Then, scroll to find the document entitled ''DRAFT REPORT Approaches to Maine, New Hampshire, and Massachusetts Port Access Route Study'' under the document type ''Supporting & Related Material.''

B. *Submitting Comments:* To submit your comment online, go to *http://www.regulations.gov,* and insert ''USCG–2022–0047'' in the ''search box.'' Click ''Search''. Then scroll to find the most recent ''notice'' entitled ''Port Access Route Study: Approaches to Maine, New Hampshire, and Massachusetts'' and click ''Comment.'' The ''Comment'' button can be found on the following pages:

- Docket Details page when a document within the docket is open for comment,
- Document Details page when the document is open for comment, and
- Document Search Tab with all search results open for comment displaying a ''Comment'' button.

Clicking ''Comment'' on any of the above pages will display the comment form. You can enter your comment on the form, attach files (maximum of 20 files up to 10MB each), and choose whether to identify yourself as an individual, an organization, or anonymously. Be sure to complete all required fields depending on which identity you have chosen. Once you have completed all required fields and chosen an identity, the ''Submit Comment'' button is enabled. Upon completion, you will receive a Comment Tracking Number for your comment. For additional step by step instructions, please see the Frequently Asked Questions page on *http://www.regulations.gov* or by clicking *https://www.regulations.gov/faq.*

We accept anonymous comments. Comments we post to *http://www.regulations.gov* will include any personal information you have provided. For more about privacy and submissions to the docket in response to this document, see DHS's eRulemaking System of Records notice (85 FR 14226, March 11, 2020).

We review all comments and materials received during the comment period, but we may choose not to post off-topic, inappropriate, or duplicate comments that we receive.

C. *How do I find and browse for posted comments on Regulations.gov?* On the previous version of *Regulations.gov,* users browsed for comments on the Docket Details page. However, since comments are made on individual documents, not dockets, new *Regulations.gov* organizes comments under their corresponding document. To access comments and documents submitted to this draft version of the study report go to *http://www.regulations.gov* and insert ''USCG–2022–0047'' in the ''search box.'' Click ''Search.'' Then scroll down to and click on the most recent ''notice'' entitled ''Port Access Route Study: Approaches to Maine, New Hampshire, and Massachusetts.'' This will open to the ''Document Details'' page. Then click on the ''Browse Comments'' tab. On the comment tab, you can search and filter comments. Note: If no comments have been posted to a document, the ''Comments'' tab will not appear on the Document Details page.

D. If you need additional help navigating the new Regulations.gov. For additional step by step instructions to submit a comment or to view submitted comments or other documents please see the Frequently Asked Questions (FAQs) at *http://www.regulations.gov/faqs* or call or email the person in the **FOR FURTHER INFORMATION CONTACT** section of this document for alternate instructions.

E. *Privacy Act:* Anyone can search the electronic form of comments received into any of our dockets by the name of the individual submitting the comment (or signing the comment, if submitted on behalf of an association, business, labor union, etc.). You may review a Privacy Act, system of records notice regarding DHS's eRulemaking in the March 11, 2020, issue of the **Federal Register** (85 FR 14226).

V. Future Actions

Any comments received by the comment period end date will be reviewed and considered before the final report of the MNMPARS is announced in the **Federal Register**.

This notice is published under the authority of 5 U.S.C. 552(a).

Dated: December 22, 2022.

J. W. Mauger,

Rear Admiral, U.S. Coast Guard, Commander, First Coast Guard District.

[FR Doc. 2022–28482 Filed 12–30–22; 8:45 am]

BILLING CODE 9110–04–P

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

[Docket No. USCG–2010–0164]

National Boating Safety Advisory Committee; January 2023 Virtual Meeting

AGENCY: U.S. Coast Guard, Department of Homeland Security.

ACTION: Notice of Federal Advisory Committee virtual meeting.

SUMMARY: The National Boating Safety Advisory Committee (Committee) and its Subcommittees will meet virtually to discuss matters relating to national boating safety. The virtual meeting will be open to the public.

DATES:

Meeting: The Committee and its Subcommittees will meet on Wednesday, January 18, 2023, from noon until 5 p.m. Eastern Standard Time (EST). This virtual meeting may adjourn early if the Committee has completed its business.

Comments and supporting documentation: To ensure your comments are received by Committee members before the virtual meeting, submit your written comments no later than January 11, 2023.

ADDRESSES: To join the virtual meeting or to request special accommodations, contact the individual listed in the **FOR FURTHER INFORMATION CONTACT** section no later than 1 p.m. EST on January 16, 2023. The number of virtual lines are limited and will be available on a first-come, first-served basis.

Pre-registration information: Pre-registration is required for attending virtual meeting. You must request attendance by contacting the individual listed in the **FOR FURTHER INFORMATION CONTACT** section of this notice. You will receive a response with attendance instructions.

The National Boating Safety Advisory Committee is committed to ensuring all participants have equal access regardless of disability status. If you require reasonable accommodation due to a disability to fully participate, please email Mr. Jeff Decker at *NBSAC@uscg.mil* or call 202–372–1507 as soon as possible.

Instructions: You are free to submit comments at any time, including orally at the meeting as time permits, but if you want Committee members to review your comments before the meeting, please submit your comments no later than January 11, 2023. We are particularly interested in comments on the issues in the ''Agenda'' section below. We encourage you to submit comments through the Federal eRulemaking Portal at *https://www.regulations.gov.* If your material cannot be submitted using *https://www.regulations.gov,* contact the individual in the **FOR FURTHER INFORMATION CONTACT** section of this document for alternate instructions. You must include the docket number [USCG–2010–0164]. Comments received will be posted without alteration at *http://www.regulations.gov,* including any personal information provided. You may wish to review the privacy and submissions in response to this document, see DHS's eRulemaking System of Records notice (85 FR 14226, March 11, 2020). If you encounter technical difficulties with comment submission, contact the individual listed in the **FOR FURTHER INFORMATION CONTACT** section of this notice.

Docket Search: Documents mentioned in this notice as being available in the docket, and all public comments, will be in our online docket at *https://www.regulations.gov* and can be viewed by following that website's instructions. Additionally, if you go to the online docket and sign-up for email alerts, you will be notified when comments are posted.

FOR FURTHER INFORMATION CONTACT: Mr. Jeff Decker, Alternate Designated Federal Officer of the National Boating Safety Advisory Committee, 2703 Martin Luther King Jr. Ave. SE, Stop 7509, Washington, DC 20593–7509, telephone 202–372–1507 or via email at *NBSAC@uscg.mil.*

SUPPLEMENTARY INFORMATION: Notice of this meeting is given pursuant the *Federal Advisory Committee Act,* (5 U.S.C. Appendix). The Committee was established on December 4, 2018, by section 601 of the *Frank LoBiondo Coast Guard Authorization Act of 2018,* Public Law 115–282, 132 Stat. 4192, and is codified in 46 U.S.C. 15105. The Committee operates under the provisions of the *Federal Advisory Committee Act* (5 U.S.C. Appendix), and 46 U.S.C. 15109. The National Boating Safety Advisory Committee provides advice and recommendations to the Secretary of Homeland Security via the Commandant of the United States Coast Guard on matters relating to national boating safety. This notice is issued under the authority of 46 U.S.C. 15109(a).

Agenda

The agenda for the National Boating Safety Advisory Committee meeting is as follows:

ENCLOSURE 9

Federal Register Notice Extension of Comment Period (88 FR 2108)

93.846–93.878, 93.892, 93.893, National Institutes of Health, HHS)

Dated: January 6, 2023.

Miguelina Perez,

Program Analyst, Office of Federal Advisory Committee Policy.

[FR Doc. 2023–00436 Filed 1–11–23; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

[Docket No. USCG–2022–0047]

Port Access Route Study: Approaches to Maine, New Hampshire, and Massachusetts

AGENCY: Coast Guard, DHS.

ACTION: Notice of availability of draft report; extension of comment period.

SUMMARY: On January 3, 2023, the Coast Guard published a notice announcing the availability of a draft report of an Approaches to Maine, New Hampshire, and Massachusetts Port Access Route Study (MNMPARS). The notice we sent to the Office of the Federal Register provided for a 30-day comment period. But when the notice was published it listed a past date, February 2, 2022, as the end of the comment period. This document extends the intended comment period to a full 30 days from the date of publication of this notice. The Coast Guard seeks comments on the content, proposed routing measures, and development of the report. The recommendations of MNMPARS study may lead to future rulemakings or appropriate international agreements.

DATES: All comments and related material on the notice published at 88 FR 83 on January 3, 2022, must be received on or before February 13, 2023. Commenters should be aware that the electronic Federal Docket Management System will not accept comments after midnight, Eastern Daylight Time, on the last day of the comment period.

ADDRESSES: You may submit comments identified by docket number USCG–2022–0047 using the Federal eRulemaking Portal (*http://www.regulations.gov*). See the ''Public Participation and Request for Comments'' portion of the **SUPPLEMENTARY INFORMATION** section for further instructions on viewing the draft report and submitting comments.

FOR FURTHER INFORMATION CONTACT: If you have questions about this notice, call or email LTJG Thomas Davis, First Coast Guard District (dpw), U.S. Coast Guard: telephone (617) 223–8632, email *SMB-D1Boston-MNMPARS@uscg.mil.*

SUPPLEMENTARY INFORMATION: On January 3, 2023, the Coast Guard published a notice announcing the availability of a draft report of an Approaches to Maine, New Hampshire, and Massachusetts Port Access Route Study (MNMPARS) (88 FR 83). While the public inspection version of the notice (*https://public-inspection.federalregister.gov/2022-28482.pdf*) provided a 30-day comment period notice, the **DATES** section of that published notice stated that comments and related material must be received on or before ''February 2, 2022.'' Because this was a past date, *regulations.gov* did not accept comments in our online docket. We attempted to get the Office of the Federal Register to correct but a correction has not yet been published.

If we were to simply correct the end of the comment period date in the document published January 3, 2023, that would not provide a full comment period. To provide those interested in commenting on the report a full 30-day comment period, the Coast Guard is extending the comment period to February 13, 2023. If the Office of the Federal Register issues a correction to the date in the January 3, 2022 notice, that will not impact this extension of the comment period. You will have from January 12, 2023 (if not earlier) to February 13, 2023.

The draft report is available at this specific address in the docket: *https://www.regulations.gov/document/USCG-2022-0047-0044.* This notice is published under the authority of 5 U.S.C. 552(a).

Dated: January 6, 2023.

James E. McLeod,

Acting Chief, Office of Regulations and Administrative Law.

[FR Doc. 2023–00418 Filed 1–11–23; 8:45 am]

BILLING CODE 9110–04–P

DEPARTMENT OF HOMELAND SECURITY

Federal Emergency Management Agency

[Docket ID FEMA–2023–0002; Internal Agency Docket No. FEMA–B–2302]

Changes in Flood Hazard Determinations

AGENCY: Federal Emergency Management Agency, Department of Homeland Security.

ACTION: Notice.

SUMMARY: This notice lists communities where the addition or modification of Base Flood Elevations (BFEs), base flood depths, Special Flood Hazard Area (SFHA) boundaries or zone designations, or the regulatory floodway (hereinafter referred to as flood hazard determinations), as shown on the Flood Insurance Rate Maps (FIRMs), and where applicable, in the supporting Flood Insurance Study (FIS) reports, prepared by the Federal Emergency Management Agency (FEMA) for each community, is appropriate because of new scientific or technical data. The FIRM, and where applicable, portions of the FIS report, have been revised to reflect these flood hazard determinations through issuance of a Letter of Map Revision (LOMR), in accordance with Federal Regulations. The currently effective community number is shown in the table below and must be used for all new policies and renewals.

DATES: These flood hazard determinations will be finalized on the dates listed in the table below and revise the FIRM panels and FIS report in effect prior to this determination for the listed communities.

From the date of the second publication of notification of these changes in a newspaper of local circulation, any person has 90 days in which to request through the community that the Deputy Associate Administrator for Insurance and Mitigation reconsider the changes. The flood hazard determination information may be changed during the 90-day period.

ADDRESSES: The affected communities are listed in the table below. Revised flood hazard information for each community is available for inspection at both the online location and the respective community map repository address listed in the table below. Additionally, the current effective FIRM and FIS report for each community are accessible online through the FEMA Map Service Center at *https://msc.fema.gov* for comparison.

Submit comments and/or appeals to the Chief Executive Officer of the community as listed in the table below.

FOR FURTHER INFORMATION CONTACT: Rick Sacbibit, Chief, Engineering Services Branch, Federal Insurance and Mitigation Administration, FEMA, 400 C Street SW, Washington, DC 20472, (202) 646–7659, or (email) *patrick.sacbibit@fema.dhs.gov;* or visit the FEMA Mapping and Insurance eXchange (FMIX) online at *https://www.floodmaps.fema.gov/fhm/fmx_main.html.*

ENCLOSURE 10

Marine Safety Information Bulletin

23-001

Marine Safety Information Bulletin

Commander
First Coast Guard District
Prevention Division
408 Atlantic Ave
Boston, MA 02210

MSIB Number: 23-001
Date: January 12, 2023
Contact: LTJG Thomas Davis
E-Mail: SMB-D1Boston-MNMPARS@uscg.mil

Port Access Route Study: Approaches to Maine, New Hampshire, and Massachusetts

This bulletin addresses the notice of availability of draft report and request for comments for the Approaches to Maine, New Hampshire, and Massachusetts Port Access Route Study.

1. On March 31, 2022, the First Coast Guard District commenced an Approaches to Maine, New Hampshire, and Massachusetts Port Access Route Study (MNMPARS) to evaluate the adequacy of existing vessel routing measures and determine whether additional vessel routing measures are necessary for port approaches to Maine, New Hampshire, Massachusetts, and international and domestic transit areas in the First Coast Guard District area of responsibility. The recommendations of this study may subsequently be implemented through rulemakings or in accordance with international agreements.

2. On January 3, 2023, the First Coast Guard District published in the Federal Register a notice of availability of draft report and request for comments (88 FR 83). Due to a publishing error, the 30-day comment period did not commence until January 12, 2023. The Coast Guard is seeking public comments on the content, proposed routing measures, and development of the MNMPARS draft report.

3. All comments received on or before **February 13, 2023**, will be reviewed and considered prior to publication of a final report in the Federal Register.

4. To view the draft report, complete one of the following:
   - Go directly to https://www.regulations.gov/document/USCG-2022-0047-0044 **or**
   - Go to https://www.regulations.gov, insert "USCG-2022-0047" in the search box, and click "Search". Then scroll to find the document entitled *Draft Report Approaches to Maine, New Hampshire, and Massachusetts Port Access Route Study* under the document type "Supporting & Related Material."

5. To view the notice and submit your comments online, complete one of the following:
   - Go directly to https://www.regulations.gov/document/USCG-2022-0047-0045 **or**
   - Go to https://www.regulations.gov, insert "USCG-2022-0047" in the search box, and click "Search". Then scroll to find the most recent "Notice" entitled *Port Access Route Study: Approaches to Maine, New Hampshire, and Massachusetts* and click "Comment".

6. For questions regarding this Marine Safety Information Bulletin contact LTJG Thomas Davis, Waterways Management at First Coast Guard District, telephone (617) 223-8632, e-mail SMB-D1Boston-MNMPARS@uscg.mil.

Captain Richard J. Schultz, First Coast Guard District Chief of Prevention, sends

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