Enclosure 2 to the Port Access Route Study: The Pacific Coast From Washington to California – Vessel Traffic Summary

USCG Navigation Center (NAVCEN) in Alexandria, VA

Waterways Risk Assessment and Support Division

May 2022

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Introduction and Background

This traffic summary examines data from the years 2018-2021 to identify trends and unique or significant variations of vessel transits and characteristics in consideration of the Port Access Route Study: The Pacific Coast From Washington to California (PAC PARS). The notification of study for the PAC PARS is Agency Docket Number USCG-2021-0345. The study area for this PARS encompasses the west coast of the United States. Within this large area, several smaller port areas were identified to be included in this traffic summary. These areas are detailed in Table 1, from north to south geographically.

Area	Figure Number (Links to the subject figure.)
Puget Sound	Figure 1
Grays Harbor	Figure 2
Astoria	Figure 3
Yaquina Bay	Figure 4
Coos Bay	Figure 5
Humboldt Bay	Figure 6
San Francisco	Figure 7, Figure 8
Morro Bay	Figure 9
LA/LB	Figure 10, Figure 11, Figure 12
San Diego	Figure 13

Table 1: Port Areas Included in Traffic Summary

The figures depicting these areas are shown in the Methodology section. The displayed study bounds for each area extend to the territorial sea line. If routing measures, such as a Traffic Separation Schemes, extended beyond the territorial sea line, the study bounds for those areas were extended using a one nautical mile buffer around the associated routing measures. This modification to the study bounds applied to San Francisco, Puget Sound, and LA/LB.

In general in this report, **study area** refers to the area defined in the Federal Register for this PARS. **Port areas** refer to those areas named in Table 1. Each port area is delineated by **study bounds** and includes **areas of interest**, which are either lines or polygons that further subdivide that port area.

Materials and Data

Nationwide Automated Identification System (NAIS) Data

Traffic data from 01 January 2018 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 2: AIS Data Overview

AIS data fields include fields that are both user-defined and non-user defined as indicated in Table 2. User defined data can be prone to error and missing inputs. 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 3.

AIS Ship Type Code	Vessel Group
70-79	Cargo
80-89	Tanker
60-69	Passenger
30	Fishing
36, 37	Pleasure Craft / Sailing
35	Military
31-32, 52, 57	Tug / Tow
0, 1-29, 90+, Null	Not Available
All other values	Other (Workboats)

Table 3: AIS Ship Types to Vessel Groups

The group "Not Available" categorizes vessels in which either the type was not recorded by NAIS correctly or the user defined a ship type that is invalid, or unrecognized. The group "Other (Workboats)" includes various other specified ship types such as dredging, diving, and law enforcement vessels. Additionally, the AIS dataset

was joined with the IHS Markit ship and port data to augment these ship types if the AIS data was missing a type.

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, towing vessels of 26 feet or greater, vessels certificated for 150 or more passengers, dredging vessels near a channel, fishing vessels, and vessels over 300 gross tons on an international voyage. A full description of applicability and general United States requirements can be found in 33 CFR 164.46.

Despite these limitations, AIS traffic data provides a satisfactory representation of the traffic in the study area. 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 be accurate. The transit patterns for vessels that are not required to broadcast on AIS, such as small recreational vessels, are apparent even if these vessels are undercounted in the data set. This is based on the assumption that since a portion of the population of vessels not required by law to carry AIS voluntarily comply, these vessels provide a representative sample of the whole population. Overall, since not all vessels are required to broadcast on AIS, the population of all vessels in the study area is presumed greater than what is shown in this report.

Software

Track lines were constructed in ArcGIS Pro. Track line data extracted from ArcGIS was used to create bar charts and tables of track line and unique vessel counts in Python and Power BI. Traffic densities and summarize within visualizations were also created using ArcGIS.

Methodology

Traffic Composition

The traffic composition section provides counts of vessel tracks anywhere in the study bounds specified for each port area. AIS transmission data was imported to ArcGIS Pro and used to construct and enumerate these tracks. In this report, a trip or track is defined as 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. This means that if a ship transits in the area multiple times, each transit is counted as a track. For example, if the container ship CGALLTHEWAY transits near San Francisco, moors for greater than six hours while discharging cargo, then leaves the berth and transits out of the study area, two tracks are tallied under the type “Cargo.” The first is for the entrance transit, the second for the exit transit.

In addition to these track counts, unique vessel counts are also provided. This metric informs the study 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 that area. These counts provide a broad overview of the vessels present in each analyzed area.

Areas of Interest

While transit counts give a broad idea of traffic composition over the total study area, they dilute the information because the study area is very large. A passage line or areas of interest analysis allows for more specific study of the major routes present. This is accomplished by counting the transits across a gate placed in

the areas with the highest traffic density. A transit is counted every time a vessel crosses a line then enumerated and reported by vessel type. For a larger area not represented by a line, such as a precautionary area or anchorage, transits are counted that intersect that area of interest and are enumerated in the same way.

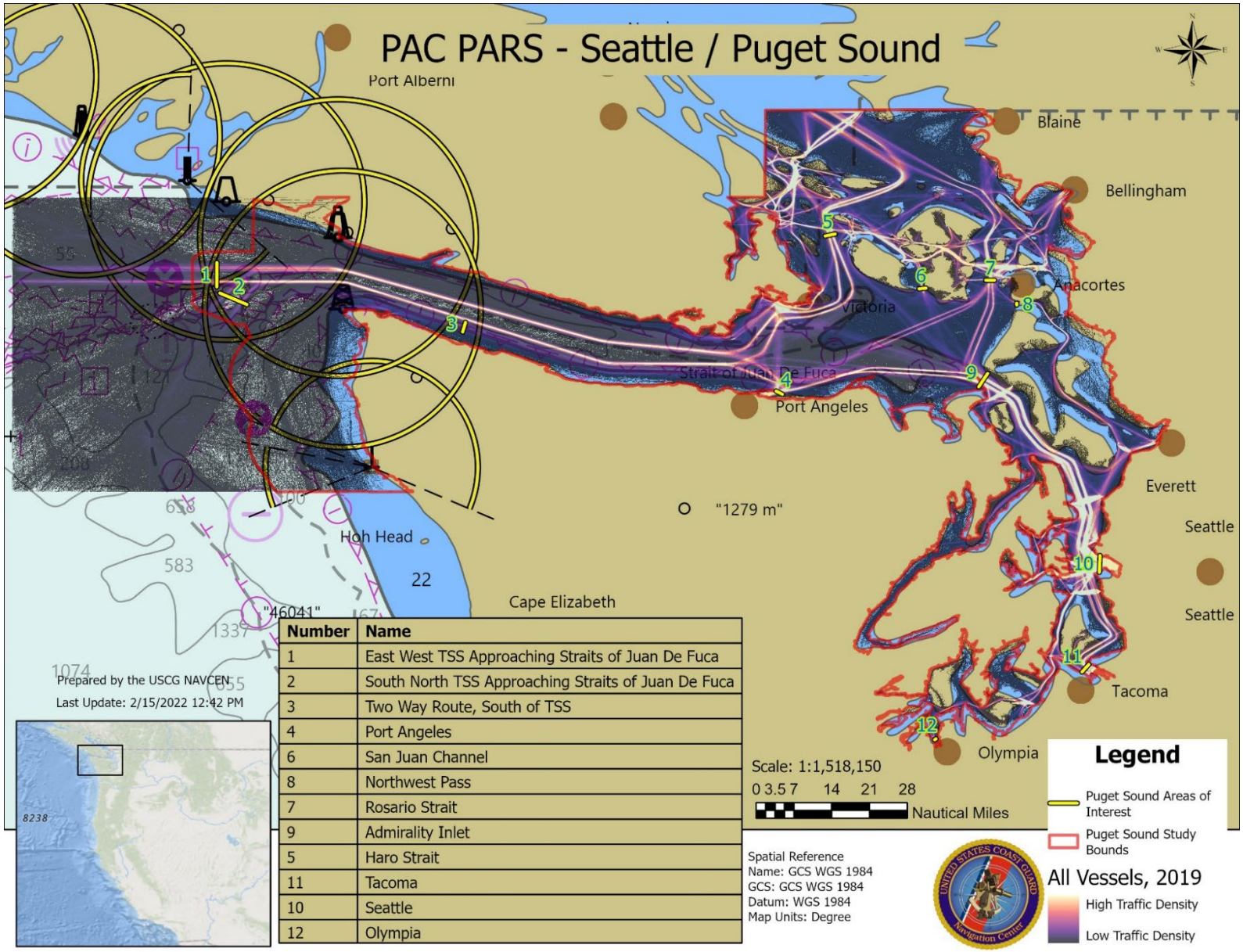
Lines were placed in areas that appear to have a high traffic volume or because they are of interest due to their geographical location. Entrances and exits to inlets were of interest because of the likelihood of many vessel transits in these areas. Additionally, lines were also placed across the width of existing traffic lanes, bridges, or other geographic areas of interest. Tracks were also enumerated in anchorages and precautionary areas.

The figures detailed in Table 4 depict the locations of areas of interest used in this traffic summary along with traffic density of all vessels from 2019 for each area. Traffic density is shown on a black, purple, orange, to yellow scale with black as lowest density and yellow as highest. For areas of interest, line areas are yellow and numbered, and polygon areas are blue, if applicable. A subset of these areas are detailed in this report; these are the areas listed in Table 4. The remaining areas of interest depicted in each figure were considered but are not included in this report.

Continuing the previous example, in the area of interest data summarized for the PAC PARS, the CGALLTHEWAY is counted every time it crosses each area. If that vessel crosses the San Francisco TSS Southern line, the Approaches to San Francisco line, and the charted precautionary area outside the bay in the same trip, three crossings are counted under "Cargo," one for each line and one for the precautionary area.

Area	Figure Number (Links to the subject figure.)	Areas of Interest Included in Report – by Number	Areas of Interest Included in Report – by Name
Puget Sound	Figure 1	1 2 3	East-West TSS Approaching Straits of Juan de Fuca North-South TSS Approaching Straits of Juan de Fuca Two-Way Route South of TSS
Grays Harbor	Figure 2	1	Grays Harbor Entrance
Astoria	Figure 3	1	Columbia River Entrance Channel
Yaquina Bay	Figure 4	1	Yaquina Bay Entrance
Coos Bay	Figure 5	1	Coos Bay Entrance
Humboldt Bay	Figure 6	1	Humboldt Bay Entrance
San Francisco	Figure 7, Figure 8	1 2 3 4	San Francisco Southern TSS San Francisco Western TSS San Francisco Northern TSS Approaches to San Francisco
Morro Bay	Figure 9	1	Morro Bay Entrance Channel
LA/LB	Figure 10, Figure 11, Figure 12	13 16 17	Coastwise Traffic Lane, South of LA Coastwise Traffic Lane, North of LA Westbound Traffic Lane, Between Islands
San Diego	Figure 13	1	San Diego Bay

Table 4: Areas of Interest Detailed in Report



Number	Name
1	East West TSS Approaching Straits of Juan De Fuca
2	South North TSS Approaching Straits of Juan De Fuca
3	Two Way Route, South of TSS
4	Port Angeles
6	San Juan Channel
8	Northwest Pass
7	Rosario Strait
9	Admiralty Inlet
5	Haro Strait
11	Tacoma
10	Seattle
12	Olympia

Figure 1: Seattle / Puget Sound Areas of Interest

Figure Note: At the presented scale, the study bounds do not appear to match the shoreline geography shown in the chart. Despite this appearance, the study bounds do mirror the shoreline.

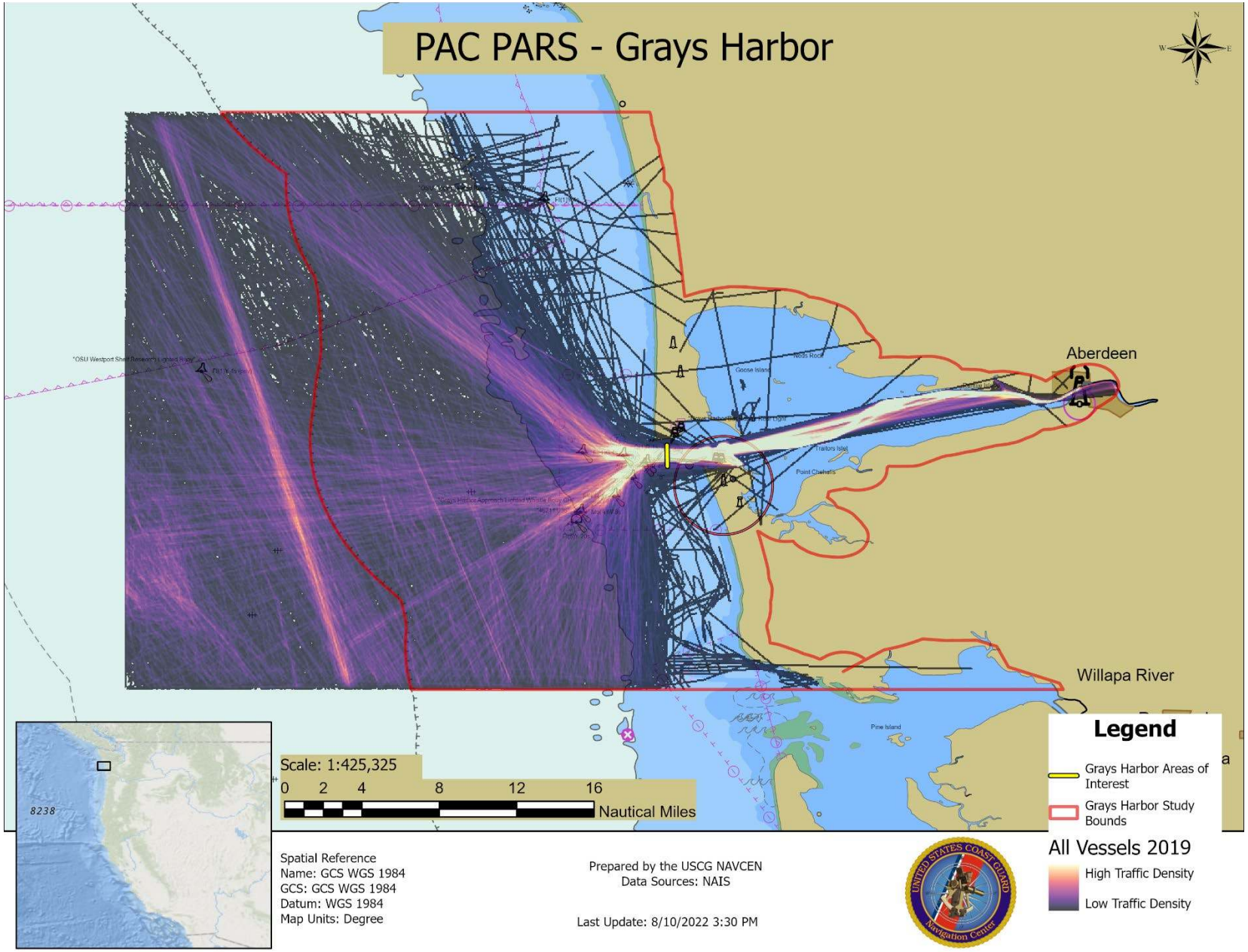


Figure 2: Grays Harbor Areas of Interest

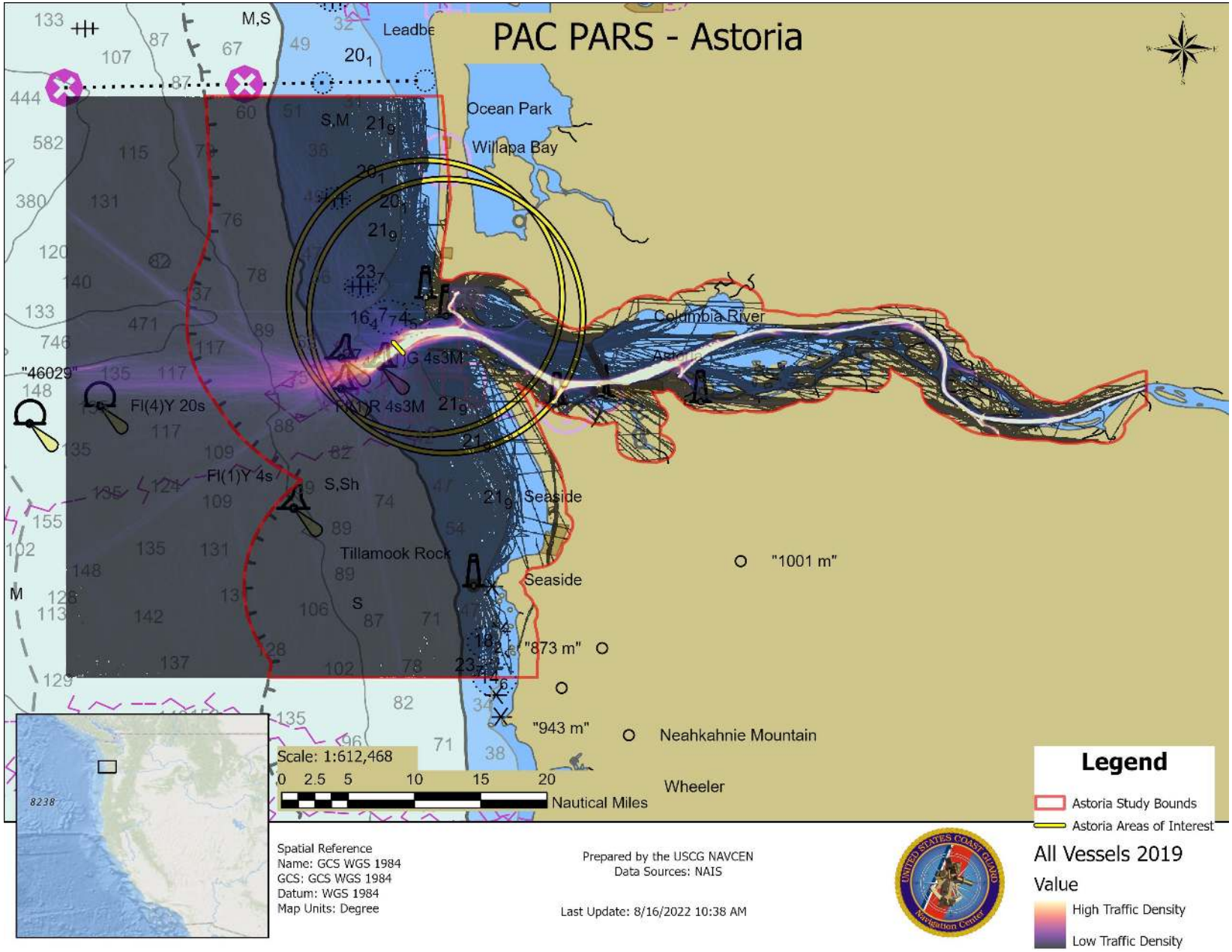


Figure 3: Astoria Areas of Interest

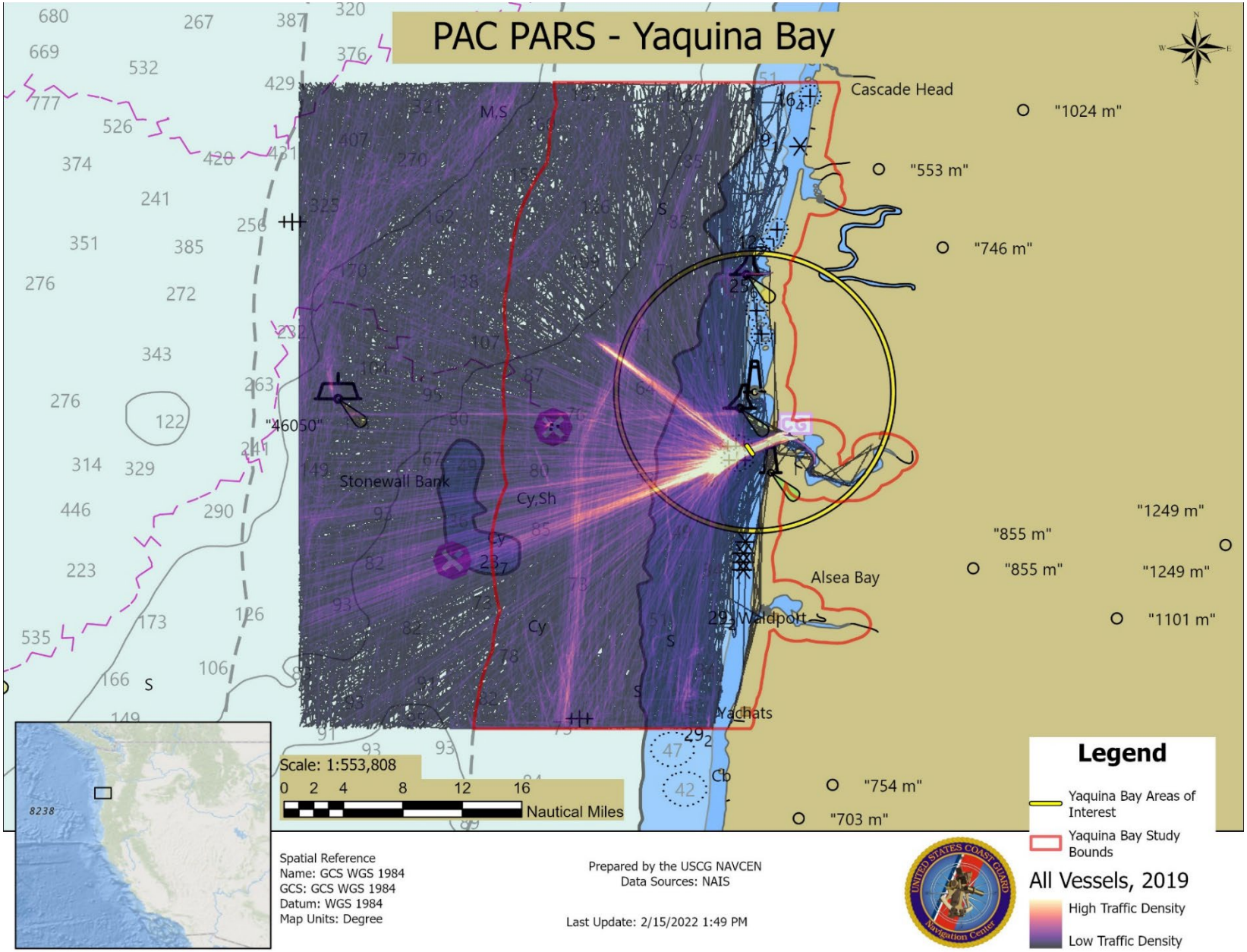


Figure 4: Yaquina Bay Areas of Interest

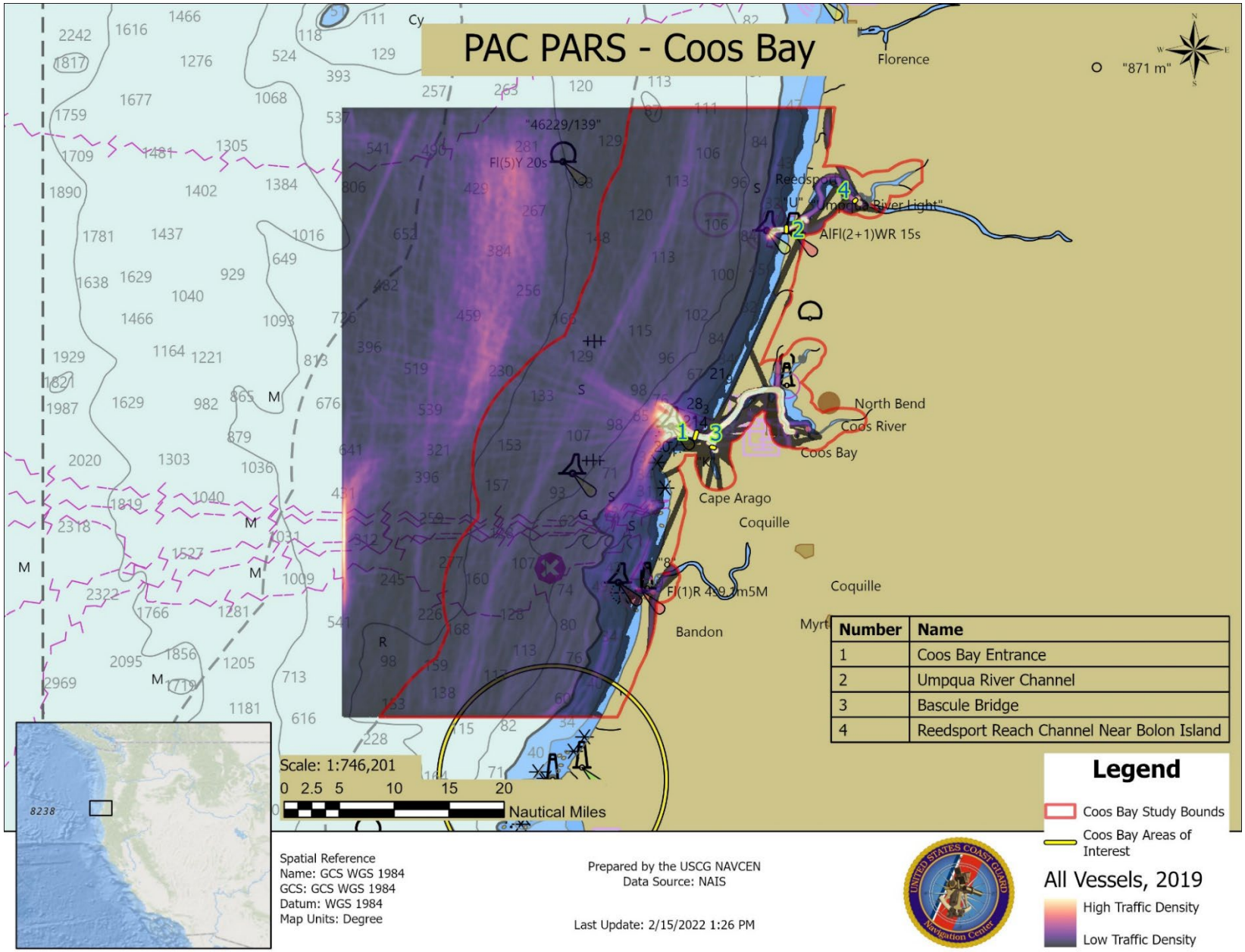


Figure 5: Coos Bay Areas of Interest

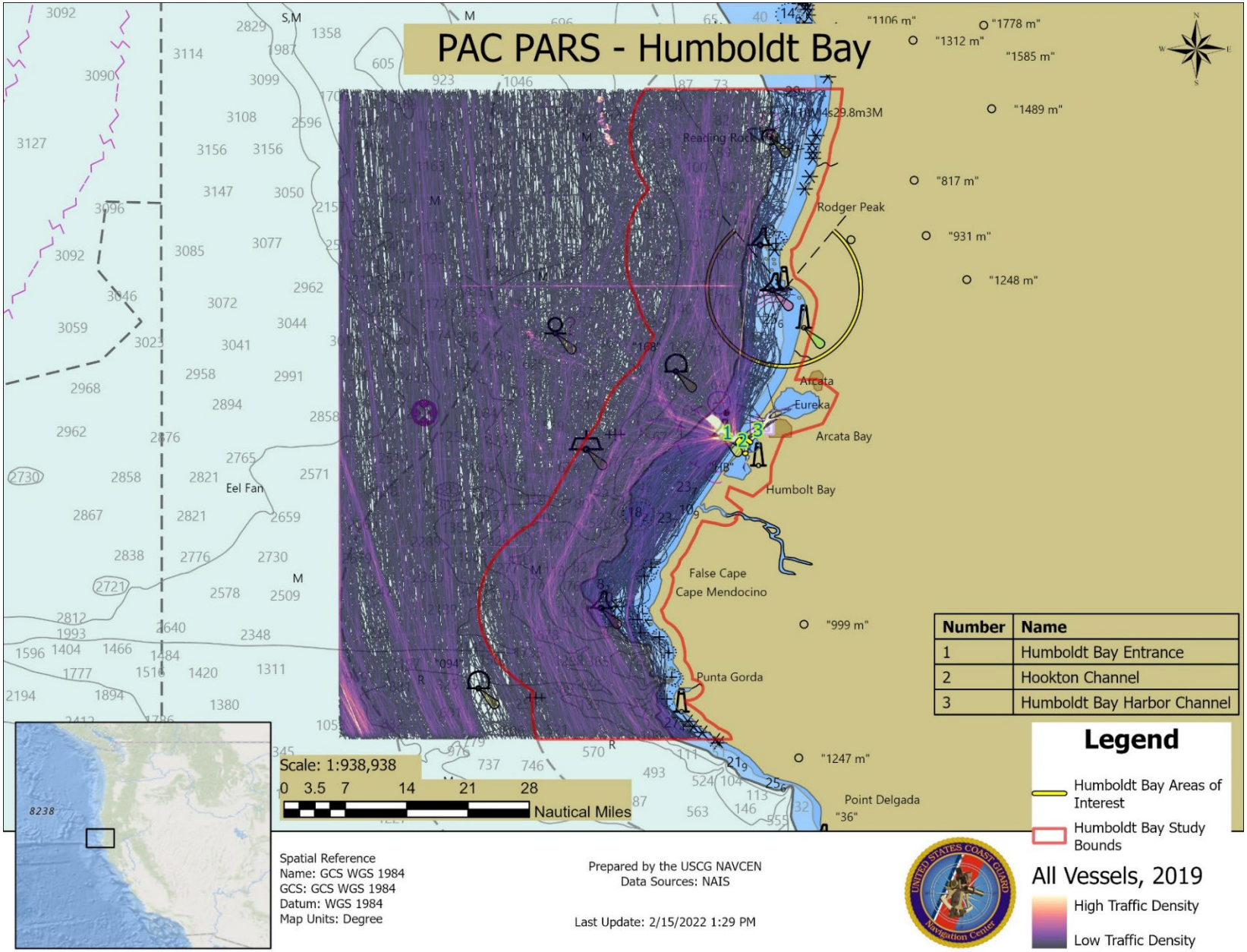


Figure 6: Humboldt Bay Areas of Interest

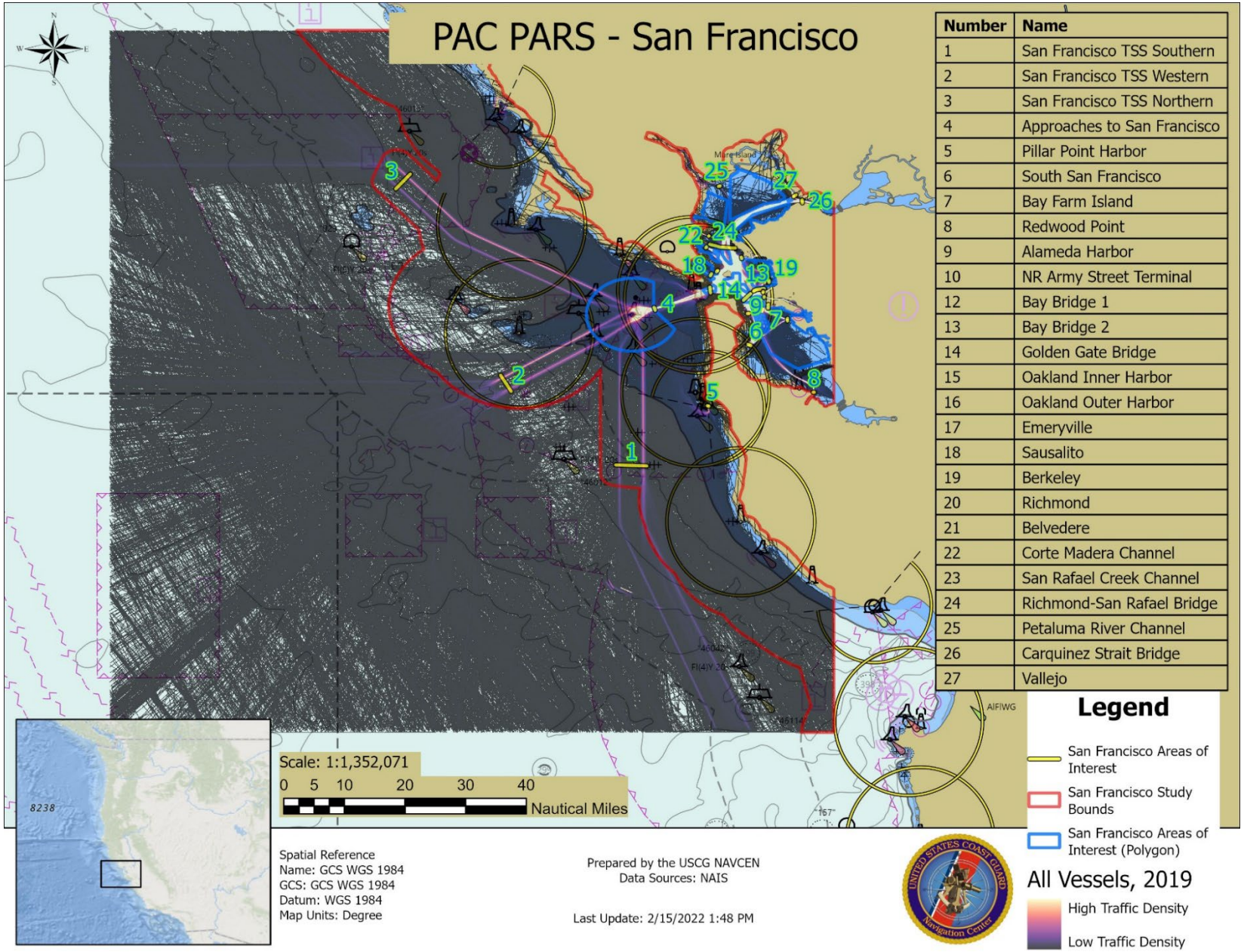


Figure 7: San Francisco Areas of Interest

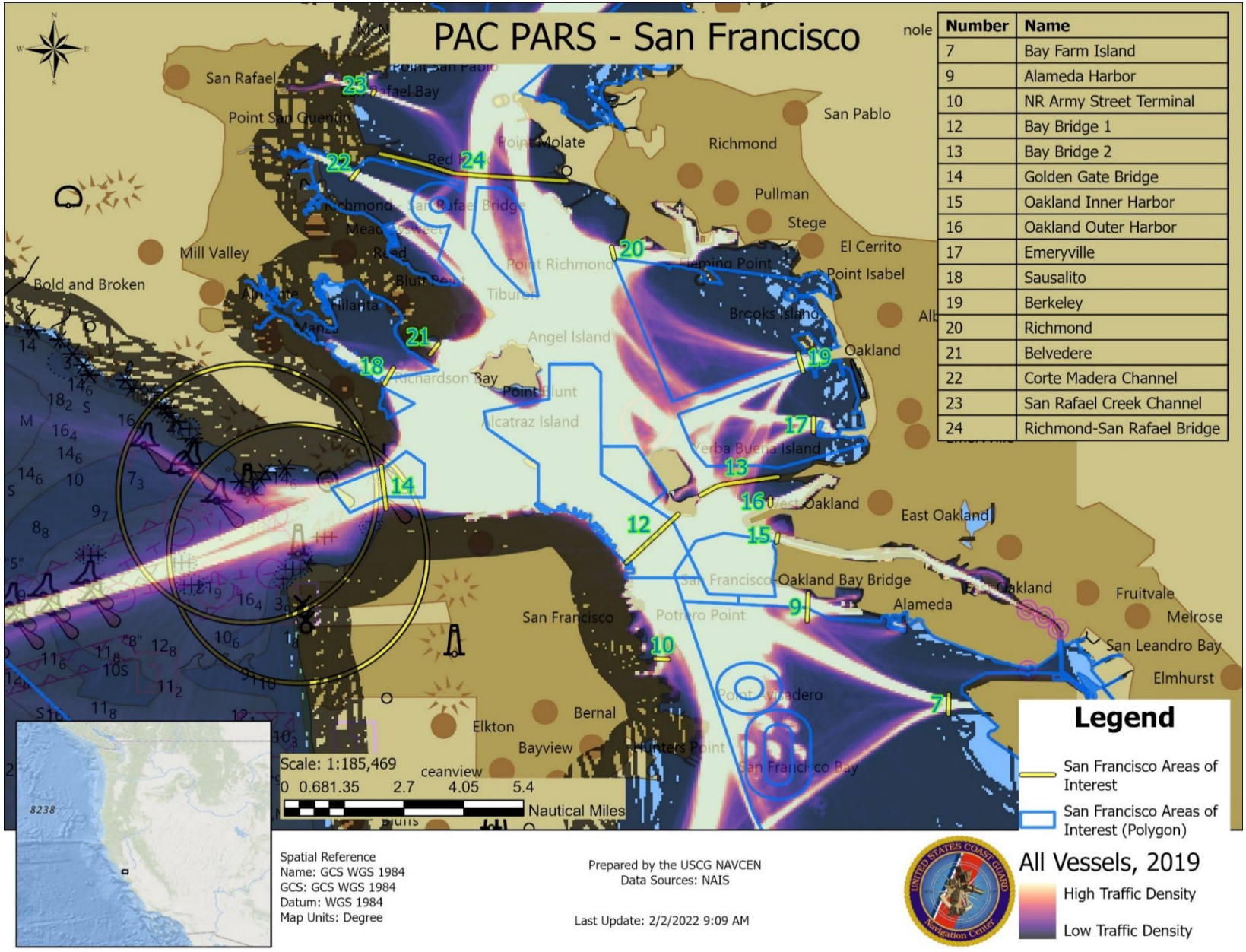


Figure 8: San Francisco Areas of Interest, Smaller Extent

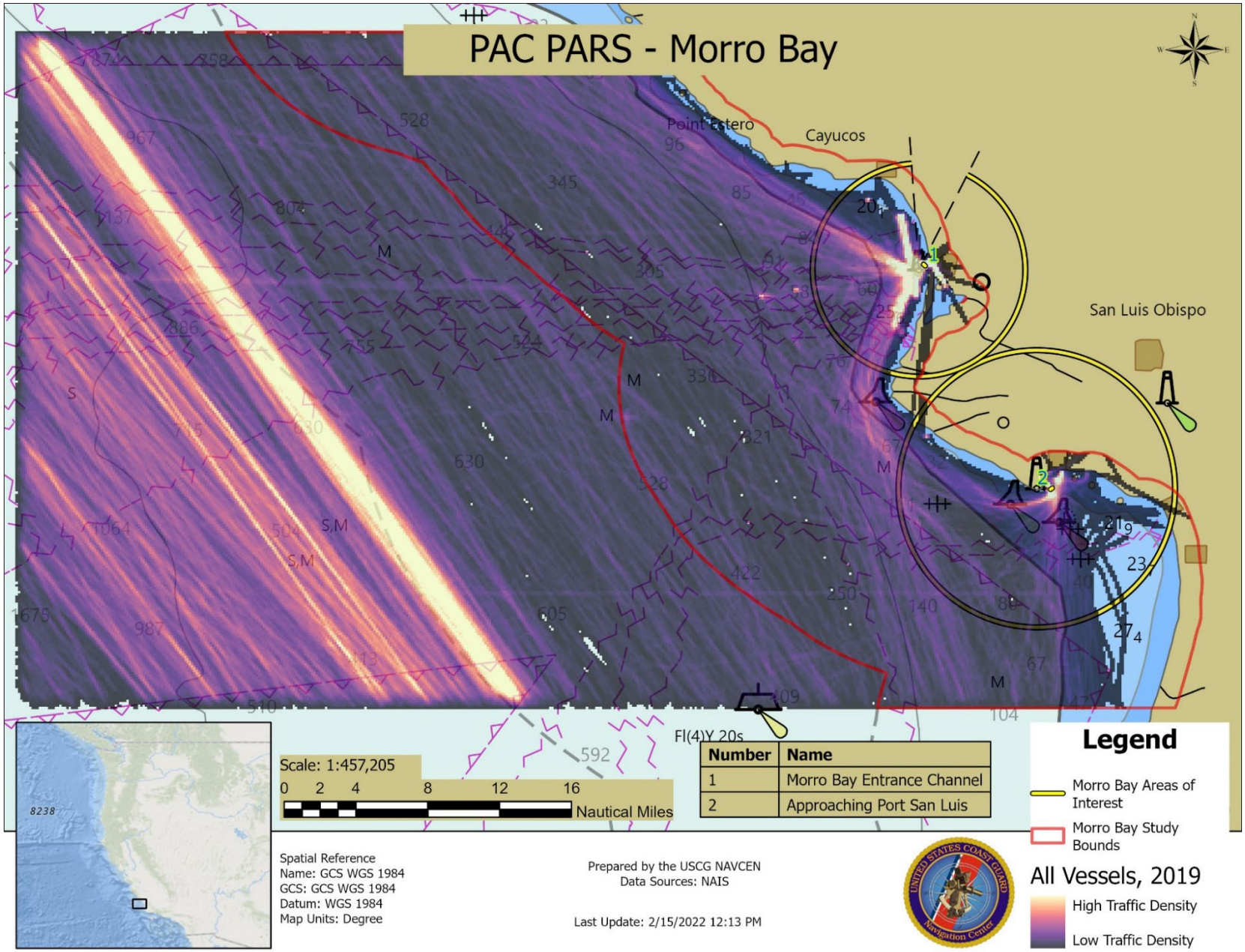
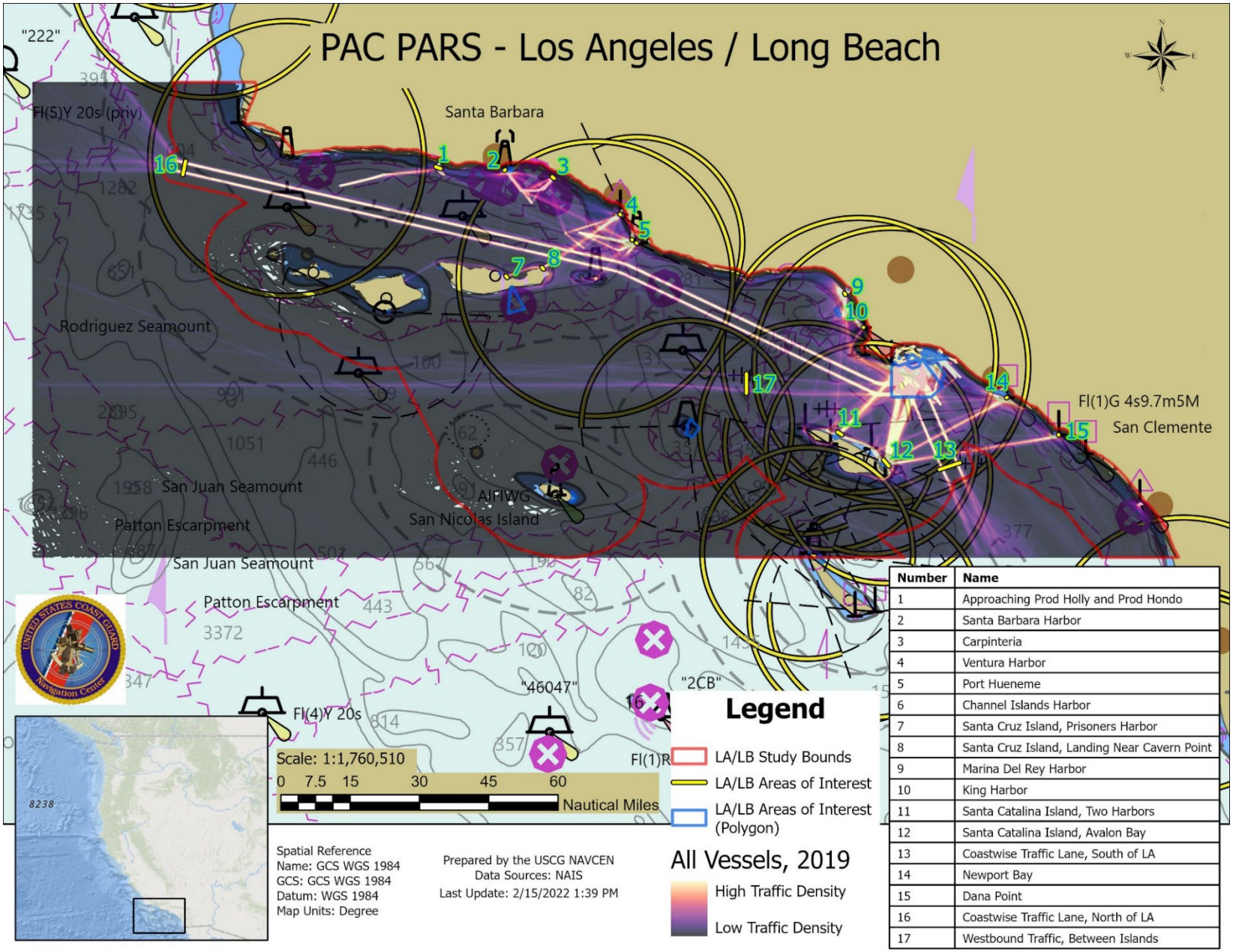


Figure 9: Morro Bay Areas of Interest



Number	Name
1	Approaching Prod Holly and Prod Hondo
2	Santa Barbara Harbor
3	Carpinteria
4	Ventura Harbor
5	Port Hueneme
6	Channel Islands Harbor
7	Santa Cruz Island, Prisoners Harbor
8	Santa Cruz Island, Landing Near Cavern Point
9	Marina Del Rey Harbor
10	King Harbor
11	Santa Catalina Island, Two Harbors
12	Santa Catalina Island, Avalon Bay
13	Coastwise Traffic Lane, South of LA
14	Newport Bay
15	Dana Point
16	Coastwise Traffic Lane, North of LA
17	Westbound Traffic, Between Islands

Figure 10: LA / LB Areas of Interest

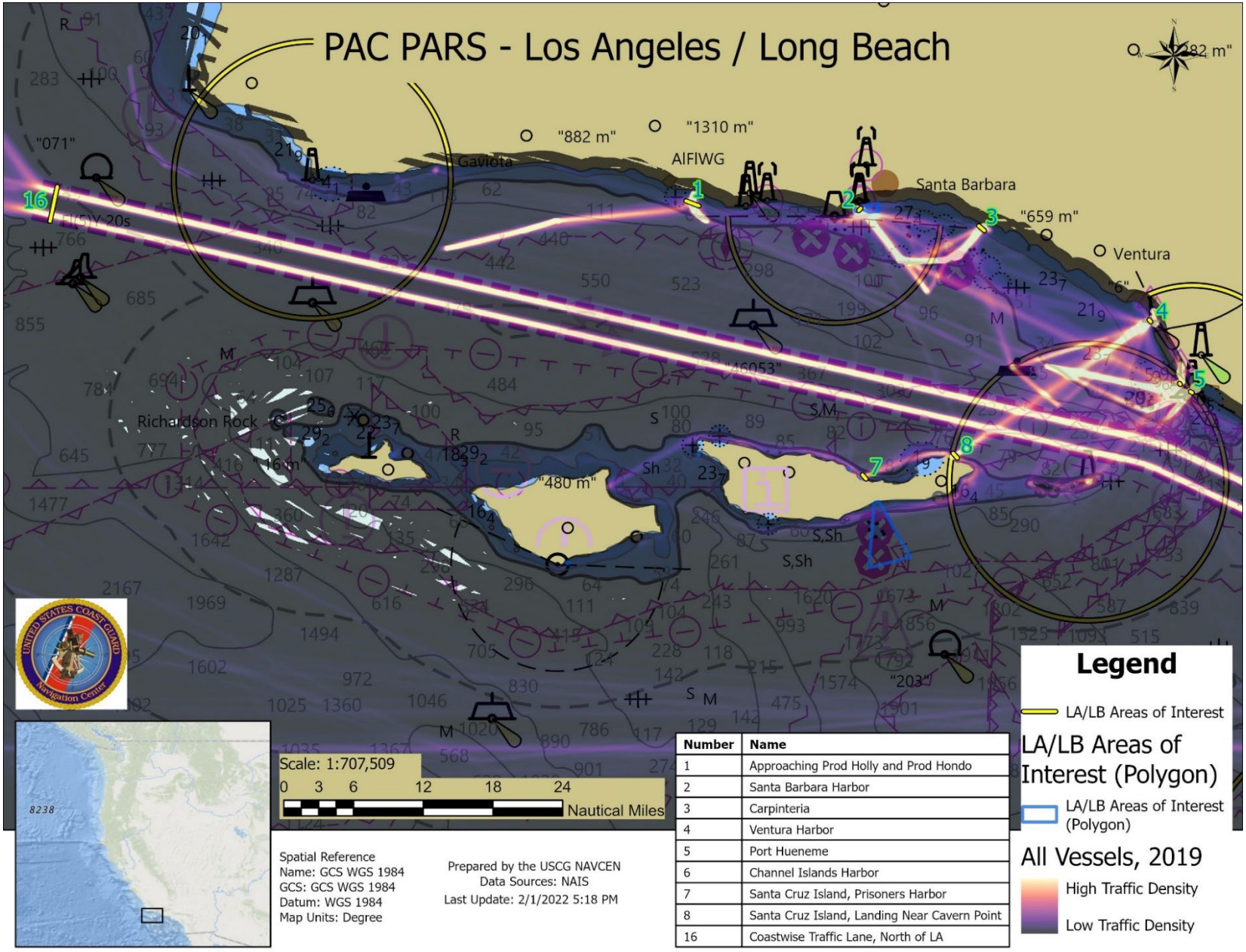
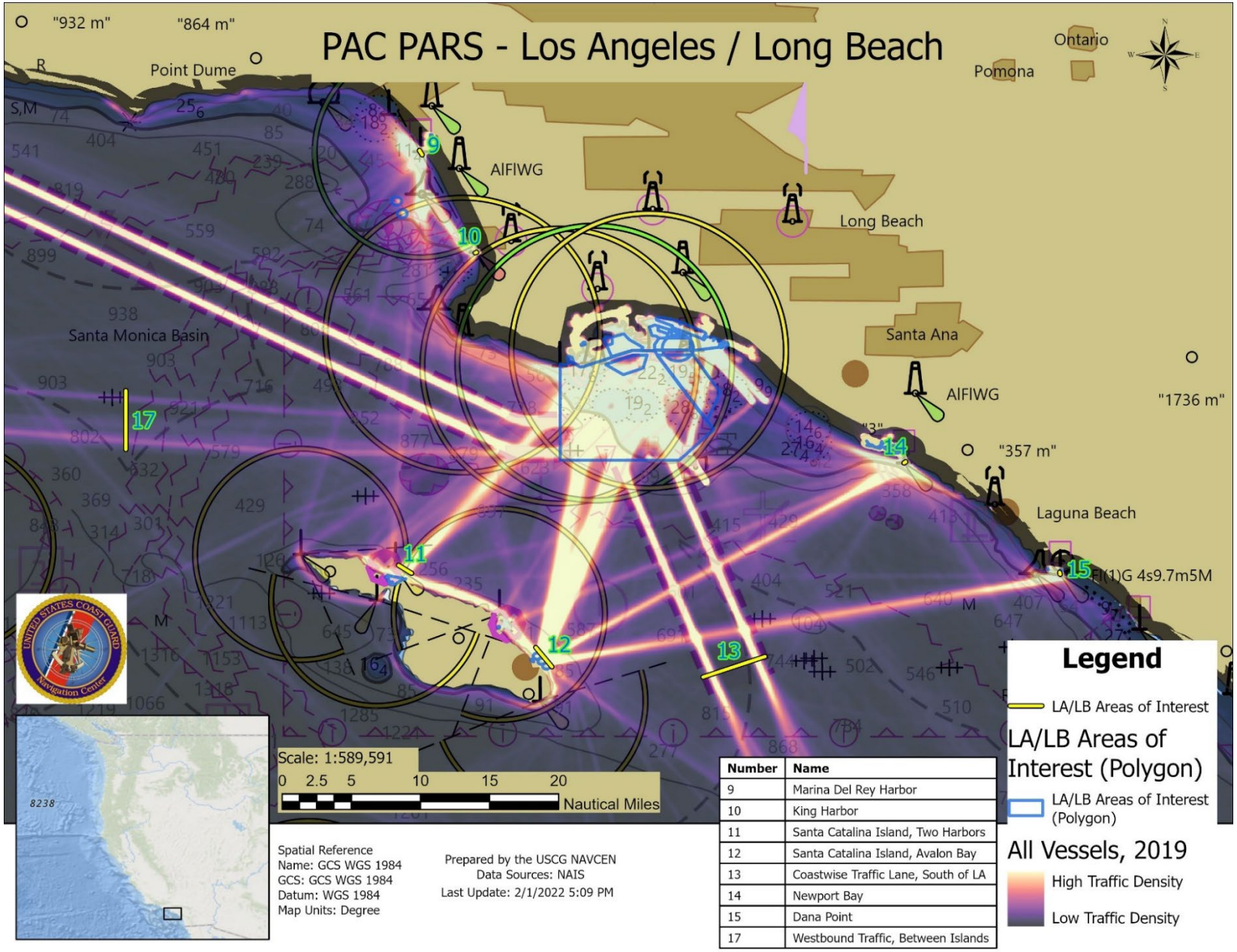


Figure 11: LA / LB Areas of Interest, Smaller Extent, North



Number	Name
9	Marina Del Rey Harbor
10	King Harbor
11	Santa Catalina Island, Two Harbors
12	Santa Catalina Island, Avalon Bay
13	Coastwise Traffic Lane, South of LA
14	Newport Bay
15	Dana Point
17	Westbound Traffic, Between Islands

Figure 12: LA / LB Areas of Interest, Smaller Extent, South

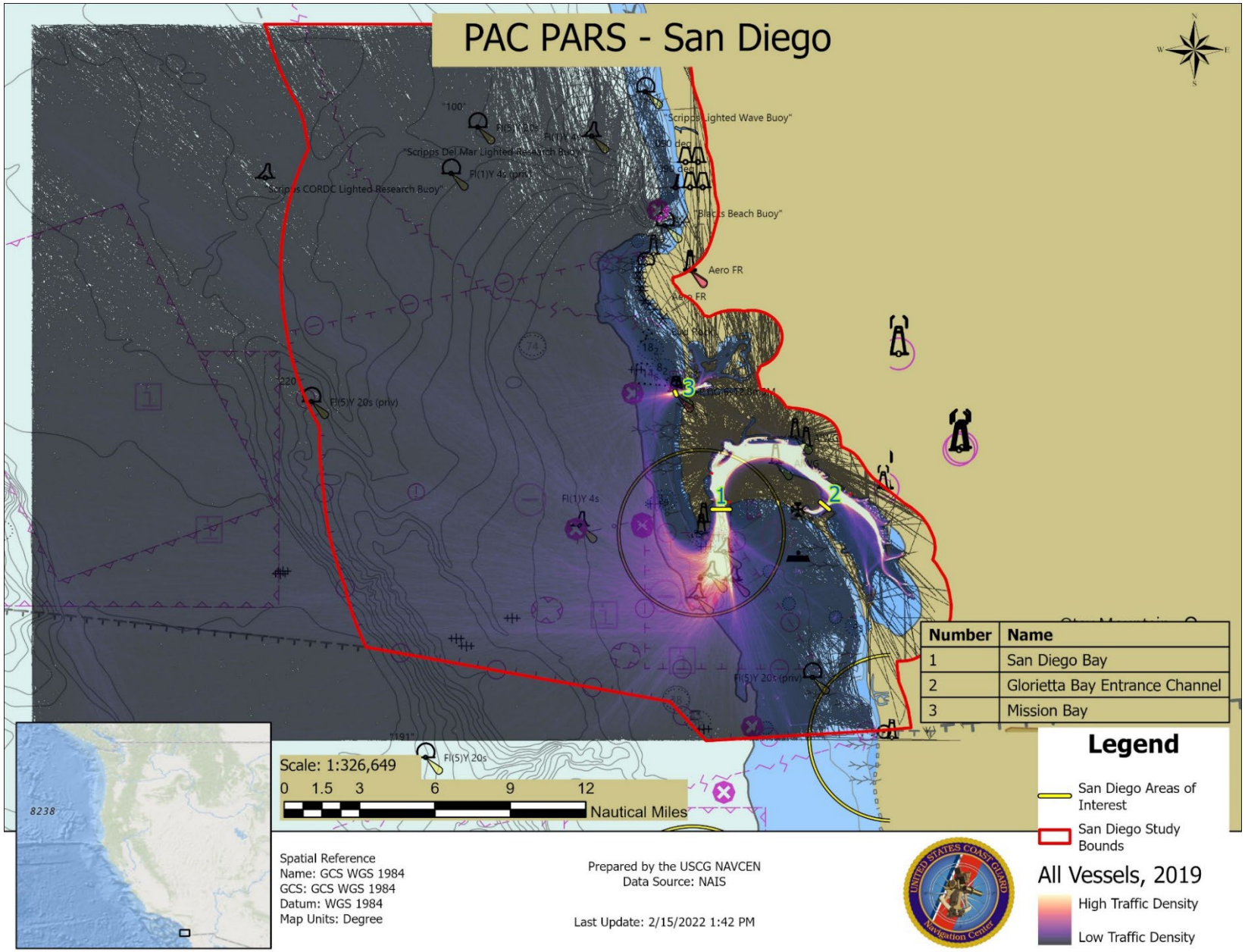


Figure 13: San Diego Areas of Interest

Comparing Traffic Composition and Passage Line Analyses

The traffic composition summaries (under the "Traffic Summary – Figures and Observations" section titled "Traffic Composition Summary") examine the study bounds for each area as a whole, while the areas of interest summaries examine subsets of that area that are of particular interest. Line or area of interest subsets do not together encompass the entire study area or all the study bounds. Therefore, the sum of the number of transits recorded in the areas of interest analysis will not equal the total number of transits in the traffic composition section. For example, in the areas of interest section, if across all areas in Humboldt Bay there are a total of 200 Pleasure Craft vessel transits in 2018, there will be more than 200 transits recorded in the traffic composition section for this vessel type for Humboldt Bay. Although each analysis is informative, each should be considered separately since it is not expected that the traffic shown in the areas of interest section will reflect all traffic in the defined study bounds or study area as a whole.

Vessel Length Distributions

Histograms are included for each of the port areas detailed in this report. The vessel length distributions report the sizes of vessels that transited each port area. For these histograms, any length less than or equal to zero and greater than or equal to 400 meters was removed as erroneous. Lengths were the converted from meters to feet. The length field is user-defined in AIS data, therefore some data errors are expected. Additionally, not every vessel has a reported length in the dataset, therefore fewer length observations are reported than total number of unique vessels in each port area.

Two histograms are included for each port area. The first shows the count of the number of transits recorded by vessels of particular lengths. The vessel length from every track line is counted, so a vessel that visits the study area multiple times is counted each time. The second shows counts of the number of unique vessels reporting particular lengths.

Traffic Visualizations

Traffic densities were created using ArcGIS's line density function. The density graphics show all vessel traffic for the key listed attribute over the course of a year. For example, the All Vessels density shows the conglomerate of the track lines of all the vessel groups combined, while the Cargo Ship density shows only the track lines associated with cargo ships. 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, therefore, these graphics can be directly compared to one another.

Results

Results from this traffic summary 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 Summary, Selected Areas of Interest Summary, Vessel Length Distributions, and Traffic Visualizations.

Traffic Composition Summary

The overall Traffic Composition charts (Figure 14 and Figure 15) indicate how many transits were made in each area over the identified year. These charts also show a count of the number of unique vessels in the identified year. For example, in 2019 around 1600 track lines were counted for Morro Bay, and about 500 unique vessels.

Attachment 1 – Traffic Composition by Port Area provides for more detailed breakdowns by vessel type in each of these areas. Each port area is detailed in two pages, with three charts and a table. The first page shows the track counts by year and vessel type, as well as the unique vessel counts by year and type. The second page contains a table with average track and unique vessel counts over all three years and a chart showing the average number of tracks attributed to each unique vessel per year. Calculating transits per unique vessel is a way to compare the traffic distribution between the four years of data. This is calculated by dividing the total number of transits by the total number of unique vessels. In practice, some vessels visit the study area more frequently than others.

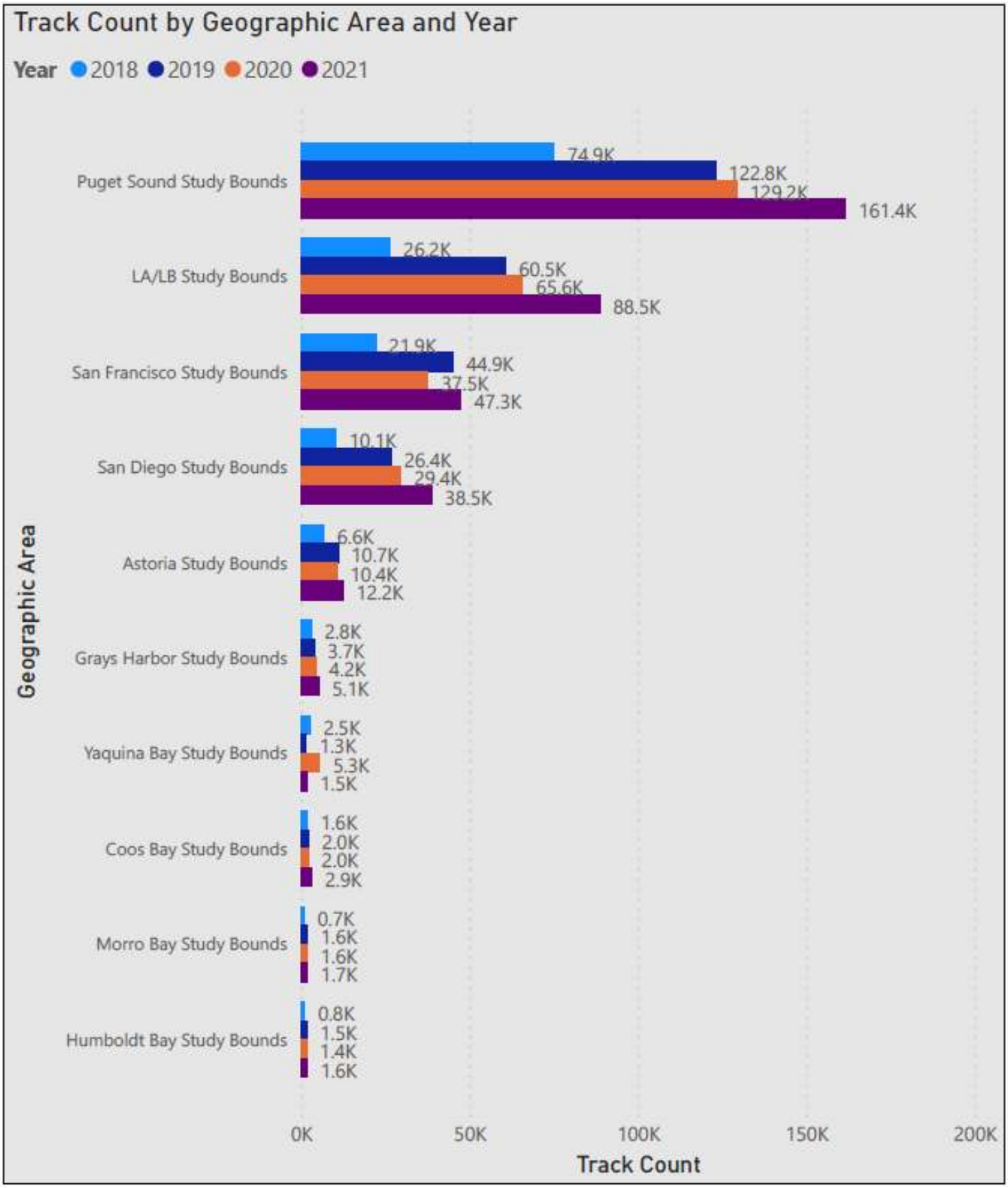


Figure 14: Track Counts by Port Area, by Year

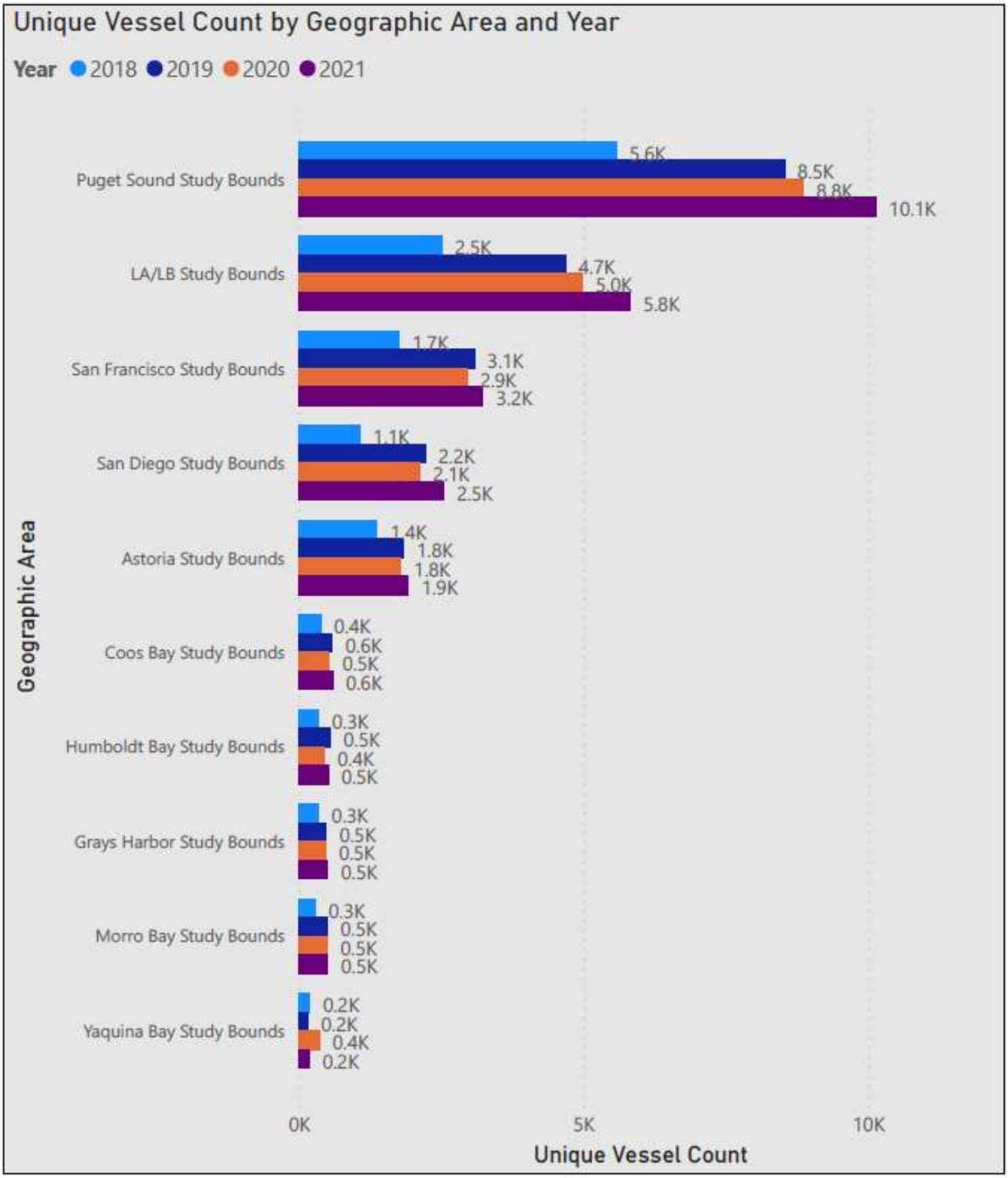


Figure 15: Unique Vessel Counts by Port Area, by Year

Selected Areas of Interest Summary

Overall track line and unique vessel counts for selected areas of interest for all vessel types are shown in Figure 16 and Figure 17. For each of these areas of interest, a traffic density was created using track lines that intersected that area of interest in 2019. These visualizations provide a more detailed look at the traffic patterns associated with the vessels that transited in these areas.

For more detailed information about these selected areas of interest, see Attachment 2 – Metrics for Selected Areas of Interest. Number of unique vessels and track line counts are provided by vessel type for these areas in the attachment. For port areas with one selected area, a single page summary is provided. This summary includes a bar chart depicting the number of track counts by vessel type, and a similar bar chart showing unique vessel counts. Below the charts, a table details the numerical counts associated with the bar charts. For port areas with more than one selected area of interest, which include Puget Sound, San Francisco, and LA/LB, multiple pages are included with charts showing the overall track counts and unique vessel counts by year for those areas. Tables that show the average track counts and average unique vessel counts over all years of data, by vessel type, are also provided, as well as tables with the track counts and unique vessel counts by vessel type for each year.

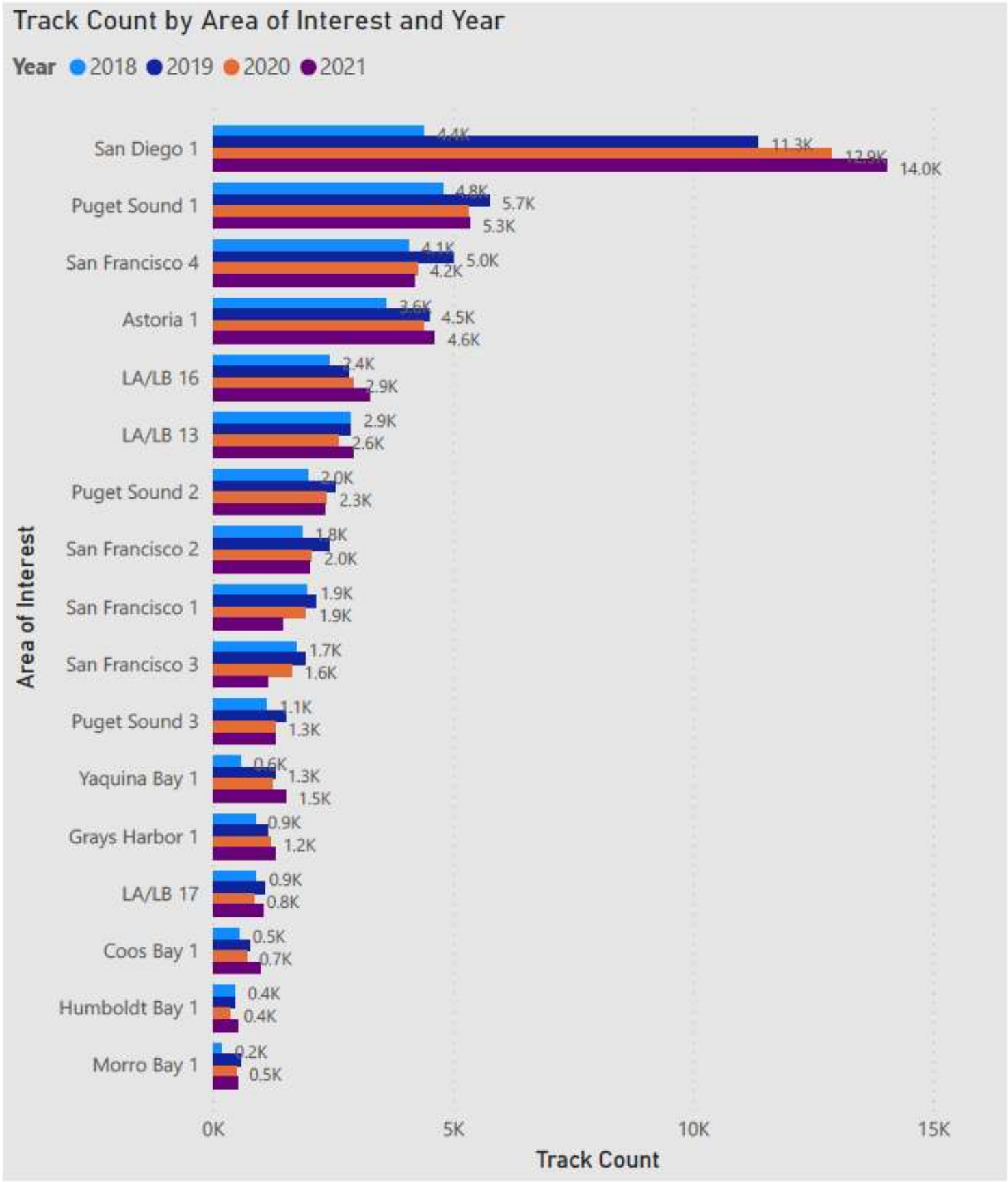


Figure 16: Track Counts for Selected Areas of Interest, by Year

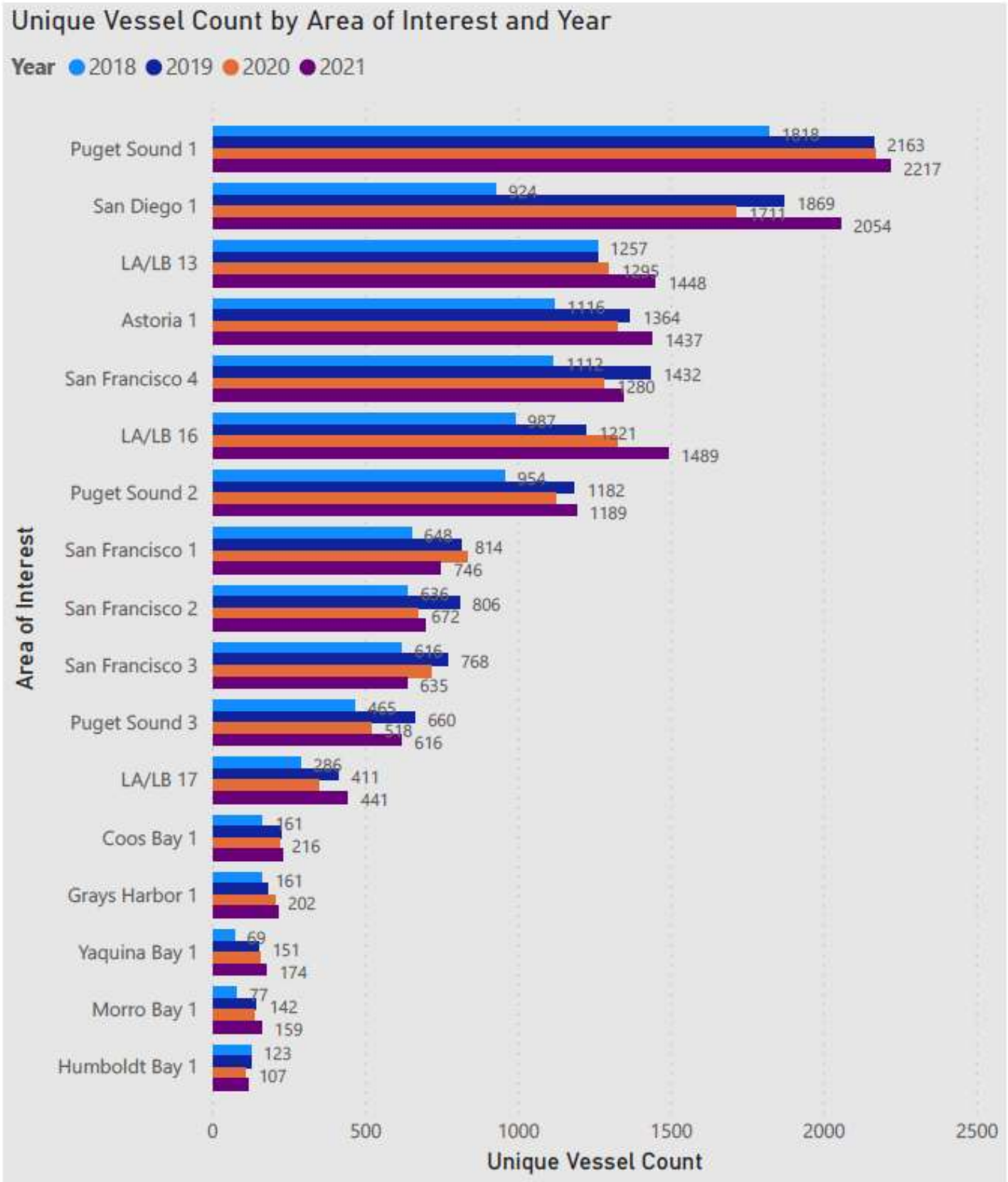


Figure 17: Unique Vessel Counts for Selected Areas of Interest, by Year

Vessel Length Distributions

Vessel length distributions are reported for each port area by year. Most vessels are between zero and 200 feet in length, which remained consistent over the years. To view these histograms, see Attachment 3 – Vessel Length Histograms.

Traffic Visualizations

A set of traffic visualizations is provided in Attachment 4 – Vessel Traffic Visualizations. The visualizations are shown for various vessel types in 2019 for each port area. A vessel type for a particular port area was excluded from these visualizations if few tracks were recorded for that type of vessel in the port area. These graphics are organized by type and area in the attachment and are labelled as listed in Table 5. Vessel types that were excluded are detailed in Table 6. Additional GIS layers for other years of data are available for export or in ArcGIS Online by request. Please contact NAVCEN for details.

The traffic patterns observed in these visualizations for each year are consistent with the findings in the selected areas of interest and traffic composition analyses. For example, if a large number of passenger vessel transits were counted 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 on the following page. It is important to note when analyzing the traffic densities that the color scale on each map is relative and similar colors cannot be directly compared between maps. Summarize within graphics, on the other hand, can be directly compared to each other within one port area.

	Visualization Type (2019 Data)	
Vessel Type	**Density**	**Summarize Within**
All Vessels	Port Area Name, Density 1	Port Area Name, Sum Within 1
Cargo	Port Area Name, Density 2	Port Area Name, Sum Within 2
Fishing	Port Area Name, Density 3	Port Area Name, Sum Within 3
Military	Port Area Name, Density 4	Port Area Name, Sum Within 4
Not Available	Port Area Name, Density 5	Port Area Name, Sum Within 5
Other	Port Area Name, Density 6	Port Area Name, Sum Within 6
Passenger	Port Area Name, Density 7	Port Area Name, Sum Within 7
Pleasure Craft / Sailing	Port Area Name, Density 8	Port Area Name, Sum Within 8
Tankers	Port Area Name, Density 9	Port Area Name, Sum Within 9
Tug / Tow	Port Area Name, Density 10	Port Area Name, Sum Within 10

Table 5: Traffic Visualization Labels Shown in Attachment 4

Area	Excluded Type
Grays Harbor	Military, Passenger, Tanker
Yaquina Bay	Military, Passenger, Tanker
Coos Bay	Military, Passenger, Tanker
Humboldt Bay	Military, Not Available, Passenger, Tanker
Morro Bay	Cargo, Military, Not Available, Tanker, Tug/Tow

Table 6: Excluded Visualization Types by Port Area

Observations

Overall, the number of track lines and unique vessels in each port area showed a steady increase from 2018-2021. This is especially apparent for larger or more heavily trafficked areas such as LA/LB and Puget Sound. For Puget Sound, San Francisco, LA/LB, and San Diego, these increases in traffic appear to be predominantly associated with pleasure craft. Given that pleasure craft are not required to carry AIS, this may be indicative of increased voluntary carriage on these boats, but not necessarily an actual increase in traffic volume.

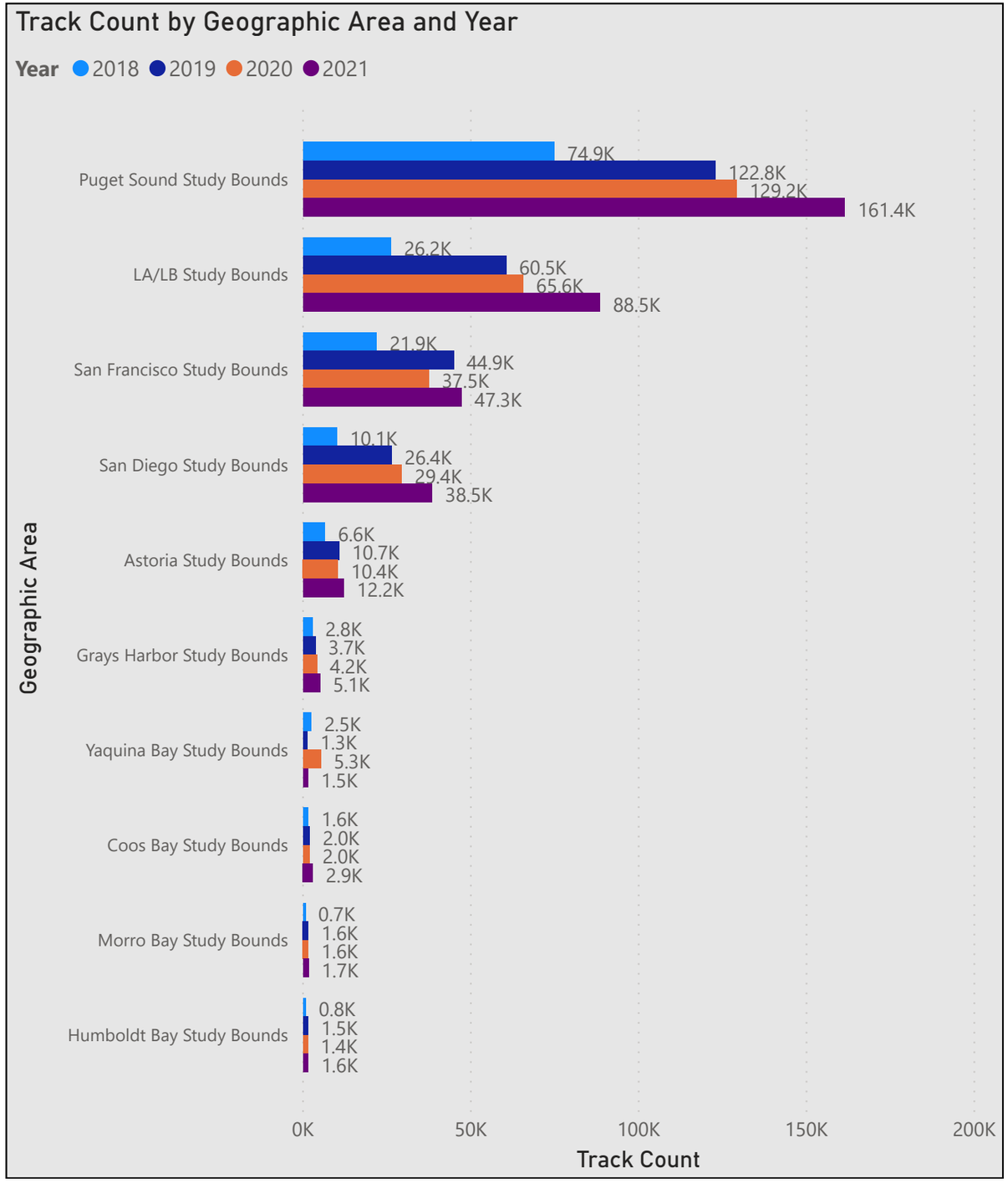
In several areas, including Puget Sound, Astoria, San Francisco, and LA/LB, passenger vessel traffic decreased somewhat in 2020 compared to other observed years. This may be attributable to the COVID-19 pandemic and the decrease in cruise ship, ferry, or other passenger vessel activity in those areas during this time period.

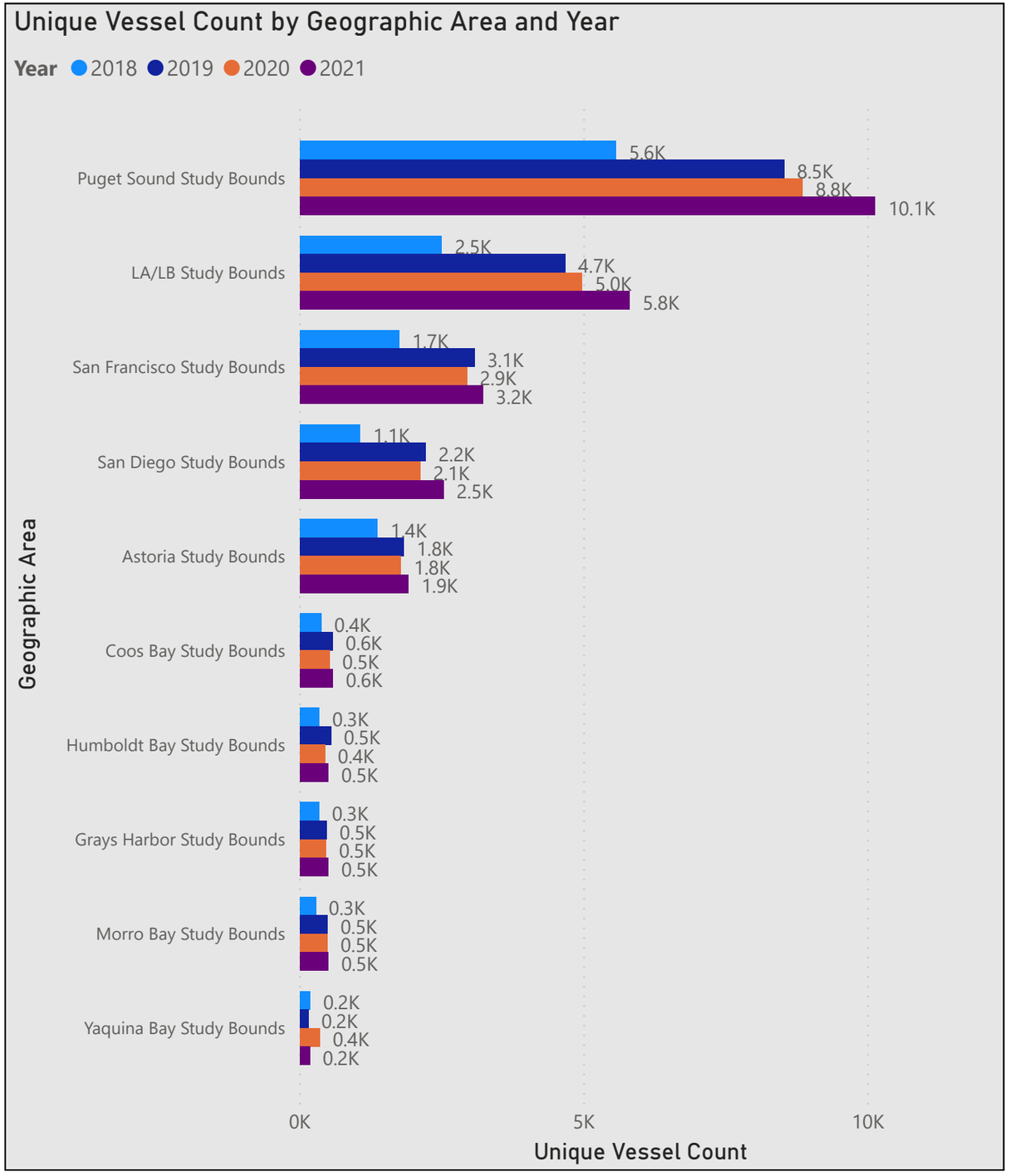
In some of the smaller port areas, such as Grays Harbor, Astoria, Coos Bay, and Morro Bay, fishing vessel activity increased from 2018-2021. Other areas, such as Yaquina Bay and Humboldt Bay, showed variability in fishing vessel activity.

Generally, cargo vessels and tank ships must transmit on AIS in accordance with international convention or domestic regulation. Activity for these vessel types did not show dramatic increases or decreases over time. LA/LB showed the most noticeable increase of any port area.

Although these observations are informative, data across a longer timeframe is needed to make definitive conclusions about the traffic trends for these areas over the years or to discern if there is a statistically significant difference in the number of unique vessels or tracks between years.

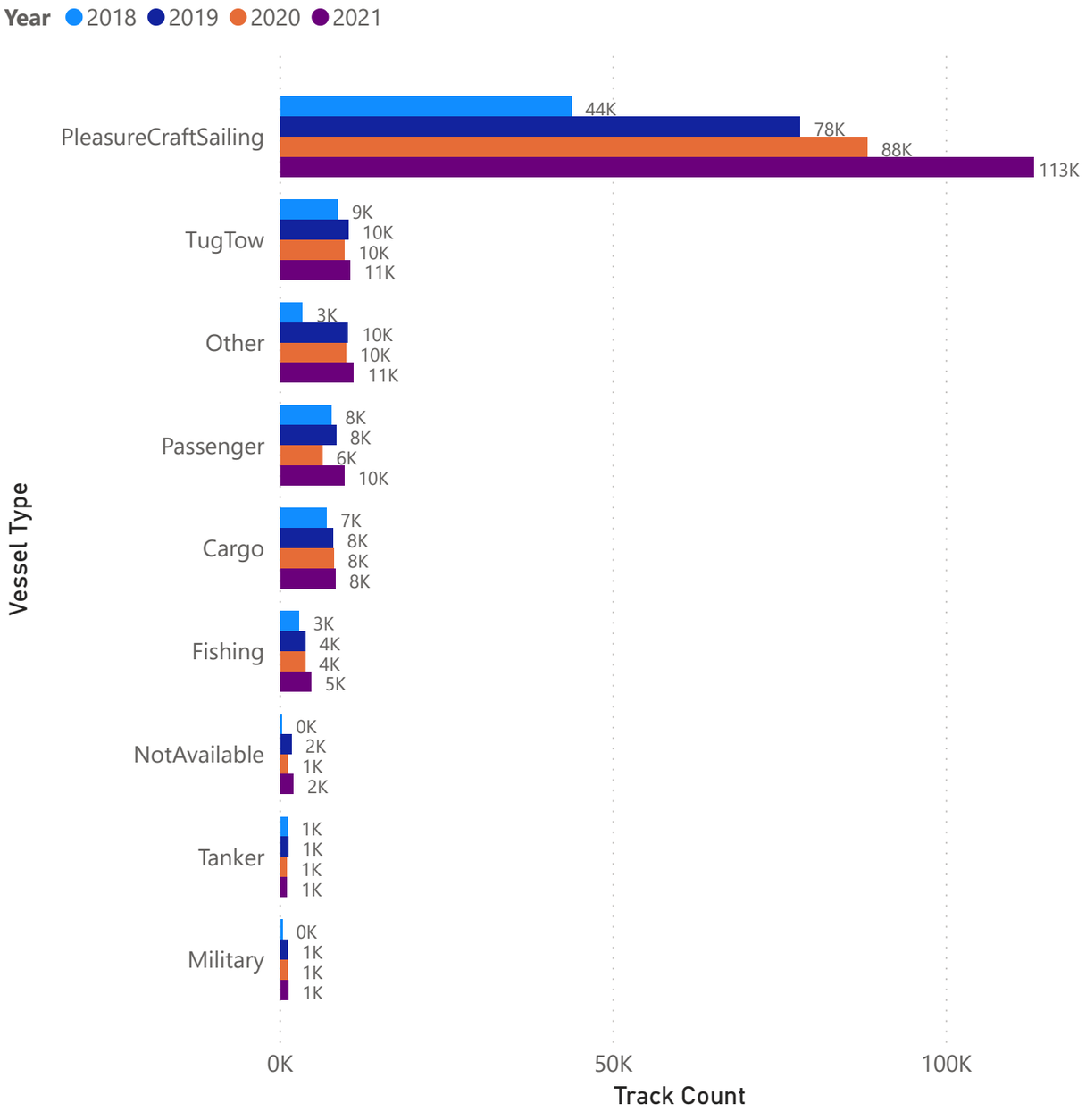
Attachment 1 – Traffic Composition By Port Area


Track Count by Geographic Area and Year
Year 2018 2019 2020 2021
Puget Sound Study Bounds
74.9K
122.8K
129.2K
161.4K
LA/LB Study Bounds
26.2K
60.5K
65.6K
88.5K
San Francisco Study Bounds
21.9K
44.9K
37.5K
47.3K
San Diego Study Bounds
10.1K
26.4K
29.4K
38.5K
Astoria Study Bounds
6.6K
10.7K
10.4K
12.2K
Grays Harbor Study Bounds
2.8K
3.7K
4.2K
5.1K
Yaquina Bay Study Bounds
2.5K
1.3K
5.3K
1.5K
Coos Bay Study Bounds
1.6K
2.0K
2.0K
2.9K
Morro Bay Study Bounds
0.7K
1.6K
1.6K
1.7K
Humboldt Bay Study Bounds
0.8K
1.5K
1.4K
1.6K
Geographic Area
0K
50K
100K
150K
200K
Track Count

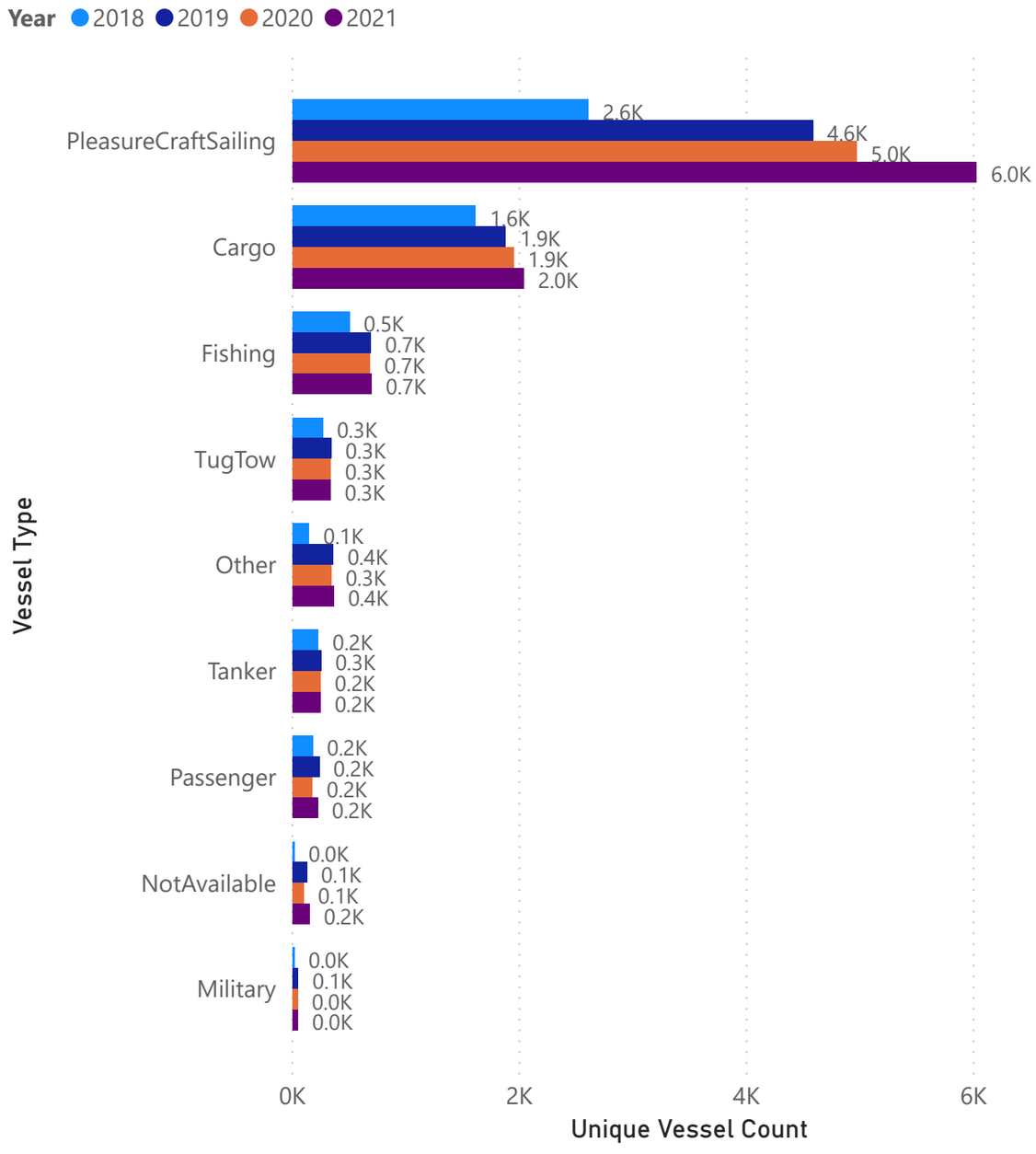

Unique Vessel Count by Geographic Area and Year
Year 2018 2019 2020 2021
Puget Sound Study Bounds
5.6K
8.5K
8.8K
10.1K
LA/LB Study Bounds
2.5K
4.7K
5.0K
5.8K
San Francisco Study Bounds
1.7K
3.1K
2.9K
3.2K
San Diego Study Bounds
1.1K
2.2K
2.1K
2.5K
Astoria Study Bounds
1.4K
1.8K
1.8K
1.9K
Coos Bay Study Bounds
0.4K
0.6K
0.5K
0.6K
Humboldt Bay Study Bounds
0.3K
0.5K
0.4K
0.5K
Grays Harbor Study Bounds
0.3K
0.5K
0.5K
0.5K
Morro Bay Study Bounds
0.3K
0.5K
0.5K
0.5K
Yaquina Bay Study Bounds
0.2K
0.2K
0.4K
0.2K
Geographic Area
0K
5K
10K
Unique Vessel Count

Puget Sound - Overall Metrics for Study Bounds

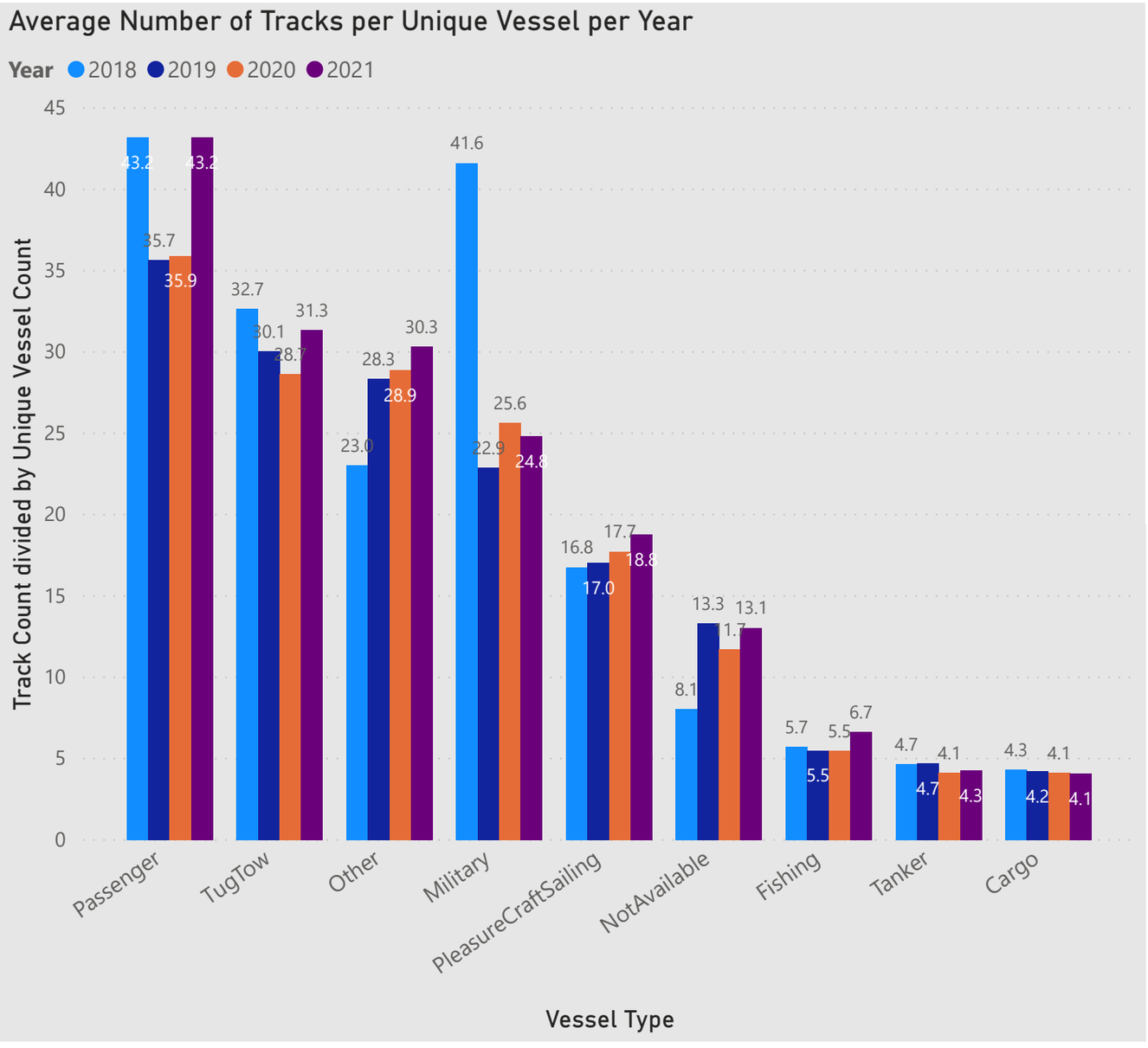
Track Count by Vessel Type and Year



Unique Vessel Count by Vessel Type and Year



Puget Sound - Overall Metrics for Study Bounds Cont.



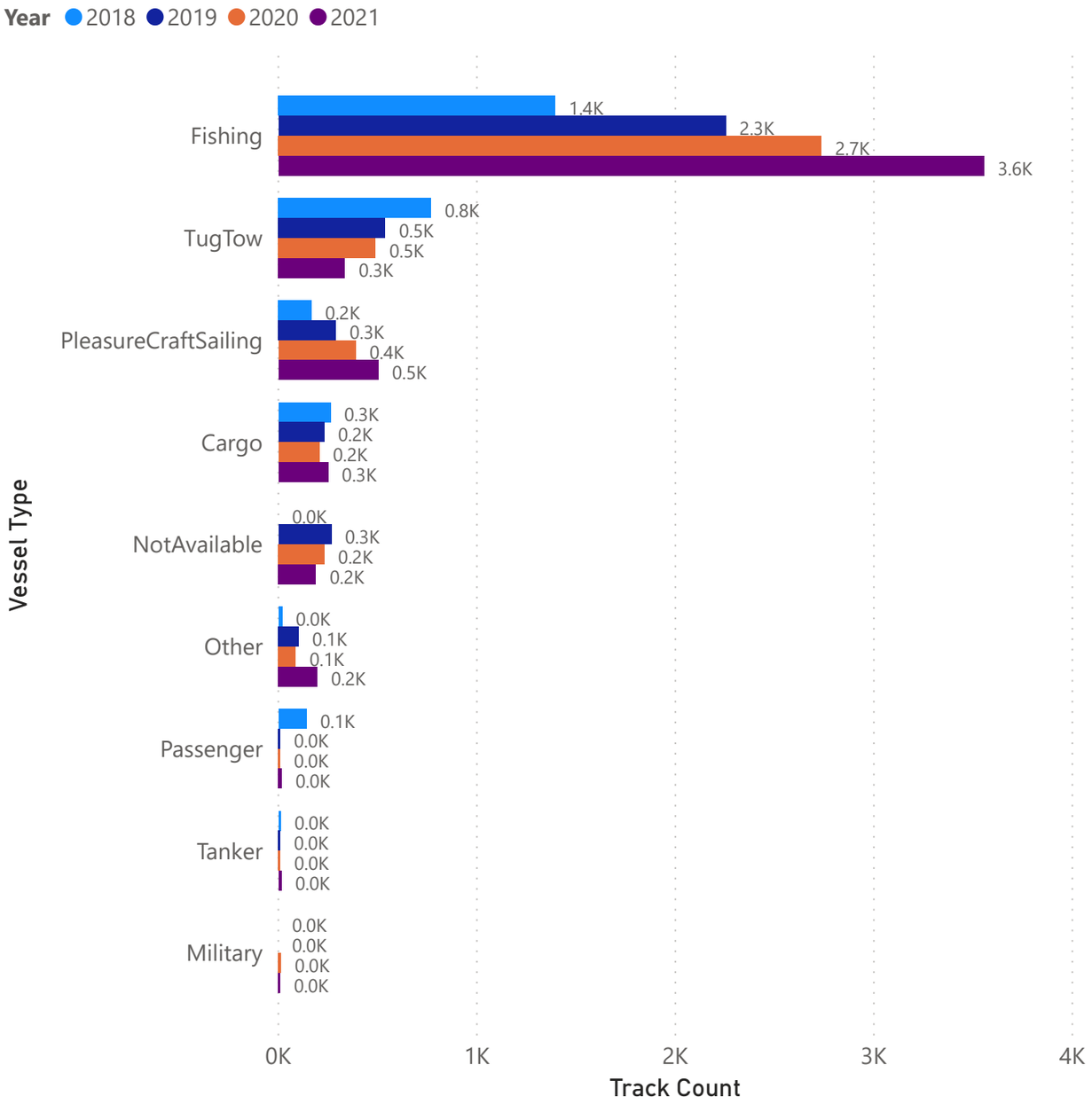
Geographic Area	Average of Track Count	Average of Unique Vessel Count
Puget Sound Study Bounds	**13560.69**	**918.25**
Cargo	7823.25	1868.75
Fishing	3773.00	644.00
Military	967.75	38.25
NotAvailable	1241.25	98.50
Other	8612.75	302.75
Passenger	8005.00	203.00
PleasureCraftSailing	80768.25	4546.50
Tanker	1079.50	242.75
TugTow	9775.50	319.75
Total	**13560.69**	**918.25**

Track and unique vessel counts are averaged over all present years of data in the above table, by vessel type, for the specified study bounds.

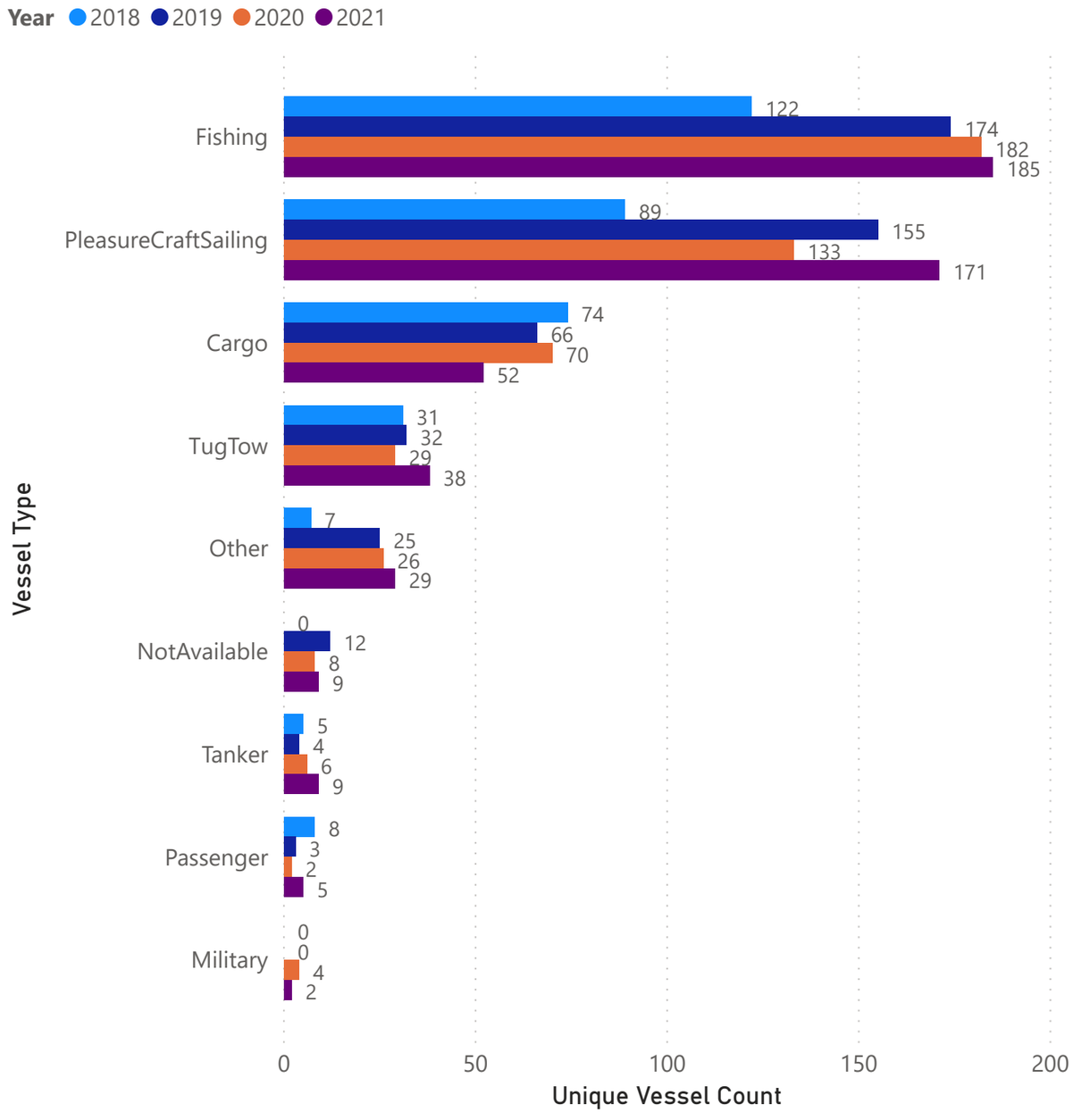
In the chart on the left, the average number of tracks attributed to each unique vessel per year is shown. Calculating transits per unique vessel is a way to compare the traffic distribution between the four years of data. This is calculated by dividing the total number of transits by the total number of unique vessels. In practice, some vessels visit the study area more frequently than others.

Grays Harbor - Overall Metrics for Study Bounds

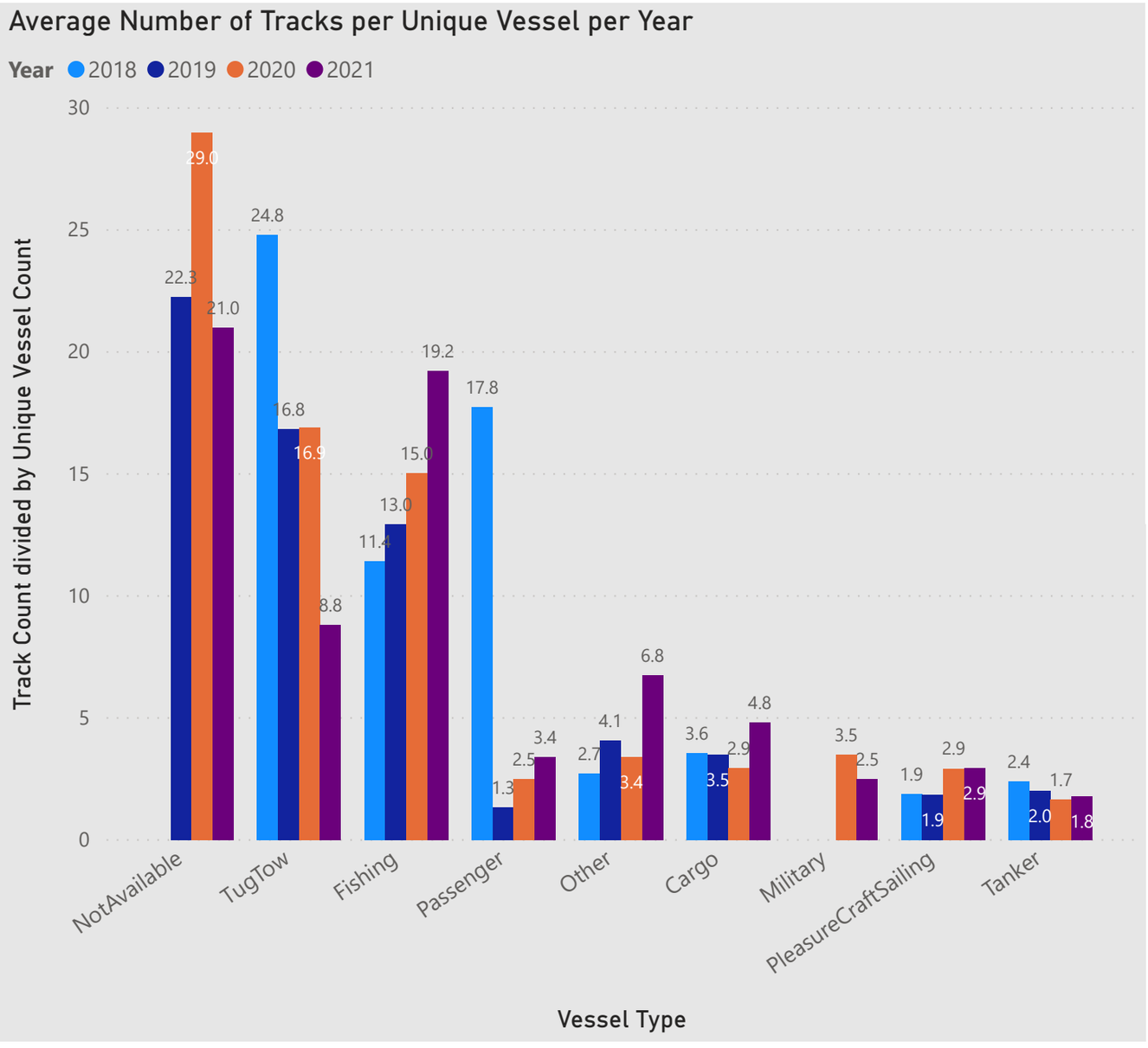
Track Count by Vessel Type and Year



Unique Vessel Count by Vessel Type and Year



Grays Harbor - Overall Metrics for Study Bounds Cont.



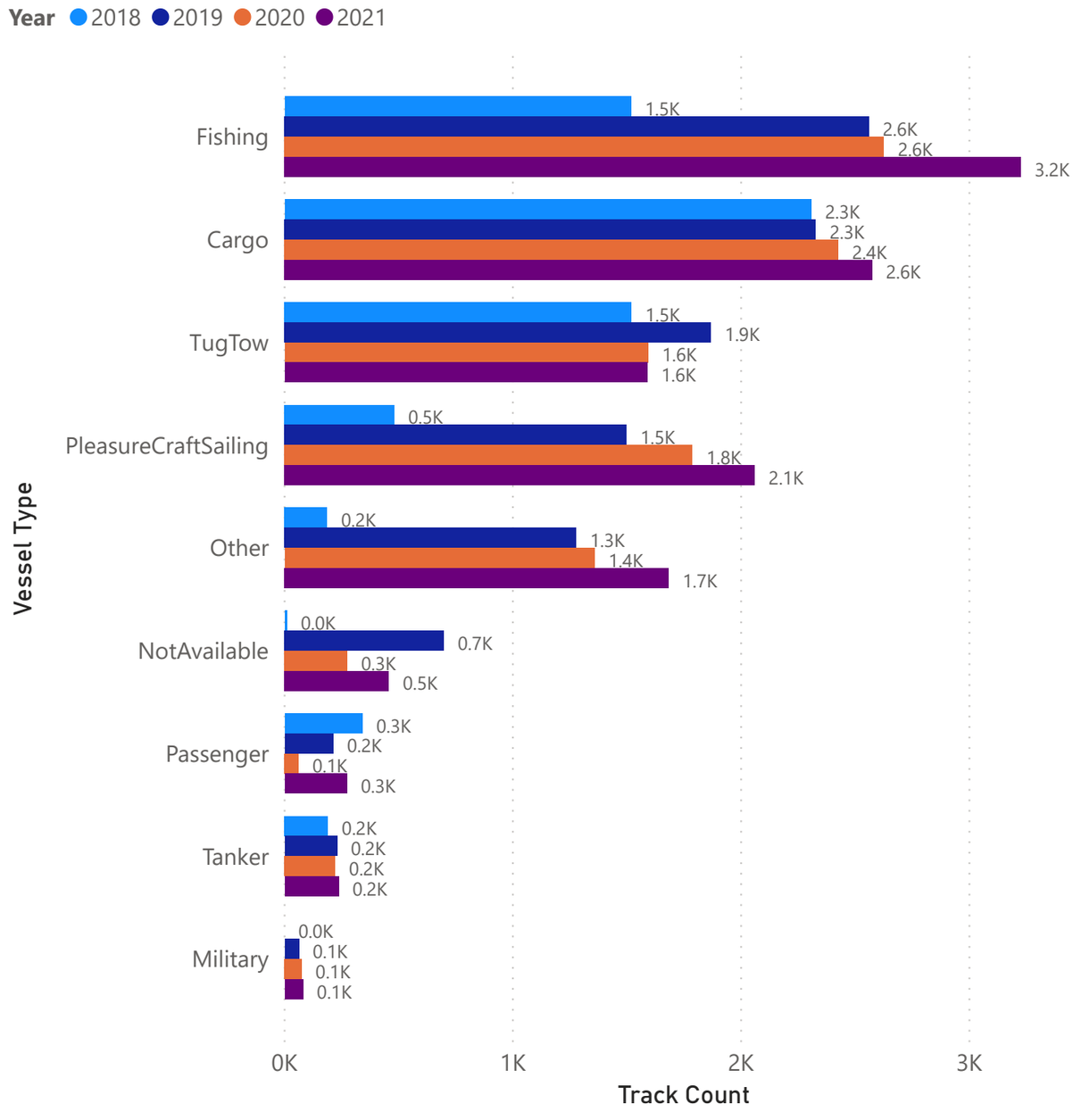
Geographic Area	Average of Track Count	Average of Unique Vessel Count
Grays Harbor Study Bounds	**436.03**	**49.08**
Cargo	237.75	65.50
Fishing	2484.50	165.75
Military	4.75	1.50
NotAvailable	172.00	7.25
Other	101.25	21.75
Passenger	42.00	4.50
PleasureCraftSailing	337.25	137.00
Tanker	11.50	6.00
TugTow	533.25	32.50
Total	**436.03**	**49.08**

Track and unique vessel counts are averaged over all present years of data in the above table, by vessel type, for the specified study bounds.

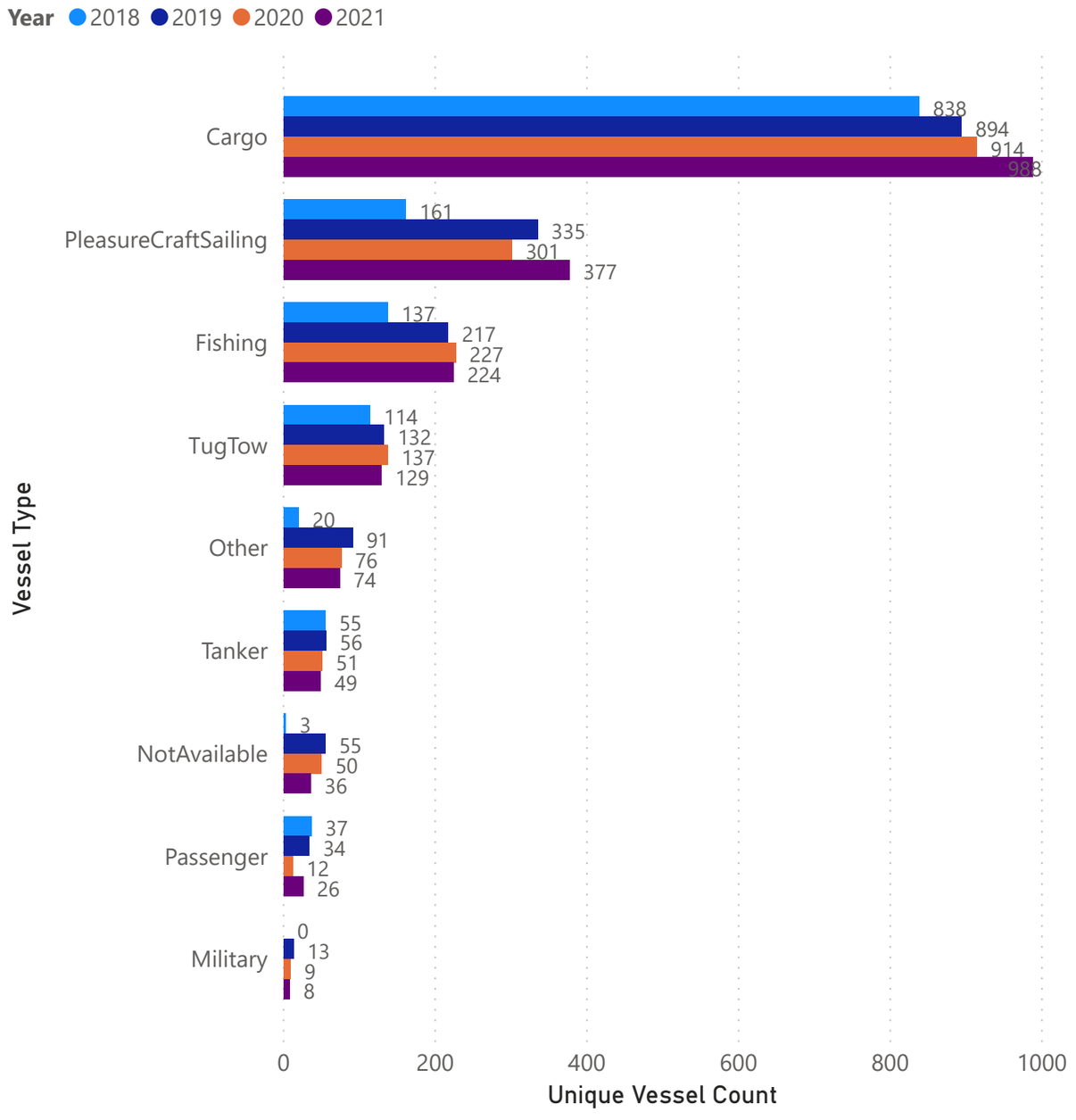
In the chart on the left, the average number of tracks attributed to each unique vessel per year is shown. Calculating transits per unique vessel is a way to compare the traffic distribution between the four years of data. This is calculated by dividing the total number of transits by the total number of unique vessels. In practice, some vessels visit the study area more frequently than others.

Astoria - Overall Metrics for Study Bounds

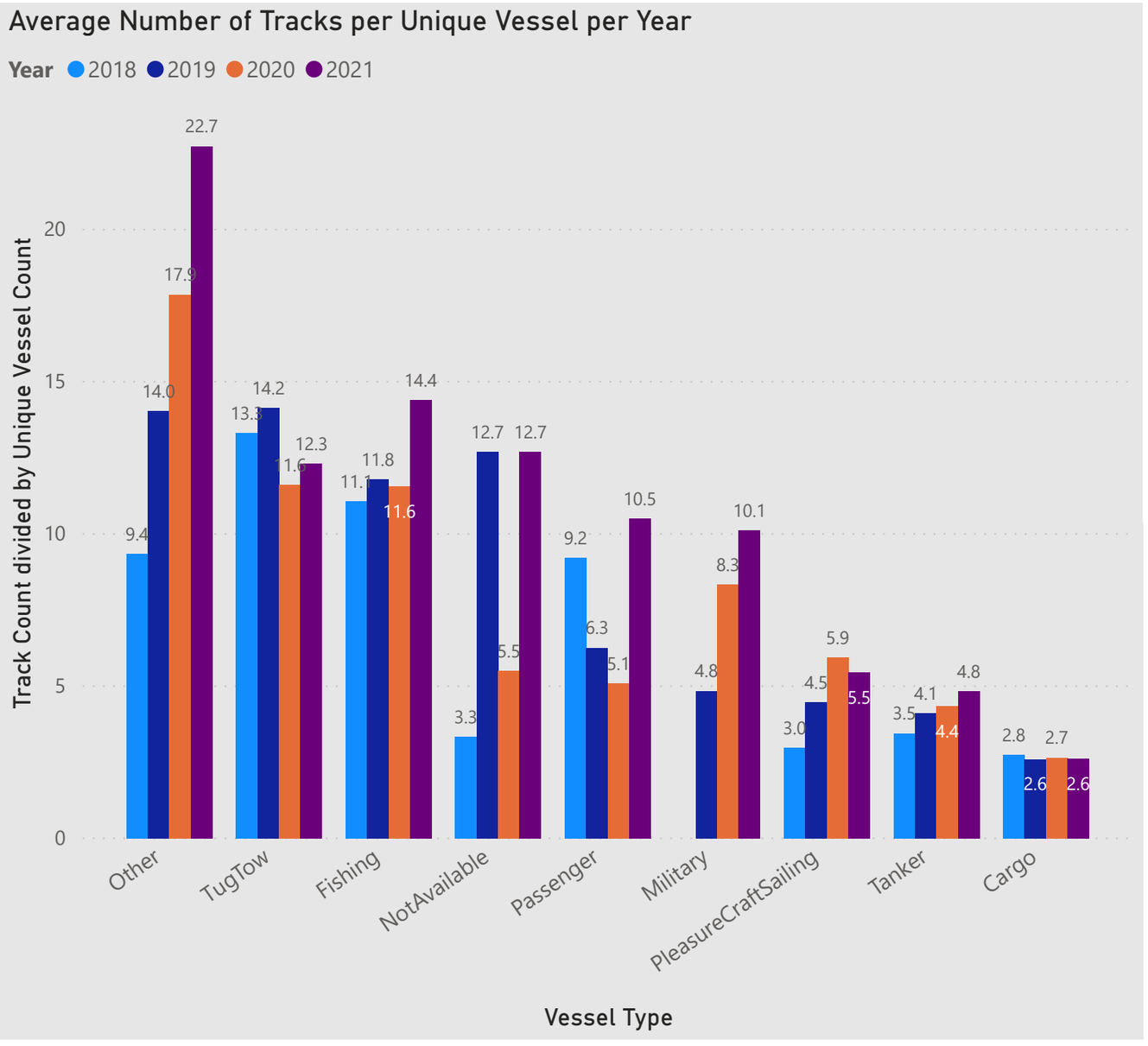
Track Count by Vessel Type and Year



Unique Vessel Count by Vessel Type and Year



Astoria - Overall Metrics for Study Bounds Cont.



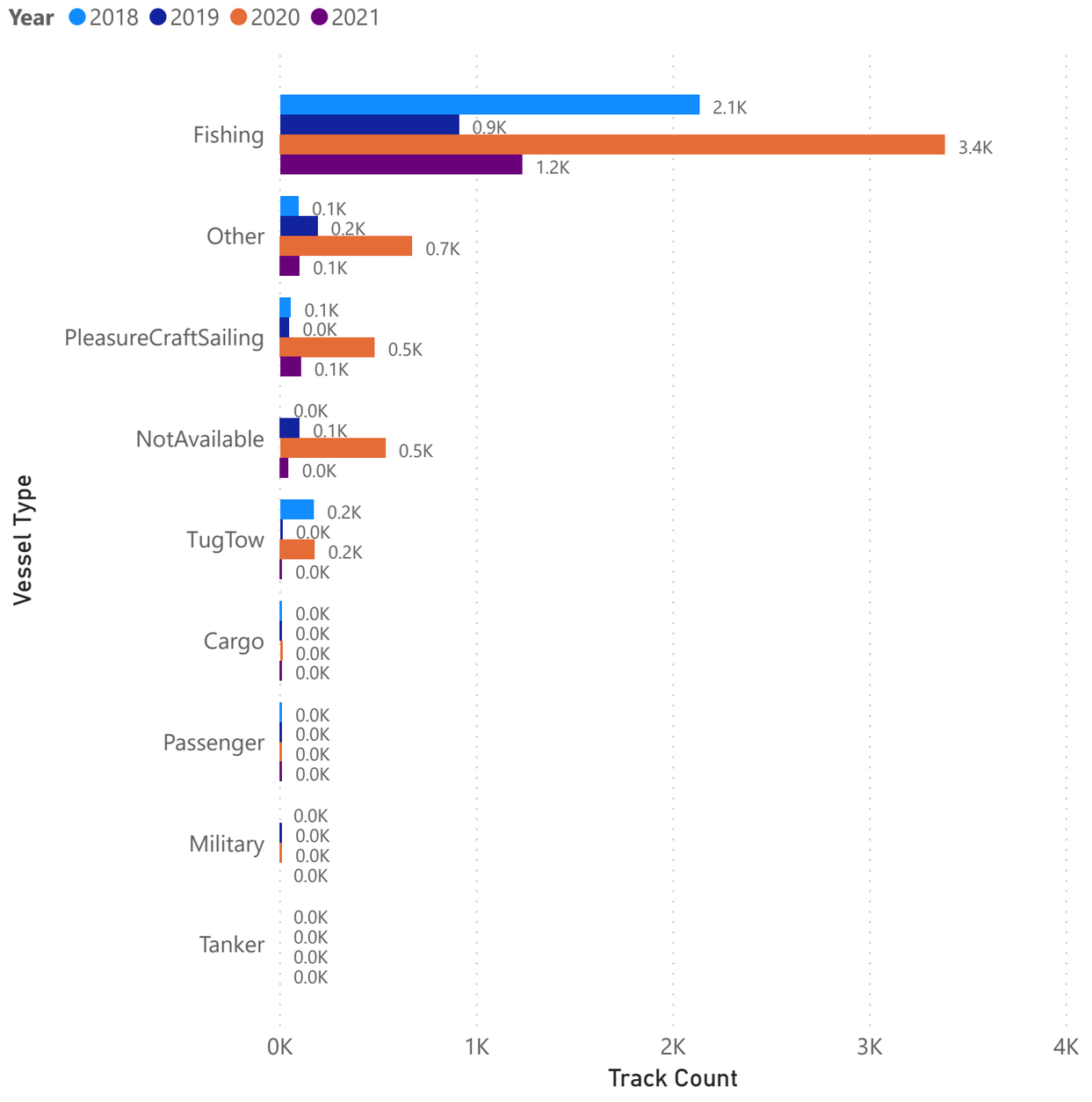
Geographic Area	Average of Track Count	Average of Unique Vessel Count
Astoria Study Bounds	**1108.00**	**191.11**
TugTow	1642.00	128.00
Tanker	219.75	52.75
PleasureCraftSailing	1456.50	293.50
Passenger	222.00	27.25
Other	1126.25	65.25
NotAvailable	360.00	36.00
Military	54.75	7.50
Fishing	2482.25	201.25
Cargo	2408.50	908.50
Total	**1108.00**	**191.11**

Track and unique vessel counts are averaged over all present years of data in the above table, by vessel type, for the specified study bounds.

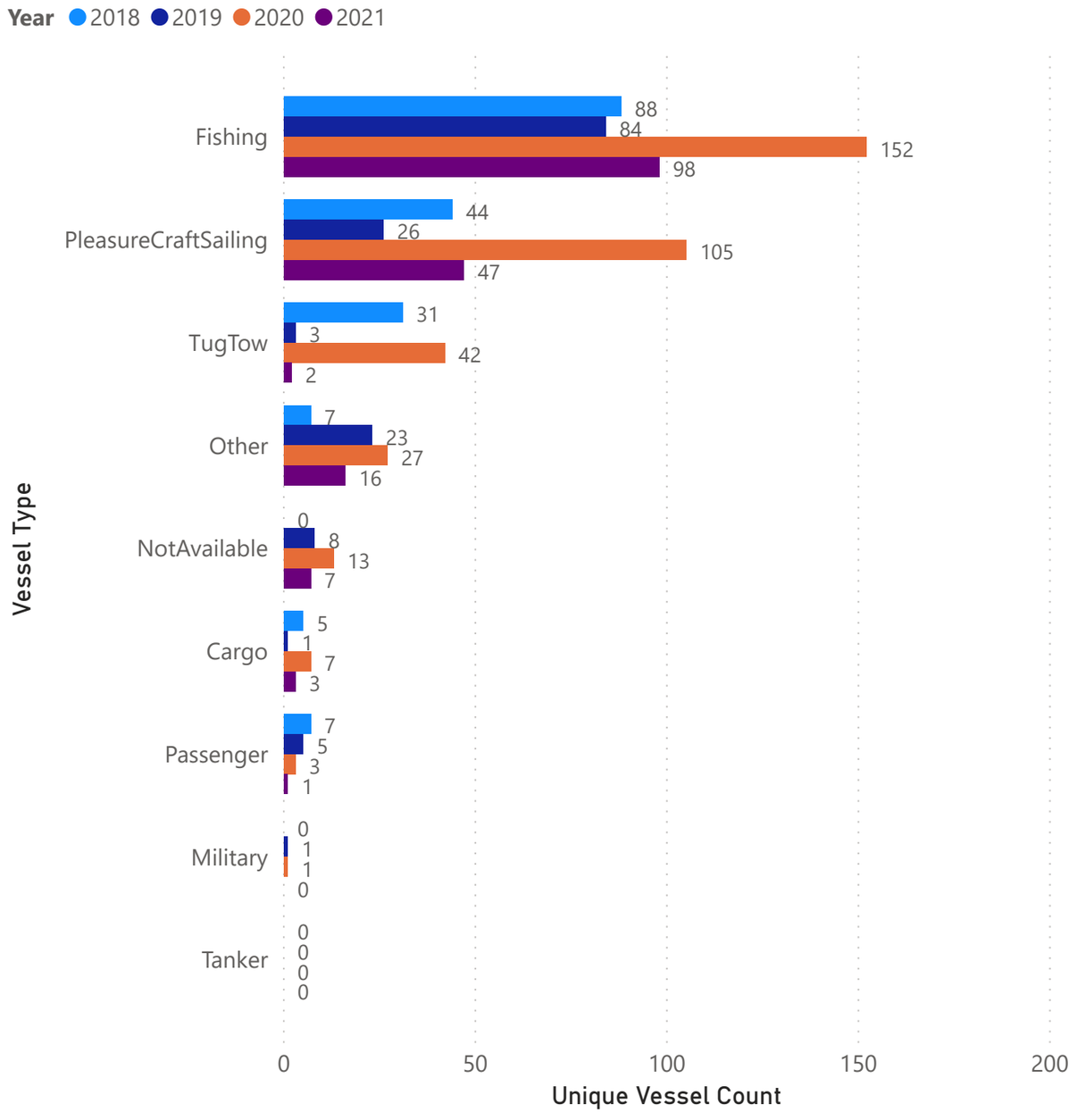
In the chart on the left, the average number of tracks attributed to each unique vessel per year is shown. Calculating transits per unique vessel is a way to compare the traffic distribution between the four years of data. This is calculated by dividing the total number of transits by the total number of unique vessels. In practice, some vessels visit the study area more frequently than others.

Yaquina Bay - Overall Metrics for Study Bounds

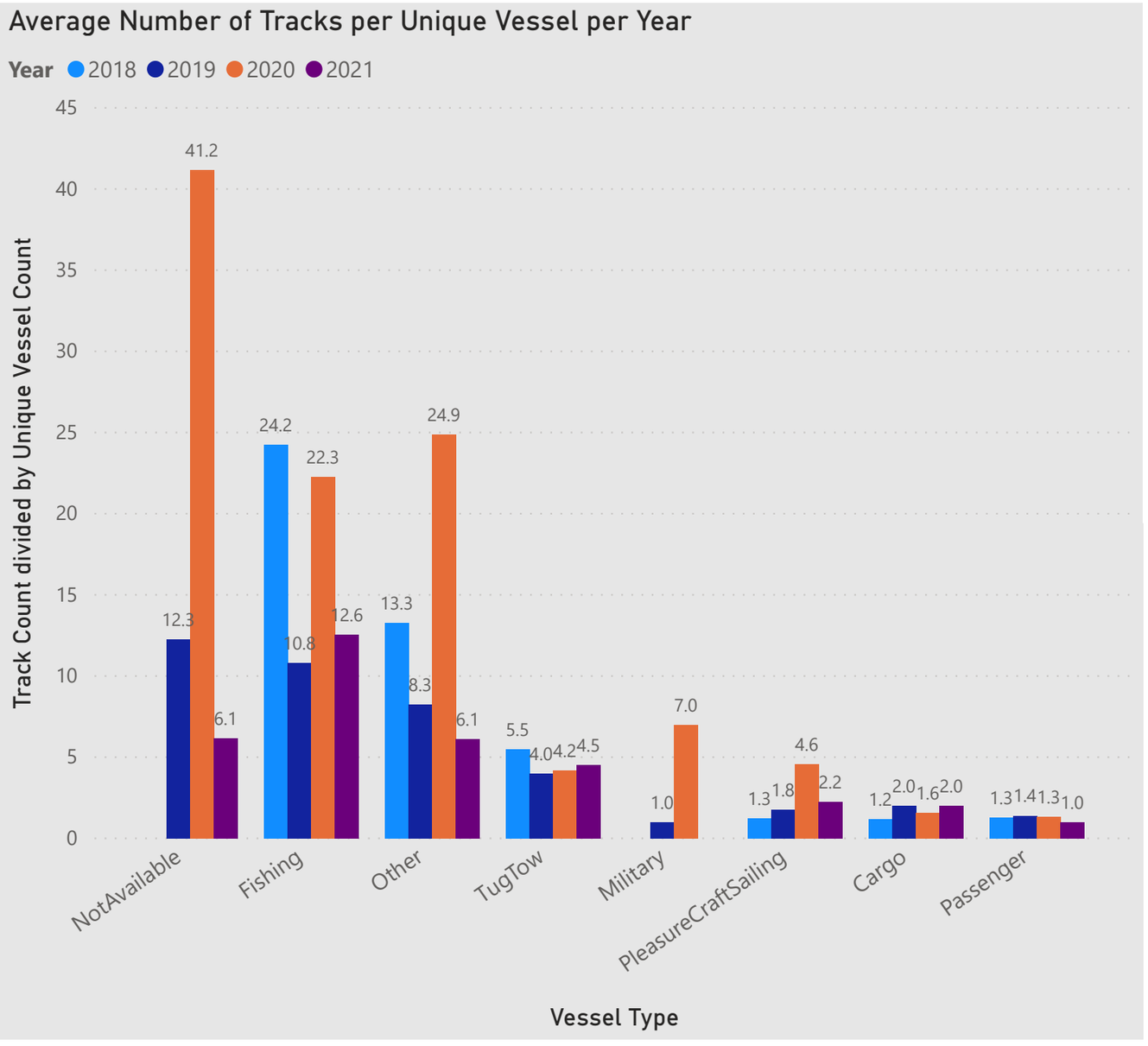
Track Count by Vessel Type and Year



Unique Vessel Count by Vessel Type and Year



Yaquina Bay - Overall Metrics for Study Bounds Cont.



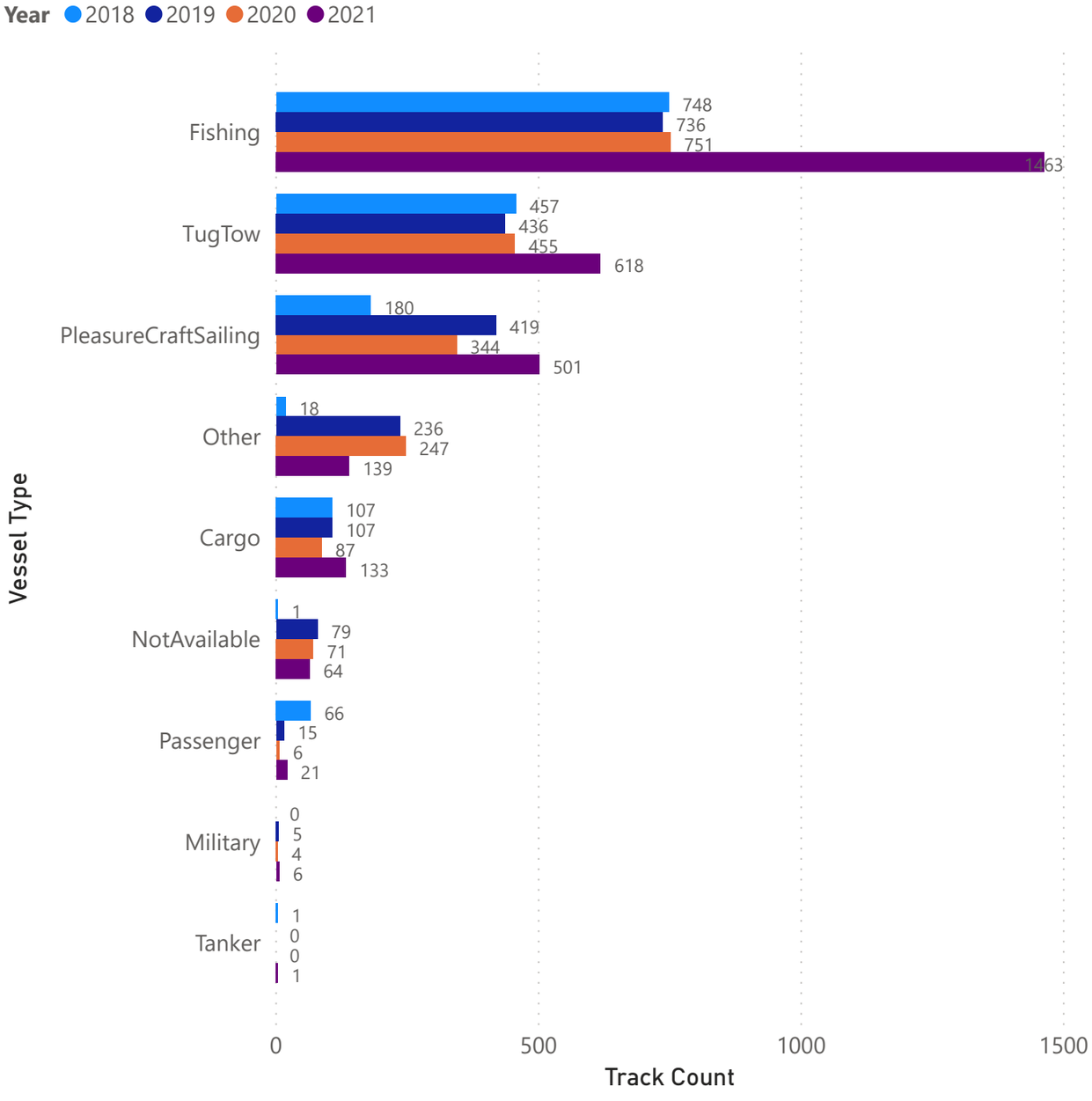
Geographic Area	Average of Track Count	Average of Unique Vessel Count
Yaquina Bay Study Bounds	**291.33**	**23.81**
Cargo	6.25	4.00
Fishing	1913.25	105.50
Military	2.00	0.50
NotAvailable	169.00	7.00
Other	263.00	18.25
Passenger	5.25	4.00
PleasureCraftSailing	171.50	55.50
Tanker	0.00	0.00
TugTow	91.75	19.50
Total	**291.33**	**23.81**

Track and unique vessel counts are averaged over all present years of data in the above table, by vessel type, for the specified study bounds.

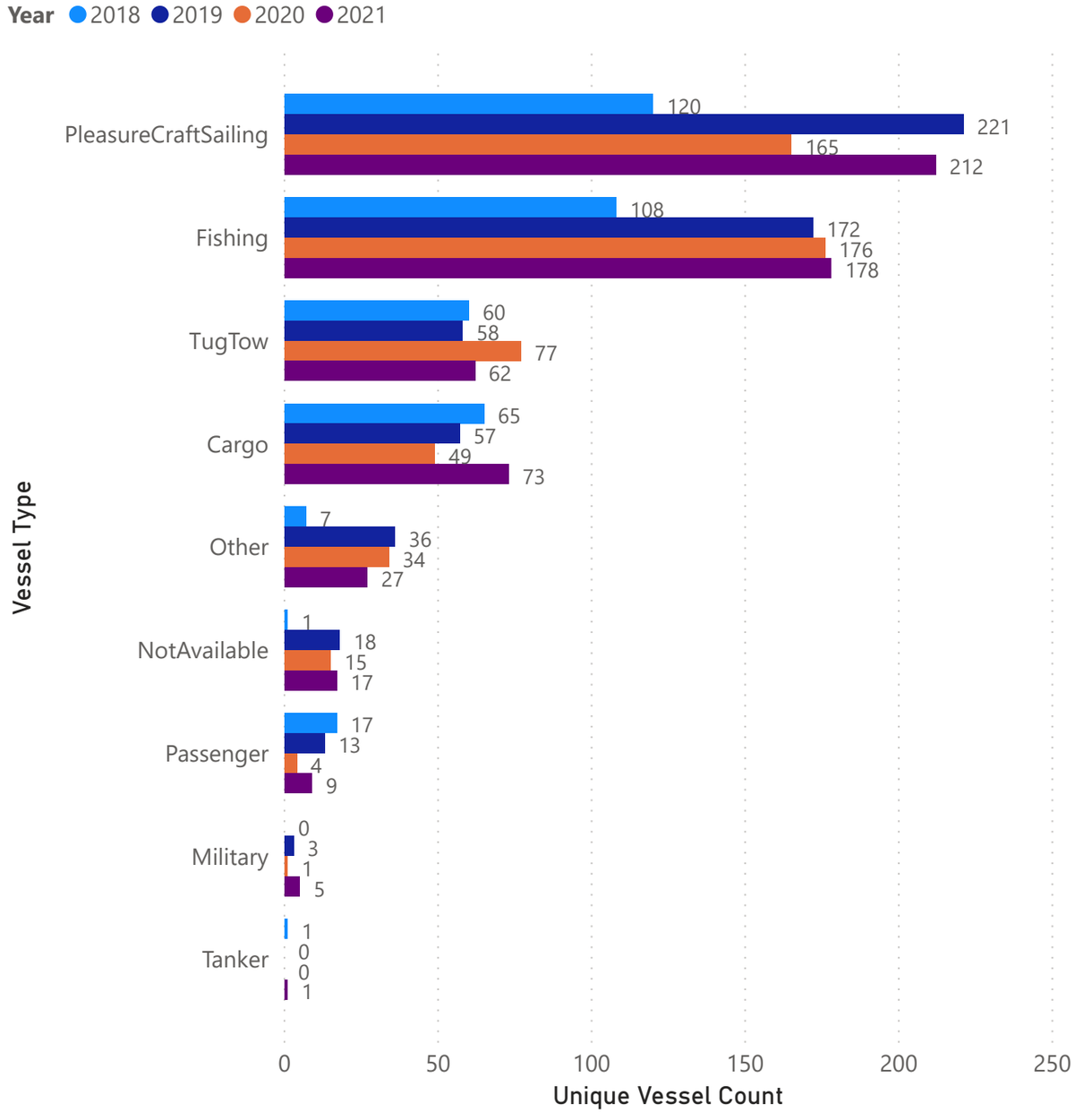
In the chart on the left, the average number of tracks attributed to each unique vessel per year is shown. Calculating transits per unique vessel is a way to compare the traffic distribution between the four years of data. This is calculated by dividing the total number of transits by the total number of unique vessels. In practice, some vessels visit the study area more frequently than others.

Coos Bay - Overall Metrics for Study Bounds

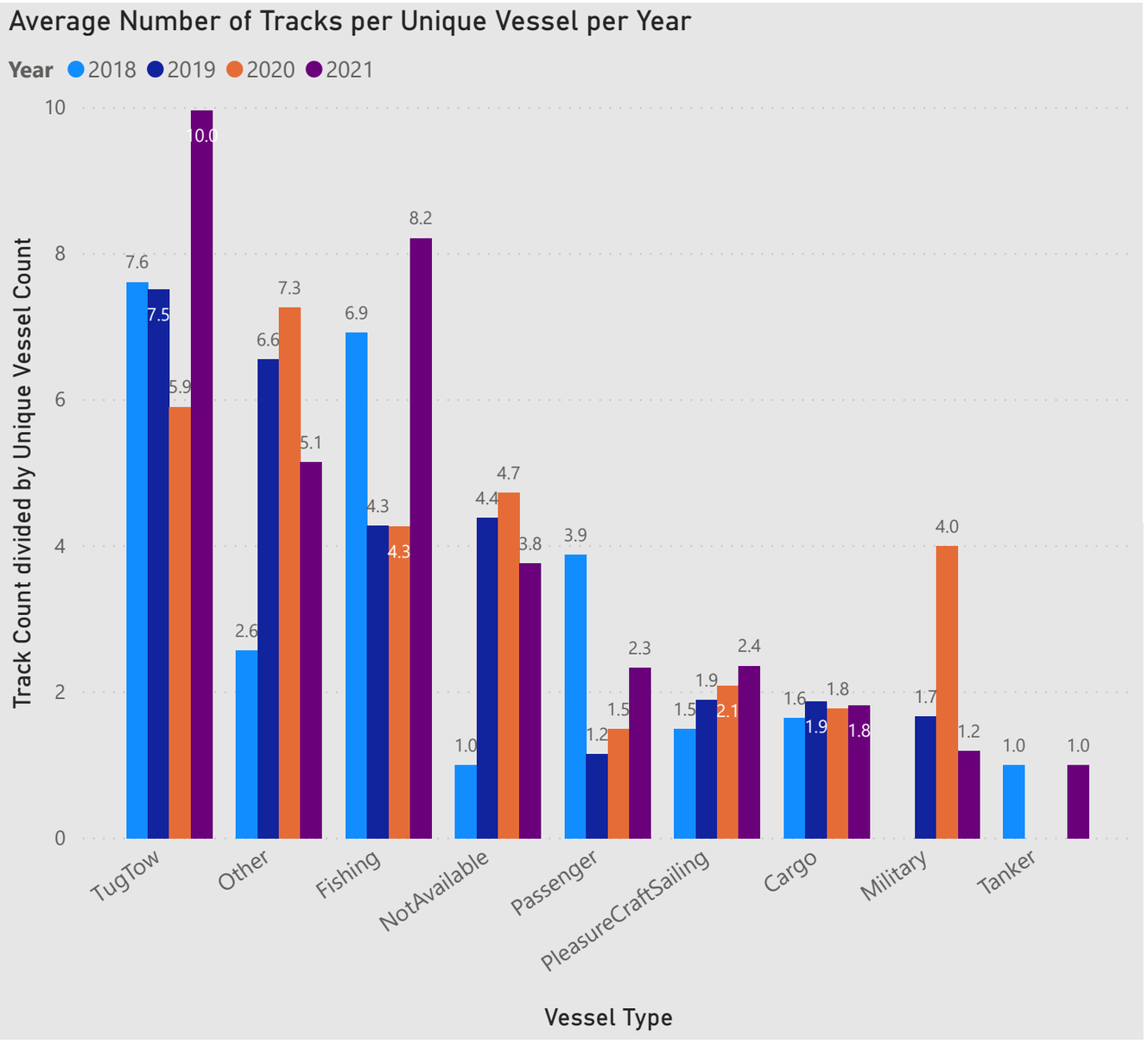
Track Count by Vessel Type and Year



Unique Vessel Count by Vessel Type and Year



Coos Bay - Overall Metrics for Study Bounds Cont.



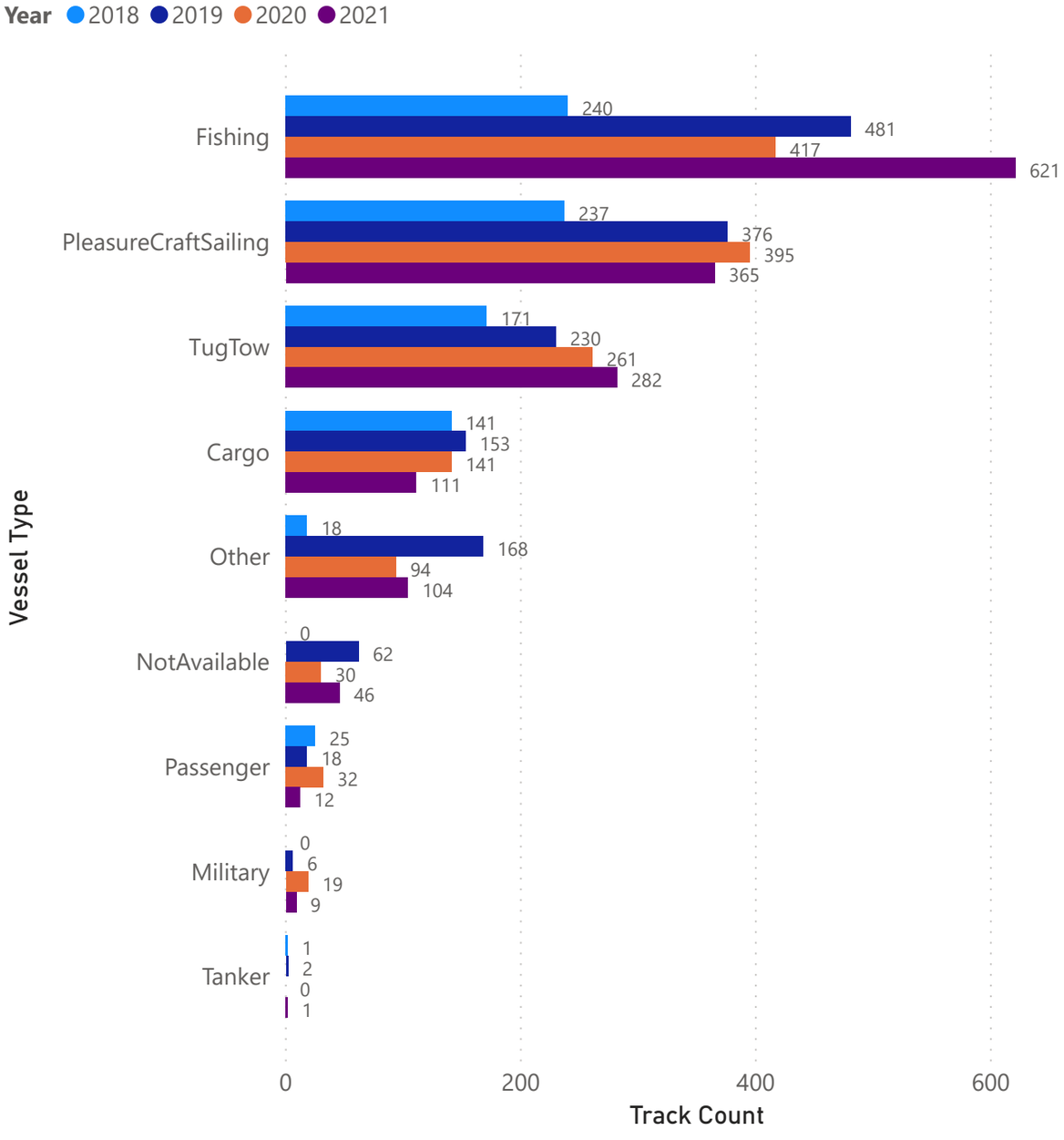
Geographic Area	Average of Track Count	Average of Unique Vessel Count
Coos Bay Study Bounds	**236.72**	**57.28**
Cargo	108.50	61.00
Fishing	924.50	158.50
Military	3.75	2.25
NotAvailable	53.75	12.75
Other	160.00	26.00
Passenger	27.00	10.75
PleasureCraftSailing	361.00	179.50
Tanker	0.50	0.50
TugTow	491.50	64.25
Total	**236.72**	**57.28**

Track and unique vessel counts are averaged over all present years of data in the above table, by vessel type, for the specified study bounds.

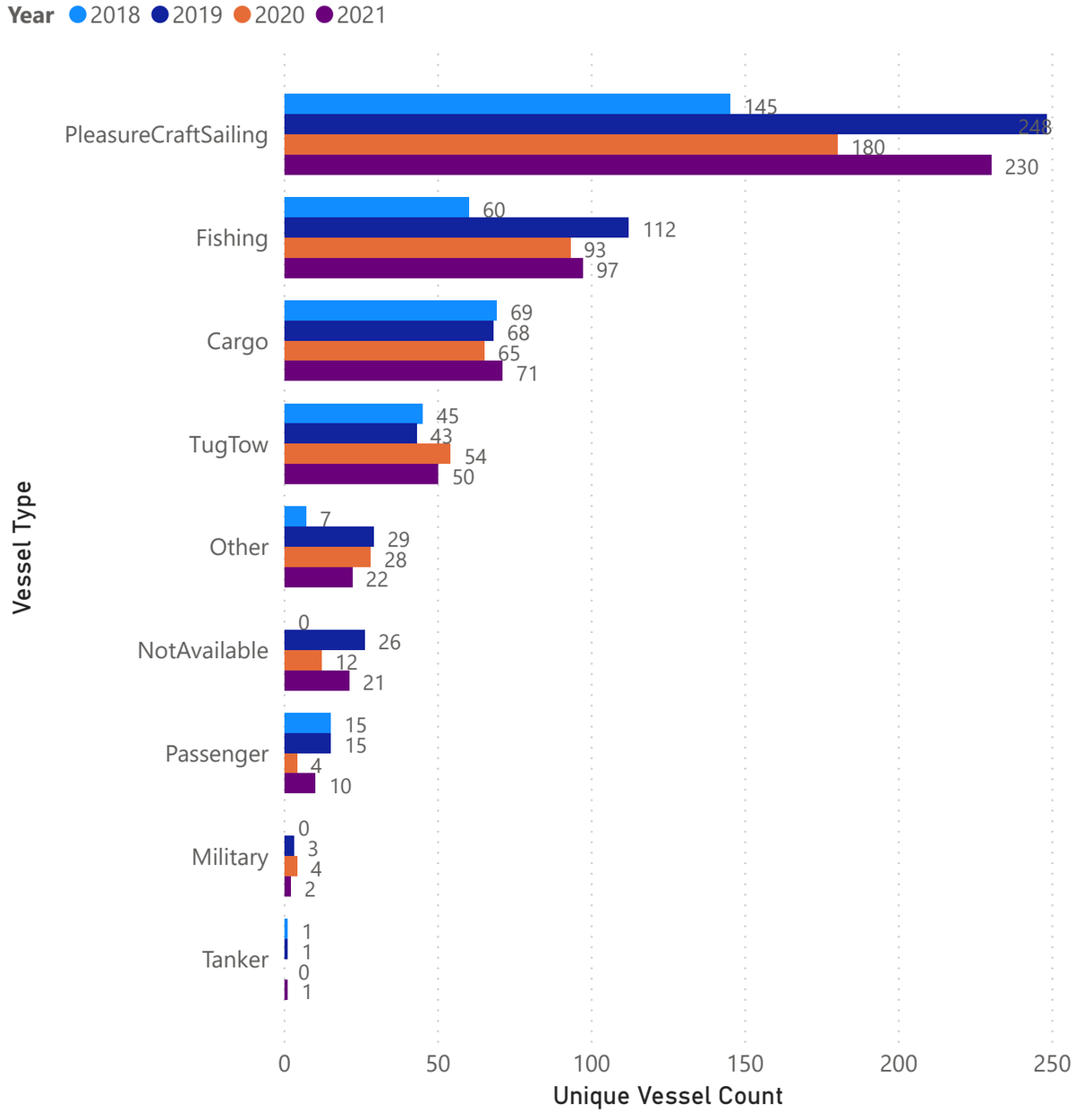
In the chart on the left, the average number of tracks attributed to each unique vessel per year is shown. Calculating transits per unique vessel is a way to compare the traffic distribution between the four years of data. This is calculated by dividing the total number of transits by the total number of unique vessels. In practice, some vessels visit the study area more frequently than others.

Humboldt Bay - Overall Metrics for Study Bounds

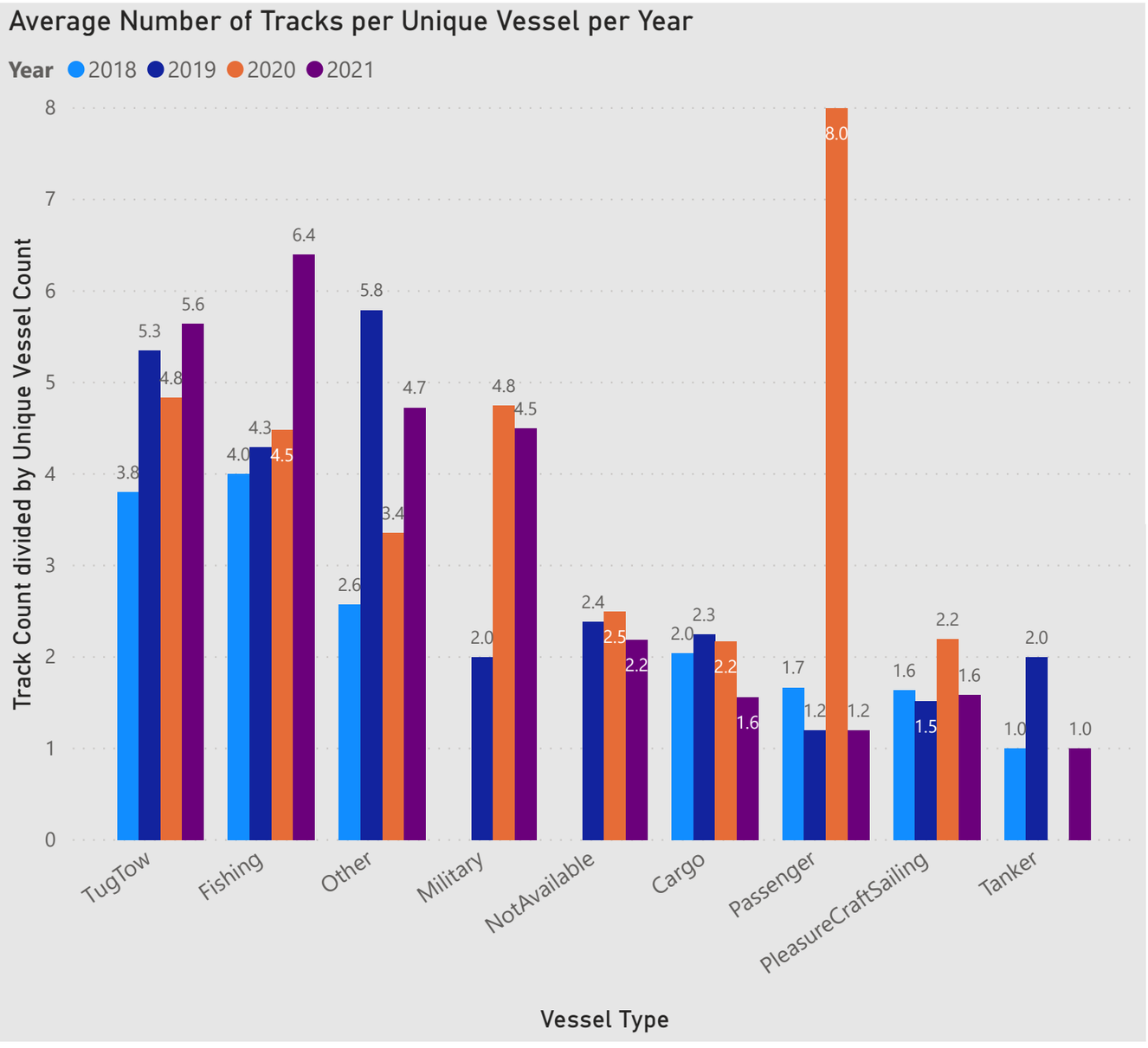
Track Count by Vessel Type and Year



Unique Vessel Count by Vessel Type and Year



Humboldt Bay - Overall Metrics for Study Bounds Cont.



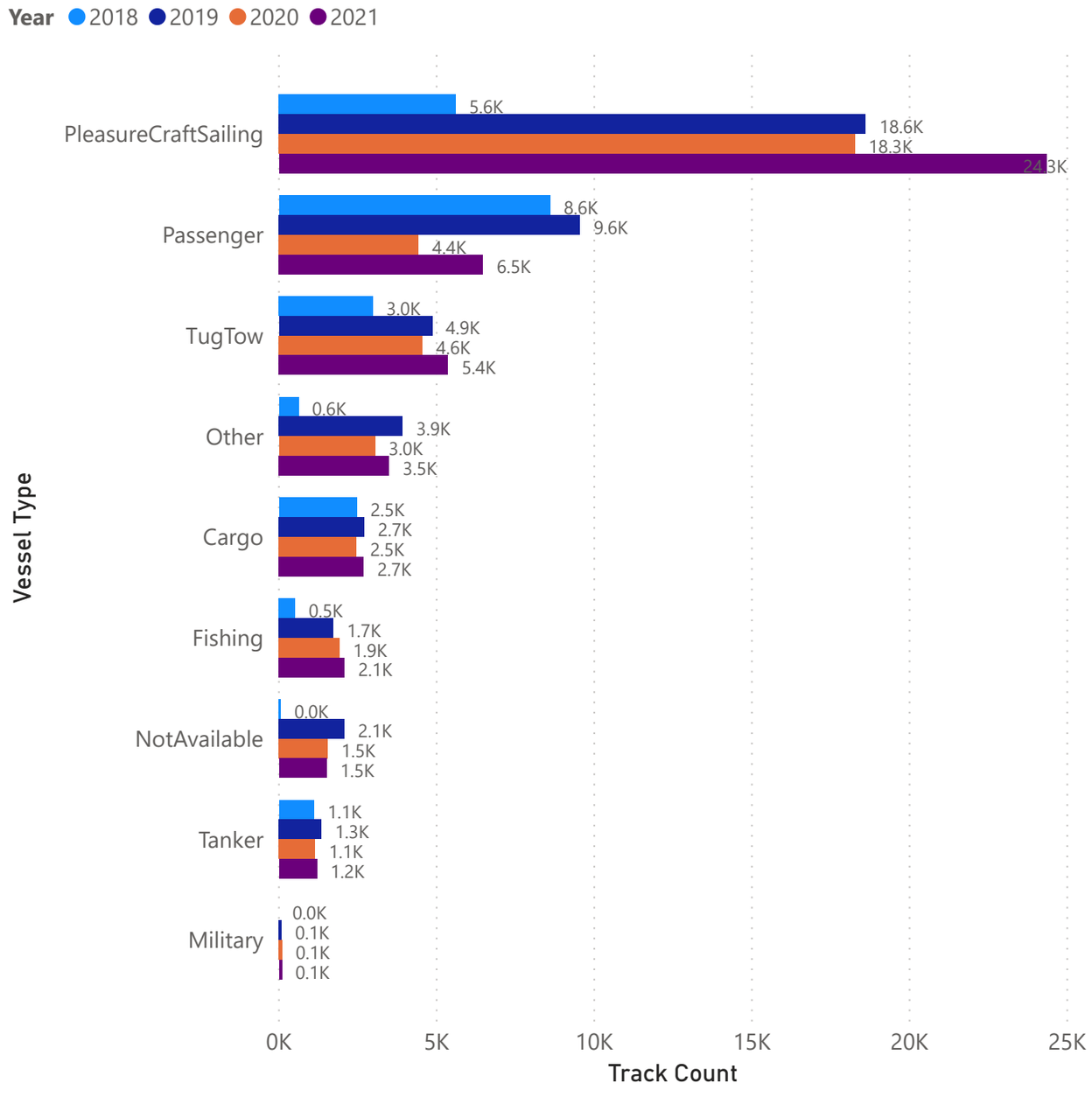
Geographic Area	Average of Track Count	Average of Unique Vessel Count
Humboldt Bay Study Bounds	**146.36**	**50.86**
TugTow	236.00	48.00
Tanker	1.00	0.75
PleasureCraftSailing	343.25	200.75
Passenger	21.75	11.00
Other	96.00	21.50
NotAvailable	34.50	14.75
Military	8.50	2.25
Fishing	439.75	90.50
Cargo	136.50	68.25
Total	**146.36**	**50.86**

Track and unique vessel counts are averaged over all present years of data in the above table, by vessel type, for the specified study bounds.

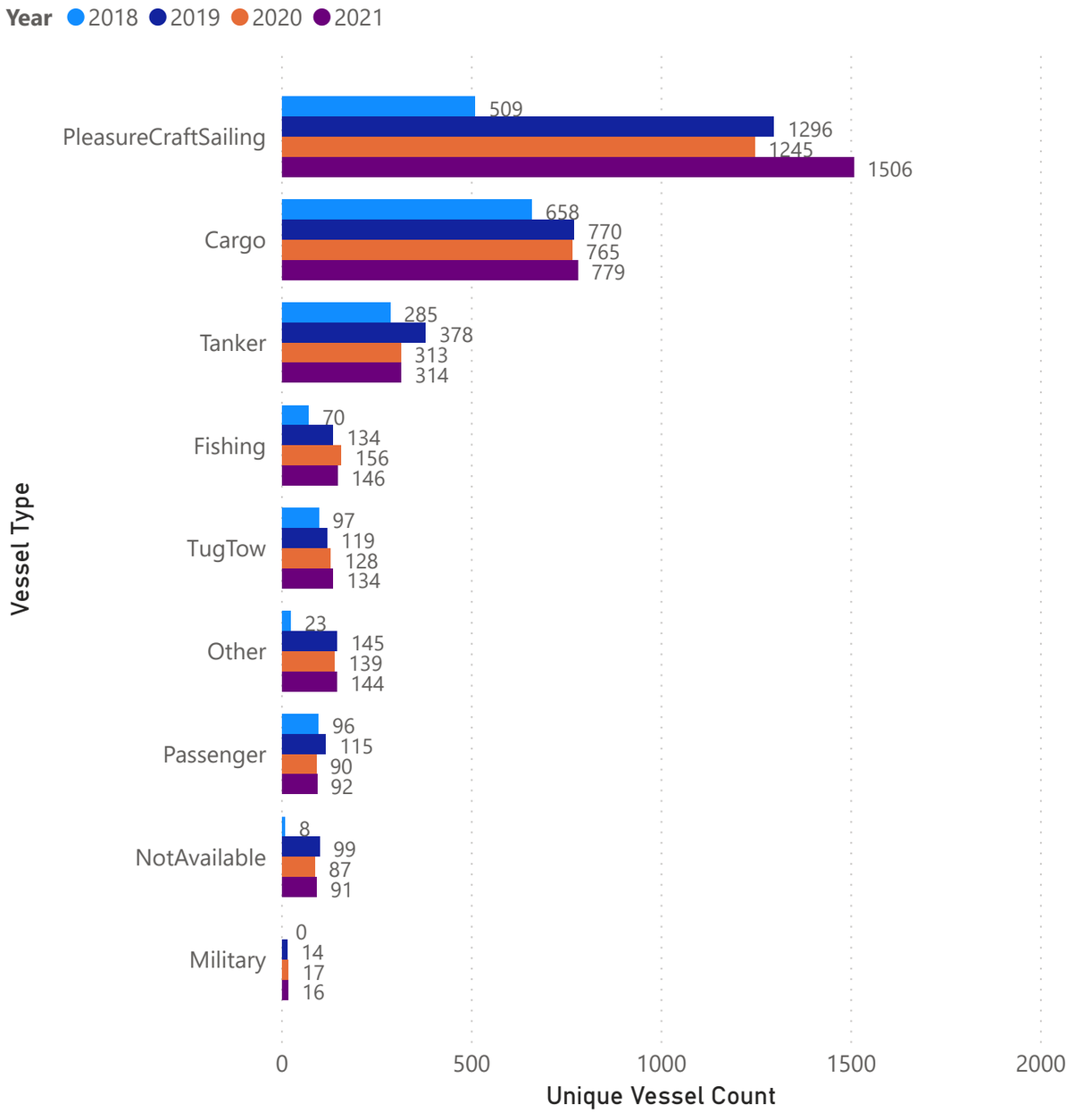
In the chart on the left, the average number of tracks attributed to each unique vessel per year is shown. Calculating transits per unique vessel is a way to compare the traffic distribution between the four years of data. This is calculated by dividing the total number of transits by the total number of unique vessels. In practice, some vessels visit the study area more frequently than others.

San Francisco - Overall Metrics for Study Bounds

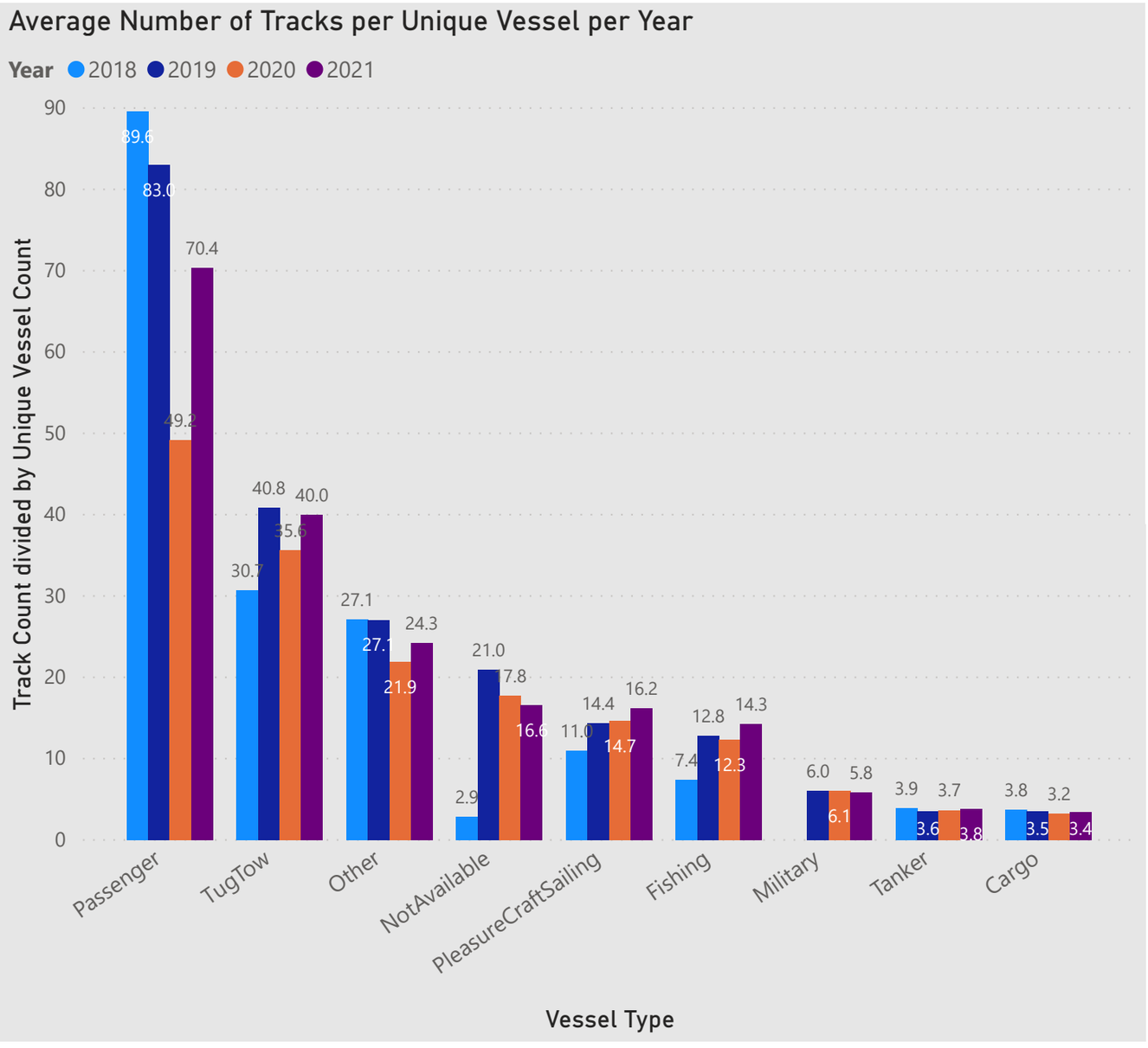
Track Count by Vessel Type and Year



Unique Vessel Count by Vessel Type and Year



San Francisco - Overall Metrics for Study Bounds Cont.



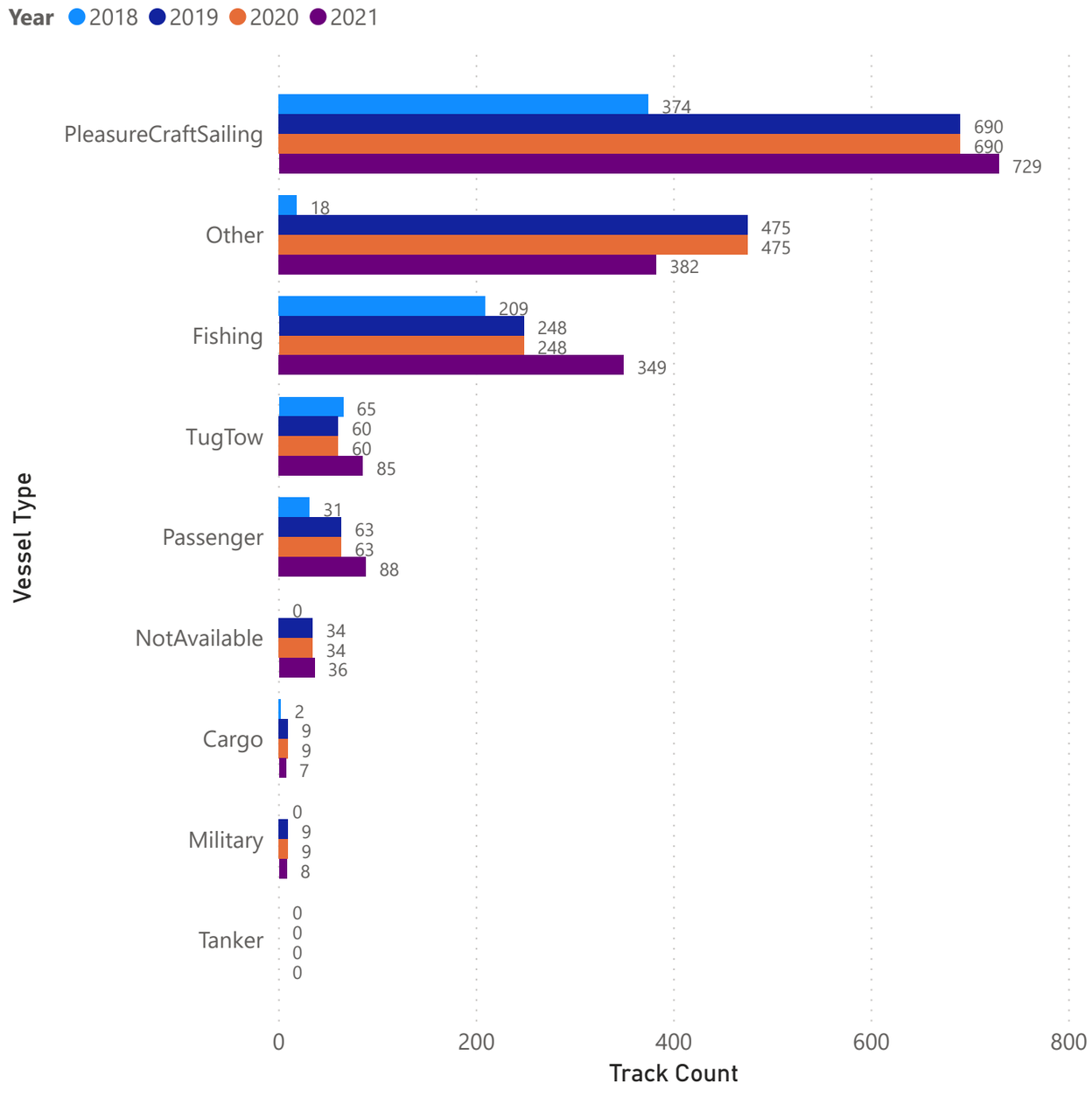
Geographic Area	Average of Track Count	Average of Unique Vessel Count
San Francisco Study Bounds	**4208.94**	**304.94**
Cargo	2581.25	743.00
Fishing	1559.75	126.50
Military	70.00	11.75
NotAvailable	1288.50	71.25
Other	2772.25	112.75
Passenger	7263.25	98.25
PleasureCraftSailing	16704.00	1139.00
Tanker	1202.00	322.50
TugTow	4439.50	119.50
Total	**4208.94**	**304.94**

Track and unique vessel counts are averaged over all present years of data in the above table, by vessel type, for the specified study bounds.

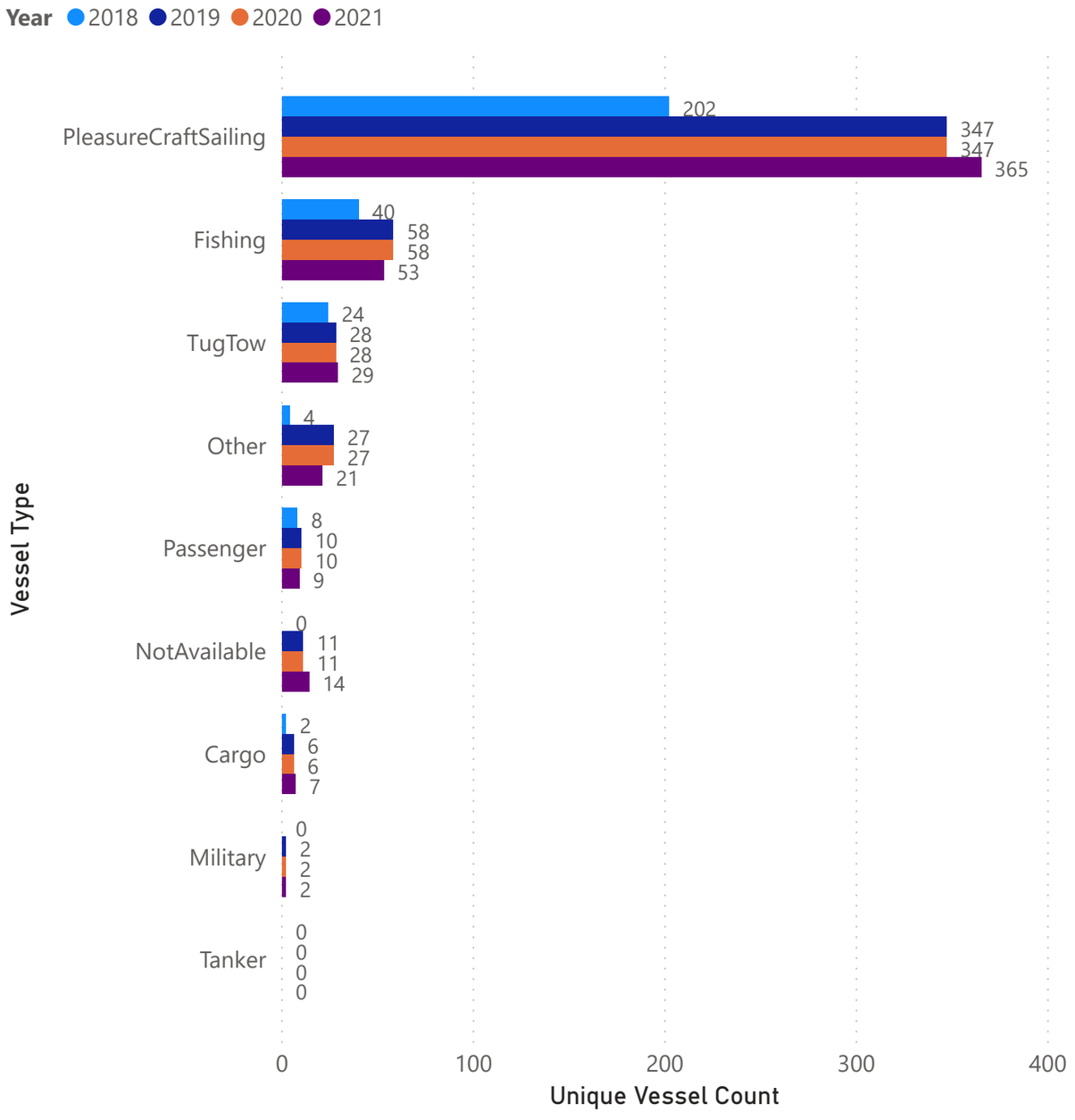
In the chart on the left, the average number of tracks attributed to each unique vessel per year is shown. Calculating transits per unique vessel is a way to compare the traffic distribution between the four years of data. This is calculated by dividing the total number of transits by the total number of unique vessels. In practice, some vessels visit the study area more frequently than others.

Morro Bay - Overall Metrics for Study Bounds

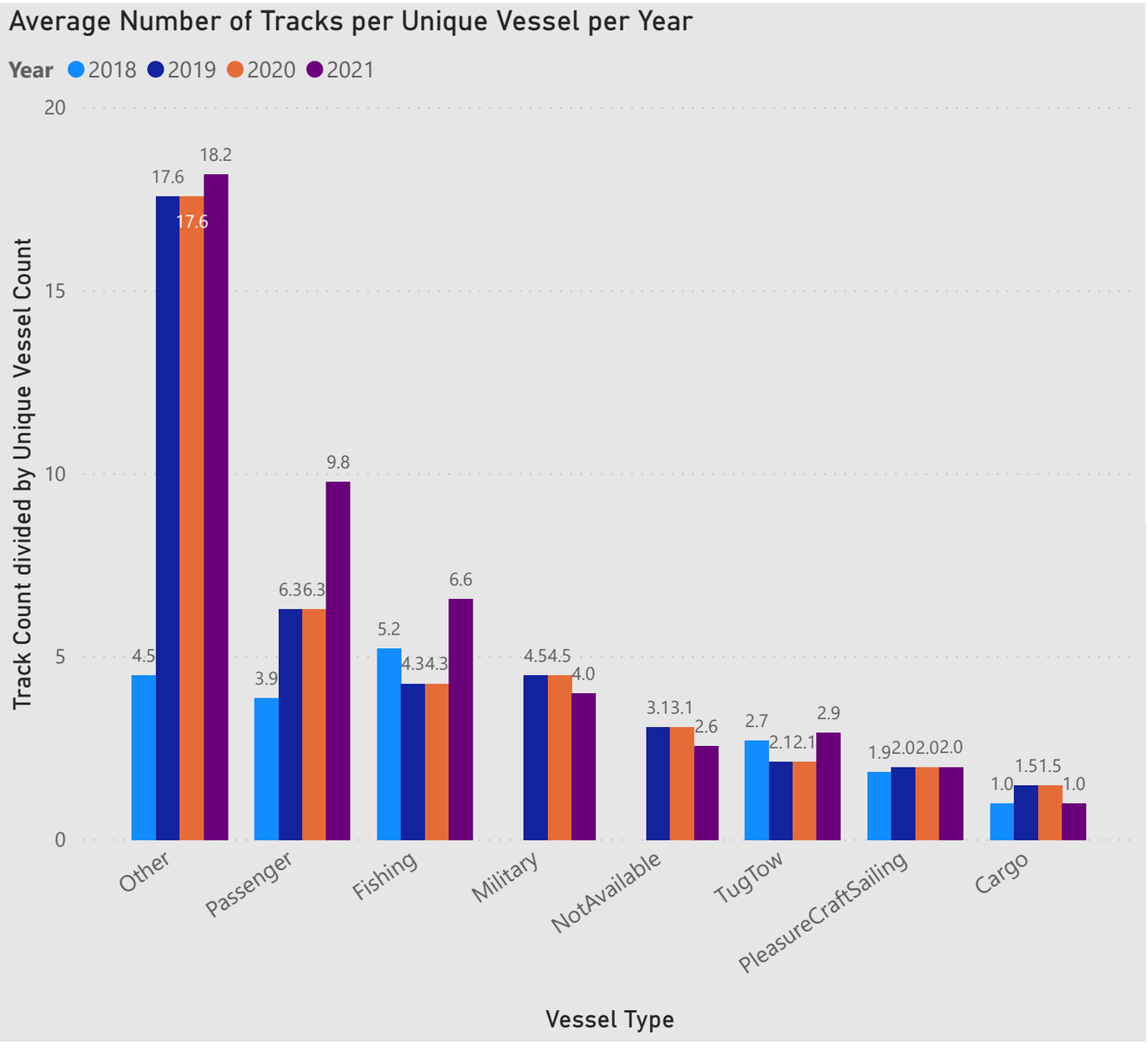
Track Count by Vessel Type and Year



Unique Vessel Count by Vessel Type and Year



Morro Bay - Overall Metrics for Study Bounds Cont.



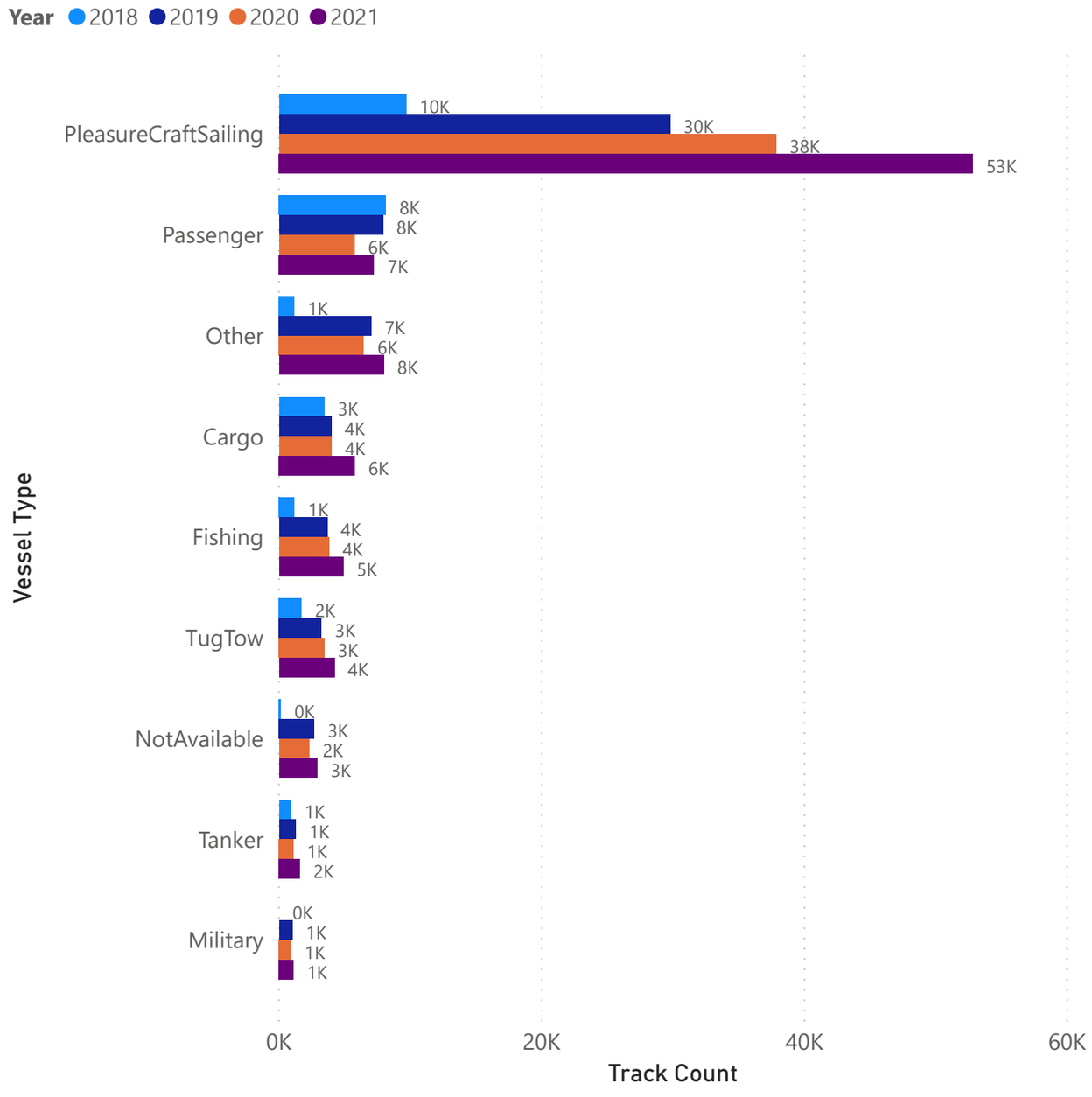
Geographic Area	Average of Track Count	Average of Unique Vessel Count
Morro Bay Study Bounds	**154.42**	**48.83**
Cargo	6.75	5.25
Fishing	263.50	52.25
Military	6.50	1.50
NotAvailable	26.00	9.00
Other	337.50	19.75
Passenger	61.25	9.25
PleasureCraftSailing	620.75	315.25
Tanker	0.00	0.00
TugTow	67.50	27.25
Total	**154.42**	**48.83**

Track and unique vessel counts are averaged over all present years of data in the above table, by vessel type, for the specified study bounds.

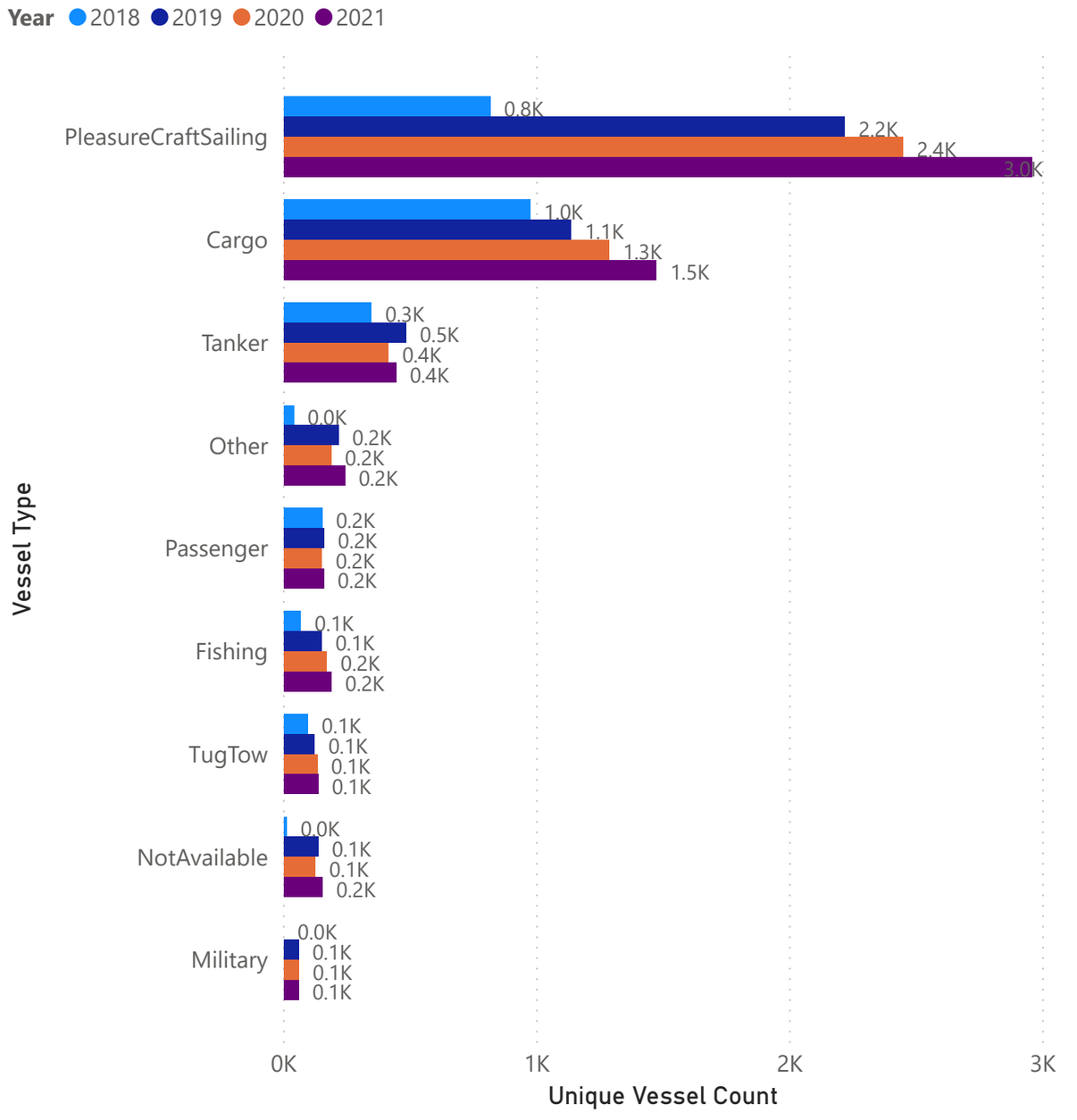
In the chart on the left, the average number of tracks attributed to each unique vessel per year is shown. Calculating transits per unique vessel is a way to compare the traffic distribution between the four years of data. This is calculated by dividing the total number of transits by the total number of unique vessels. In practice, some vessels visit the study area more frequently than others.

LA/LB - Overall Metrics for Study Bounds

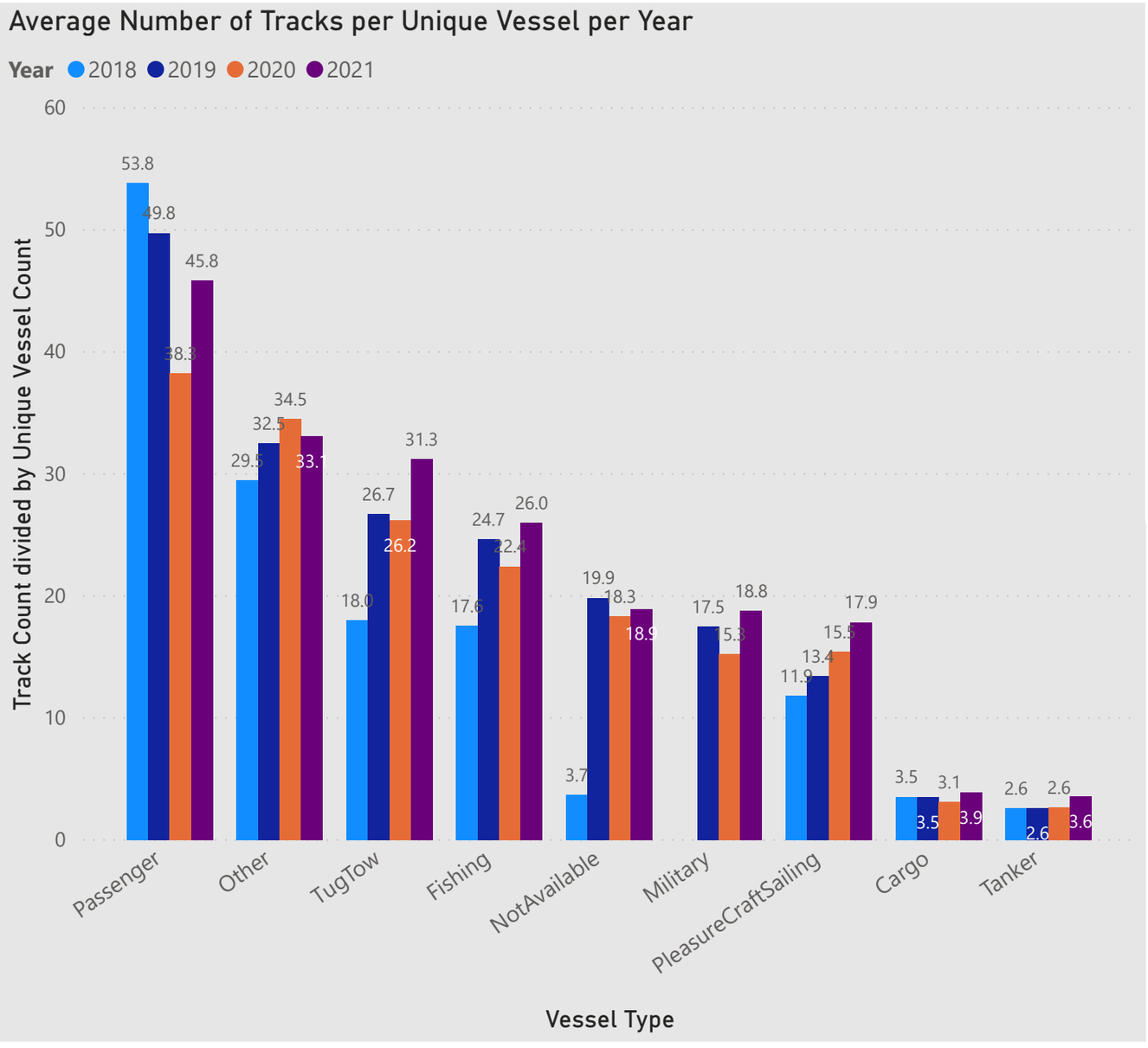
Track Count by Vessel Type and Year



Unique Vessel Count by Vessel Type and Year



LA/LB - Overall Metrics for Study Bounds Cont.



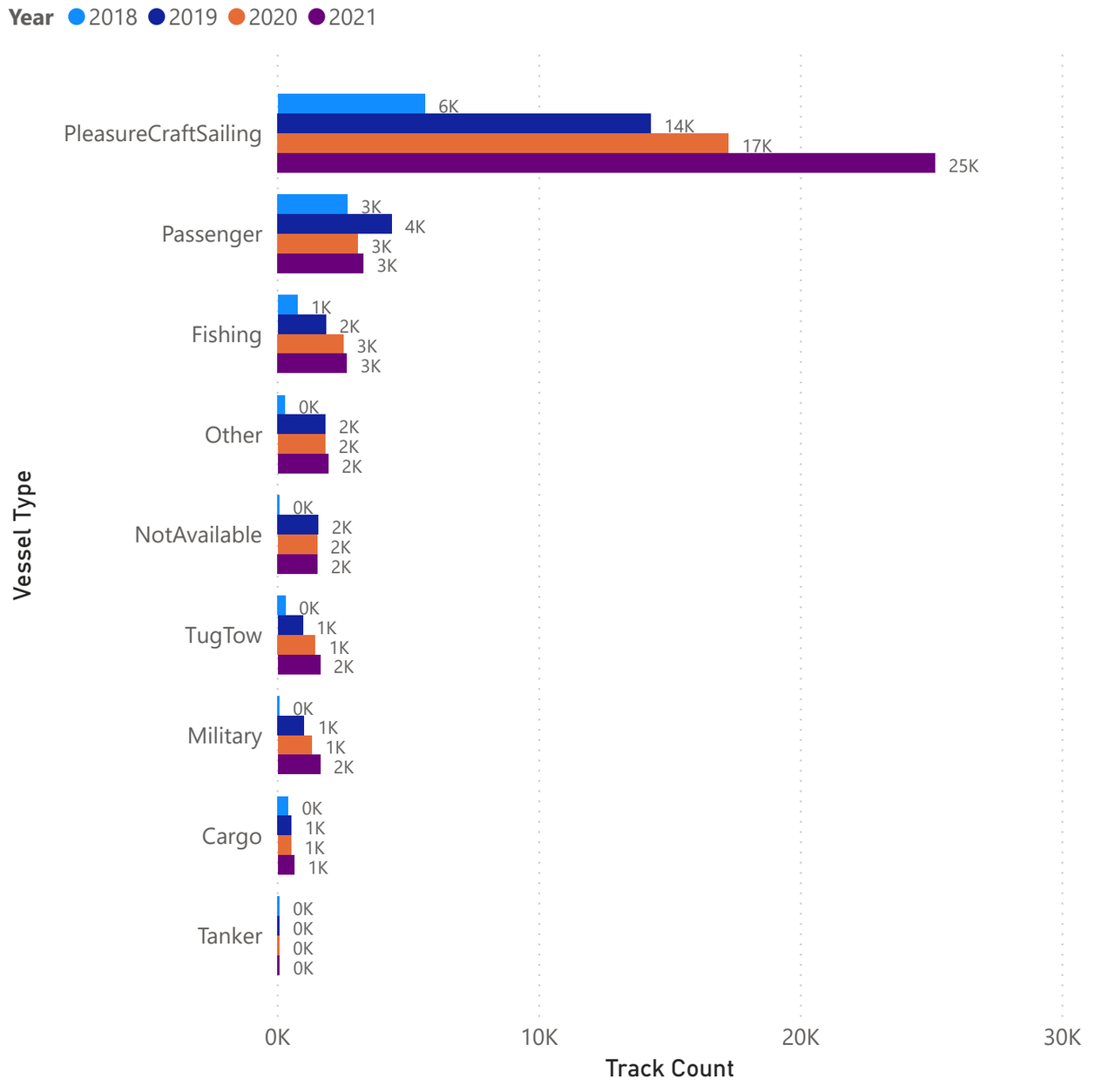
Geographic Area	Average of Track Count	Average of Unique Vessel Count
LA/LB Study Bounds	**6690.08**	**498.47**
TugTow	3155.50	120.75
Tanker	1207.50	421.25
PleasureCraftSailing	32520.25	2109.50
Passenger	7256.50	154.50
Other	5652.25	170.75
NotAvailable	1977.75	106.00
Military	755.50	44.00
Fishing	3388.75	143.50
Cargo	4296.75	1216.00
Total	**6690.08**	**498.47**

Track and unique vessel counts are averaged over all present years of data in the above table, by vessel type, for the specified study bounds.

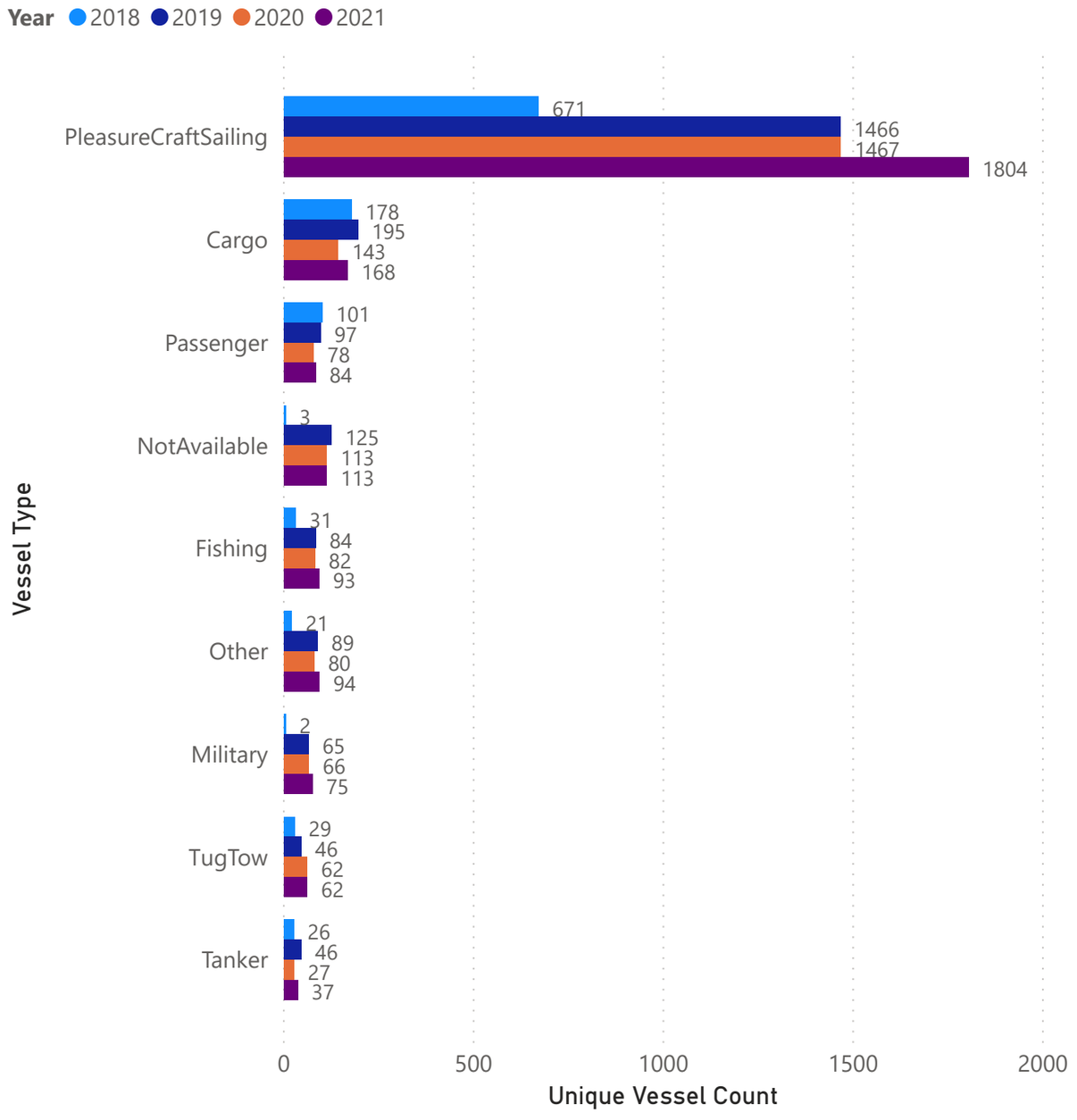
In the chart on the left, the average number of tracks attributed to each unique vessel per year is shown. Calculating transits per unique vessel is a way to compare the traffic distribution between the four years of data. This is calculated by dividing the total number of transits by the total number of unique vessels. In practice, some vessels visit the study area more frequently than others.

San Diego - Overall Metrics for Study Bounds

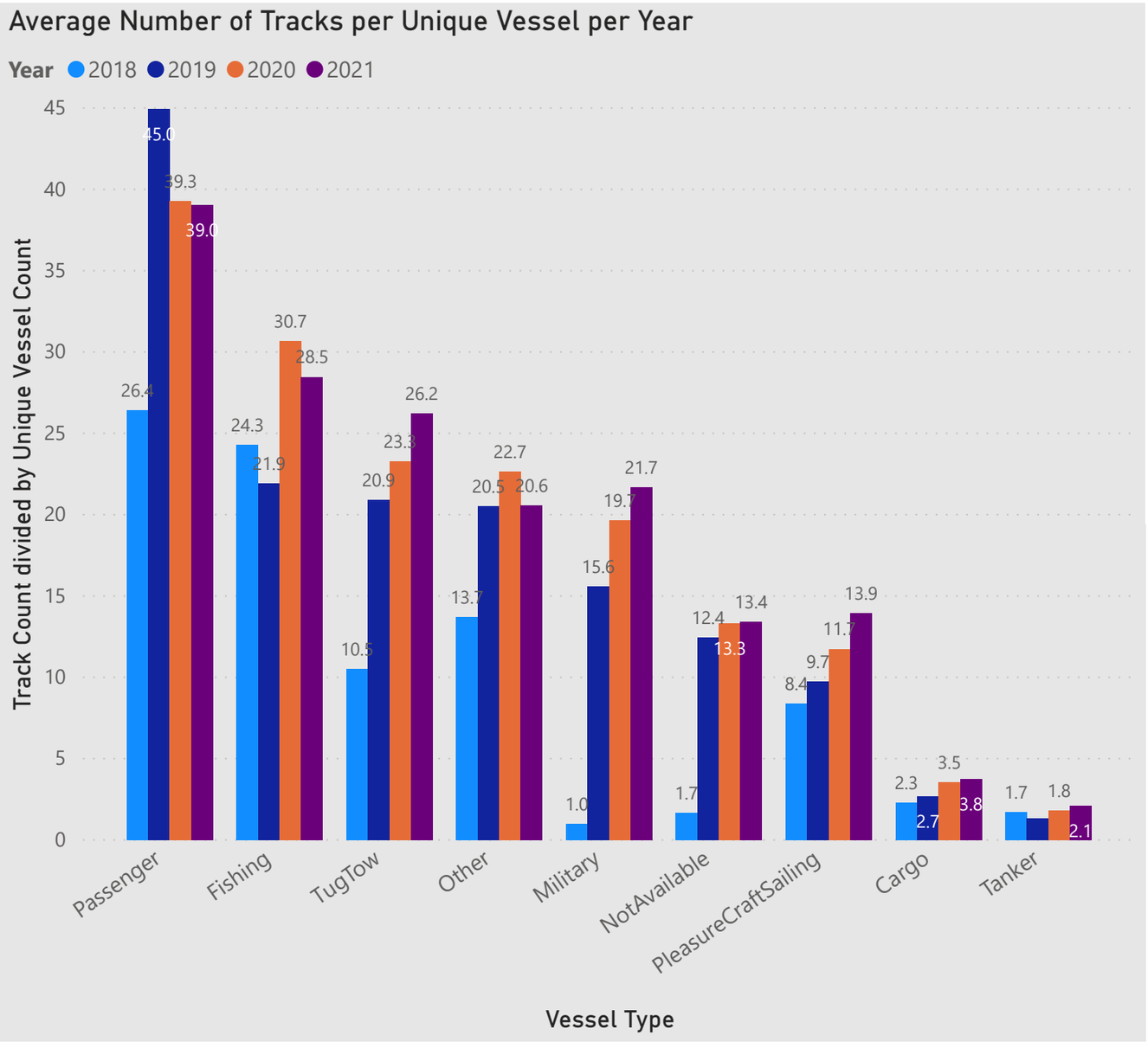
Track Count by Vessel Type and Year



Unique Vessel Count by Vessel Type and Year



San Diego - Overall Metrics for Study Bounds Cont.

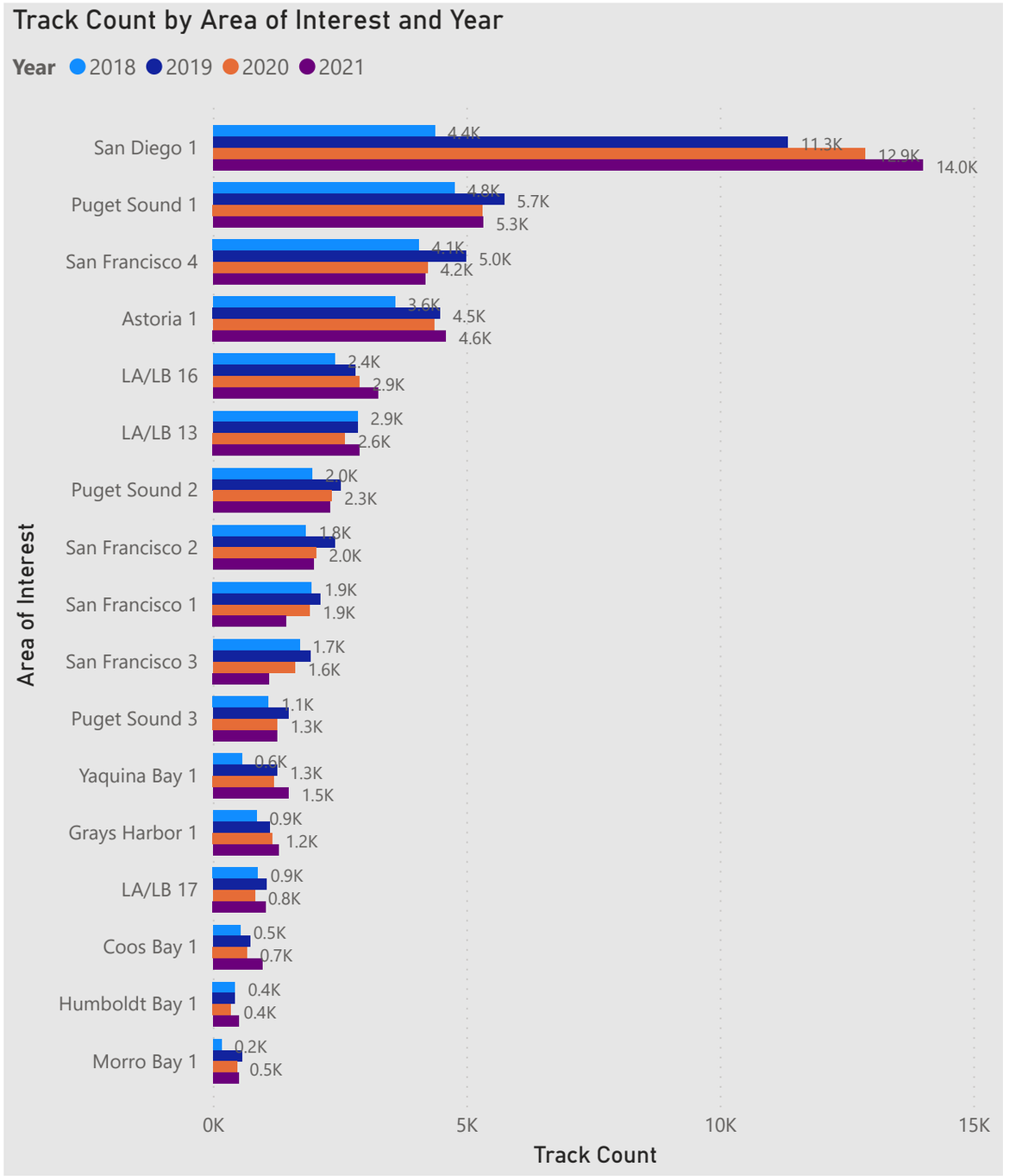


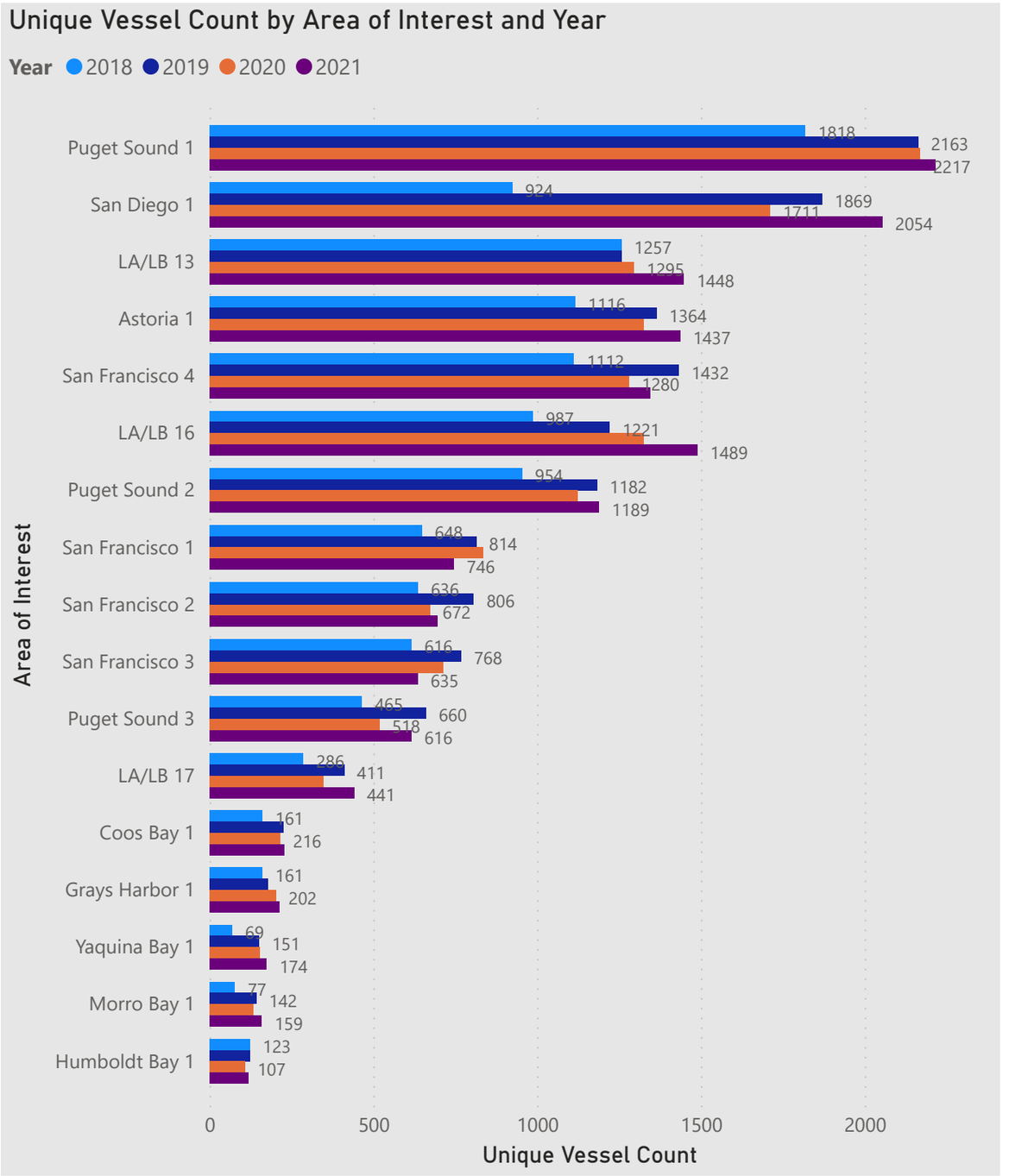
Geographic Area	Average of Track Count	Average of Unique Vessel Count
San Diego Study Bounds	**2900.06**	**220.08**
TugTow	1083.25	49.75
Tanker	58.00	34.00
PleasureCraftSailing	15562.50	1352.00
Passenger	3343.50	90.00
Other	1465.25	71.00
NotAvailable	1145.75	88.50
Military	985.00	52.00
Fishing	1939.50	72.50
Cargo	517.75	171.00
Total	**2900.06**	**220.08**

Track and unique vessel counts are averaged over all present years of data in the above table, by vessel type, for the specified study bounds.

In the chart on the left, the average number of tracks attributed to each unique vessel per year is shown. Calculating transits per unique vessel is a way to compare the traffic distribution between the four years of data. This is calculated by dividing the total number of transits by the total number of unique vessels. In practice, some vessels visit the study area more frequently than others.

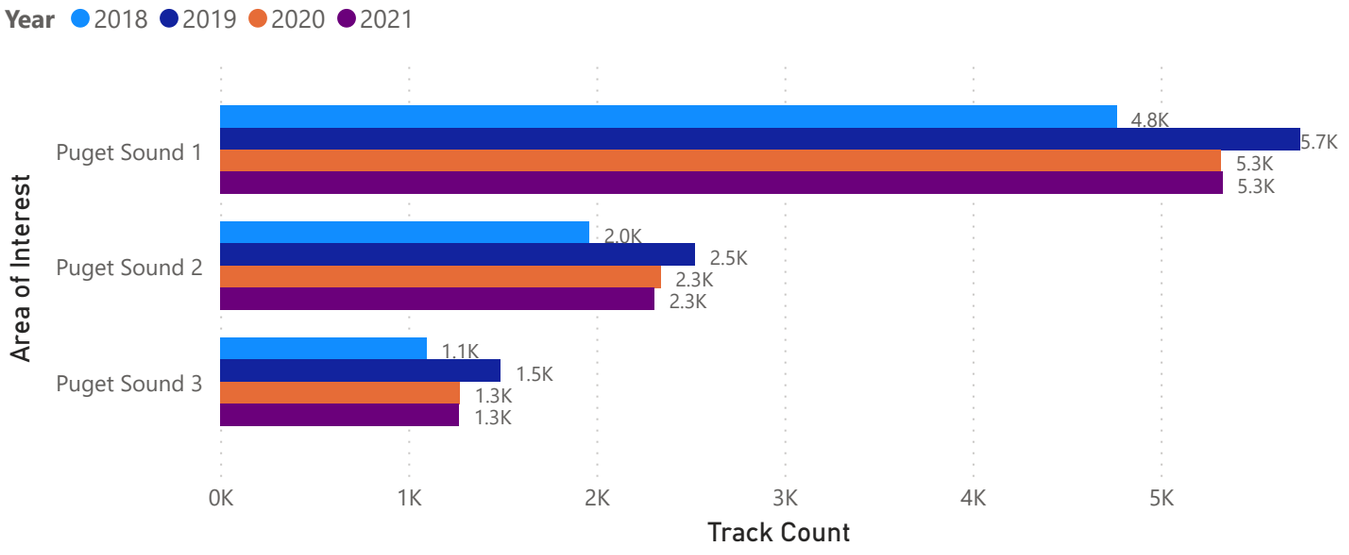
Attachment 2 – Metrics for Selected Areas of Interest


Track Count by Area of Interest and Year
Year 2018 2019 2020 2021
San Diego 1 4.4K 11.3K 12.9K 14.0K
Puget Sound 1 4.8K 5.7K 5.3K
San Francisco 4 4.1K 5.0K 4.2K
Astoria 1 3.6K 4.5K 4.6K
LA/LB 16 2.4K 2.9K
LA/LB 13 2.9K 2.6K
Puget Sound 2 2.0K 2.3K
San Francisco 2 1.8K 2.0K
San Francisco 1 1.9K 1.9K
San Francisco 3 1.7K 1.6K
Puget Sound 3 1.1K 1.3K
Yaquina Bay 1 0.6K 1.3K 1.5K
Grays Harbor 1 0.9K 1.2K
LA/LB 17 0.9K 0.8K
Coos Bay 1 0.5K 0.7K
Humboldt Bay 1 0.4K 0.4K
Morro Bay 1 0.2K 0.5K
Area of Interest
0K 5K 10K 15K
Track Count

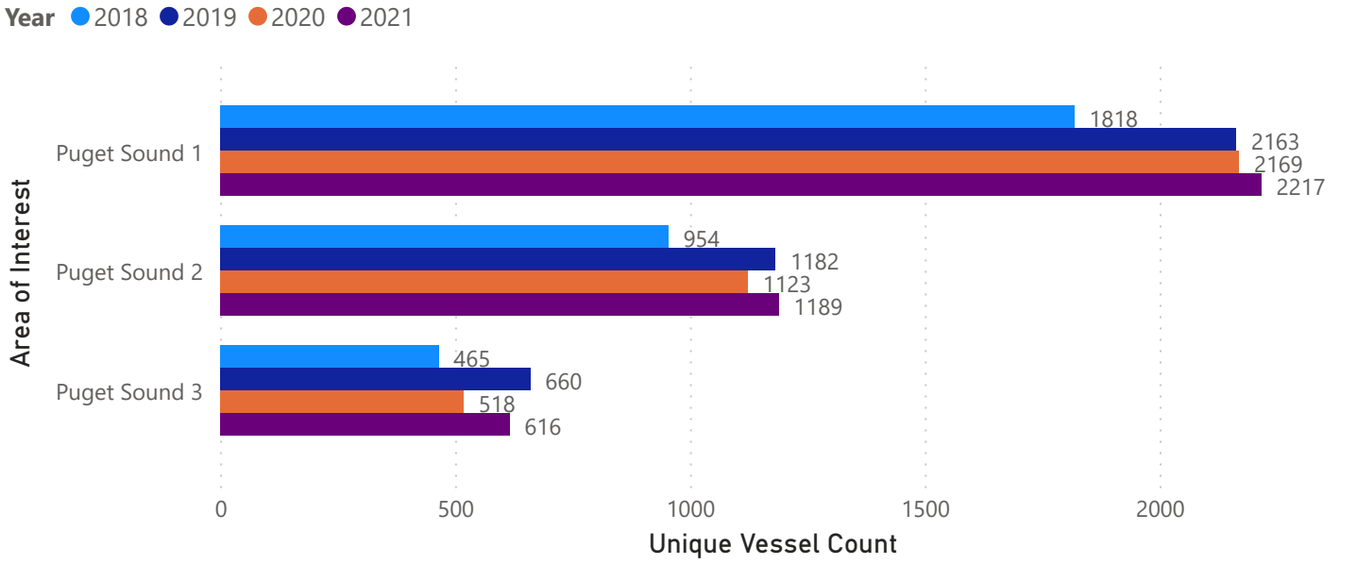

Unique Vessel Count by Area of Interest and Year
Year 2018 2019 2020 2021
Puget Sound 1 1818 2163 2217
San Diego 1 924 1869 1711 2054
LA/LB 13 1257 1295 1448
Astoria 1 1116 1364 1437
San Francisco 4 1112 1432 1280
LA/LB 16 987 1221 1489
Puget Sound 2 954 1182 1189
San Francisco 1 648 814 746
San Francisco 2 636 806 672
San Francisco 3 616 768 635
Puget Sound 3 465 660 518 616
LA/LB 17 286 411 441
Coos Bay 1 161 216
Grays Harbor 1 161 202
Yaquina Bay 1 69 151 174
Morro Bay 1 77 142 159
Humboldt Bay 1 123 107
Area of Interest
0 500 1000 1500 2000
Unique Vessel Count

Puget Sound - Metrics for Selected Areas of Interest

Track Counts by Year For Selected Areas of Interest



Unique Vessel Counts by Year For Selected Areas of Interest



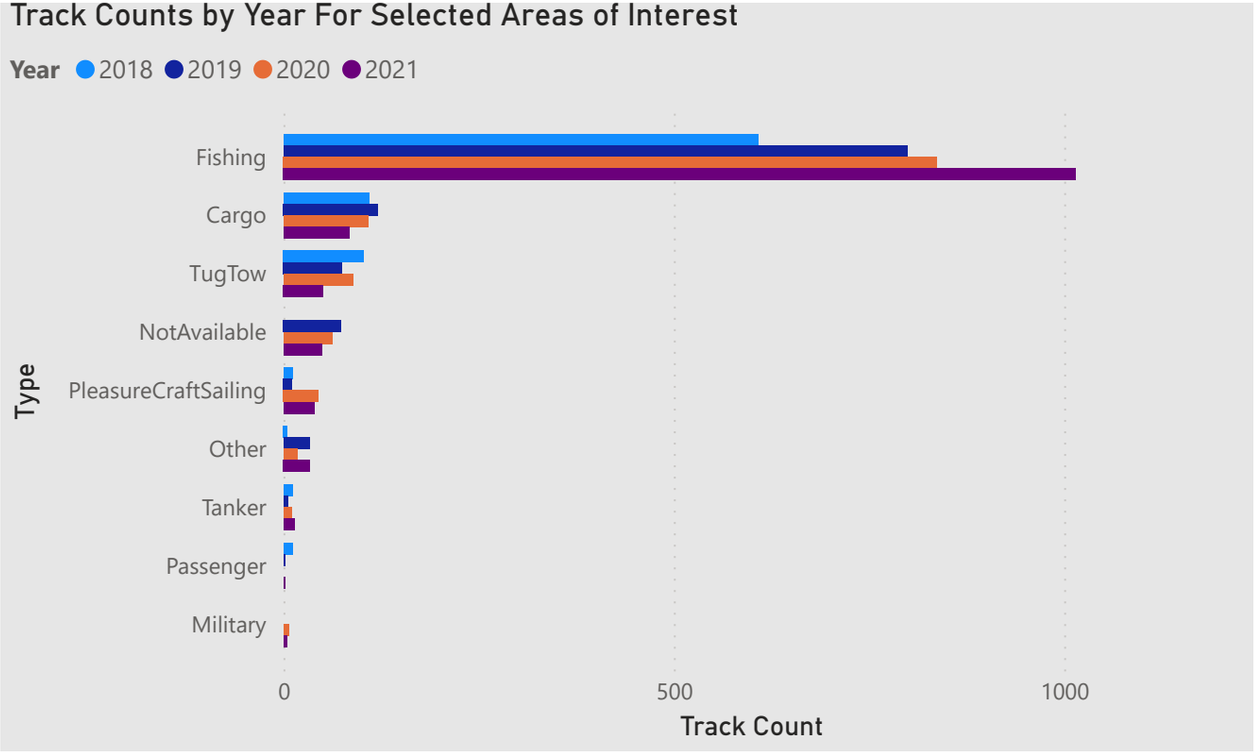
Area of Interest	Average of Track Count	Average of Unique Vessel Count
Puget Sound 1	**587.56**	**232.42**
Cargo	4202.50	1669.75
Fishing	267.00	126.00
Military	31.75	11.00
NotAvailable	54.25	22.50
Other	56.25	18.25
Passenger	140.50	15.75
PleasureCraftSailing	29.75	26.50
Tanker	453.75	179.25
TugTow	52.25	22.75
Puget Sound 2	**253.67**	**123.56**
Cargo	1499.50	805.00
Fishing	63.25	24.50
Military	32.50	14.25
NotAvailable	55.25	21.50
Other	36.25	19.50
Passenger	26.75	16.75
PleasureCraftSailing	33.25	28.25
Tanker	391.50	163.75
TugTow	144.75	18.50
Puget Sound 3	**142.36**	**62.75**
Cargo	37.75	33.50
Fishing	273.00	150.25
Military	7.75	2.25
NotAvailable	32.25	12.25
Other	79.25	27.50
Passenger	12.25	9.25
PleasureCraftSailing	280.75	232.75
Tanker	7.50	5.50
TugTow	550.75	91.50
Total	**327.86**	**139.57**

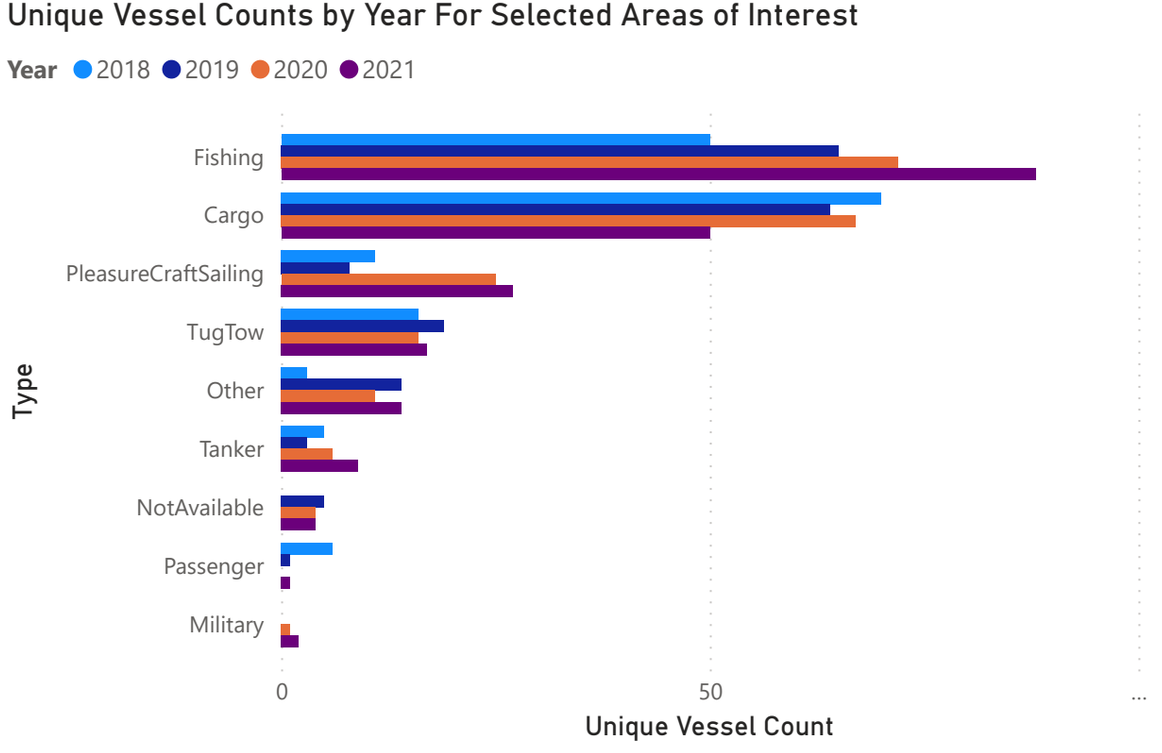
Track and unique vessel counts are averaged over all present years of data in this table, by vessel type. Bold values are overall averages for either that area of interest or overall for the table in the bottom row.

Puget Sound - Metrics for Selected Areas of Interest, Cont.

Year	2018		2019		2020		2021		**Total**	
Alternate Name	Track Count	Unique Vessel Count	Track Count	Unique Vessel Count	Track Count	Unique Vessel Count	Track Count	Unique Vessel Count	**Track Count**	**Unique Vessel Count**
Puget Sound 1	**4765**	**1818**	**5741**	**2163**	**5319**	**2169**	**5327**	**2217**	**21152**	**8367**
Cargo	3751	1453	4433	1691	4361	1750	4265	1785	**16810**	**6679**
Fishing	273	105	273	139	244	133	278	127	**1068**	**504**
Military	1	1	27	17	40	9	59	17	**127**	**44**
NotAvailable	21	7	66	27	53	20	77	36	**217**	**90**
Other	19	9	69	20	65	18	72	26	**225**	**73**
Passenger	170	26	291	27	0	0	101	10	**562**	**63**
PleasureCraftSailing	19	18	41	36	34	30	25	22	**119**	**106**
Tanker	468	178	476	183	472	184	399	172	**1815**	**717**
TugTow	43	21	65	23	50	25	51	22	**209**	**91**
Puget Sound 2	**1961**	**954**	**2523**	**1182**	**2341**	**1123**	**2307**	**1189**	**9132**	**4448**
Cargo	1336	703	1611	813	1591	839	1460	865	**5998**	**3220**
Fishing	54	16	79	28	71	31	49	23	**253**	**98**
Military	0	0	44	24	48	18	38	15	**130**	**57**
NotAvailable	5	4	94	30	41	18	81	34	**221**	**86**
Other	14	8	45	23	46	22	40	25	**145**	**78**
Passenger	33	22	56	32	1	1	17	12	**107**	**67**
PleasureCraftSailing	43	37	38	31	28	22	24	23	**133**	**113**
Tanker	338	148	407	182	393	156	428	169	**1566**	**655**
TugTow	138	16	149	19	122	16	170	23	**579**	**74**
Puget Sound 3	**1095**	**465**	**1490**	**660**	**1272**	**518**	**1268**	**616**	**5125**	**2259**
Cargo	52	46	29	28	27	22	43	38	**151**	**134**
Fishing	234	119	341	178	262	155	255	149	**1092**	**601**
Military	0	0	8	2	19	5	4	2	**31**	**9**
NotAvailable	3	2	50	17	46	13	30	17	**129**	**49**
Other	17	8	102	35	91	31	107	36	**317**	**110**
Passenger	21	15	15	12	1	1	12	9	**49**	**37**
PleasureCraftSailing	238	190	344	287	230	184	311	270	**1123**	**931**
Tanker	11	9	4	4	7	4	8	5	**30**	**22**
TugTow	519	76	597	97	589	103	498	90	**2203**	**366**
Total	**7821**	**3237**	**9754**	**4005**	**8932**	**3810**	**8902**	**4022**	**35409**	**15074**

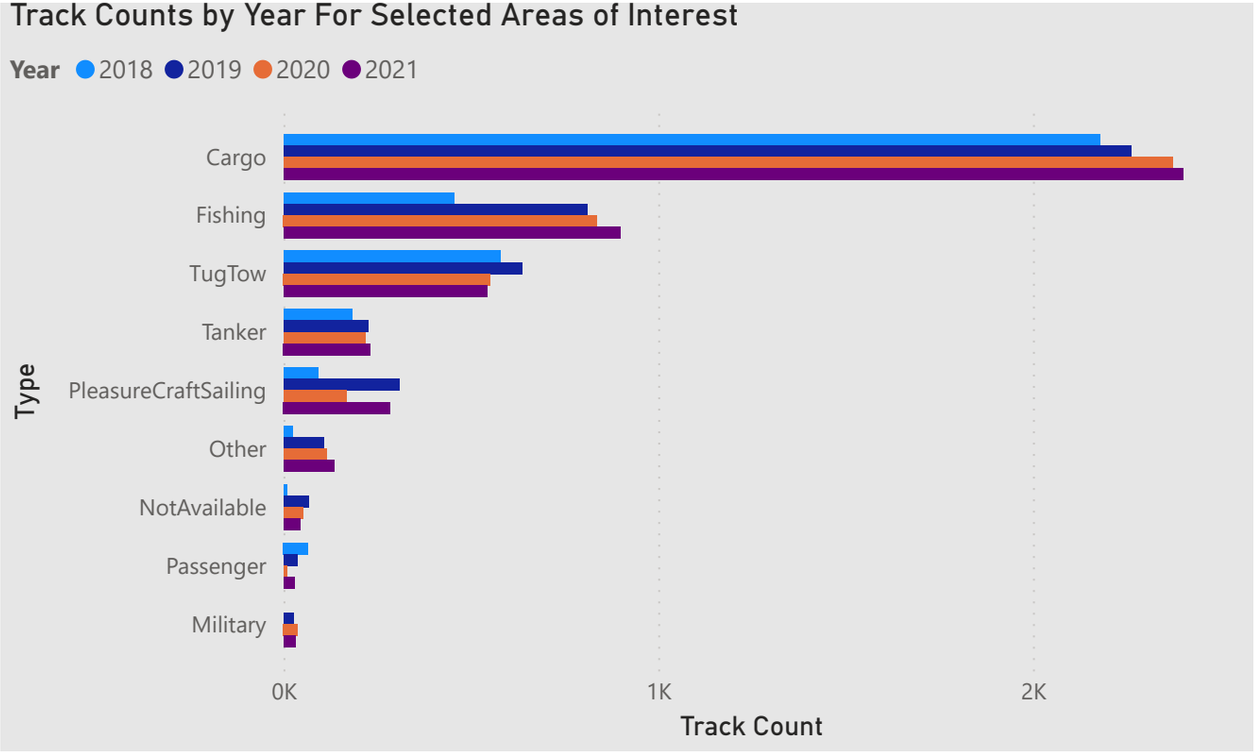
Grays Harbor - Metrics for Grays Harbor 1 (Grays Harbor Entrance)

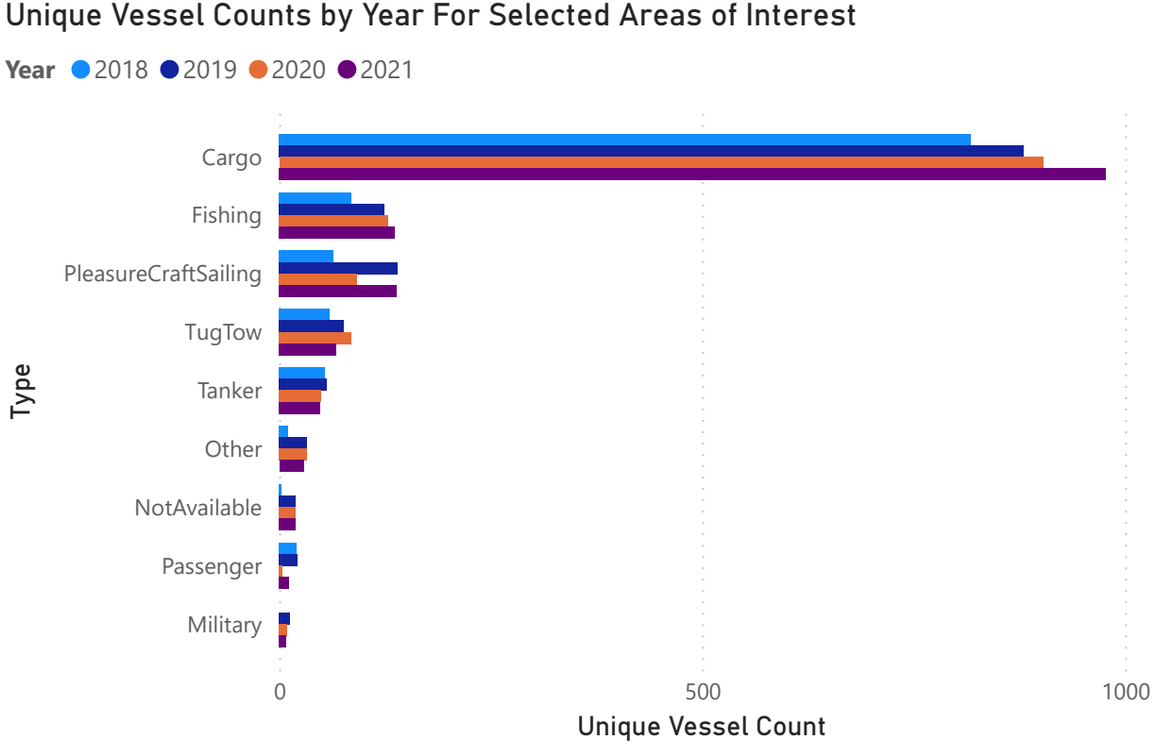




Year	2018		2019		2020		2021		**Total**	
Alternate Name	Track Count	Unique Vessel Count	Track Count	Unique Vessel Count	Track Count	Unique Vessel Count	Track Count	Unique Vessel Count	**Track Count**	**Unique Vessel Count**
Grays Harbor 1	**862**	**161**	**1121**	**179**	**1176**	**202**	**1292**	**212**	**4451**	**754**
Cargo	110	70	121	64	108	67	84	50	**423**	**251**
Fishing	608	50	799	65	837	72	1015	88	**3259**	**275**
Military	0	0	0	0	7	1	4	2	**11**	**3**
NotAvailable	0	0	74	5	62	4	49	4	**185**	**13**
Other	5	3	33	14	18	11	34	14	**90**	**42**
Passenger	12	6	2	1	0	0	2	1	**16**	**8**
PleasureCraftSailing	12	11	11	8	45	25	39	27	**107**	**71**
Tanker	12	5	6	3	10	6	14	9	**42**	**23**
TugTow	103	16	75	19	89	16	51	17	**318**	**68**
Total	**862**	**161**	**1121**	**179**	**1176**	**202**	**1292**	**212**	**4451**	**754**

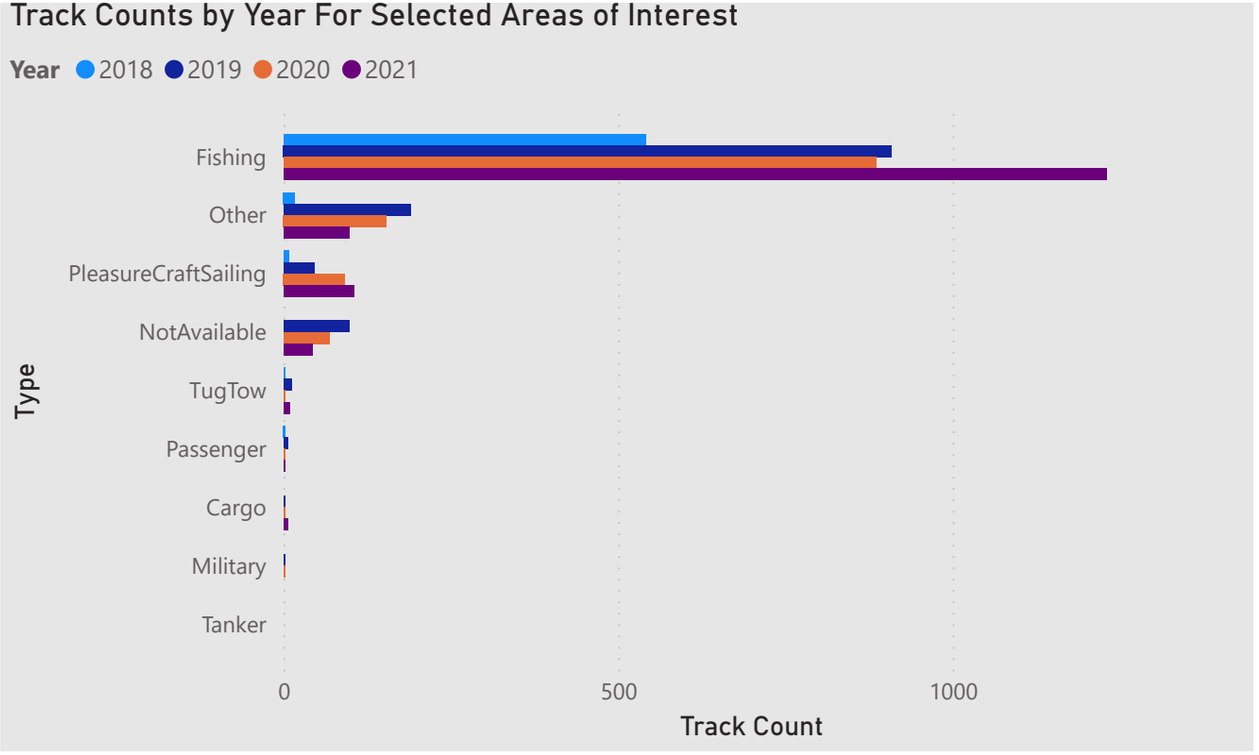
Astoria - Metrics for Astoria 1 (Columbia River Entrance Channel)

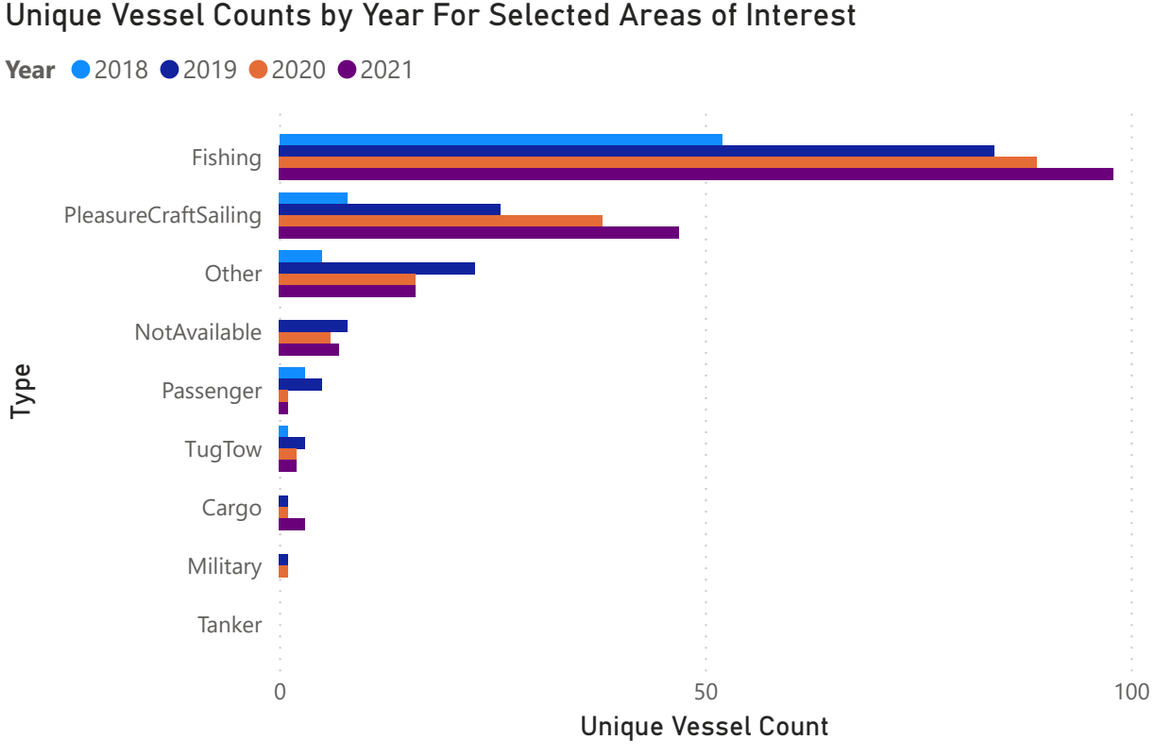




Year	2018		2019		2020		2021		**Total**	
Alternate Name	Track Count	Unique Vessel Count	Track Count	Unique Vessel Count	Track Count	Unique Vessel Count	Track Count	Unique Vessel Count	**Track Count**	**Unique Vessel Count**
Astoria 1	**3590**	**1116**	**4483**	**1364**	**4361**	**1324**	**4600**	**1437**	**17034**	**5241**
Cargo	2179	818	2262	880	2372	903	2400	977	**9213**	**3578**
Fishing	456	85	811	124	837	129	899	137	**3003**	**475**
Military	0	0	27	13	38	9	31	8	**96**	**30**
NotAvailable	10	3	67	20	51	19	44	19	**172**	**61**
Other	25	11	108	33	115	33	135	29	**383**	**106**
Passenger	66	21	36	22	10	4	30	12	**142**	**59**
PleasureCraftSailing	92	64	309	140	168	92	285	139	**854**	**435**
Tanker	183	54	226	56	218	50	232	48	**859**	**208**
TugTow	579	60	637	76	552	85	544	68	**2312**	**289**
Total	**3590**	**1116**	**4483**	**1364**	**4361**	**1324**	**4600**	**1437**	**17034**	**5241**

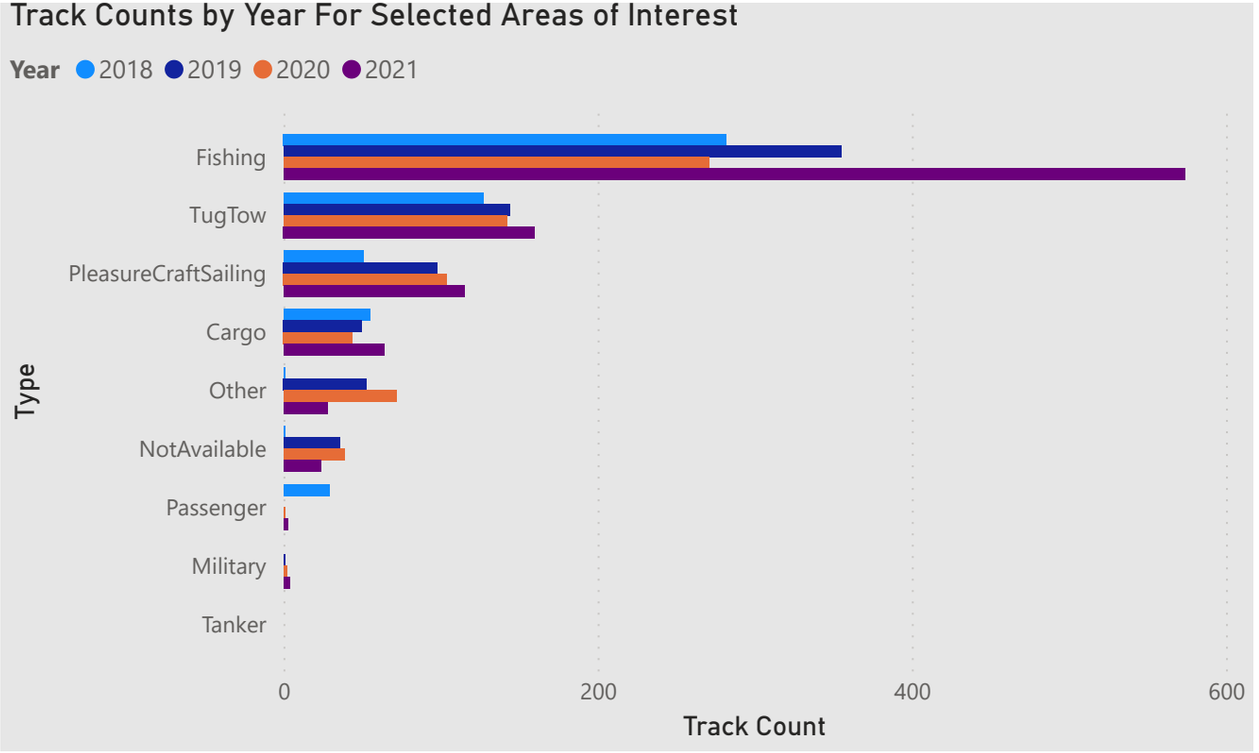
Yaquina Bay - Metrics for Yaquina Bay 1 (Yaquina Bay Entrance)

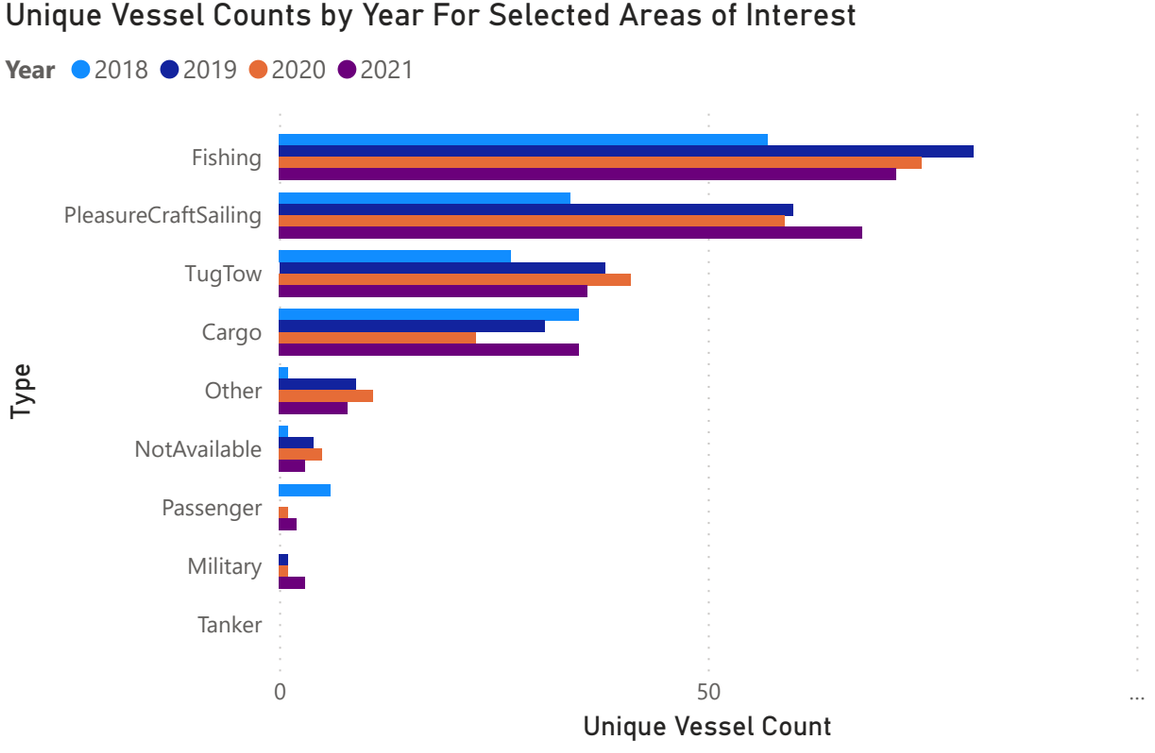




Year	2018		2019		2020		2021		**Total**	
Alternate Name	Track Count	Unique Vessel Count	Track Count	Unique Vessel Count	Track Count	Unique Vessel Count	Track Count	Unique Vessel Count	**Track Count**	**Unique Vessel Count**
Yaquina Bay 1	**570**	**69**	**1265**	**151**	**1208**	**154**	**1492**	**174**	**4535**	**548**
Cargo	0	0	2	1	2	1	6	3	**10**	**5**
Fishing	541	52	909	84	886	89	1230	98	**3566**	**323**
Military	0	0	1	1	2	1	0	0	**3**	**2**
NotAvailable	0	0	98	8	69	6	43	7	**210**	**21**
Other	17	5	190	23	154	16	98	16	**459**	**60**
Passenger	3	3	7	5	1	1	1	1	**12**	**10**
PleasureCraftSailing	8	8	46	26	92	38	105	47	**251**	**119**
Tanker	0	0	0	0	0	0	0	0	**0**	**0**
TugTow	1	1	12	3	2	2	9	2	**24**	**8**
Total	**570**	**69**	**1265**	**151**	**1208**	**154**	**1492**	**174**	**4535**	**548**

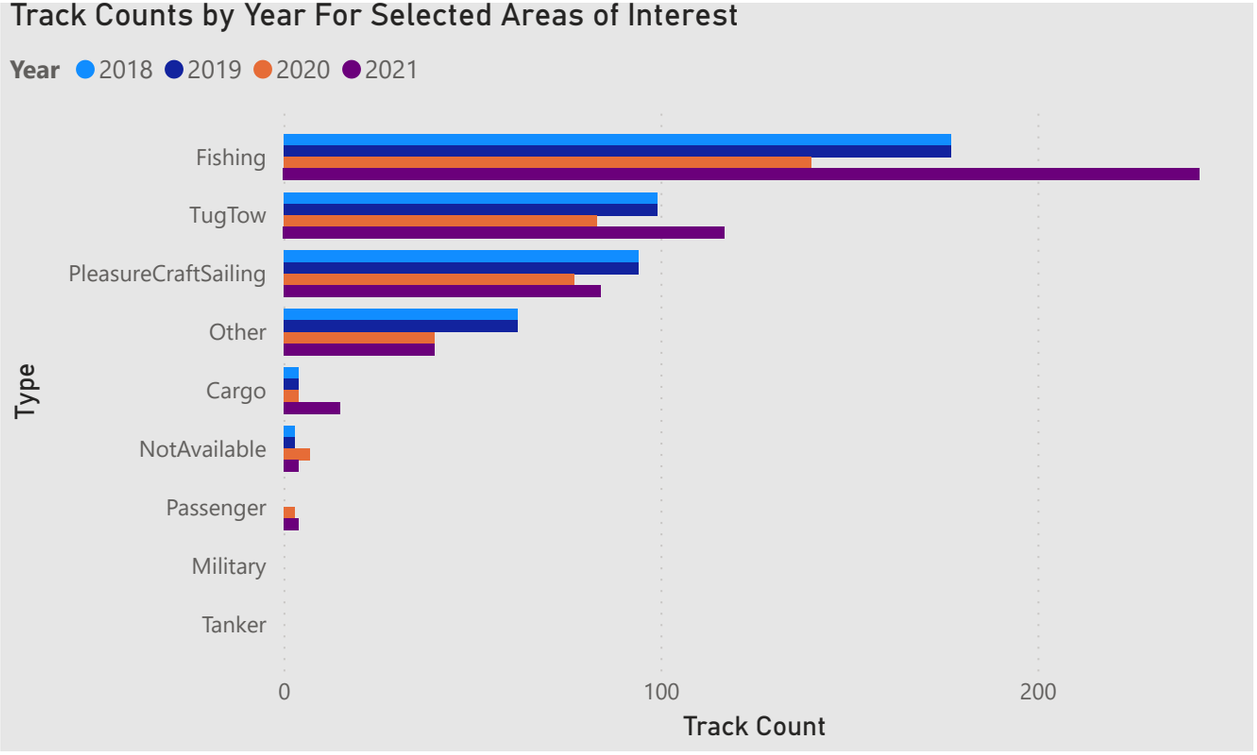
Coos Bay - Metrics for Coos Bay 1 (Coos Bay Entrance)

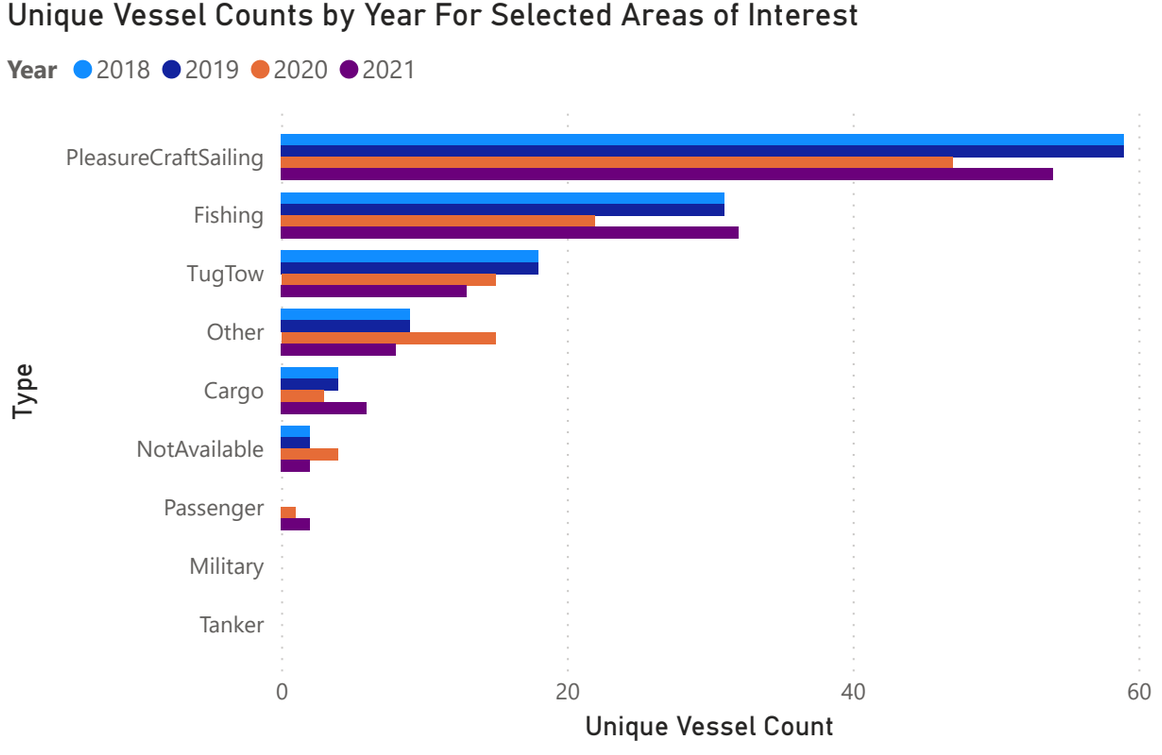




Year	2018		2019		2020		2021		**Total**	
Alternate Name	Track Count	Unique Vessel Count	Track Count	Unique Vessel Count	Track Count	Unique Vessel Count	Track Count	Unique Vessel Count	**Track Count**	**Unique Vessel Count**
Coos Bay 1	**546**	**161**	**737**	**224**	**675**	**216**	**972**	**227**	**2930**	**828**
Cargo	55	35	50	31	44	23	64	35	**213**	**124**
Fishing	282	57	355	81	271	75	574	72	**1482**	**285**
Military	0	0	1	1	2	1	4	3	**7**	**5**
NotAvailable	1	1	36	4	39	5	24	3	**100**	**13**
Other	1	1	53	9	72	11	28	8	**154**	**29**
Passenger	29	6	0	0	1	1	3	2	**33**	**9**
PleasureCraftSailing	51	34	98	60	104	59	115	68	**368**	**221**
Tanker	0	0	0	0	0	0	0	0	**0**	**0**
TugTow	127	27	144	38	142	41	160	36	**573**	**142**
Total	**546**	**161**	**737**	**224**	**675**	**216**	**972**	**227**	**2930**	**828**

Humboldt Bay - Metrics for Humboldt Bay 1 (Humboldt Bay Entrance)

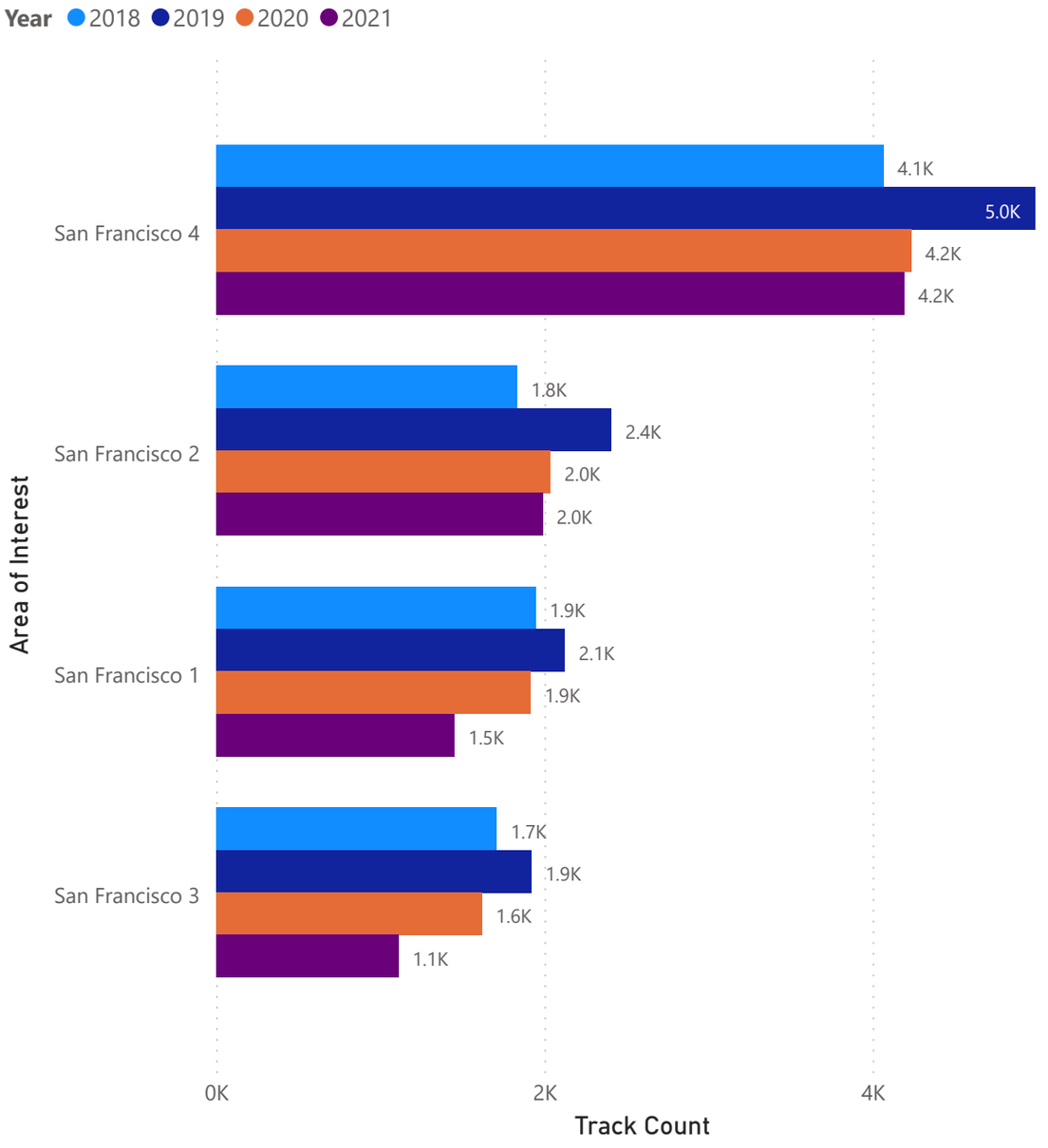




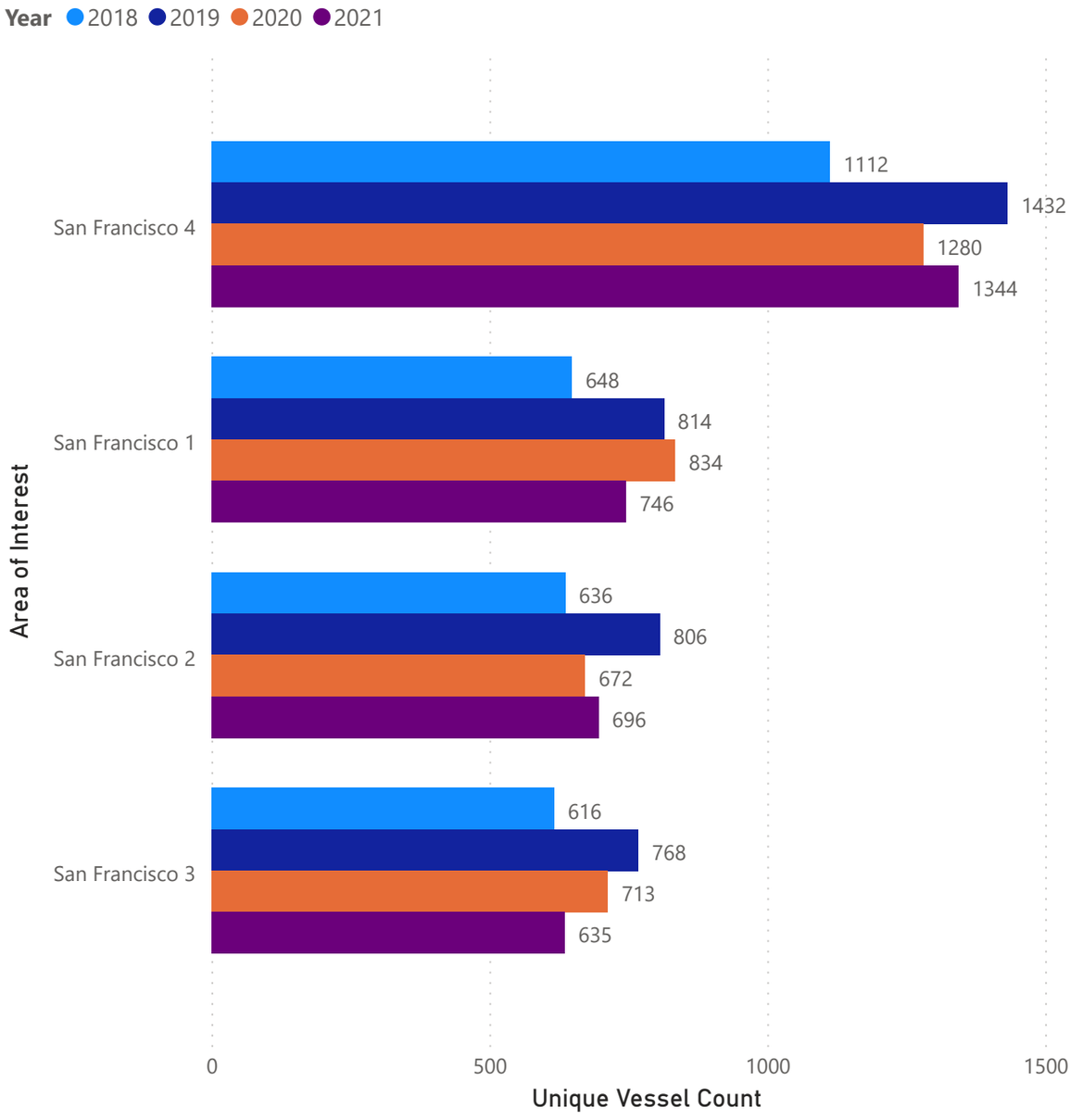
Year	2018		2019		2020		2021		**Total**	
Alternate Name	Track Count	Unique Vessel Count	Track Count	Unique Vessel Count	Track Count	Unique Vessel Count	Track Count	Unique Vessel Count	**Track Count**	**Unique Vessel Count**
Humboldt Bay 1	**439**	**123**	**439**	**123**	**354**	**107**	**507**	**117**	**1739**	**470**
Cargo	4	4	4	4	4	3	15	6	**27**	**17**
Fishing	177	31	177	31	140	22	243	32	**737**	**116**
Military	0	0	0	0	0	0	0	0	**0**	**0**
NotAvailable	3	2	3	2	7	4	4	2	**17**	**10**
Other	62	9	62	9	40	15	40	8	**204**	**41**
Passenger	0	0	0	0	3	1	4	2	**7**	**3**
PleasureCraftSailing	94	59	94	59	77	47	84	54	**349**	**219**
Tanker	0	0	0	0	0	0	0	0	**0**	**0**
TugTow	99	18	99	18	83	15	117	13	**398**	**64**
Total	**439**	**123**	**439**	**123**	**354**	**107**	**507**	**117**	**1739**	**470**

San Francisco - Metrics for Selected Areas of Interest

Track Counts by Year For Selected Areas of Interest



Unique Vessel Counts by Year For Selected Areas of Interest



San Francisco - Metrics for Selected Areas of Interest, Cont.

Area of Interest	Average of Track Count	Average of Unique Vessel Count
San Francisco 1	**206.47**	**84.50**
Cargo	1425.25	522.25
Fishing	33.50	17.50
Military	5.50	4.25
NotAvailable	19.50	9.75
Other	23.75	15.00
Passenger	28.75	14.75
PleasureCraftSailing	43.25	37.25
Tanker	201.00	109.50
TugTow	77.75	30.25
San Francisco 2	**229.58**	**78.06**
Cargo	736.75	366.50
Fishing	1.75	1.75
Military	17.50	5.00
NotAvailable	10.50	7.00
Other	12.00	7.00
Passenger	15.00	9.00
PleasureCraftSailing	6.00	6.00
Tanker	893.50	272.00
TugTow	373.25	28.25
Total	**218.03**	**81.28**

Area of Interest	Average of Track Count	Average of Unique Vessel Count
San Francisco 3	**176.53**	**75.89**
Cargo	1248.75	506.00
Fishing	6.00	5.50
Military	9.50	5.00
NotAvailable	16.00	7.75
Other	30.00	12.75
Passenger	20.25	11.25
PleasureCraftSailing	32.00	29.50
Tanker	111.25	73.00
TugTow	115.00	32.25
San Francisco 4	**485.61**	**143.56**
Cargo	2295.25	727.25
Fishing	46.50	15.50
Military	30.50	9.00
NotAvailable	37.75	17.75
Other	154.75	28.50
Passenger	66.50	23.50
PleasureCraftSailing	110.25	92.50
Tanker	1136.00	321.25
TugTow	493.00	56.75
Total	**331.07**	**109.72**

Track and unique vessel counts are averaged over all present years of data in this table, by vessel type.
Bold values are overall averages for either that area of interest or overall for the table in the bottom row.

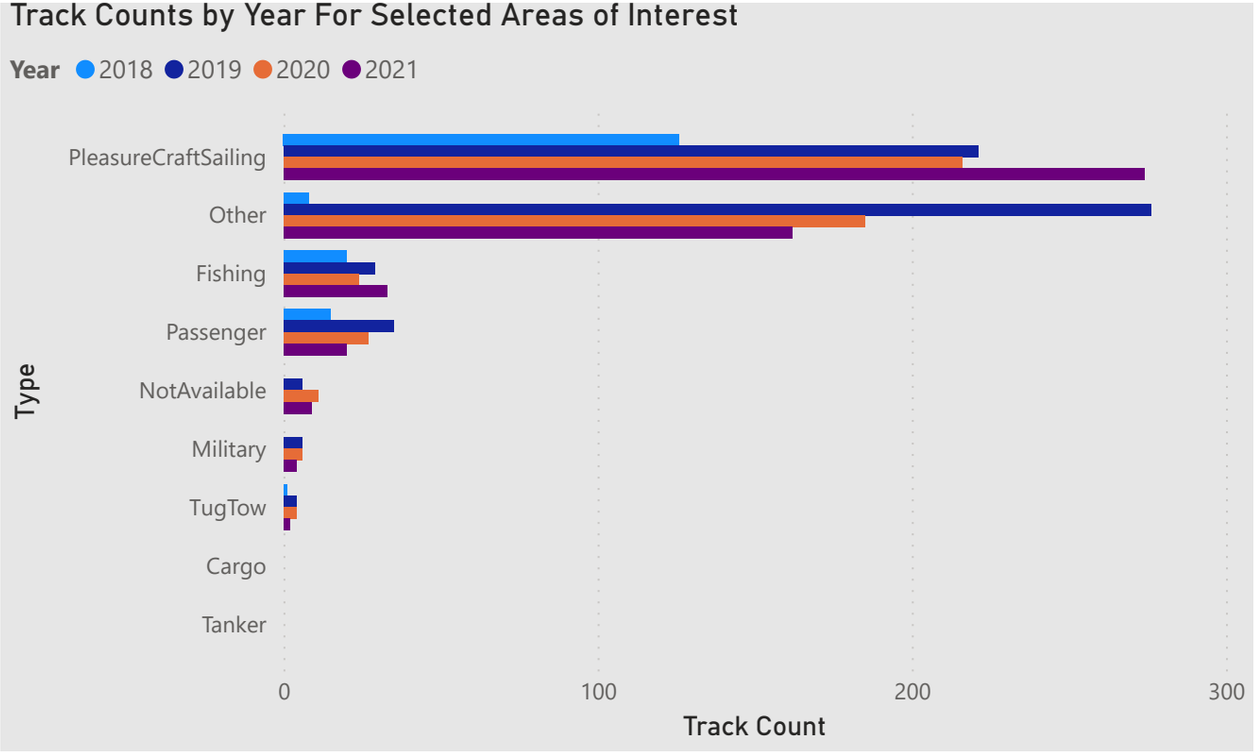
San Francisco - Metrics for Selected Areas of Interest, Cont.

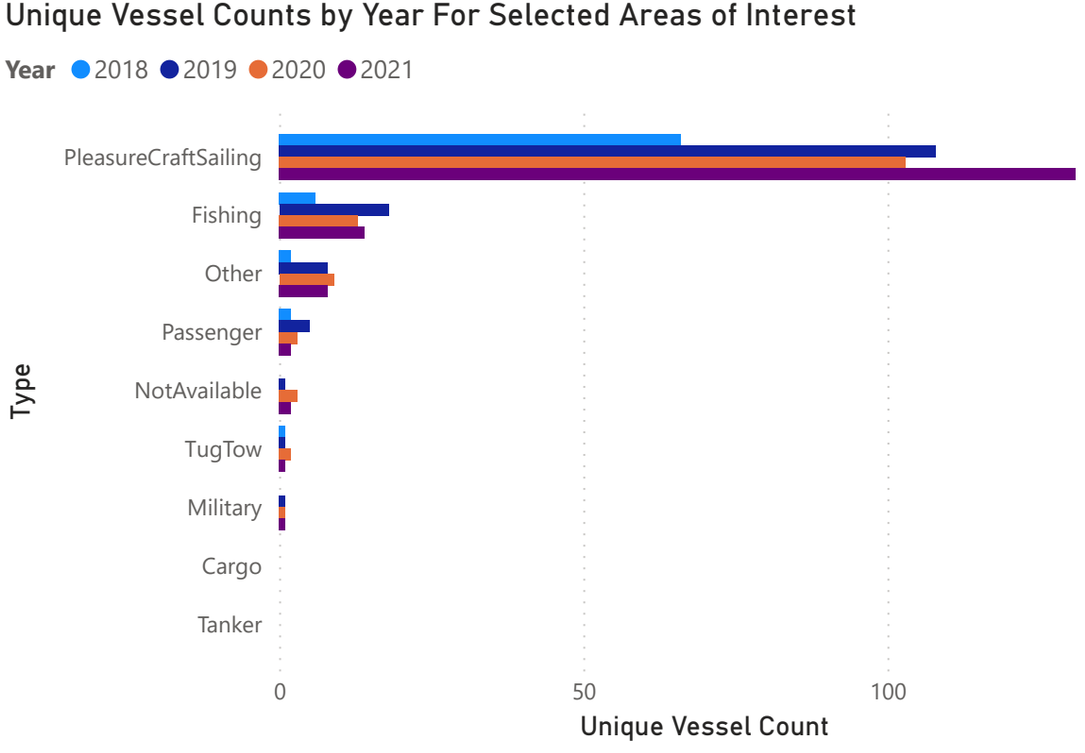
Year	2018		2019		2020		2021		**Total**	
Alternate Name	Track Count	Unique Vessel Count	Track Count	Unique Vessel Count	Track Count	Unique Vessel Count	Track Count	Unique Vessel Count	**Track Count**	**Unique Vessel Count**
San Francisco 1	**1945**	**648**	**2124**	**814**	**1914**	**834**	**1450**	**746**	**7433**	**3042**
Cargo	1530	453	1632	542	1493	586	1046	508	**5701**	**2089**
Fishing	38	14	37	19	46	26	13	11	**134**	**70**
Military	0	0	8	7	7	6	7	4	**22**	**17**
NotAvailable	18	6	22	12	14	9	24	12	**78**	**39**
Other	9	5	37	20	24	17	25	18	**95**	**60**
Passenger	20	16	61	28	17	10	17	5	**115**	**59**
PleasureCraftSailing	34	32	48	39	54	44	37	34	**173**	**149**
Tanker	221	95	206	117	175	106	202	120	**804**	**438**
TugTow	75	27	73	30	84	30	79	34	**311**	**121**
San Francisco 2	**1832**	**636**	**2408**	**806**	**2037**	**672**	**1988**	**696**	**8265**	**2810**
Cargo	727	338	827	391	683	351	710	386	**2947**	**1466**
Fishing	3	3	0	0	3	3	1	1	**7**	**7**
Military	0	0	20	7	22	6	28	7	**70**	**20**
NotAvailable	6	4	15	9	9	7	12	8	**42**	**28**
Other	3	2	21	10	14	8	10	8	**48**	**28**
Passenger	11	9	29	17	14	7	6	3	**60**	**36**
PleasureCraftSailing	11	11	8	8	3	3	2	2	**24**	**24**
Tanker	802	247	1067	332	903	256	802	253	**3574**	**1088**
TugTow	269	22	421	32	386	31	417	28	**1493**	**113**
Total	**3777**	**1284**	**4532**	**1620**	**3951**	**1506**	**3438**	**1442**	**15698**	**5852**

San Francisco - Metrics for Selected Areas of Interest, Cont.

Year	2018		2019		2020		2021		**Total**	
Alternate Name	Track Count	Unique Vessel Count	Track Count	Unique Vessel Count	Track Count	Unique Vessel Count	Track Count	Unique Vessel Count	**Track Count**	**Unique Vessel Count**
San Francisco 3	**1709**	**616**	**1919**	**768**	**1618**	**713**	**1109**	**635**	**6355**	**2732**
Cargo	1421	476	1481	560	1295	529	798	459	**4995**	**2024**
Fishing	2	2	5	5	14	12	3	3	**24**	**22**
Military	0	0	9	6	23	9	6	5	**38**	**20**
NotAvailable	14	4	24	12	8	4	18	11	**64**	**31**
Other	9	5	41	13	39	16	31	17	**120**	**51**
Passenger	21	16	55	25	0	0	5	4	**81**	**45**
PleasureCraftSailing	30	29	42	37	25	21	31	31	**128**	**118**
Tanker	85	54	116	79	125	85	119	74	**445**	**292**
TugTow	127	30	146	31	89	37	98	31	**460**	**129**
San Francisco 4	**4066**	**1112**	**4990**	**1432**	**4235**	**1280**	**4191**	**1344**	**17482**	**5168**
Cargo	2351	652	2522	758	2259	746	2049	753	**9181**	**2909**
Fishing	17	14	73	13	18	10	78	25	**186**	**62**
Military	0	0	37	13	45	12	40	11	**122**	**36**
NotAvailable	22	7	61	29	27	15	41	20	**151**	**71**
Other	40	10	201	39	185	33	193	32	**619**	**114**
Passenger	113	31	103	40	23	14	27	9	**266**	**94**
PleasureCraftSailing	77	65	134	111	82	72	148	122	**441**	**370**
Tanker	1057	285	1311	377	1114	312	1062	311	**4544**	**1285**
TugTow	389	48	548	52	482	66	553	61	**1972**	**227**
Total	**5775**	**1728**	**6909**	**2200**	**5853**	**1993**	**5300**	**1979**	**23837**	**7900**

Morro Bay - Metrics for Morro Bay 1 (Morro Bay Entrance)

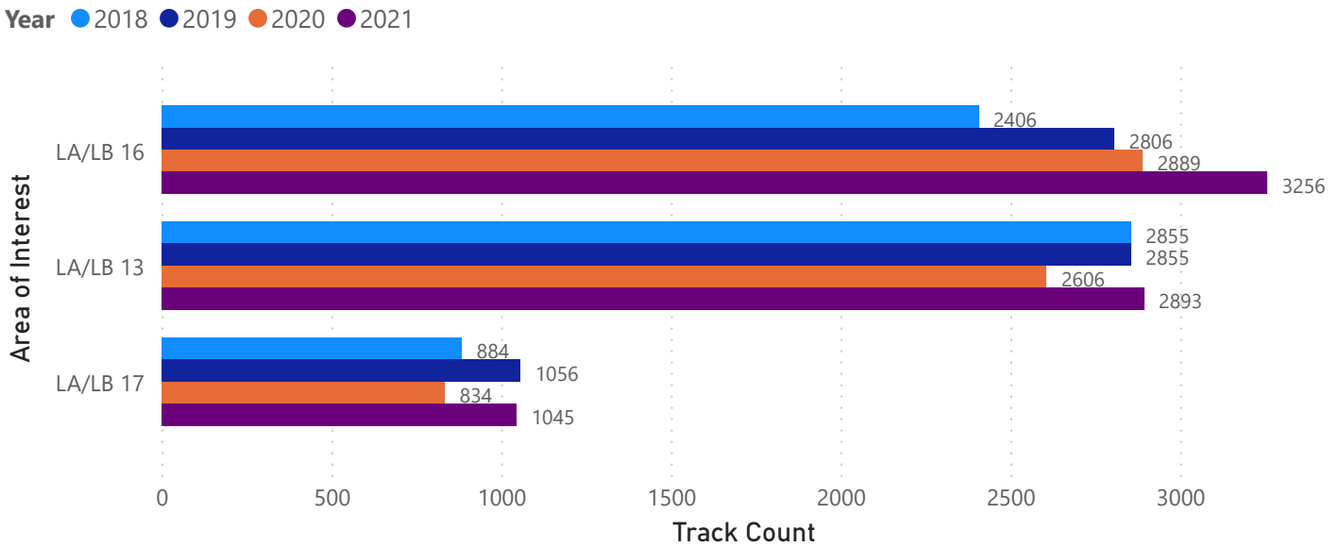




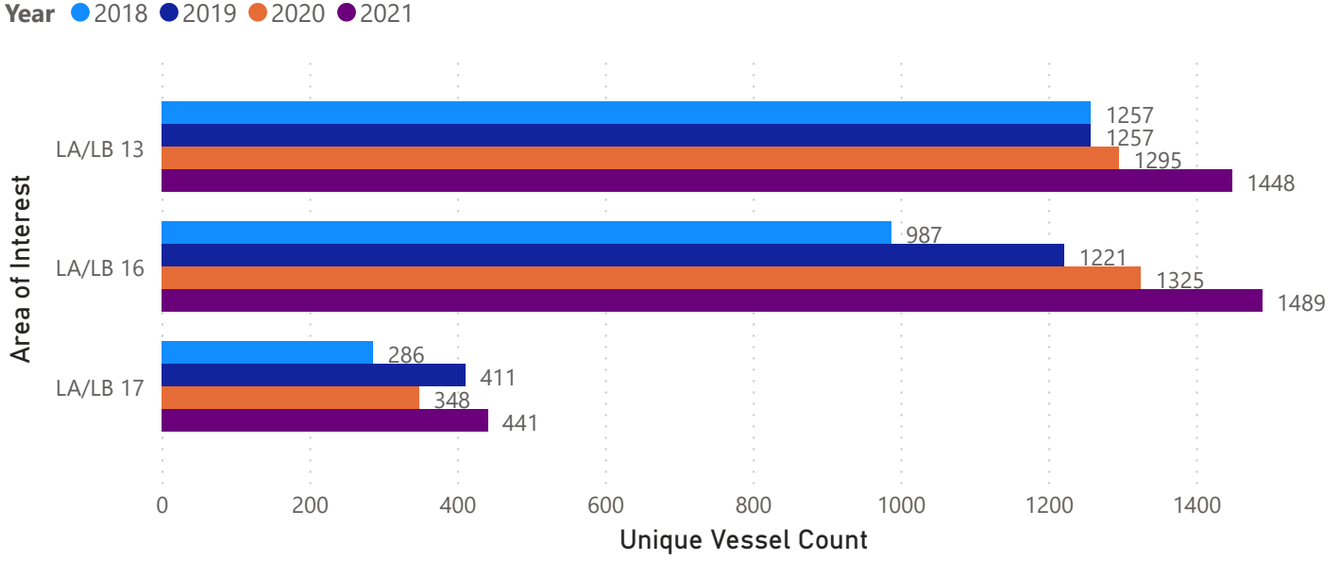
Year	2018		2019		2020		2021		**Total**	
Alternate Name	Track Count	Unique Vessel Count	Track Count	Unique Vessel Count	Track Count	Unique Vessel Count	Track Count	Unique Vessel Count	**Track Count**	**Unique Vessel Count**
Morro Bay 1	**170**	**77**	**577**	**142**	**473**	**134**	**504**	**159**	**1724**	**512**
Cargo	0	0	0	0	0	0	0	0	**0**	**0**
Fishing	20	6	29	18	24	13	33	14	**106**	**51**
Military	0	0	6	1	6	1	4	1	**16**	**3**
NotAvailable	0	0	6	1	11	3	9	2	**26**	**6**
Other	8	2	276	8	185	9	162	8	**631**	**27**
Passenger	15	2	35	5	27	3	20	2	**97**	**12**
PleasureCraftSailing	126	66	221	108	216	103	274	131	**837**	**408**
Tanker	0	0	0	0	0	0	0	0	**0**	**0**
TugTow	1	1	4	1	4	2	2	1	**11**	**5**
Total	**170**	**77**	**577**	**142**	**473**	**134**	**504**	**159**	**1724**	**512**

LA / LB - Metrics for Selected Areas of Interest

Track Counts by Year For Selected Areas of Interest



Unique Vessel Counts by Year For Selected Areas of Interest



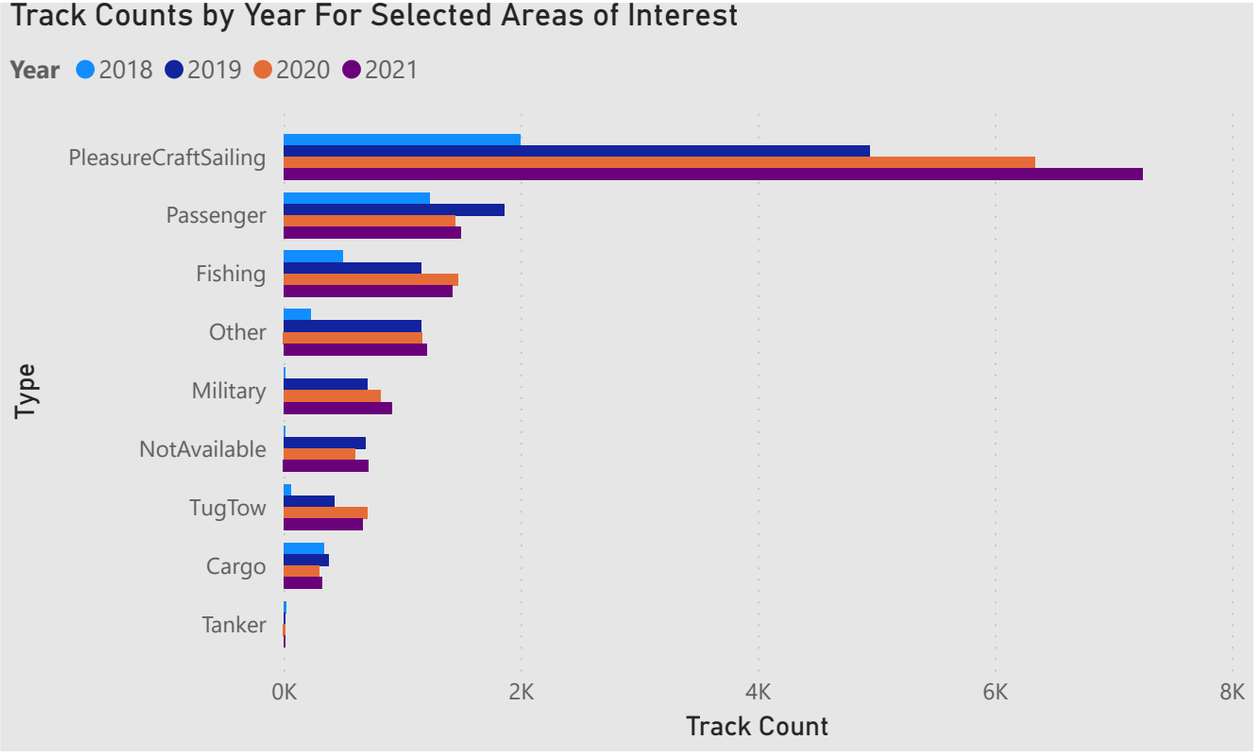
Area of Interest	Average of Track Count	Average of Unique Vessel Count
LA/LB 13	**311.36**	**146.03**
Cargo	1296.25	667.50
Fishing	68.25	16.25
Military	31.00	15.50
NotAvailable	59.75	30.50
Other	63.50	24.00
Passenger	350.25	44.00
PleasureCraftSailing	181.25	140.75
Tanker	725.50	357.50
TugTow	26.50	18.25
LA/LB 16	**315.47**	**139.50**
Cargo	2406.75	974.00
Fishing	6.75	2.50
Military	7.75	5.00
NotAvailable	23.50	11.75
Other	21.00	10.75
Passenger	30.25	18.50
PleasureCraftSailing	34.00	25.50
Tanker	257.75	187.00
TugTow	51.50	20.50
LA/LB 17	**106.08**	**41.28**
Cargo	415.25	172.50
Fishing	9.50	6.25
Military	9.75	3.75
NotAvailable	9.50	5.25
Other	9.50	7.25
Passenger	6.00	4.75
PleasureCraftSailing	103.00	84.75
Tanker	244.00	70.75
TugTow	148.25	16.25
Total	**244.31**	**108.94**

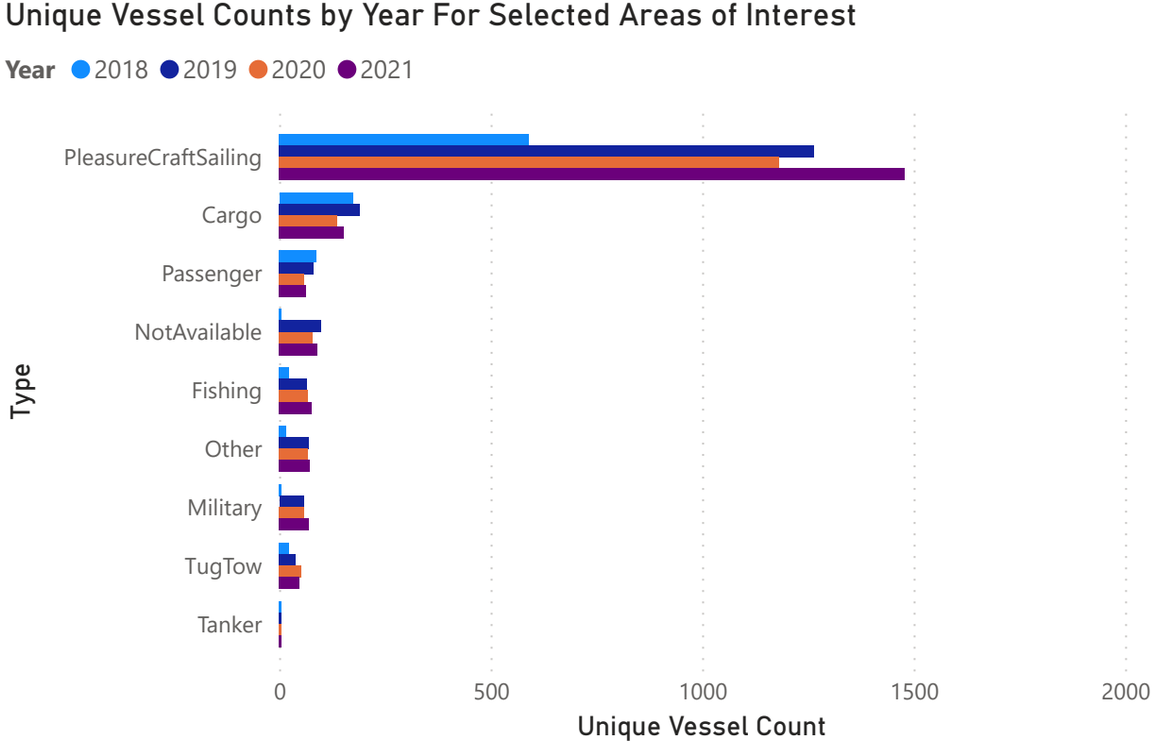
Track and unique vessel counts are averaged over all present years of data in this table, by vessel type. Bold values are overall averages for either that area of interest or overall for the table in the bottom row.

LA / LB - Metrics for Selected Areas of Interest, Cont.

Year	2018		2019		2020		2021		**Total**	
Alternate Name	Track Count	Unique Vessel Count	Track Count	Unique Vessel Count	Track Count	Unique Vessel Count	Track Count	Unique Vessel Count	**Track Count**	**Unique Vessel Count**
LA/LB 13	**2855**	**1257**	**2855**	**1257**	**2606**	**1295**	**2893**	**1448**	**11209**	**5257**
Cargo	1251	588	1251	588	1359	678	1324	816	**5185**	**2670**
Fishing	73	14	73	14	45	16	82	21	**273**	**65**
Military	31	15	31	15	27	16	35	16	**124**	**62**
NotAvailable	62	31	62	31	55	25	60	35	**239**	**122**
Other	64	26	64	26	50	18	76	26	**254**	**96**
Passenger	397	47	397	47	206	44	401	38	**1401**	**176**
PleasureCraftSailing	152	128	152	128	198	146	223	161	**725**	**563**
Tanker	794	389	794	389	650	339	664	313	**2902**	**1430**
TugTow	31	19	31	19	16	13	28	22	**106**	**73**
LA/LB 16	**2406**	**987**	**2806**	**1221**	**2889**	**1325**	**3256**	**1489**	**11357**	**5022**
Cargo	2076	762	2306	894	2491	1061	2754	1179	**9627**	**3896**
Fishing	4	3	9	2	13	4	1	1	**27**	**10**
Military	0	0	8	6	5	4	18	10	**31**	**20**
NotAvailable	31	7	29	18	14	10	20	12	**94**	**47**
Other	9	4	28	13	27	14	20	12	**84**	**43**
Passenger	27	20	54	31	13	8	27	15	**121**	**74**
PleasureCraftSailing	37	31	39	26	30	17	30	28	**136**	**102**
Tanker	184	138	270	210	244	189	333	211	**1031**	**748**
TugTow	38	22	63	21	52	18	53	21	**206**	**82**
LA/LB 17	**884**	**286**	**1056**	**411**	**834**	**348**	**1045**	**441**	**3819**	**1486**
Cargo	497	156	482	171	258	144	424	219	**1661**	**690**
Fishing	9	4	10	7	13	10	6	4	**38**	**25**
Military	0	0	14	6	12	3	13	6	**39**	**15**
NotAvailable	1	1	9	6	11	7	17	7	**38**	**21**
Other	4	4	13	8	13	10	8	7	**38**	**29**
Passenger	6	5	10	7	4	3	4	4	**24**	**19**
PleasureCraftSailing	41	40	107	97	135	97	129	105	**412**	**339**
Tanker	202	63	247	91	254	57	273	72	**976**	**283**
TugTow	124	13	164	18	134	17	171	17	**593**	**65**
Total	**6145**	**2530**	**6717**	**2889**	**6329**	**2968**	**7194**	**3378**	**26385**	**11765**

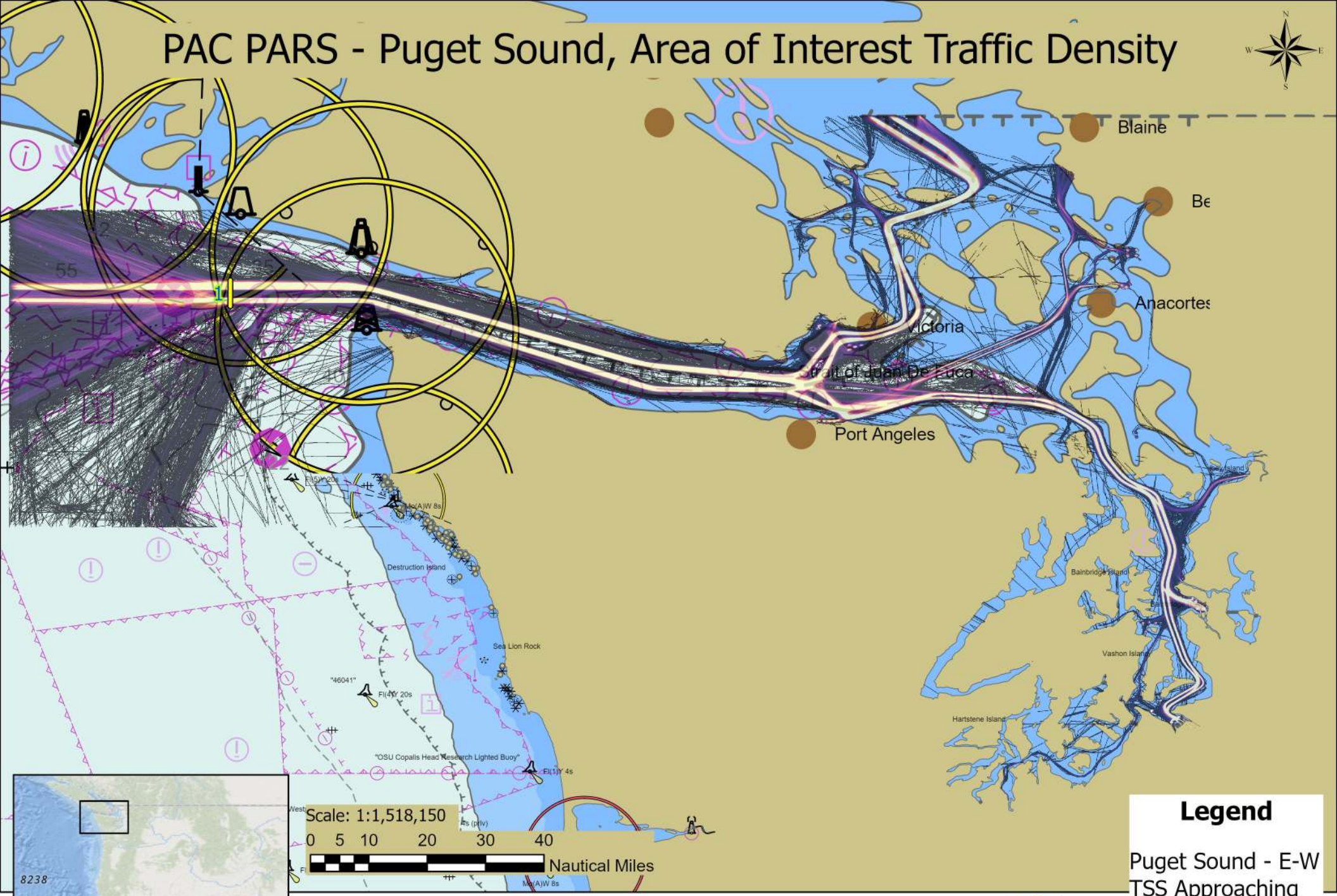
San Diego - Metrics for San Diego 1 (San Diego Bay)





Year	2018		2019		2020		2021		**Total**	
Alternate Name	Track Count	Unique Vessel Count	Track Count	Unique Vessel Count	Track Count	Unique Vessel Count	Track Count	Unique Vessel Count	**Track Count**	**Unique Vessel Count**
San Diego 1	**4382**	**924**	**11340**	**1869**	**12863**	**1711**	**14005**	**2054**	**42590**	**6558**
Cargo	342	174	378	191	298	137	324	152	**1342**	**654**
Fishing	499	24	1162	65	1469	68	1426	77	**4556**	**234**
Military	1	1	707	58	817	60	916	71	**2441**	**190**
NotAvailable	5	3	691	99	602	80	718	91	**2016**	**273**
Other	226	17	1160	71	1172	68	1205	72	**3763**	**228**
Passenger	1231	88	1859	81	1445	59	1497	63	**6032**	**291**
PleasureCraftSailing	1995	591	4947	1264	6336	1183	7250	1479	**20528**	**4517**
Tanker	20	3	11	2	16	3	4	1	**51**	**9**
TugTow	63	23	425	38	708	53	665	48	**1861**	**162**
Total	**4382**	**924**	**11340**	**1869**	**12863**	**1711**	**14005**	**2054**	**42590**	**6558**

PAC PARS - Puget Sound, Area of Interest Traffic Density



Legend

Puget Sound - E-W TSS Approaching Straits of Juan De Fuca, 2019

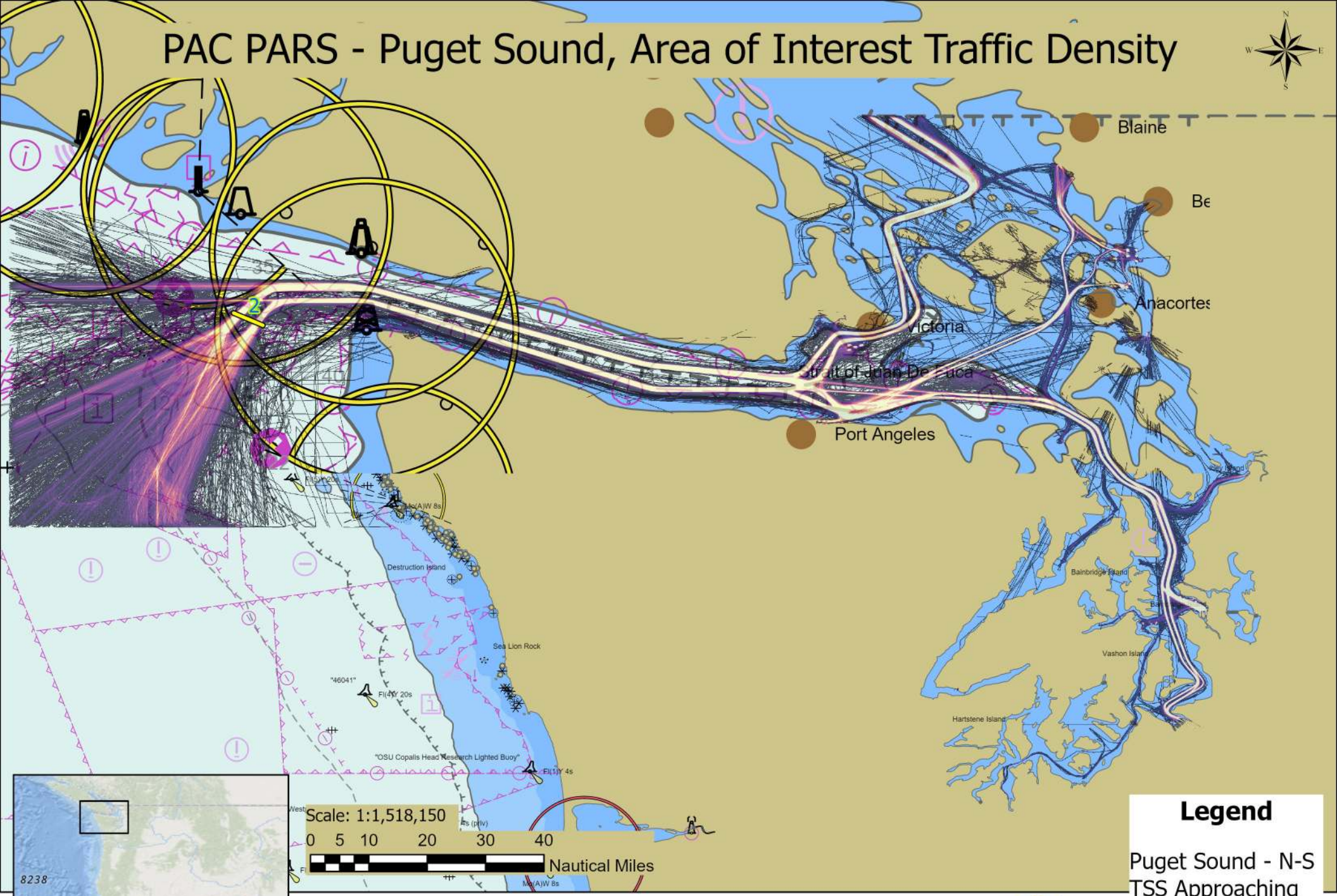
High Traffic Density

Low Traffic Density

Prepared by the USCG NAVCEN
Data Sources: NAIS
This traffic density depicts only vessel track lines that crossed the displayed area of interest in the specified year, which is labelled in the legend.
Last Update: 3/2/2022 7:05 AM

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

PAC PARS - Puget Sound, Area of Interest Traffic Density



Legend

Puget Sound - N-S TSS Approaching Straits of Juan De Fuca, 2019

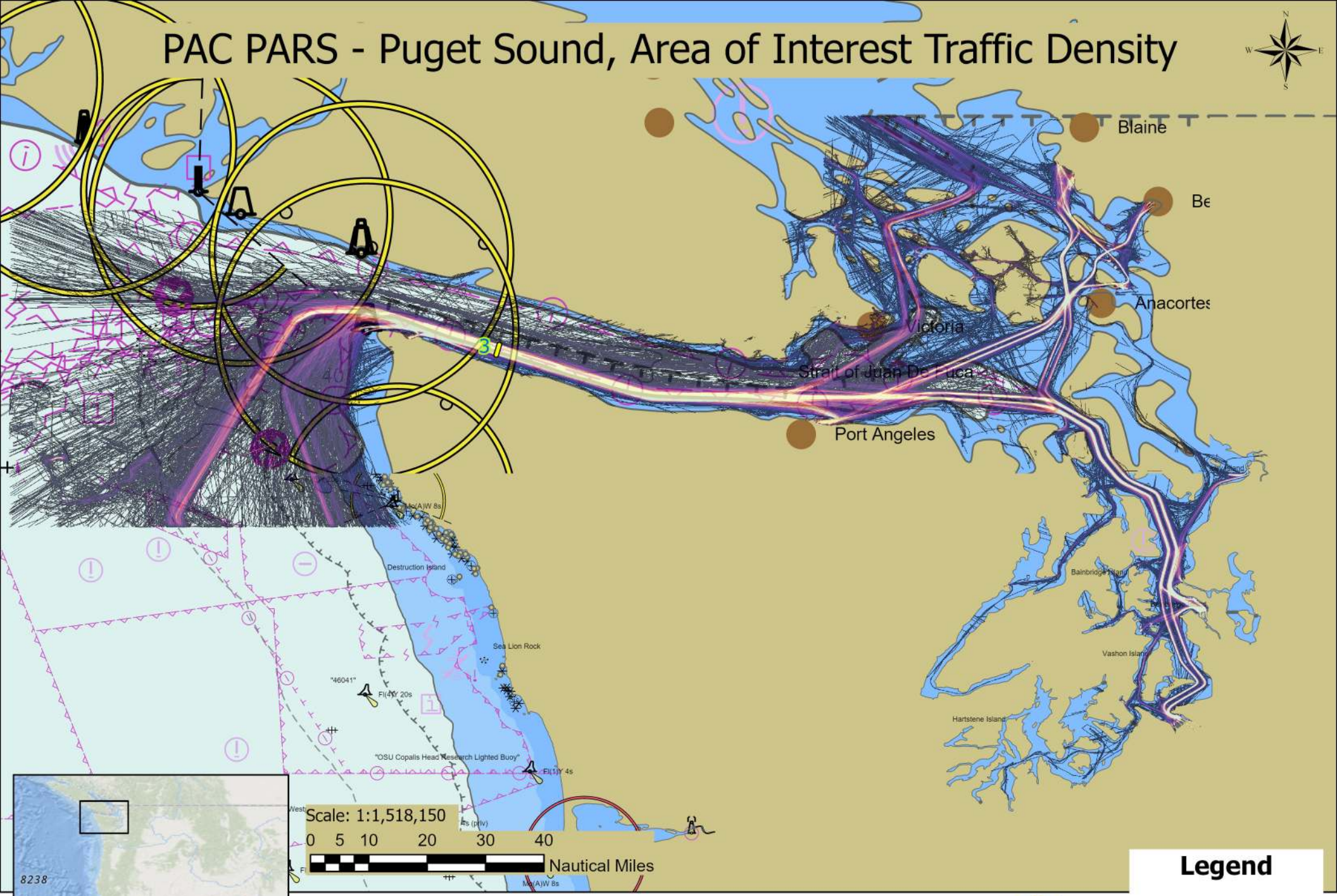
High Traffic Density

Low Traffic Density

Prepared by the USCG NAVCEN
Data Sources: NAIS
This traffic density depicts only vessel track lines that crossed the displayed area of interest in the specified year, which is labelled in the legend.
Last Update: 3/2/2022 7:14 AM

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

PAC PARS - Puget Sound, Area of Interest Traffic Density



Prepared by the USCG NAVCEN
Data Sources: NAIS
This traffic density depicts only vessel track lines that crossed the displayed area of interest in the specified year, which is labelled in the legend.
Last Update: 3/2/2022 7:21 AM

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

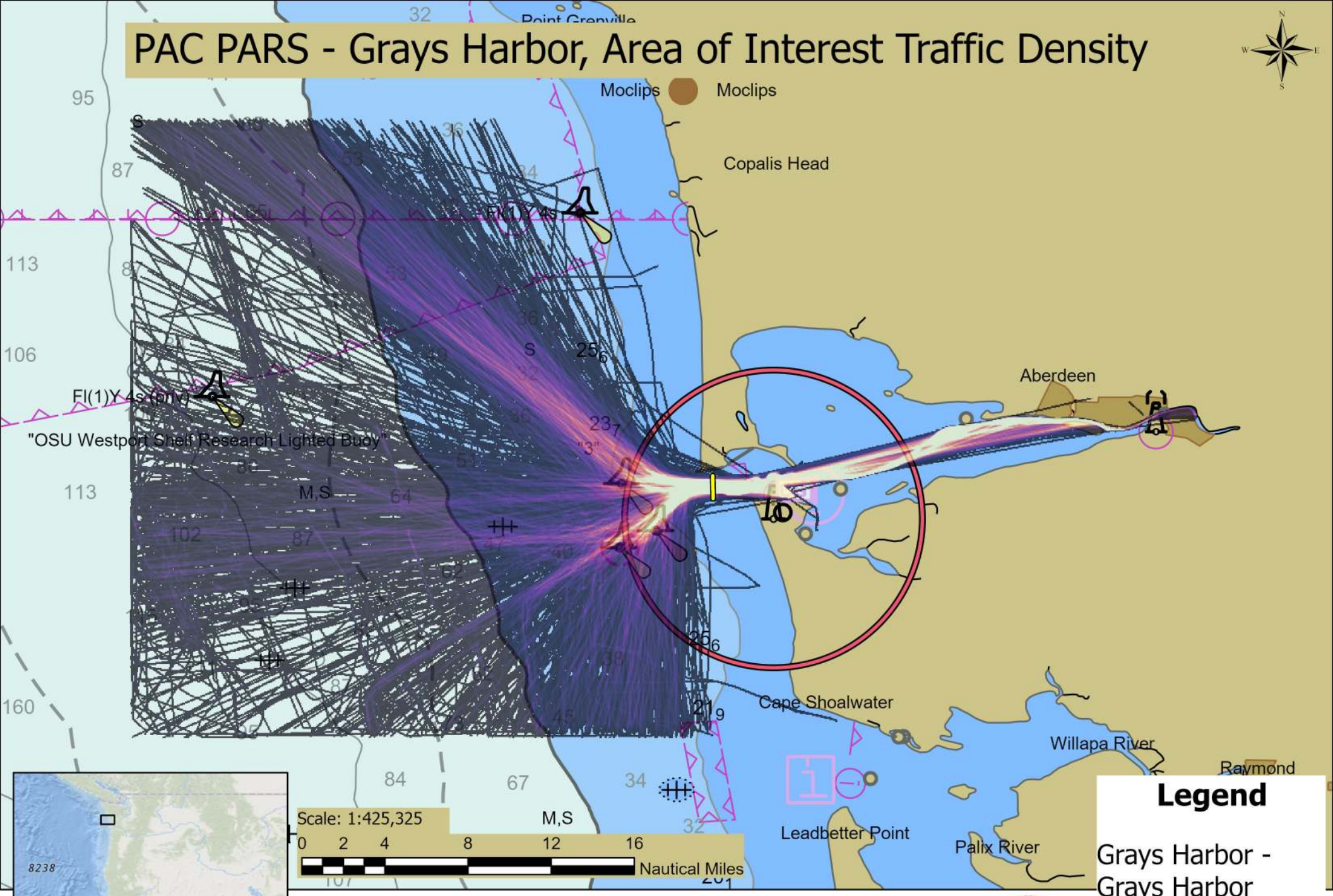
Legend

Puget Sound - Two Way Route, 2019

High Traffic Density

Low Traffic Density

PAC PARS - Grays Harbor, Area of Interest Traffic Density



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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This traffic density depicts only vessel track lines that crossed the displayed area of interest in the specified year, which is labelled in the legend.
Last Update: 3/1/2022 1:12 PM

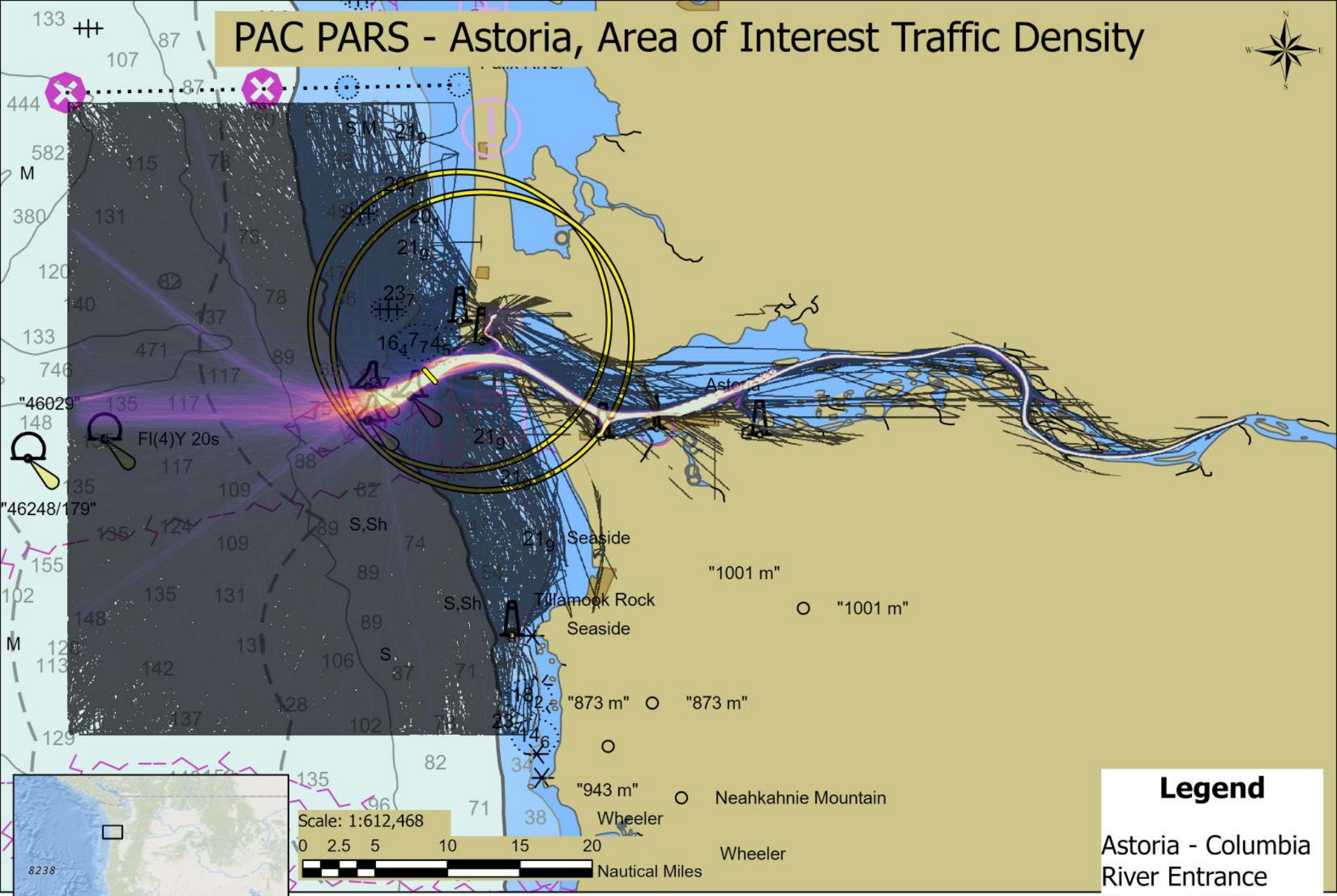
Legend

Grays Harbor - Grays Harbor Entrance, 2019

High Traffic Density

Low Traffic Density

PAC PARS - Astoria, Area of Interest Traffic Density



Legend

Astoria - Columbia River Entrance Channel 2019

Value

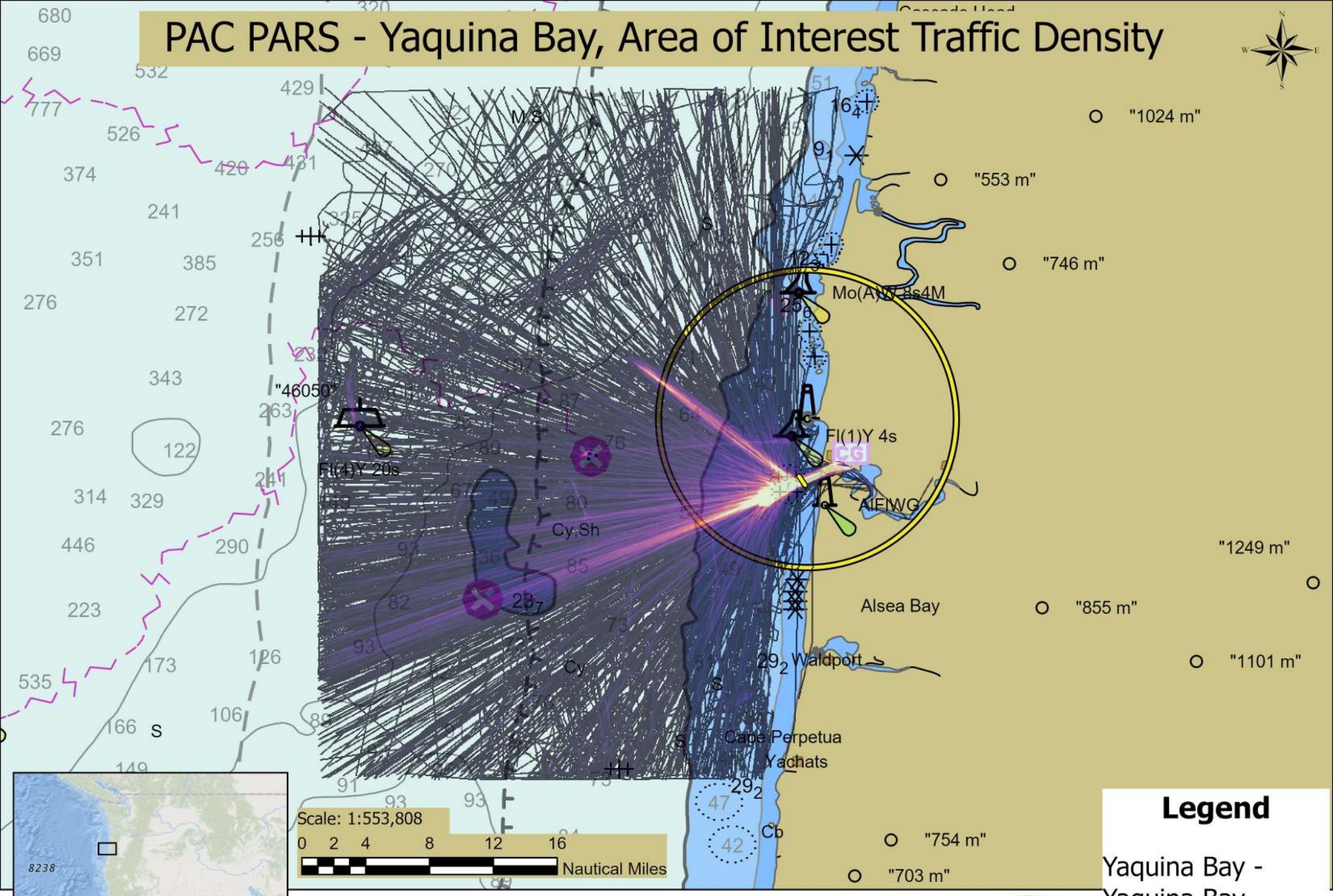
High Traffic Density

Low Traffic Density

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This traffic density depicts only vessel track lines that crossed the displayed area of interest in the specified year, which is labelled in the legend.
Last Update: 3/1/2022 12:42 PM

PAC PARS - Yaquina Bay, Area of Interest Traffic Density



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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This traffic density depicts only vessel track lines that crossed the displayed area of interest in the specified year, which is labelled in the legend.
Last Update: 3/2/2022 8:46 AM

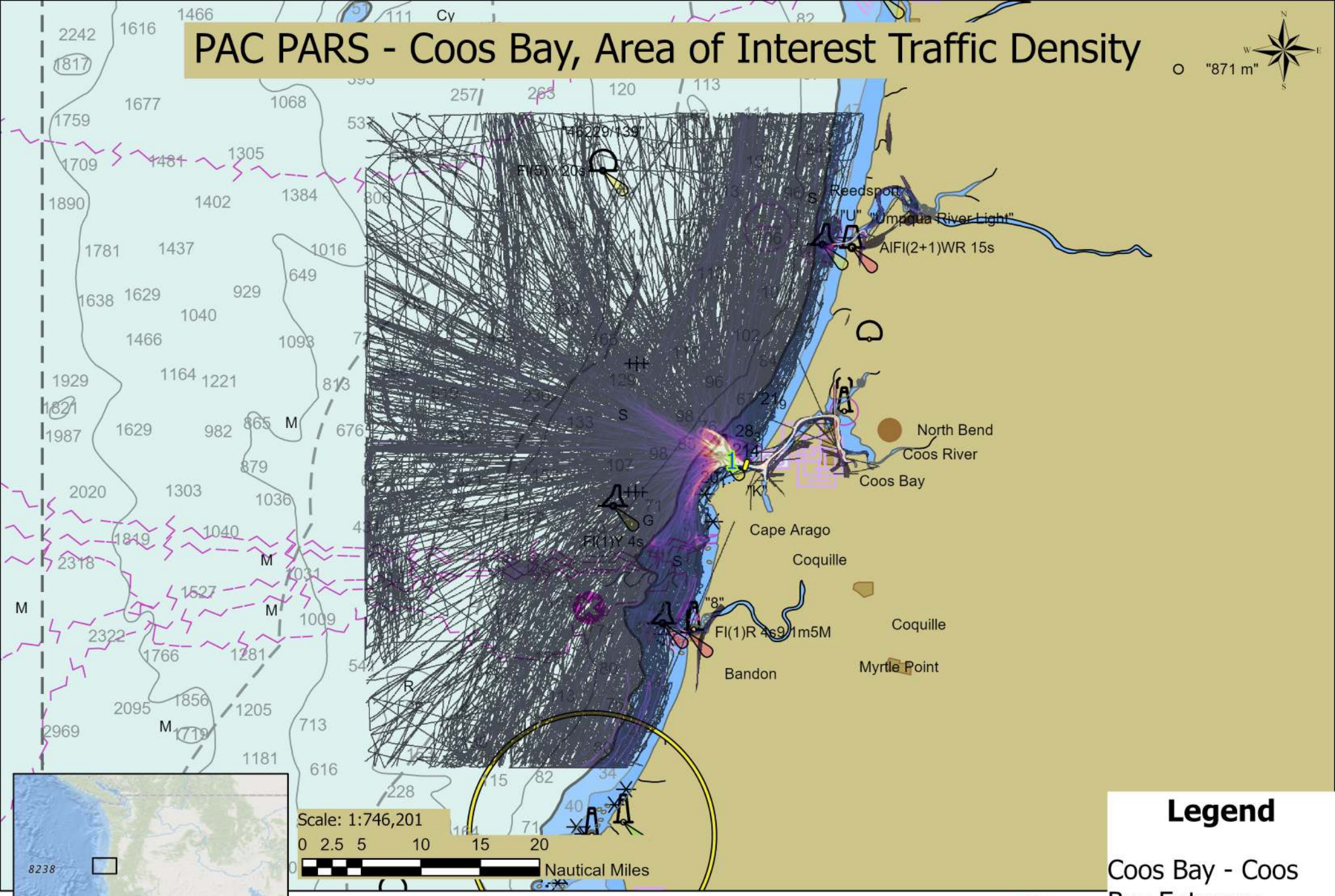
Legend

Yaquina Bay - Yaquina Bay Entrance, 2019

High Traffic Density

Low Traffic Density

PAC PARS - Coos Bay, Area of Interest Traffic Density



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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This traffic density depicts only vessel track lines that crossed the displayed area of interest in the specified year, which is labelled in the legend.
Last Update: 3/1/2022 12:58 PM

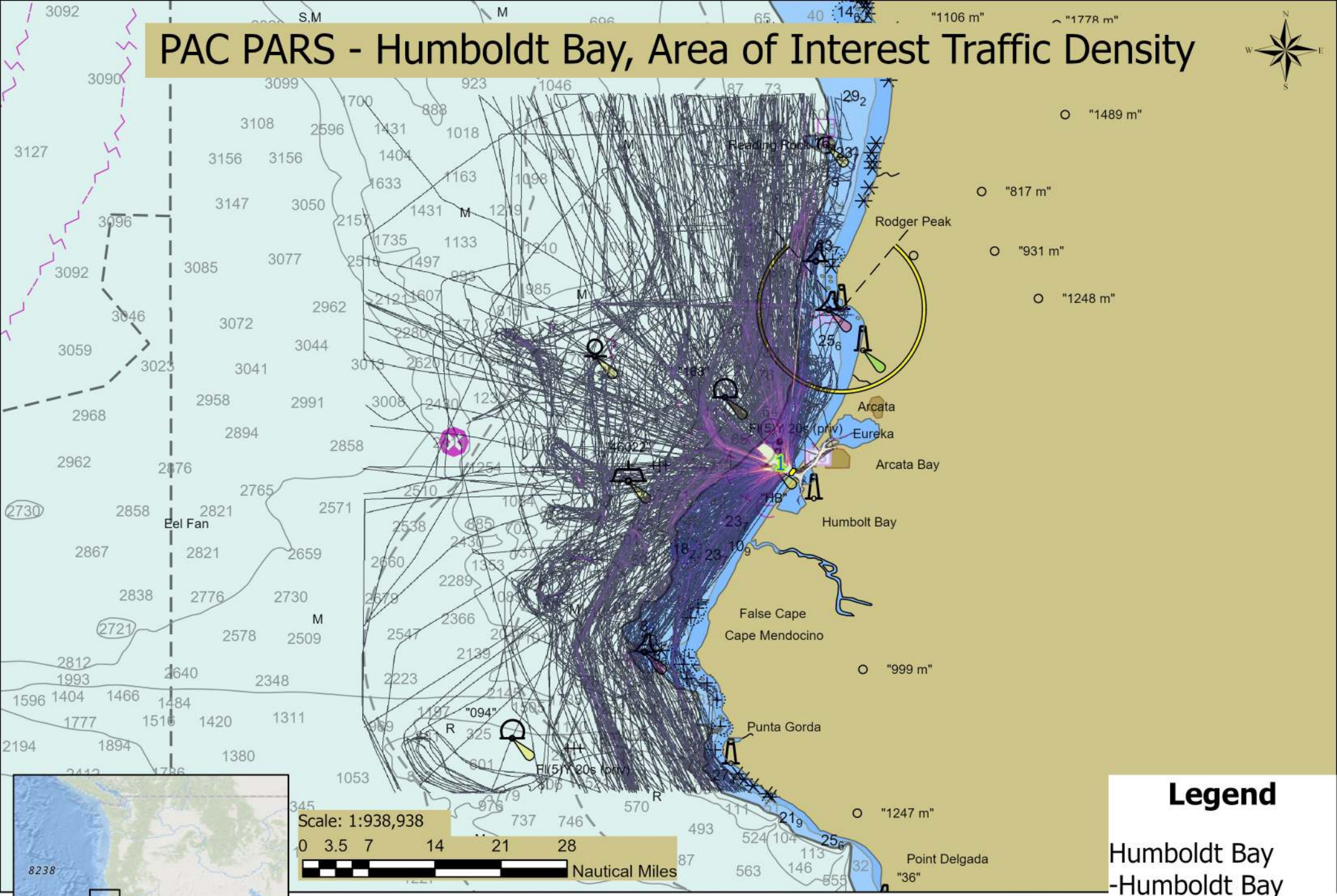
Legend

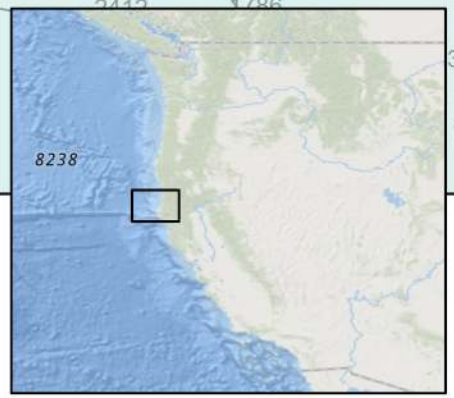
Coos Bay - Coos Bay Entrance, 2019

High Traffic Density

Low Traffic Density

PAC PARS - Humboldt Bay, Area of Interest Traffic Density





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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This traffic density depicts only vessel track lines that crossed the displayed area of interest in the specified year, which is labelled in the legend.
Last Update: 3/1/2022 1:32 PM

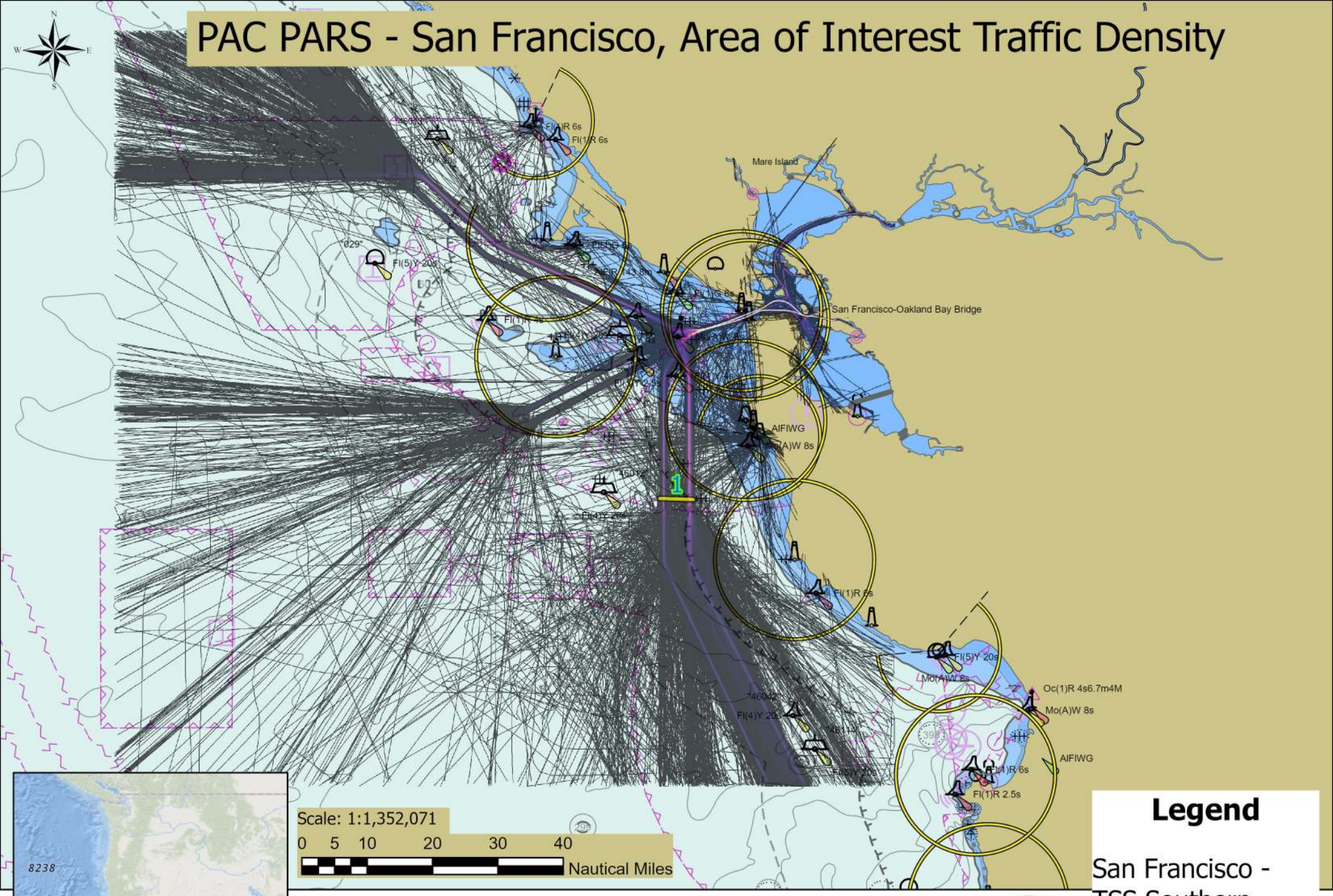
Legend

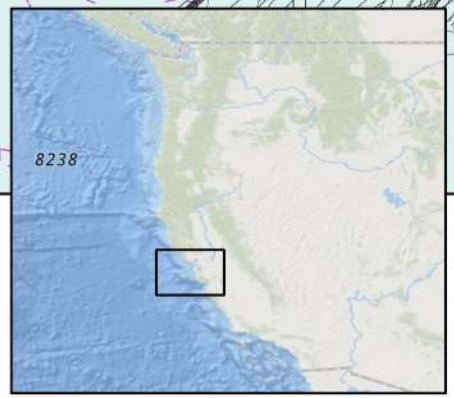
Humboldt Bay -Humboldt Bay Entrance, 2019

High Traffic Density

Low Traffic Density

PAC PARS - San Francisco, Area of Interest Traffic Density





Scale: 1:1,352,071

0 5 10 20 30 40

Nautical Miles

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This traffic density depicts only vessel track lines that crossed the displayed area of interest in the specified year, which is labelled in the legend.

Last Update: 3/2/2022 8:35 AM

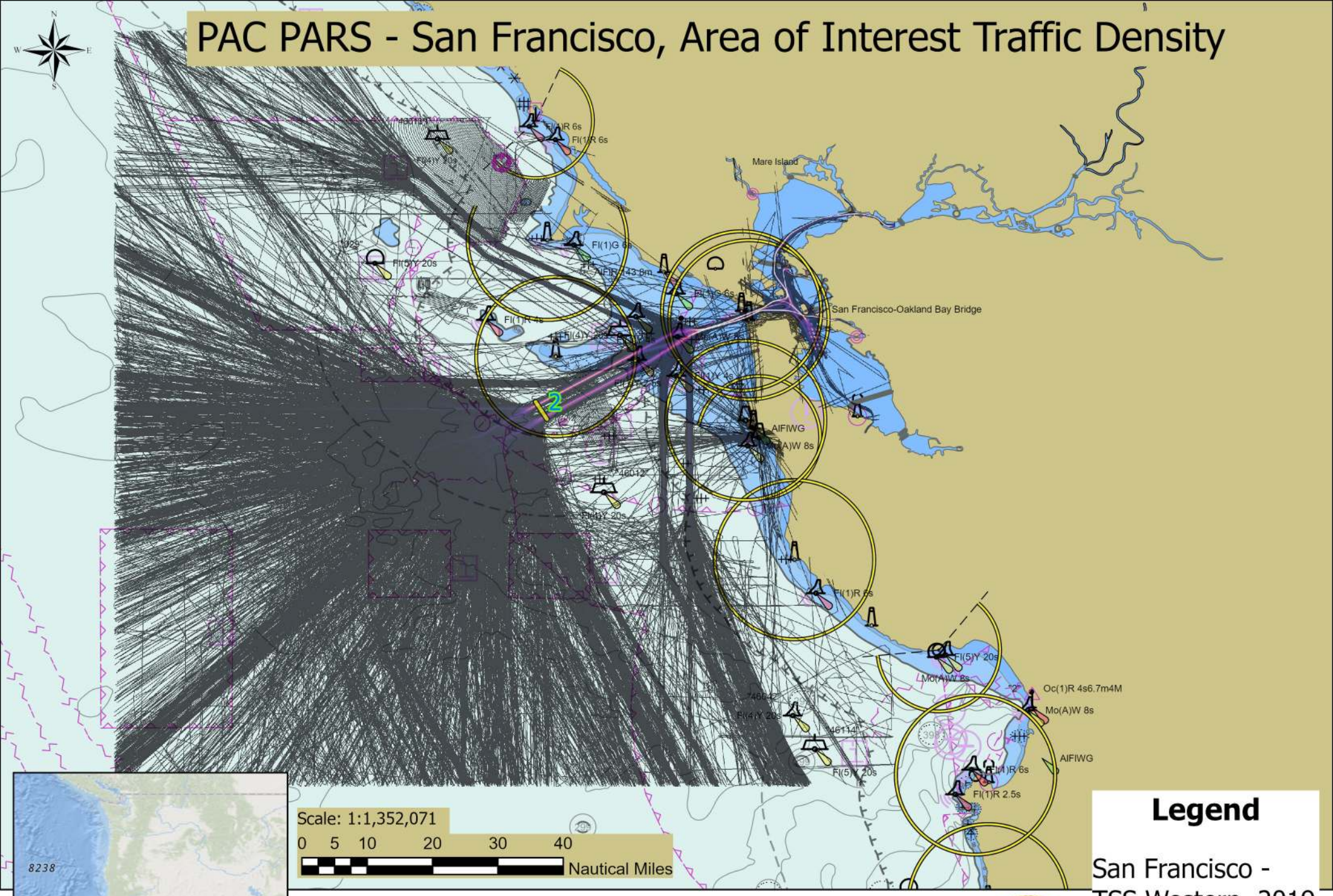
Legend

San Francisco - TSS Southern, 2019

High Traffic Density

Low Traffic Density

PAC PARS - San Francisco, Area of Interest Traffic Density



Legend

San Francisco - TSS Western, 2019

High Traffic Density

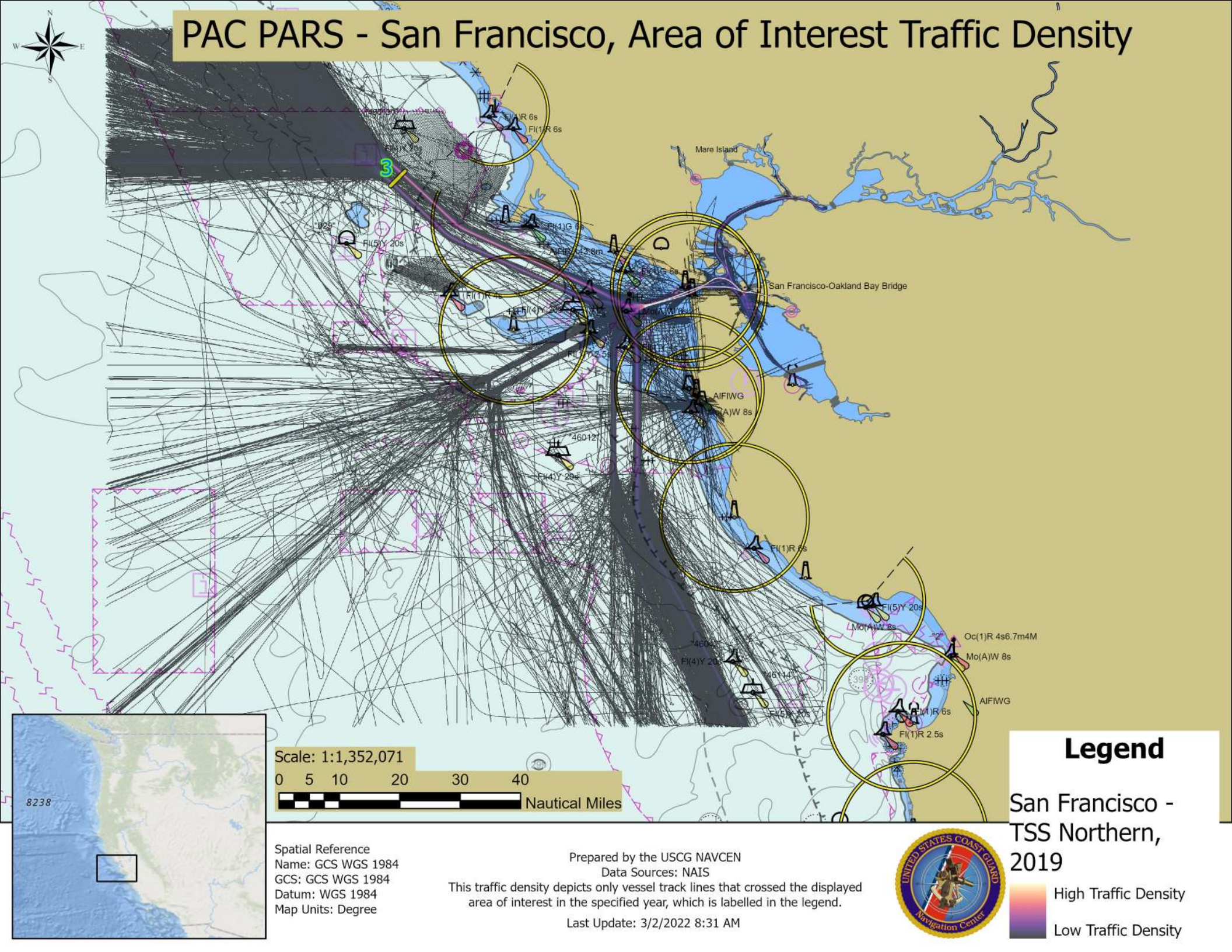
Low Traffic Density

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This traffic density depicts only vessel track lines that crossed the displayed area of interest in the specified year, which is labelled in the legend.

Last Update: 3/2/2022 8:37 AM

PAC PARS - San Francisco, Area of Interest Traffic Density



Legend

San Francisco - TSS Northern, 2019

High Traffic Density

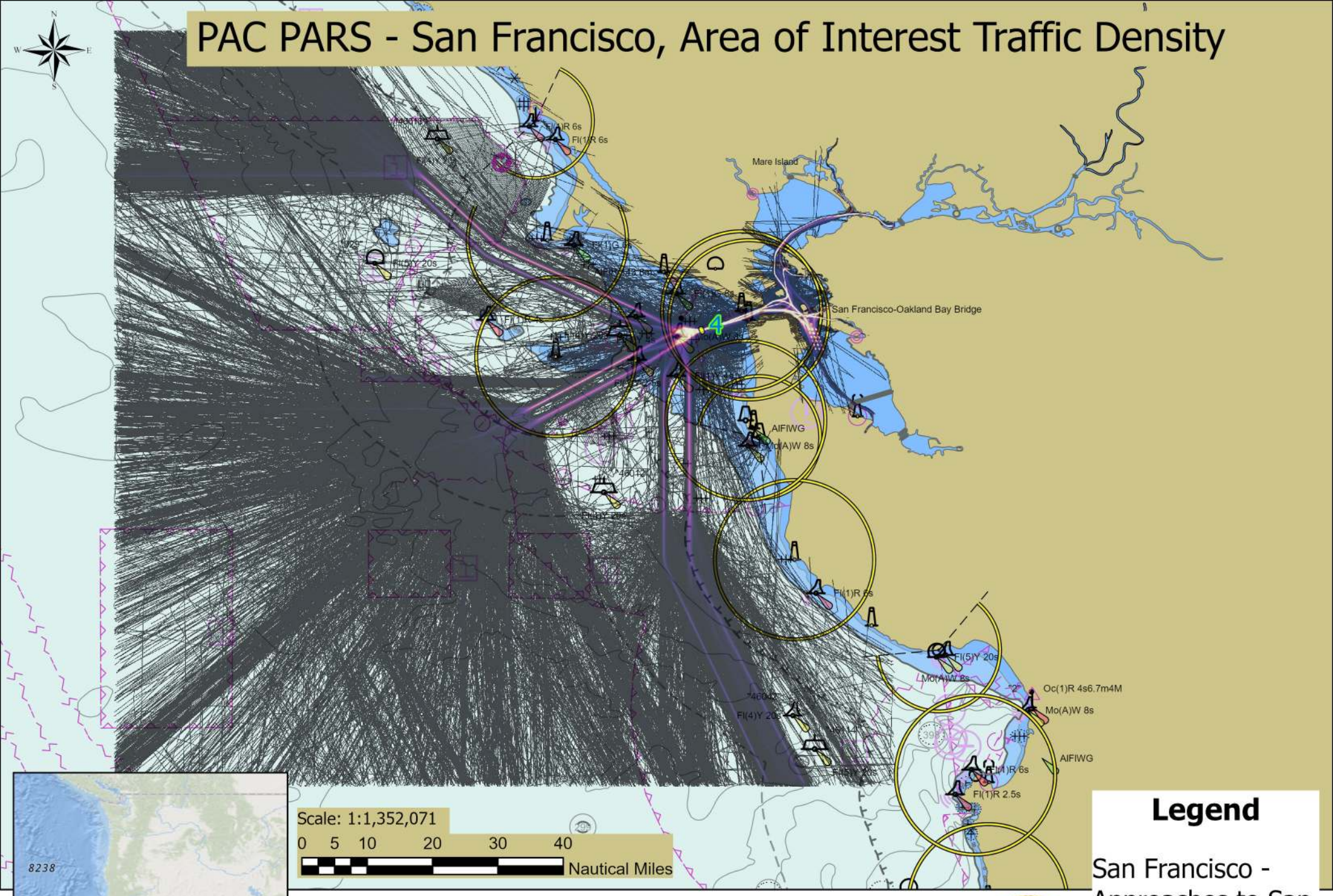
Low Traffic Density

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This traffic density depicts only vessel track lines that crossed the displayed area of interest in the specified year, which is labelled in the legend.

Last Update: 3/2/2022 8:31 AM

PAC PARS - San Francisco, Area of Interest Traffic Density



Scale: 1:1,352,071

0 5 10 20 30 40

Nautical Miles

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This traffic density depicts only vessel track lines that crossed the displayed area of interest in the specified year, which is labelled in the legend.

Last Update: 3/2/2022 8:26 AM

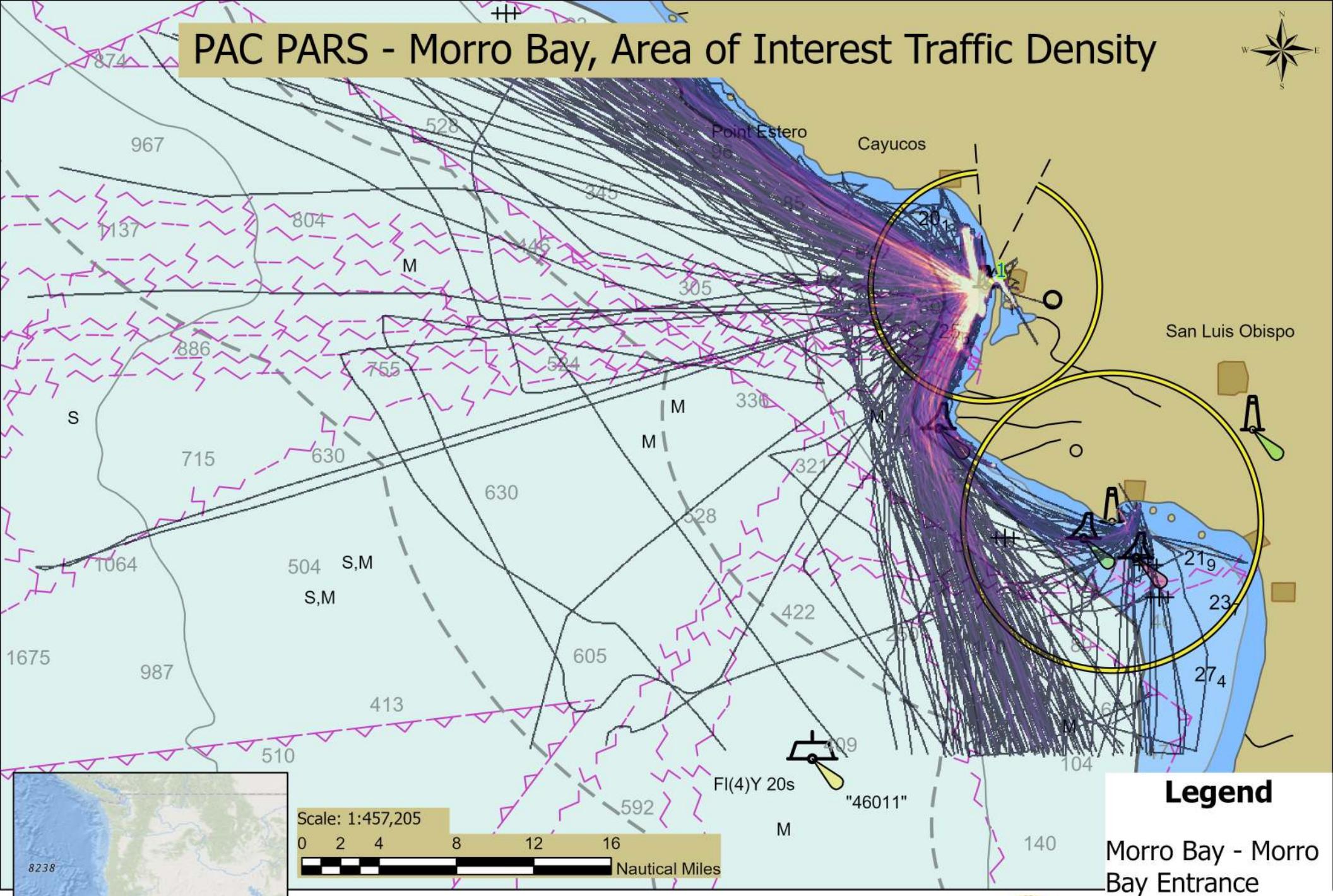
Legend

San Francisco - Approaches to San Francisco, 2019

High Traffic Density

Low Traffic Density

PAC PARS - Morro Bay, Area of Interest Traffic Density



Legend

Morro Bay - Morro Bay Entrance Channel 2019

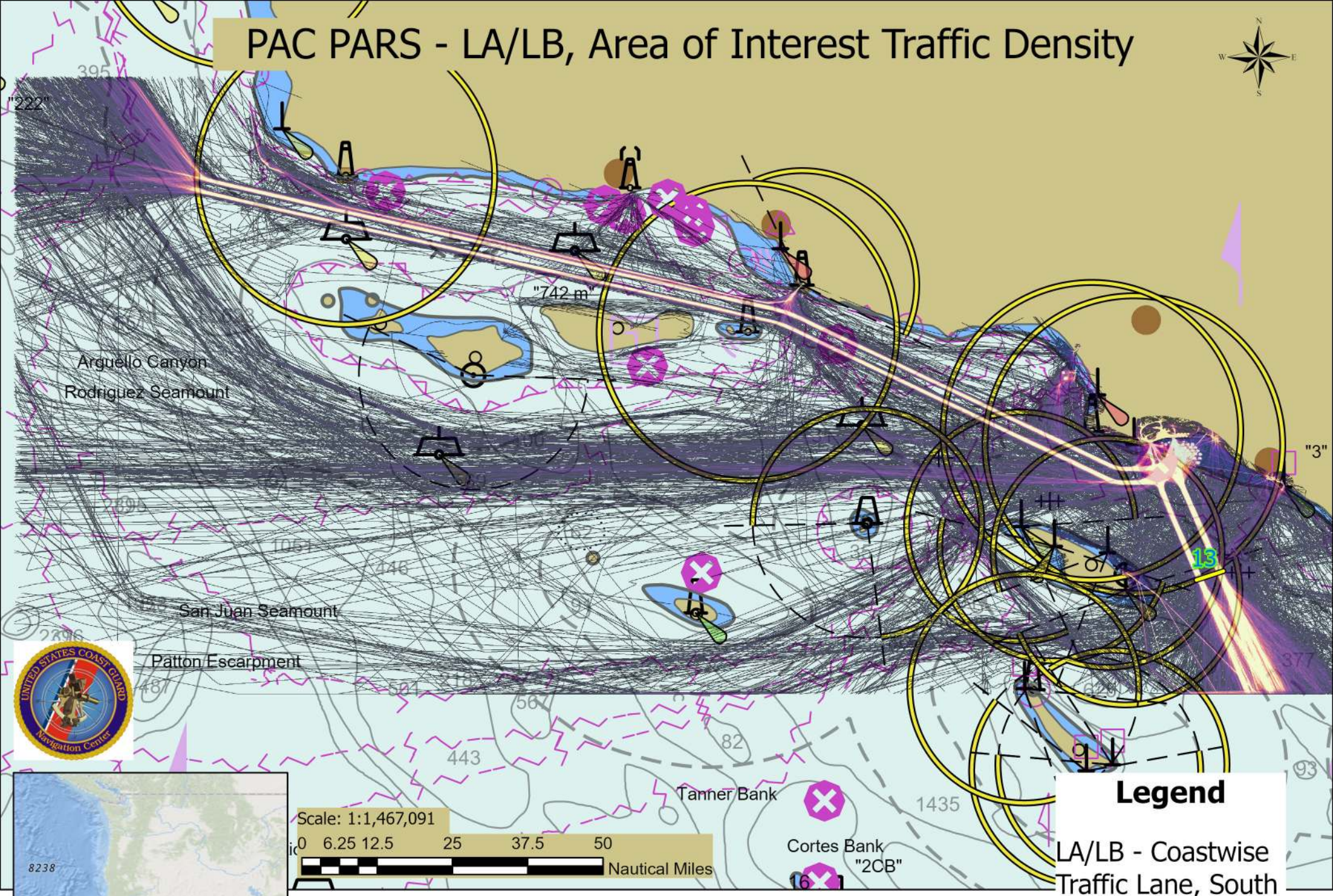
High Traffic Density

Low Traffic Density

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This traffic density depicts only vessel track lines that crossed the displayed area of interest in the specified year, which is labelled in the legend.
Last Update: 3/1/2022 2:11 PM

PAC PARS - LA/LB, Area of Interest Traffic Density



Legend

LA/LB - Coastwise Traffic Lane, South of LA, 2019

High Traffic Density

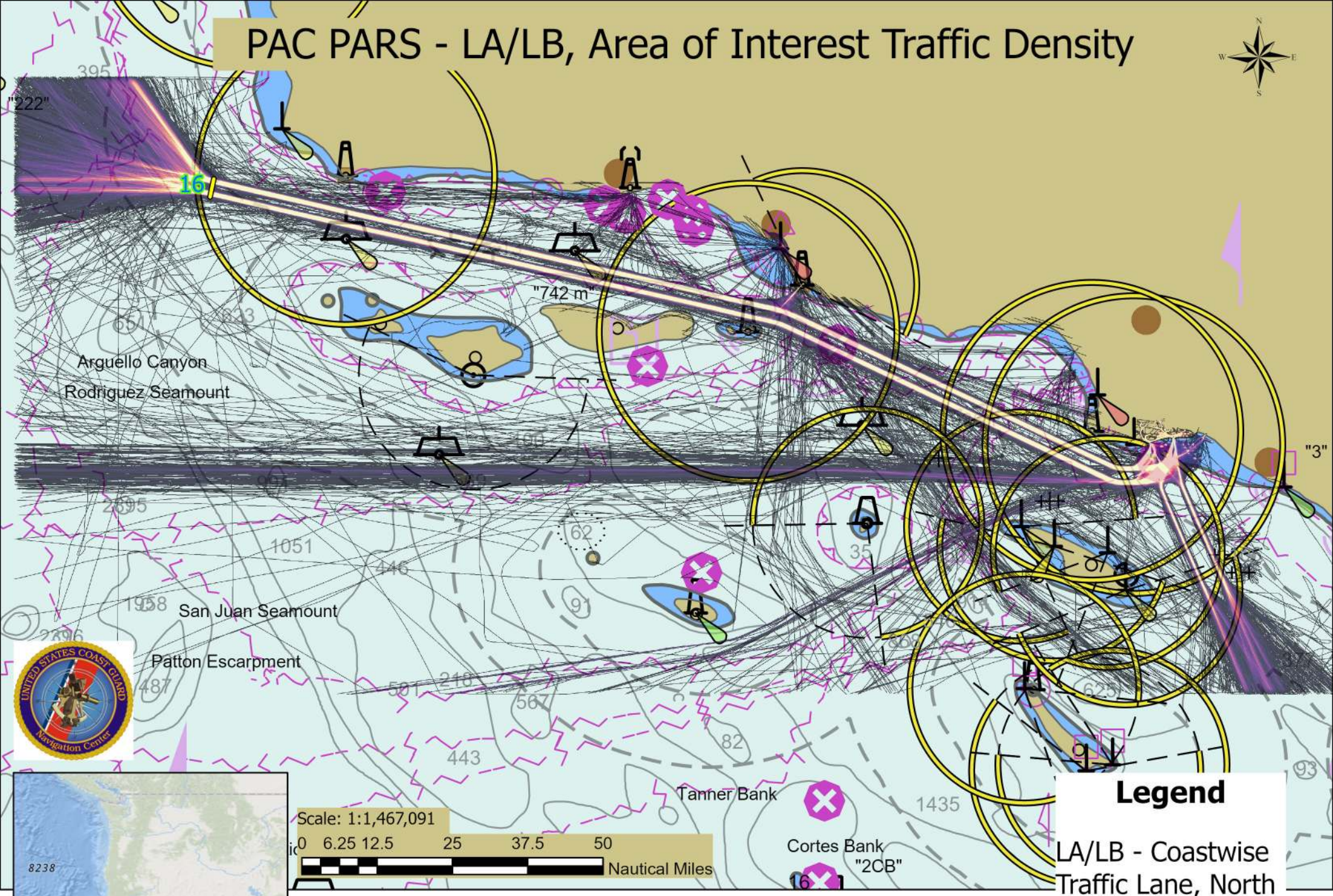
Low Traffic Density

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This traffic density depicts only vessel track lines that crossed the displayed area of interest in the specified year, which is labelled in the legend.

Last Update: 3/1/2022 1:54 PM

PAC PARS - LA/LB, Area of Interest Traffic Density



Legend

LA/LB - Coastwise Traffic Lane, North of LA, 2019

High Traffic Density

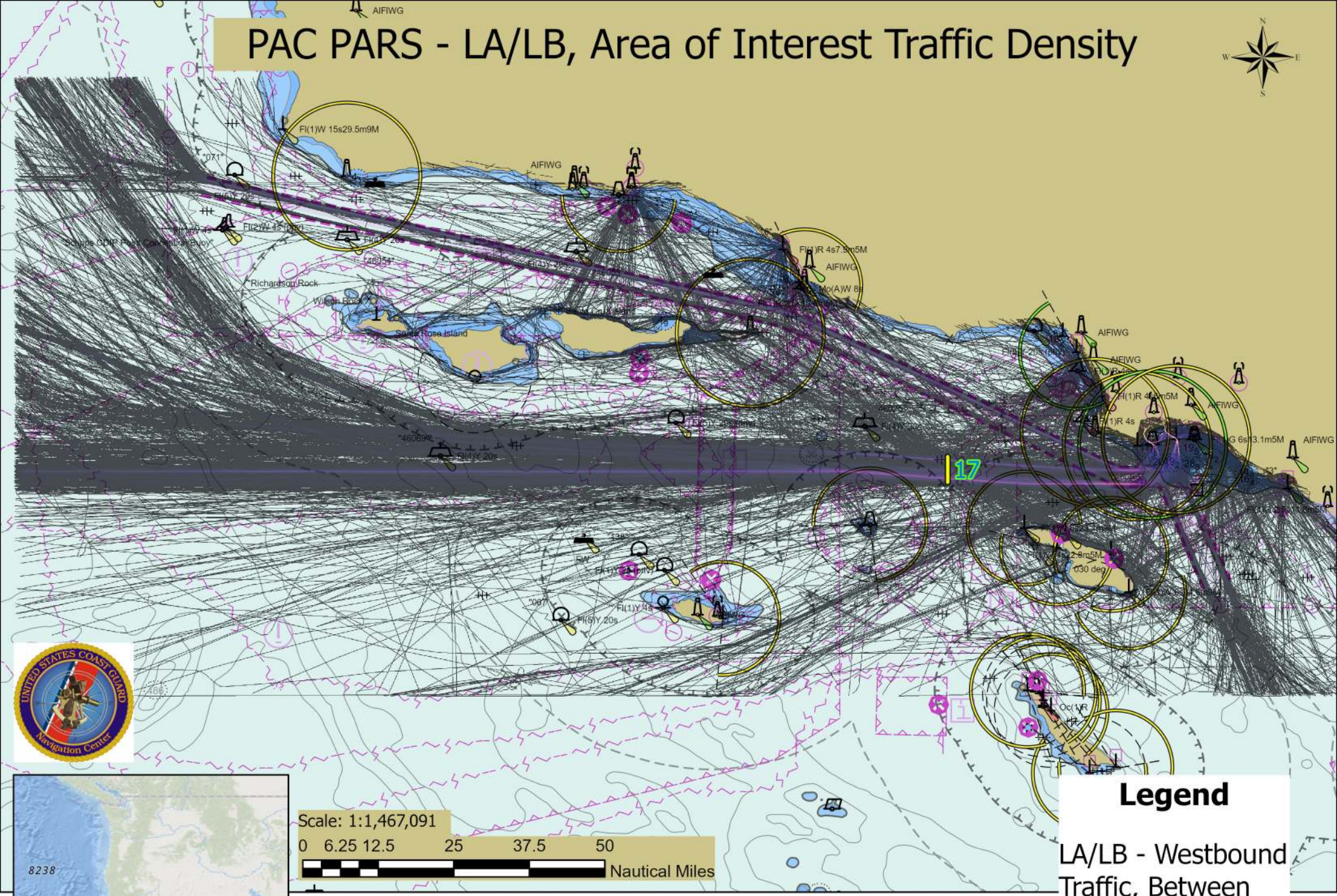
Low Traffic Density

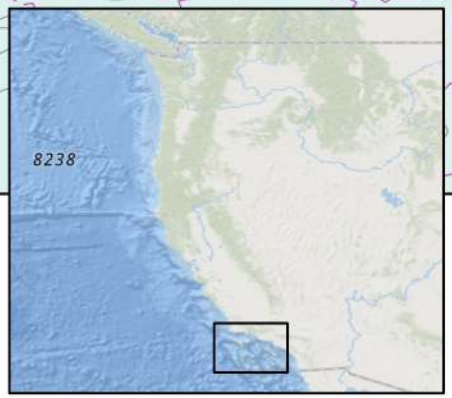
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS
This traffic density depicts only vessel track lines that crossed the displayed area of interest in the specified year, which is labelled in the legend.

Last Update: 3/1/2022 1:45 PM

PAC PARS - LA/LB, Area of Interest Traffic Density





Scale: 1:1,467,091

0 6.25 12.5 25 37.5 50

Nautical Miles

Legend

LA/LB - Westbound Traffic, Between Islands

High Traffic Density

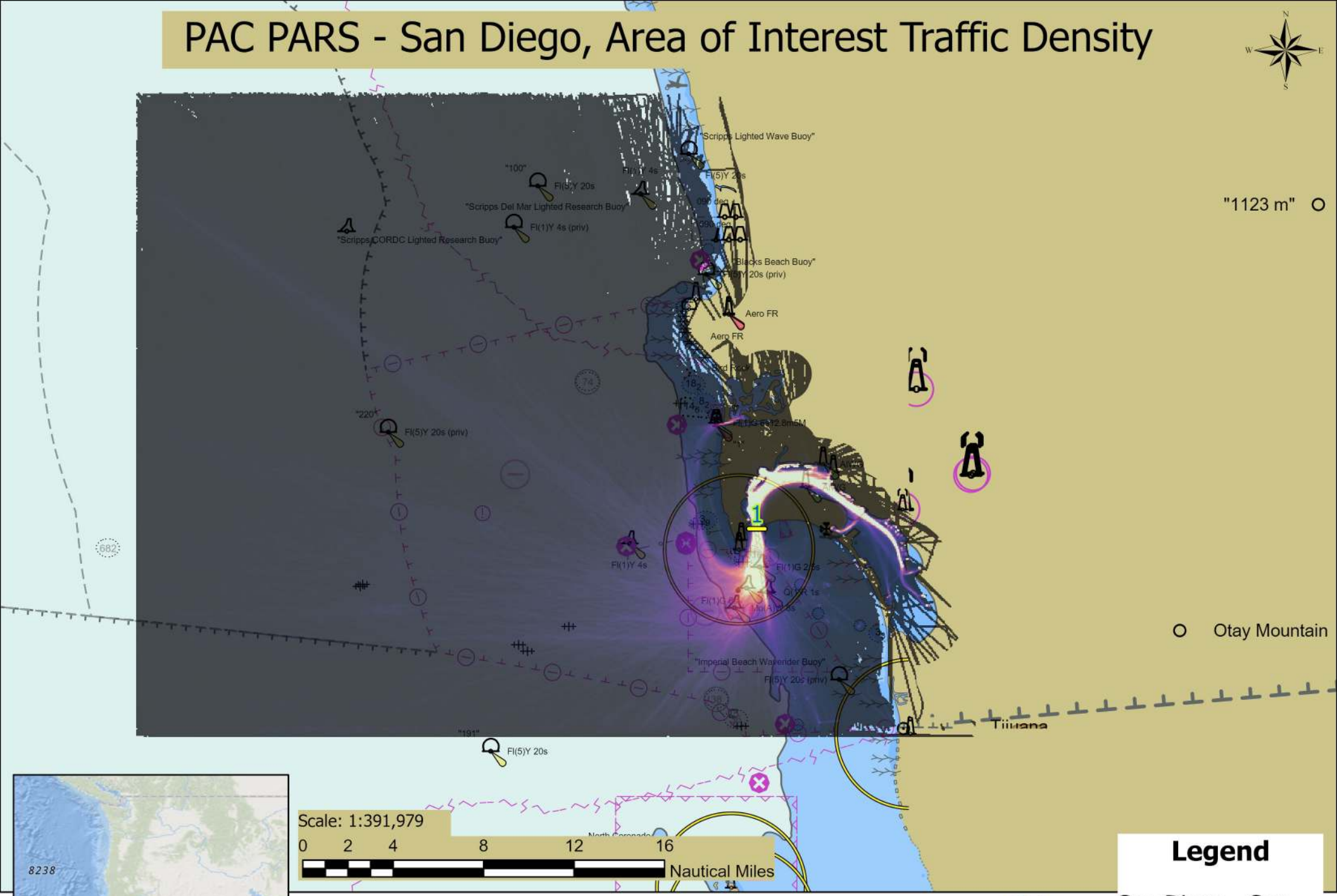
Low Traffic Density

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This traffic density depicts only vessel track lines that crossed the displayed area of interest in the specified year, which is labelled in the legend.

Last Update: 3/18/2022 2:17 PM

PAC PARS - San Diego, Area of Interest Traffic Density



Scale: 1:391,979

0 2 4 8 12 16

Nautical Miles

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This traffic density depicts only vessel track lines that crossed the displayed area of interest in the specified year, which is labelled in the legend.

Last Update: 3/2/2022 7:57 AM

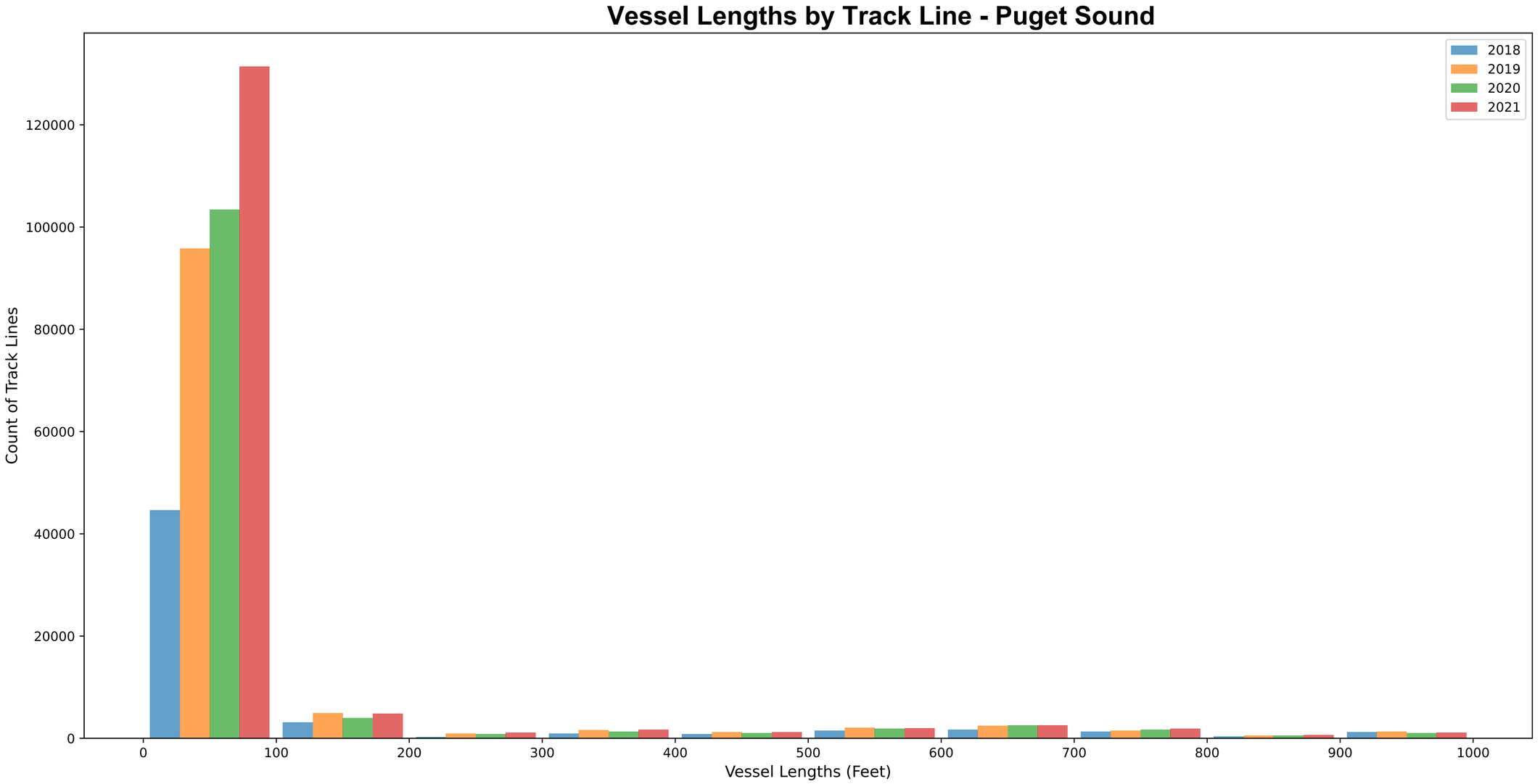
Legend

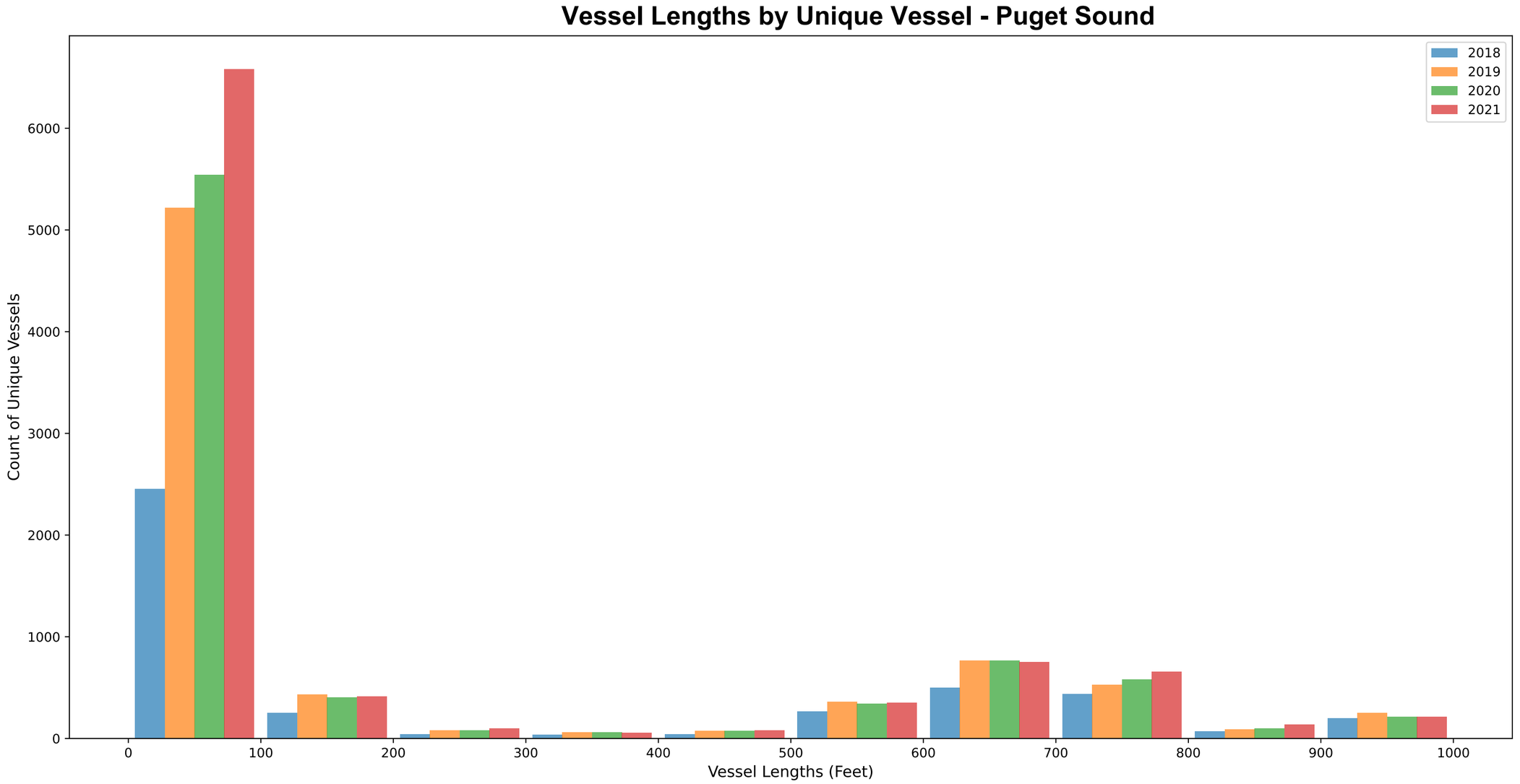
San Diego - San Diego Bay, 2019

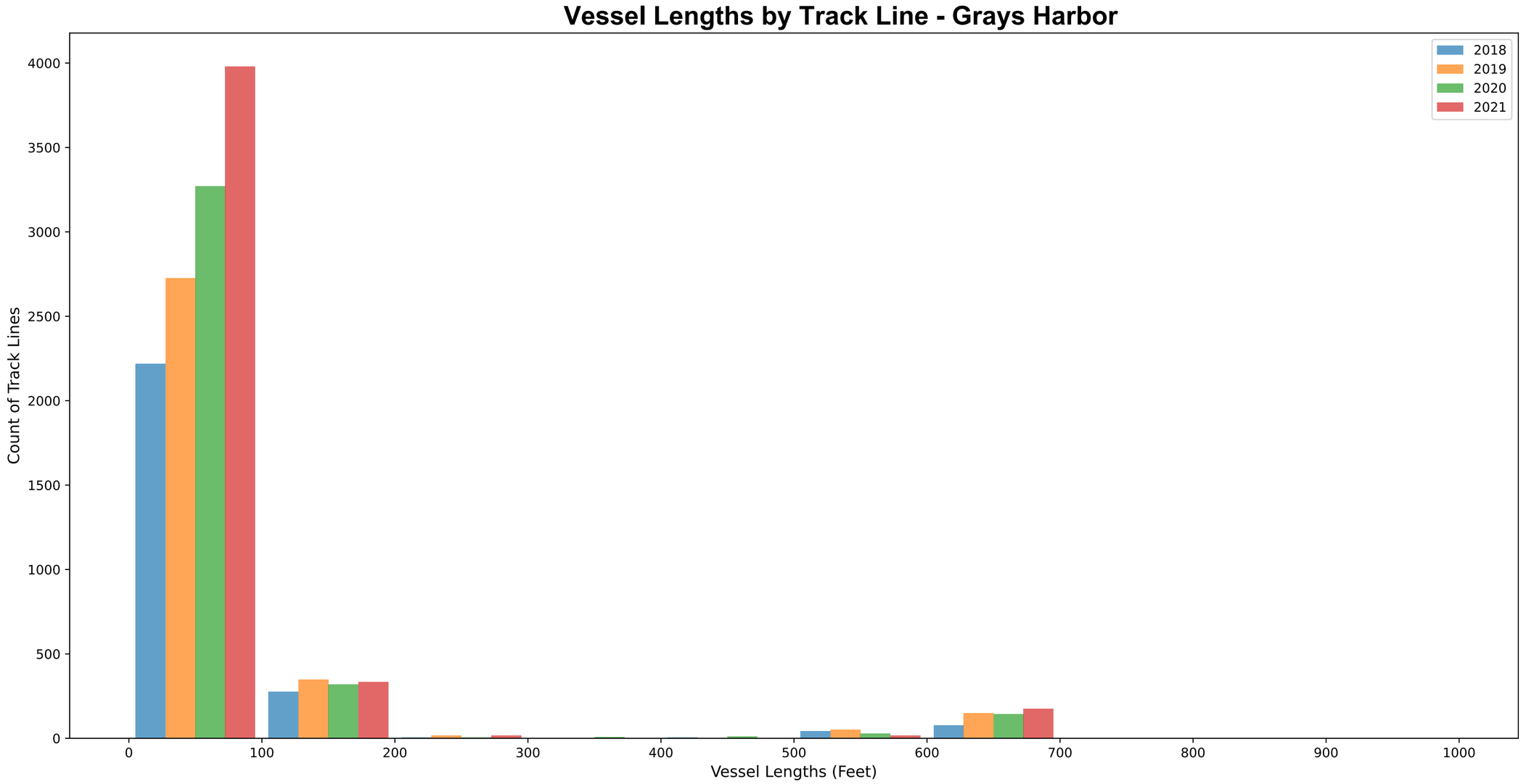
High Traffic Density

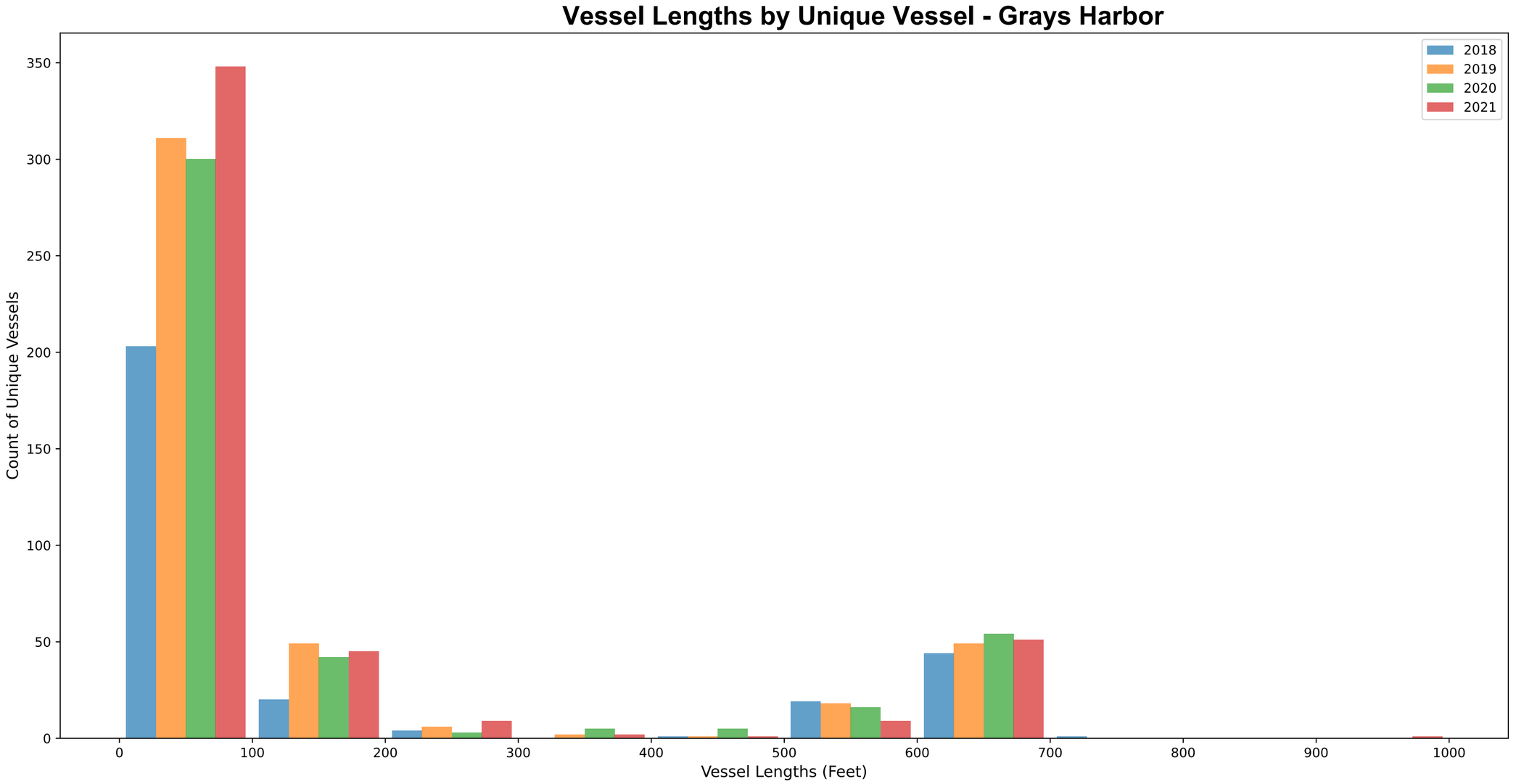
Low Traffic Density

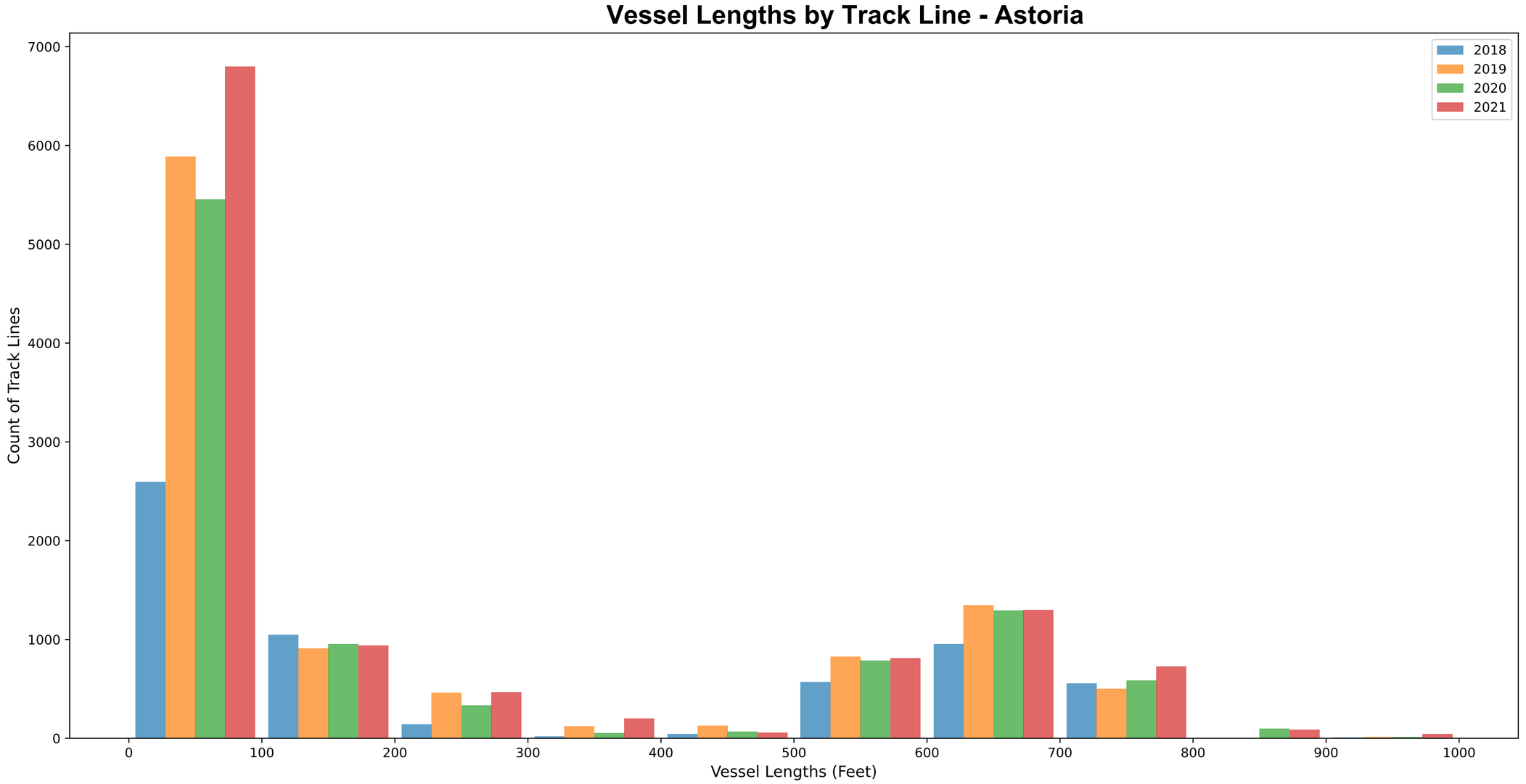
Attachment 3 – Vessel Length Histograms

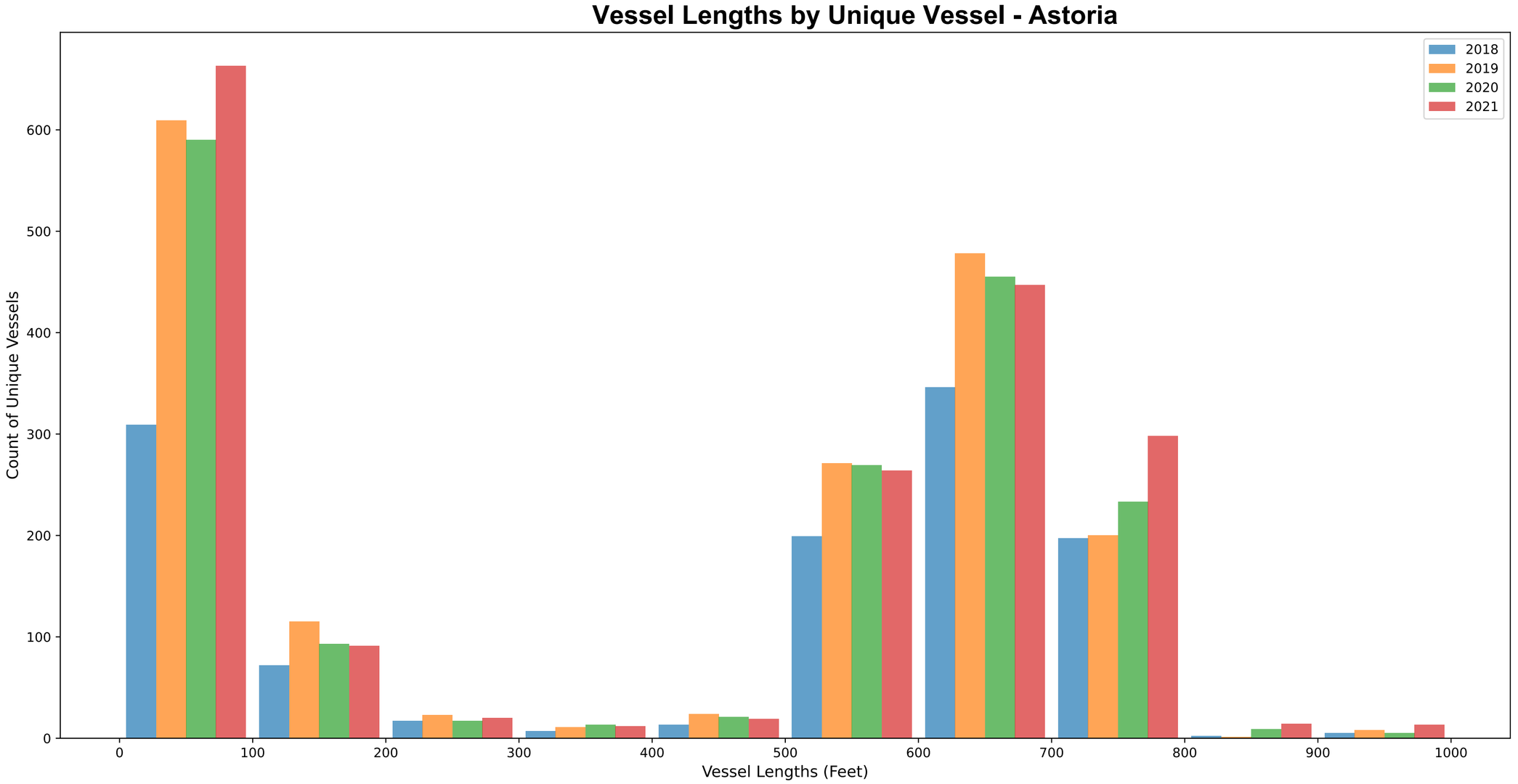

Vessel Lengths by Track Line - Puget Sound
2018
2019
2020
2021
120000
100000
80000
60000
40000
20000
0
Count of Track Lines
0
100
200
300
400
500
600
700
800
900
1000
Vessel Lengths (Feet)

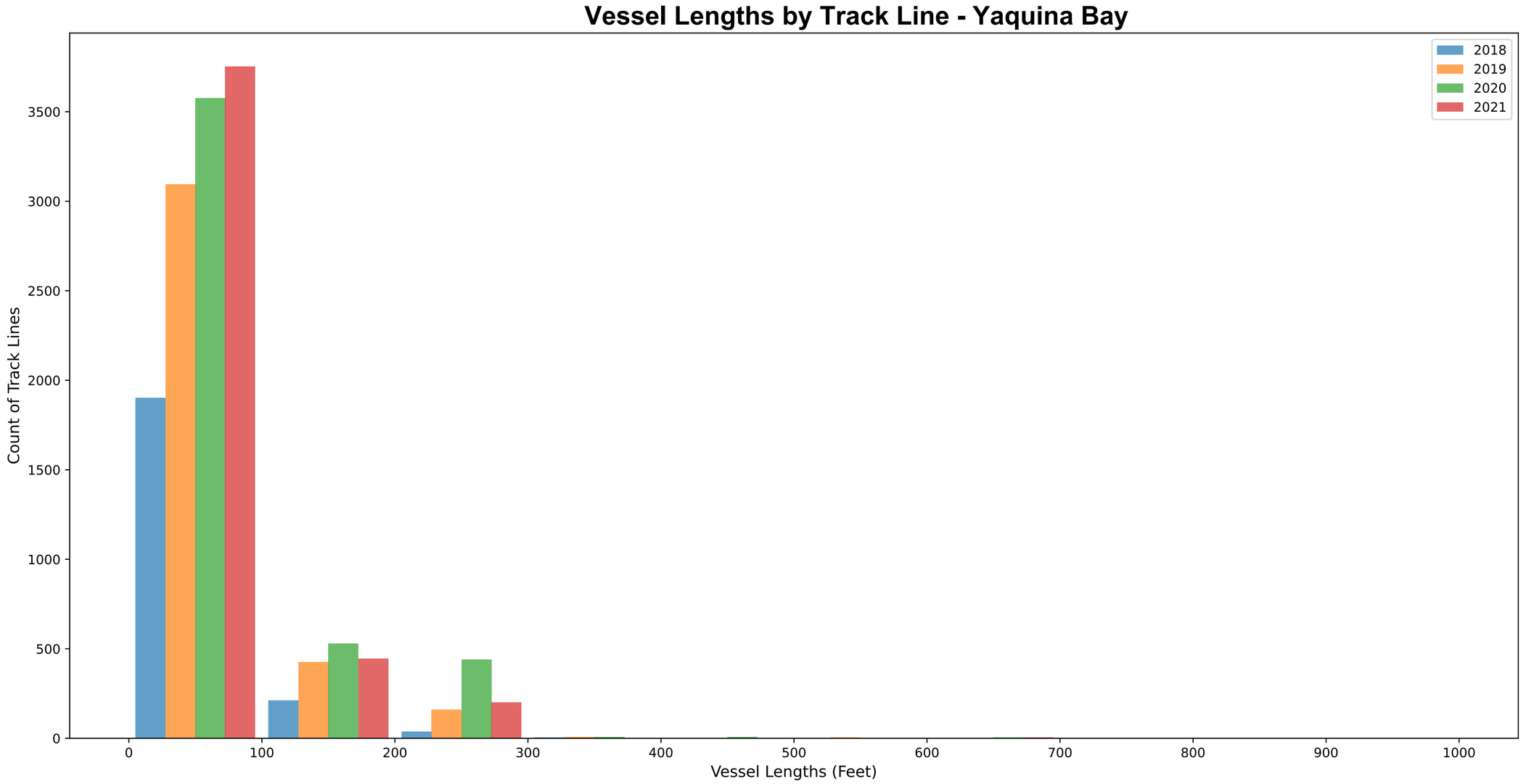

Vessel Lengths by Unique Vessel - Puget Sound
2018
2019
2020
2021
Count of Unique Vessels
0
1000
2000
3000
4000
5000
6000
0
100
200
300
400
500
600
700
800
900
1000
Vessel Lengths (Feet)

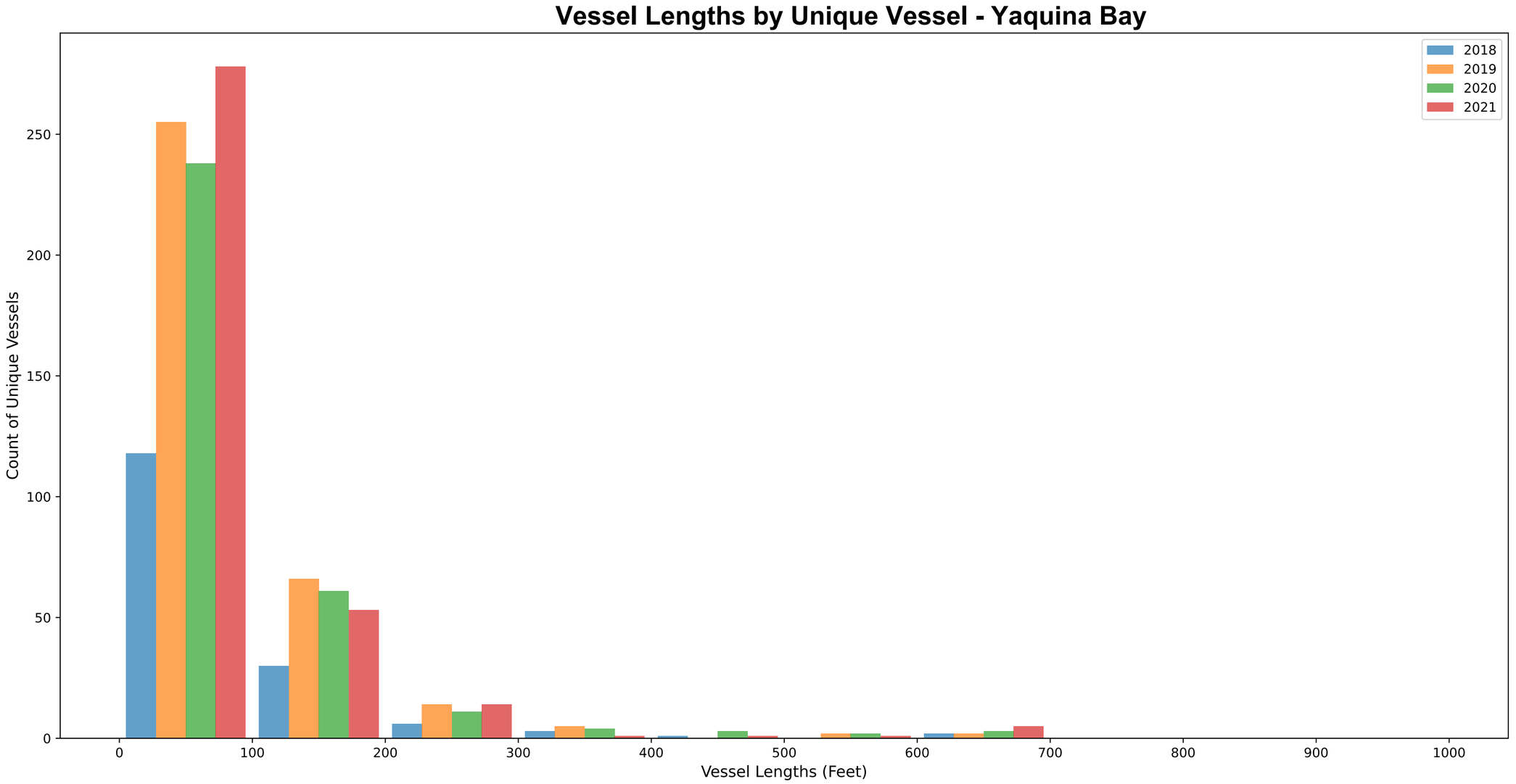

Vessel Lengths by Track Line - Grays Harbor
2018
2019
2020
2021
Count of Track Lines
0
500
1000
1500
2000
2500
3000
3500
4000
0
100
200
300
400
500
600
700
800
900
1000
Vessel Lengths (Feet)

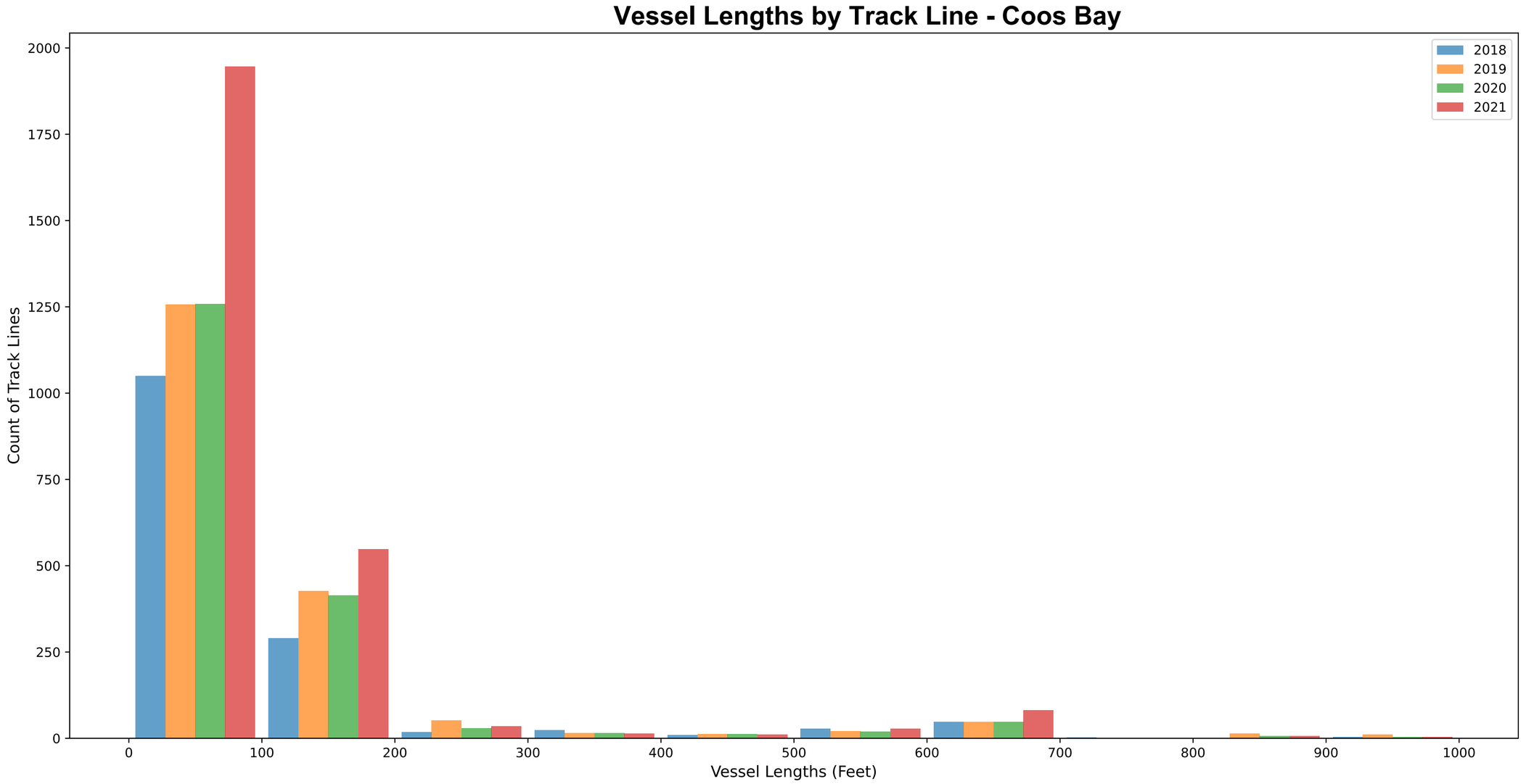

Vessel Lengths by Unique Vessel - Grays Harbor
2018
2019
2020
2021
Count of Unique Vessels
0
50
100
150
200
250
300
350
0
100
200
300
400
500
600
700
800
900
1000
Vessel Lengths (Feet)

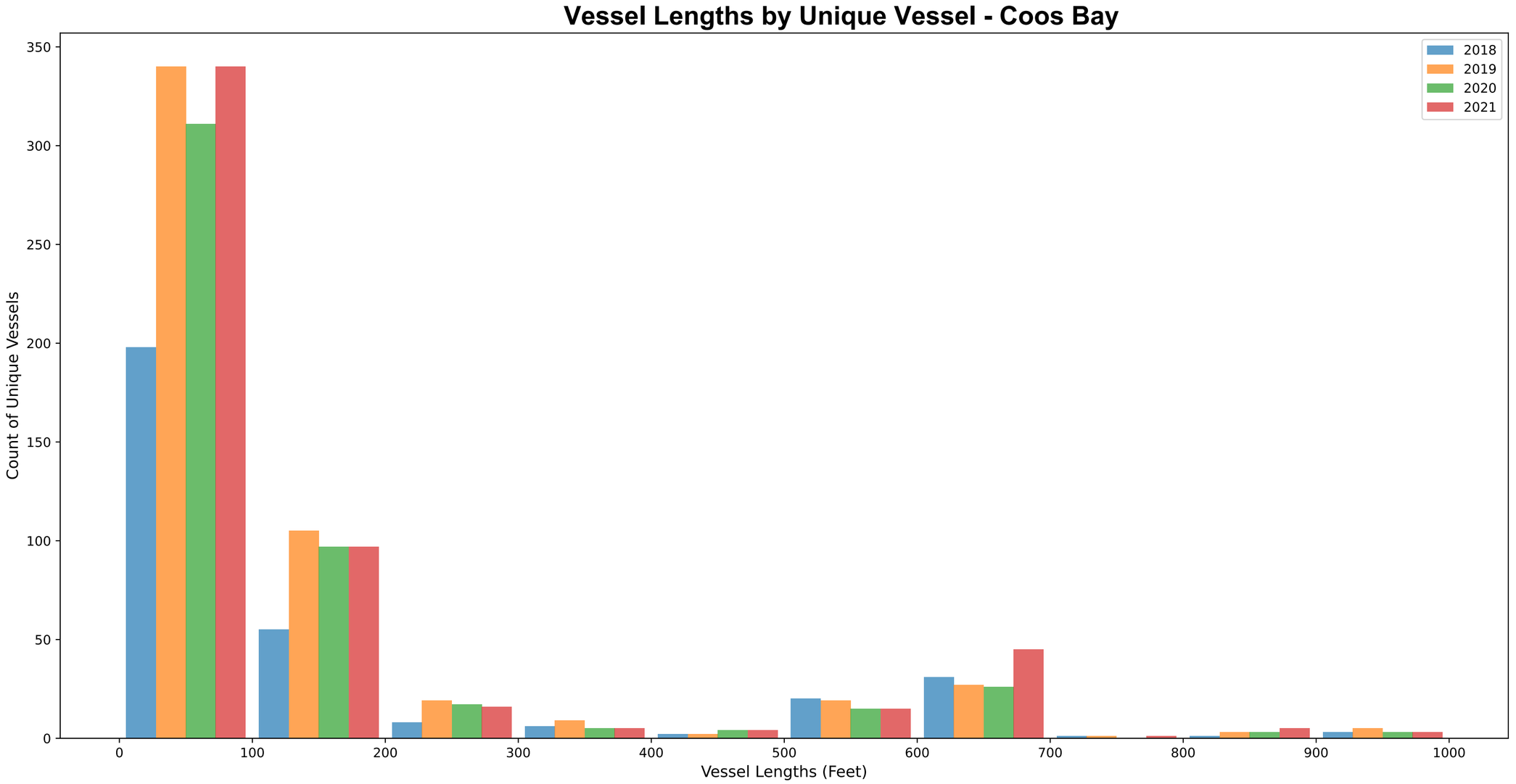

Vessel Lengths by Track Line - Astoria
Count of Track Lines
Vessel Lengths (Feet)
2018
2019
2020
2021
0
1000
2000
3000
4000
5000
6000
7000
0
100
200
300
400
500
600
700
800
900
1000

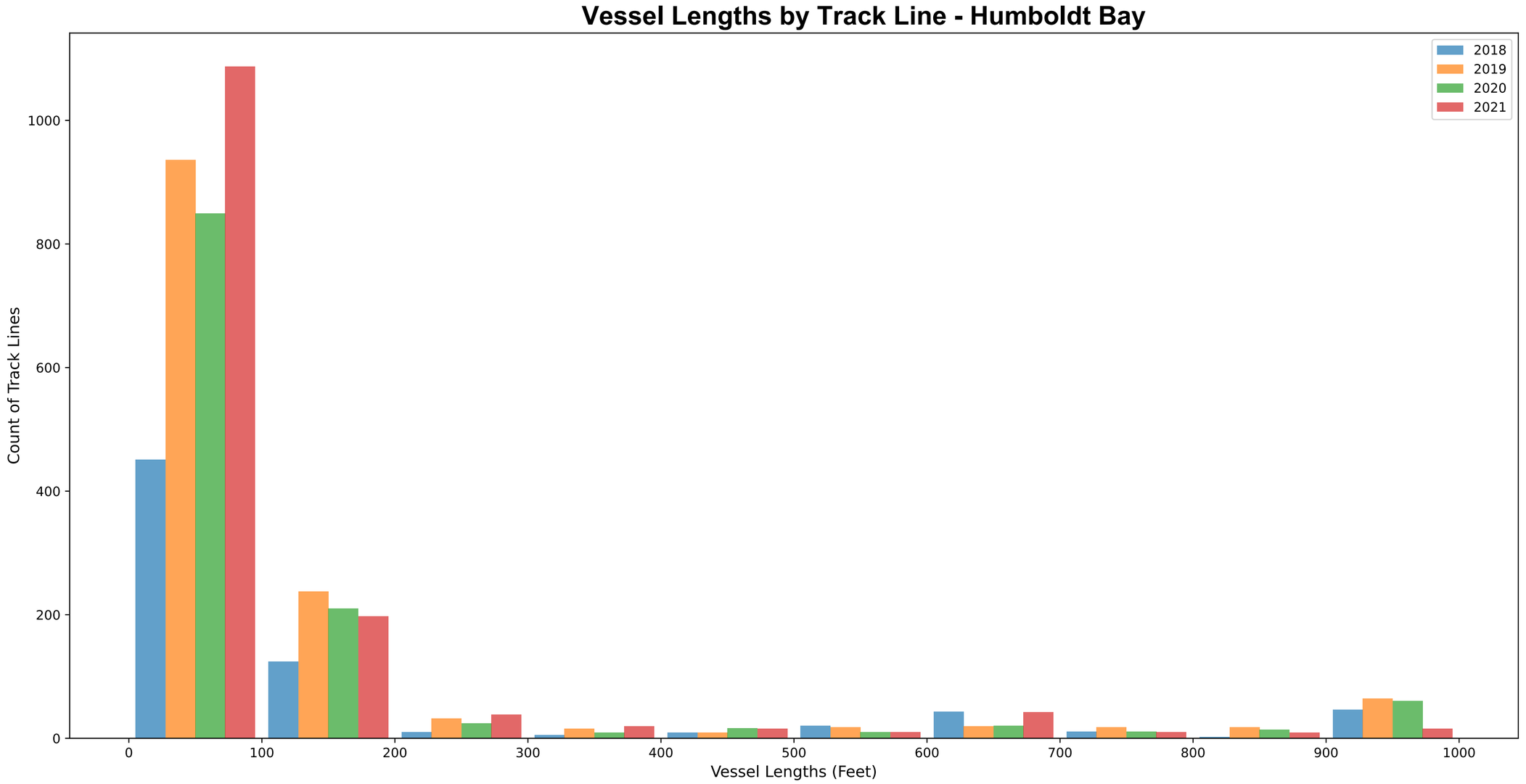

Vessel Lengths by Unique Vessel - Astoria
2018
2019
2020
2021
Count of Unique Vessels
0
100
200
300
400
500
600
Vessel Lengths (Feet)
0
100
200
300
400
500
600
700
800
900
1000

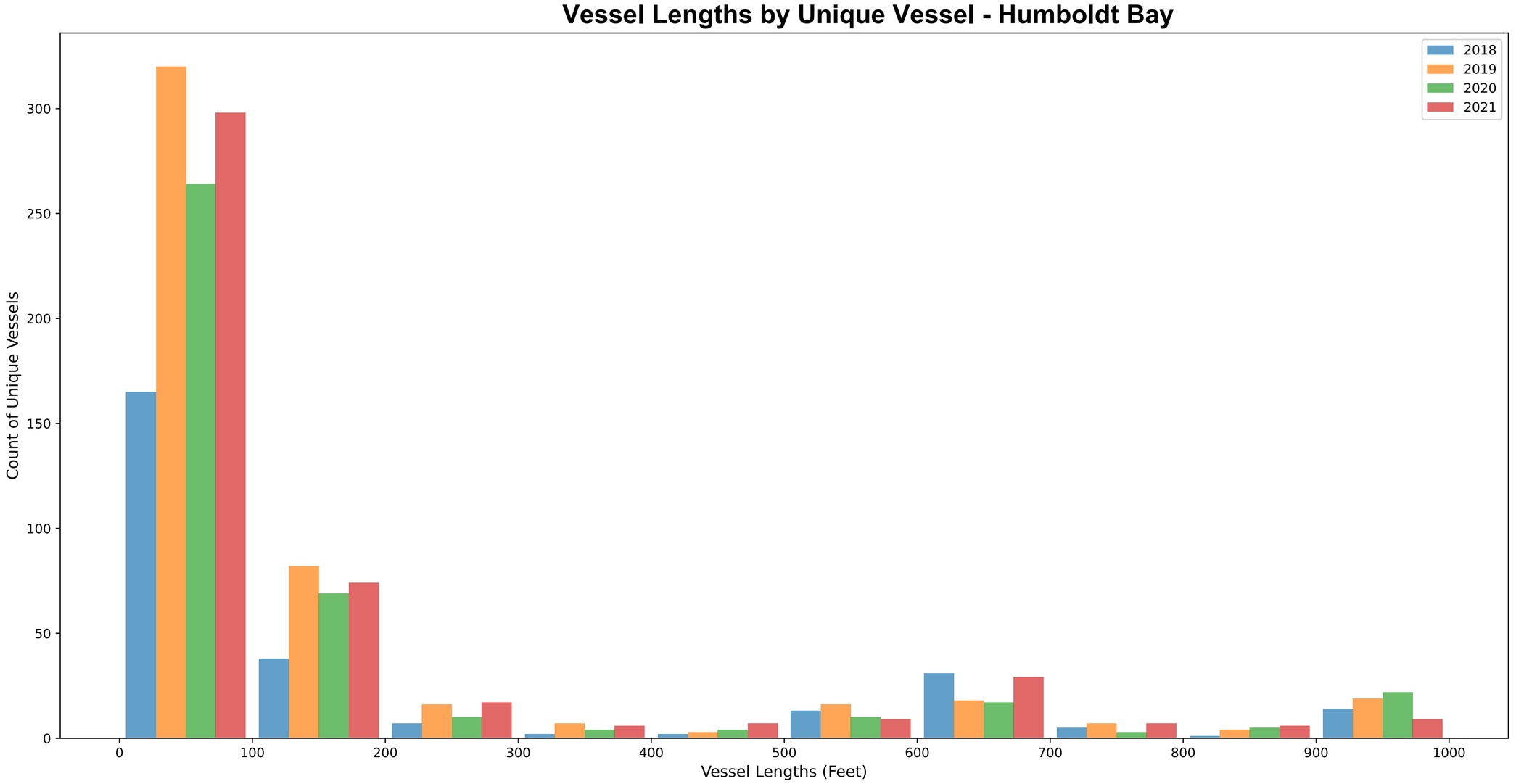

Vessel Lengths by Track Line - Yaquina Bay
2018
2019
2020
2021
Count of Track Lines
0
500
1000
1500
2000
2500
3000
3500
0
100
200
300
400
500
600
700
800
900
1000
Vessel Lengths (Feet)

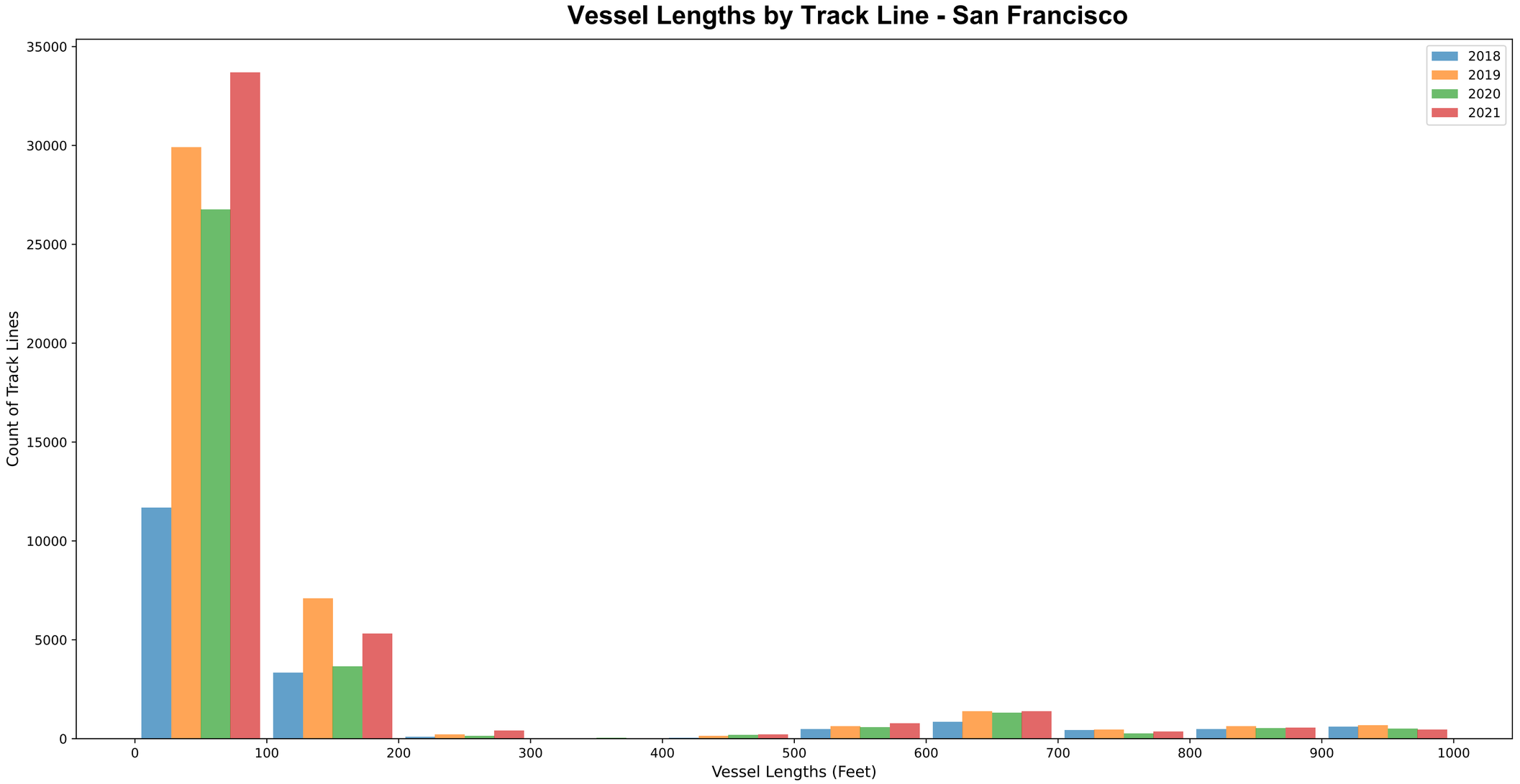

Vessel Lengths by Unique Vessel - Yaquina Bay
2018
2019
2020
2021
Count of Unique Vessels
0
50
100
150
200
250
0
100
200
300
400
500
600
700
800
900
1000
Vessel Lengths (Feet)

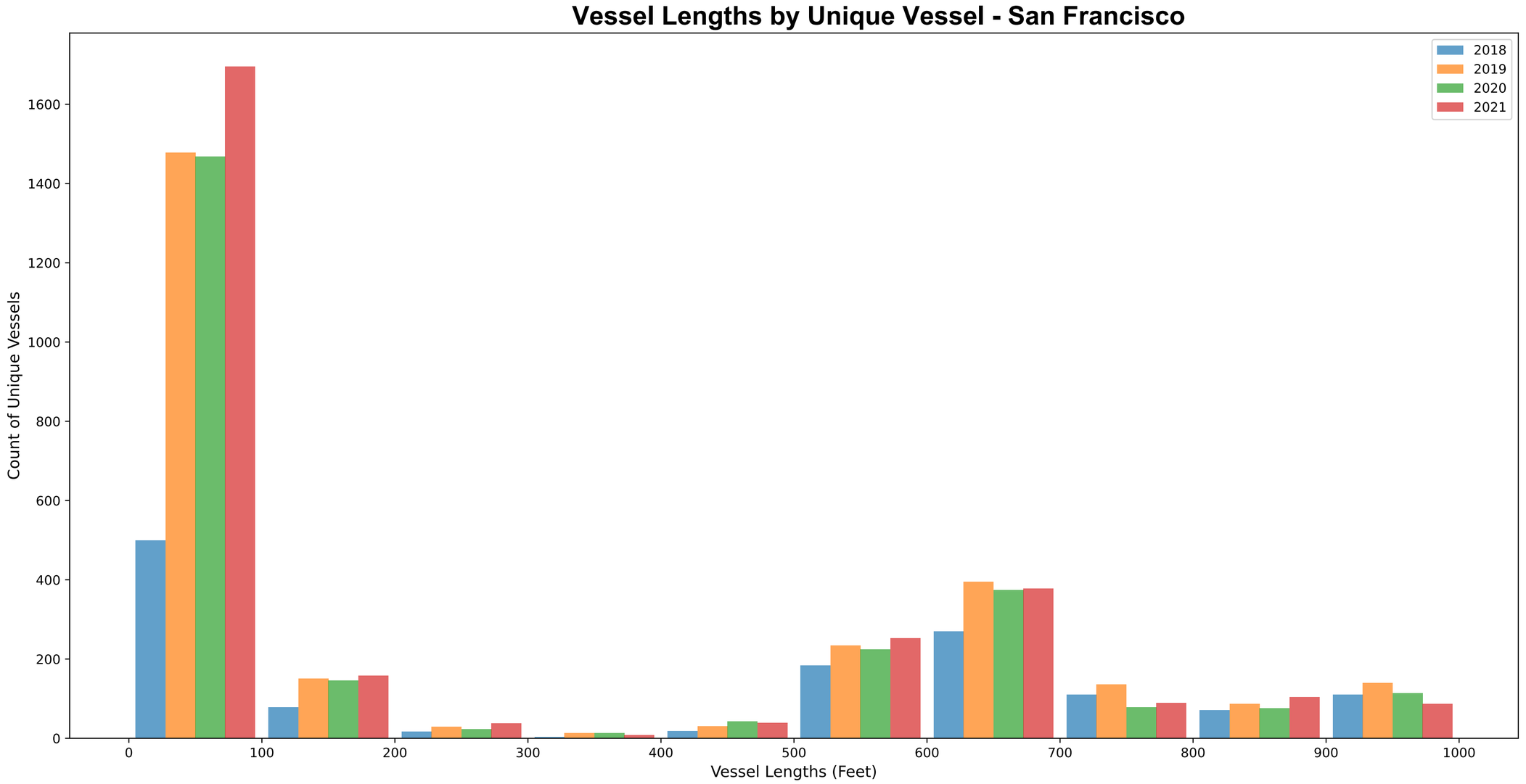

Vessel Lengths by Track Line - Coos Bay
2018
2019
2020
2021
Count of Track Lines
0
250
500
750
1000
1250
1500
1750
2000
0
100
200
300
400
500
600
700
800
900
1000
Vessel Lengths (Feet)

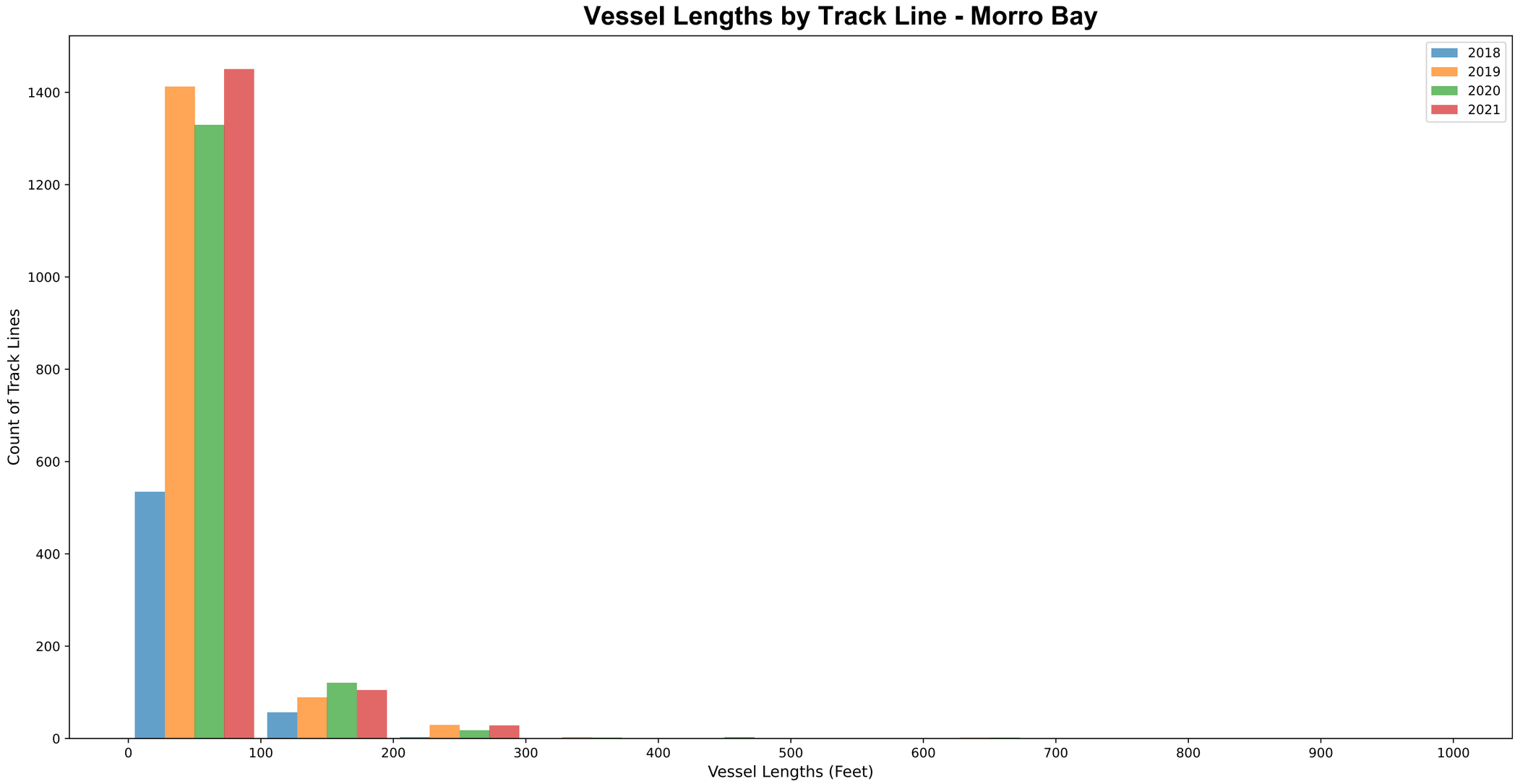

Vessel Lengths by Unique Vessel - Coos Bay
2018
2019
2020
2021
Count of Unique Vessels
0
50
100
150
200
250
300
350
0
100
200
300
400
500
600
700
800
900
1000
Vessel Lengths (Feet)

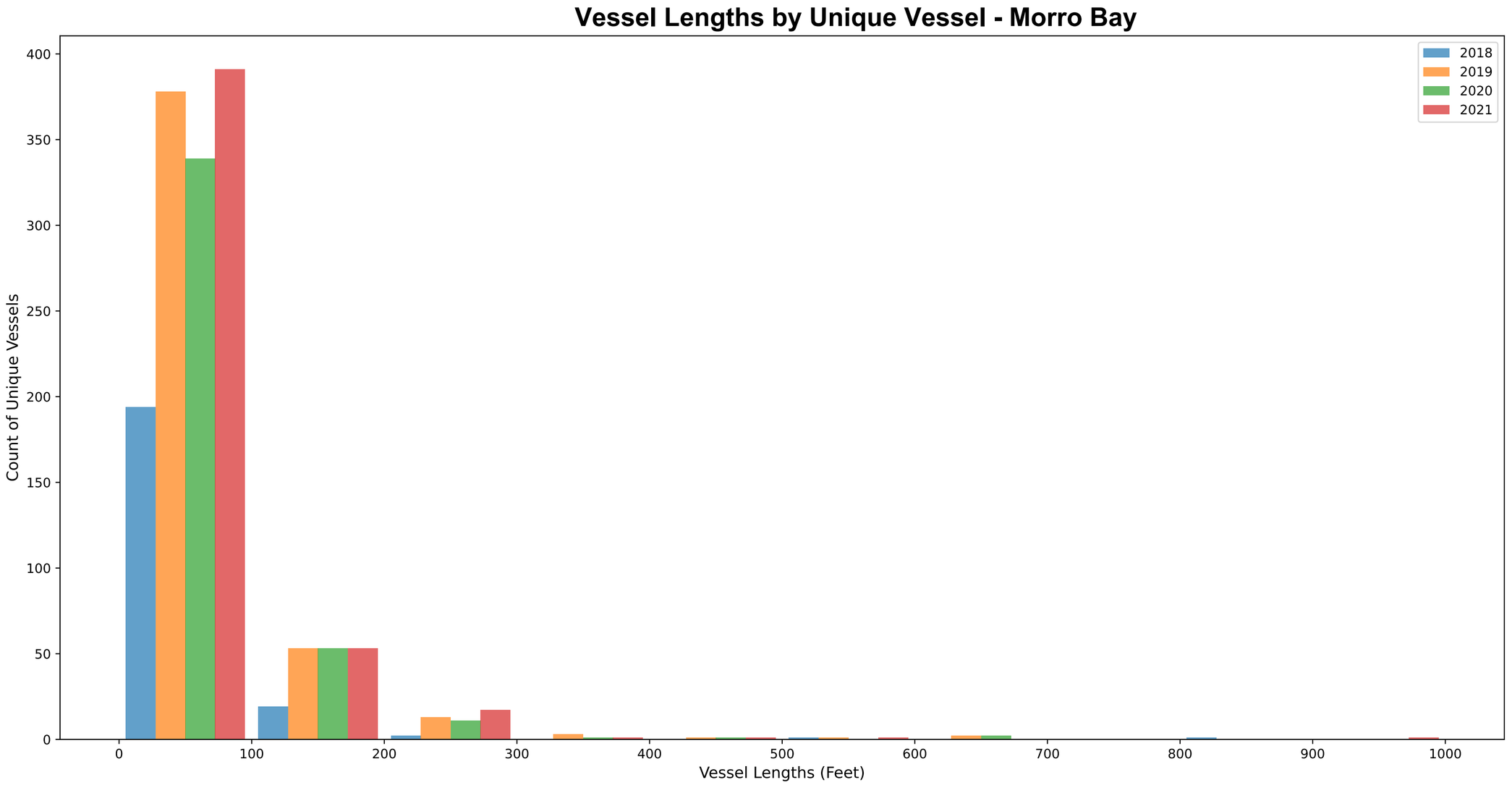

Vessel Lengths by Track Line - Humboldt Bay
2018
2019
2020
2021
Count of Track Lines
0
200
400
600
800
1000
0
100
200
300
400
500
600
700
800
900
1000
Vessel Lengths (Feet)

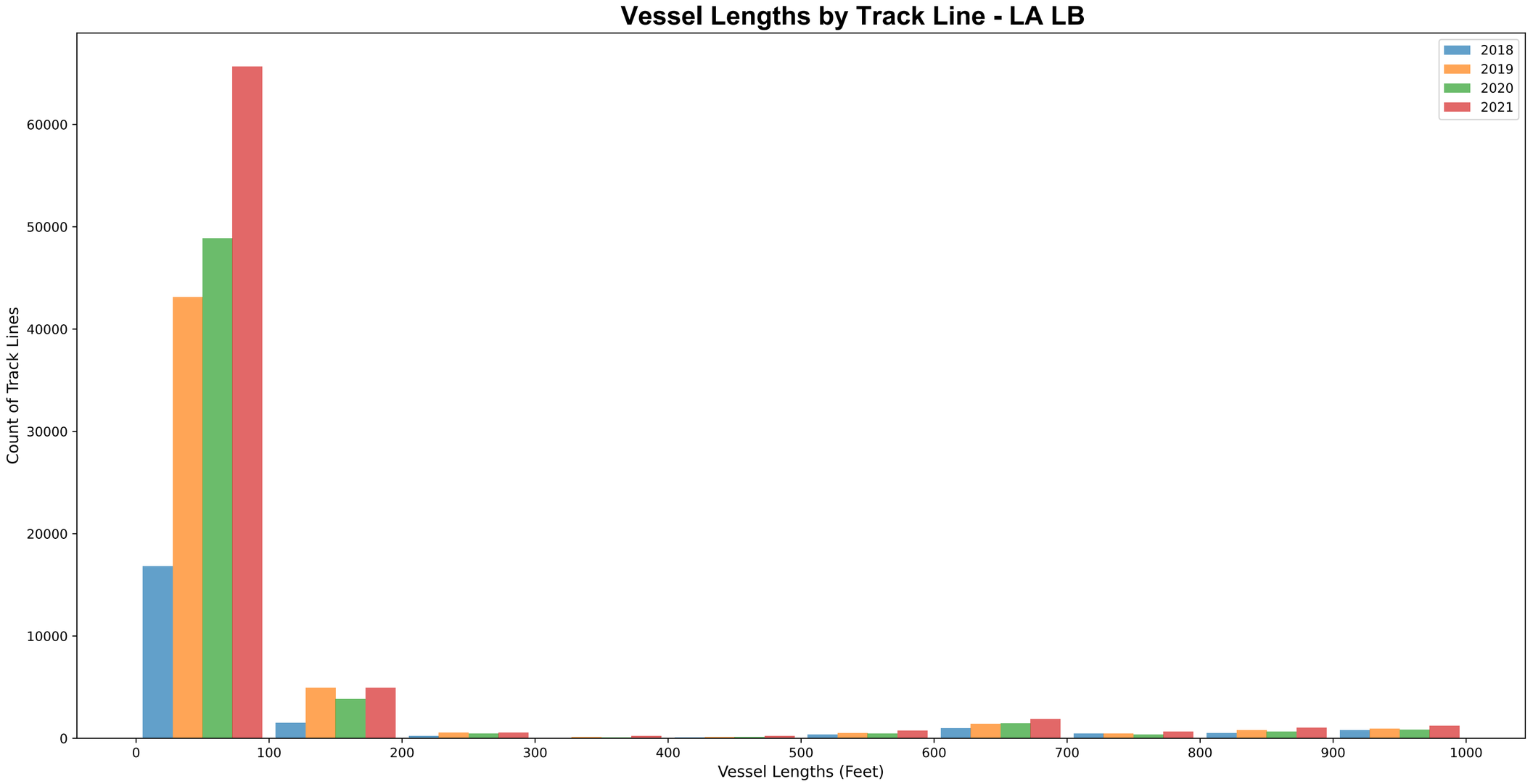

Vessel Lengths by Unique Vessel - Humboldt Bay
2018
2019
2020
2021
Count of Unique Vessels
0
50
100
150
200
250
300
0
100
200
300
400
500
600
700
800
900
1000
Vessel Lengths (Feet)

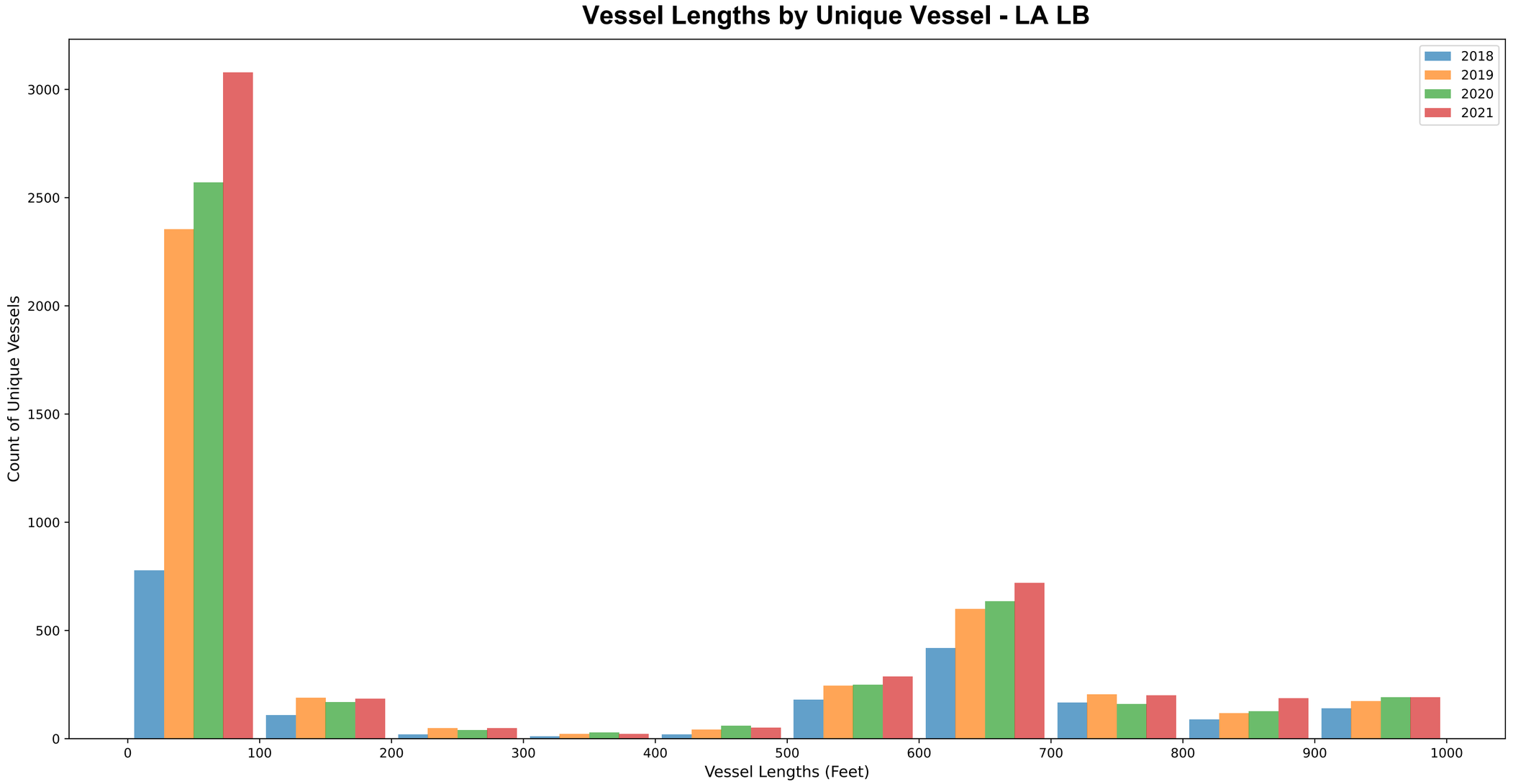

Vessel Lengths by Track Line - San Francisco
Count of Track Lines
Vessel Lengths (Feet)
2018
2019
2020
2021
0
5000
10000
15000
20000
25000
30000
35000
0
100
200
300
400
500
600
700
800
900
1000

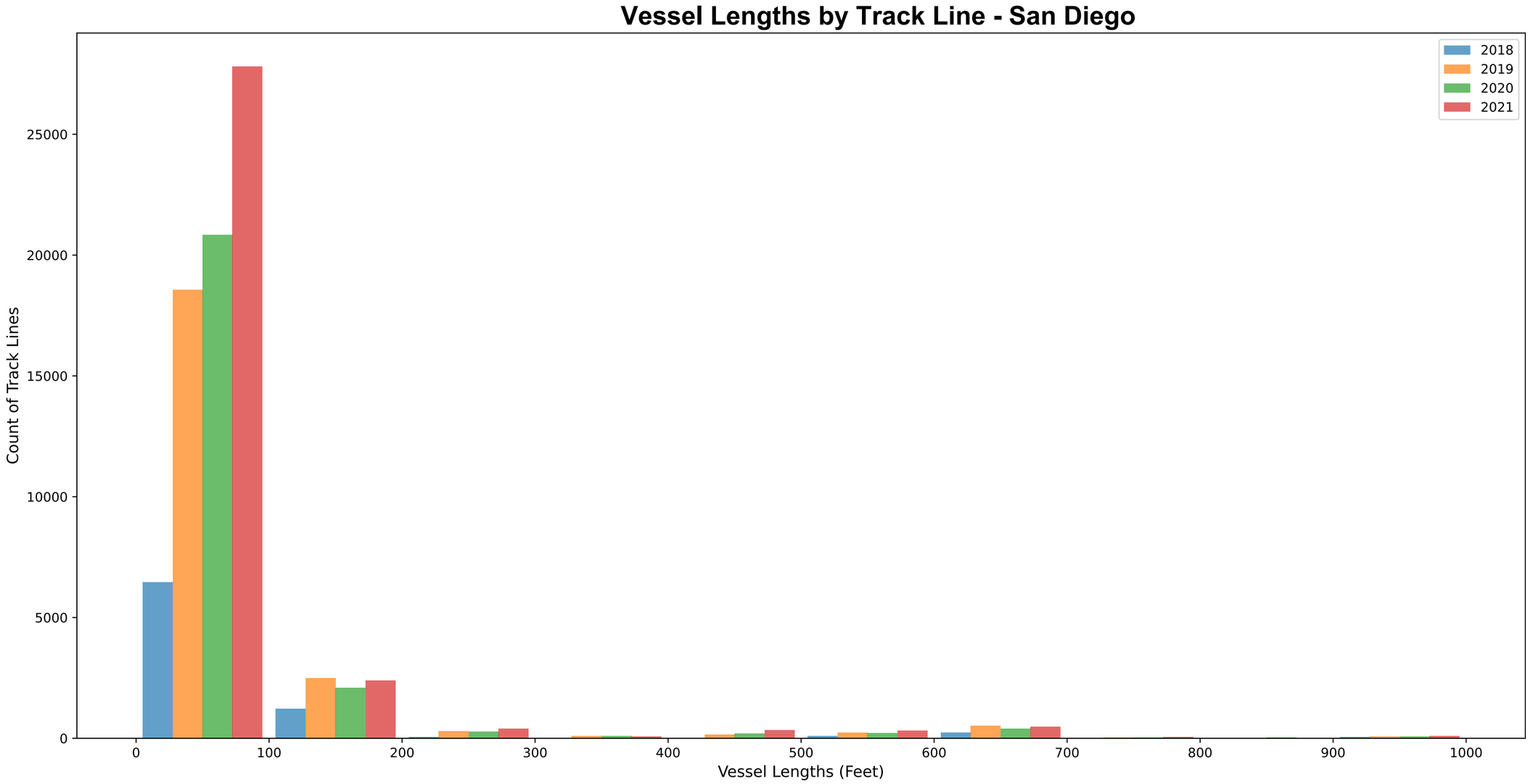

Vessel Lengths by Unique Vessel - San Francisco
2018
2019
2020
2021
Count of Unique Vessels
0
200
400
600
800
1000
1200
1400
1600
Vessel Lengths (Feet)
0
100
200
300
400
500
600
700
800
900
1000

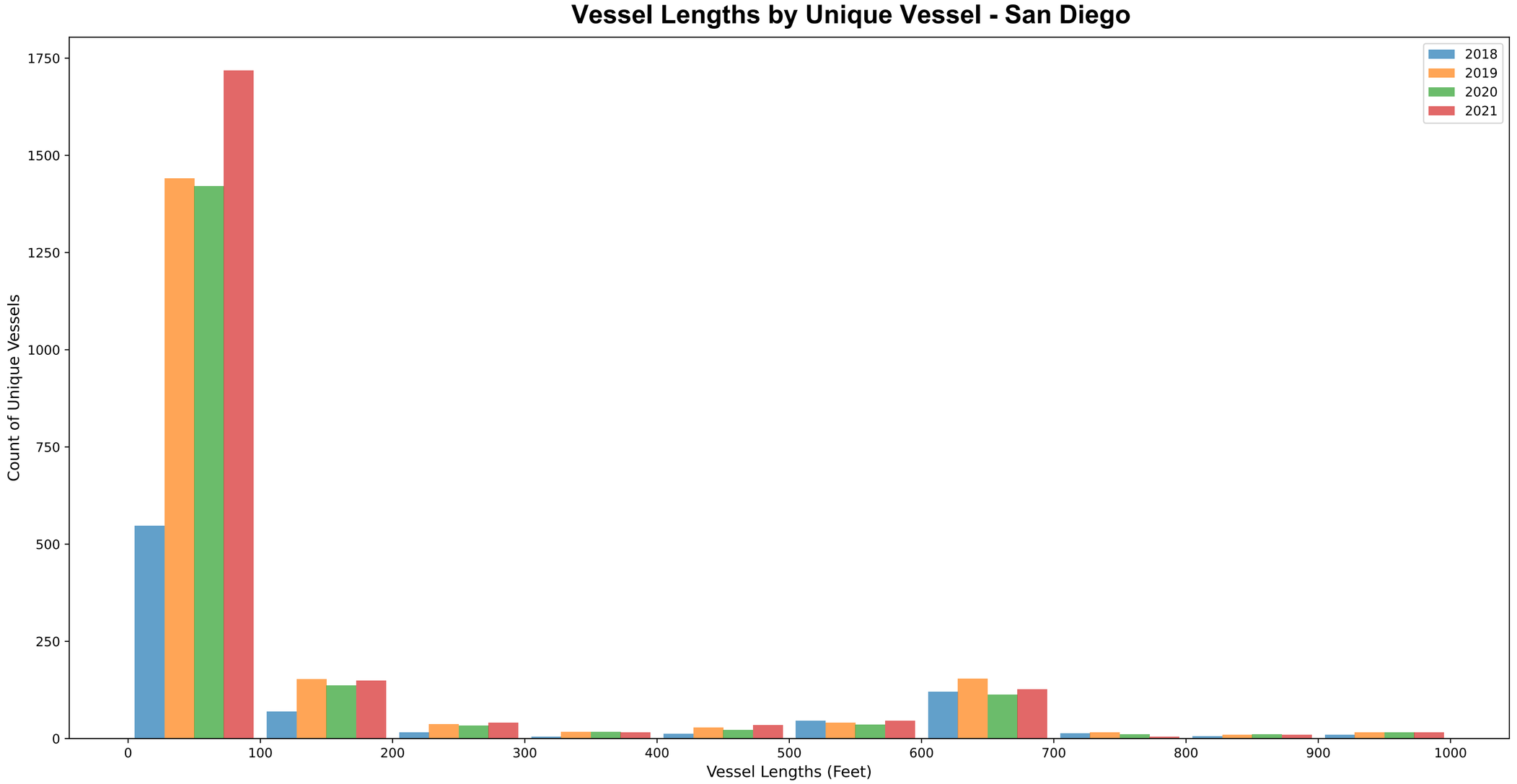

Vessel Lengths by Track Line - Morro Bay
2018
2019
2020
2021
Count of Track Lines
0
200
400
600
800
1000
1200
1400
0
100
200
300
400
500
600
700
800
900
1000
Vessel Lengths (Feet)


Vessel Lengths by Unique Vessel - Morro Bay
2018
2019
2020
2021
Count of Unique Vessels
0
50
100
150
200
250
300
350
400
0
100
200
300
400
500
600
700
800
900
1000
Vessel Lengths (Feet)


Vessel Lengths by Track Line - LA LB
2018
2019
2020
2021
Count of Track Lines
0
10000
20000
30000
40000
50000
60000
0
100
200
300
400
500
600
700
800
900
1000
Vessel Lengths (Feet)

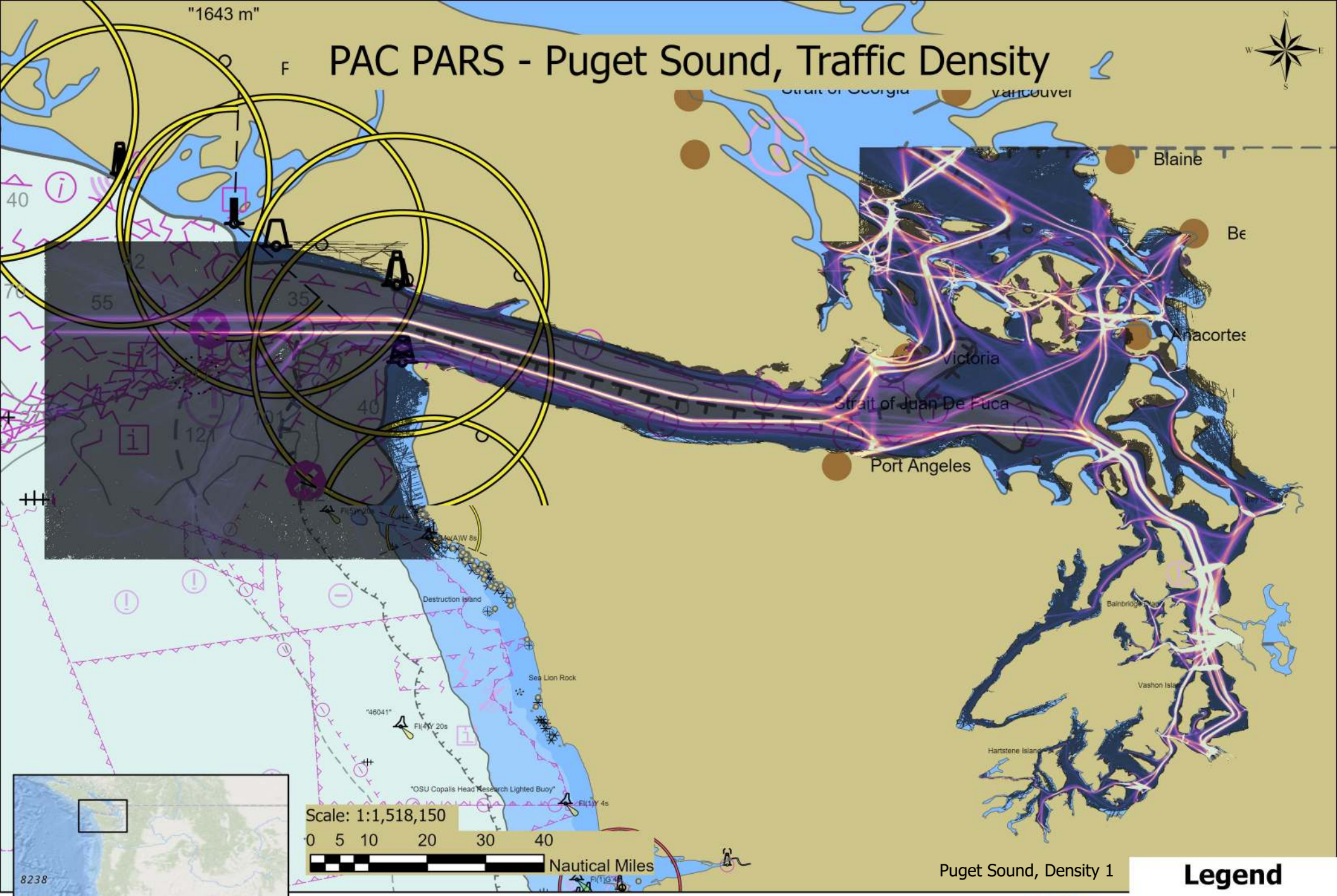

Vessel Lengths by Unique Vessel - LA LB
2018
2019
2020
2021
Count of Unique Vessels
0
500
1000
1500
2000
2500
3000
0
100
200
300
400
500
600
700
800
900
1000
Vessel Lengths (Feet)


Vessel Lengths by Track Line - San Diego
2018
2019
2020
2021
Count of Track Lines
0
5000
10000
15000
20000
25000
0
100
200
300
400
500
600
700
800
900
1000
Vessel Lengths (Feet)


Vessel Lengths by Unique Vessel - San Diego
2018
2019
2020
2021
Count of Unique Vessels
0
250
500
750
1000
1250
1500
1750
0
100
200
300
400
500
600
700
800
900
1000
Vessel Lengths (Feet)

Attachment 4 – Vessel Traffic Visualizations

PAC PARS - Puget Sound, Traffic Density



Puget Sound, Density 1

Legend

All Vessels 2019

High Traffic Density

Low Traffic Density

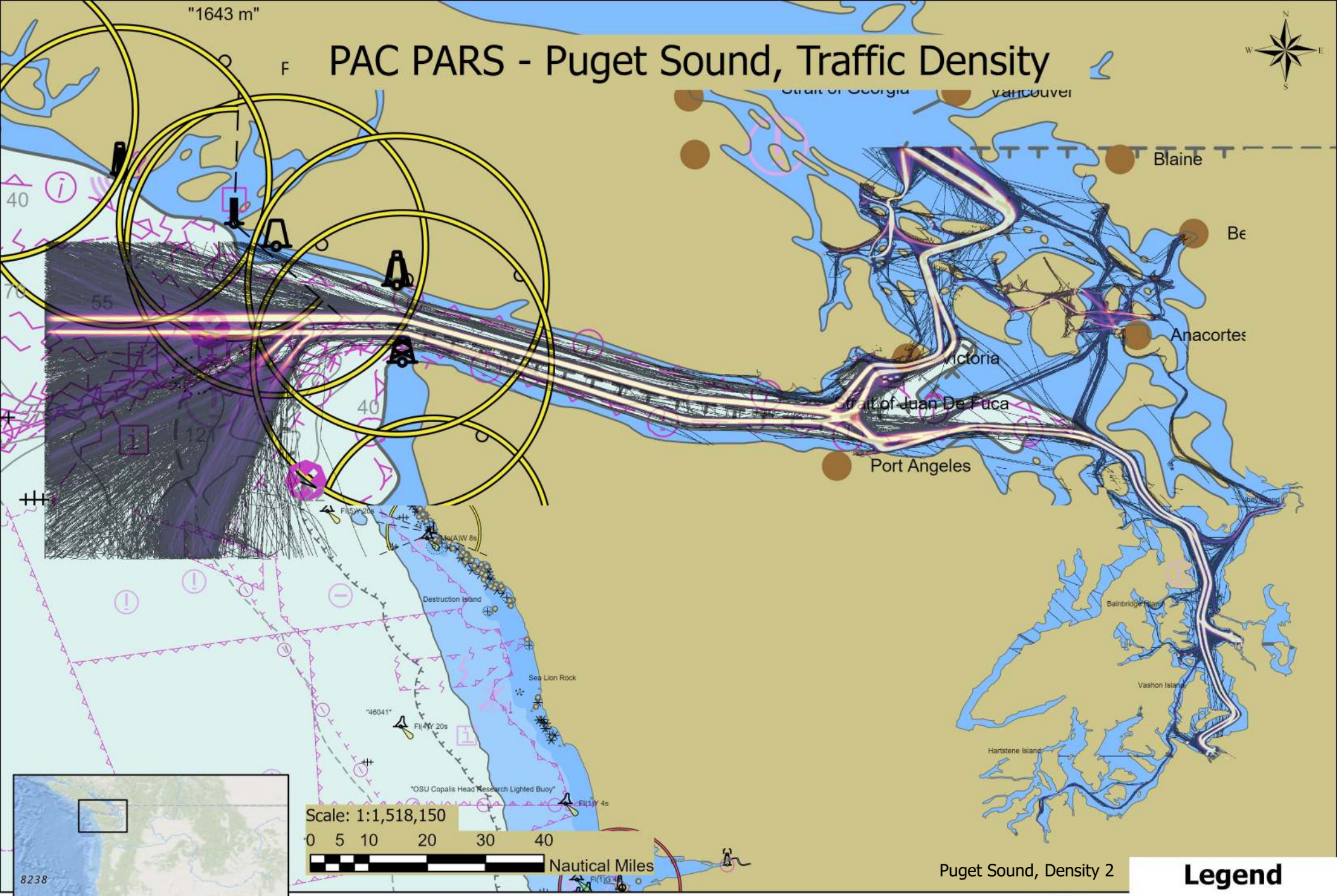
Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/14/2022 11:20 AM

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

PAC PARS - Puget Sound, Traffic Density



Puget Sound, Density 2

Legend

Cargo 2019

High Traffic Density

Low Traffic Density

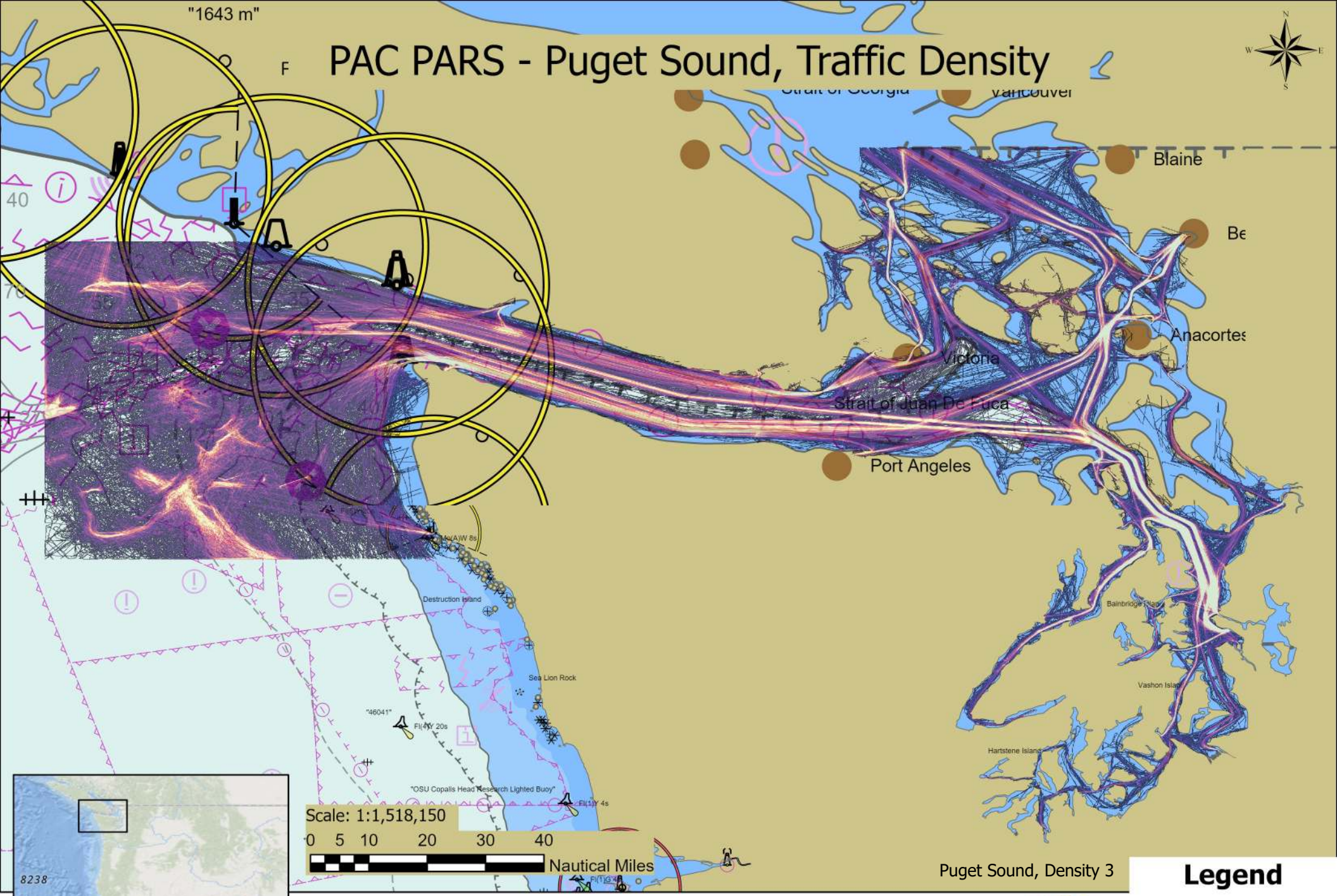
Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/14/2022 11:21 AM

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

PAC PARS - Puget Sound, Traffic Density



Puget Sound, Density 3

Legend

Fishing 2019

High Traffic Density

Low Traffic Density

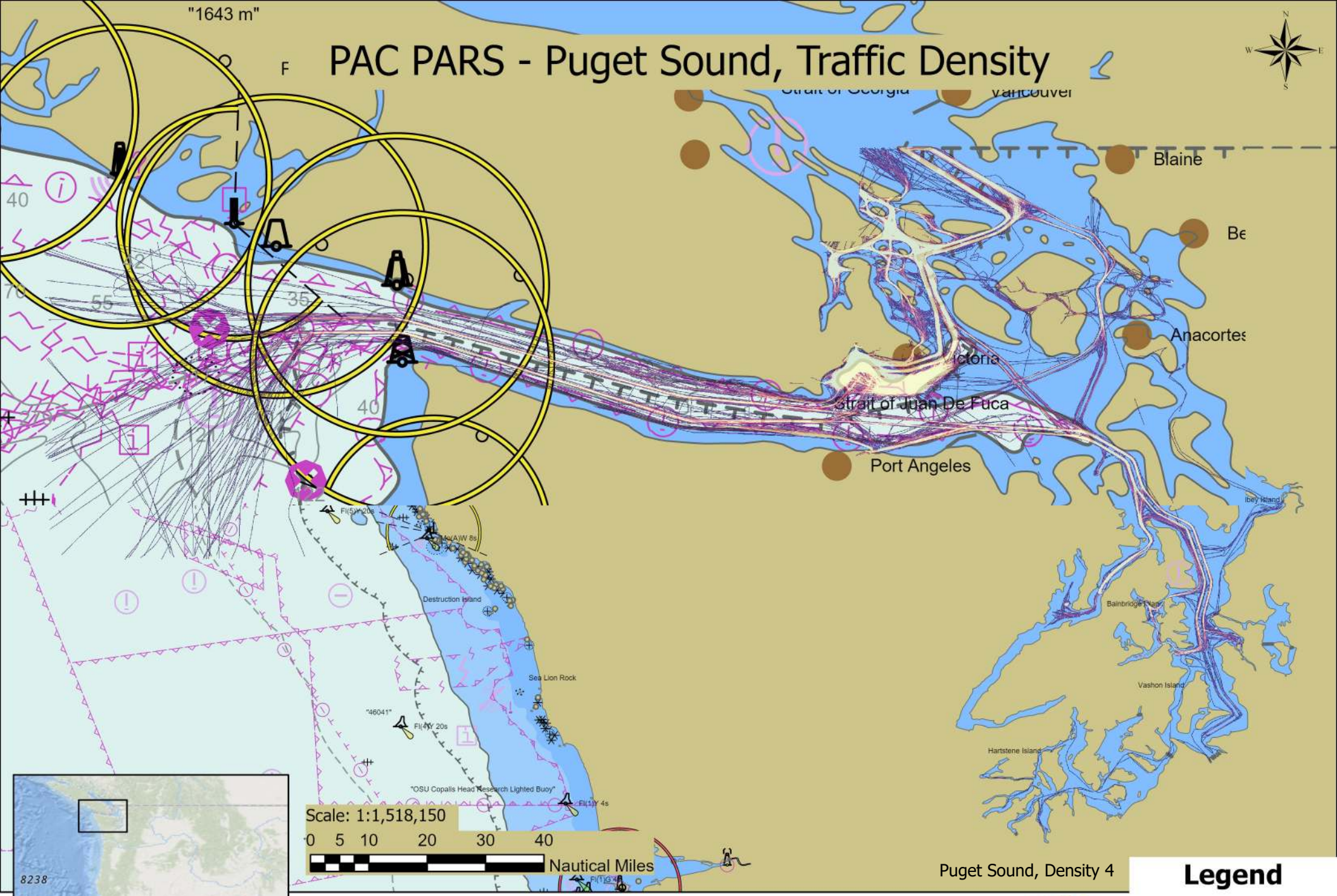
Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/14/2022 11:23 AM

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

PAC PARS - Puget Sound, Traffic Density



Puget Sound, Density 4

Legend

Military 2019

High Traffic Density

Low Traffic Density

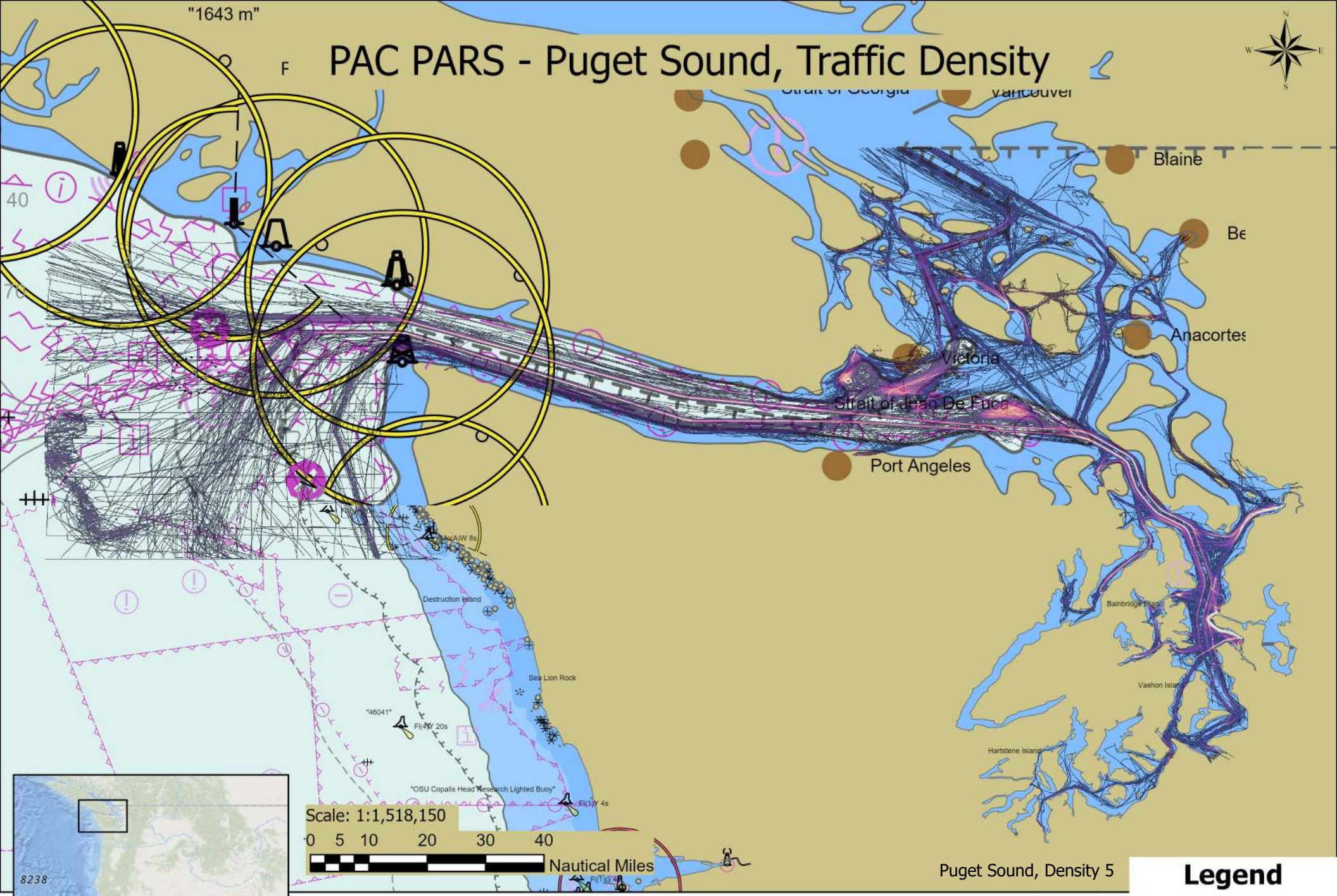
Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/14/2022 11:23 AM

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

PAC PARS - Puget Sound, Traffic Density



Puget Sound, Density 5

Legend

Not Available 2019

High Traffic Density

Low Traffic Density

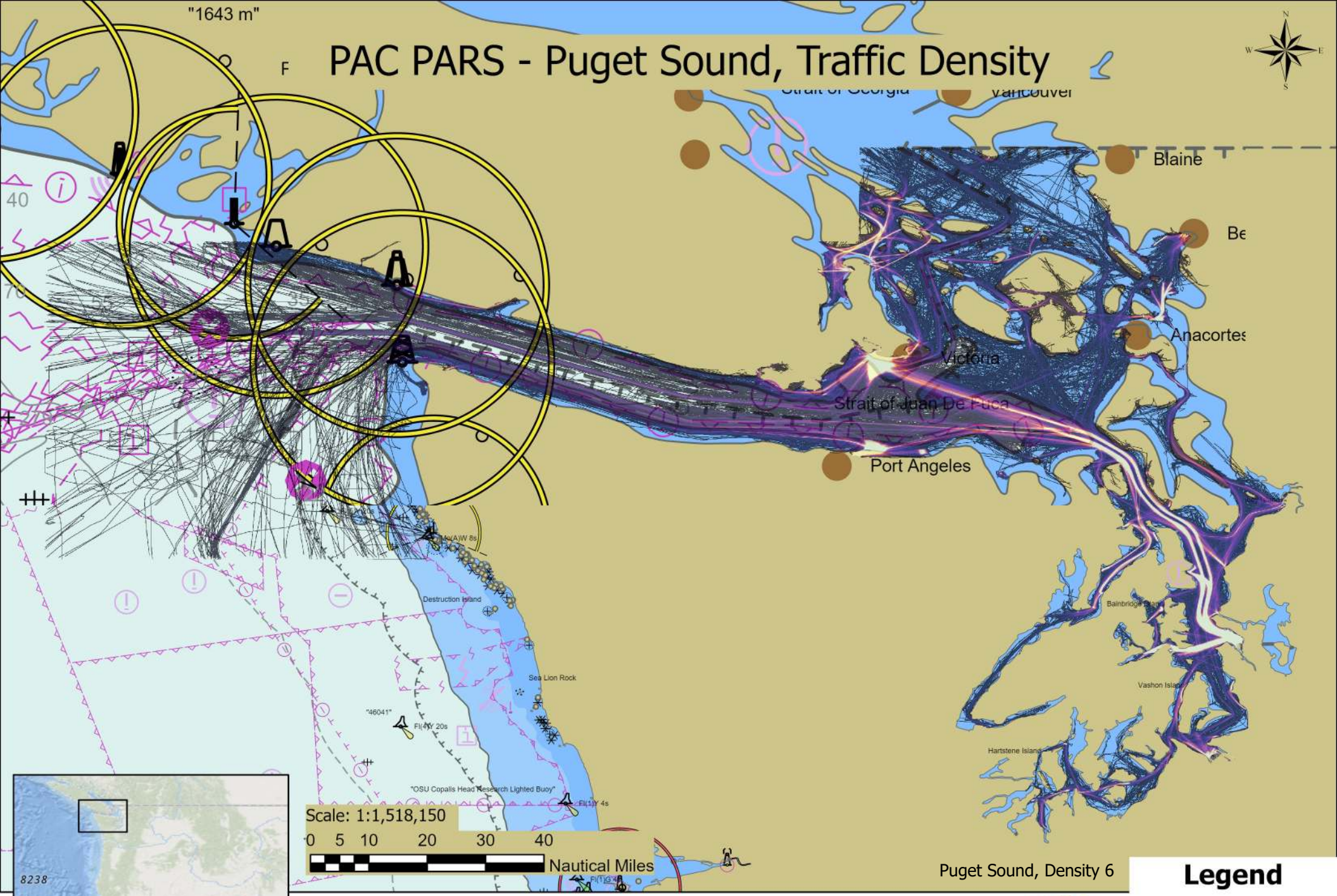
Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/14/2022 11:24 AM

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

PAC PARS - Puget Sound, Traffic Density



Puget Sound, Density 6

Legend

Other 2019

High Traffic Density

Low Traffic Density

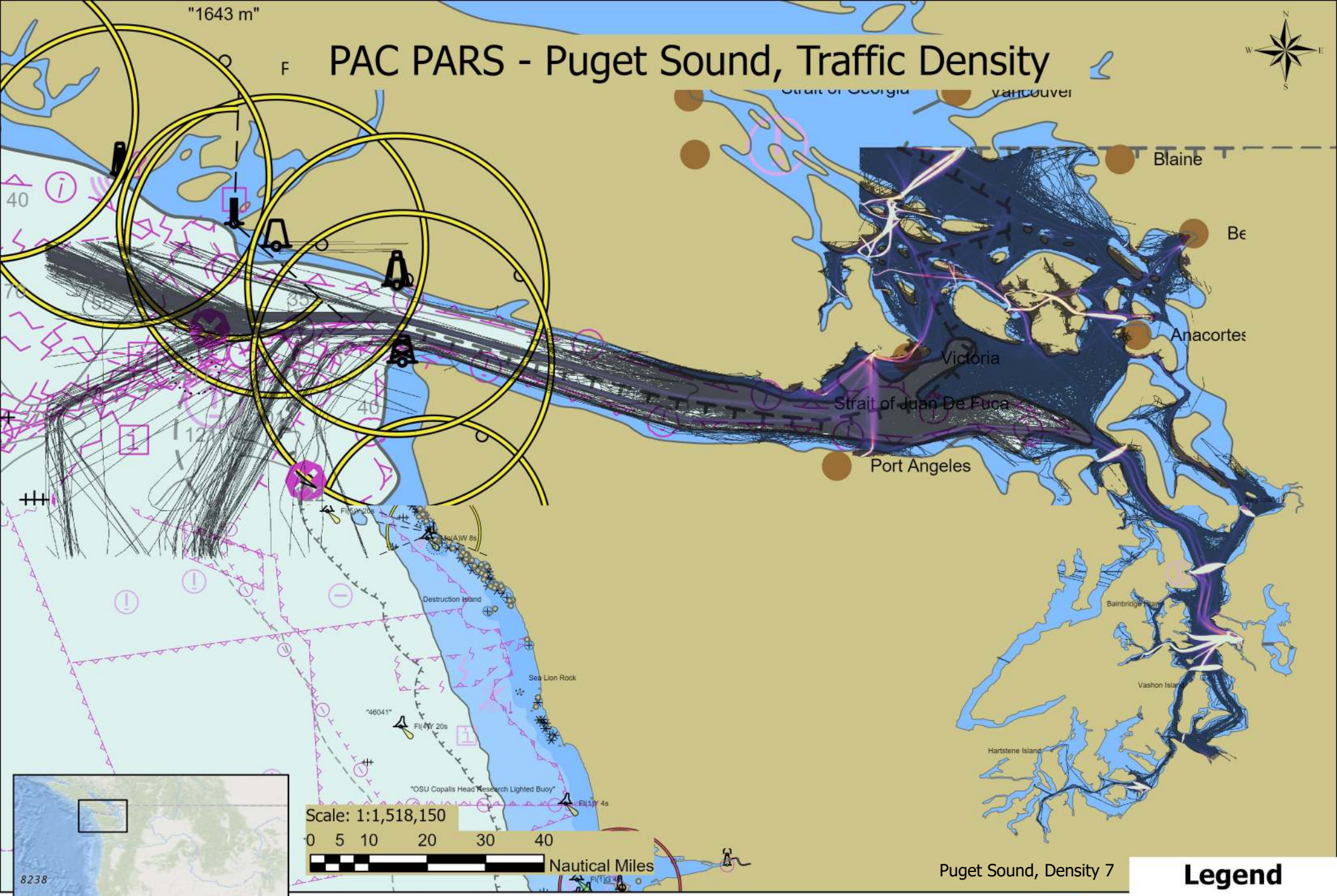
Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/14/2022 11:25 AM

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

PAC PARS - Puget Sound, Traffic Density



Puget Sound, Density 7

Legend

Passenger 2019

High Traffic Density

Low Traffic Density

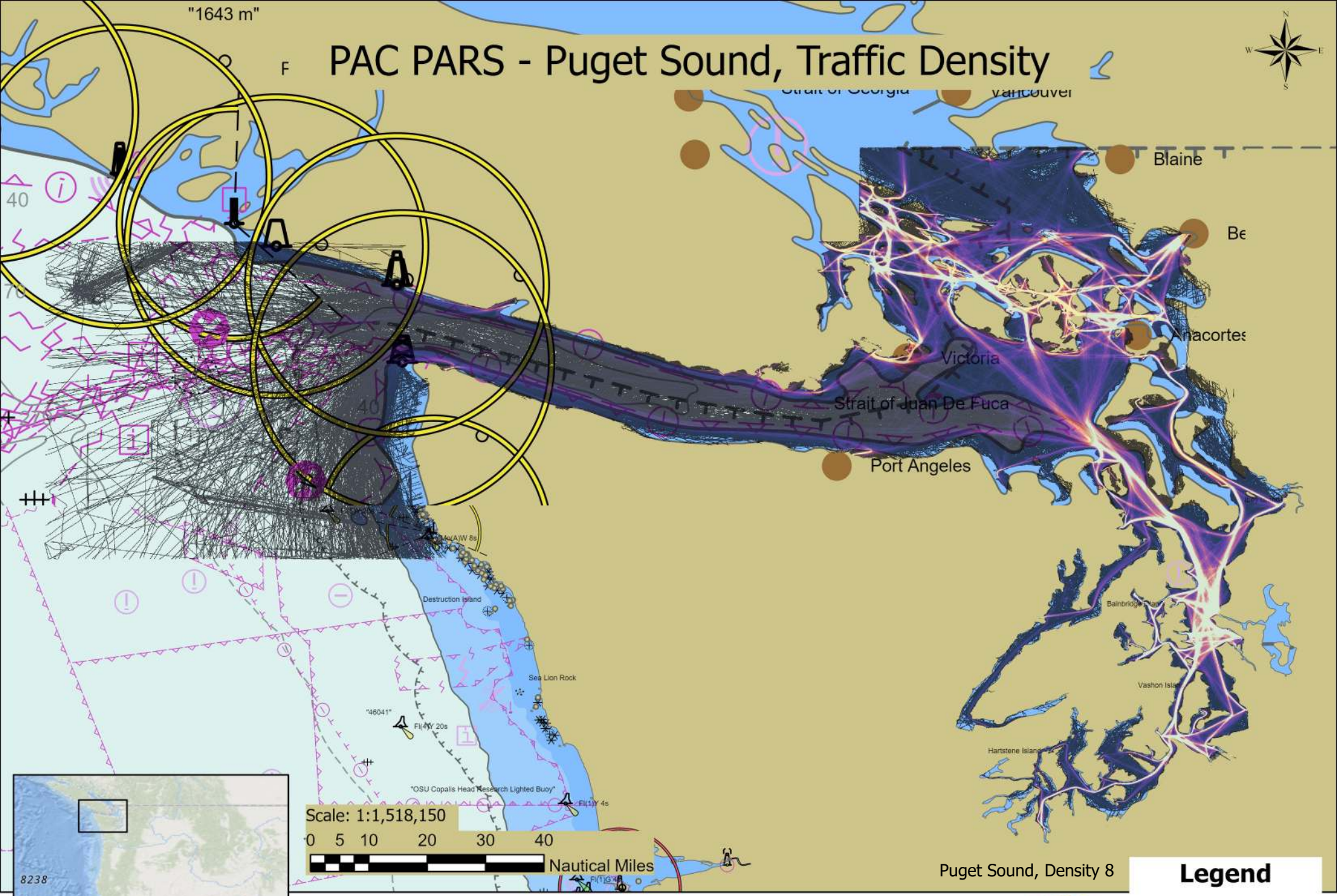
Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/14/2022 11:26 AM

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

PAC PARS - Puget Sound, Traffic Density



Puget Sound, Density 8

Legend

Pleasure Craft 2019

High Traffic Density

Low Traffic Density

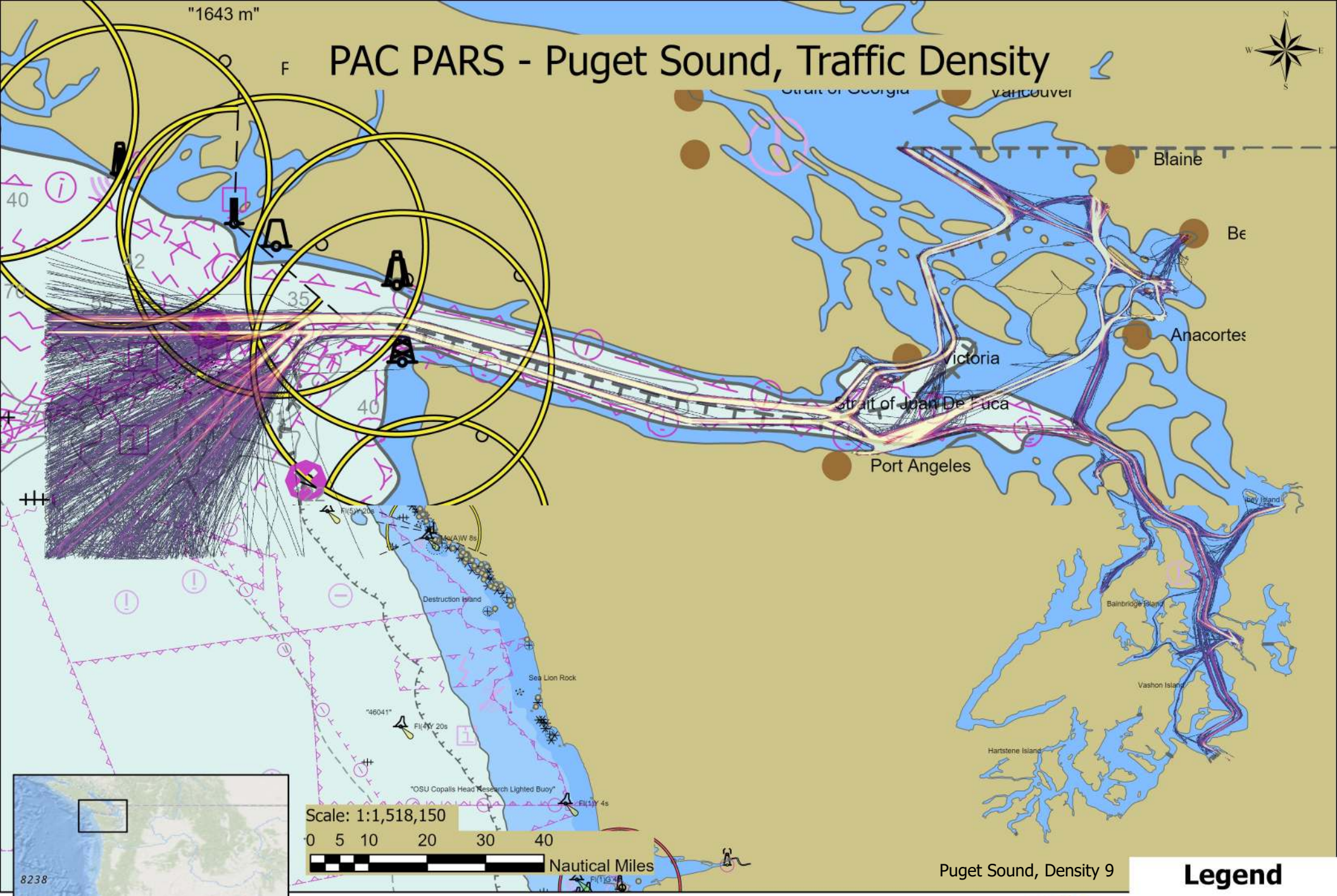
Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/14/2022 11:28 AM

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

PAC PARS - Puget Sound, Traffic Density



Puget Sound, Density 9

Legend

Tanker 2019

High Traffic Density

Low Traffic Density

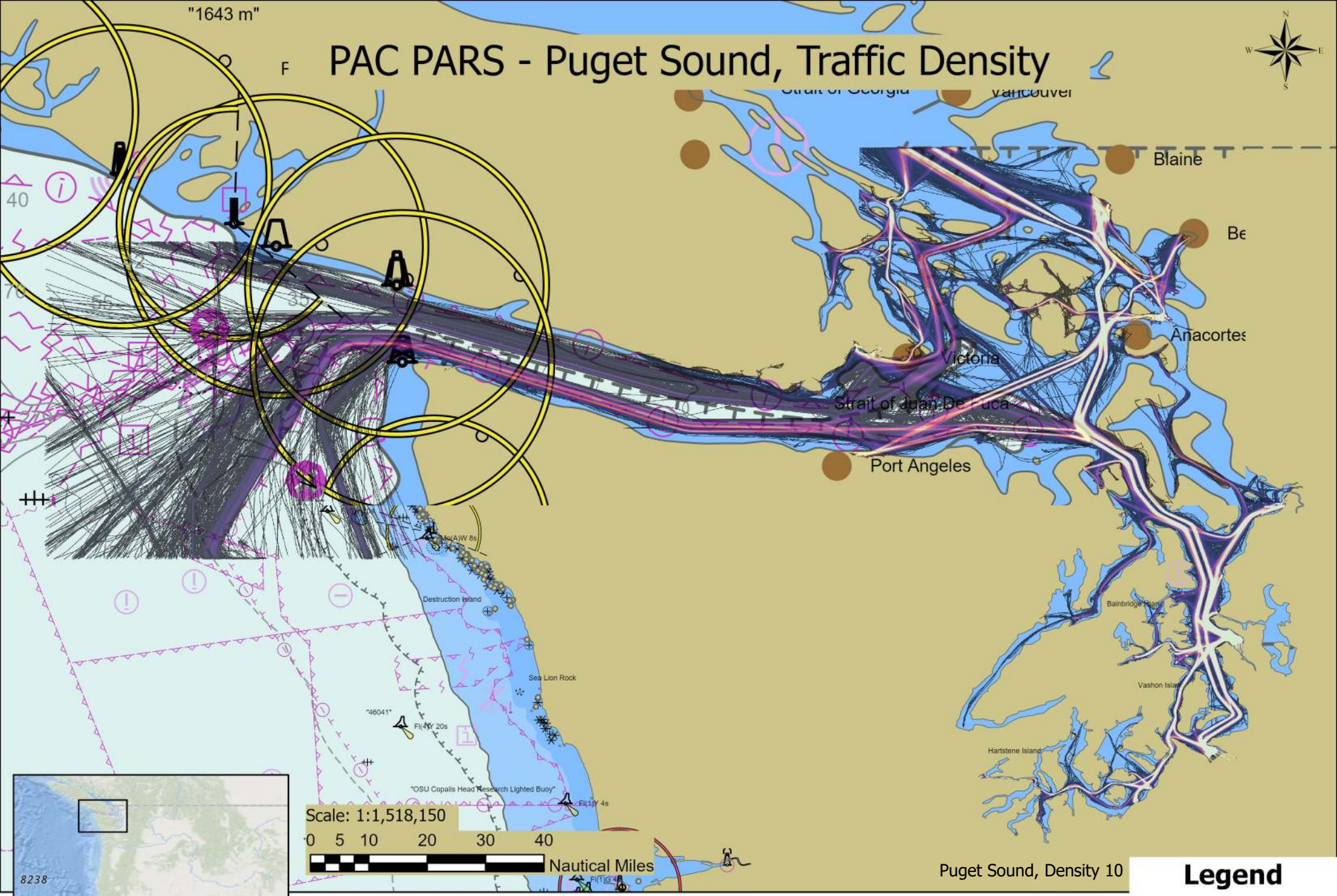
Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/14/2022 11:29 AM

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

PAC PARS - Puget Sound, Traffic Density



Puget Sound, Density 10

Legend

Tug Tow 2019

High Traffic Density

Low Traffic Density

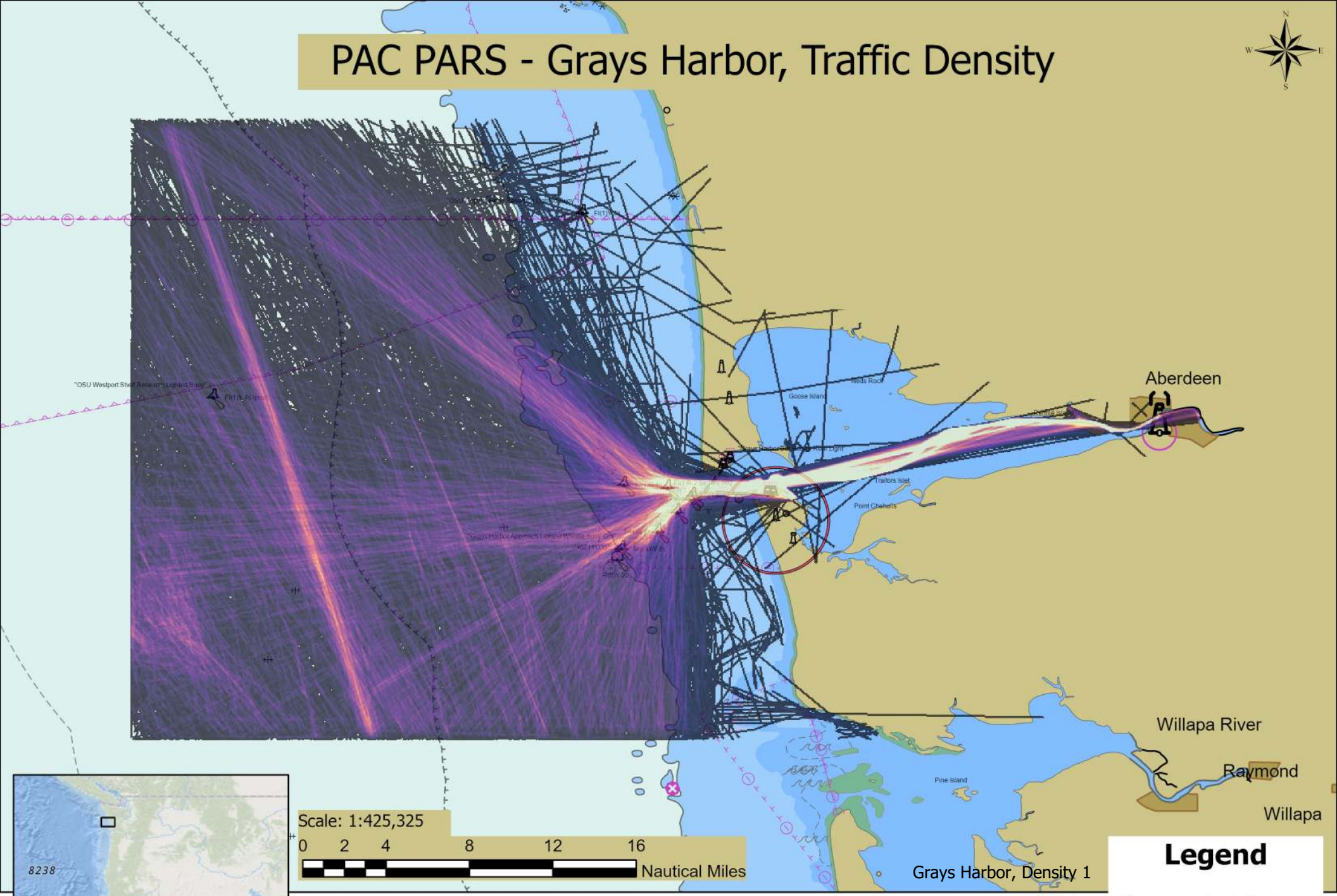
Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/14/2022 11:31 AM

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

PAC PARS - Grays Harbor, Traffic Density



Legend

All Vessels 2019

High Traffic Density

Low Traffic Density

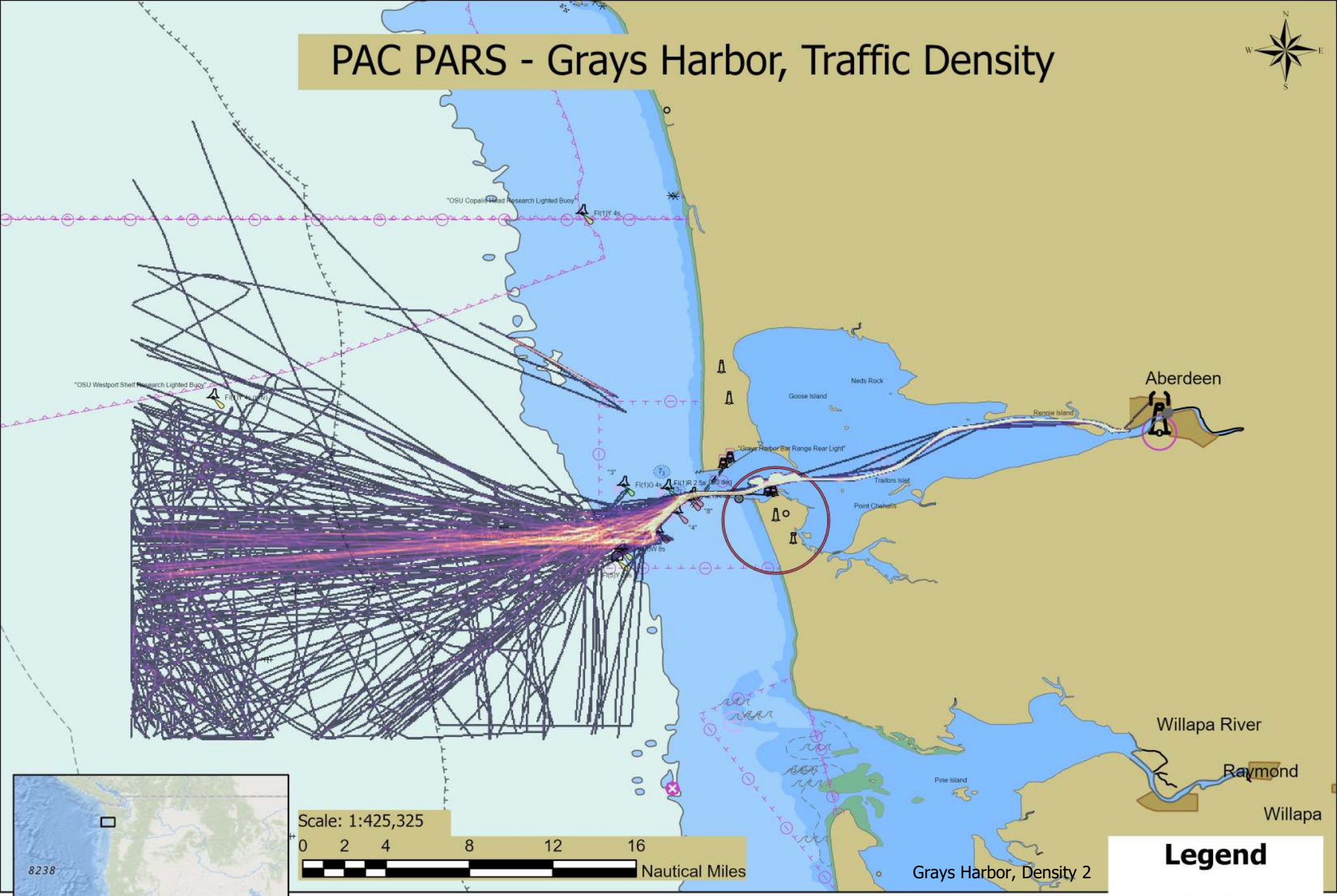
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/14/2022 2:05 PM

PAC PARS - Grays Harbor, Traffic Density



Legend

Cargo 2019

- High Traffic Density
- Low Traffic Density

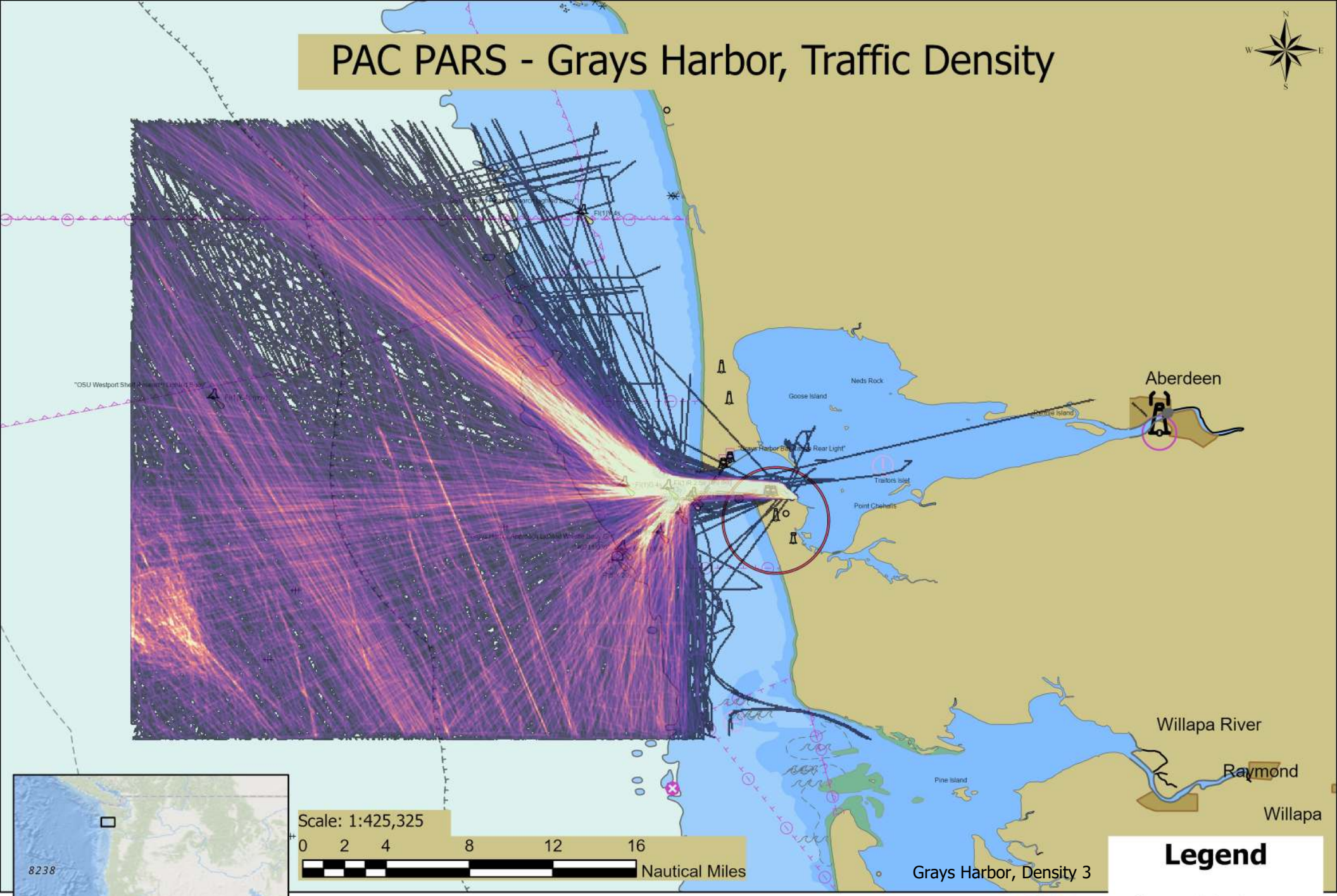
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/14/2022 2:03 PM

PAC PARS - Grays Harbor, Traffic Density



Legend

Fishing 2019

- High Traffic Density
- Low Traffic Density

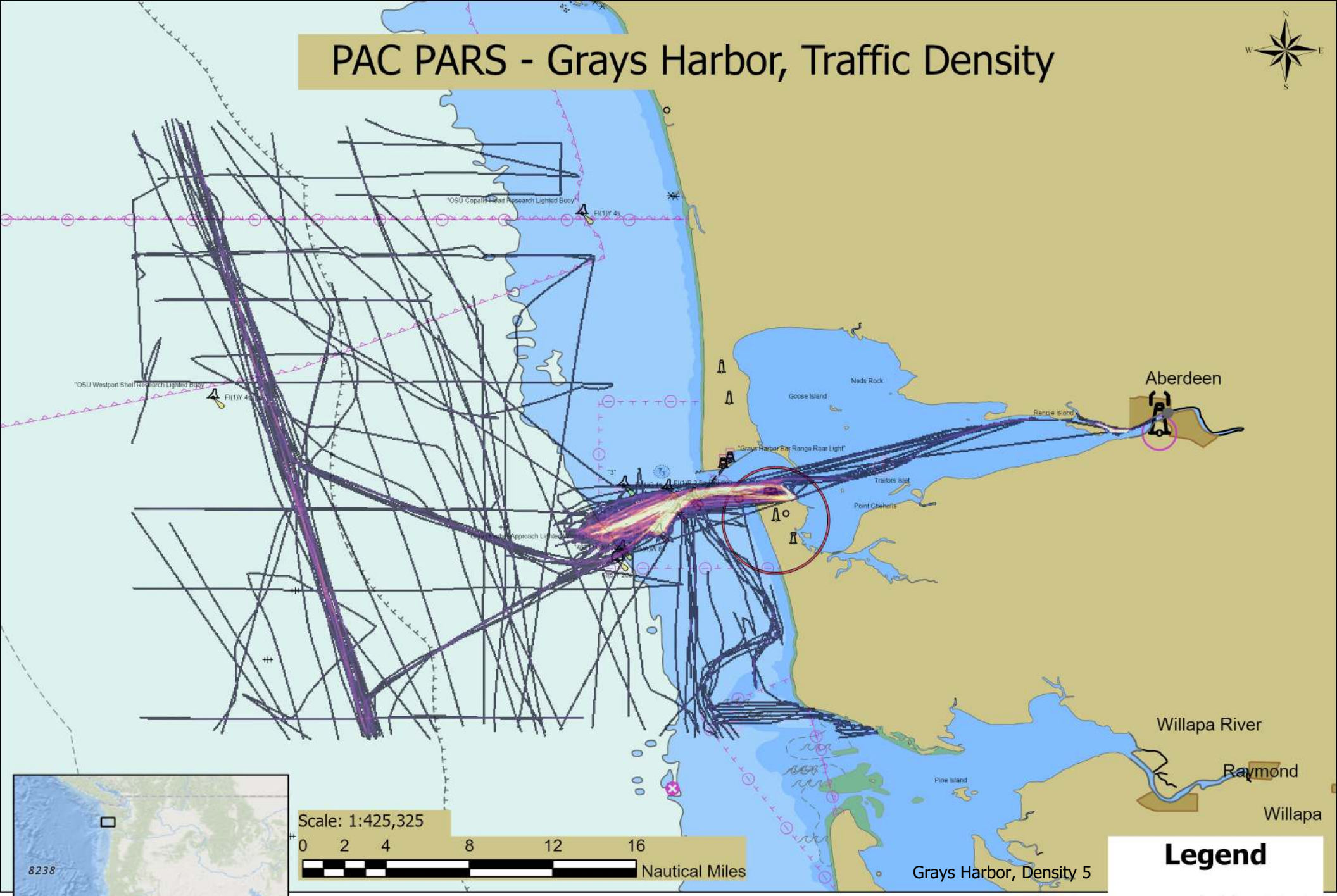
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/14/2022 1:52 PM

PAC PARS - Grays Harbor, Traffic Density



Legend

Not Available 2019

High Traffic Density

Low Traffic Density

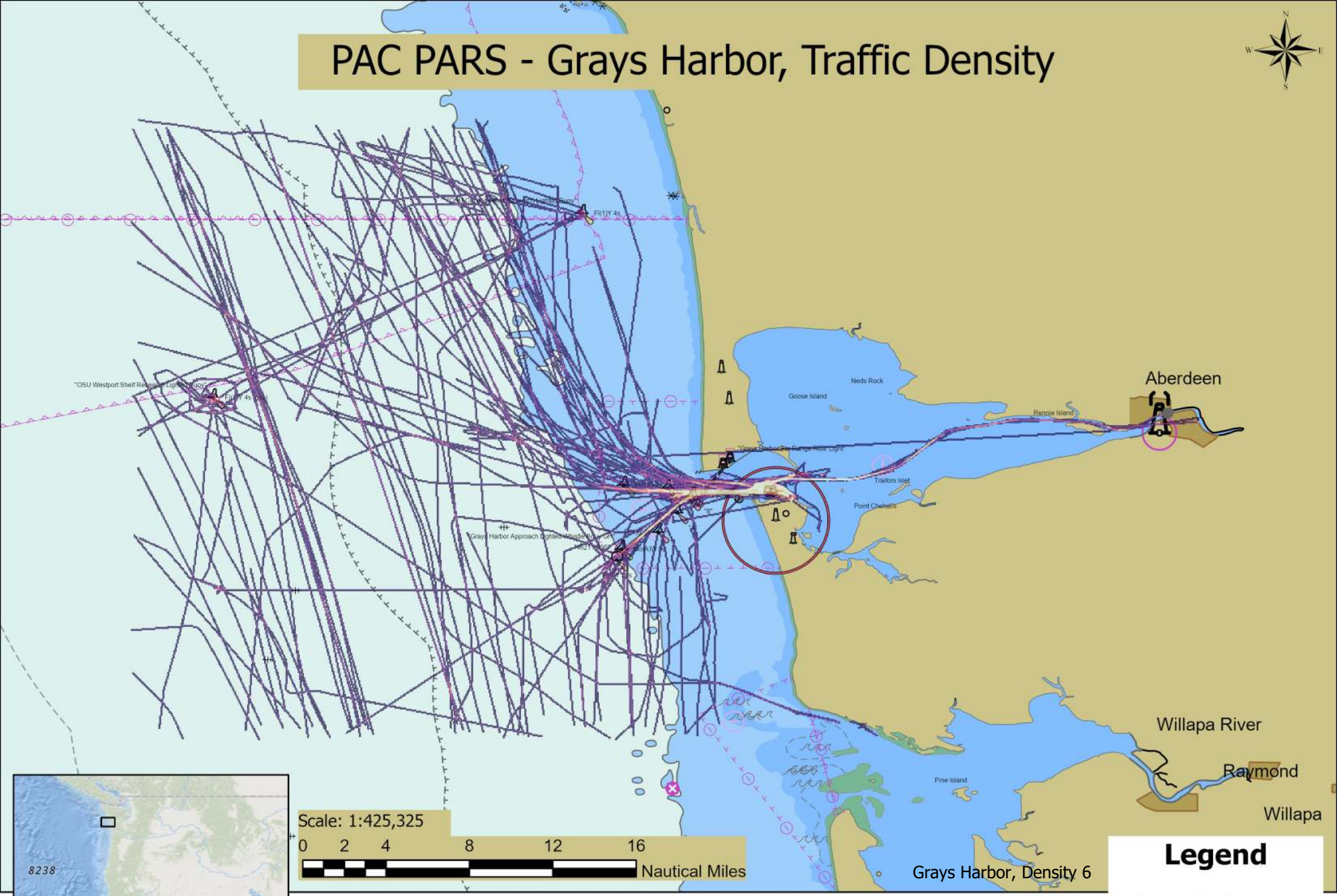
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/14/2022 1:47 PM

PAC PARS - Grays Harbor, Traffic Density



Legend

Other 2019

High Traffic Density

Low Traffic Density

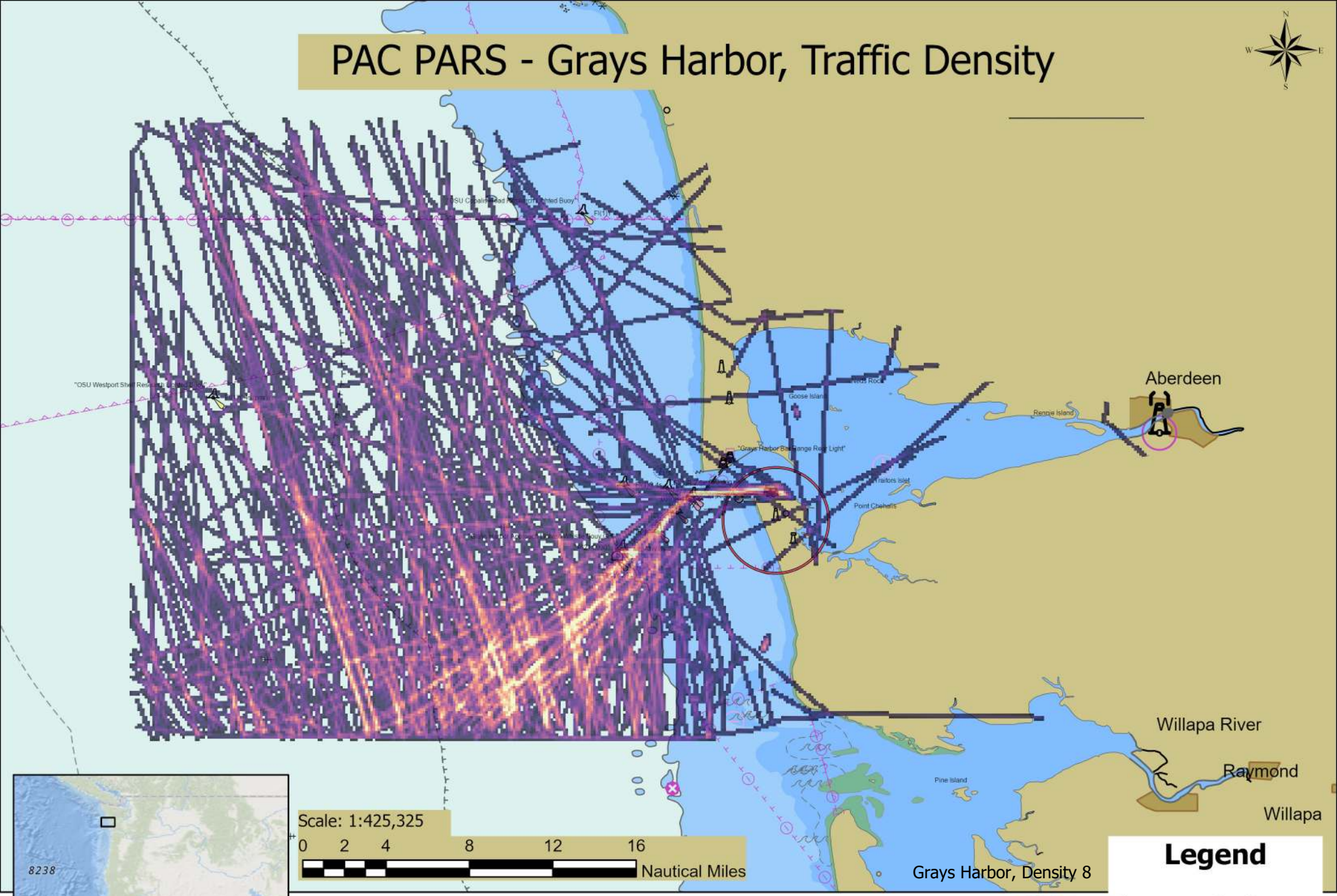
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/14/2022 1:42 PM

PAC PARS - Grays Harbor, Traffic Density



Legend

Pleasure Craft
2019

High Traffic Density

Low Traffic Density

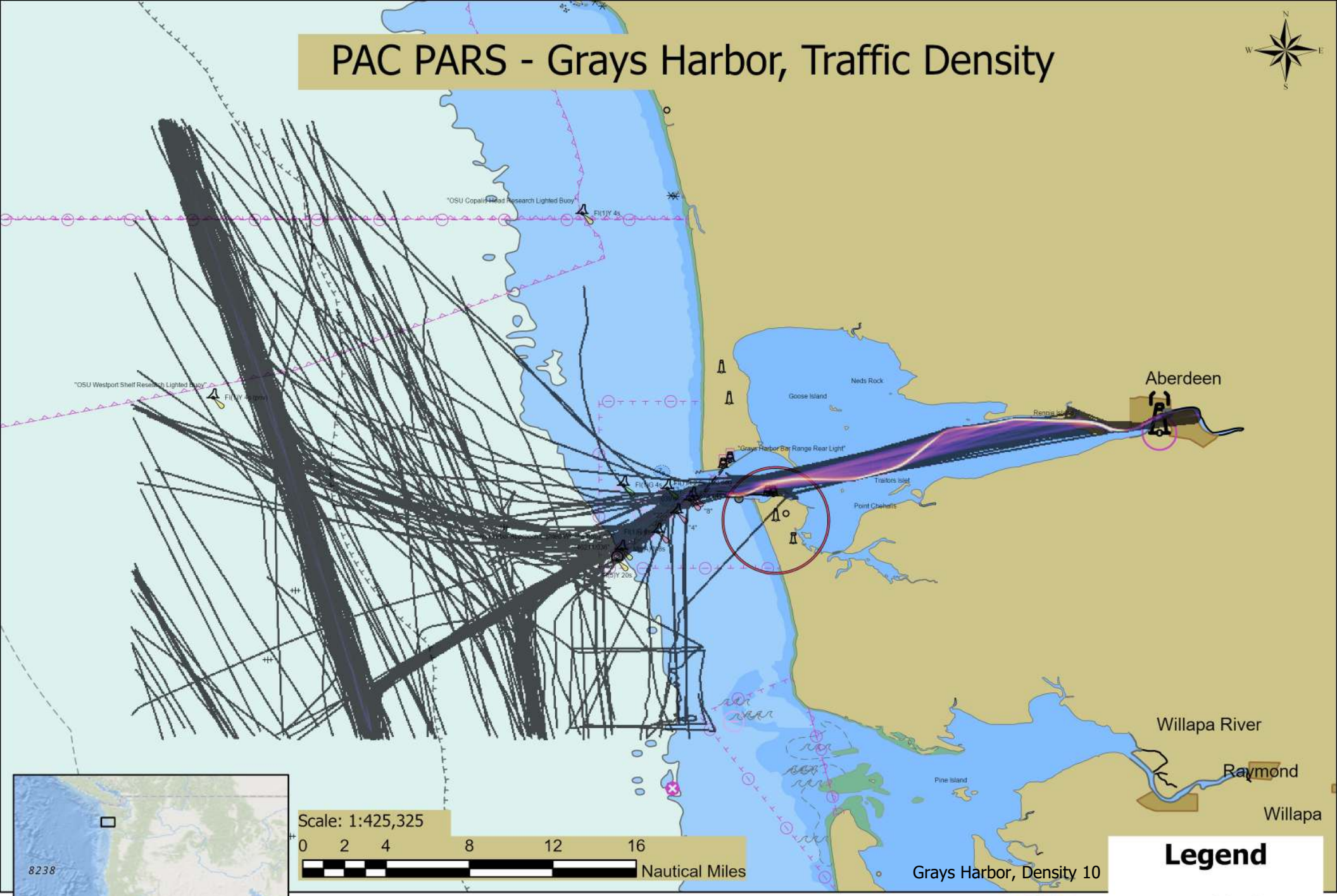
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/14/2022 2:06 PM

PAC PARS - Grays Harbor, Traffic Density



Legend

Tug Tow 2019

High Traffic Density

Low Traffic Density

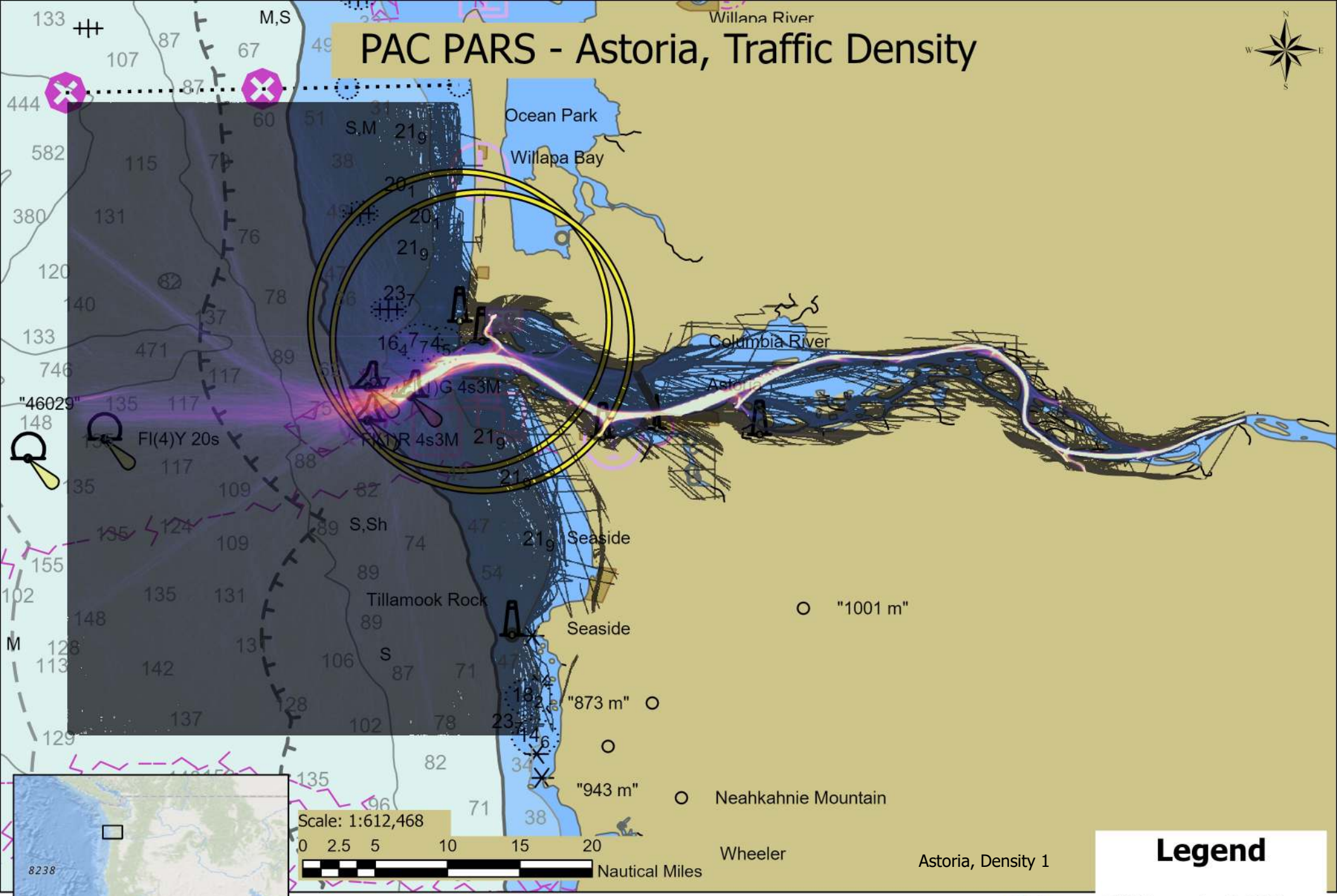
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/14/2022 1:38 PM

PAC PARS - Astoria, Traffic Density



Legend

All Vessels 2019

High Traffic Density

Low Traffic Density

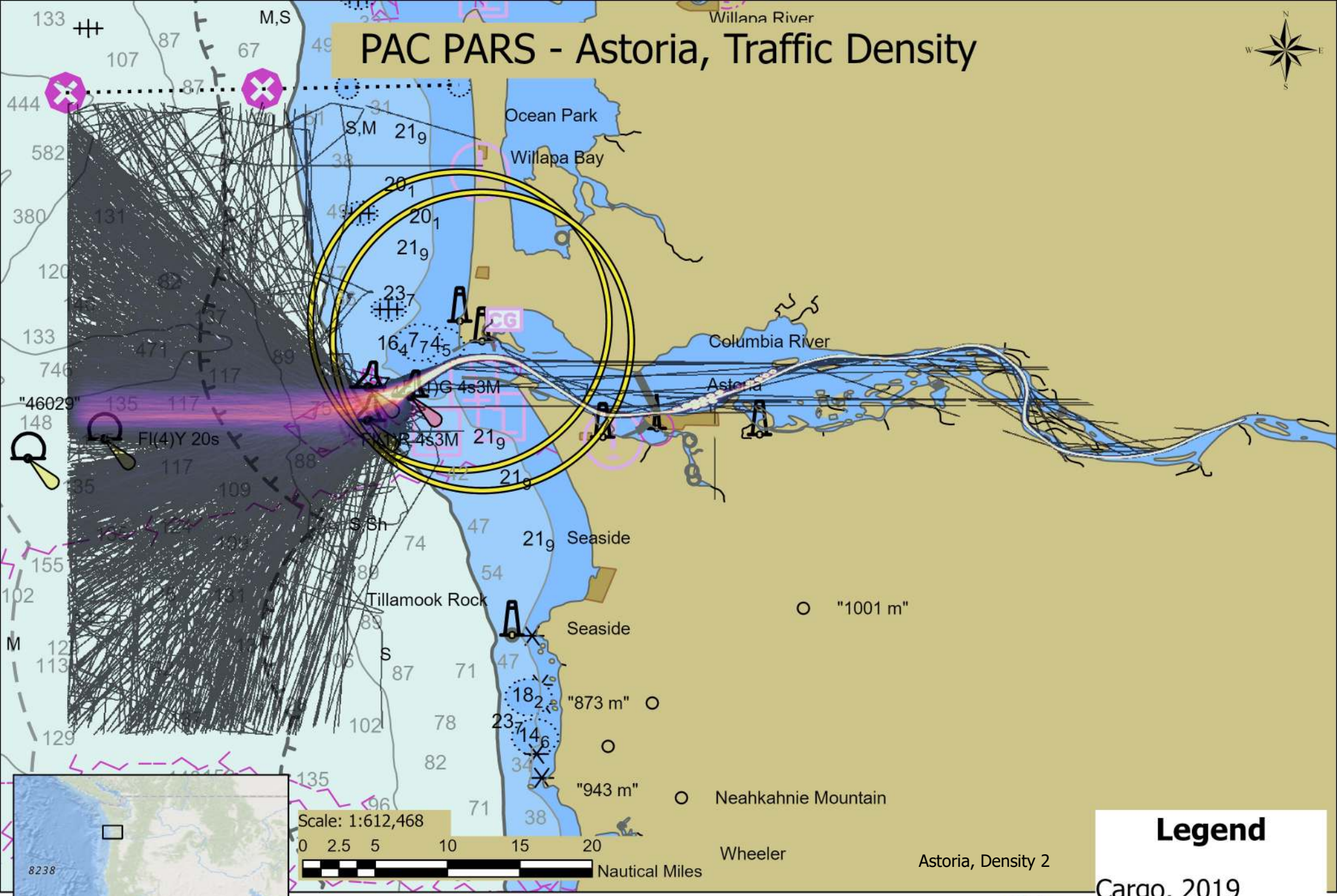
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/18/2022 9:44 AM

PAC PARS - Astoria, Traffic Density



Legend

Cargo, 2019

- High Traffic Density
- Low Traffic Density

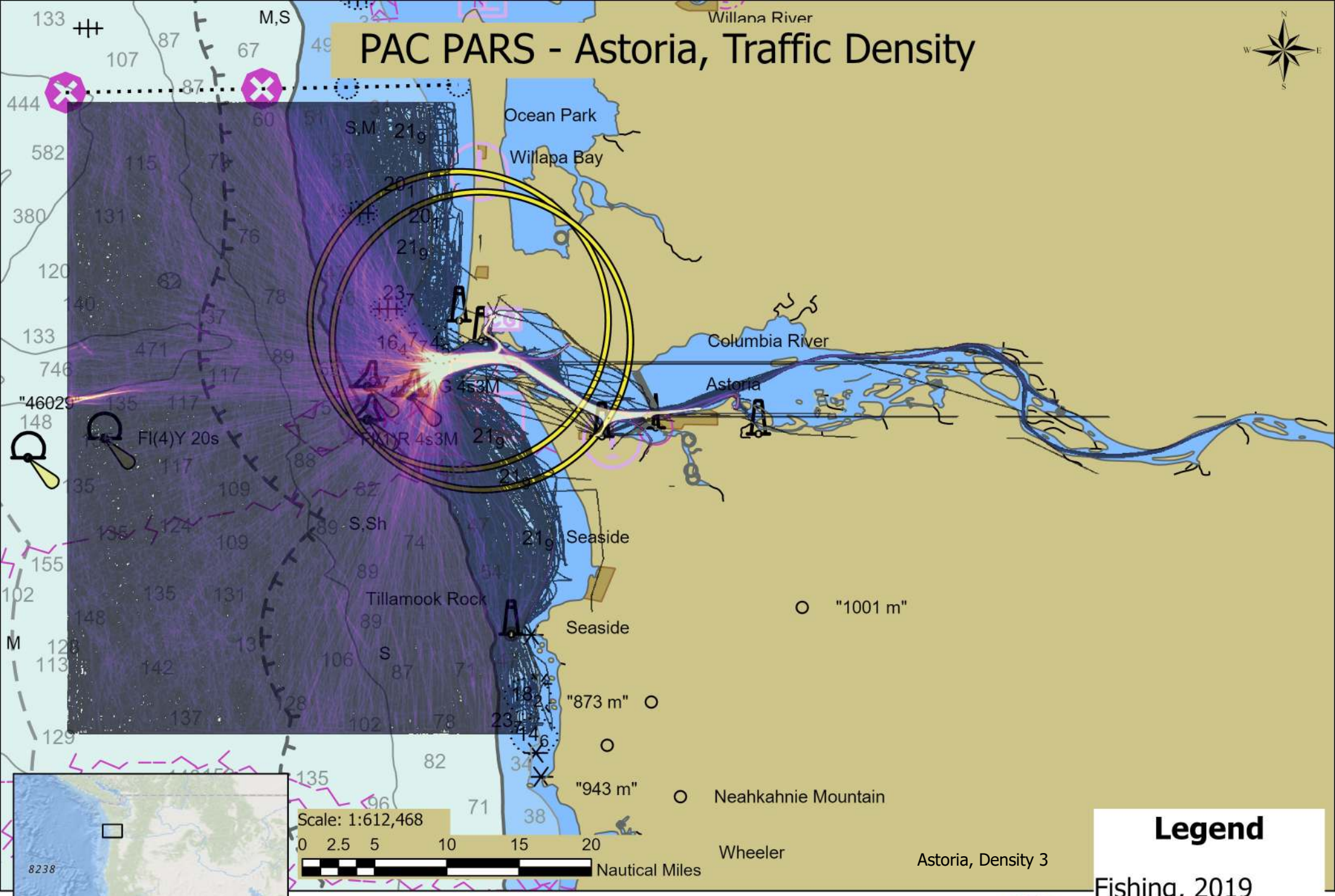
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/18/2022 9:01 AM

PAC PARS - Astoria, Traffic Density



Astoria, Density 3

Legend

Fishing, 2019

High Traffic Density

Low Traffic Density

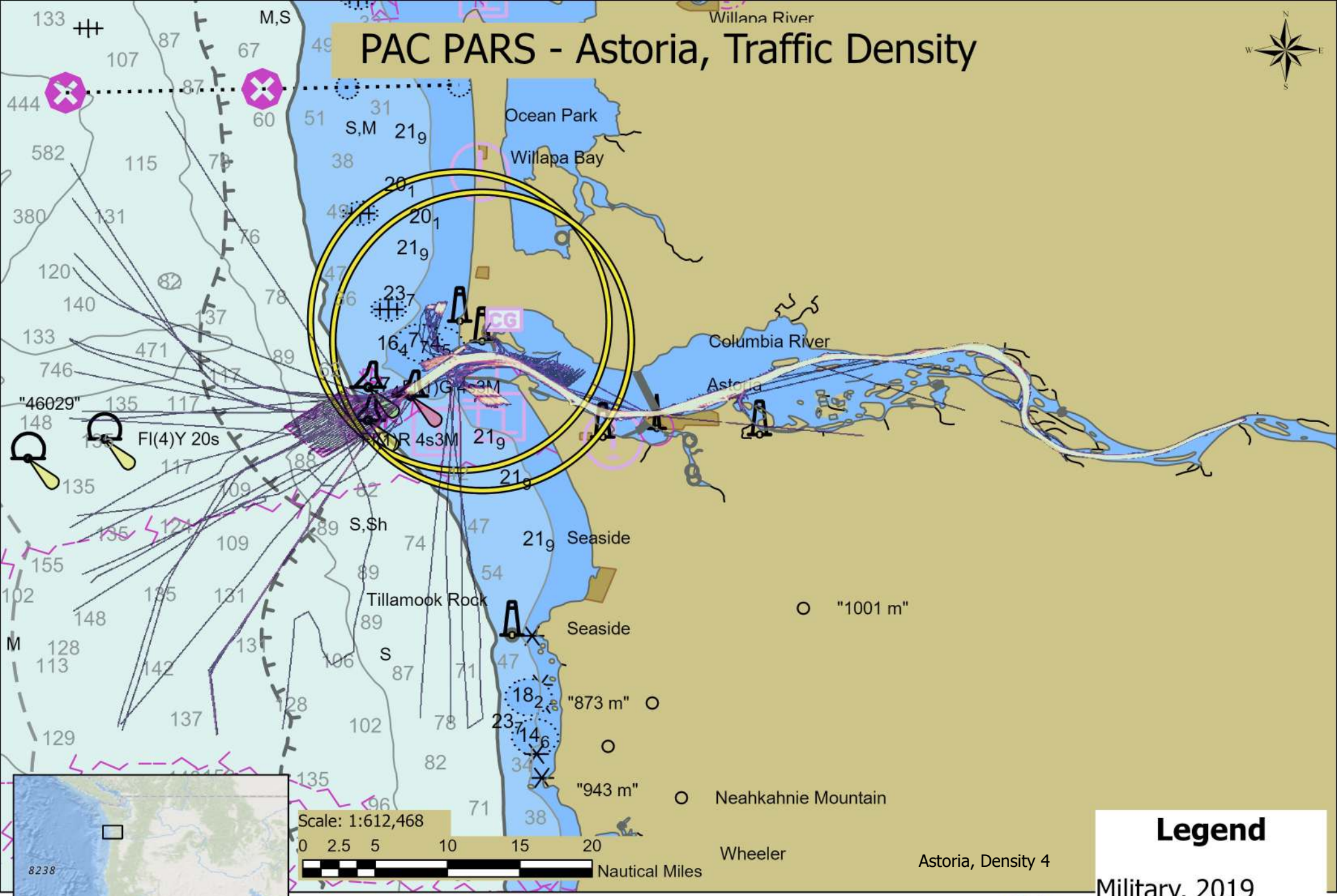
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/18/2022 9:03 AM

PAC PARS - Astoria, Traffic Density



Astoria, Density 4

Legend

Military, 2019

High Traffic Density

Low Traffic Density

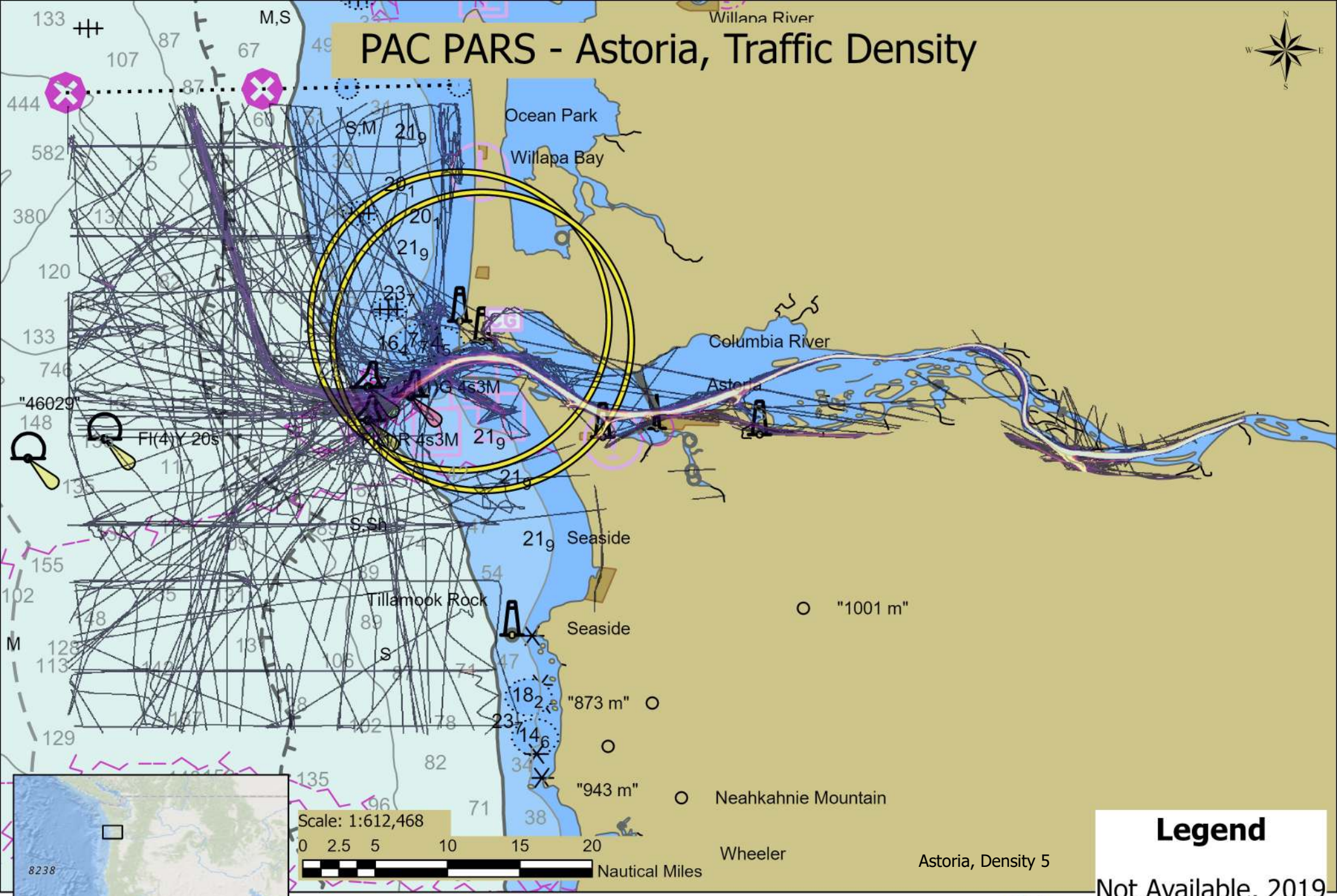
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/18/2022 9:05 AM

PAC PARS - Astoria, Traffic Density



Astoria, Density 5

Legend

Not Available, 2019

High Traffic Density

Low Traffic Density

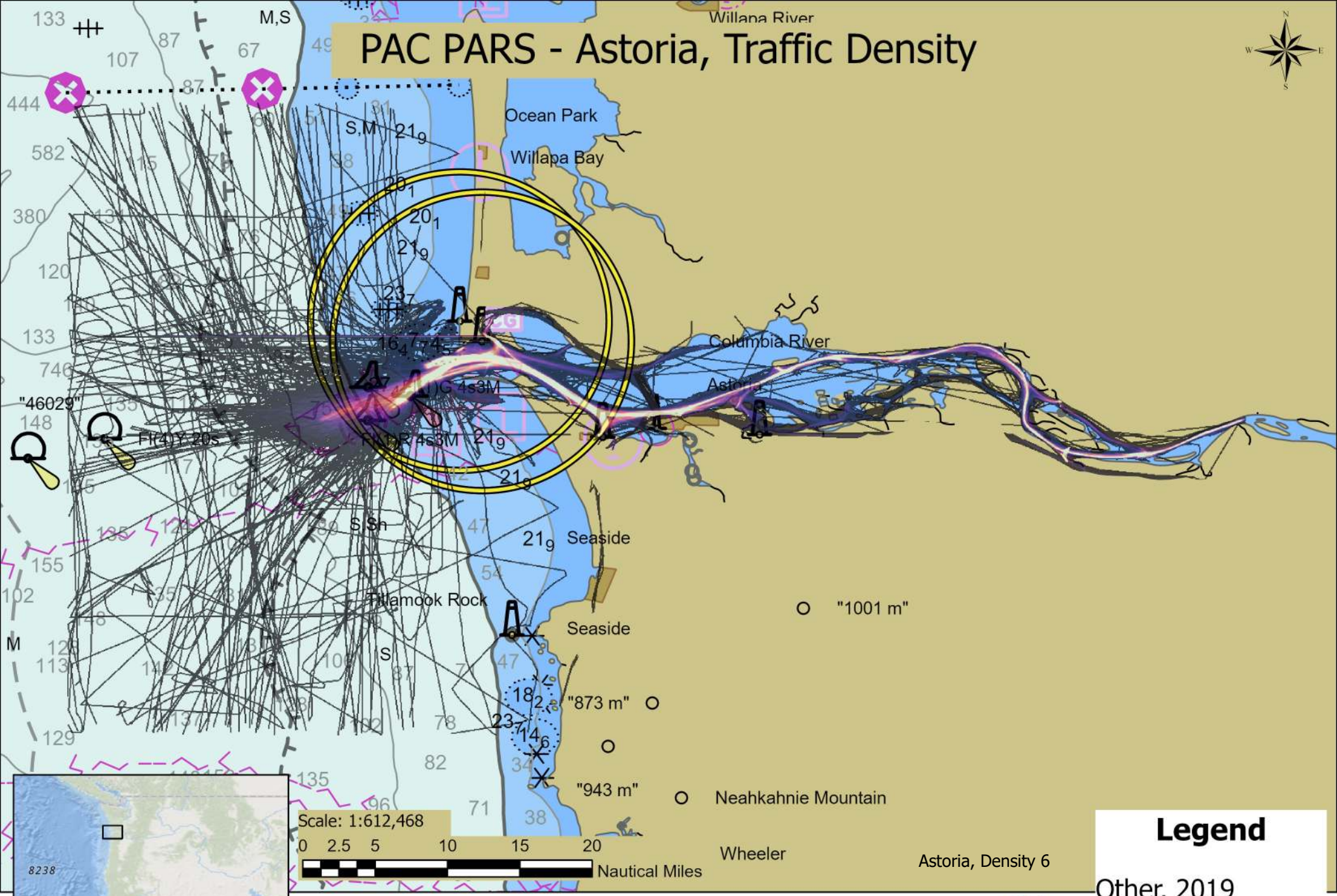
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/18/2022 9:08 AM

PAC PARS - Astoria, Traffic Density



Astoria, Density 6

Legend

Other, 2019

High Traffic Density

Low Traffic Density

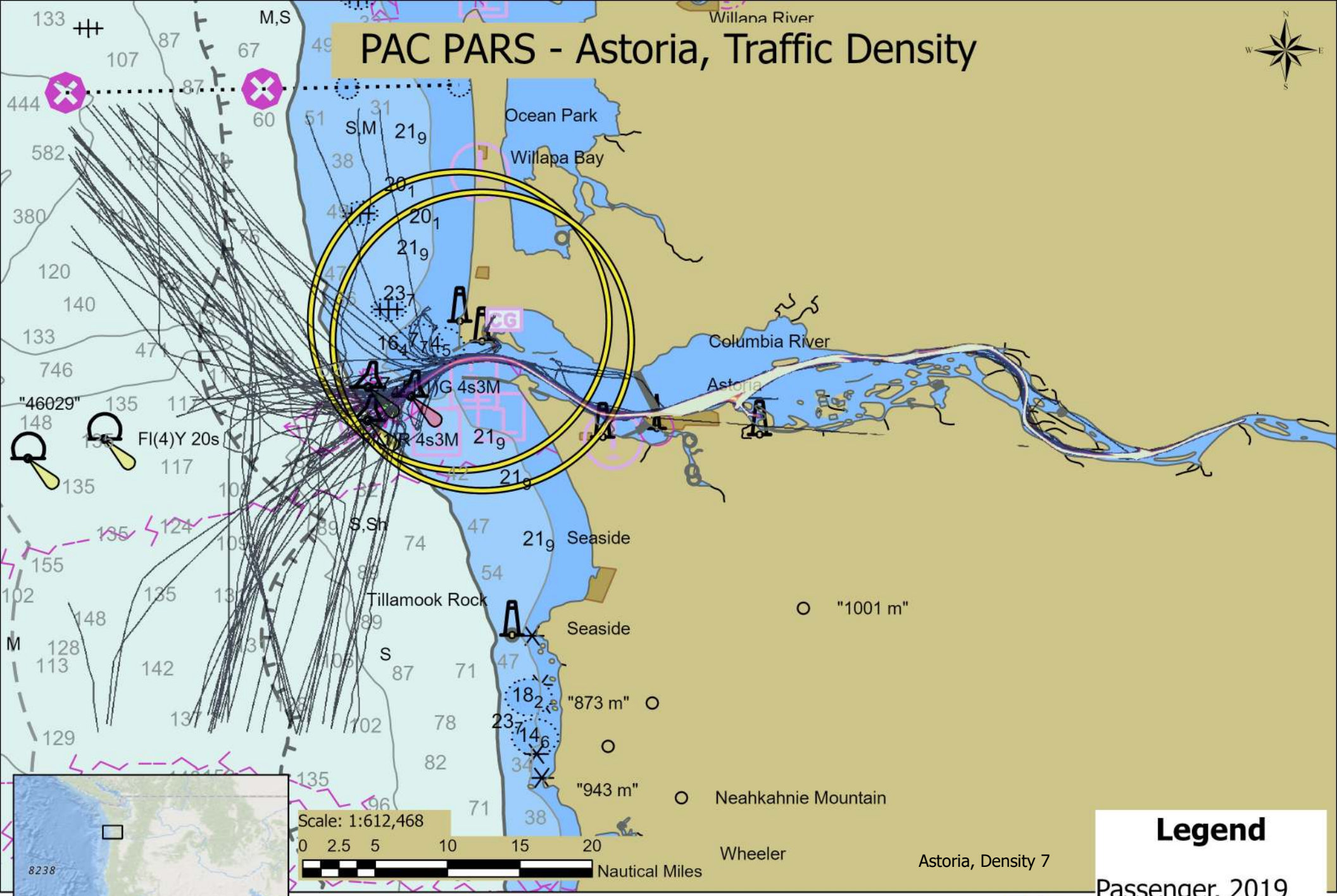
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/18/2022 9:09 AM

PAC PARS - Astoria, Traffic Density



Astoria, Density 7

Legend

Passenger, 2019

- High Traffic Density
- Low Traffic Density

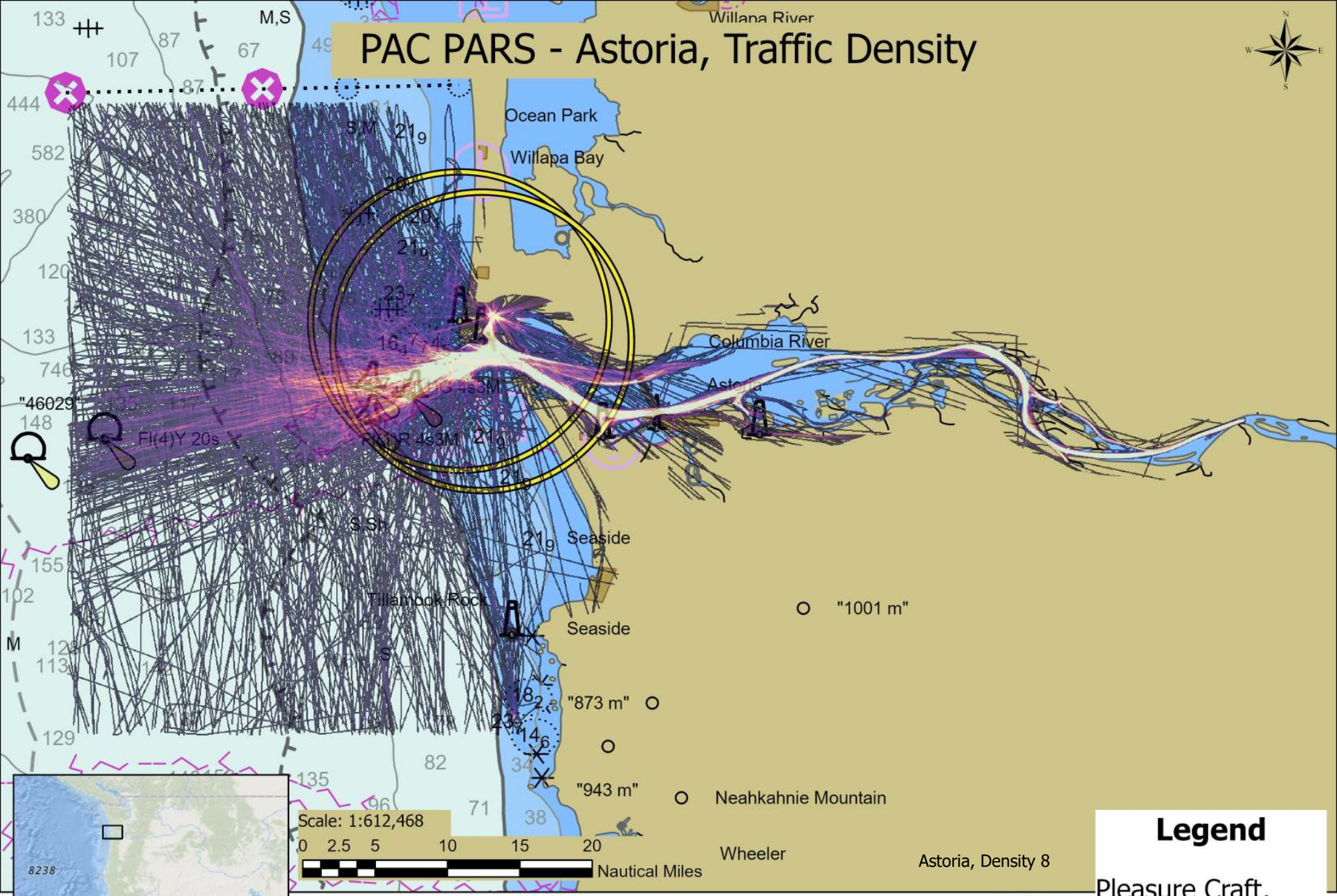
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/18/2022 9:11 AM

PAC PARS - Astoria, Traffic Density



Astoria, Density 8

Legend

Pleasure Craft, 2019

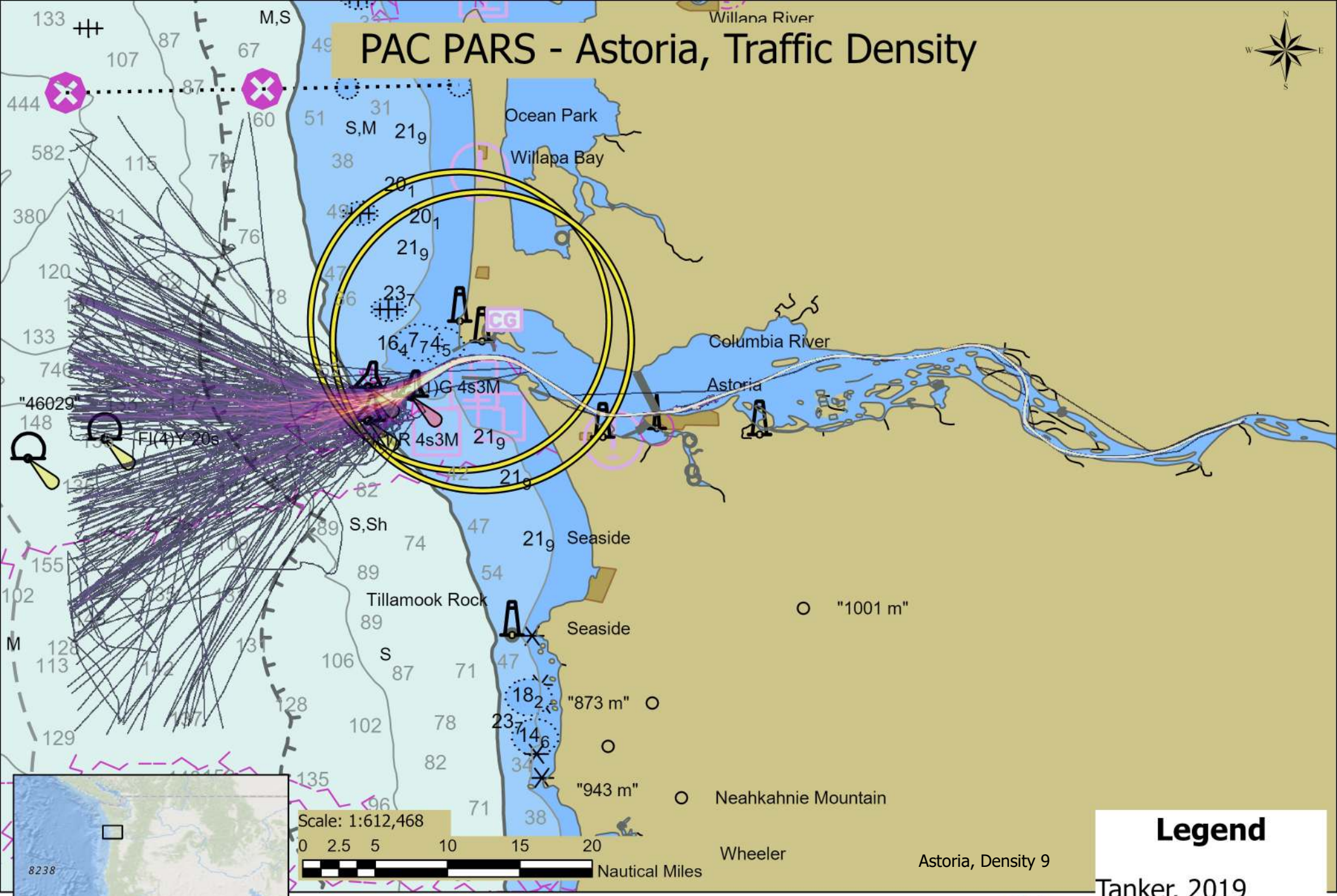
High Traffic Density

Low Traffic Density

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.
Last Update: 3/18/2022 9:13 AM

PAC PARS - Astoria, Traffic Density



Legend

Tanker, 2019

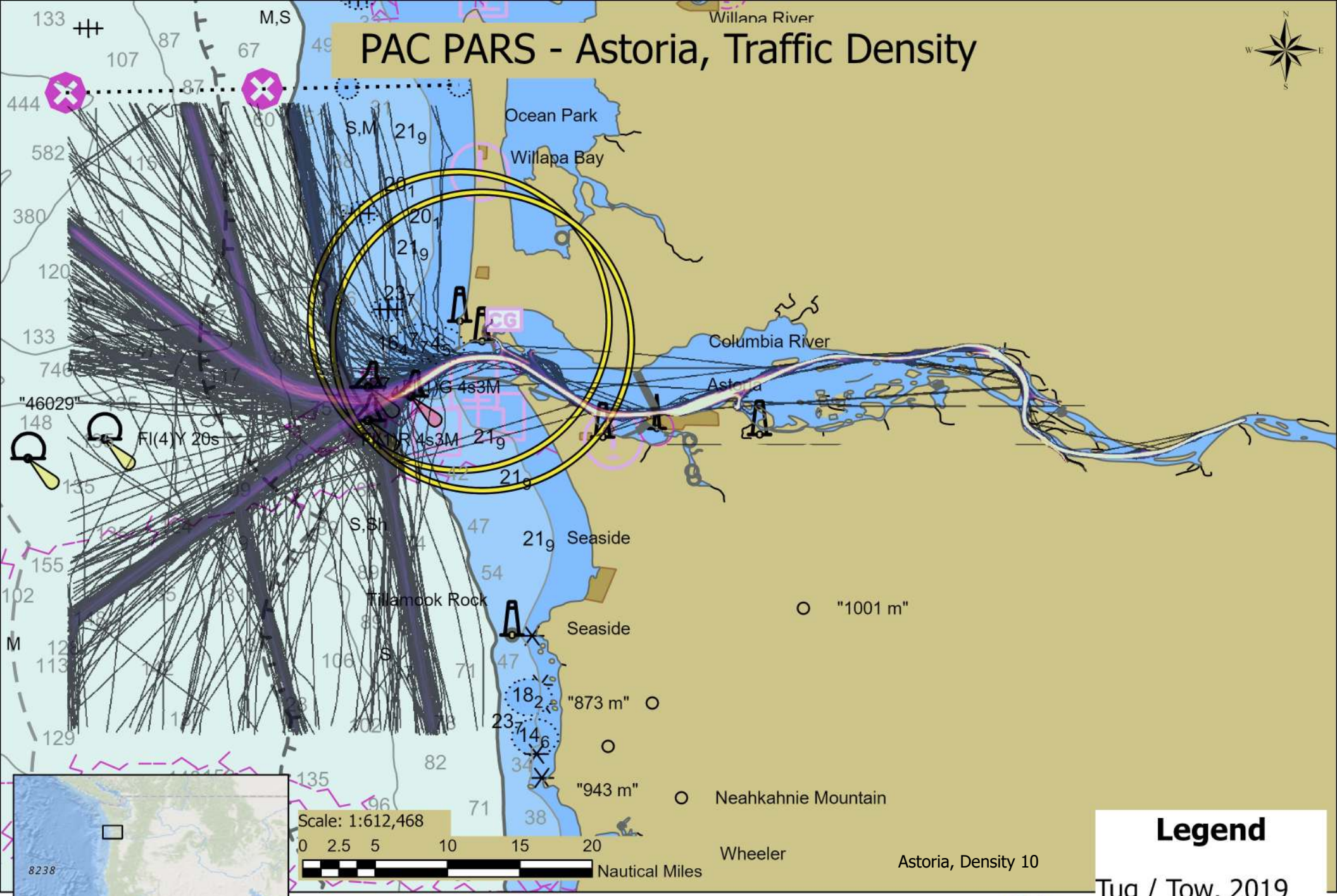
- High Traffic Density
- Low Traffic Density

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

Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

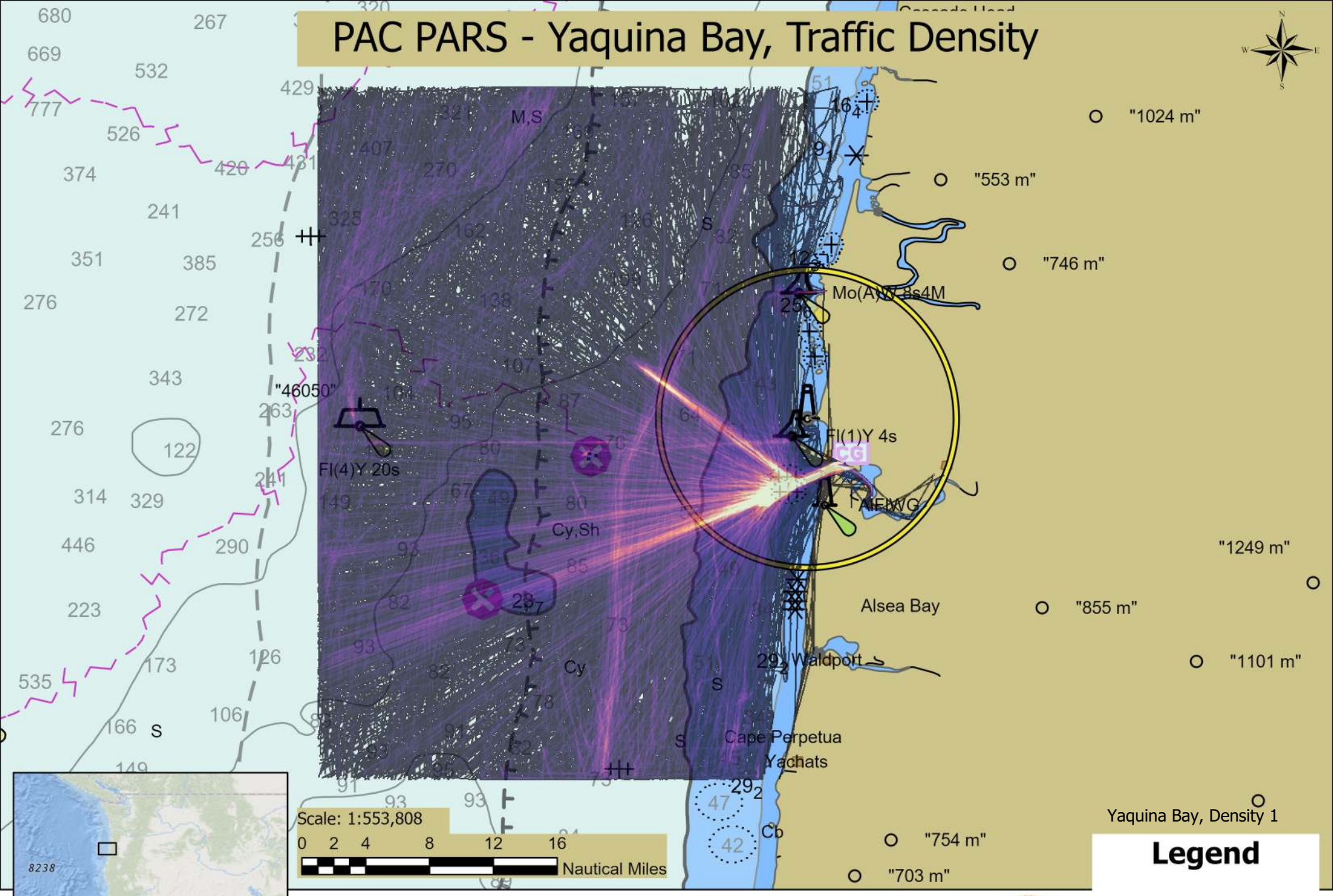
Last Update: 3/18/2022 9:15 AM



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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.
Last Update: 3/18/2022 9:16 AM

PAC PARS - Yaquina Bay, Traffic Density



Yaquina Bay, Density 1

Legend

All Vessels 2019

High Traffic Density

Low Traffic Density

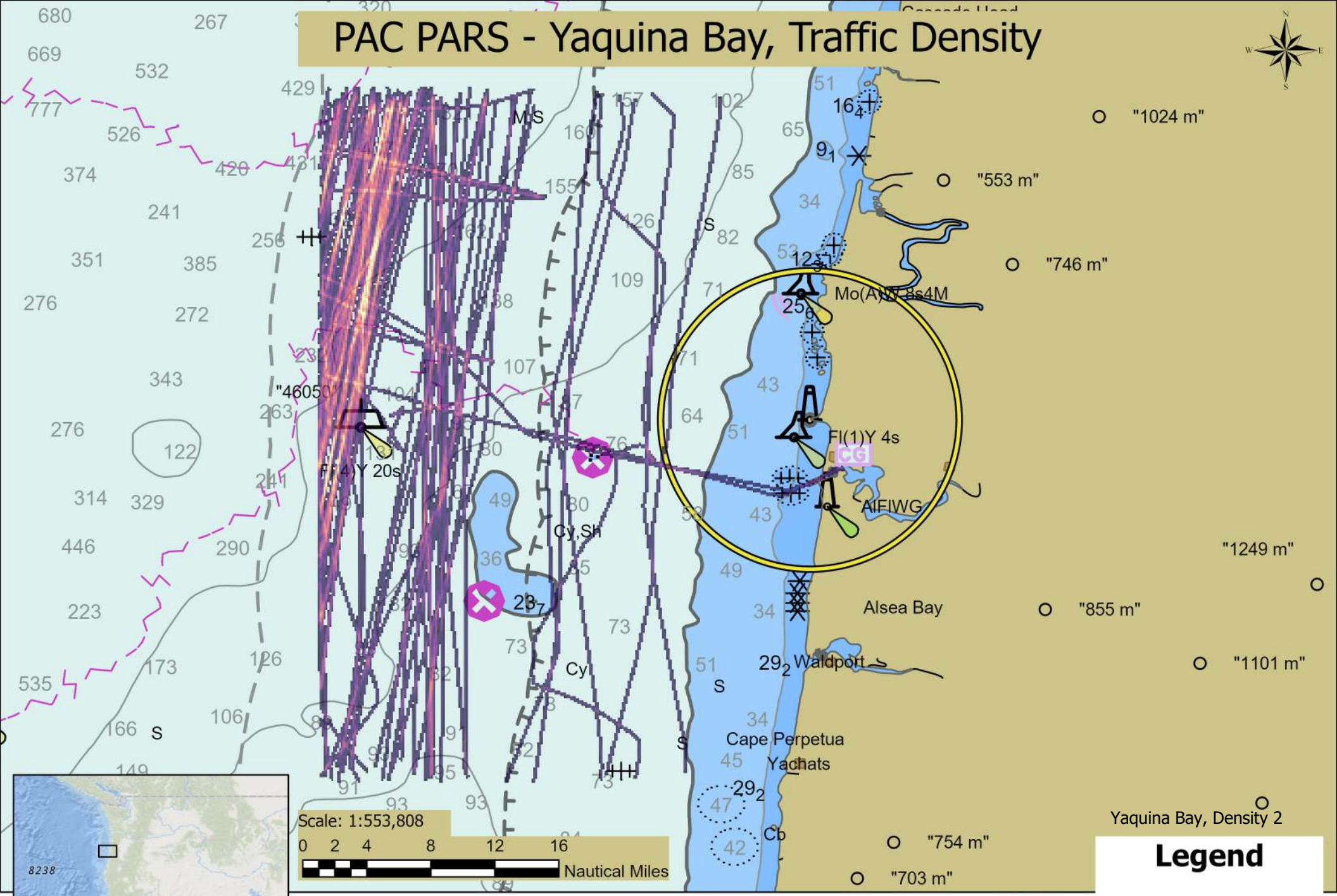
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/14/2022 11:02 AM

PAC PARS - Yaquina Bay, Traffic Density



Legend

Cargo 2019

High Traffic Density

Low Traffic Density

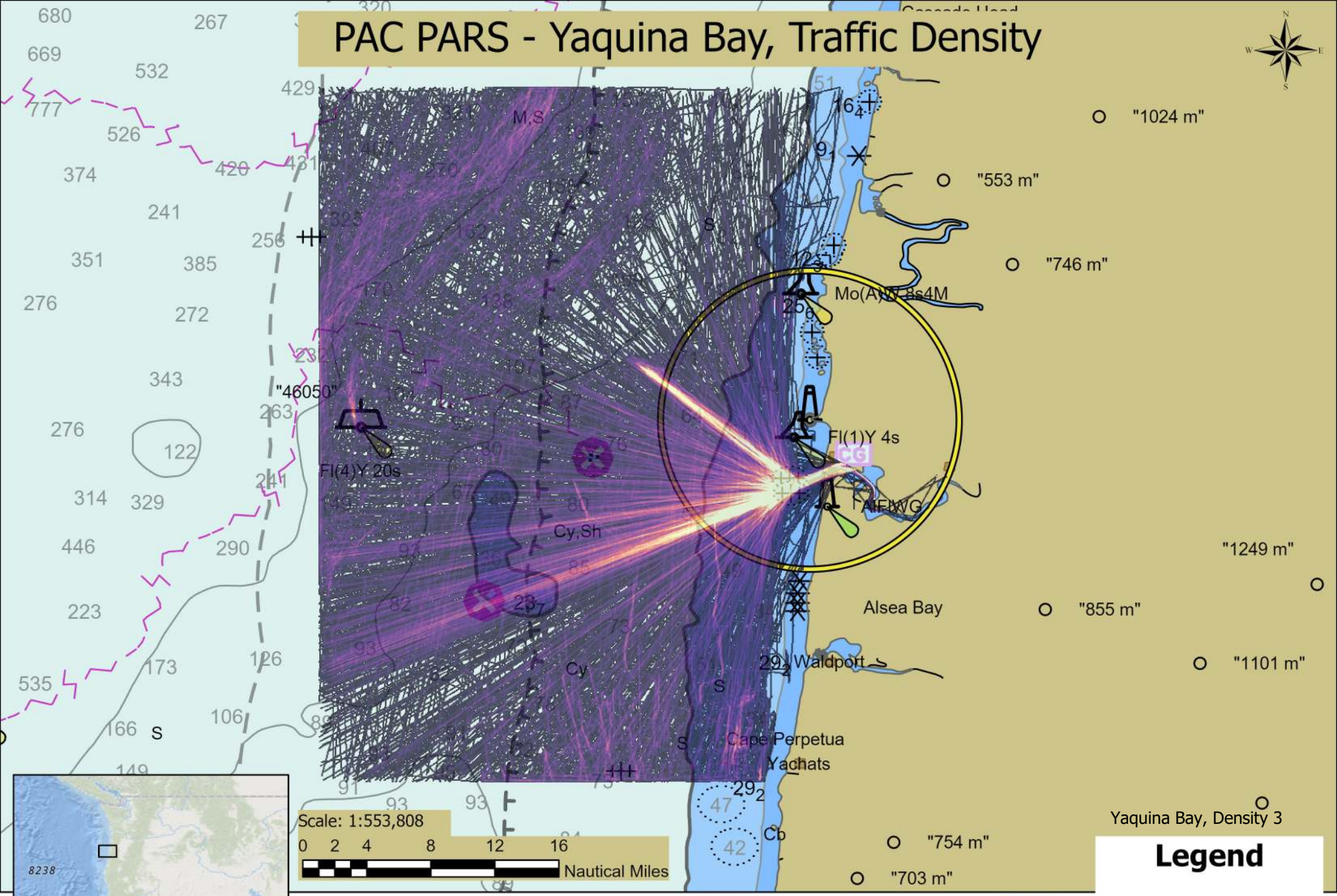
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/14/2022 10:44 AM

PAC PARS - Yaquina Bay, Traffic Density



Yaquina Bay, Density 3

Legend

Fishing 2019

High Traffic Density

Low Traffic Density

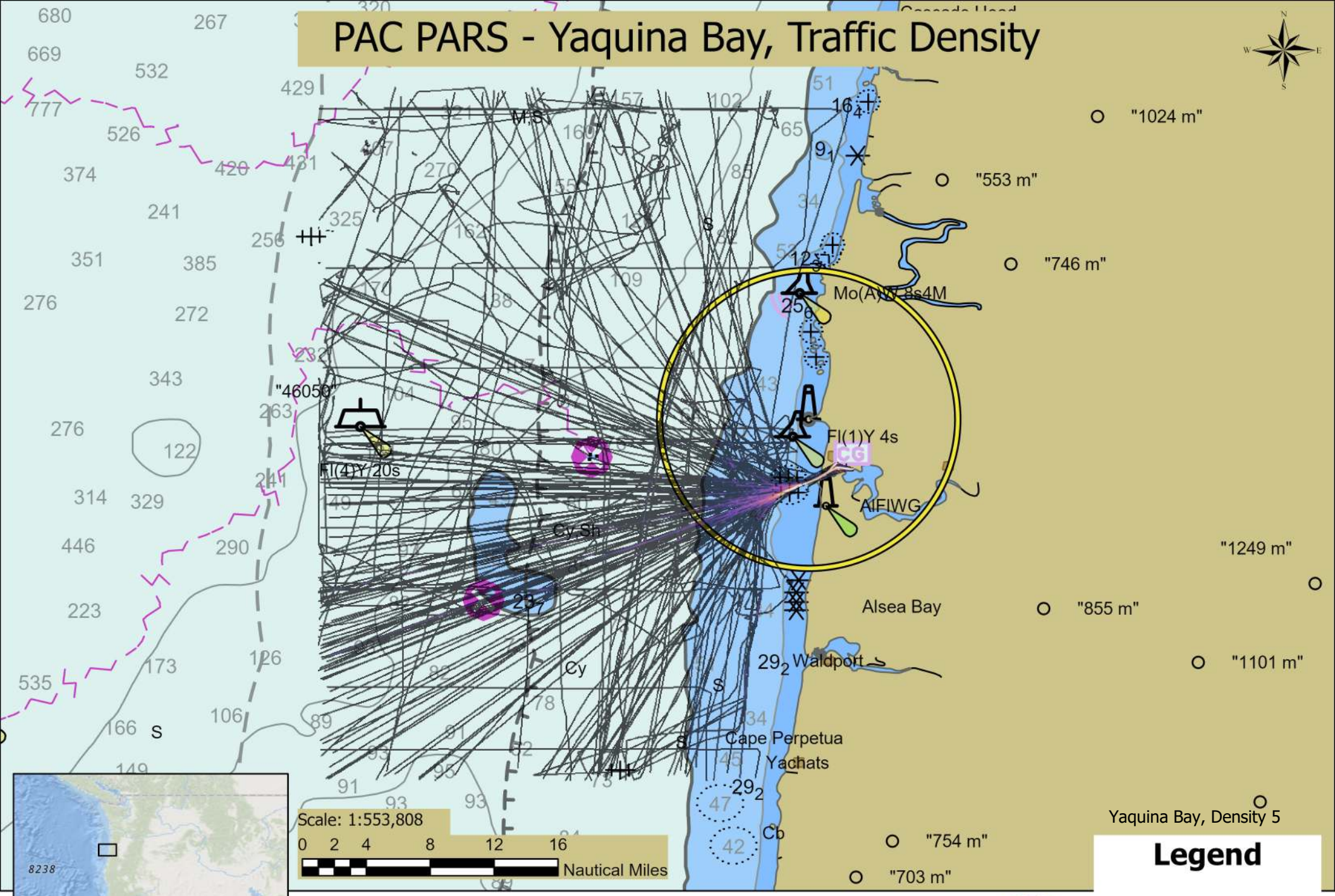
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/14/2022 11:00 AM

PAC PARS - Yaquina Bay, Traffic Density



Yaquina Bay, Density 5

Legend

Not Available 2019

High Traffic Density

Low Traffic Density

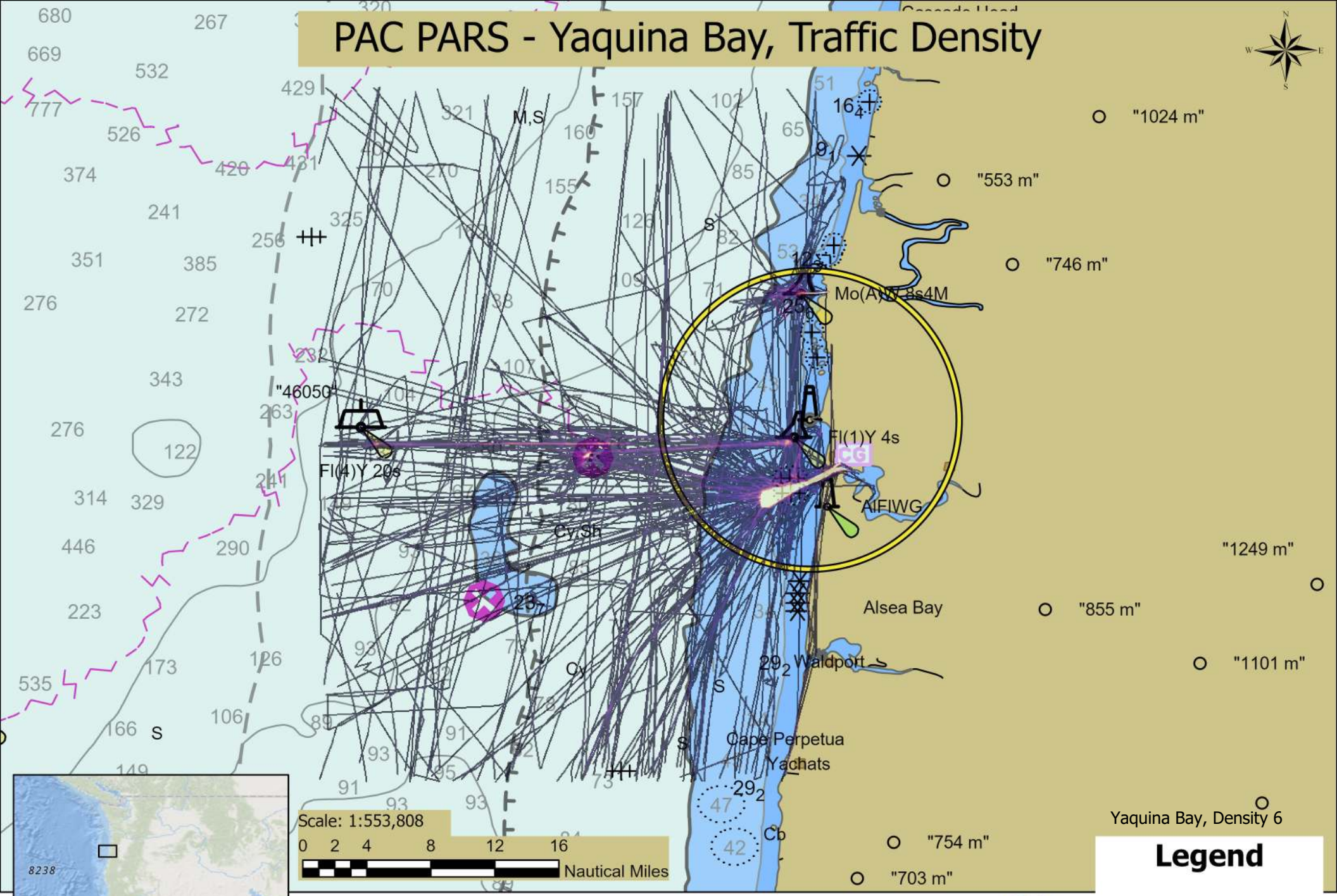
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/14/2022 10:54 AM

PAC PARS - Yaquina Bay, Traffic Density



Yaquina Bay, Density 6

Legend

Other 2019

High Traffic Density

Low Traffic Density

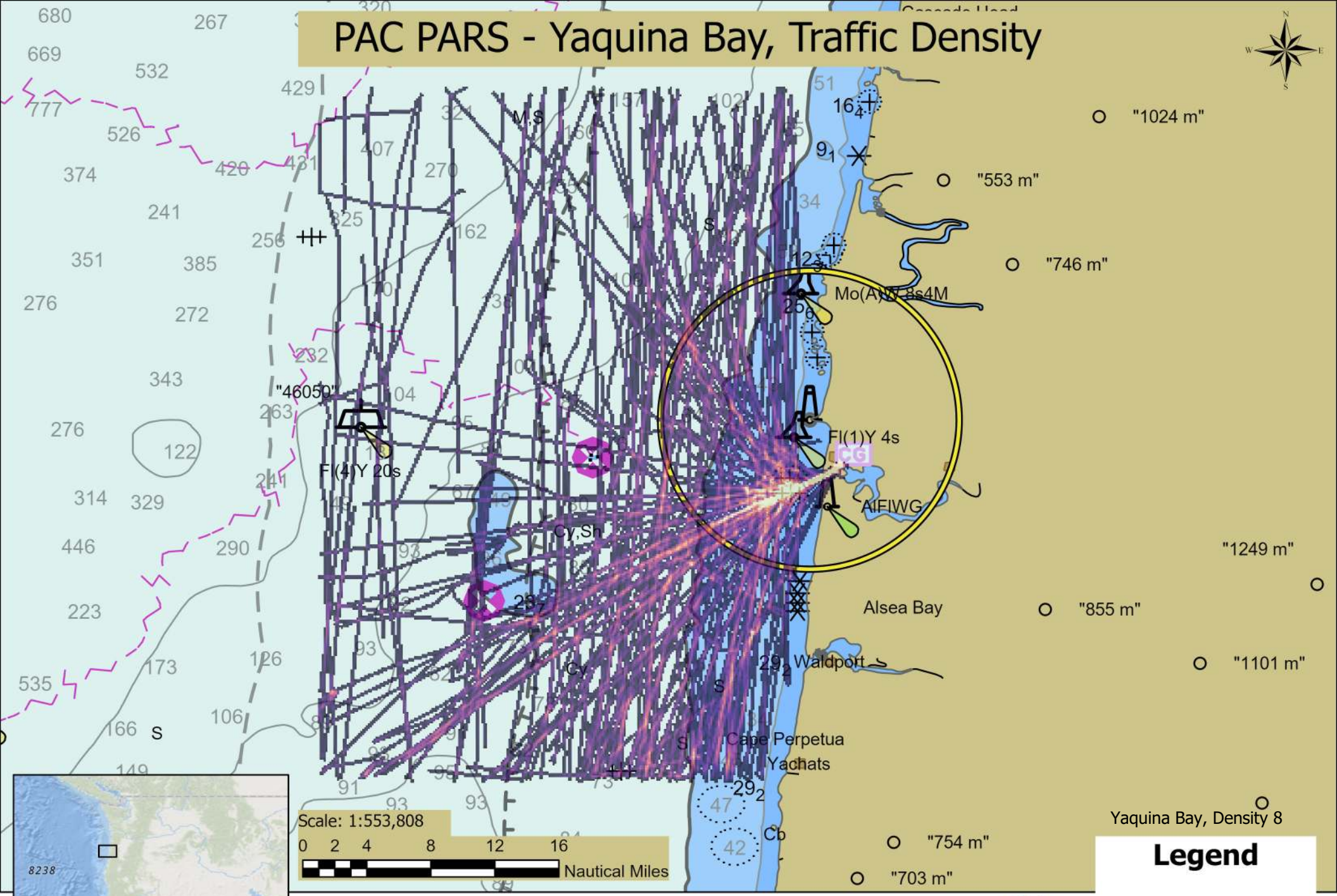
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

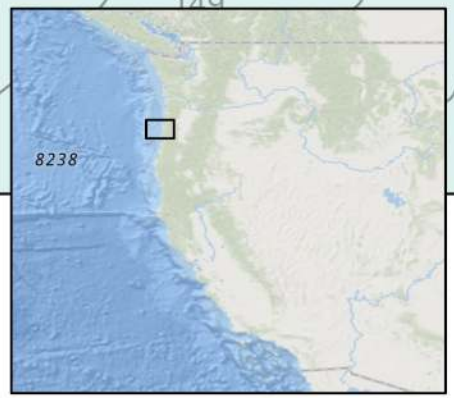
Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/14/2022 10:52 AM

PAC PARS - Yaquina Bay, Traffic Density





Scale: 1:553,808

0 2 4 8 12 16 Nautical Miles

Yaquina Bay, Density 8

Legend

Pleasure Craft 2019

High Traffic Density

Low Traffic Density

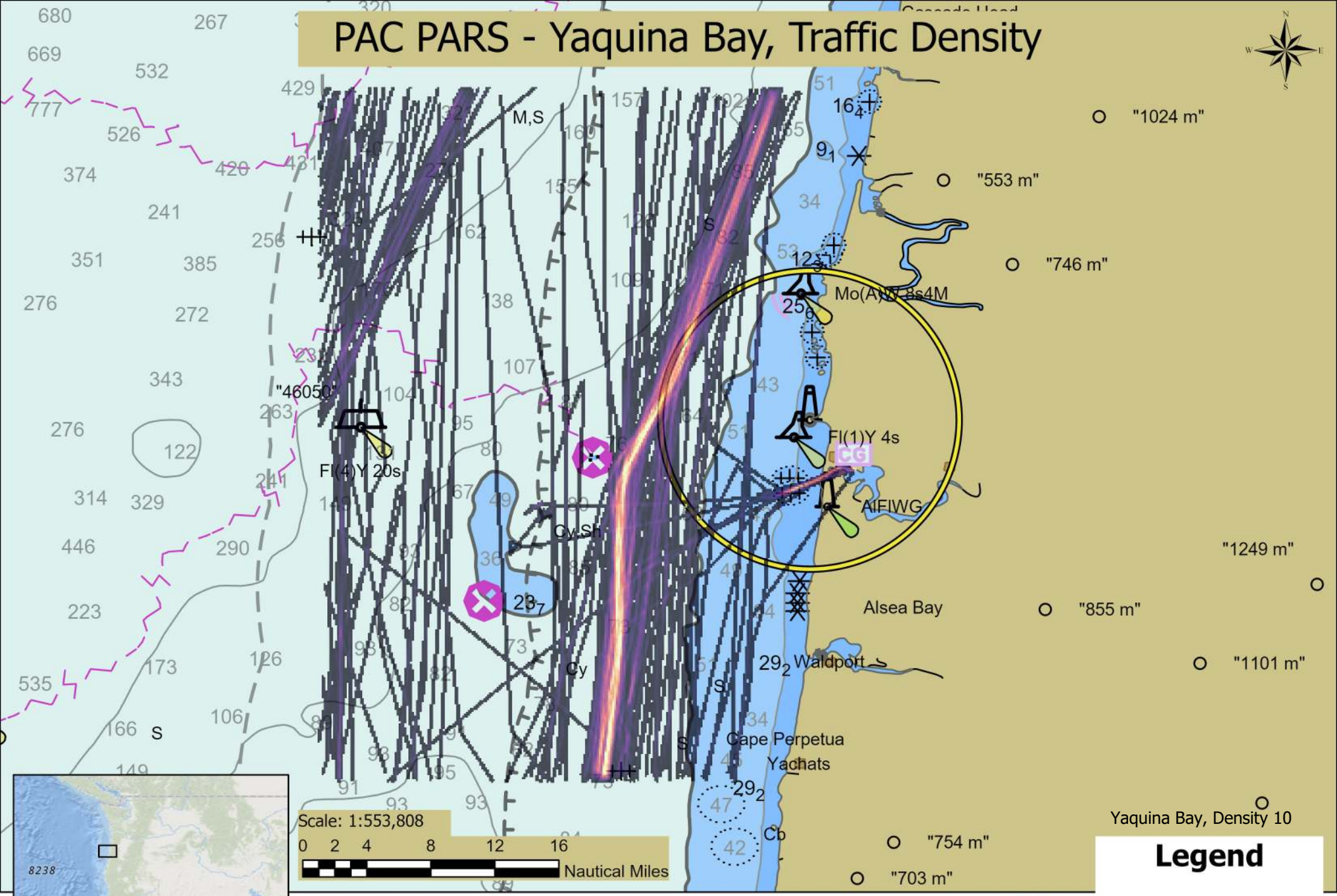
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/14/2022 10:48 AM

PAC PARS - Yaquina Bay, Traffic Density



Yaquina Bay, Density 10

Legend

Tug Tow 2019

High Traffic Density

Low Traffic Density

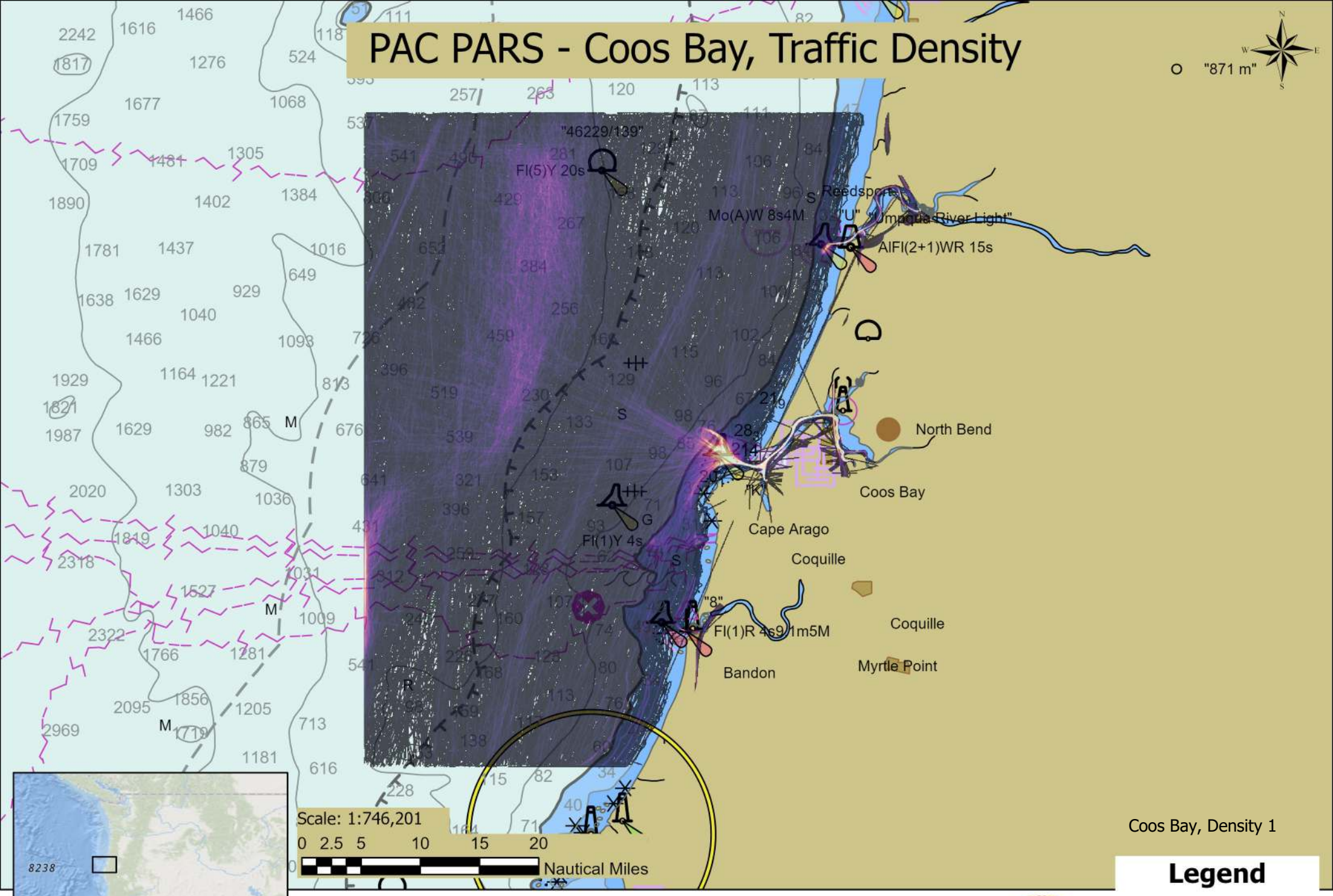
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/14/2022 10:46 AM

PAC PARS - Coos Bay, Traffic Density



Legend

All Vessels 2019

High Traffic Density

Low Traffic Density

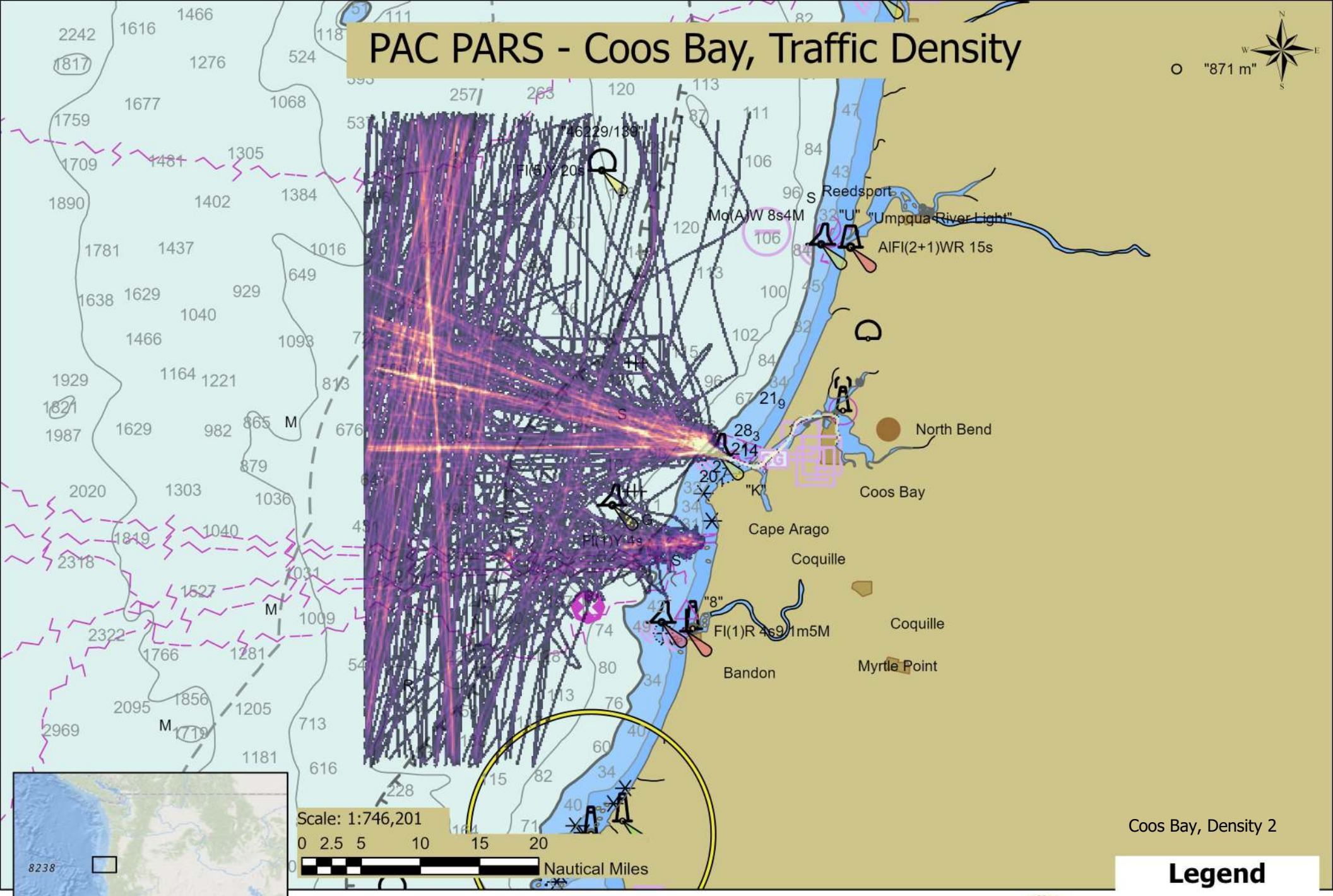
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/14/2022 12:22 PM

PAC PARS - Coos Bay, Traffic Density



Coos Bay, Density 2

Legend

Cargo 2019

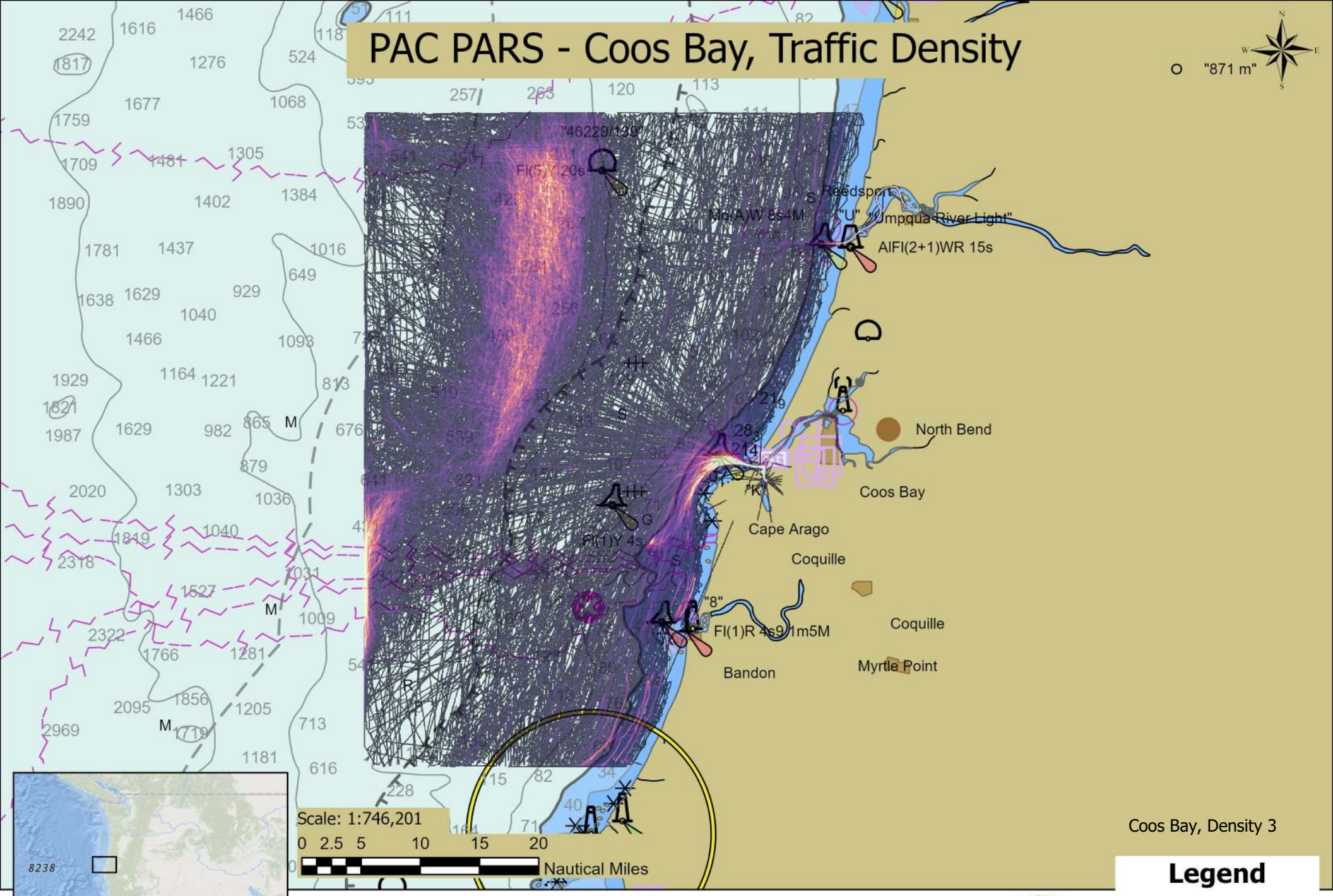
High Traffic Density

Low Traffic Density

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.
Last Update: 3/14/2022 12:24 PM

PAC PARS - Coos Bay, Traffic Density



Coos Bay, Density 3

Legend

Fishing 2019

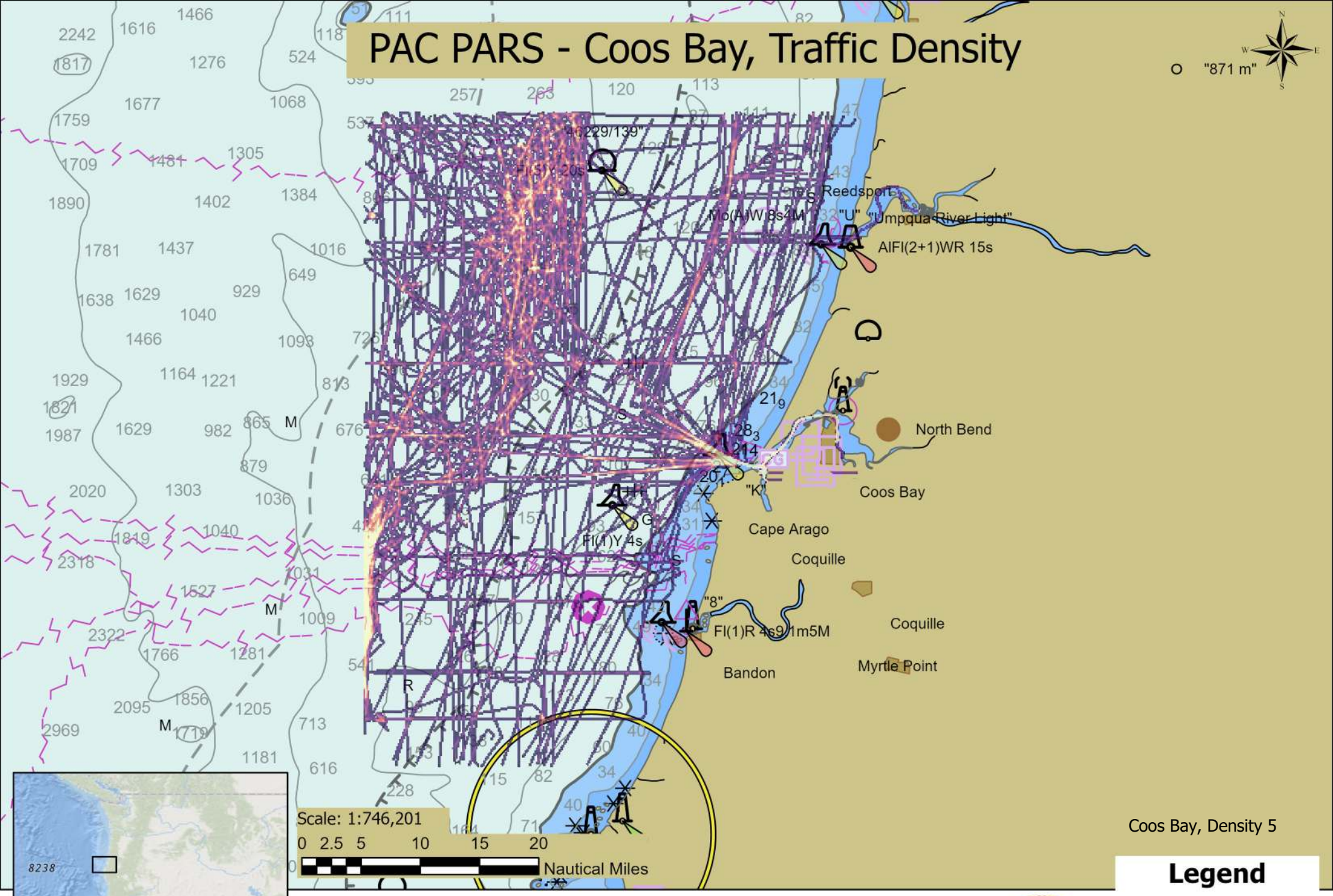
High Traffic Density

Low Traffic Density

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.
Last Update: 3/14/2022 12:27 PM

PAC PARS - Coos Bay, Traffic Density



Coos Bay, Density 5

Legend

Not Available 2019

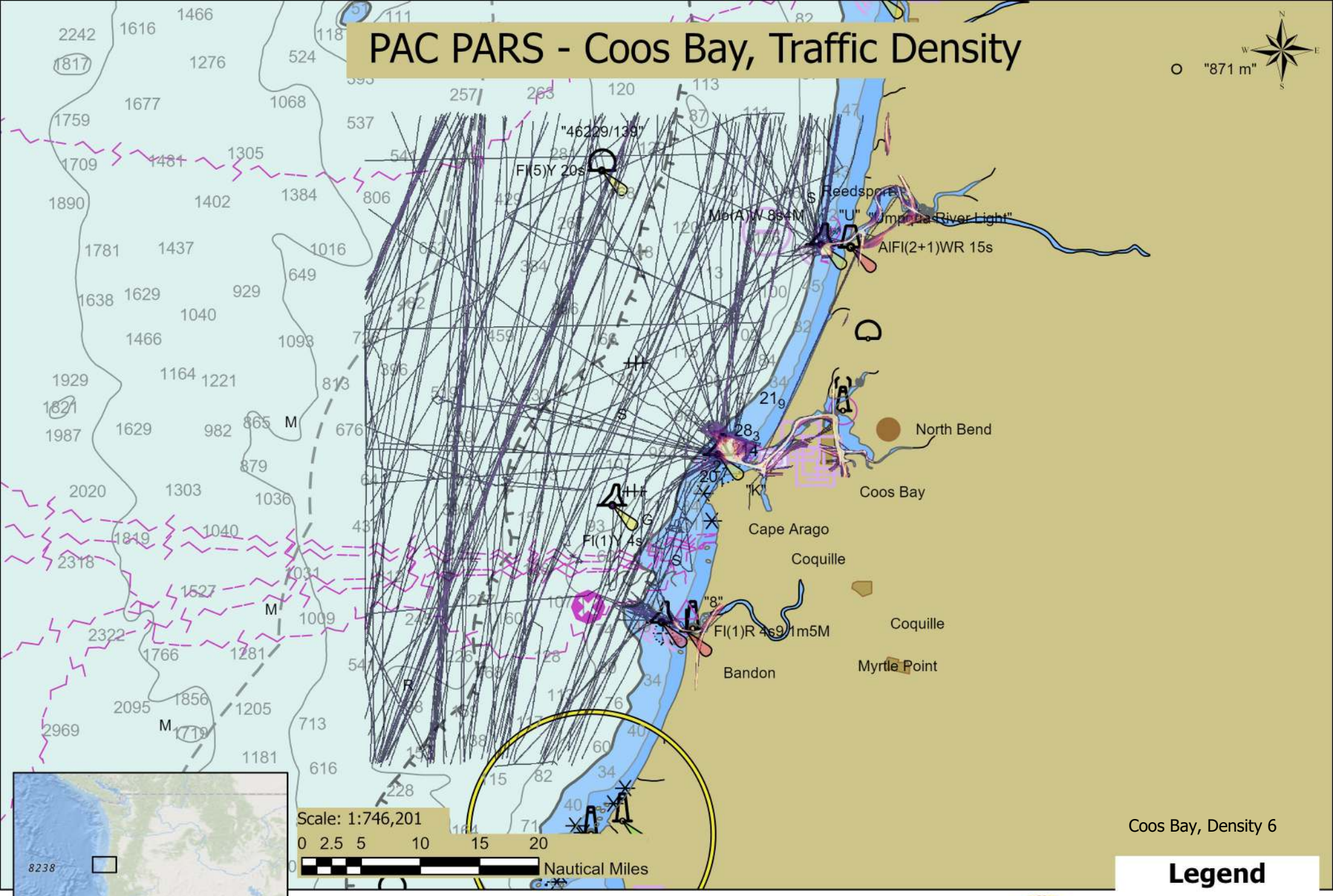
High Traffic Density

Low Traffic Density

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.
Last Update: 3/14/2022 12:25 PM

PAC PARS - Coos Bay, Traffic Density



Coos Bay, Density 6

Legend

Other 2019

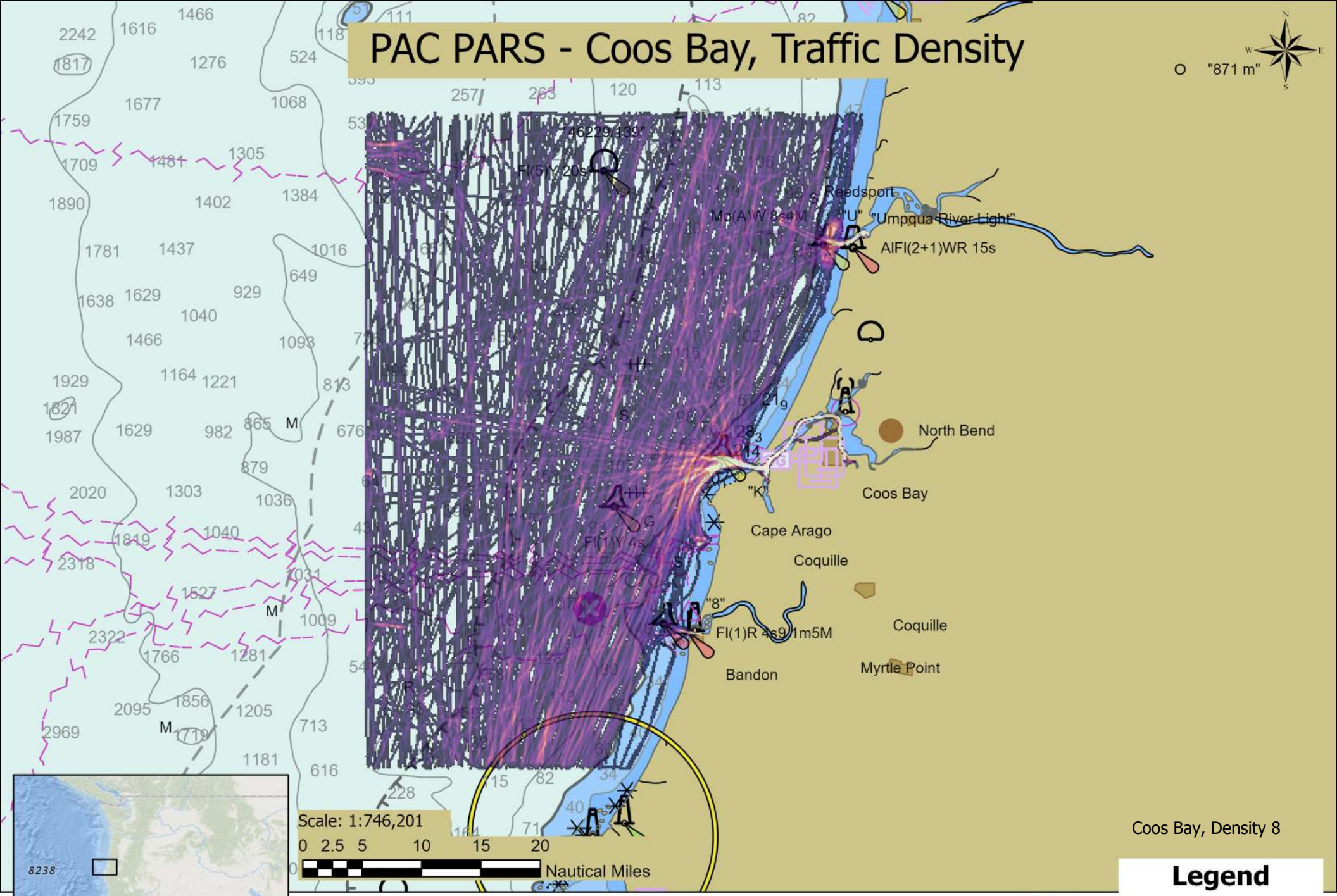
High Traffic Density

Low Traffic Density

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.
Last Update: 3/14/2022 12:28 PM

PAC PARS - Coos Bay, Traffic Density



Coos Bay, Density 8

Legend

Pleasure Craft 2019

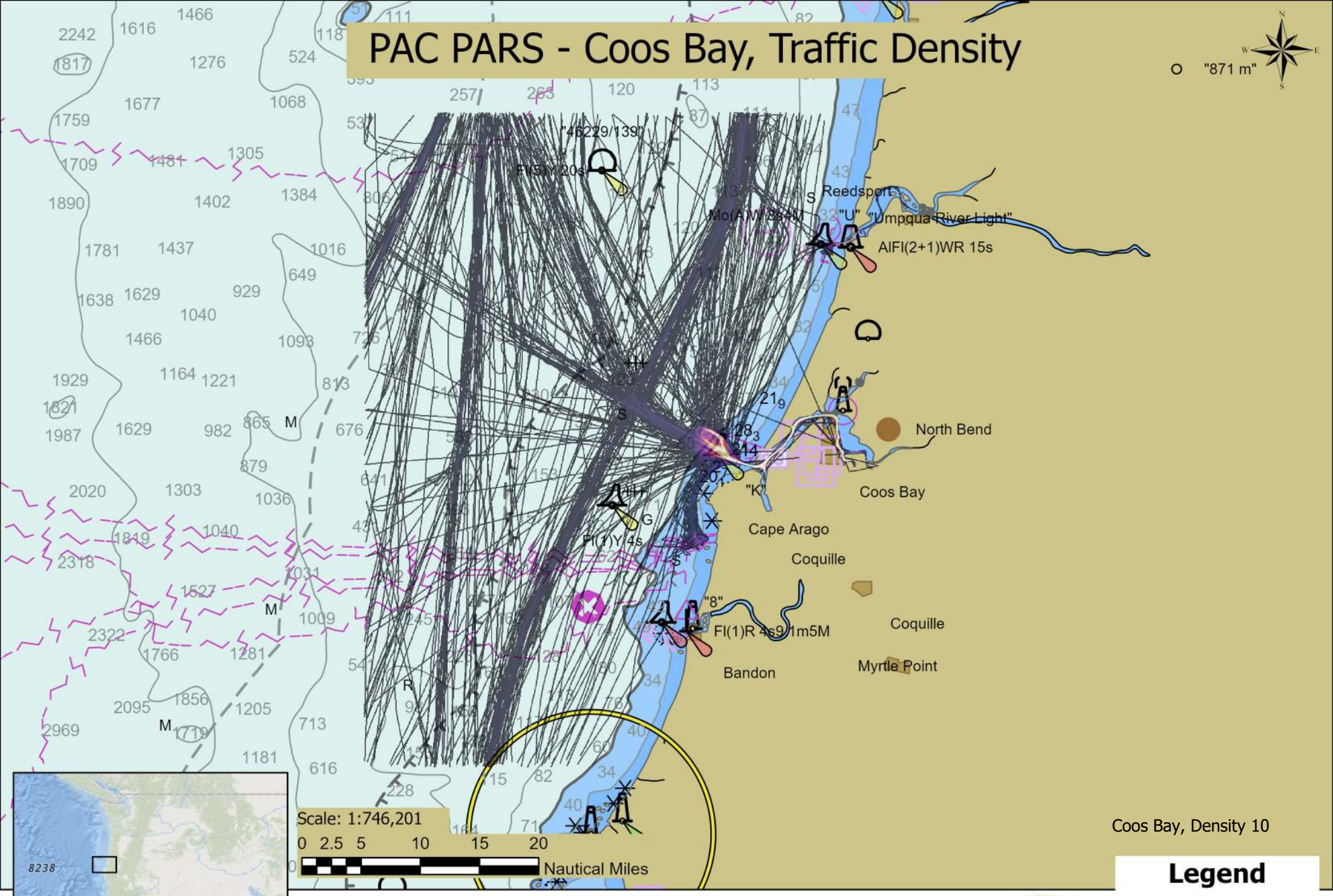
High Traffic Density

Low Traffic Density

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.
Last Update: 3/14/2022 12:30 PM

PAC PARS - Coos Bay, Traffic Density



Coos Bay, Density 10

Legend

Tug Tow 2019

High Traffic Density

Low Traffic Density

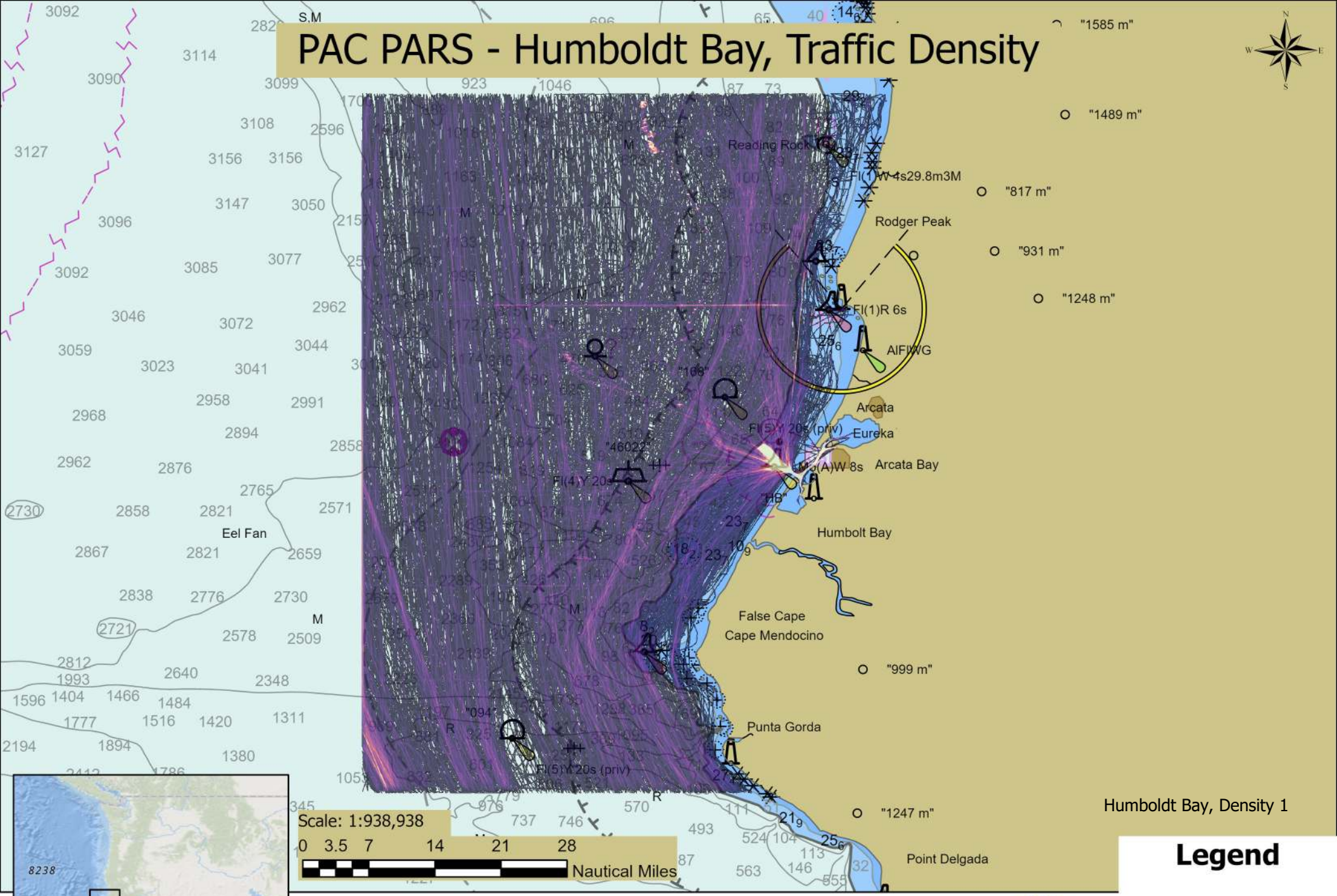
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/14/2022 12:33 PM

PAC PARS - Humboldt Bay, Traffic Density



Humboldt Bay, Density 1

Legend

All Vessels 2019

High Traffic Density

Low Traffic Density

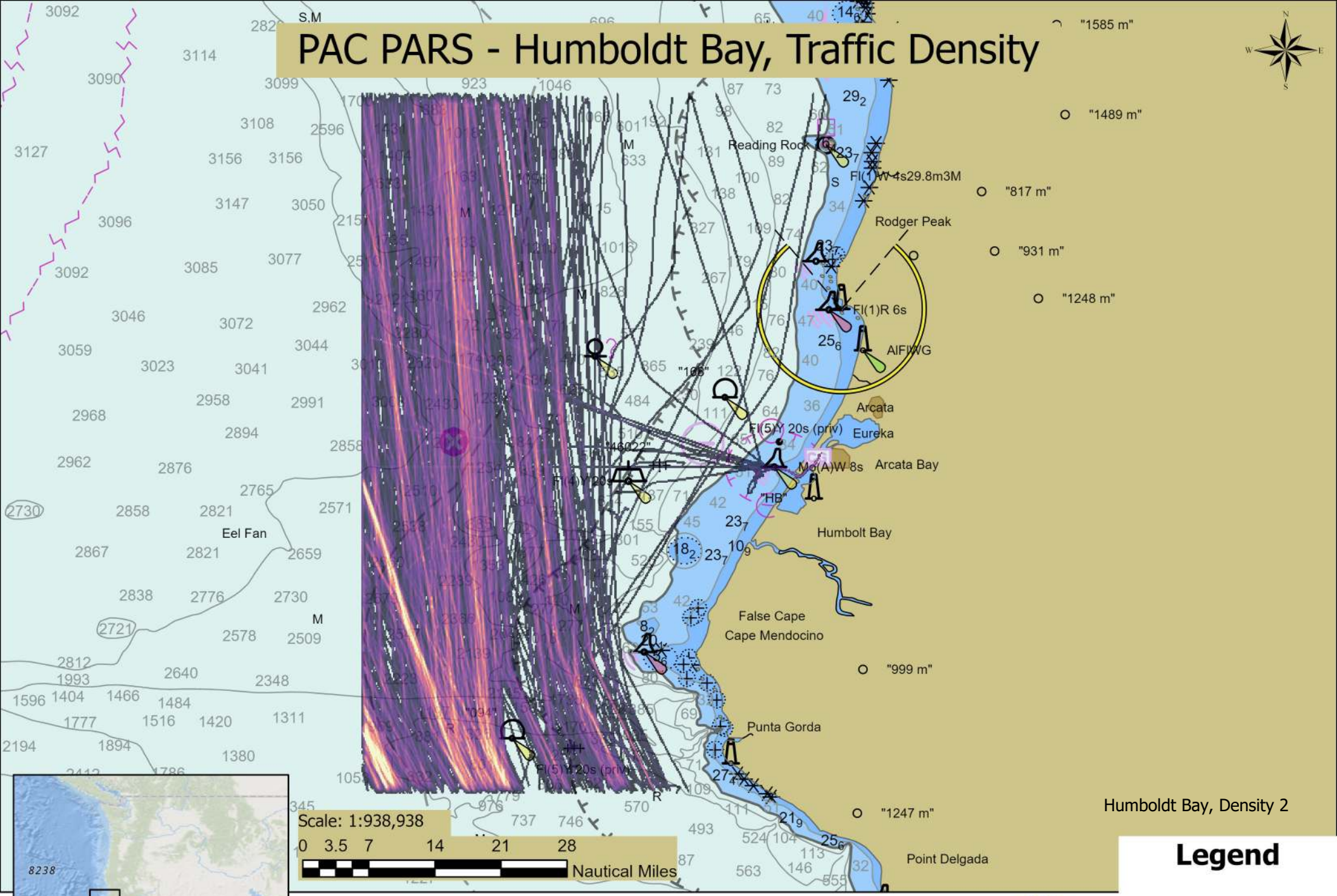
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/15/2022 8:36 AM

PAC PARS - Humboldt Bay, Traffic Density



Humboldt Bay, Density 2

Legend

Cargo 2019

High Traffic Density

Low Traffic Density

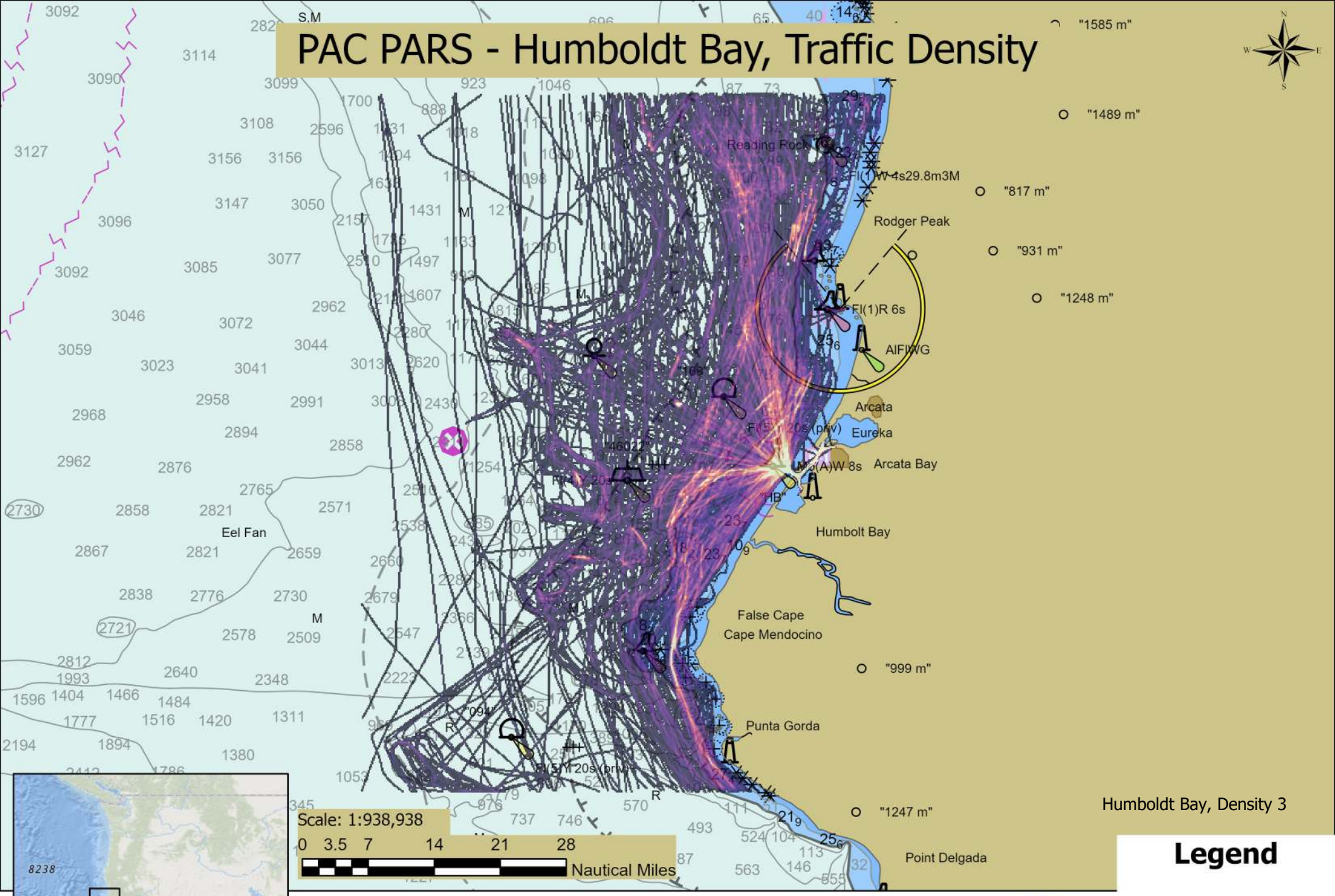
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/15/2022 8:34 AM

PAC PARS - Humboldt Bay, Traffic Density



Legend

Fishing 2019

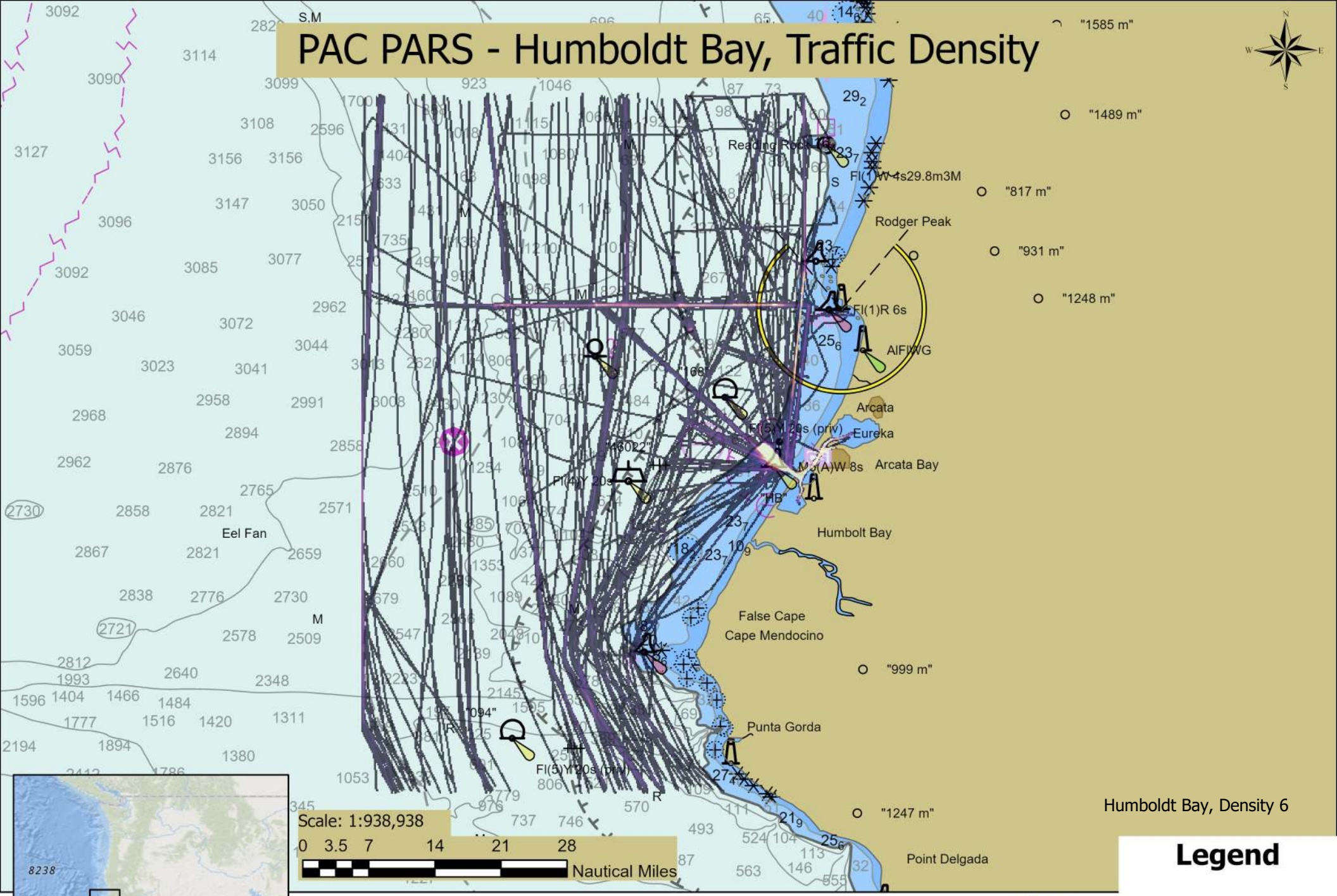
High Traffic Density

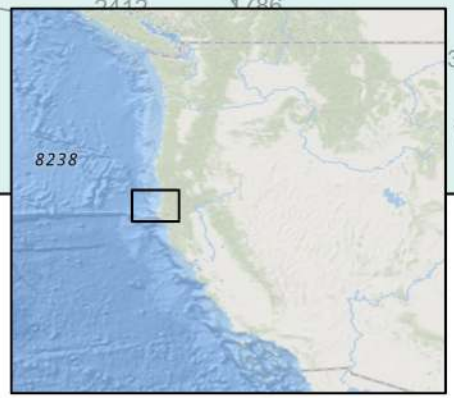
Low Traffic Densiry

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.
Last Update: 3/15/2022 8:32 AM

PAC PARS - Humboldt Bay, Traffic Density





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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.
Last Update: 3/15/2022 8:30 AM

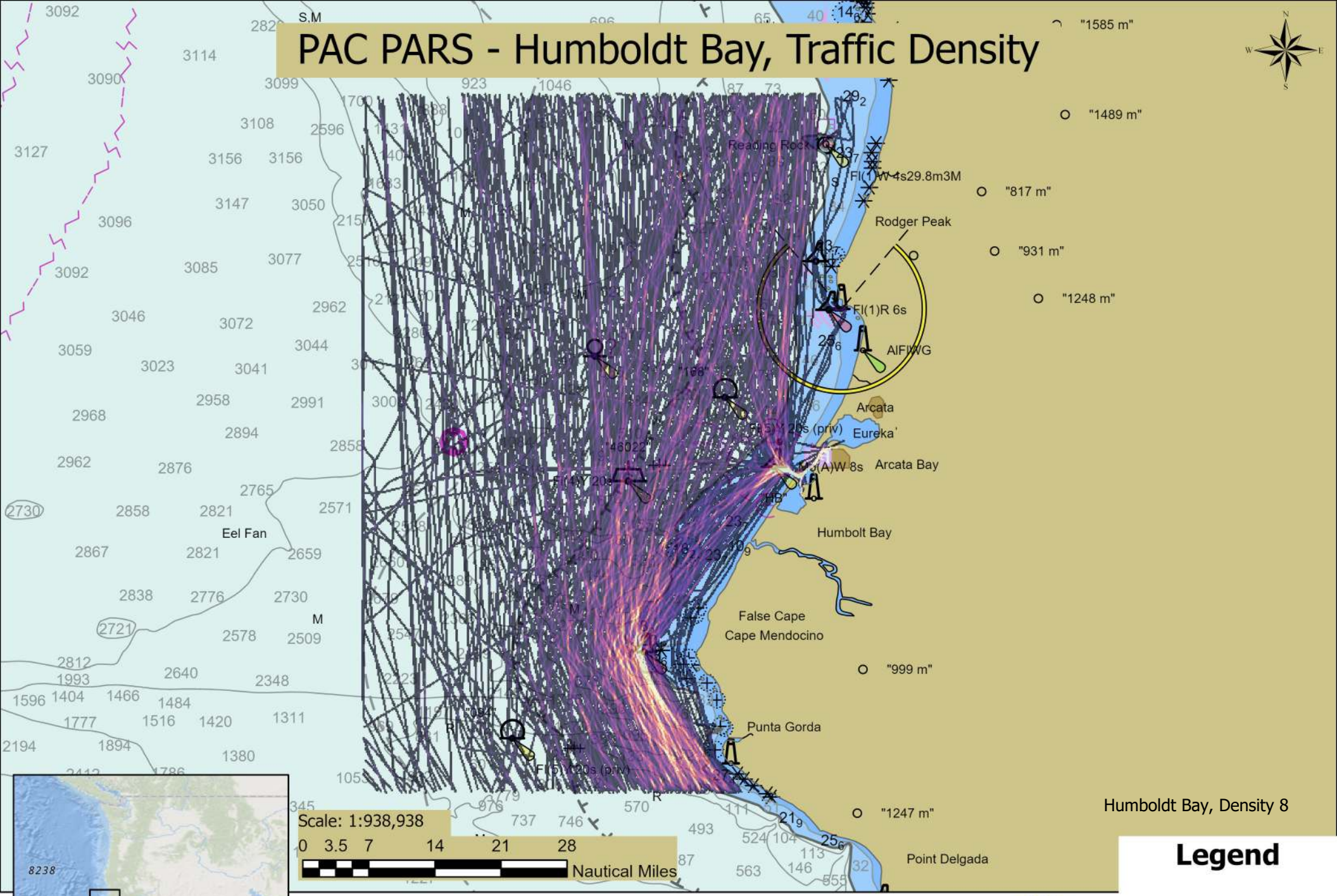
Legend

Other 2019

High Traffic Density

Low Traffic Density

PAC PARS - Humboldt Bay, Traffic Density



Legend

Pleasure Craft 2019

High Traffic Density

Low Traffic Density

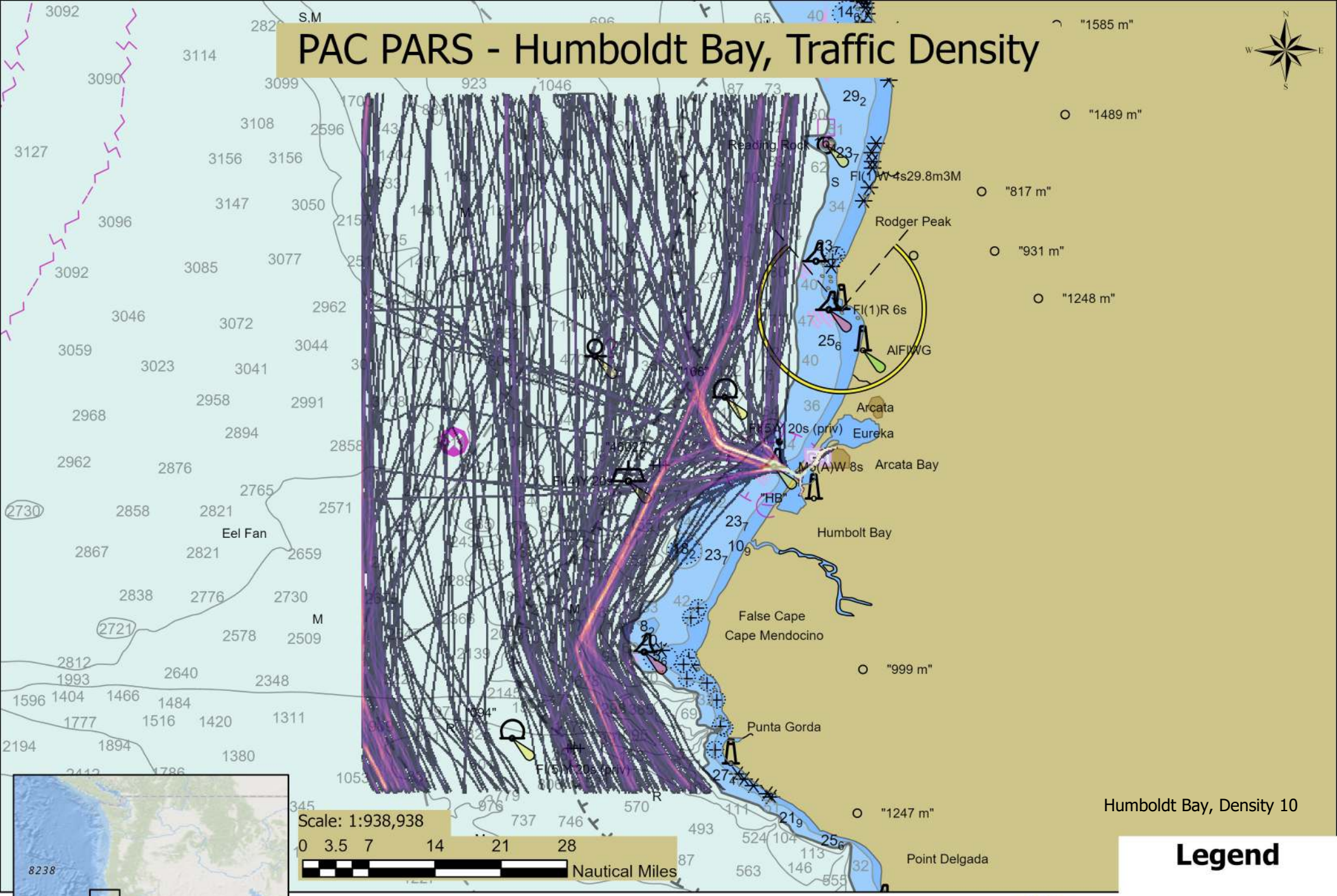
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/15/2022 8:28 AM

PAC PARS - Humboldt Bay, Traffic Density



Humboldt Bay, Density 10

Legend

Tug Tow 2019

High Traffic Density

Low Traffic Density

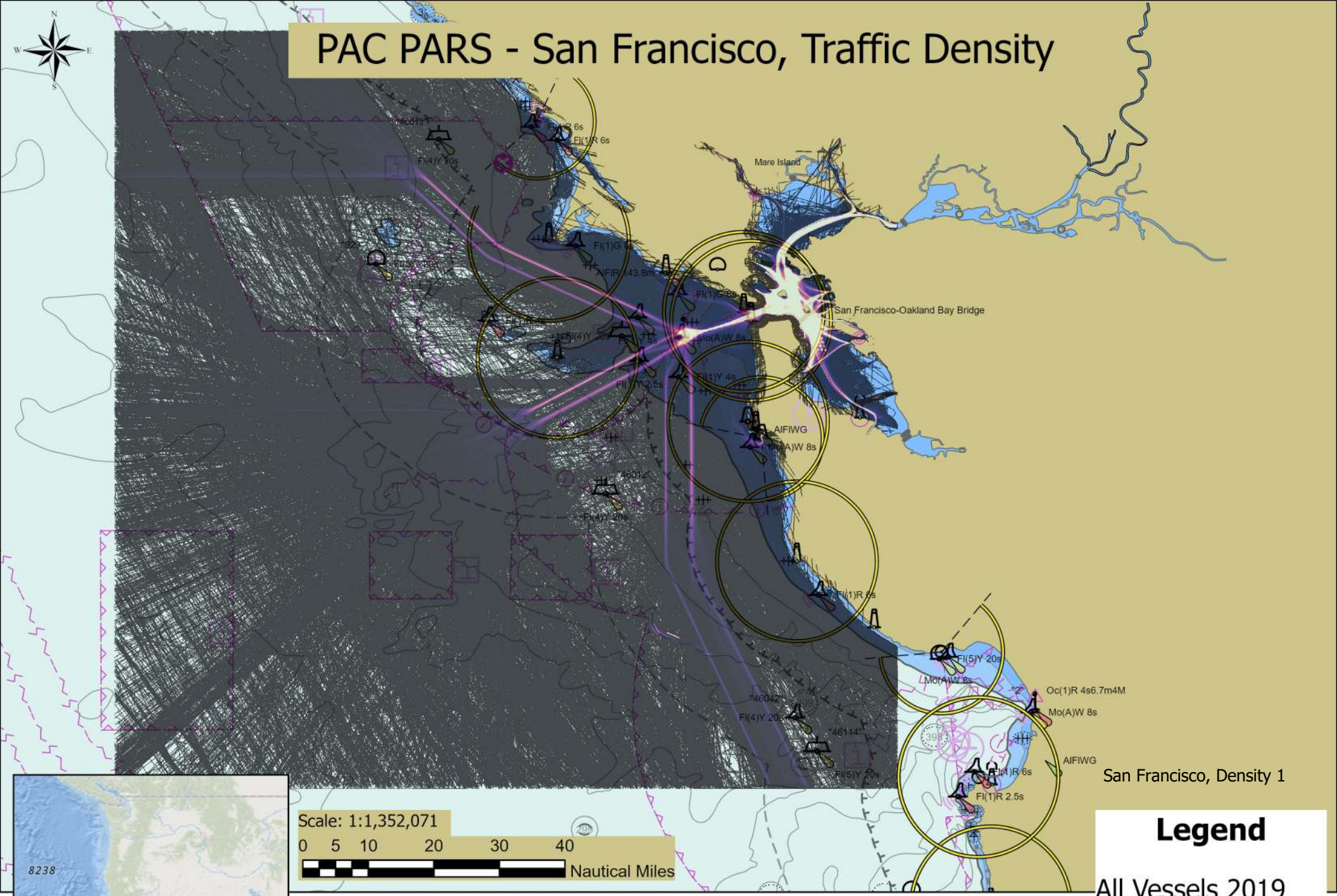
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/15/2022 8:26 AM

PAC PARS - San Francisco, Traffic Density



Scale: 1:1,352,071

0 5 10 20 30 40

Nautical Miles

San Francisco, Density 1

Legend

All Vessels 2019

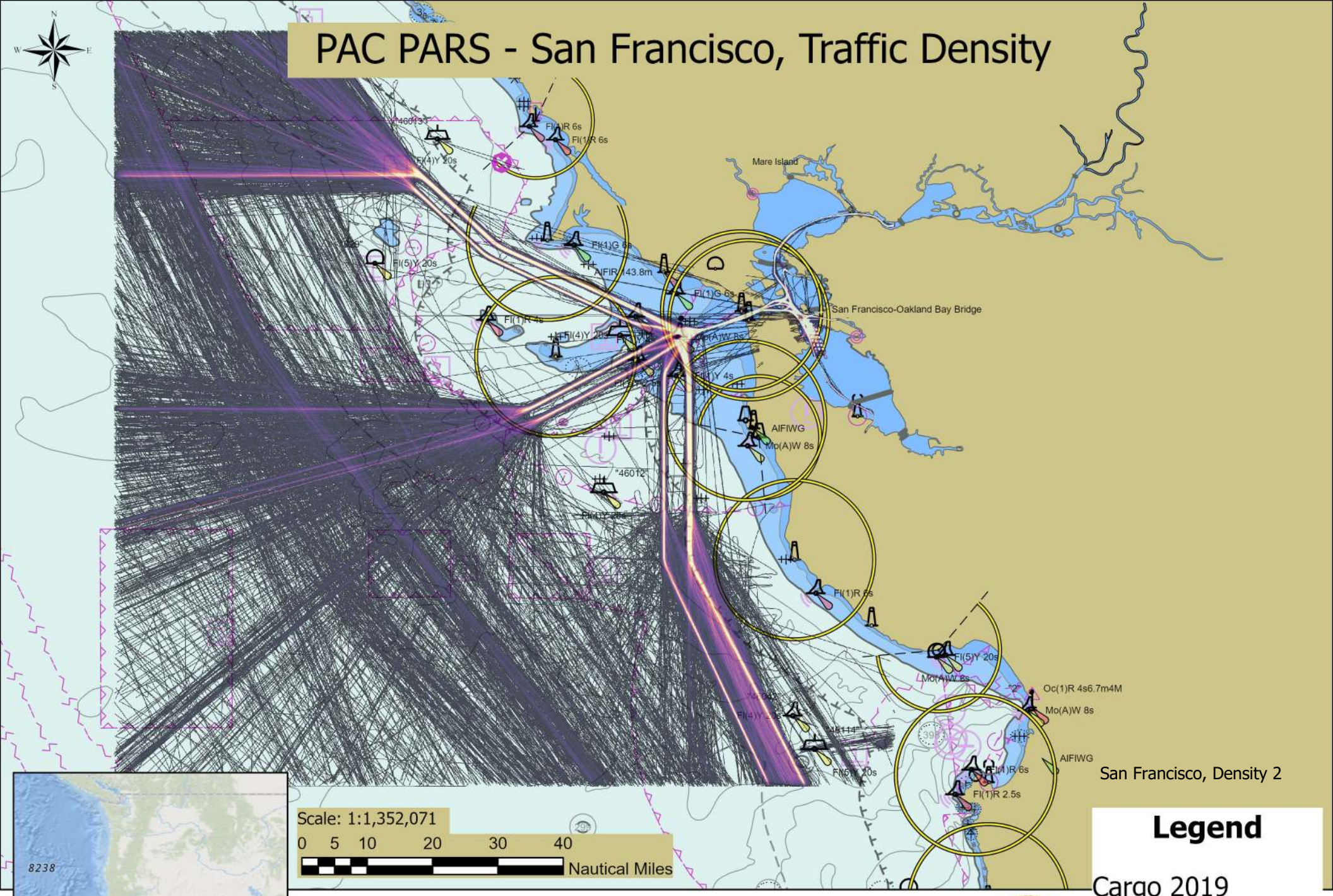
High Traffic Density

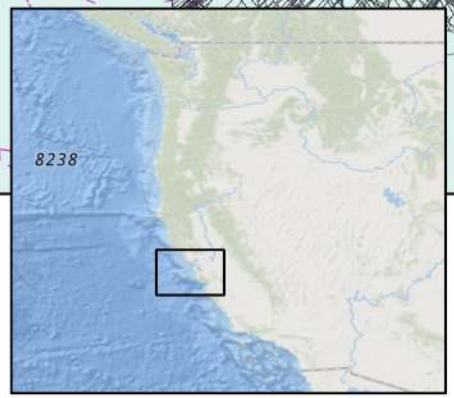
Low Traffic Density

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.
Last Update: 3/18/2022 12:20 PM

PAC PARS - San Francisco, Traffic Density





Scale: 1:1,352,071

0 5 10 20 30 40

Nautical Miles

San Francisco, Density 2

Legend

Cargo 2019

High Traffic Density

Low Traffic Density

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

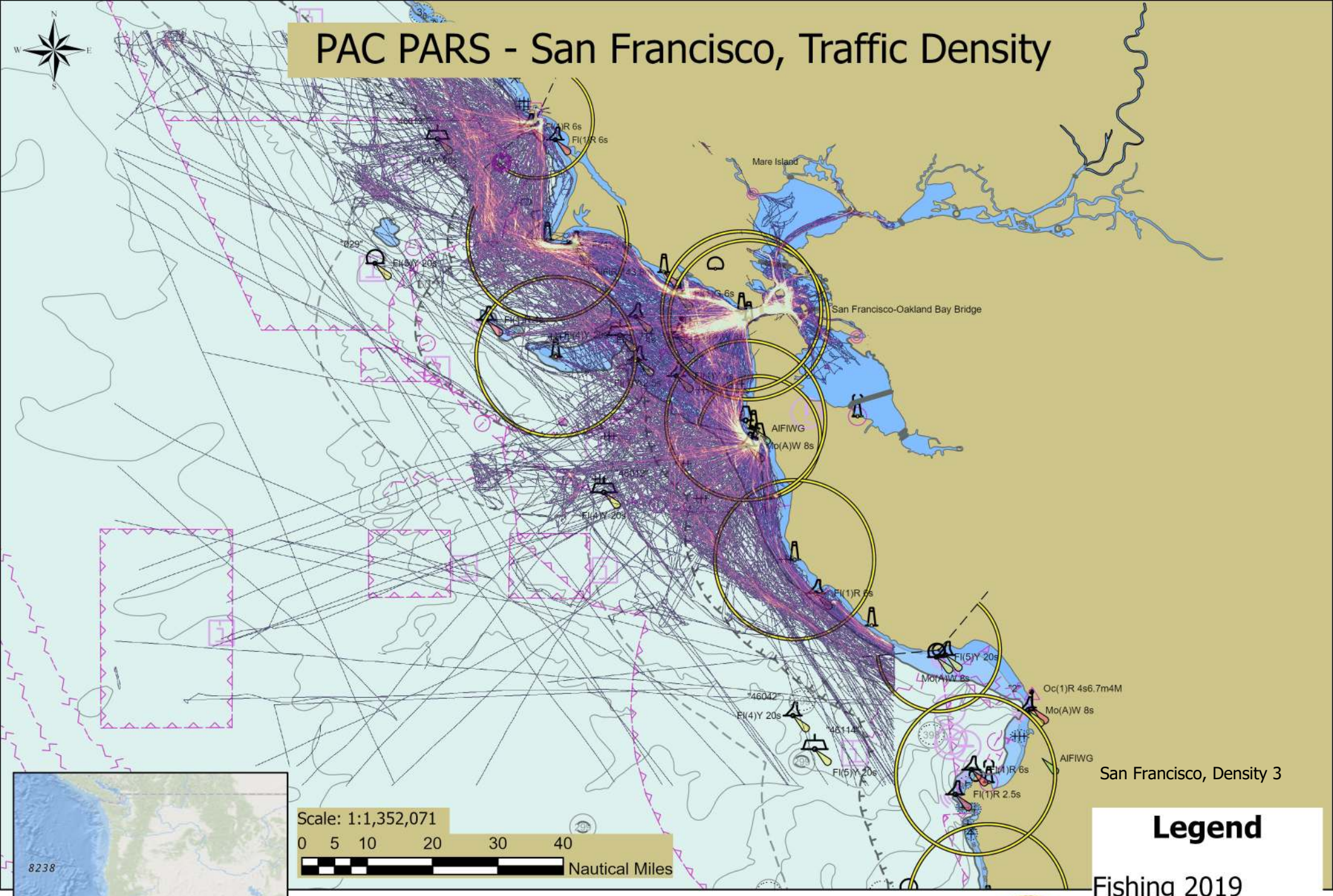
Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

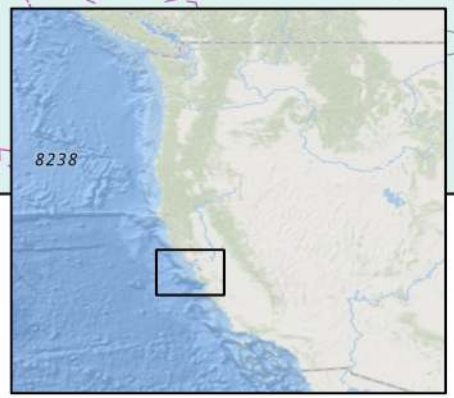
Last Update: 3/18/2022 12:23 PM

UNITED STATES COAST GUARD Navigation Center

PAC PARS - San Francisco, Traffic Density



San Francisco, Density 3



Scale: 1:1,352,071

0 5 10 20 30 40

Nautical Miles

Legend

Fishing 2019

High Traffic Density

Low Traffic Density

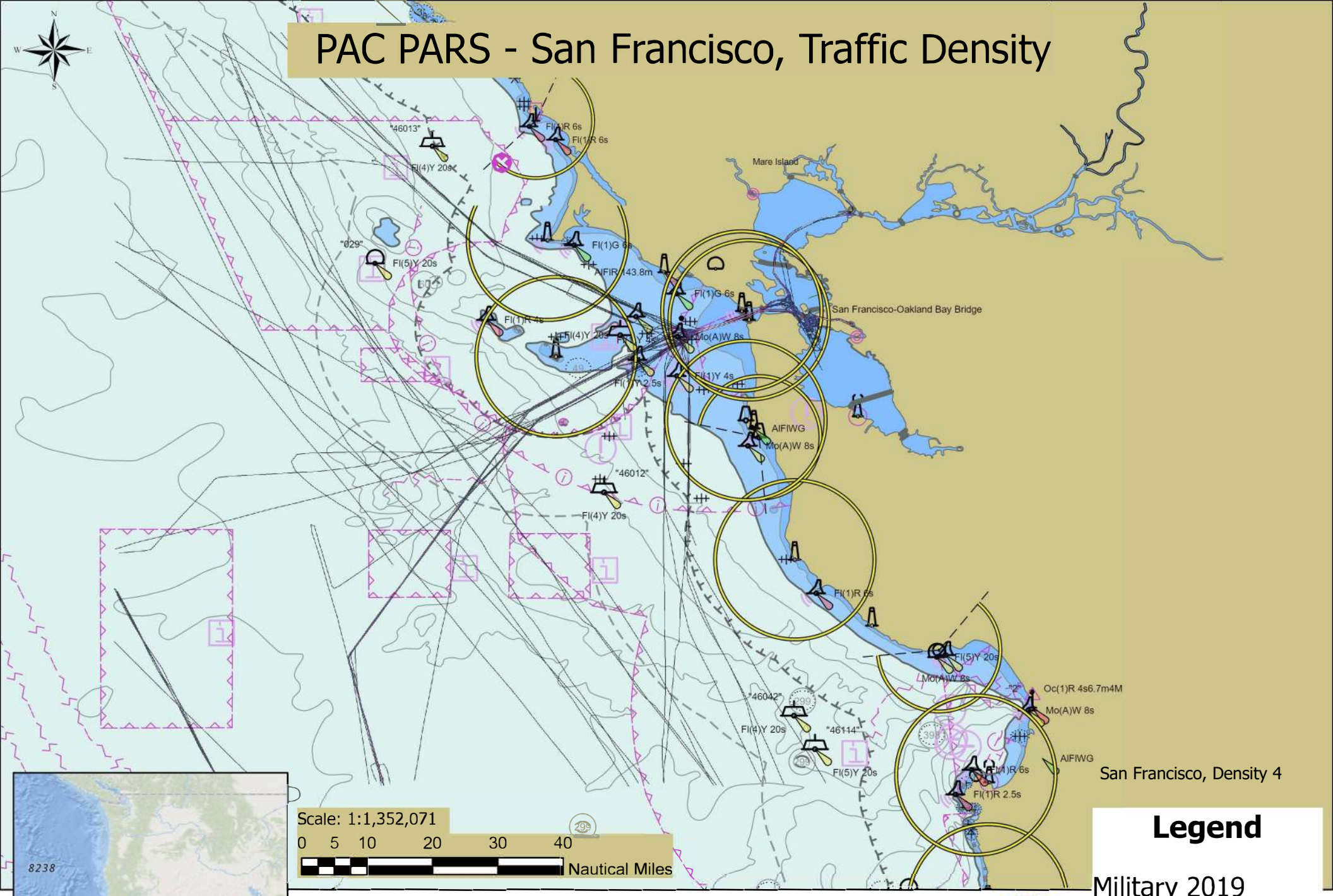
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/18/2022 12:25 PM

PAC PARS - San Francisco, Traffic Density



Legend

Military 2019

High Traffic Density

Low Traffic Density

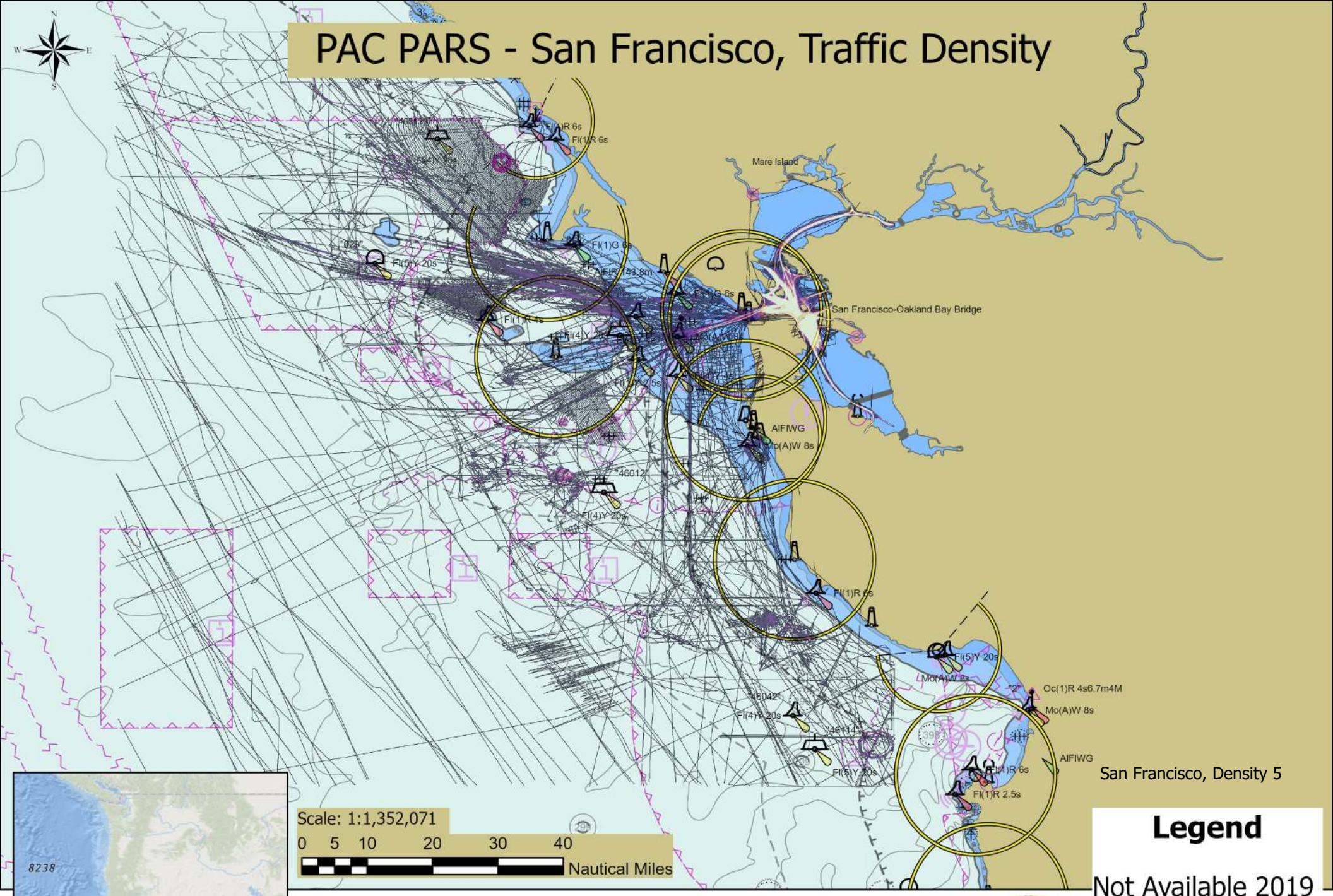
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

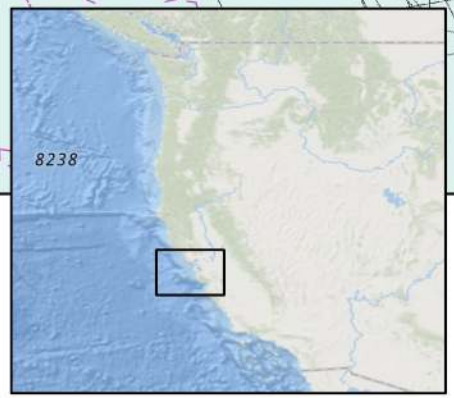
Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 5/17/2022 1:08 PM

PAC PARS - San Francisco, Traffic Density





Scale: 1:1,352,071

0 5 10 20 30 40

Nautical Miles

San Francisco, Density 5

Legend

Not Available 2019

High Traffic Density

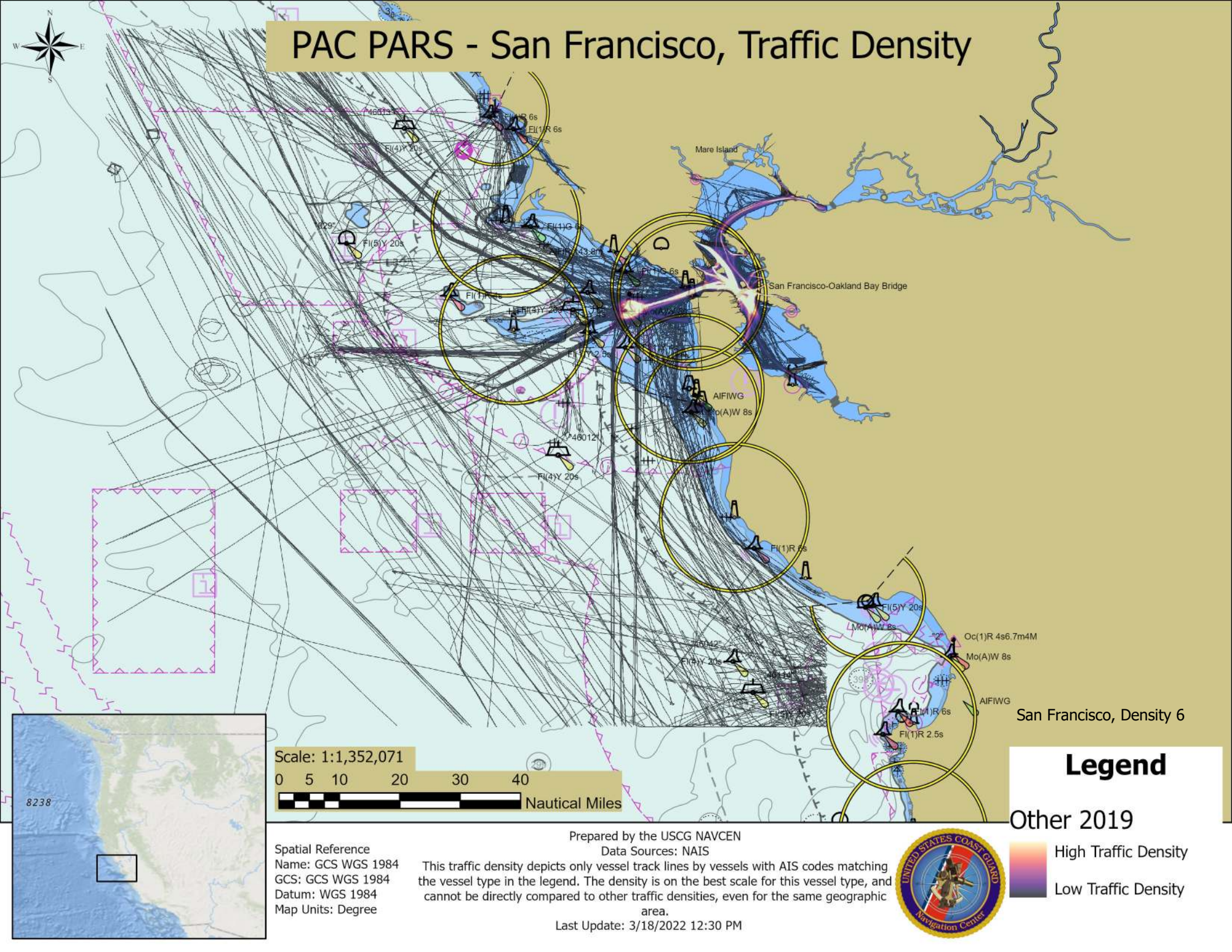
Low Traffic Density

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

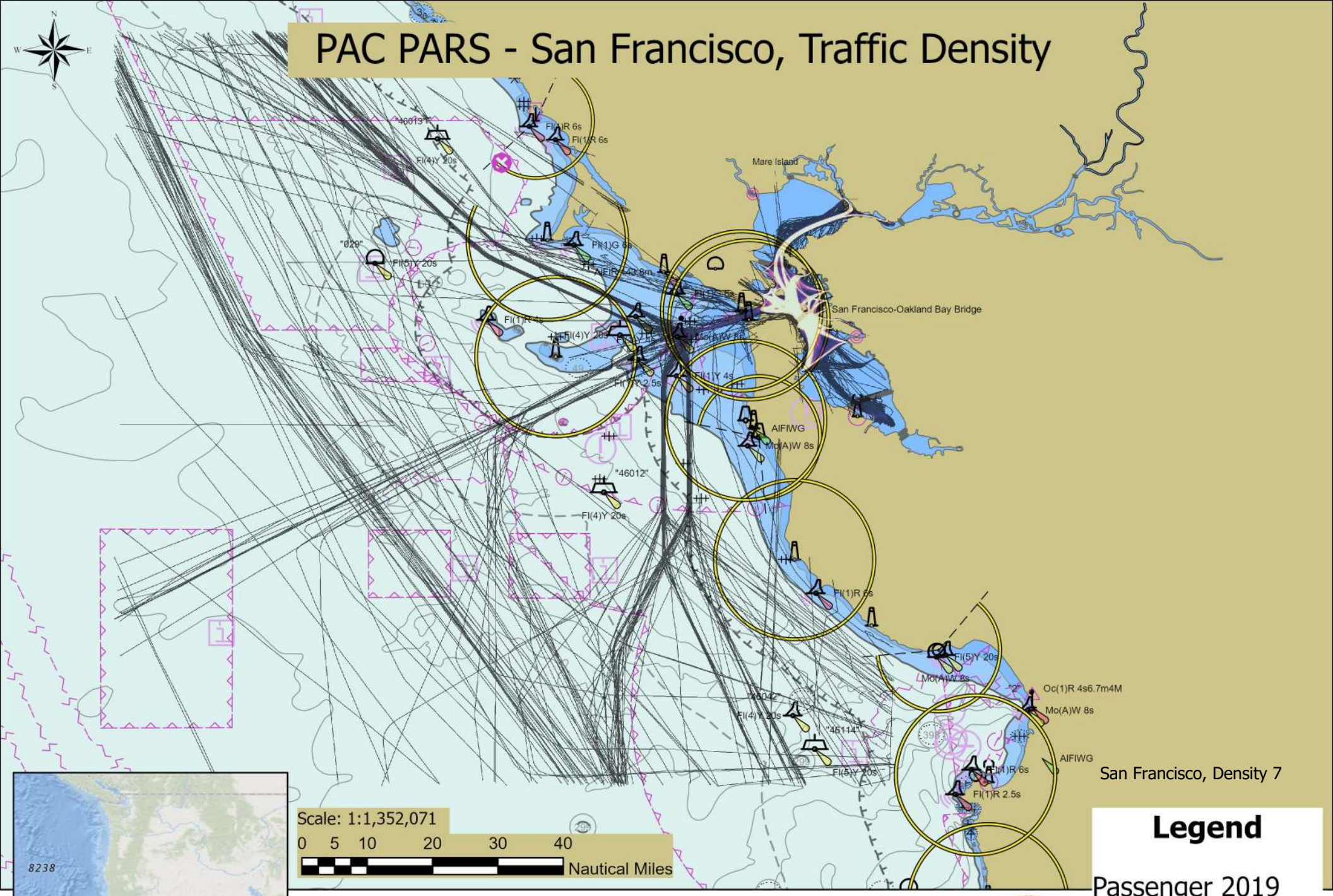
Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/18/2022 12:27 PM


PAC PARS - San Francisco, Traffic Density
Mare Island
San Francisco-Oakland Bay Bridge
AIFIWG
Fl(4)Y 20s
Fl(5)Y 20s
Fl(1)R 6s
Fl(1)R 2.5s
Mo(A)W 8s
Oc(1)R 4s6.7m4M
46012
46042
Scale: 1:1,352,071
0 5 10 20 30 40
Nautical Miles
San Francisco, Density 6
Legend
Other 2019
High Traffic Density
Low Traffic Density
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree
Prepared by the USCG NAVCEN
Data Sources: NAIS
This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.
Last Update: 3/18/2022 12:30 PM
UNITED STATES COAST GUARD
Navigation Center

PAC PARS - San Francisco, Traffic Density



San Francisco, Density 7

Legend

Passenger 2019

High Traffic Density

Low Traffic Density

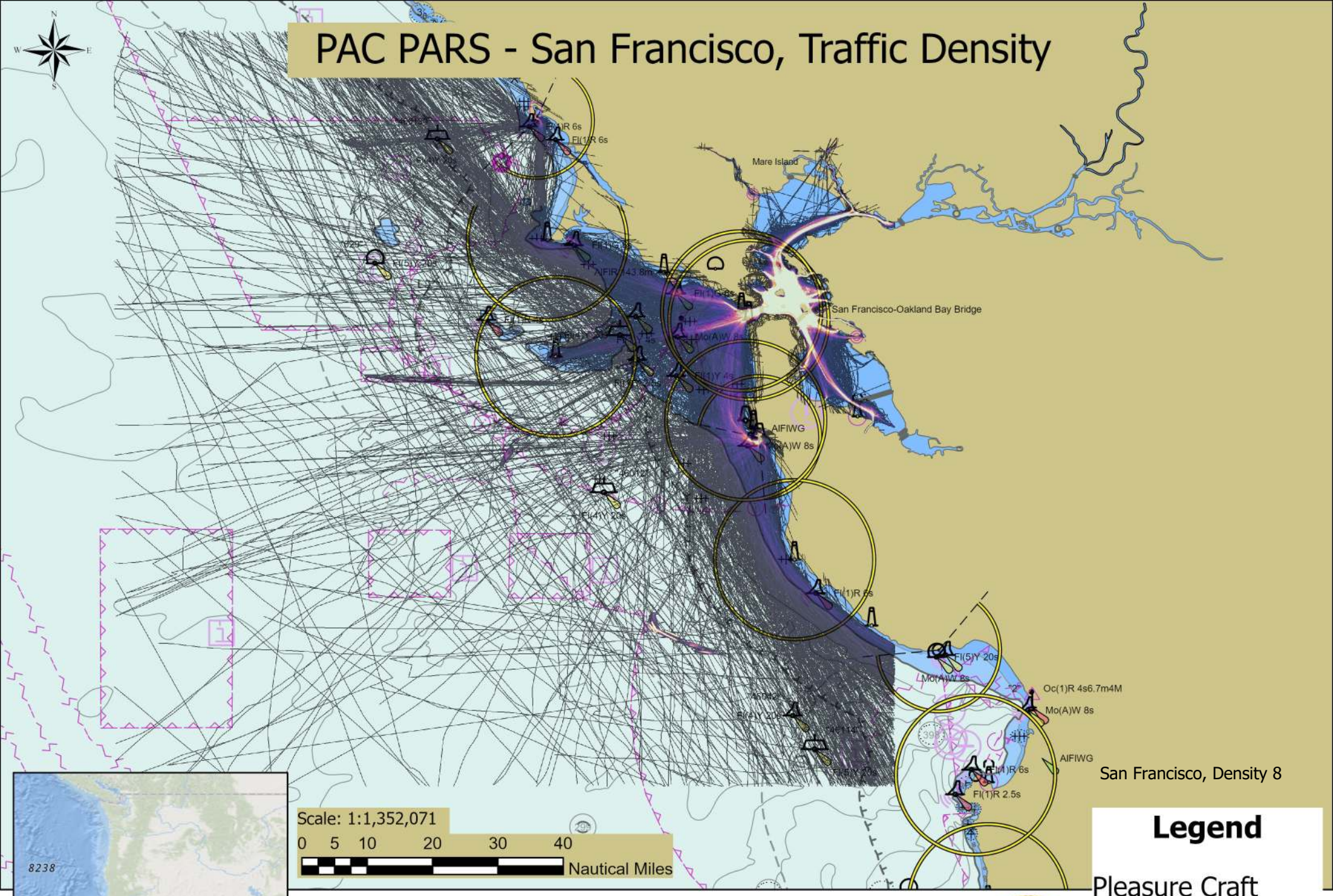
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/18/2022 12:31 PM

PAC PARS - San Francisco, Traffic Density



San Francisco, Density 8

Legend

Pleasure Craft 2019

High Traffic Density

Low Traffic Density

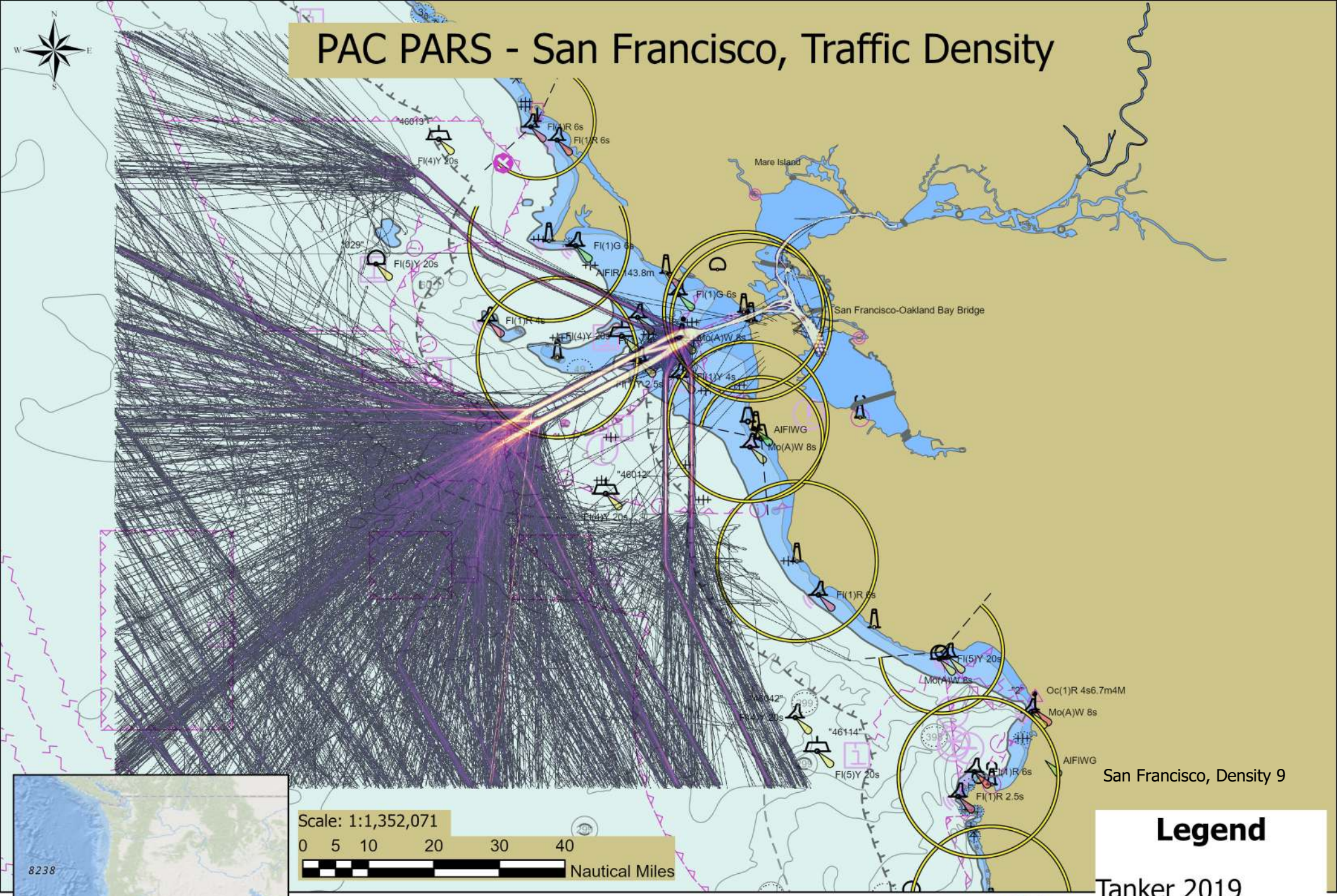
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/18/2022 12:33 PM

PAC PARS - San Francisco, Traffic Density



San Francisco, Density 9

Legend

Tanker 2019

High Traffic Density

Low Traffic Density

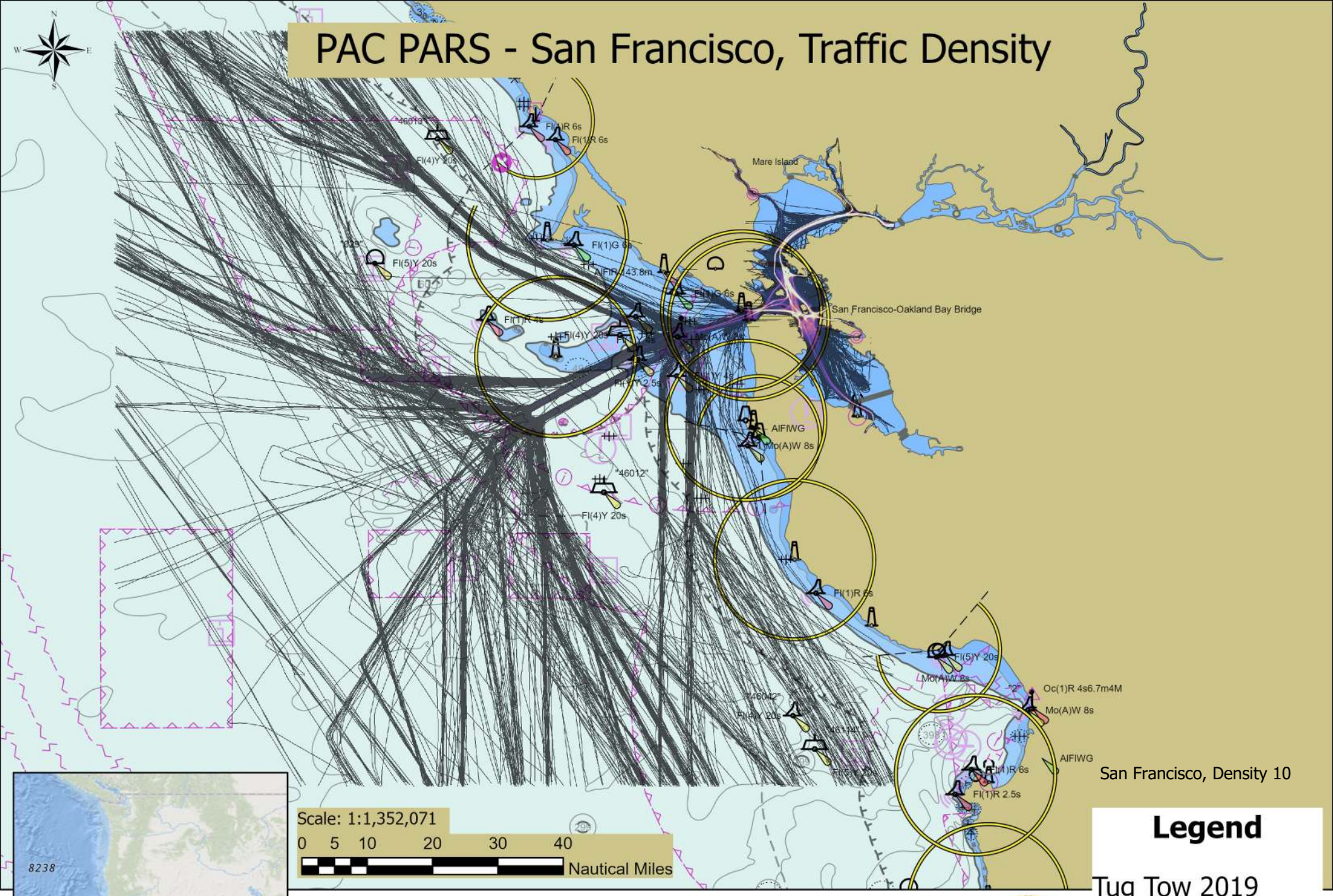
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

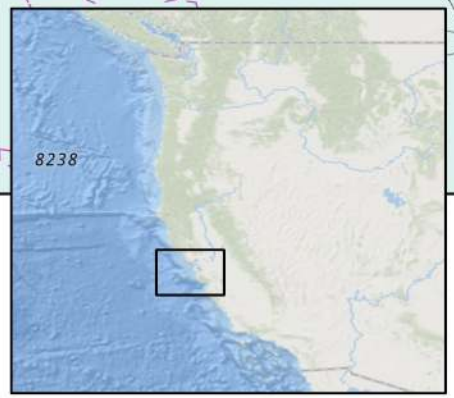
Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/18/2022 12:37 PM

PAC PARS - San Francisco, Traffic Density





Scale: 1:1,352,071

0 5 10 20 30 40

Nautical Miles

San Francisco, Density 10

Legend

Tug Tow 2019

High Traffic Density

Low Traffic Density

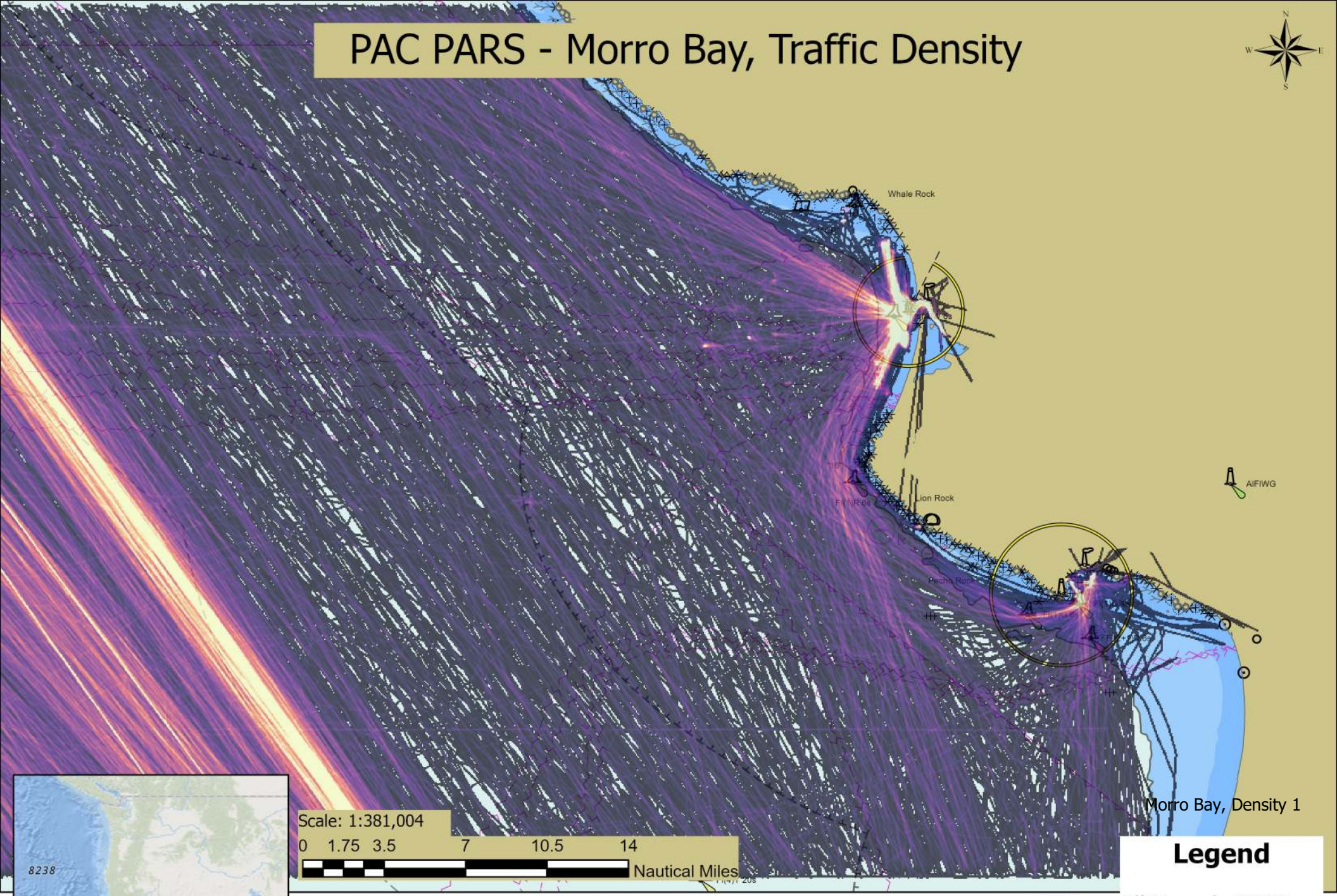
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/18/2022 12:22 PM

PAC PARS - Morro Bay, Traffic Density



Scale: 1:381,004

0 1.75 3.5 7 10.5 14

Nautical Miles

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.
Last Update: 3/15/2022 9:14 AM

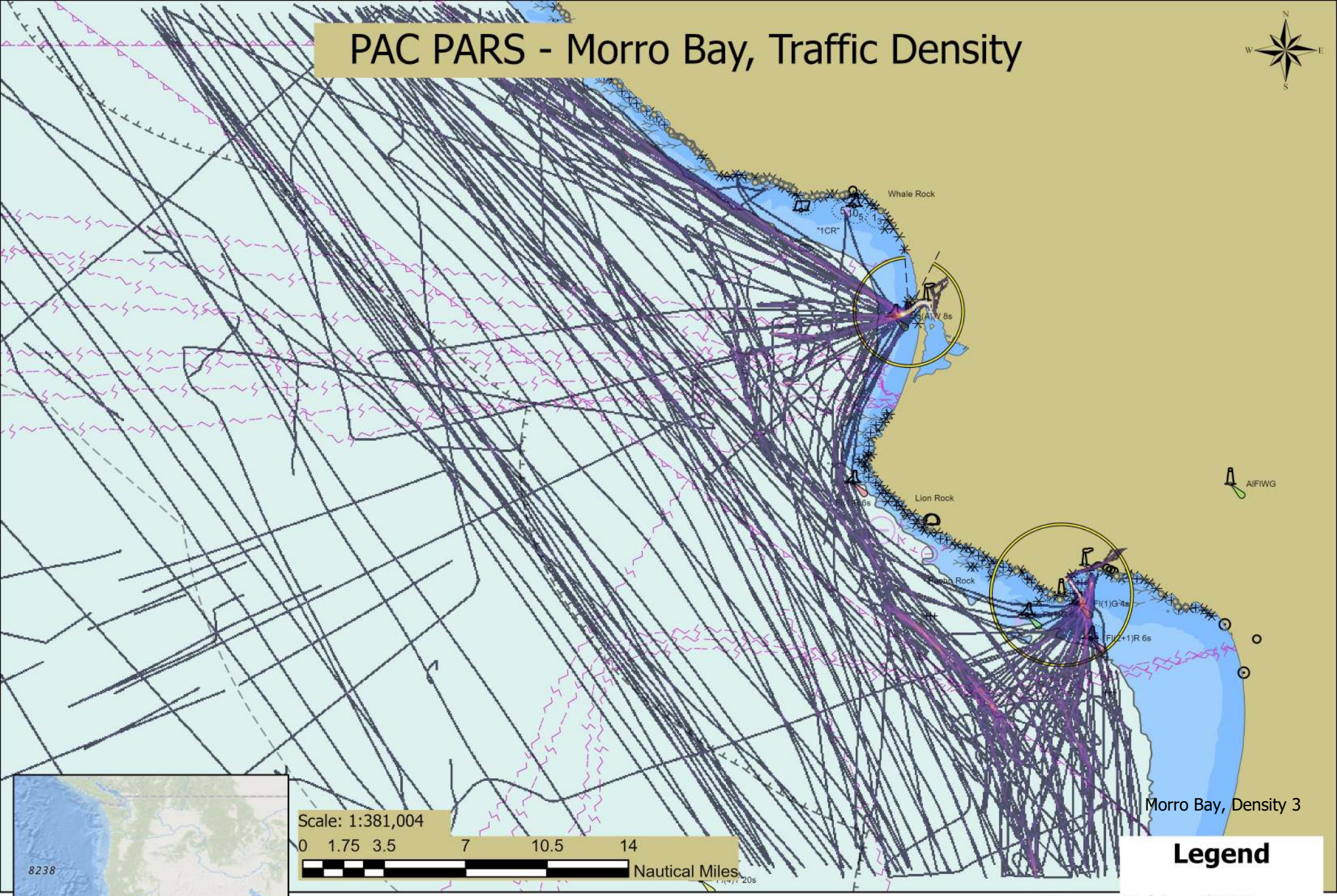
Legend

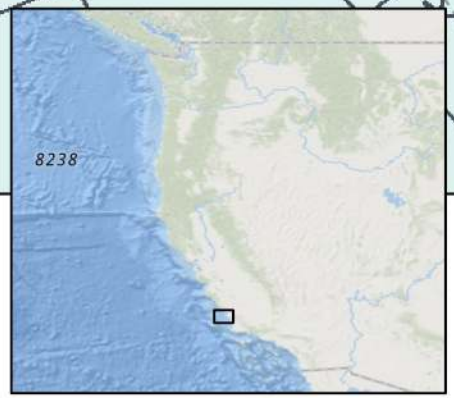
All Vessels 2019

High Traffic Density

Low Traffic Density

PAC PARS - Morro Bay, Traffic Density





Scale: 1:381,004

0 1.75 3.5 7 10.5 14

Nautical Miles

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.
Last Update: 3/15/2022 9:24 AM

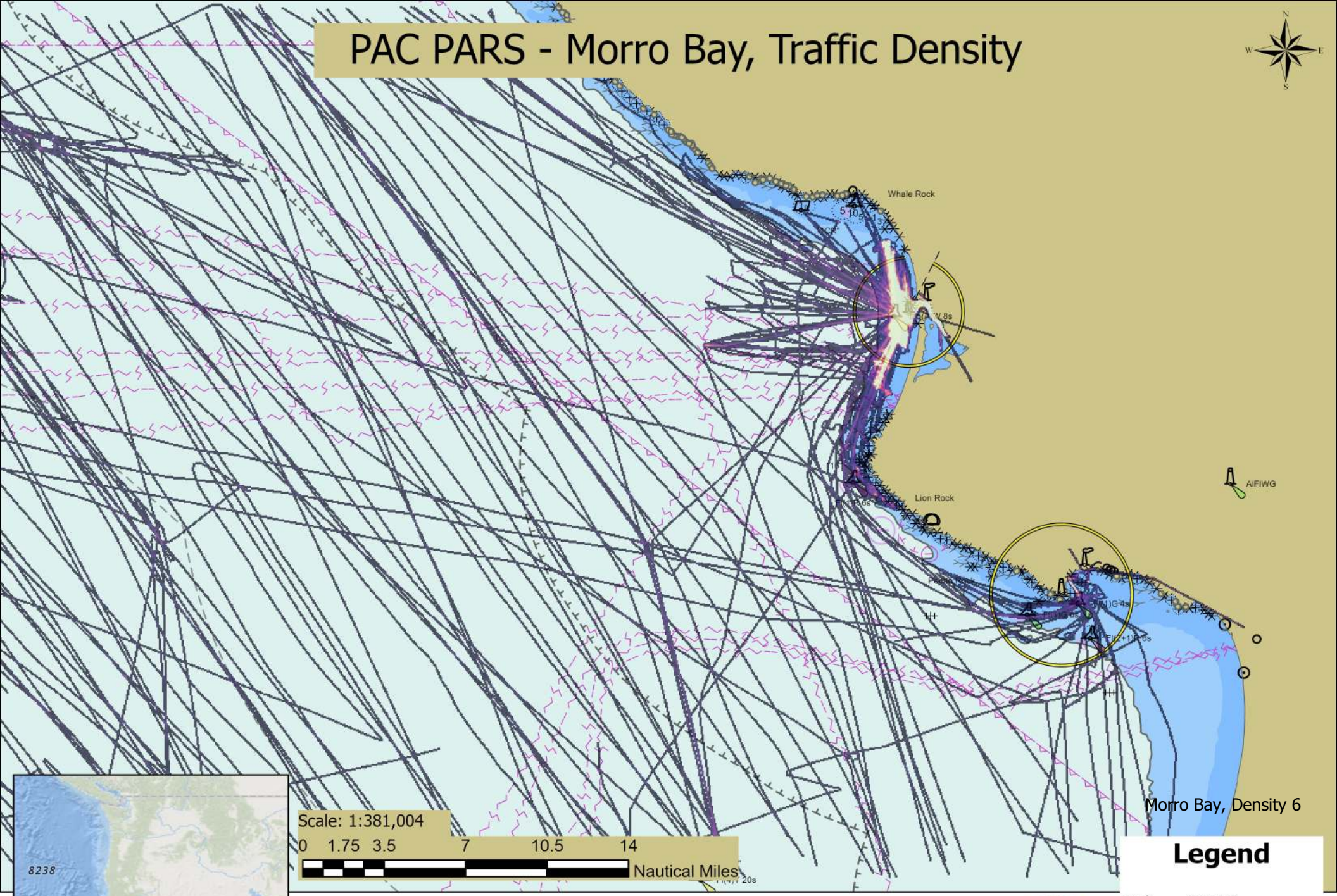
Legend

Fishing 2019

High Traffic Density

Low Traffic Density

PAC PARS - Morro Bay, Traffic Density



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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.
Last Update: 3/15/2022 9:26 AM

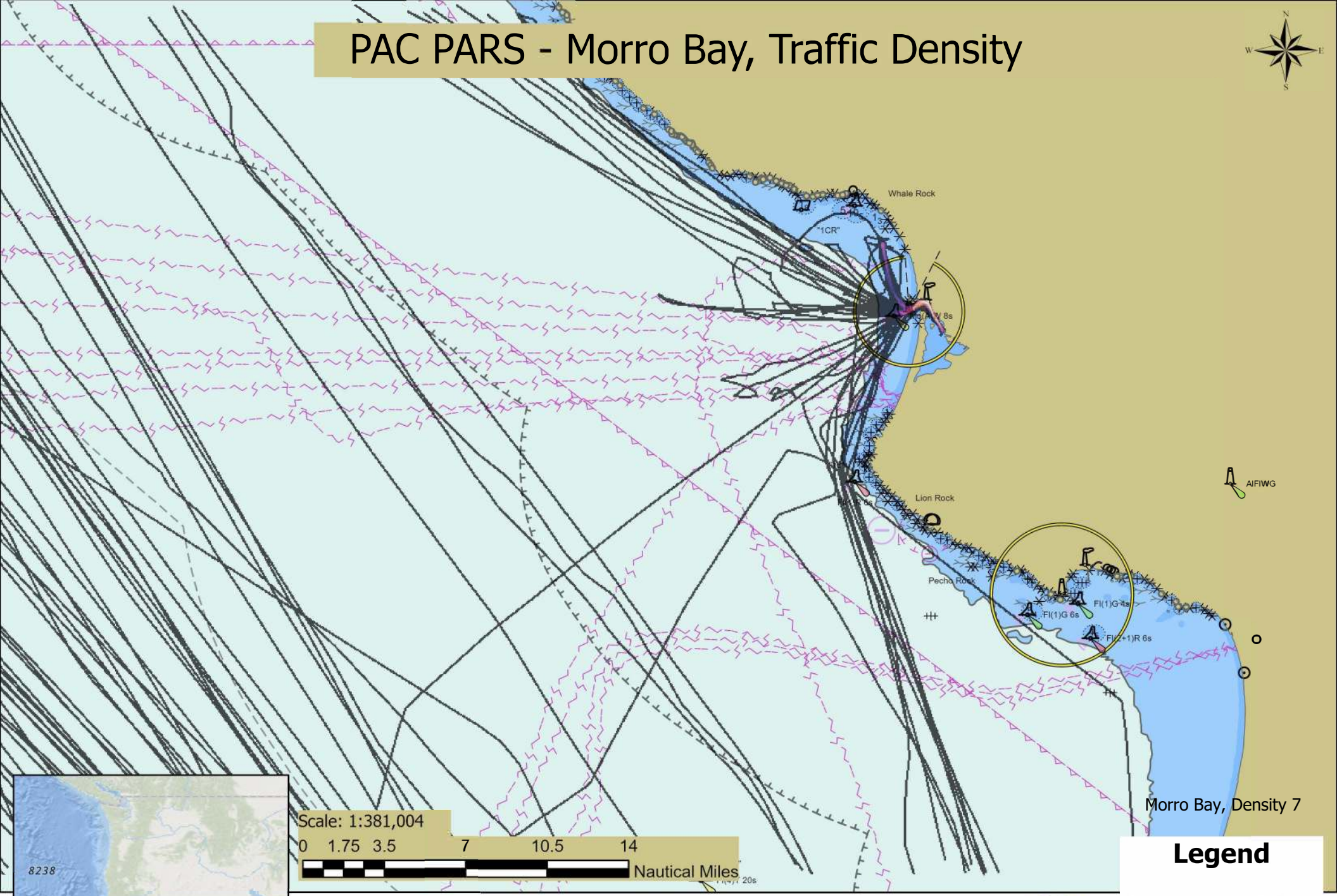
Legend

Other 2019

High Traffic Density

Low Traffic Density

PAC PARS - Morro Bay, Traffic Density



Scale: 1:381,004

0 1.75 3.5 7 10.5 14

Nautical Miles

Legend

Passenger 2019

High Traffic Density

Low Traffic Density

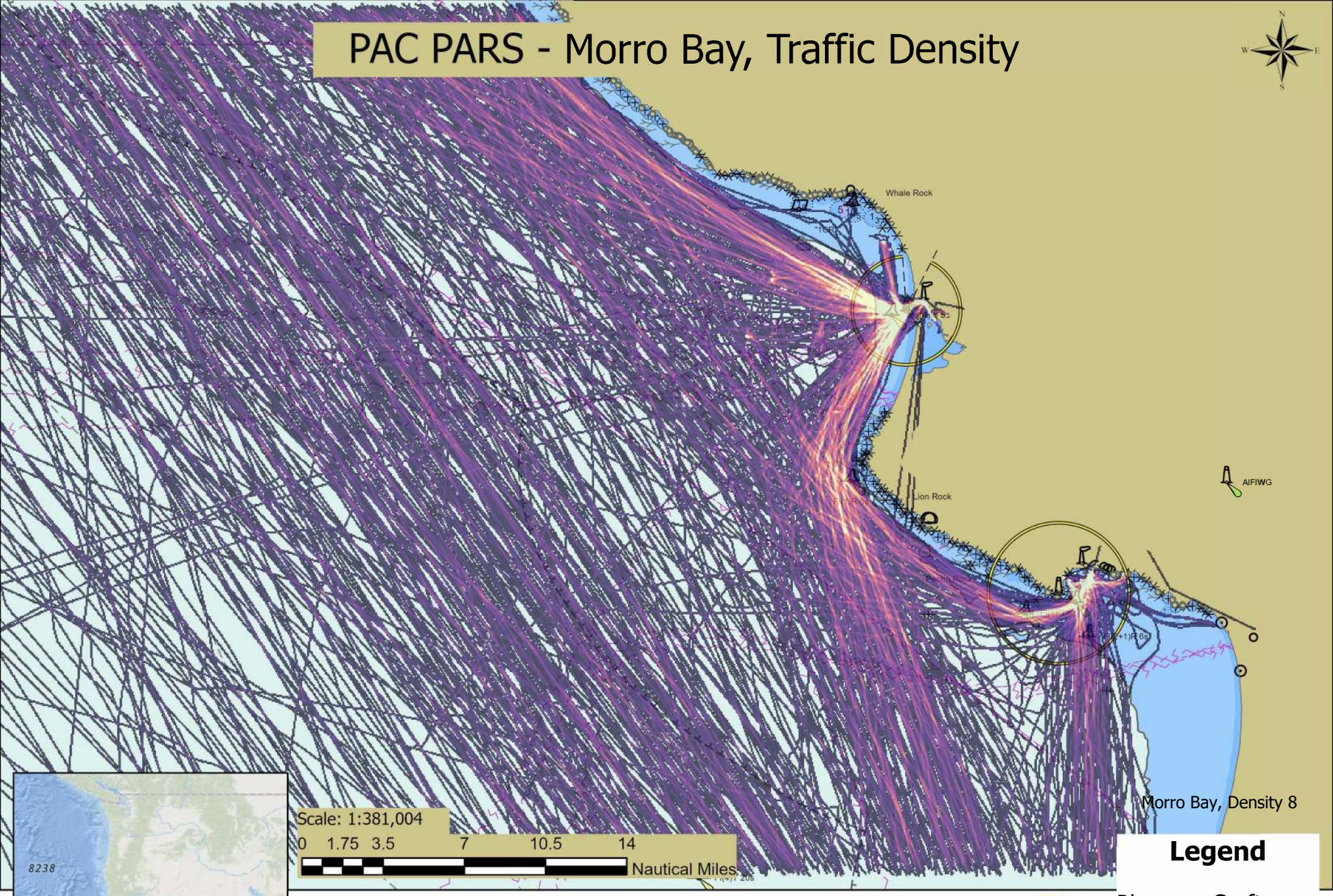
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

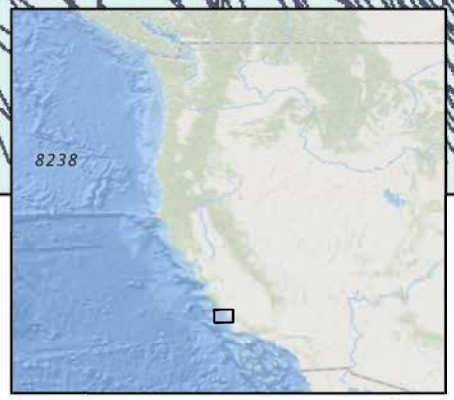
Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 8/16/2022 10:24 AM

PAC PARS - Morro Bay, Traffic Density





Scale: 1:381,004

0 1.75 3.5 7 10.5 14

Nautical Miles

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.
Last Update: 5/17/2022 1:12 PM

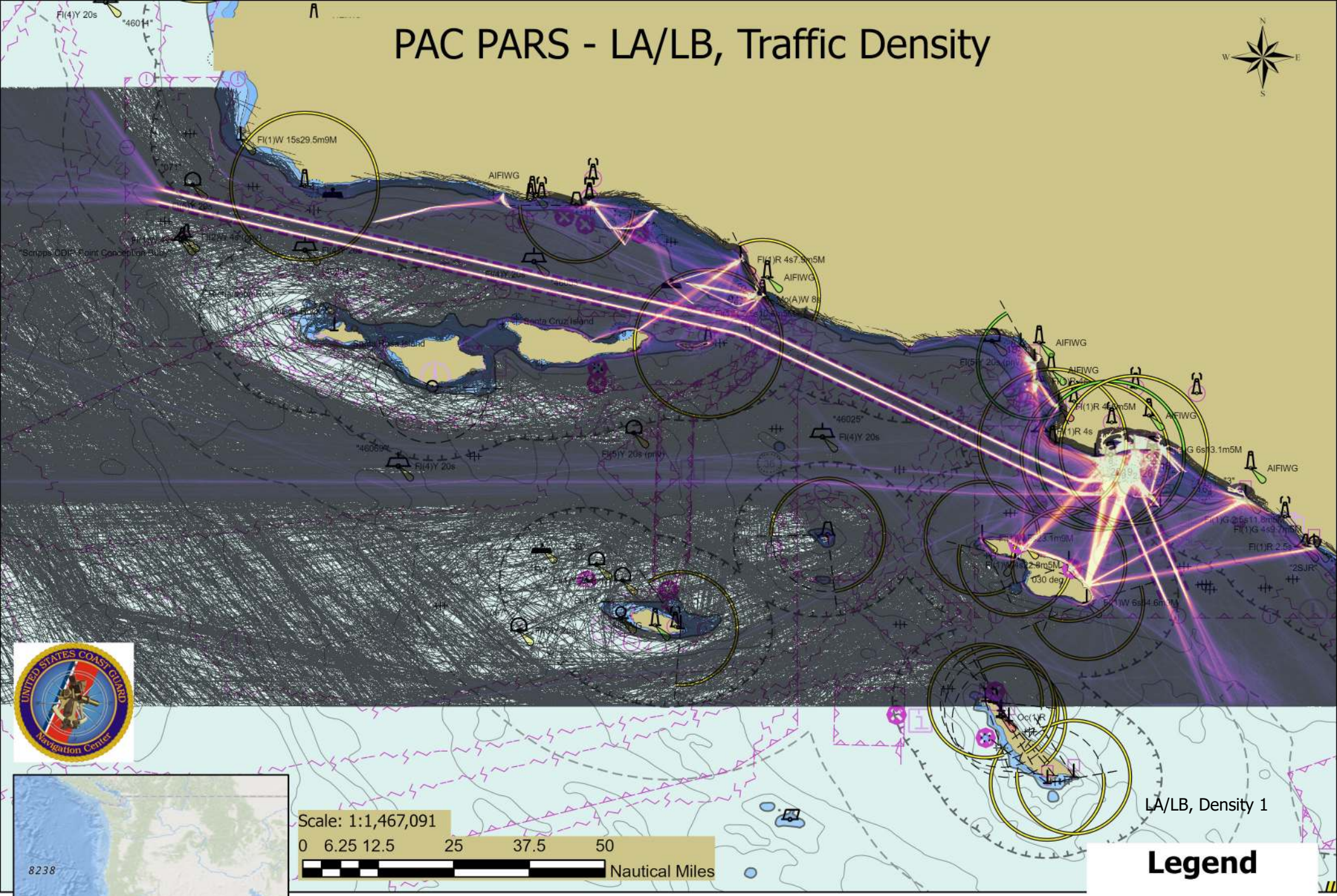
Legend

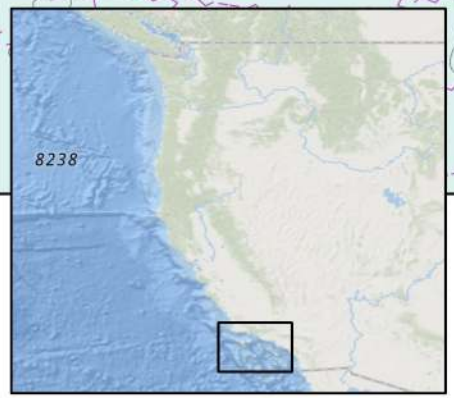
Pleasure Craft 2019

High Traffic Density

Low Traffic Density

PAC PARS - LA/LB, Traffic Density





Scale: 1:1,467,091

0 6.25 12.5 25 37.5 50

Nautical Miles

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

Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/14/2022 12:50 PM

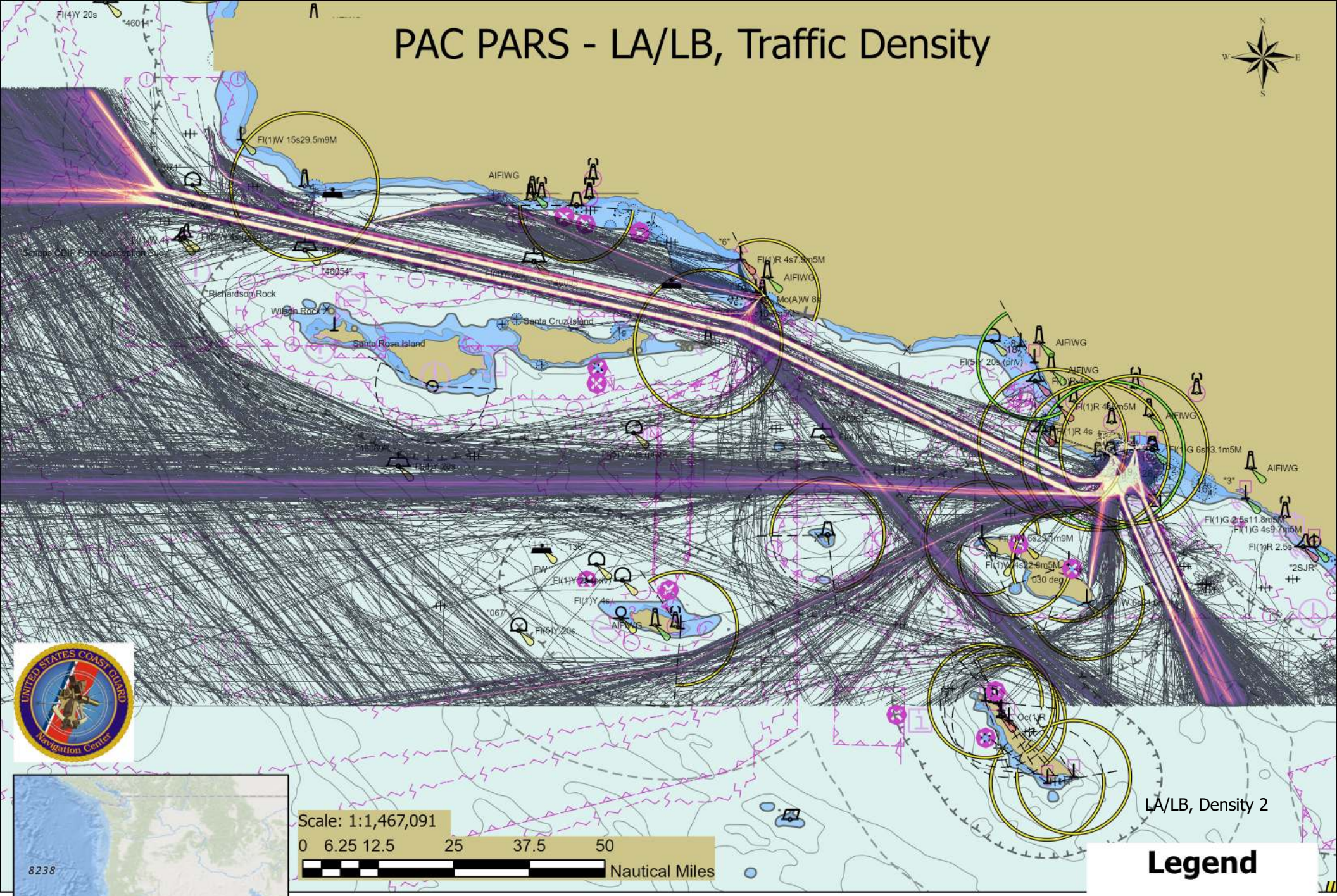
Legend

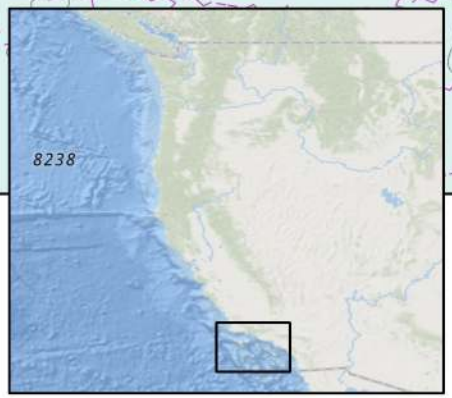
All Vessels 2019

High Traffic Density

Low Traffic Density

PAC PARS - LA/LB, Traffic Density





Scale: 1:1,467,091

0 6.25 12.5 25 37.5 50

Nautical Miles

Legend

Cargo 2019

High Traffic Density

Low Traffic Density

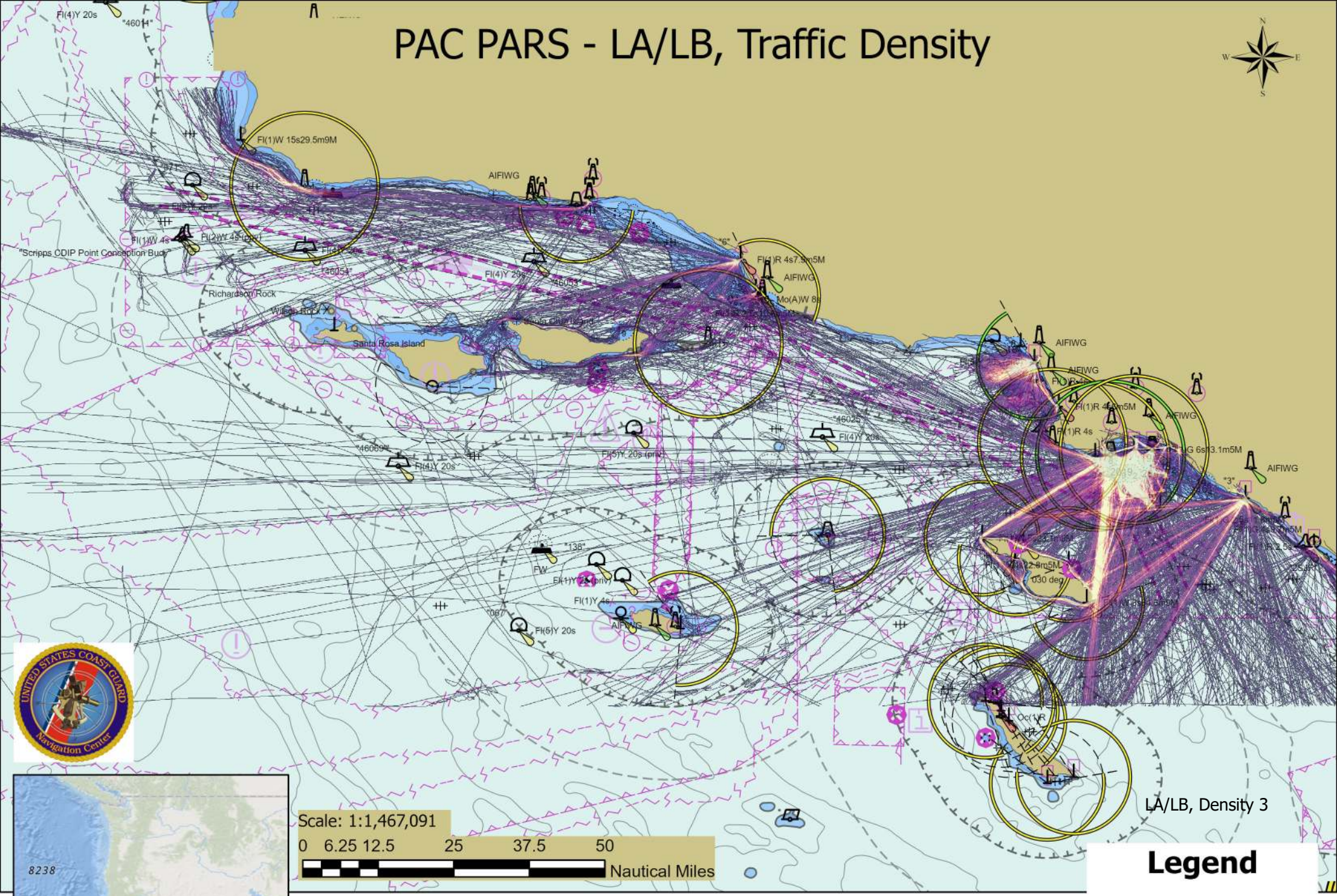
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

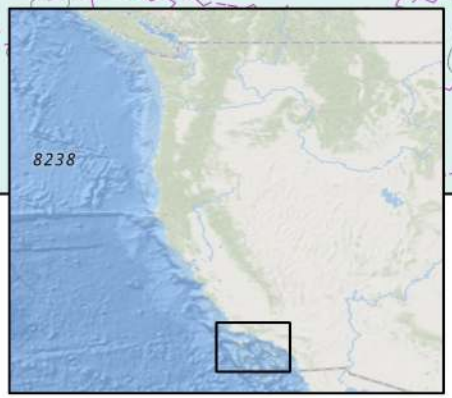
Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/14/2022 12:52 PM

PAC PARS - LA/LB, Traffic Density





Scale: 1:1,467,091

0 6.25 12.5 25 37.5 50

Nautical Miles

Legend

Fishing 2019

High Traffic Density

Low Traffic Density

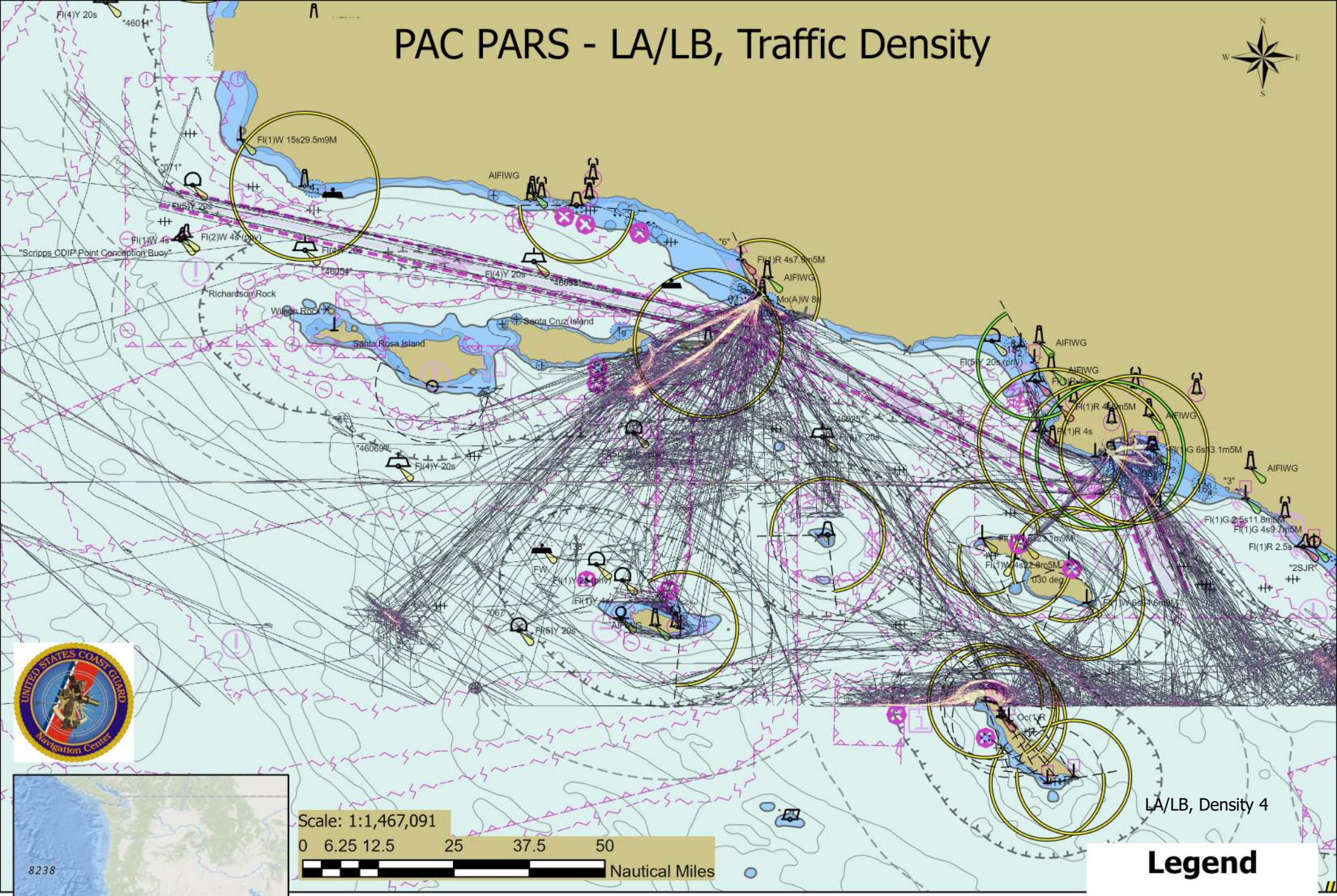
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

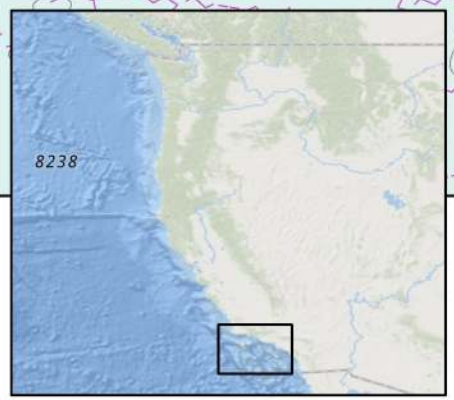
Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/14/2022 12:54 PM

PAC PARS - LA/LB, Traffic Density





Scale: 1:1,467,091

0 6.25 12.5 25 37.5 50

Nautical Miles

Legend

Military 2019

High Traffic Density

Low Traffic Density

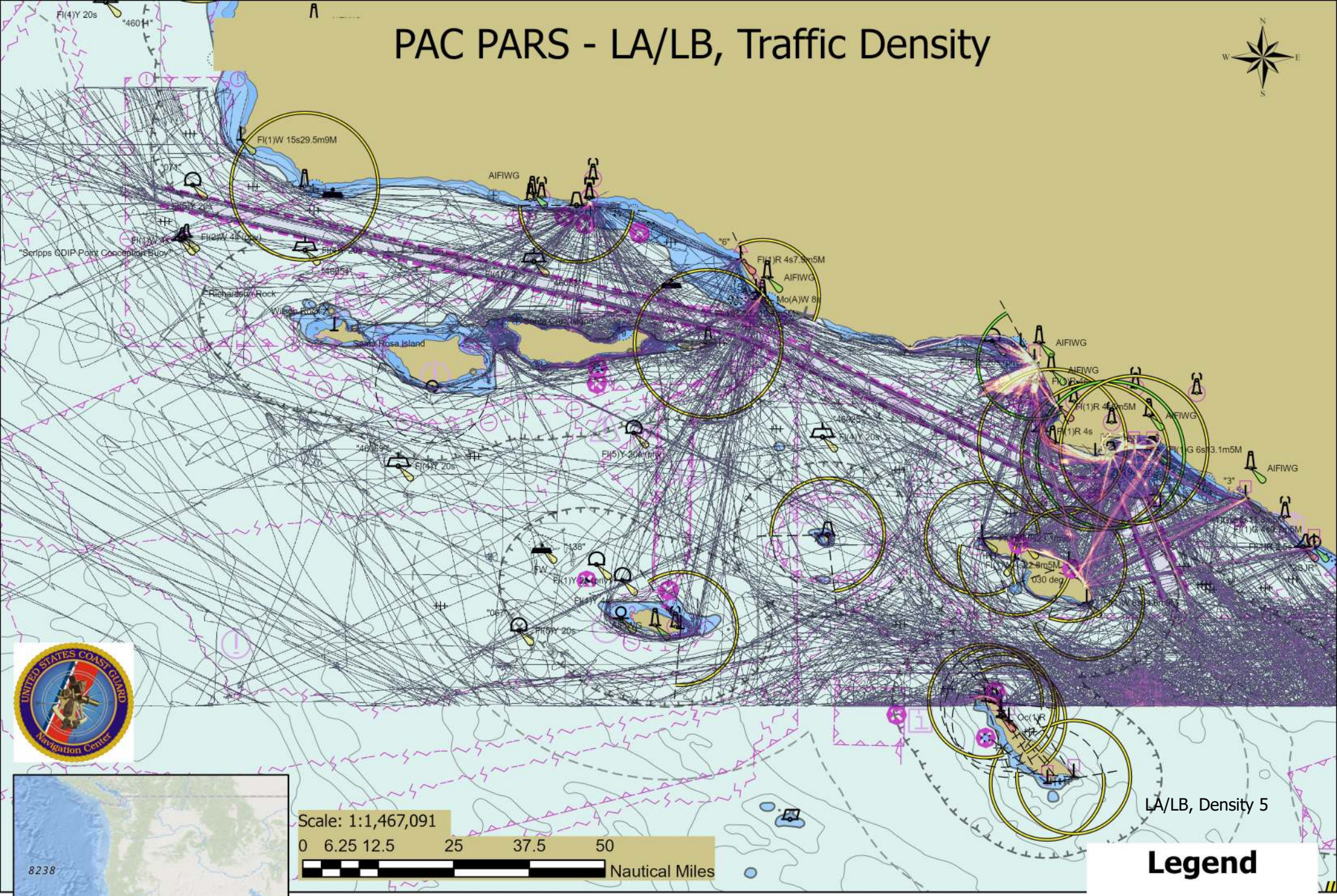
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

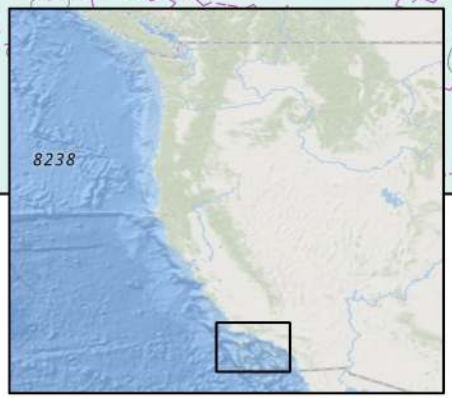
Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/14/2022 1:00 PM

PAC PARS - LA/LB, Traffic Density





Scale: 1:1,467,091

0 6.25 12.5 25 37.5 50

Nautical Miles

Legend

Not Available 2019

High Traffic Density

Low Traffic Density

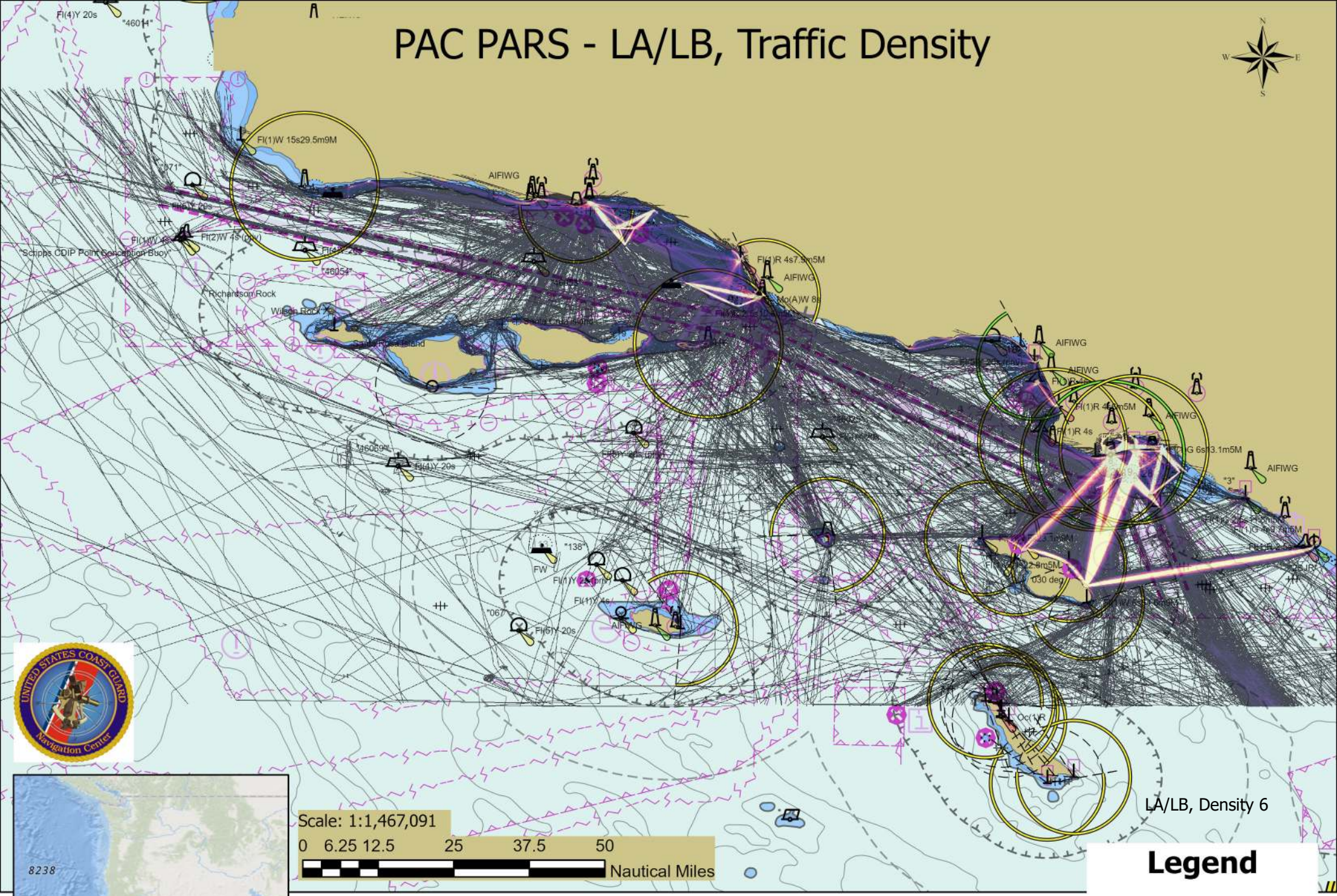
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/14/2022 1:02 PM

PAC PARS - LA/LB, Traffic Density



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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.
Last Update: 3/14/2022 1:03 PM

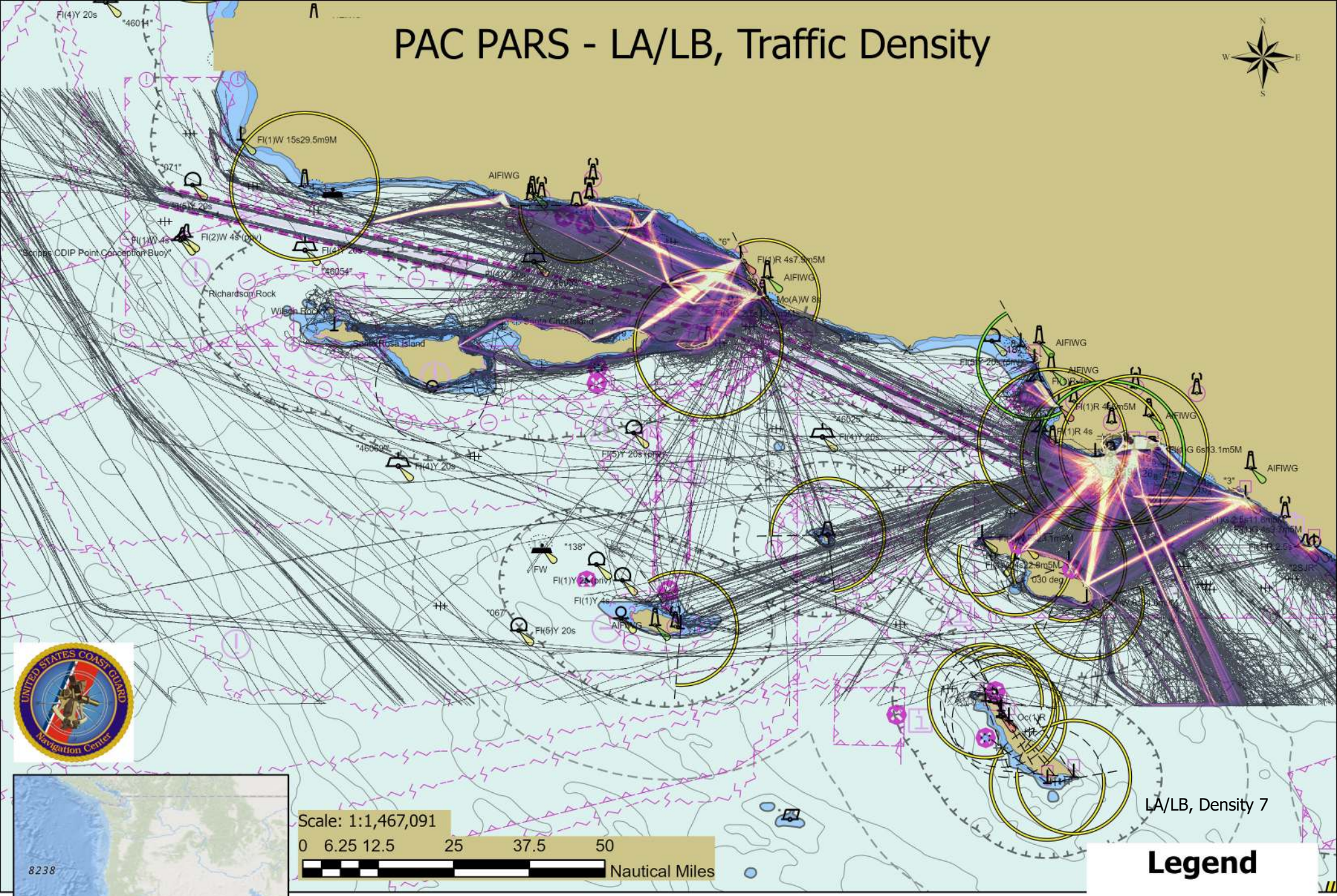
Legend

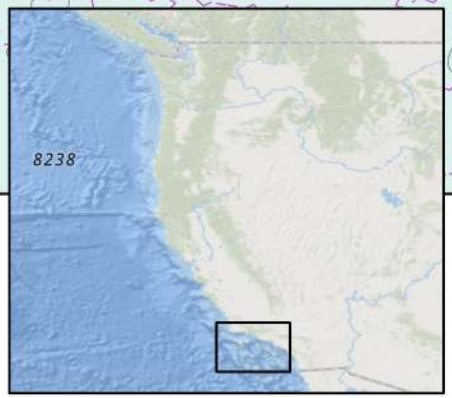
Other 2019

High Traffic Density

Low Traffic Density

PAC PARS - LA/LB, Traffic Density





Scale: 1:1,467,091

0 6.25 12.5 25 37.5 50

Nautical Miles

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

Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/14/2022 1:05 PM

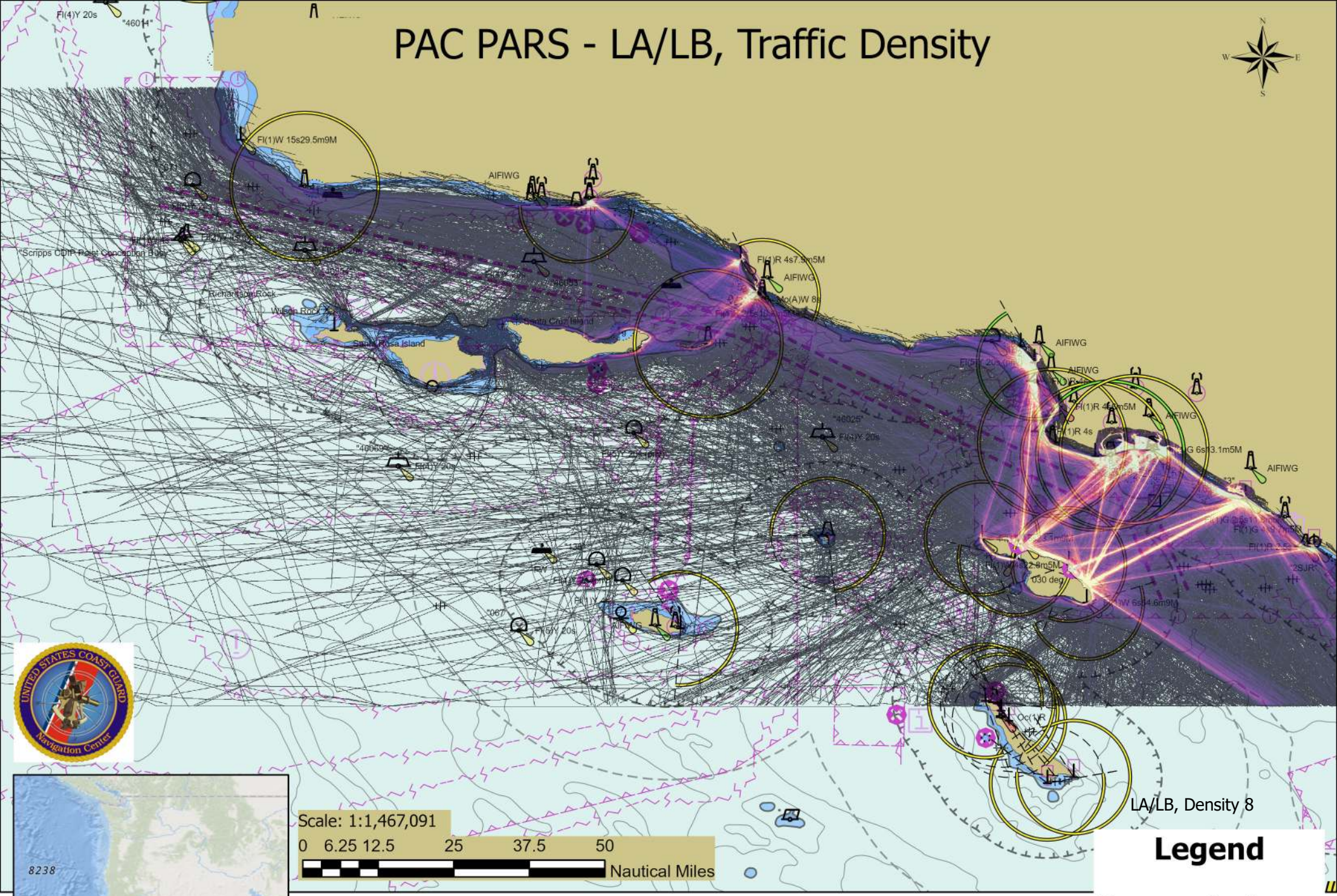
Legend

Passenger 2019

High Traffic Density

Low Traffic Density

PAC PARS - LA/LB, Traffic Density



LA/LB, Density 8

Legend

Pleasure Craft 2019

High Traffic Density

Low Traffic Density

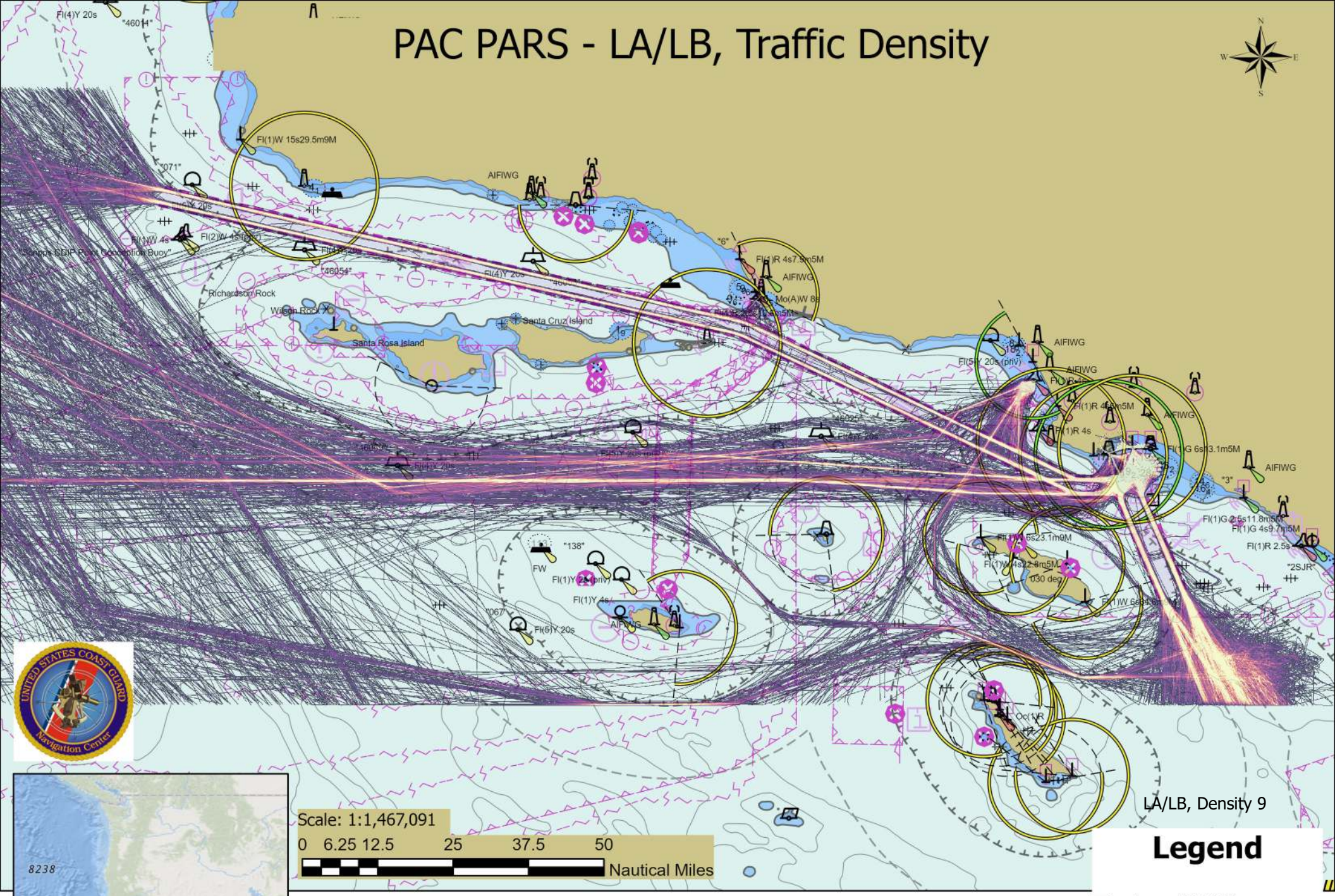
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

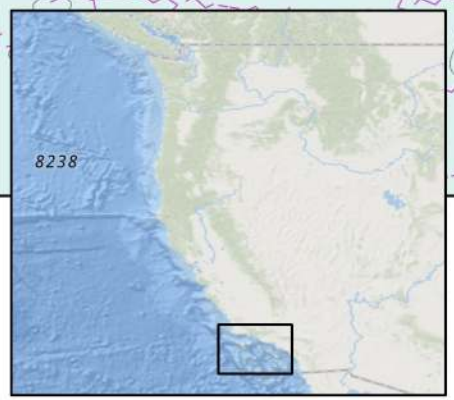
Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/14/2022 1:07 PM

PAC PARS - LA/LB, Traffic Density





Scale: 1:1,467,091

0 6.25 12.5 25 37.5 50

Nautical Miles

LA/LB, Density 9

Legend

Tanker 2019

High Traffic Density

Low Traffic Density

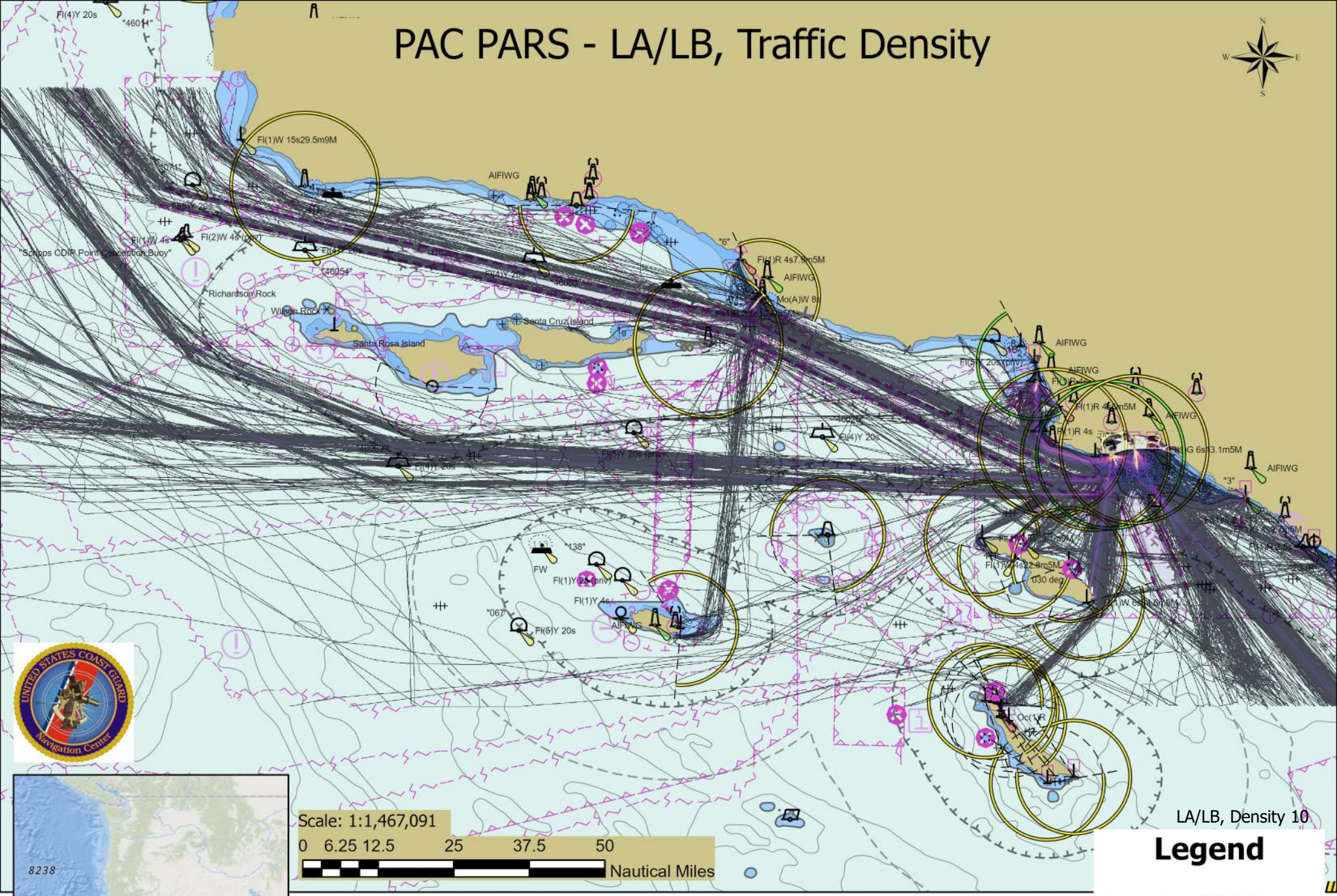
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/14/2022 1:08 PM

PAC PARS - LA/LB, Traffic Density



Legend

Tug Tow 2019

- High Traffic Density
- Low Traffic Density

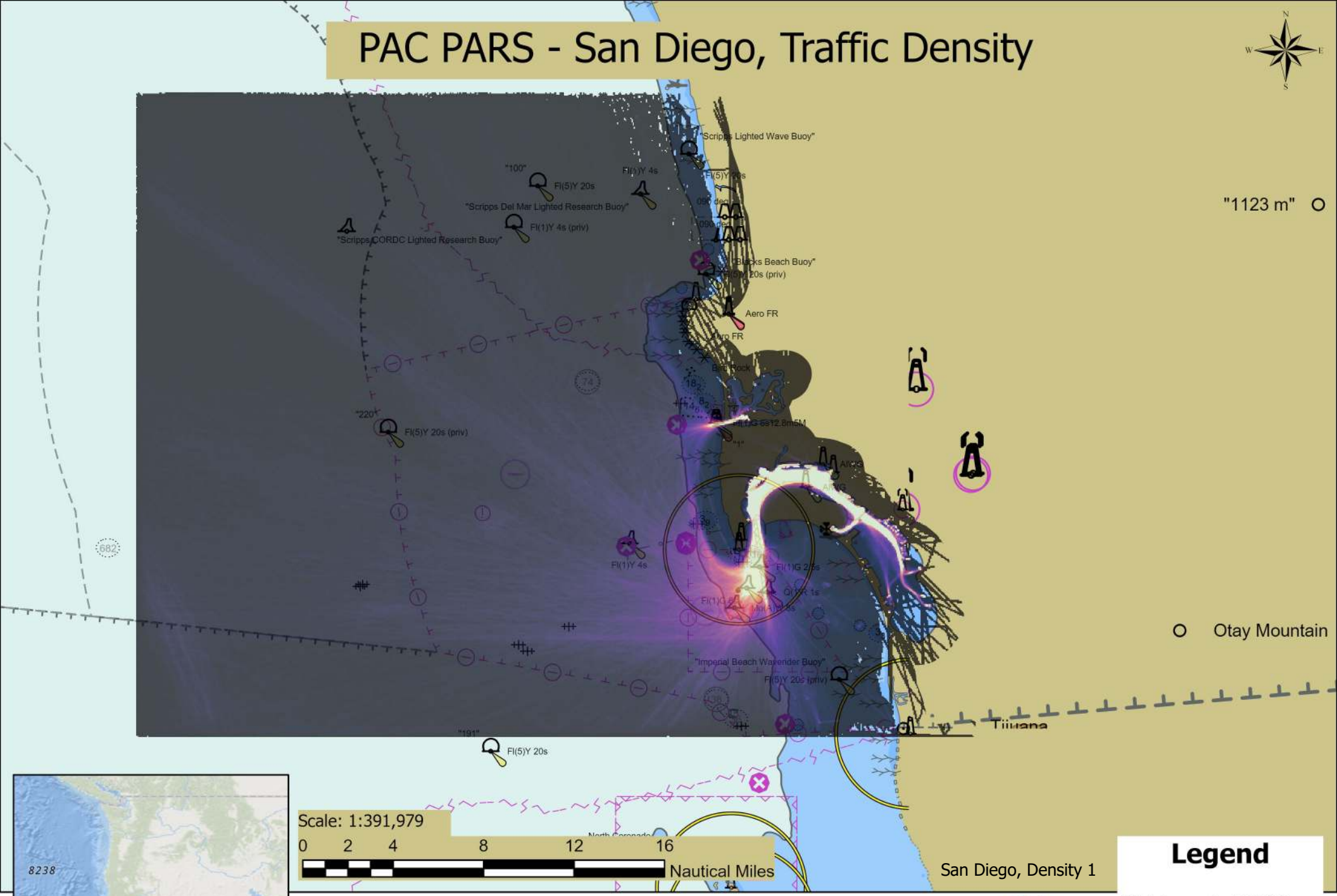
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/14/2022 1:14 PM

PAC PARS - San Diego, Traffic Density



Scale: 1:391,979

0 2 4 8 12 16

Nautical Miles

San Diego, Density 1

Legend

All Vessels 2019

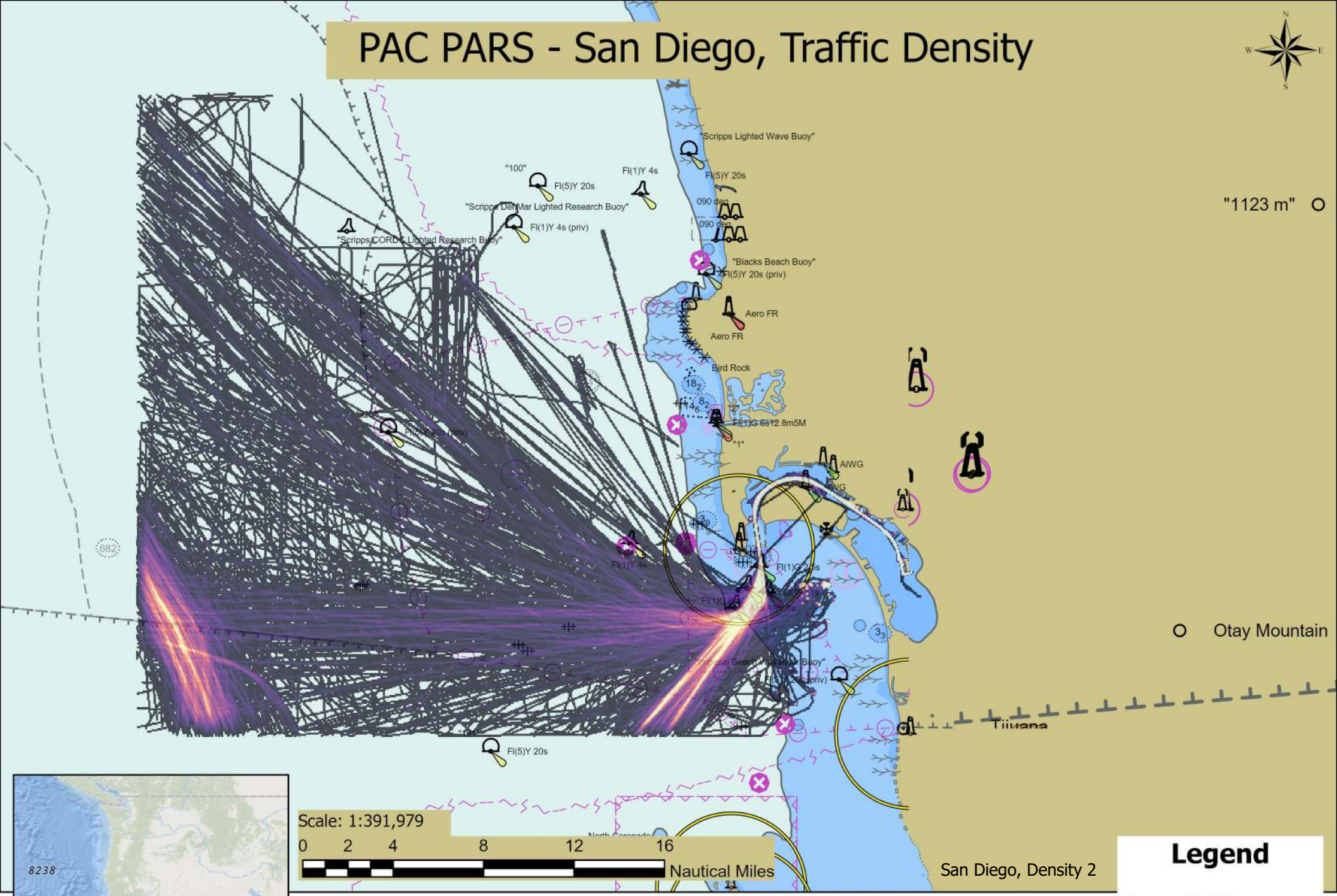
High Traffic Density

Low Traffic Density

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.
Last Update: 3/18/2022 11:42 AM

PAC PARS - San Diego, Traffic Density



Scale: 1:391,979

0 2 4 8 12 16

Nautical Miles

San Diego, Density 2

Legend

Cargo 2019

High Traffic Density

Low Traffic Density

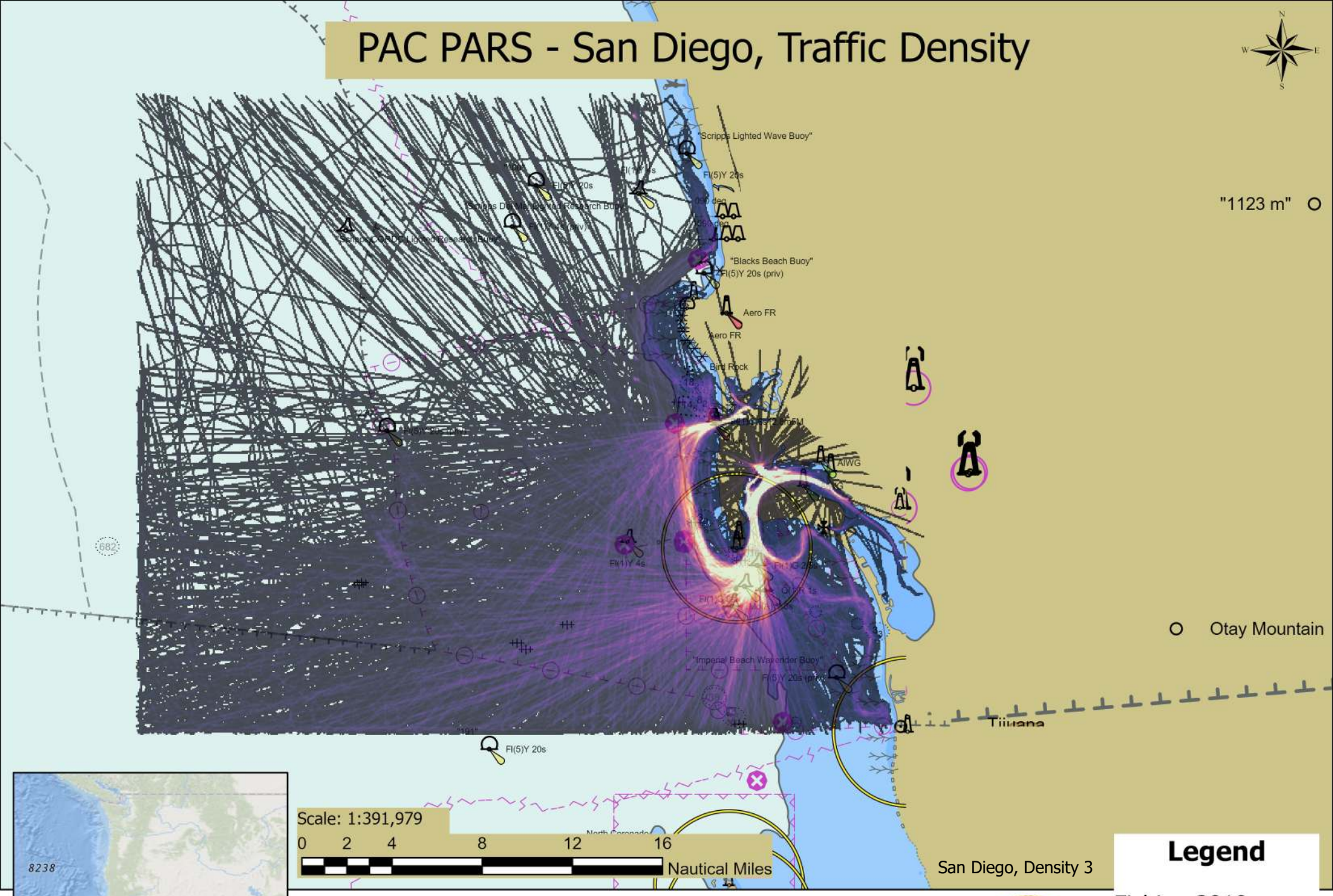
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/18/2022 11:46 AM

PAC PARS - San Diego, Traffic Density



Legend

Fishing 2019

High Traffic Density

Low Traffic Density

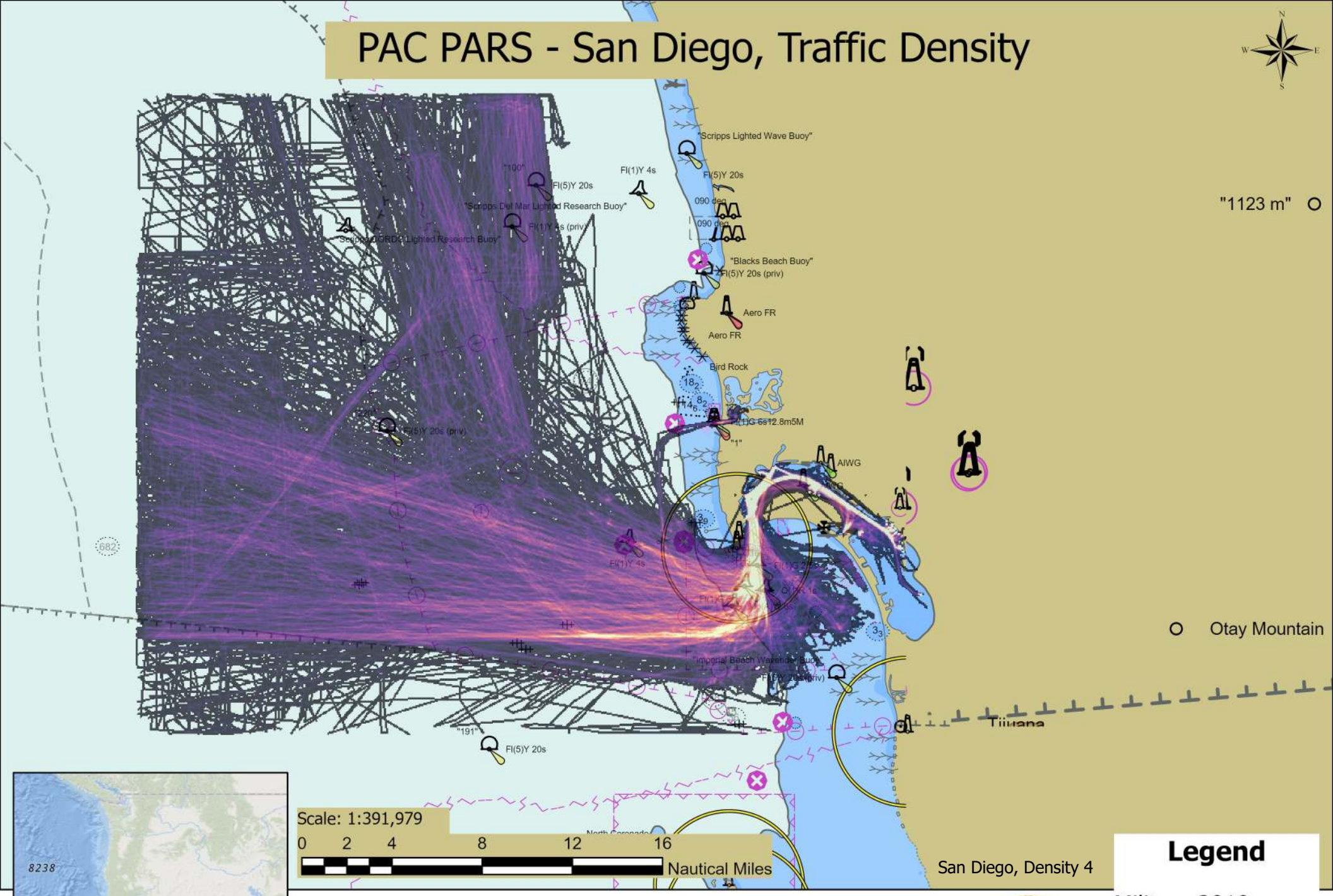
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/18/2022 11:48 AM

PAC PARS - San Diego, Traffic Density



Legend

Military 2019

High Traffic Density

Low Traffic Density

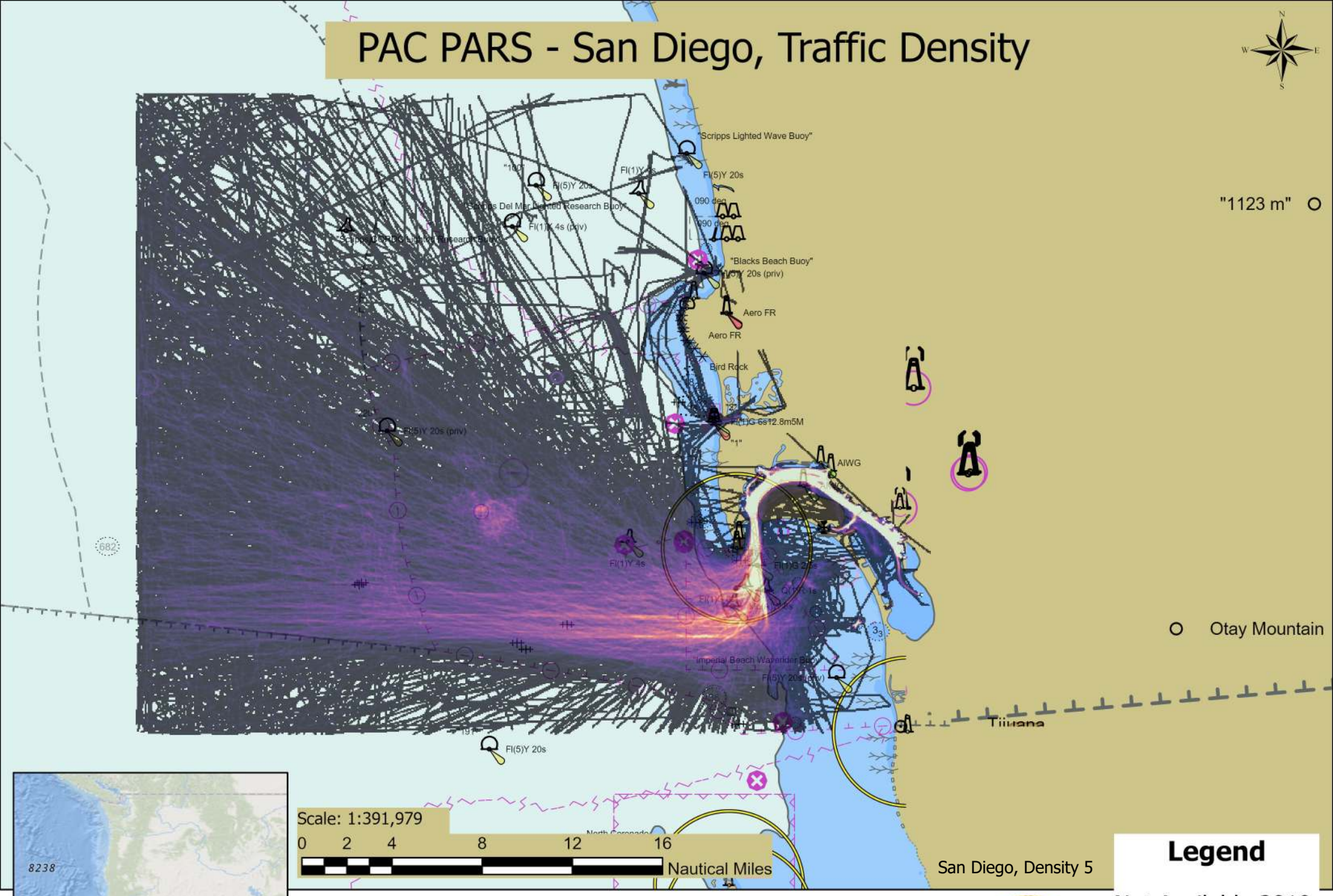
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/18/2022 11:48 AM

PAC PARS - San Diego, Traffic Density



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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.
Last Update: 3/18/2022 11:49 AM

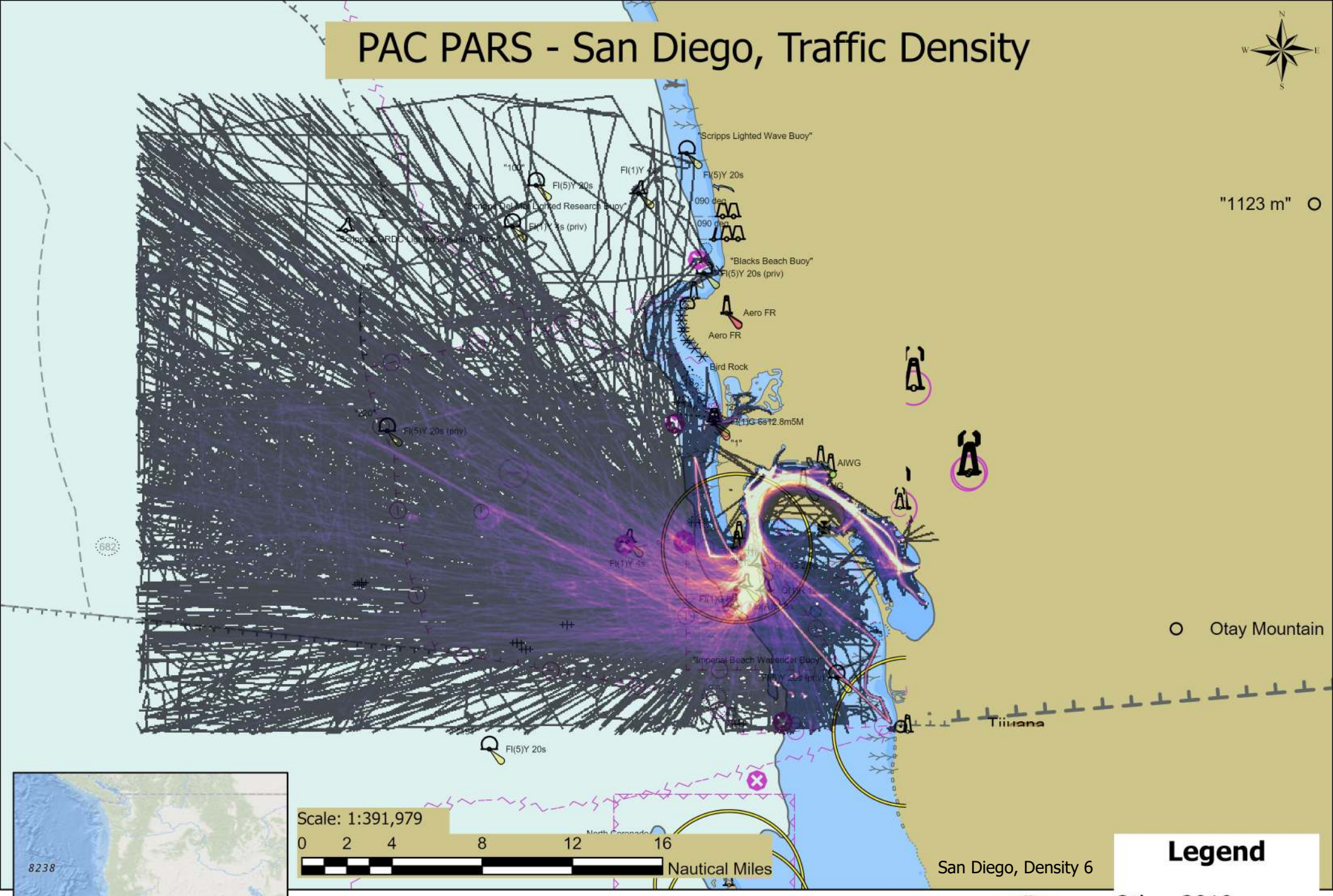
Legend

Not Available 2019

High Traffic Density

Low Traffic Density

PAC PARS - San Diego, Traffic Density



Legend

Other 2019

High Traffic Density

Low Traffic Density

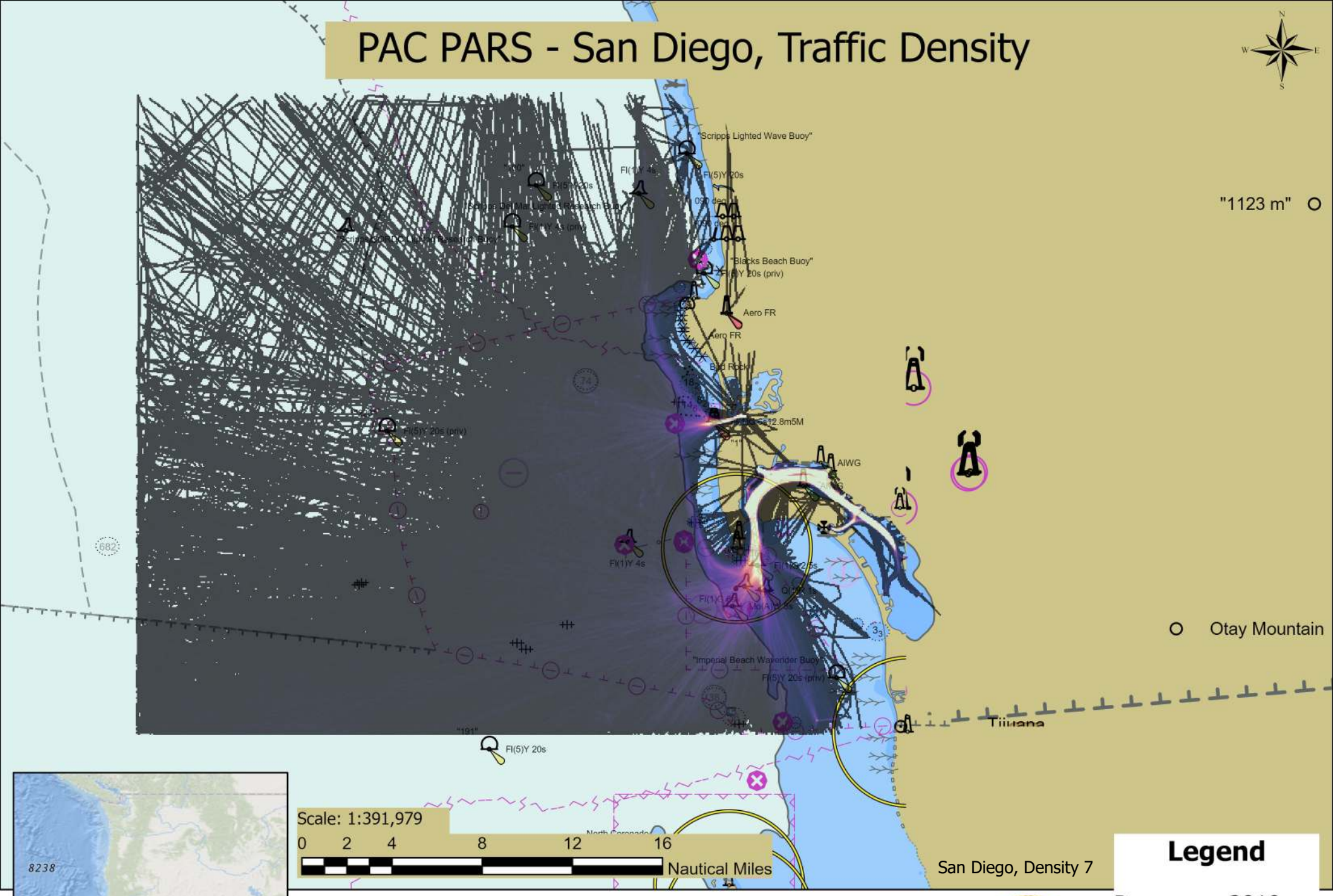
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

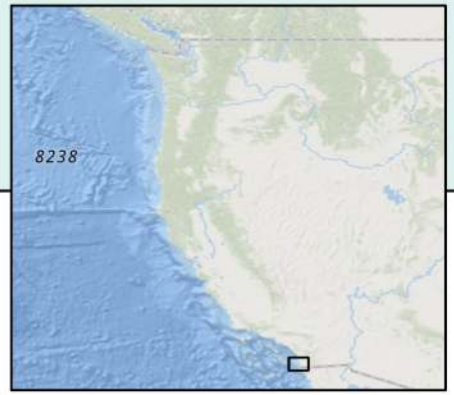
Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/18/2022 11:50 AM

PAC PARS - San Diego, Traffic Density





Scale: 1:391,979

0 2 4 8 12 16

Nautical Miles

San Diego, Density 7

Legend

Passenger 2019

High Traffic Density

Low Traffic Density

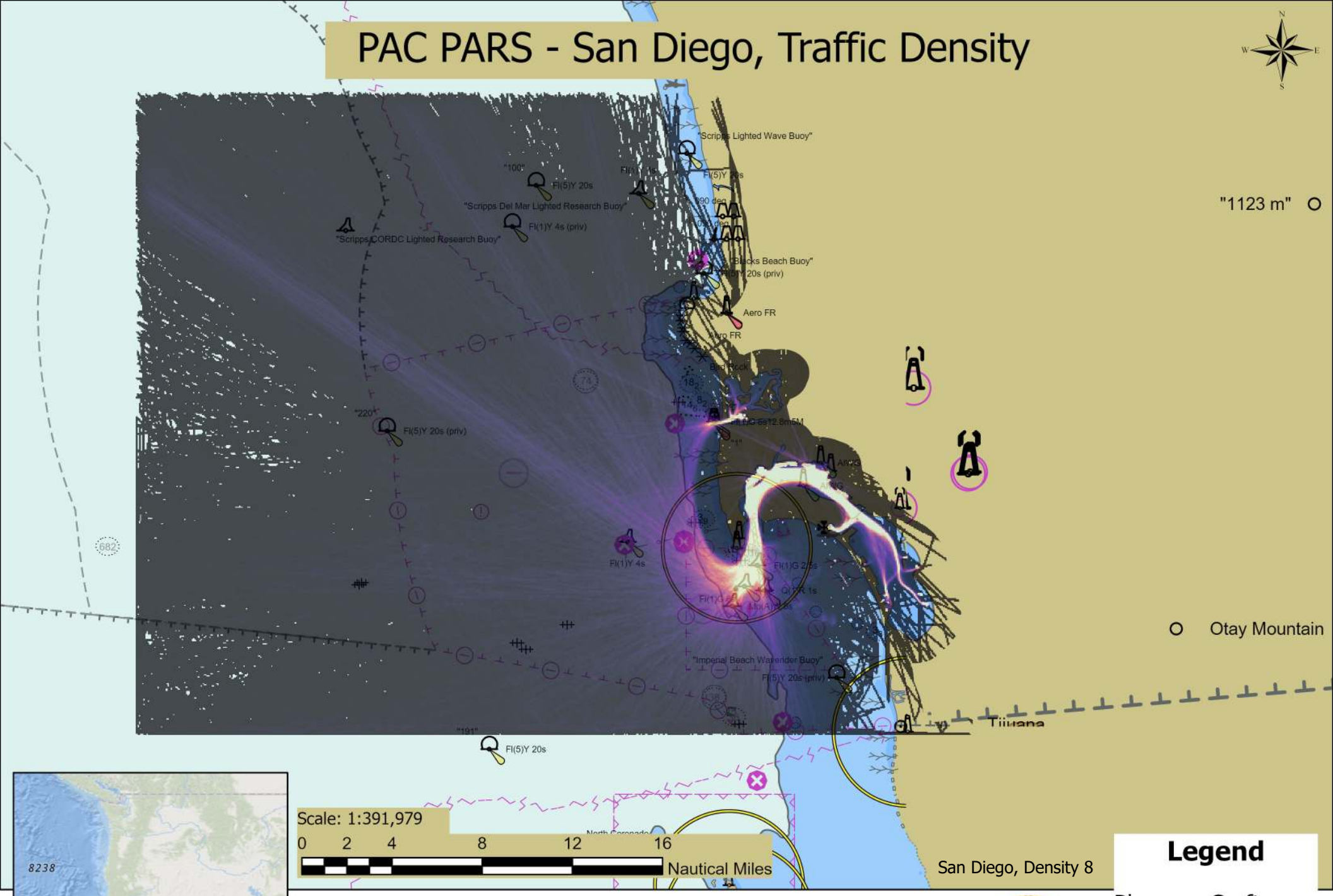
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/18/2022 11:51 AM

PAC PARS - San Diego, Traffic Density



Scale: 1:391,979

0 2 4 8 12 16

Nautical Miles

San Diego, Density 8

Legend

Pleasure Craft 2019

High Traffic Density

Low Traffic Density

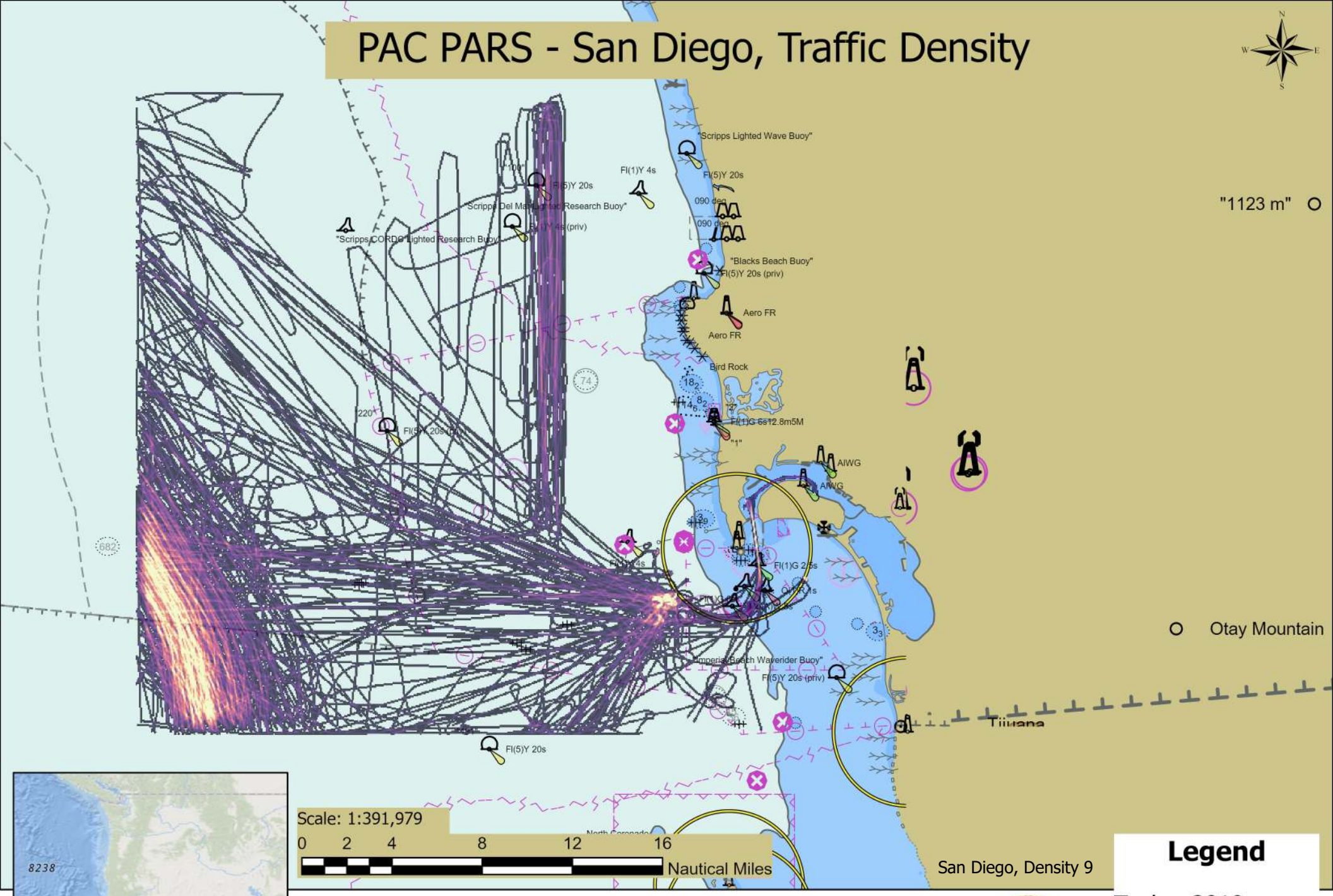
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.

Last Update: 3/18/2022 11:52 AM

PAC PARS - San Diego, Traffic Density



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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.
Last Update: 3/18/2022 11:52 AM

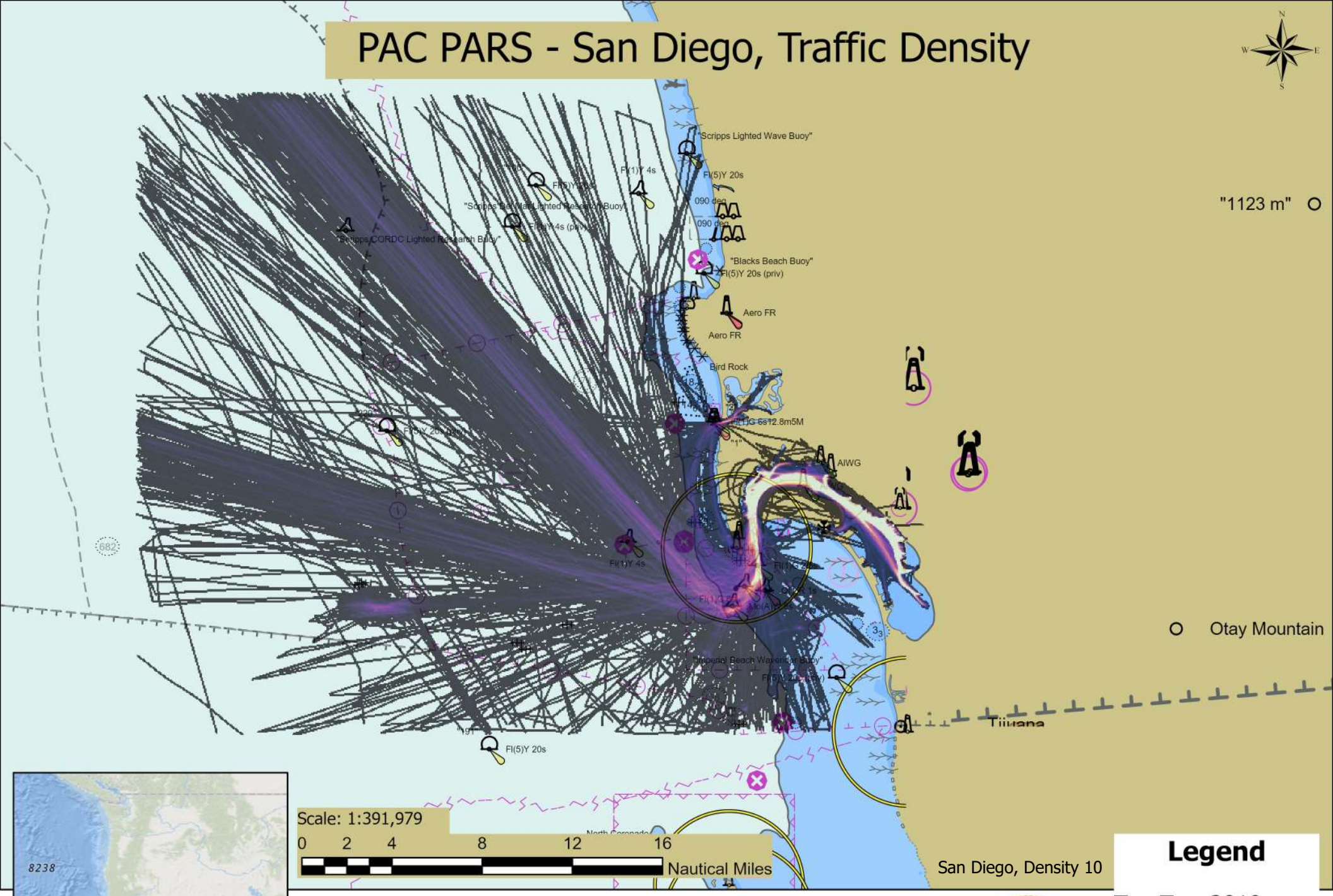
Legend

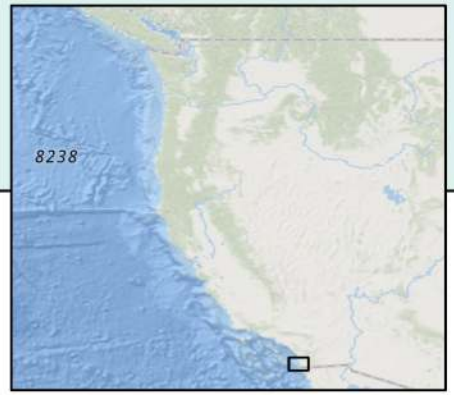
Tanker 2019

High Traffic Density

Low Traffic Density

PAC PARS - San Diego, Traffic Density





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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This traffic density depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The density is on the best scale for this vessel type, and cannot be directly compared to other traffic densities, even for the same geographic area.
Last Update: 3/18/2022 11:54 AM

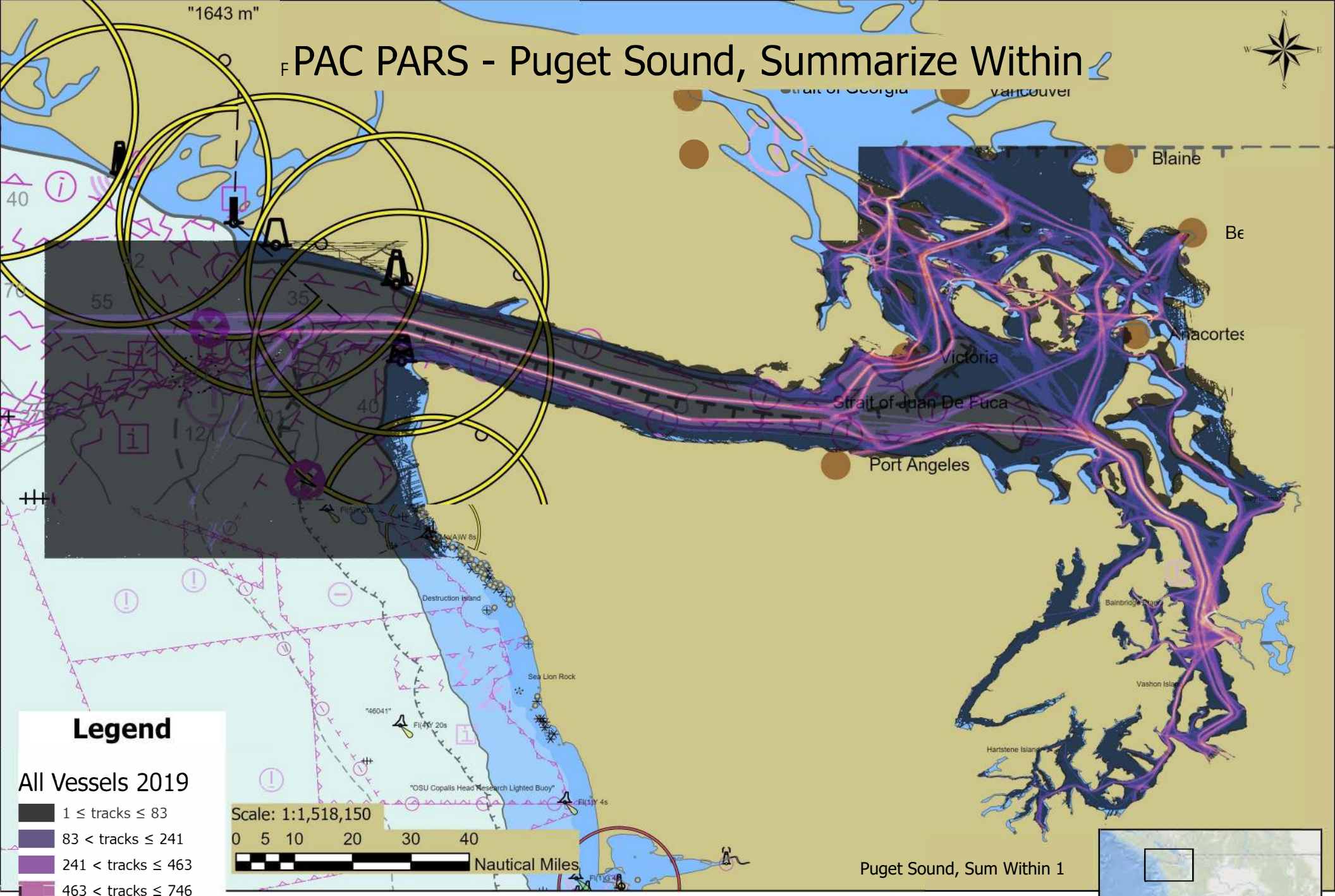
Legend

Tug Tow 2019

High Traffic Density

Low Traffic Density

PAC PARS - Puget Sound, Summarize Within

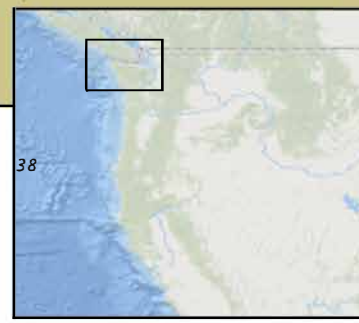


Legend

All Vessels 2019

- 1 ≤ tracks ≤ 83
- 83 < tracks ≤ 241
- 241 < tracks ≤ 463
- 463 < tracks ≤ 746
- 746 < tracks ≤ 1120
- 1120 < tracks ≤ 1594
- 1594 < tracks ≤ 2514
- 2514 < tracks ≤ 6371

Puget Sound, Sum Within 1

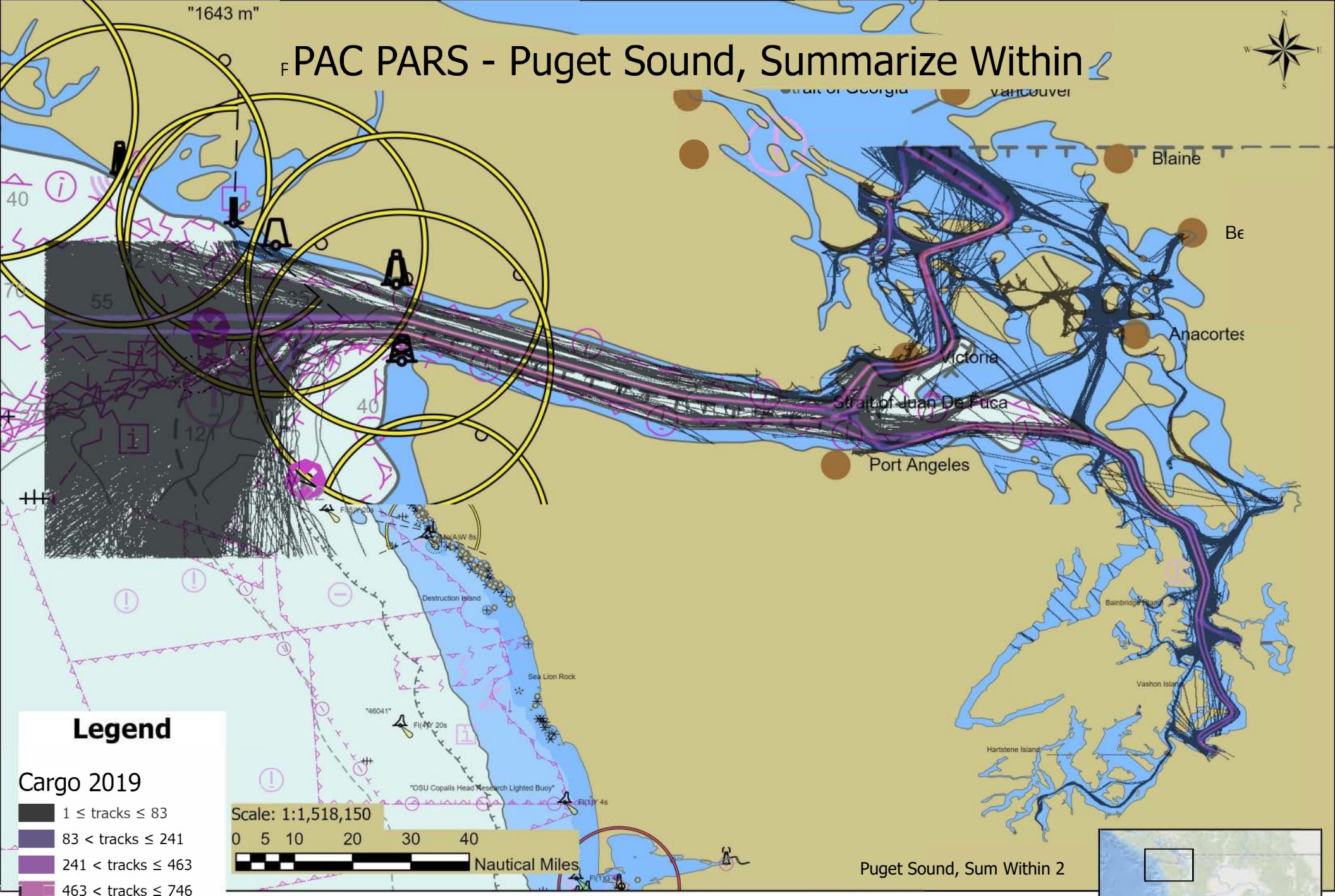


Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/25/2022 8:32 AM

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

PAC PARS - Puget Sound, Summarize Within



Legend

Cargo 2019

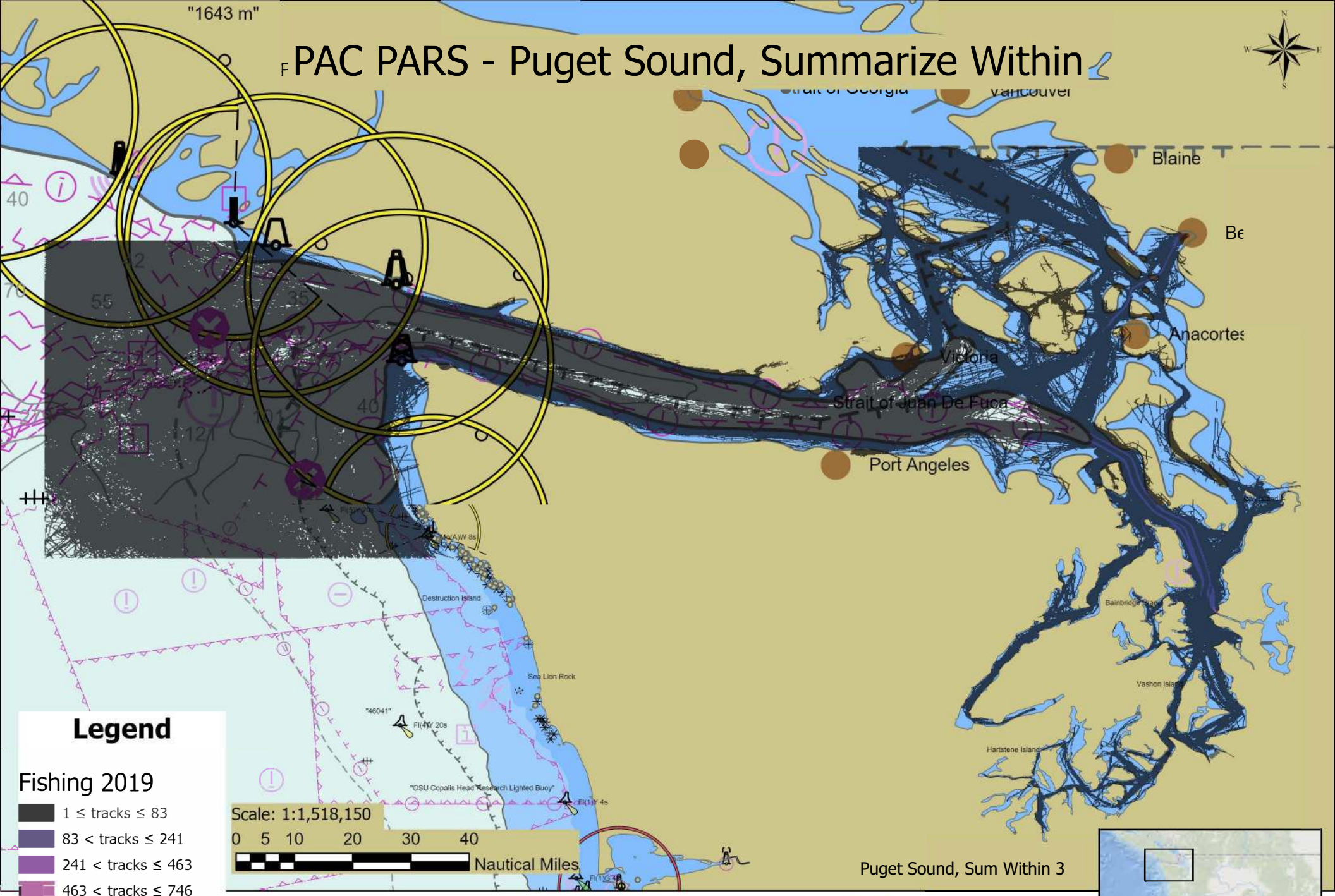
- 1 ≤ tracks ≤ 83
- 83 < tracks ≤ 241
- 241 < tracks ≤ 463
- 463 < tracks ≤ 746
- 746 < tracks ≤ 1120
- 1120 < tracks ≤ 1594
- 1594 < tracks ≤ 2514

Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/25/2022 8:36 AM

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

PAC PARS - Puget Sound, Summarize Within

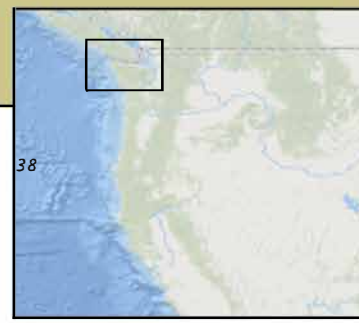


Legend

Fishing 2019

- 1 ≤ tracks ≤ 83
- 83 < tracks ≤ 241
- 241 < tracks ≤ 463
- 463 < tracks ≤ 746
- 746 < tracks ≤ 1120

Puget Sound, Sum Within 3

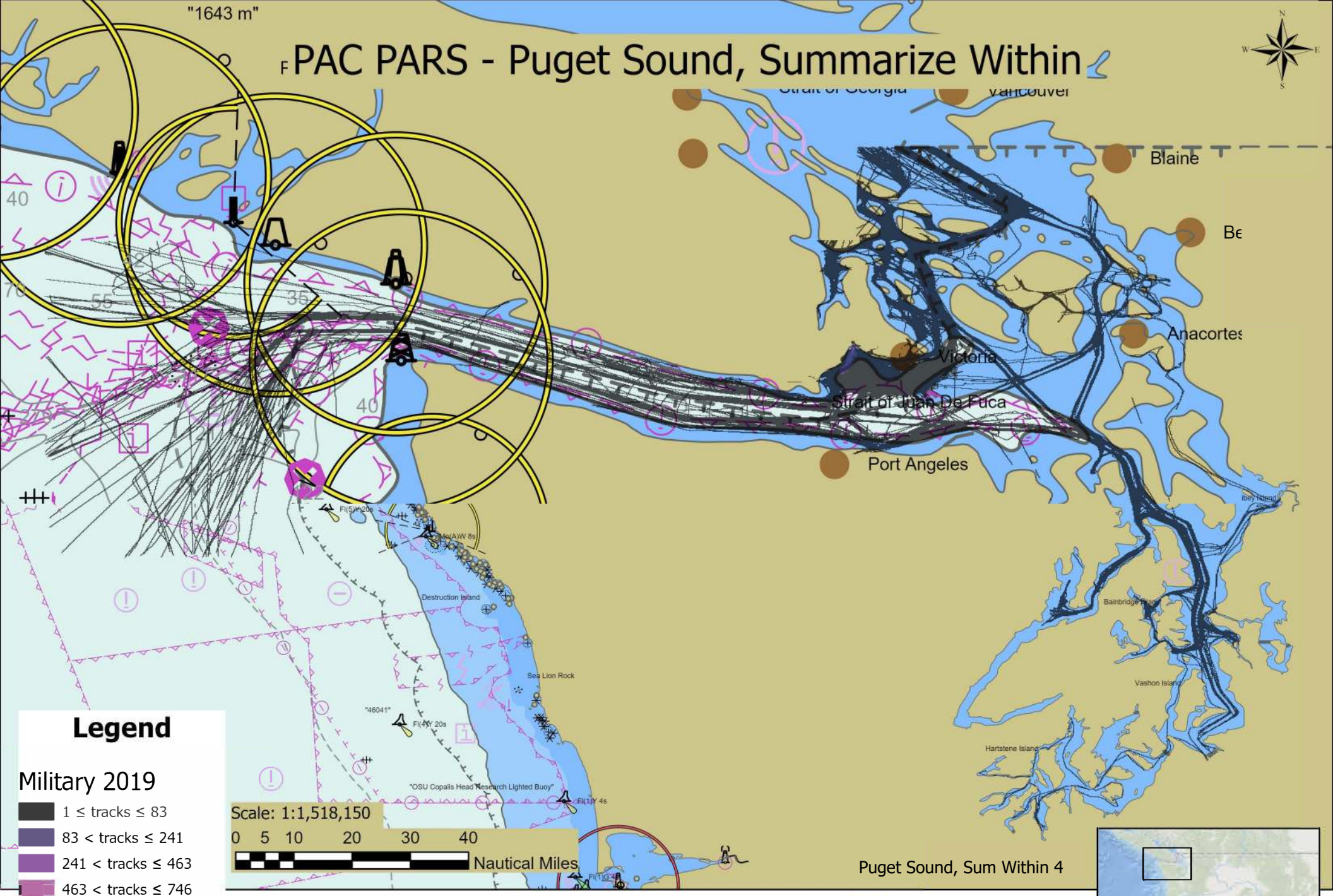


Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/25/2022 9:01 AM

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

PAC PARS - Puget Sound, Summarize Within



Legend

Military 2019

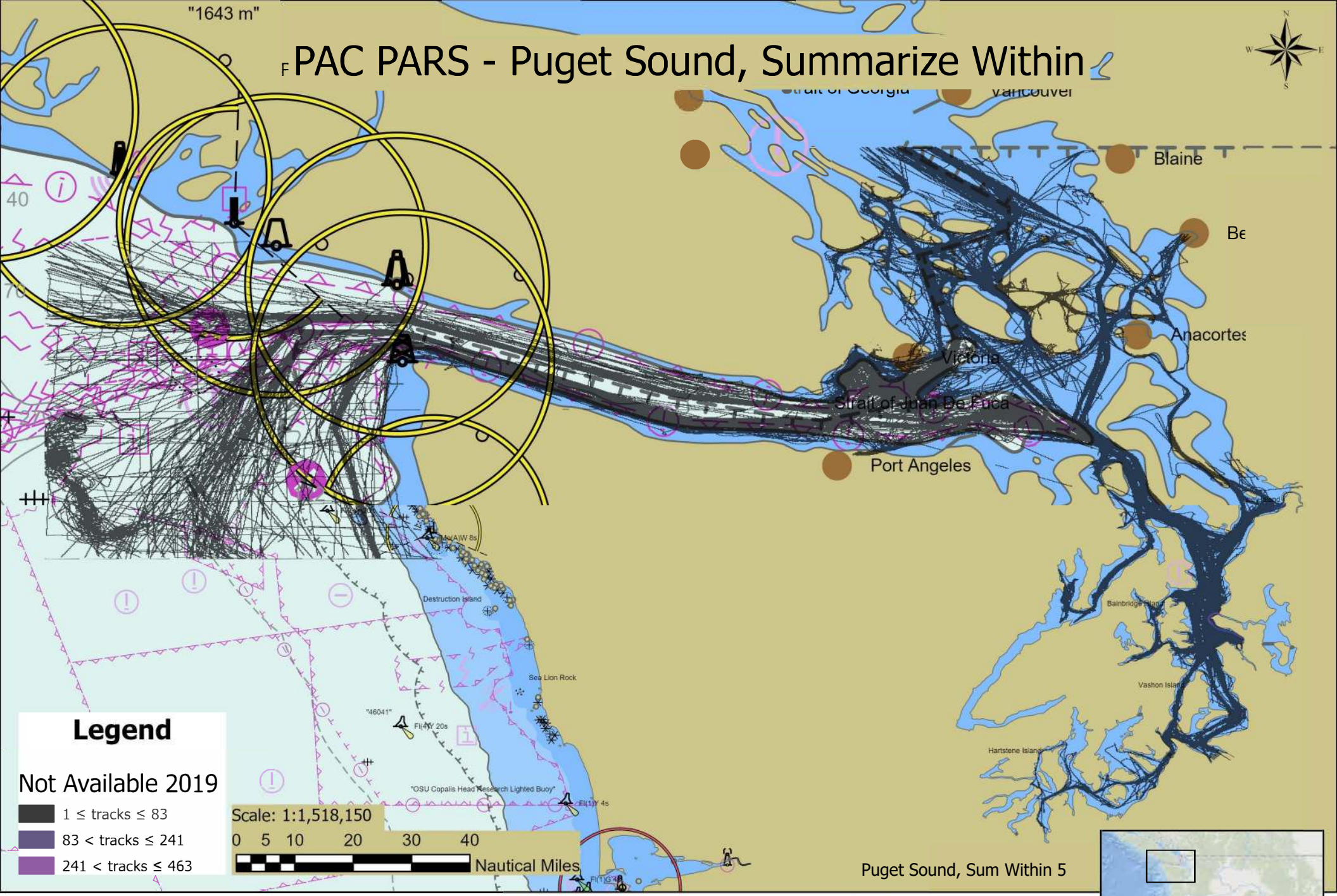
- 1 ≤ tracks ≤ 83
- 83 < tracks ≤ 241
- 241 < tracks ≤ 463
- 463 < tracks ≤ 746

Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/25/2022 9:12 AM

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

PAC PARS - Puget Sound, Summarize Within

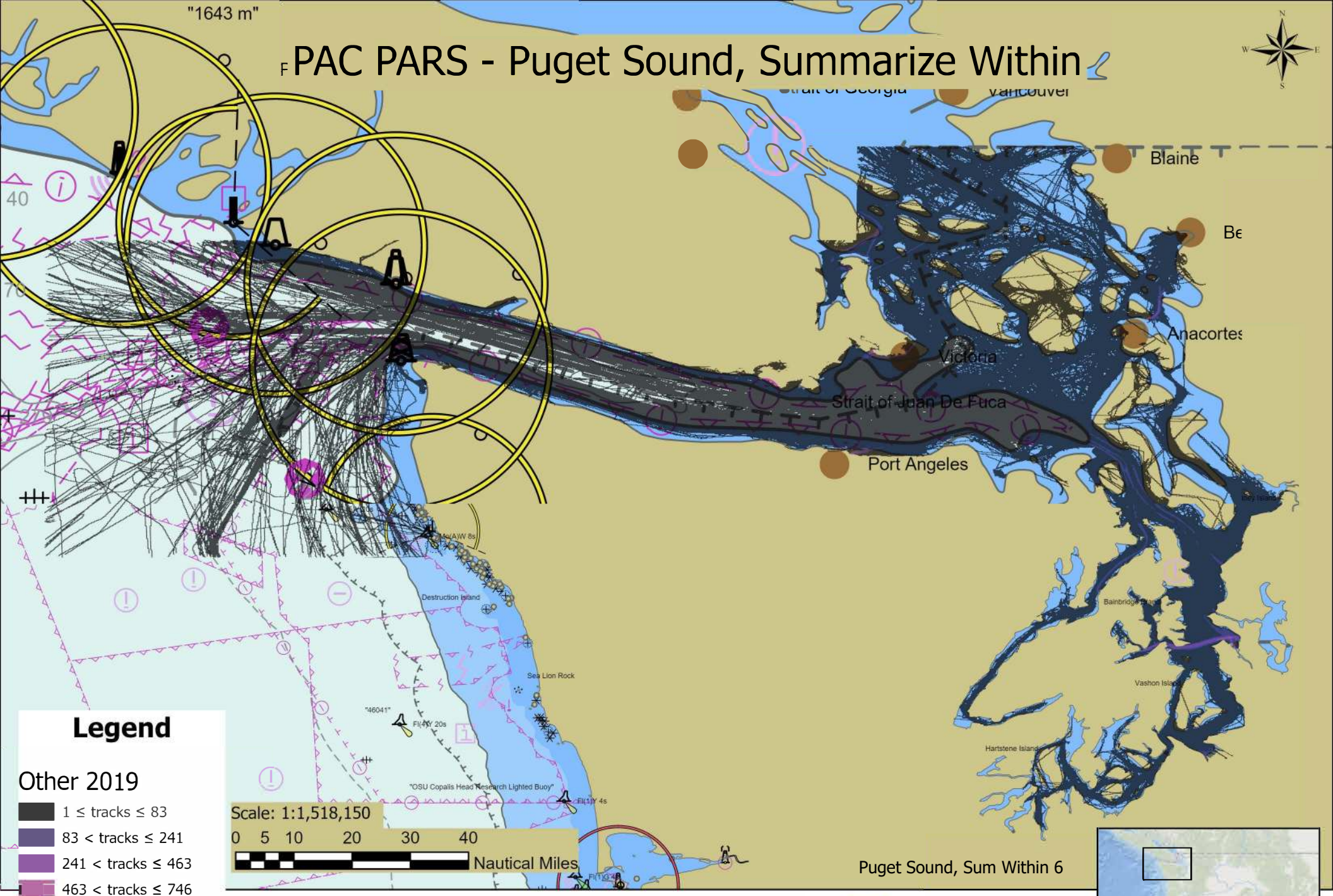


Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/25/2022 9:10 AM

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

PAC PARS - Puget Sound, Summarize Within

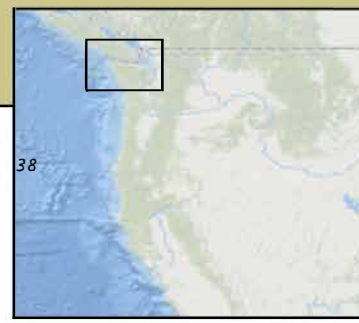


Legend

Other 2019

- 1 ≤ tracks ≤ 83
- 83 < tracks ≤ 241
- 241 < tracks ≤ 463
- 463 < tracks ≤ 746

Puget Sound, Sum Within 6

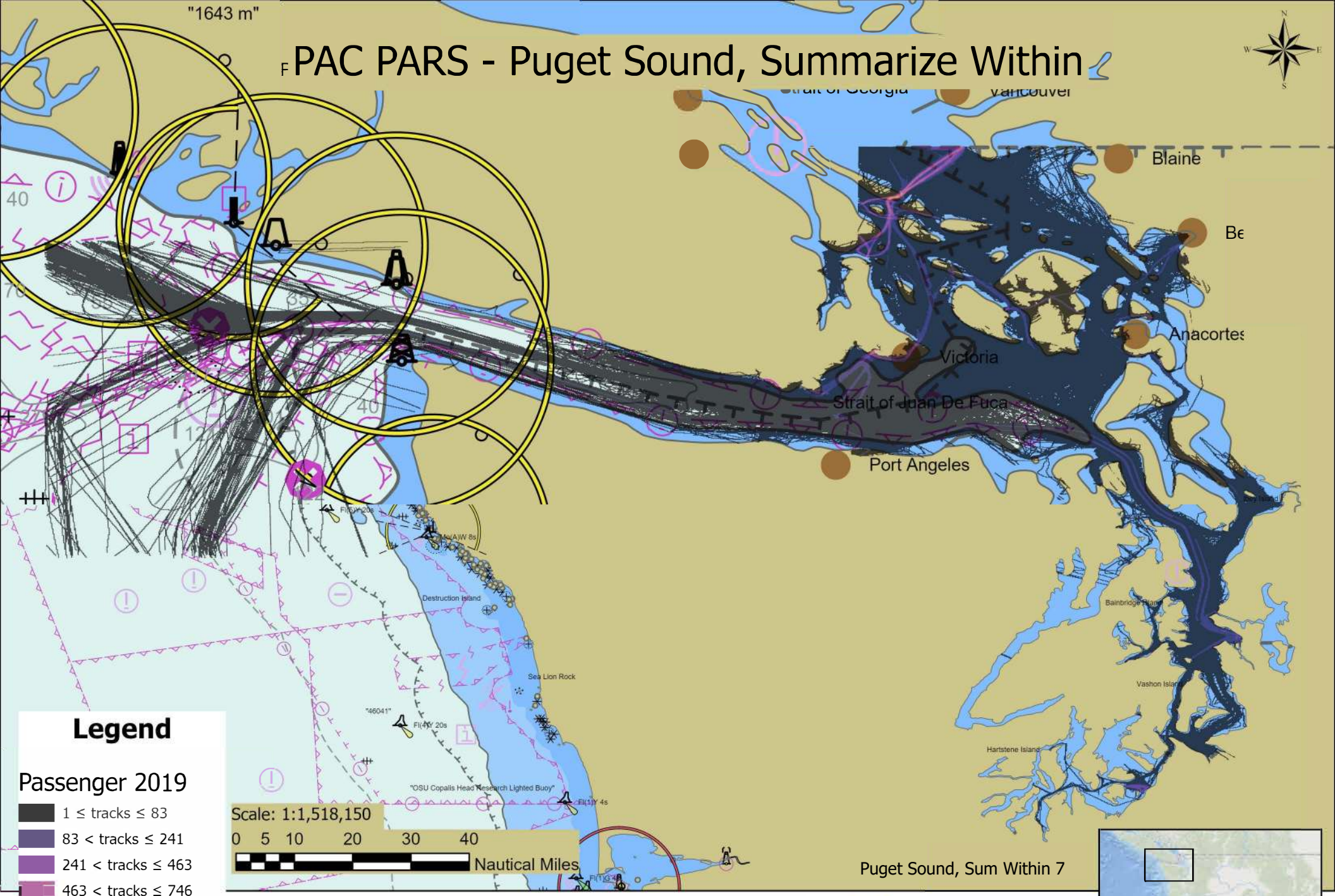


Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/25/2022 9:08 AM

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

PAC PARS - Puget Sound, Summarize Within

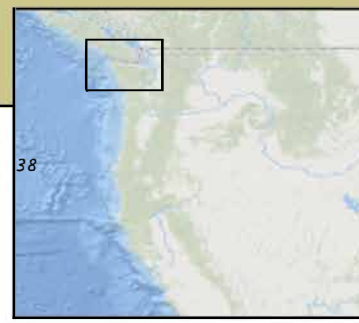


Legend

Passenger 2019

- 1 ≤ tracks ≤ 83
- 83 < tracks ≤ 241
- 241 < tracks ≤ 463
- 463 < tracks ≤ 746
- 746 < tracks ≤ 1120
- 1120 < tracks ≤ 1594

Puget Sound, Sum Within 7

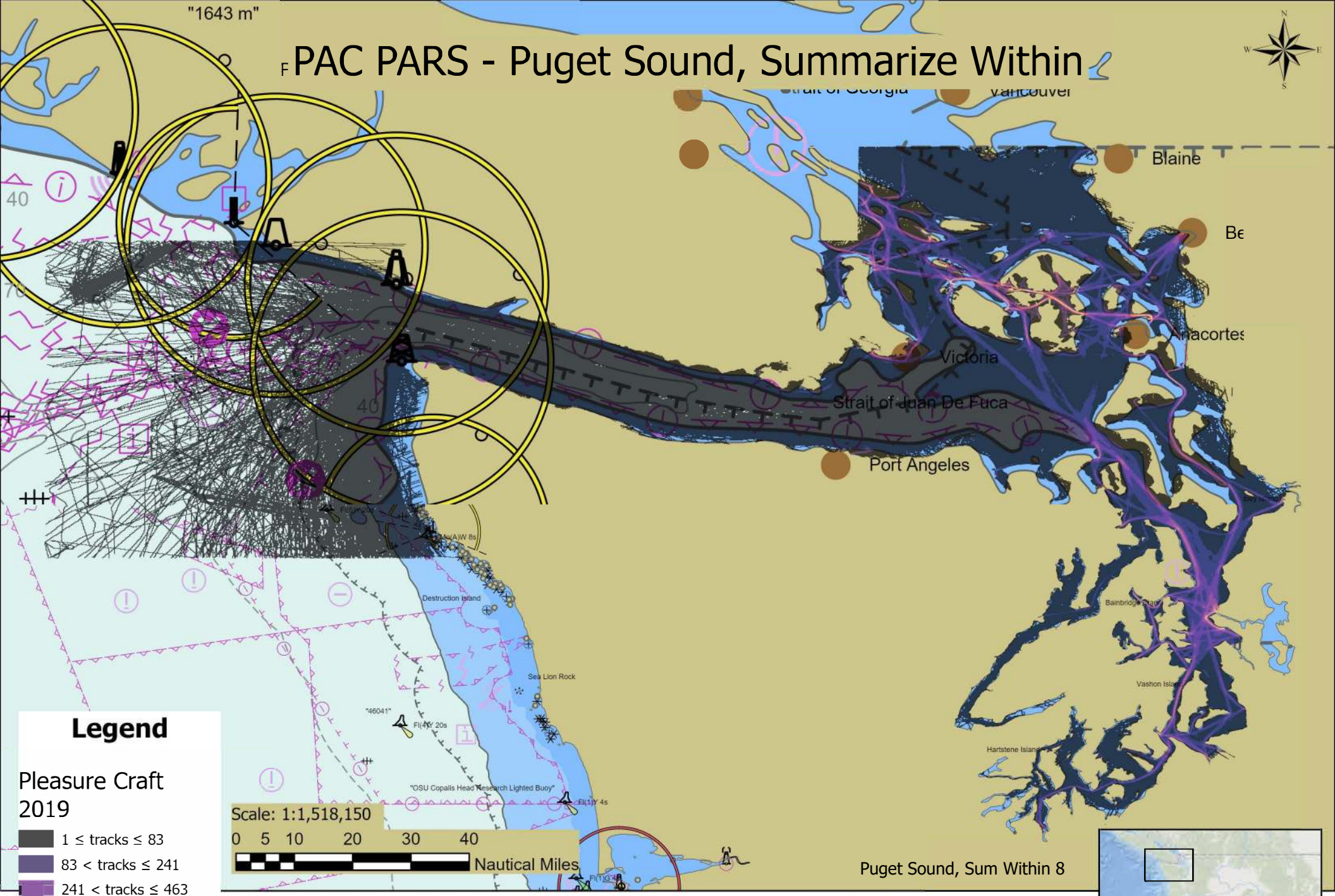


Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/25/2022 9:04 AM

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

PAC PARS - Puget Sound, Summarize Within

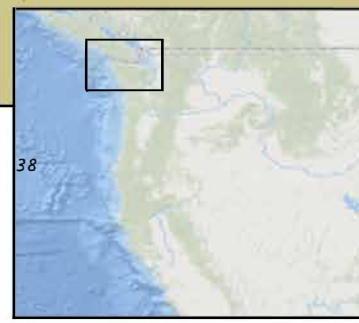


Legend

Pleasure Craft 2019

- 1 ≤ tracks ≤ 83
- 83 < tracks ≤ 241
- 241 < tracks ≤ 463
- 463 < tracks ≤ 746
- 746 < tracks ≤ 1120
- 1120 < tracks ≤ 1594
- 1594 < tracks ≤ 2514
- 2514 < tracks ≤ 6371

Puget Sound, Sum Within 8

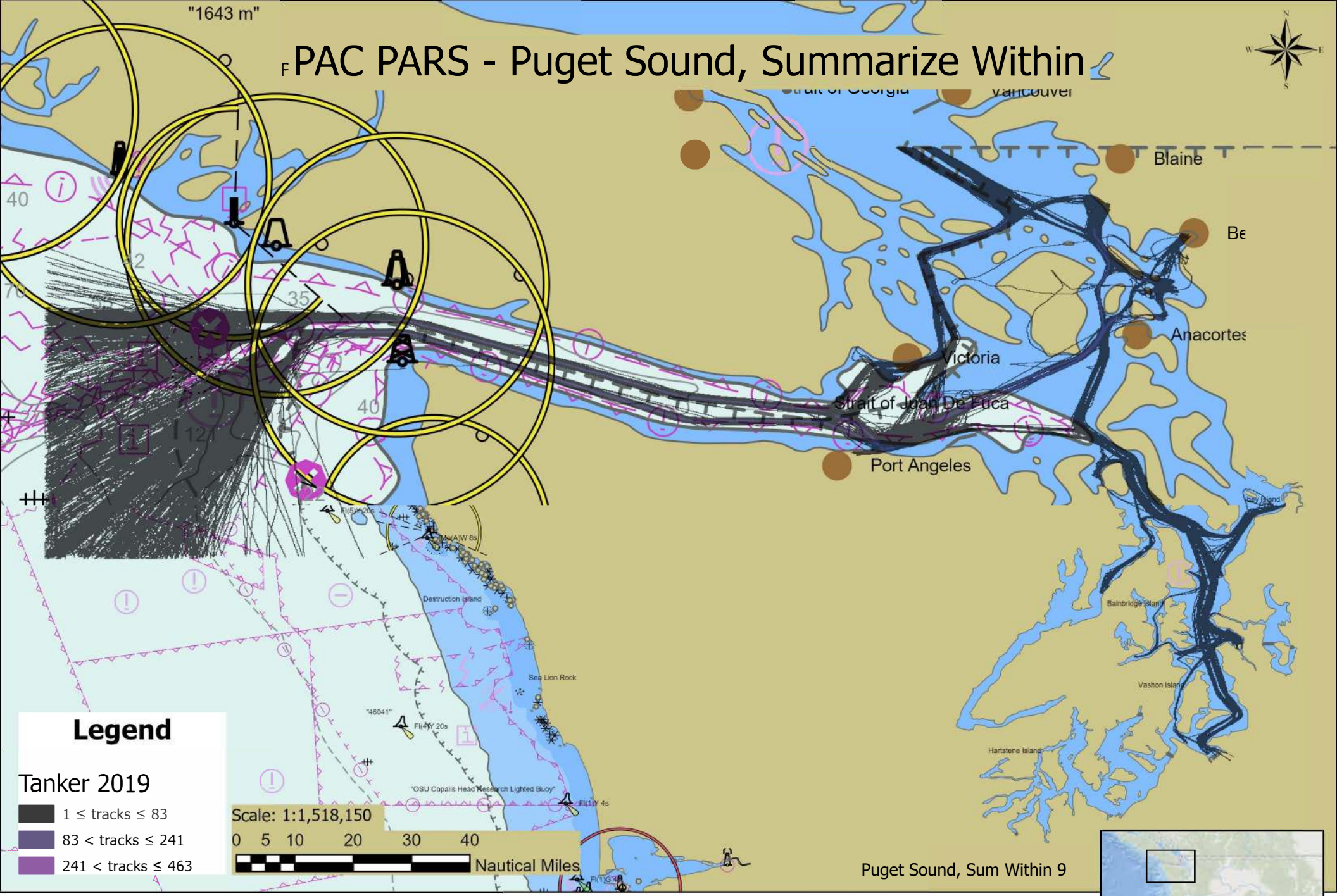


Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/25/2022 8:55 AM

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

PAC PARS - Puget Sound, Summarize Within

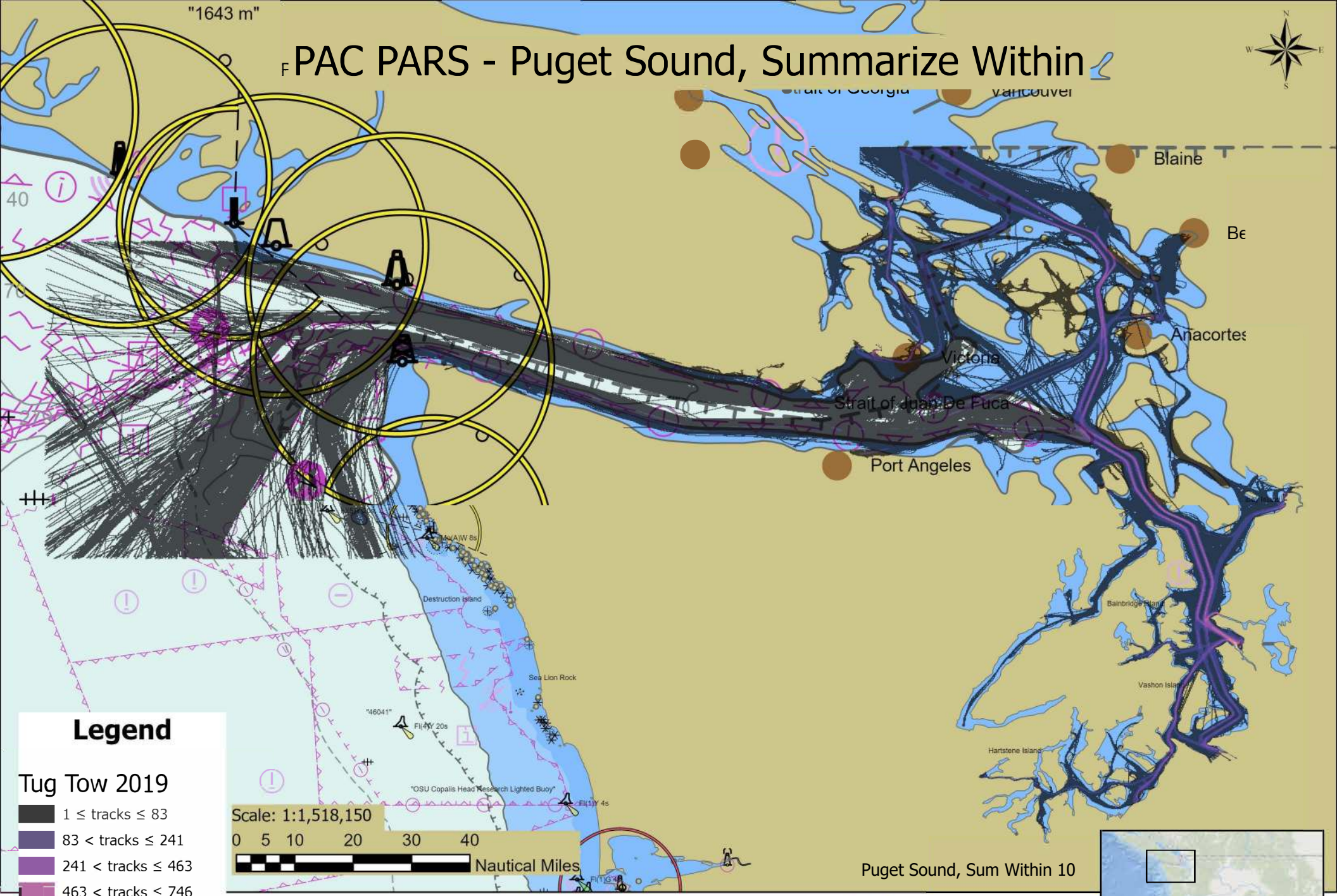


Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/25/2022 8:47 AM

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

PAC PARS - Puget Sound, Summarize Within

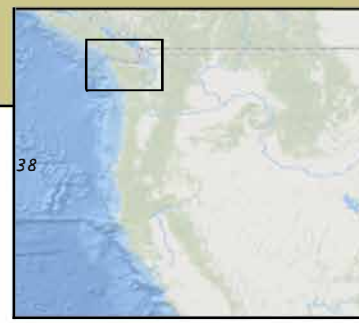


Legend

Tug Tow 2019

- 1 ≤ tracks ≤ 83
- 83 < tracks ≤ 241
- 241 < tracks ≤ 463
- 463 < tracks ≤ 746
- 746 < tracks ≤ 1120
- 1120 < tracks ≤ 1594
- 1594 < tracks ≤ 2514
- 2514 < tracks ≤ 6371

Puget Sound, Sum Within 10

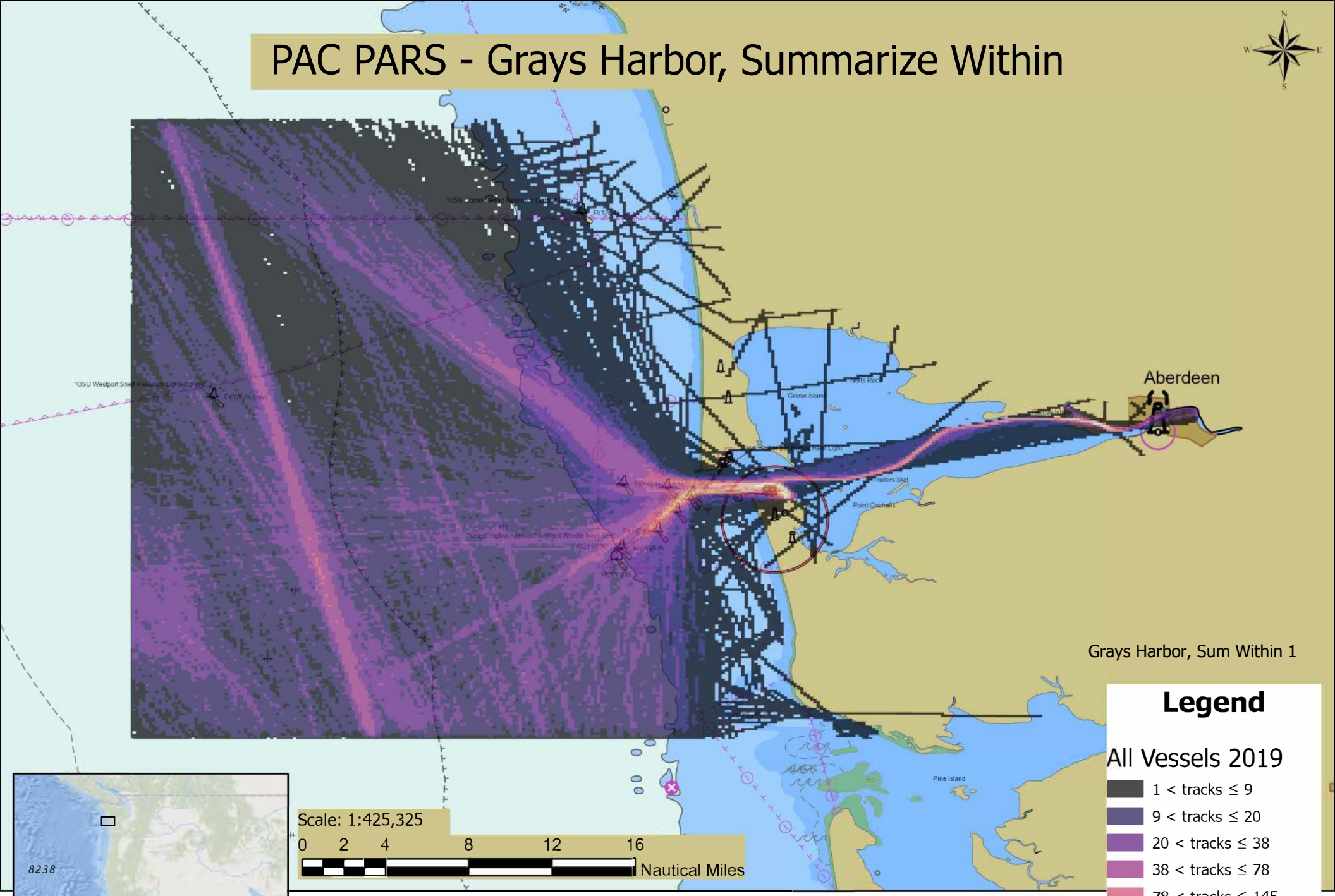


Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/25/2022 8:43 AM

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

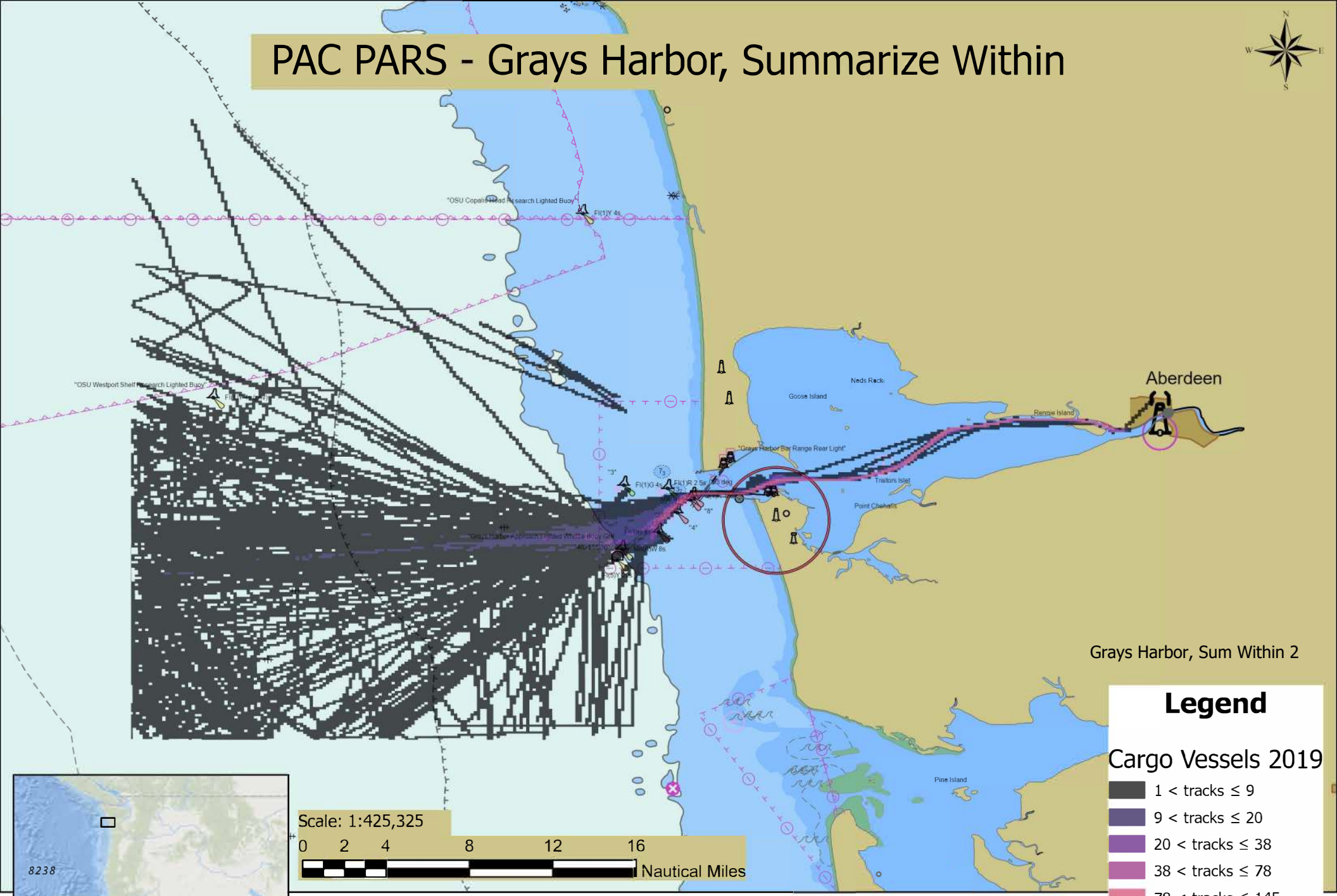
PAC PARS - Grays Harbor, Summarize Within

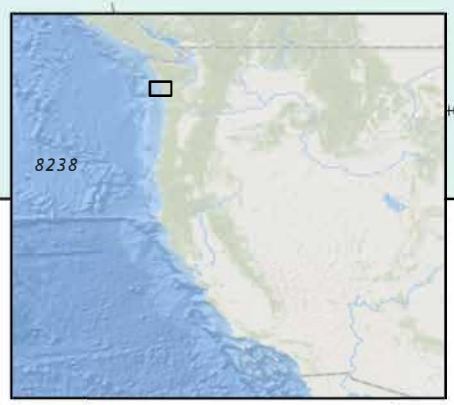


Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.
Last Update: 3/21/2022 1:45 PM

PAC PARS - Grays Harbor, Summarize Within





Scale: 1:425,325

0 2 4 8 12 16

Nautical Miles

Legend

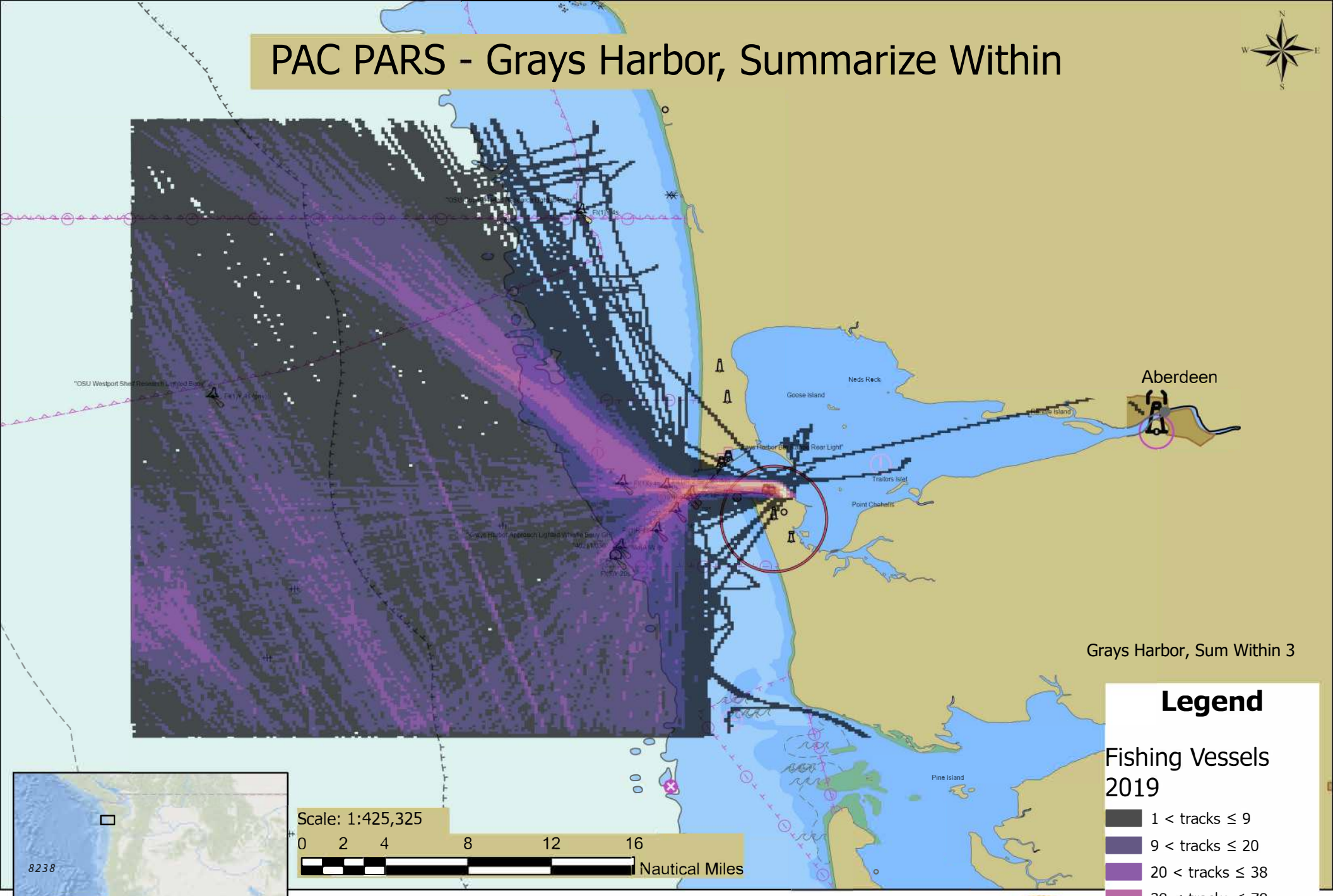
Cargo Vessels 2019

- 1 < tracks ≤ 9
- 9 < tracks ≤ 20
- 20 < tracks ≤ 38
- 38 < tracks ≤ 78
- 78 < tracks ≤ 145
- 145 < tracks ≤ 246
- 246 < tracks ≤ 422
- 422 < tracks ≤ 1018

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.
Last Update: 3/21/2022 1:46 PM

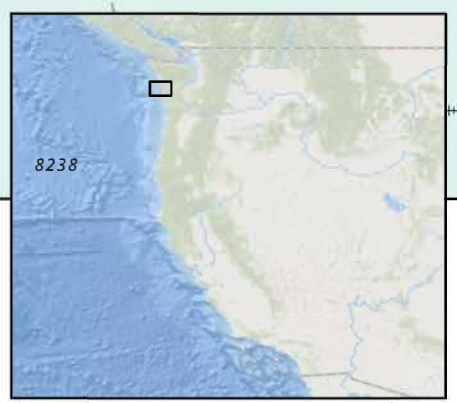
PAC PARS - Grays Harbor, Summarize Within



Legend

Fishing Vessels 2019

- 1 < tracks ≤ 9
- 9 < tracks ≤ 20
- 20 < tracks ≤ 38
- 38 < tracks ≤ 78
- 78 < tracks ≤ 145
- 145 < tracks ≤ 246
- 246 < tracks ≤ 422
- 422 < tracks ≤ 1018



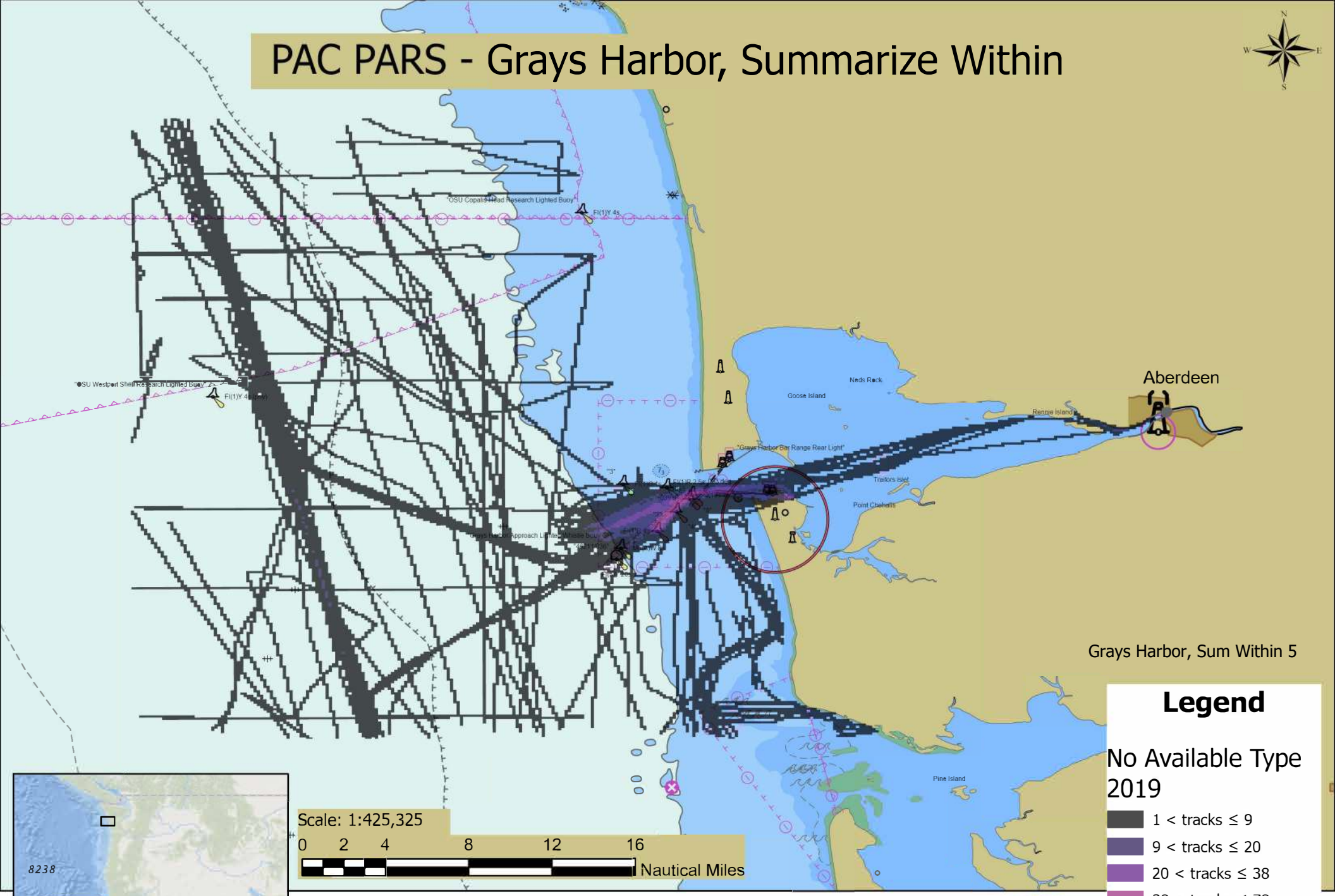
Scale: 1:425,325

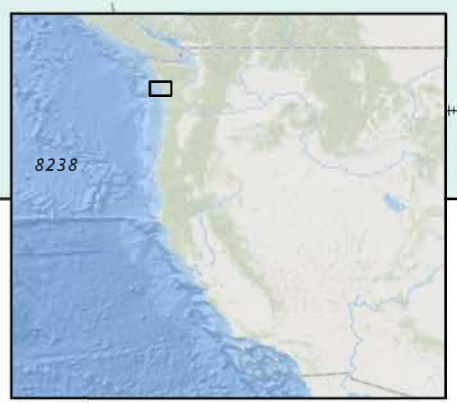
0 2 4 8 12 16 Nautical Miles

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.
Last Update: 3/21/2022 1:48 PM

PAC PARS - Grays Harbor, Summarize Within





Scale: 1:425,325

0 2 4 8 12 16

Nautical Miles

Legend

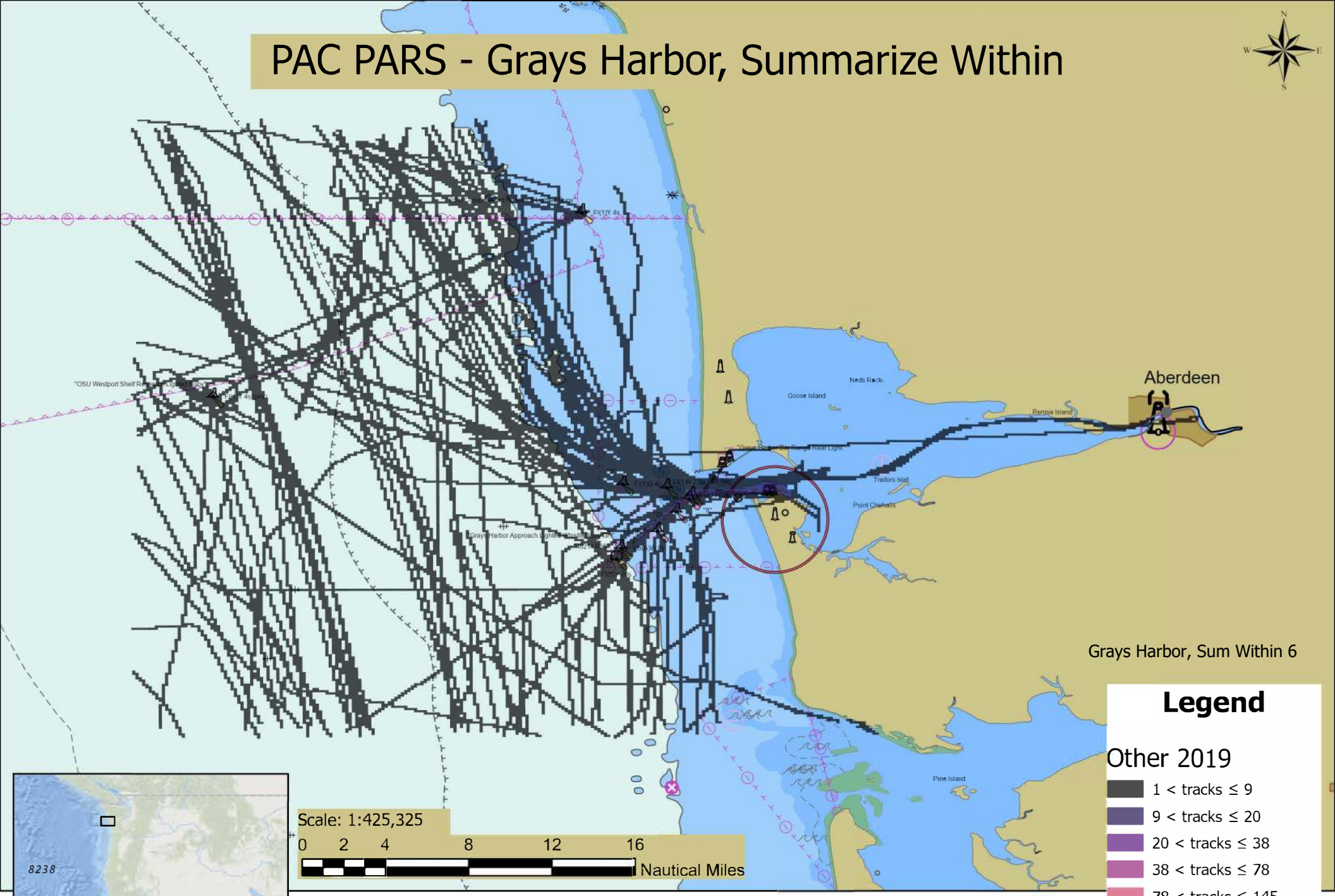
No Available Type 2019

- 1 < tracks ≤ 9
- 9 < tracks ≤ 20
- 20 < tracks ≤ 38
- 38 < tracks ≤ 78
- 78 < tracks ≤ 145
- 145 < tracks ≤ 246
- 246 < tracks ≤ 422
- 422 < tracks ≤ 1018

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.
Last Update: 3/21/2022 1:52 PM

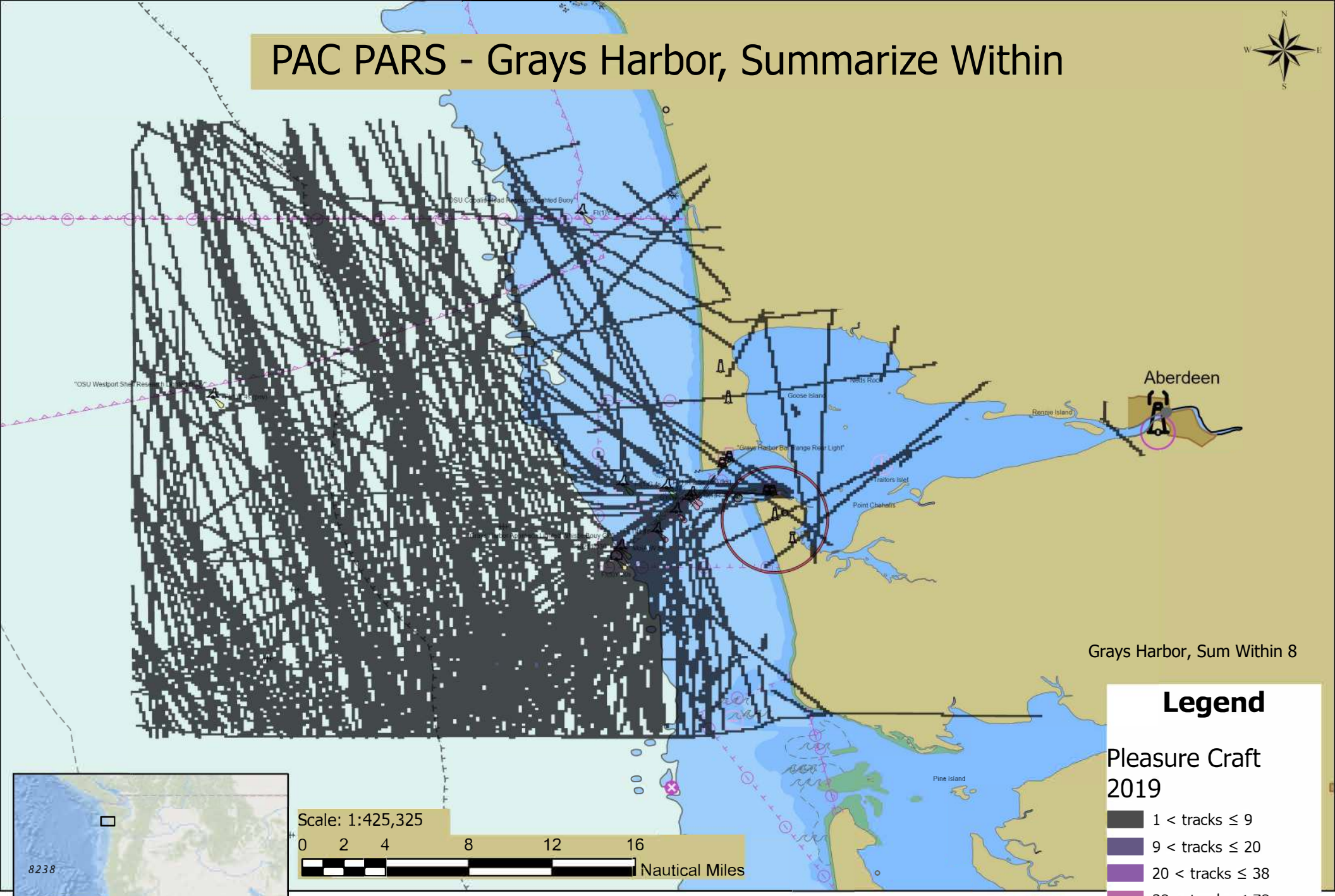
PAC PARS - Grays Harbor, Summarize Within



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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.
Last Update: 3/21/2022 1:54 PM

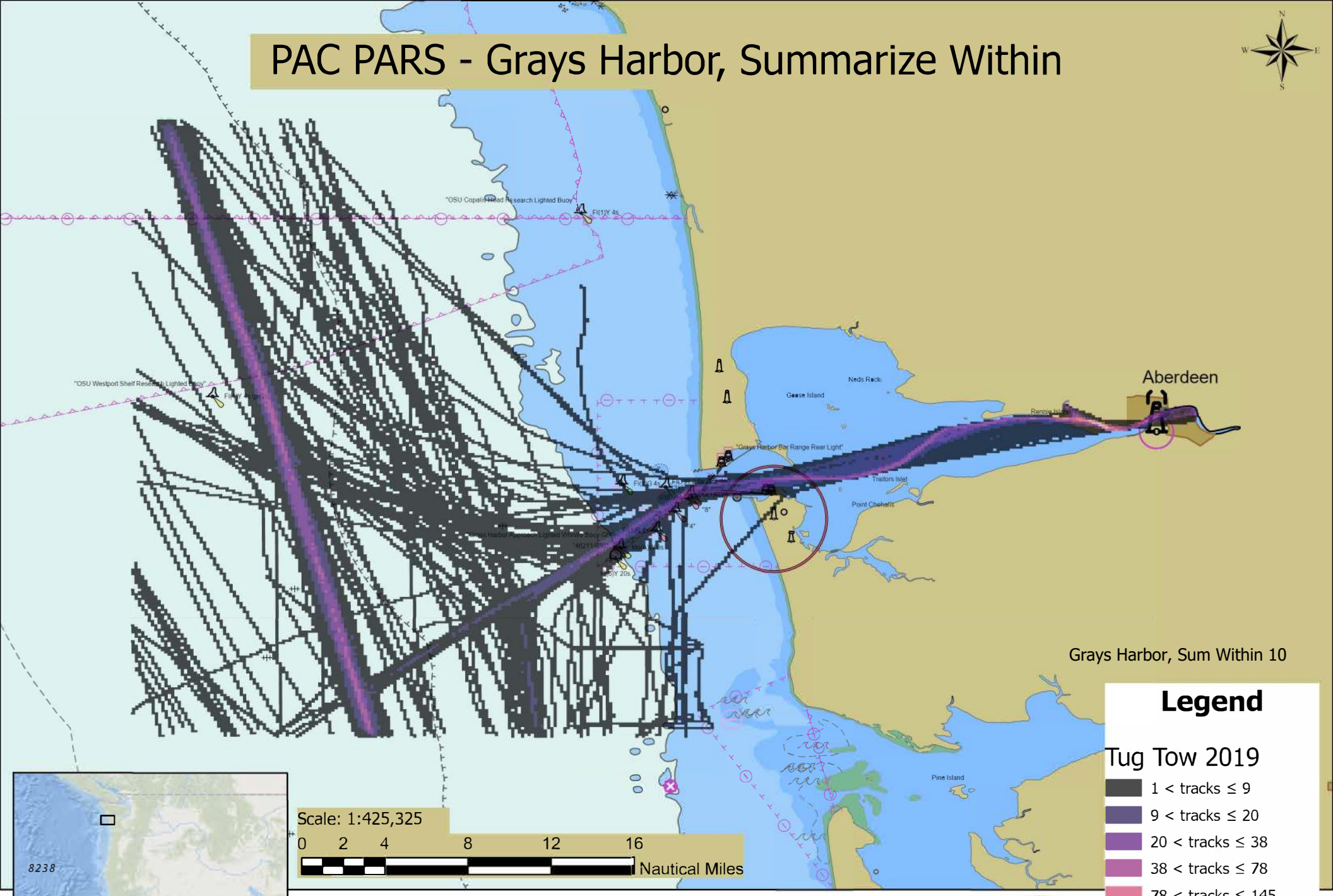
PAC PARS - Grays Harbor, Summarize Within

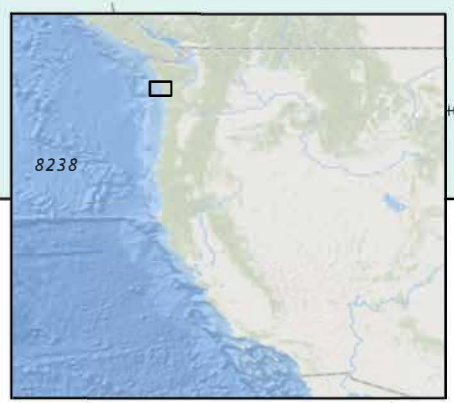


Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.
Last Update: 3/21/2022 1:55 PM

PAC PARS - Grays Harbor, Summarize Within





Scale: 1:425,325

0 2 4 8 12 16 Nautical Miles

Legend

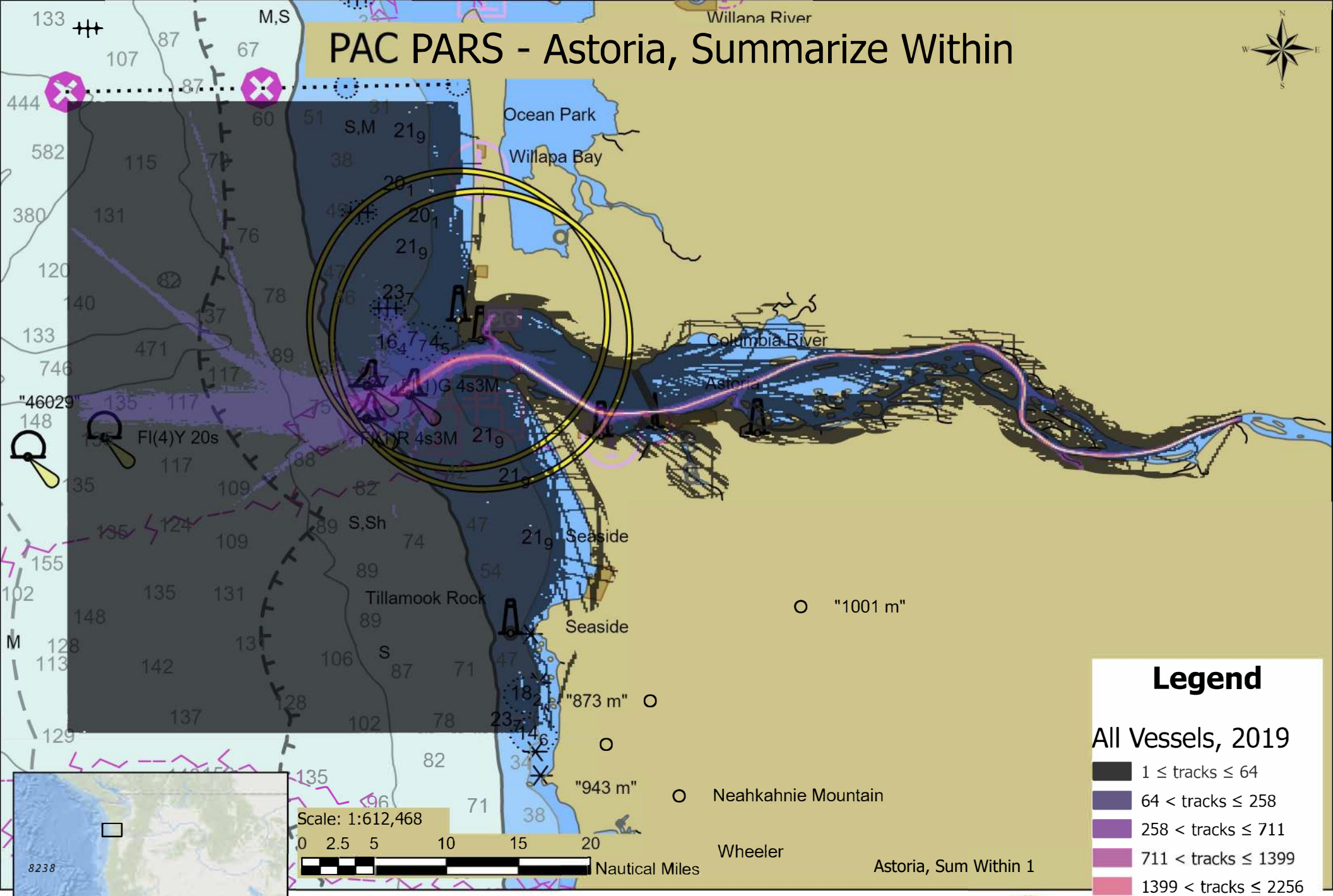
Tug Tow 2019

- 1 < tracks ≤ 9
- 9 < tracks ≤ 20
- 20 < tracks ≤ 38
- 38 < tracks ≤ 78
- 78 < tracks ≤ 145
- 145 < tracks ≤ 246
- 246 < tracks ≤ 422
- 422 < tracks ≤ 1018

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.
Last Update: 3/21/2022 1:57 PM

PAC PARS - Astoria, Summarize Within



Legend

All Vessels, 2019

- 1 ≤ tracks ≤ 64
- 64 < tracks ≤ 258
- 258 < tracks ≤ 711
- 711 < tracks ≤ 1399
- 1399 < tracks ≤ 2256
- 2256 < tracks ≤ 3203
- 3203 < tracks ≤ 4055
- 4055 < tracks ≤ 5052

Astoria, Sum Within 1

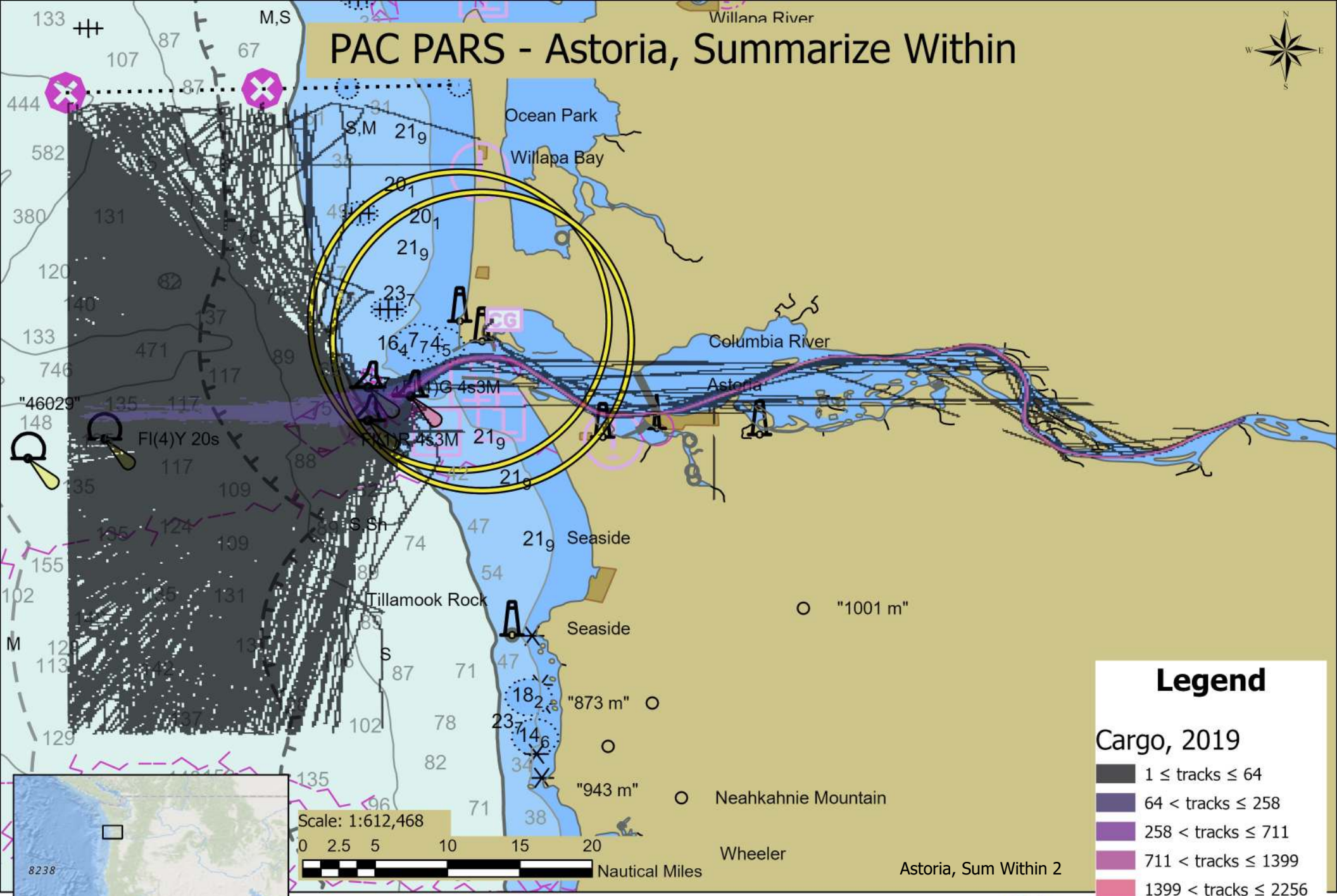
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/21/2022 9:57 AM

PAC PARS - Astoria, Summarize Within



Legend

Cargo, 2019

- 1 ≤ tracks ≤ 64
- 64 < tracks ≤ 258
- 258 < tracks ≤ 711
- 711 < tracks ≤ 1399
- 1399 < tracks ≤ 2256
- 2256 < tracks ≤ 3203
- 3203 < tracks ≤ 4055
- 4055 < tracks ≤ 5052

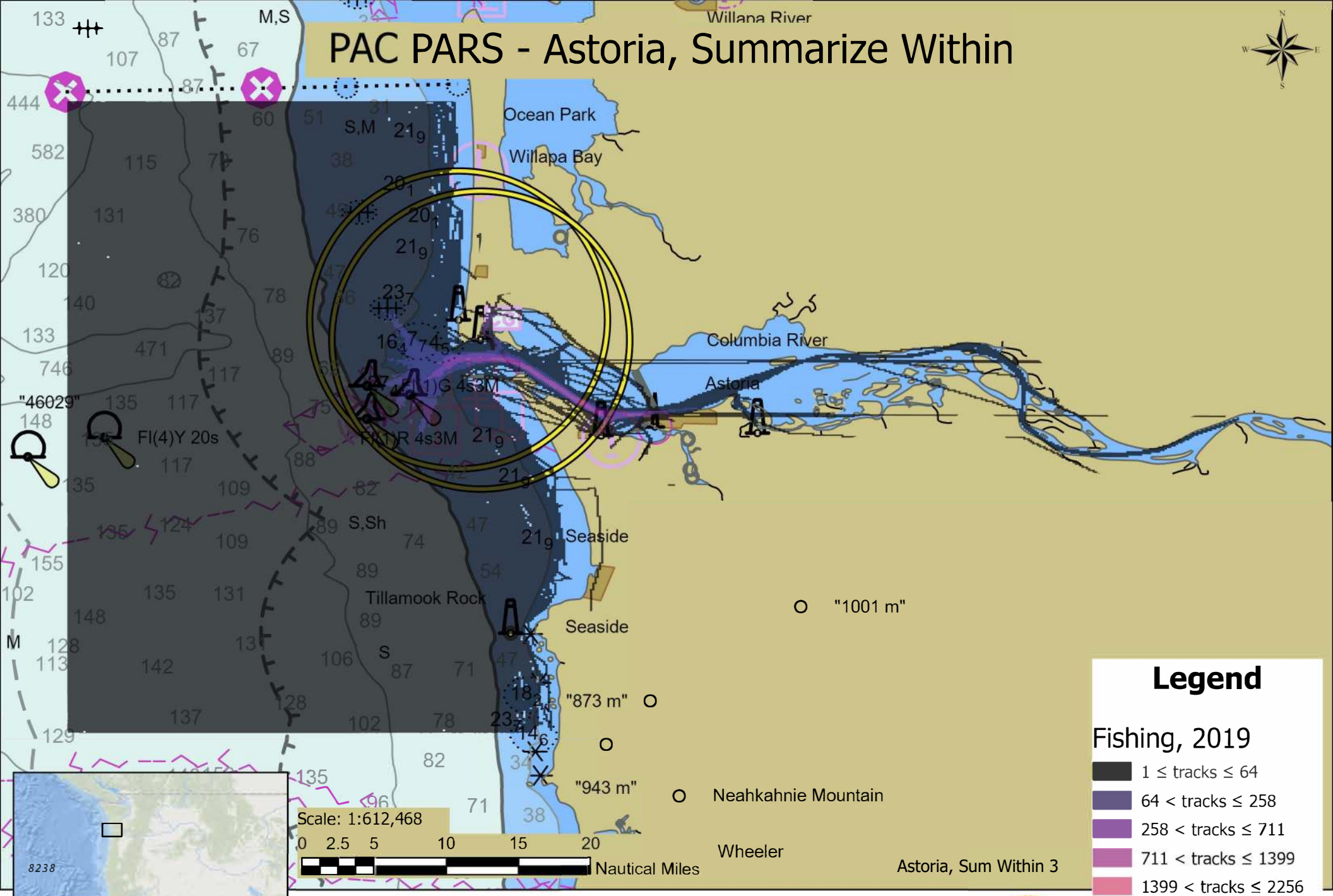
Astoria, Sum Within 2

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/21/2022 9:58 AM

PAC PARS - Astoria, Summarize Within



Legend

Fishing, 2019

- 1 ≤ tracks ≤ 64
- 64 < tracks ≤ 258
- 258 < tracks ≤ 711
- 711 < tracks ≤ 1399
- 1399 < tracks ≤ 2256
- 2256 < tracks ≤ 3203
- 3203 < tracks ≤ 4055
- 4055 < tracks ≤ 5052

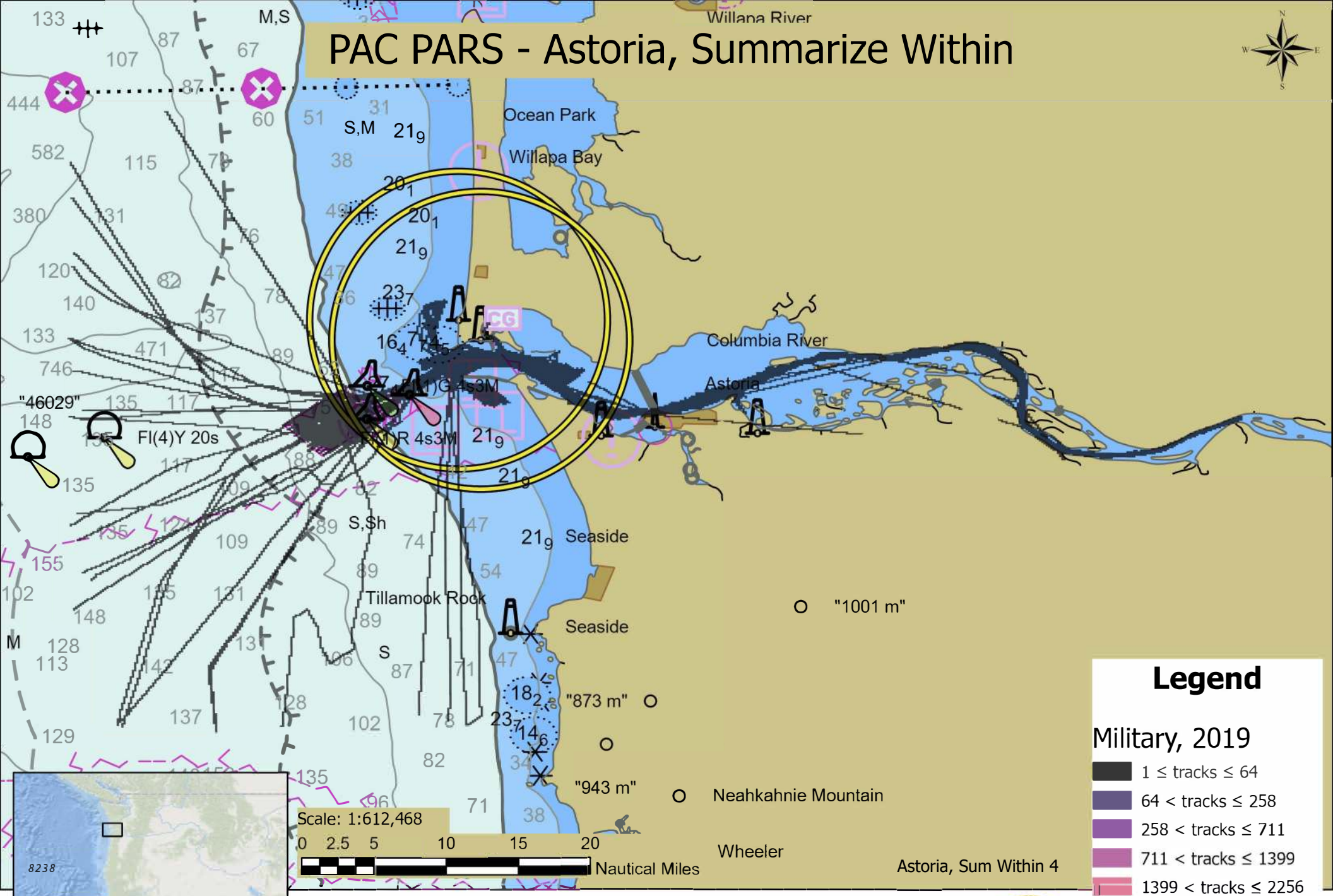
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/21/2022 10:06 AM

PAC PARS - Astoria, Summarize Within



Legend

Military, 2019

- 1 ≤ tracks ≤ 64
- 64 < tracks ≤ 258
- 258 < tracks ≤ 711
- 711 < tracks ≤ 1399
- 1399 < tracks ≤ 2256
- 2256 < tracks ≤ 3203
- 3203 < tracks ≤ 4055
- 4055 < tracks ≤ 5052

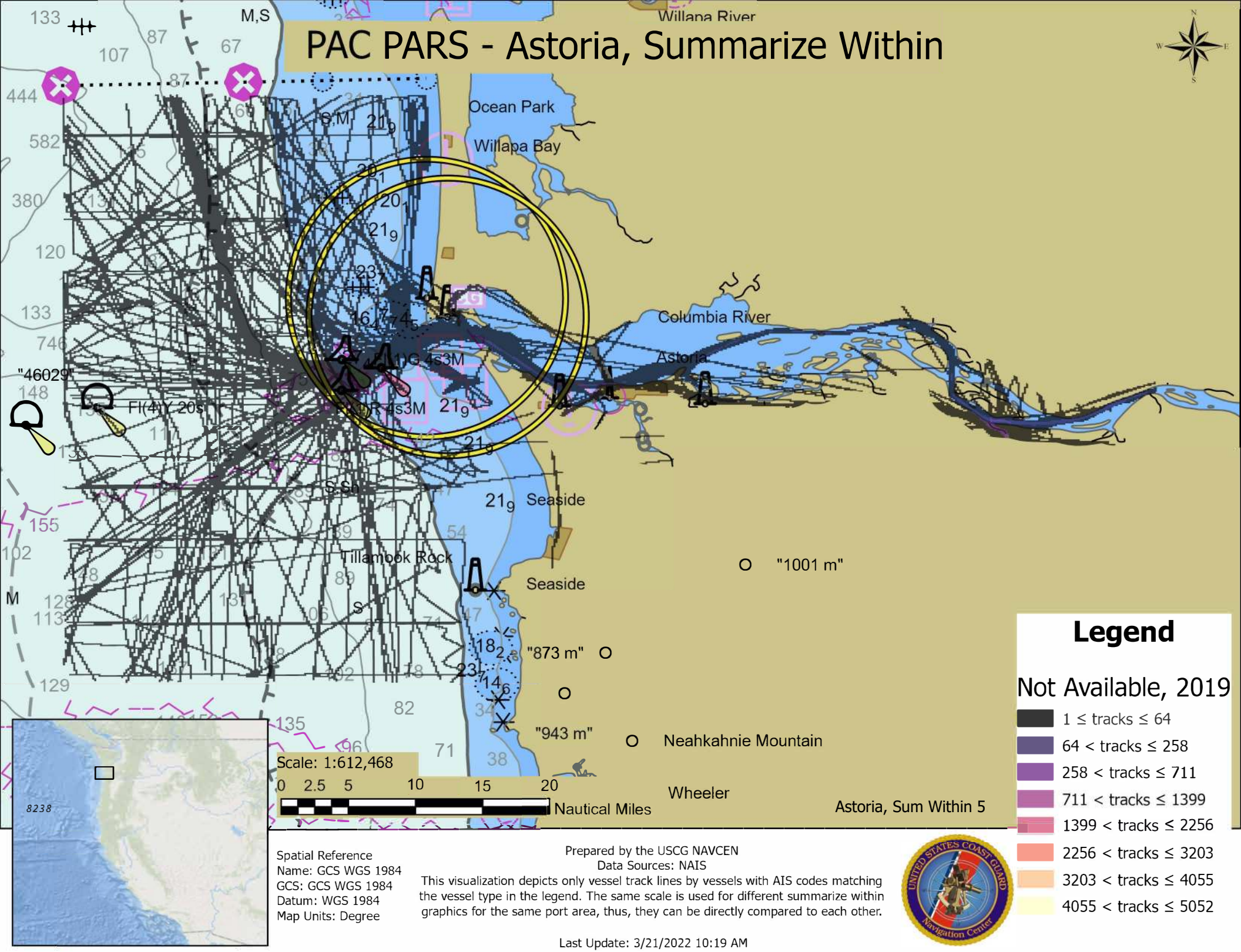
Astoria, Sum Within 4

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

Prepared by the USCG NAVCEN
Data Sources: NAIS

This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/21/2022 10:17 AM

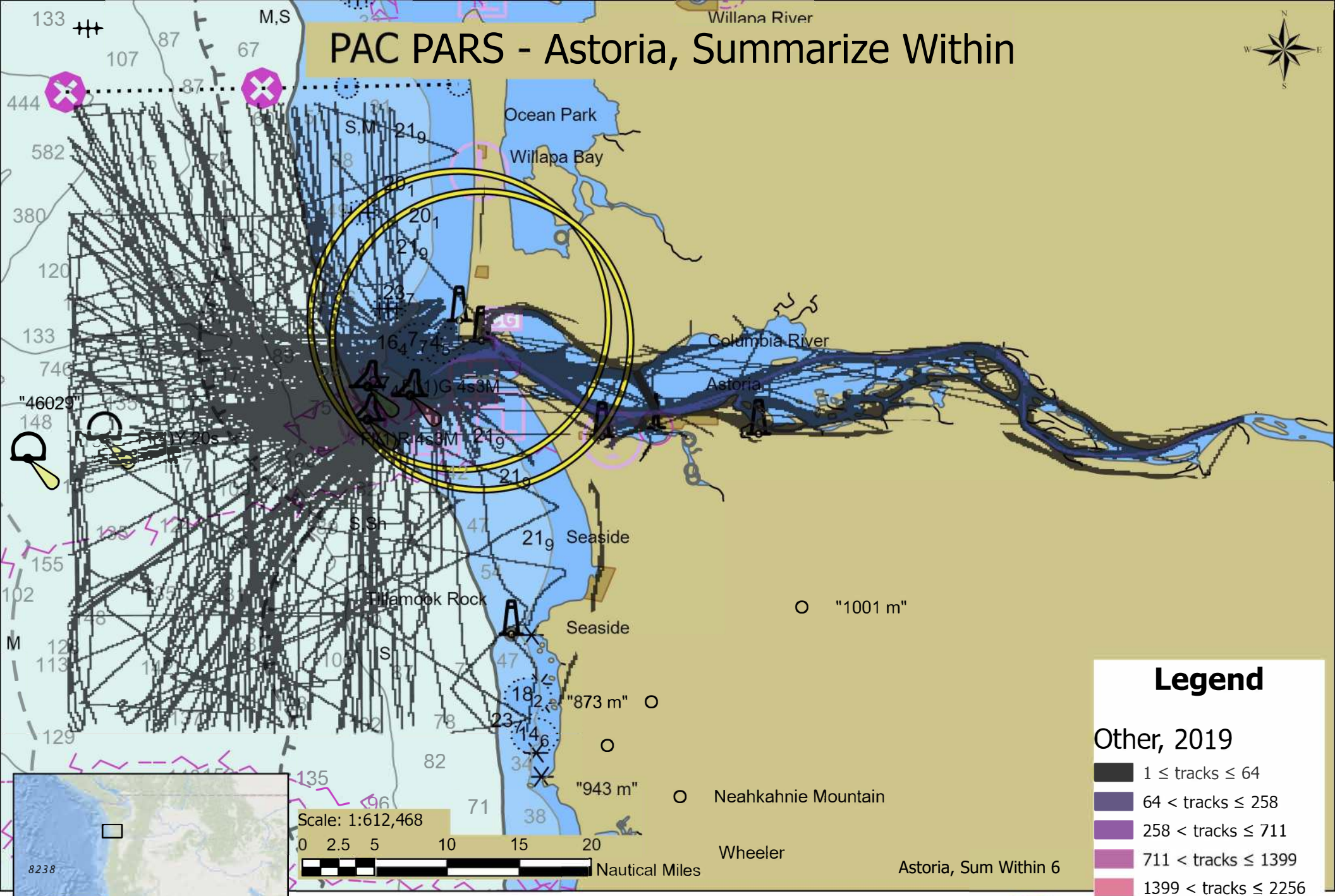


Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/21/2022 10:19 AM

PAC PARS - Astoria, Summarize Within



Legend

Other, 2019

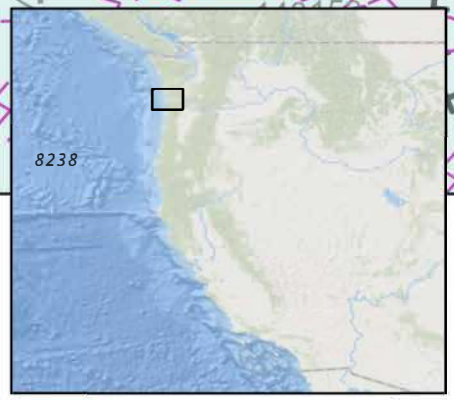
- 1 ≤ tracks ≤ 64
- 64 < tracks ≤ 258
- 258 < tracks ≤ 711
- 711 < tracks ≤ 1399
- 1399 < tracks ≤ 2256
- 2256 < tracks ≤ 3203
- 3203 < tracks ≤ 4055
- 4055 < tracks ≤ 5052

Scale: 1:612,468

0 2.5 5 10 15 20

Nautical Miles

Astoria, Sum Within 6

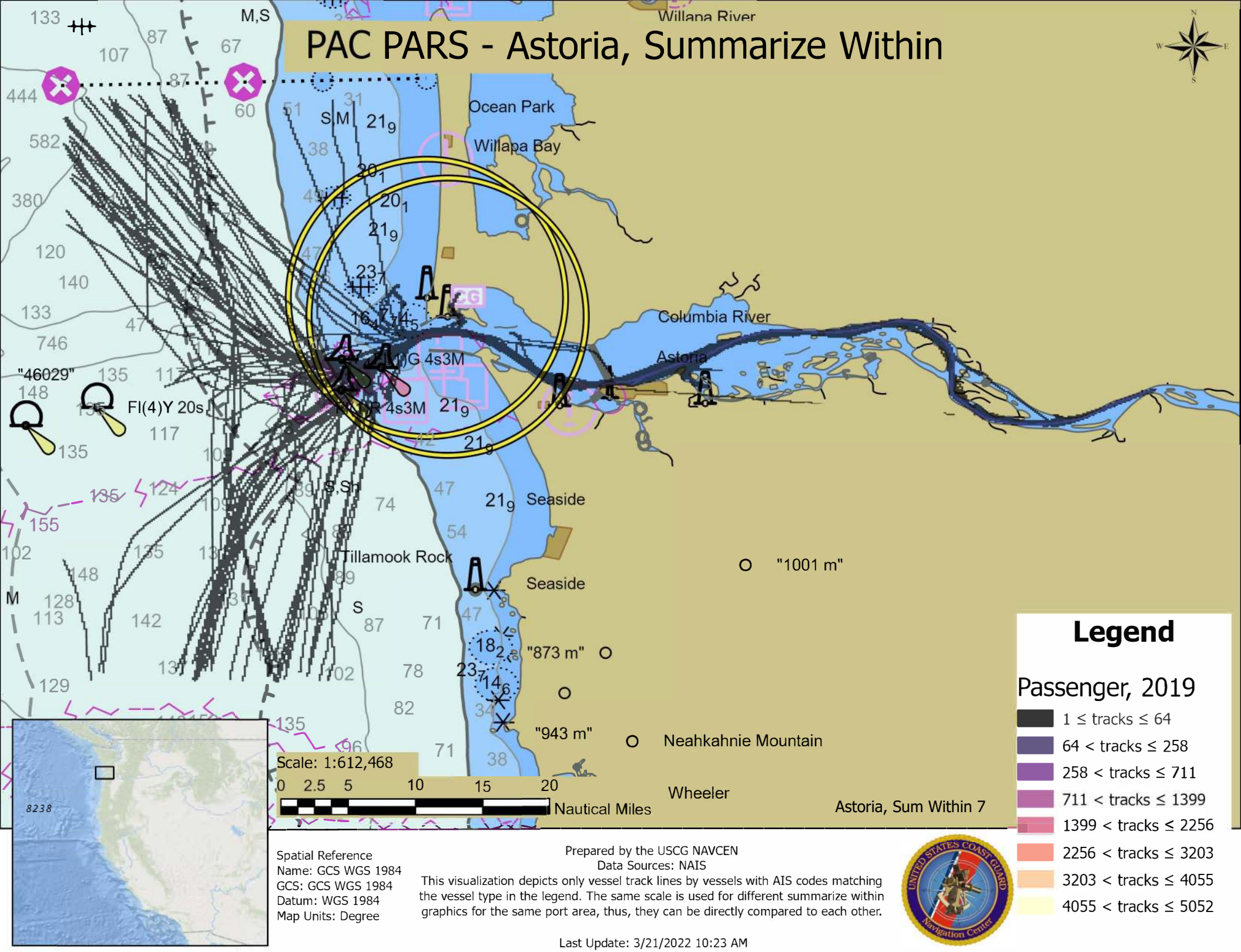


Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/21/2022 10:21 AM

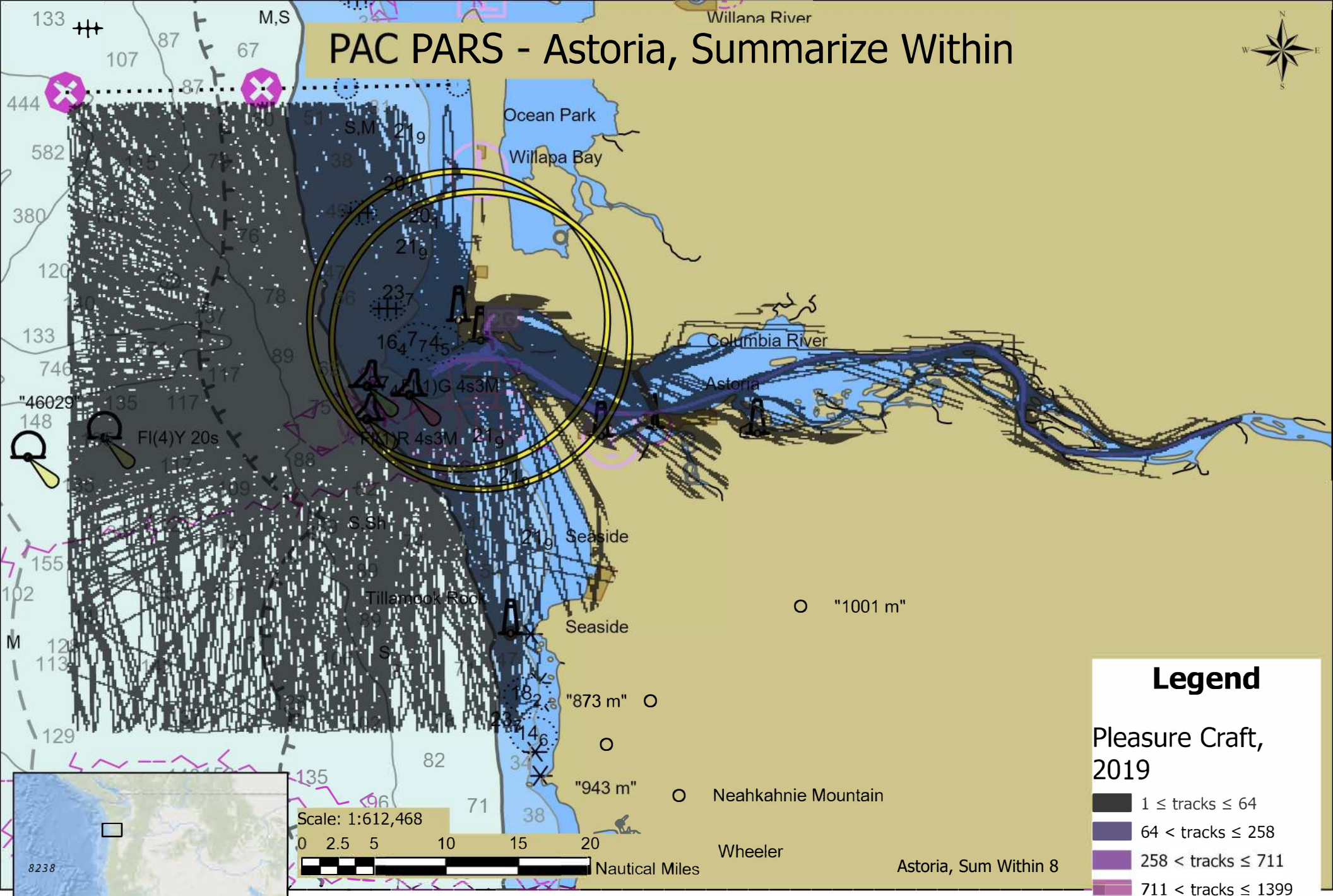


Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/21/2022 10:23 AM

PAC PARS - Astoria, Summarize Within



Legend

Pleasure Craft, 2019

- 1 ≤ tracks ≤ 64
- 64 < tracks ≤ 258
- 258 < tracks ≤ 711
- 711 < tracks ≤ 1399
- 1399 < tracks ≤ 2256
- 2256 < tracks ≤ 3203
- 3203 < tracks ≤ 4055
- 4055 < tracks ≤ 5052

Astoria, Sum Within 8

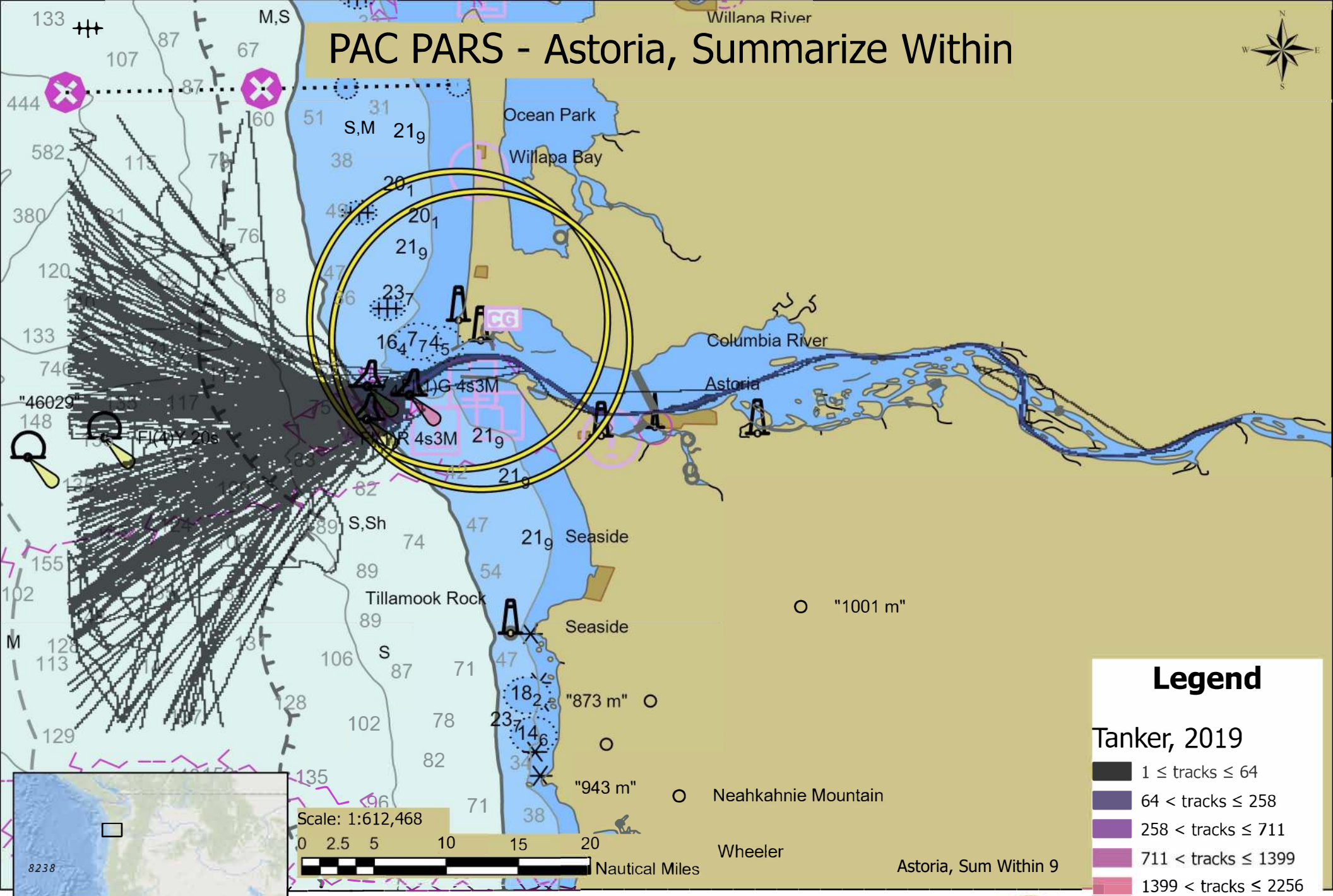
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/21/2022 10:26 AM

PAC PARS - Astoria, Summarize Within



Legend

Tanker, 2019

- 1 ≤ tracks ≤ 64
- 64 < tracks ≤ 258
- 258 < tracks ≤ 711
- 711 < tracks ≤ 1399
- 1399 < tracks ≤ 2256
- 2256 < tracks ≤ 3203
- 3203 < tracks ≤ 4055
- 4055 < tracks ≤ 5052

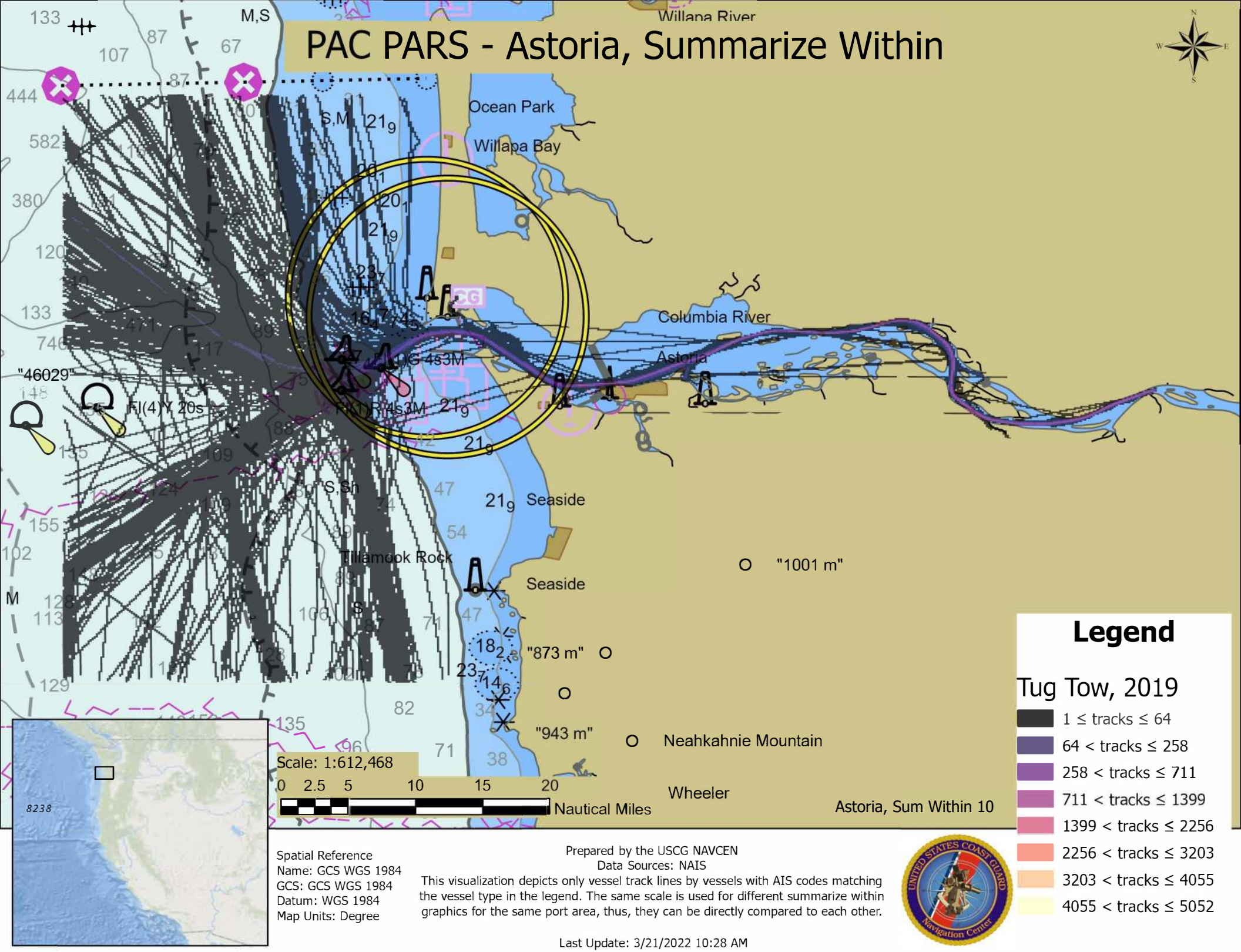
Astoria, Sum Within 9

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

Prepared by the USCG NAVCEN
Data Sources: NAIS

This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/21/2022 10:27 AM



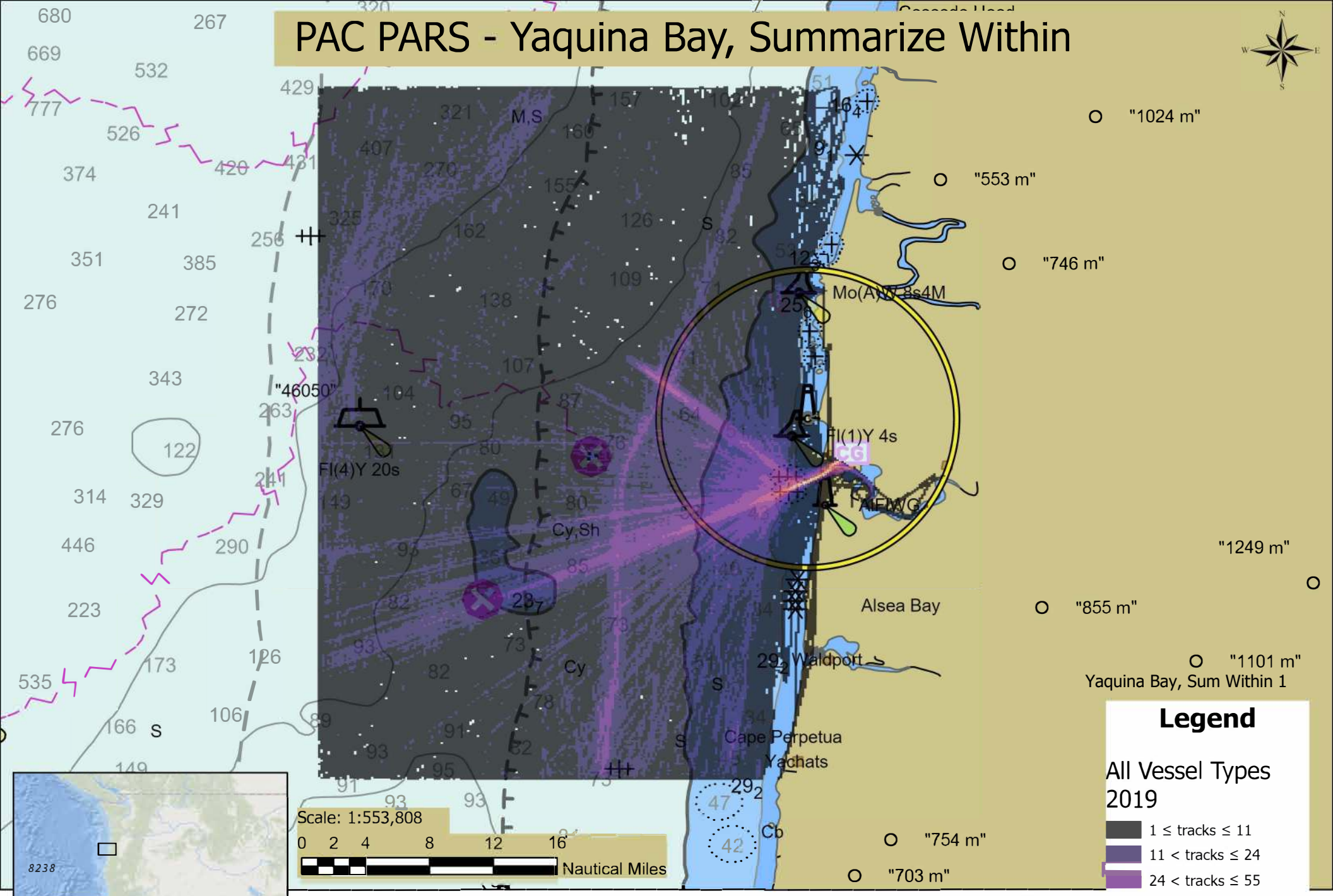
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/21/2022 10:28 AM

PAC PARS - Yaquina Bay, Summarize Within



Legend

All Vessel Types 2019

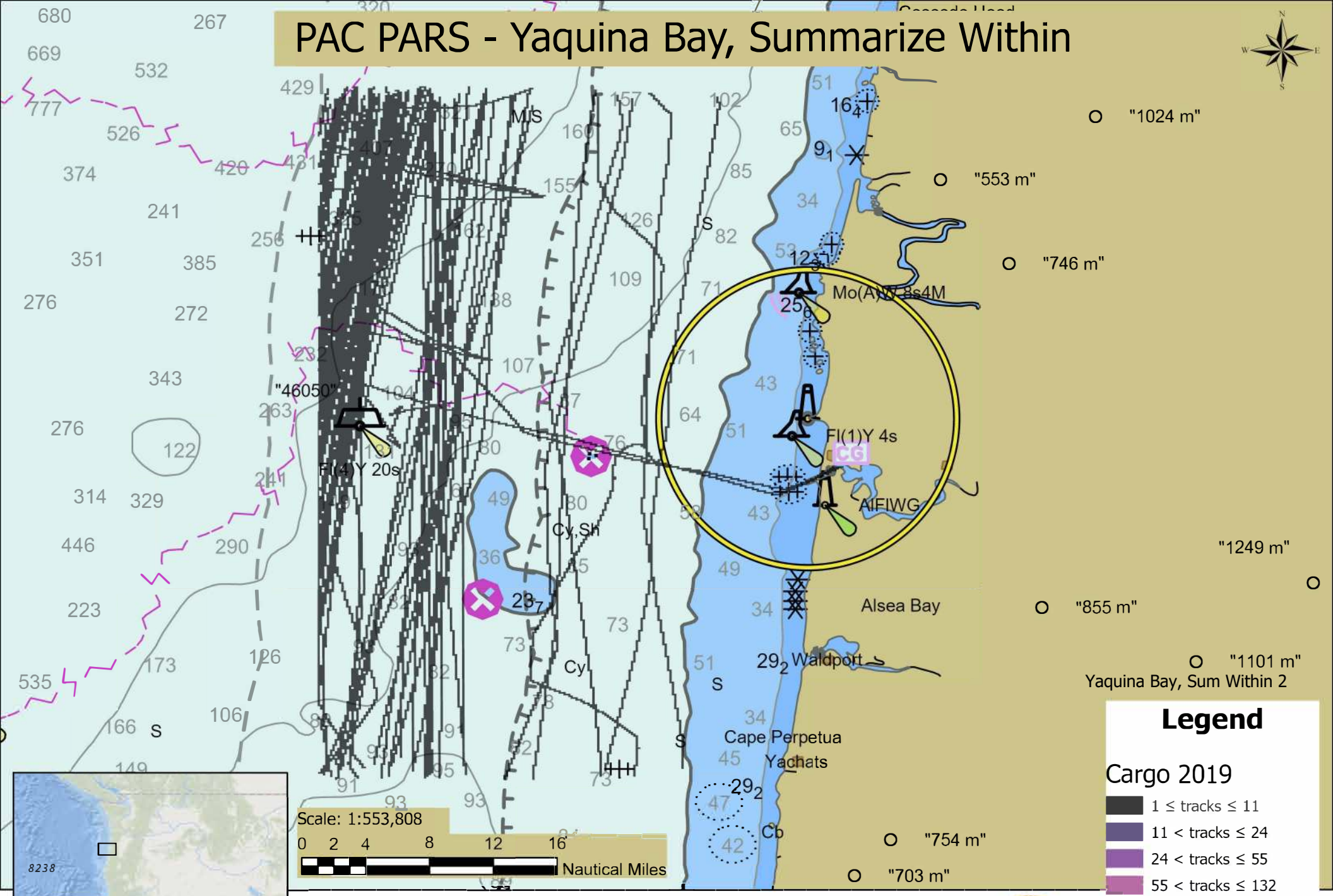
- 1 ≤ tracks ≤ 11
- 11 < tracks ≤ 24
- 24 < tracks ≤ 55
- 55 < tracks ≤ 132
- 132 < tracks ≤ 307
- 307 < tracks ≤ 642
- 642 < tracks ≤ 984
- 984 < tracks ≤ 1349

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/25/2022 12:09 PM

PAC PARS - Yaquina Bay, Summarize Within



Legend

Cargo 2019

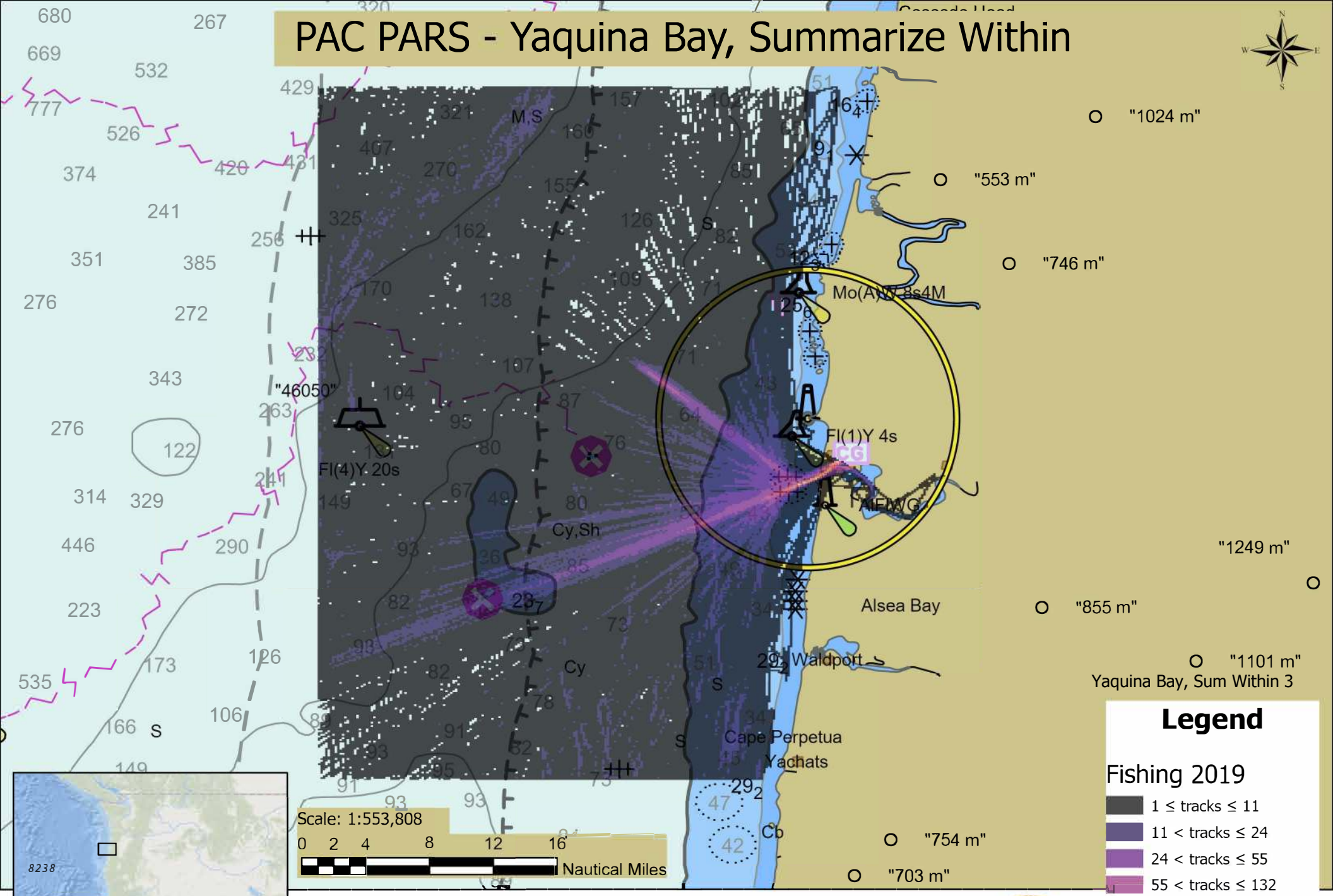
- 1 ≤ tracks ≤ 11
- 11 < tracks ≤ 24
- 24 < tracks ≤ 55
- 55 < tracks ≤ 132
- 132 < tracks ≤ 307
- 307 < tracks ≤ 642
- 642 < tracks ≤ 984
- 984 < tracks ≤ 1349

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 5/17/2022 12:50 PM

PAC PARS - Yaquina Bay, Summarize Within



Legend

Fishing 2019

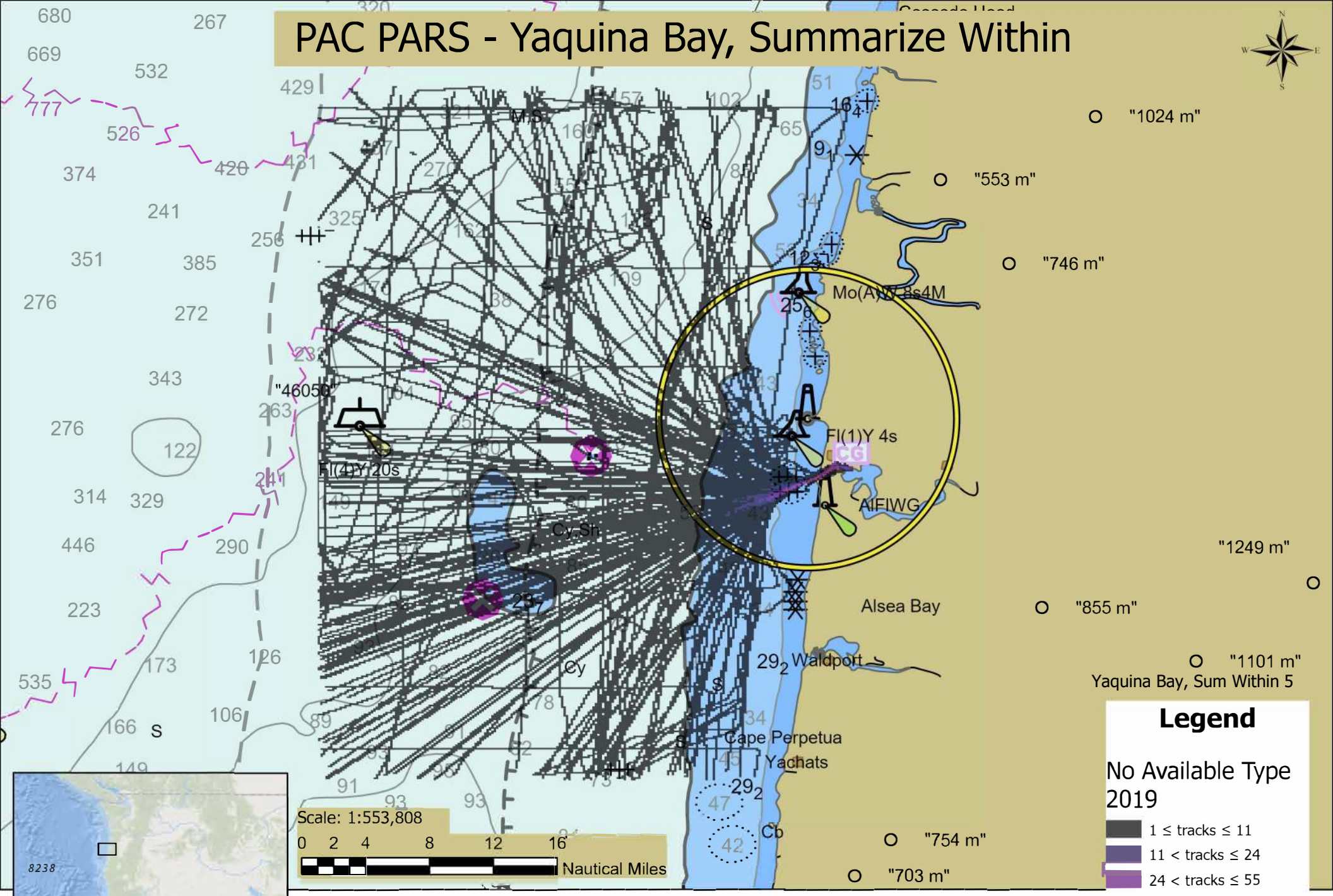
- 1 ≤ tracks ≤ 11
- 11 < tracks ≤ 24
- 24 < tracks ≤ 55
- 55 < tracks ≤ 132
- 132 < tracks ≤ 307
- 307 < tracks ≤ 642
- 642 < tracks ≤ 984
- 984 < tracks ≤ 1349

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/25/2022 12:20 PM

PAC PARS - Yaquina Bay, Summarize Within



Legend

No Available Type
2019

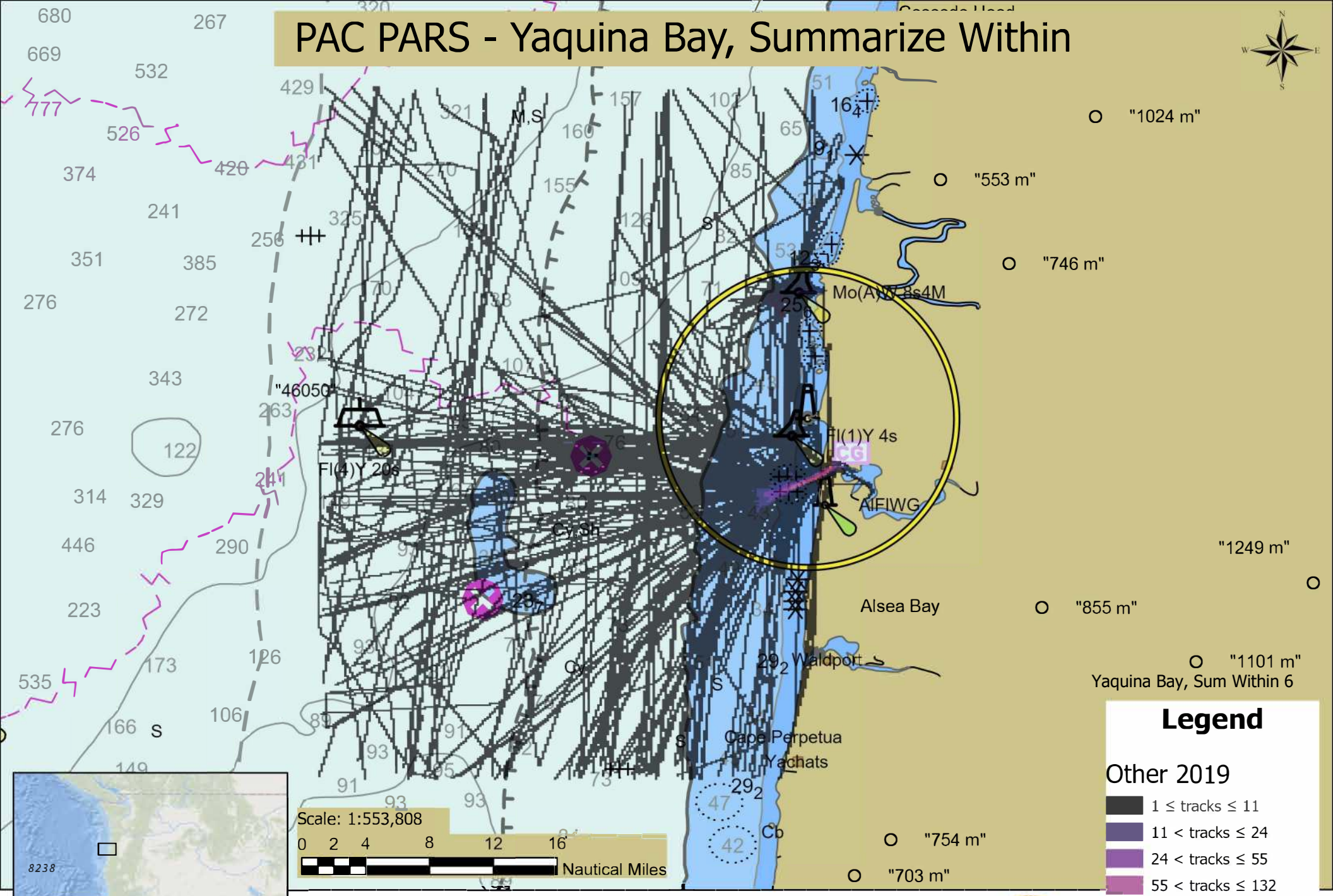
- 1 ≤ tracks ≤ 11
- 11 < tracks ≤ 24
- 24 < tracks ≤ 55
- 55 < tracks ≤ 132
- 132 < tracks ≤ 307
- 307 < tracks ≤ 642
- 642 < tracks ≤ 984
- 984 < tracks ≤ 1349

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/25/2022 12:18 PM

PAC PARS - Yaquina Bay, Summarize Within



Legend

Other 2019

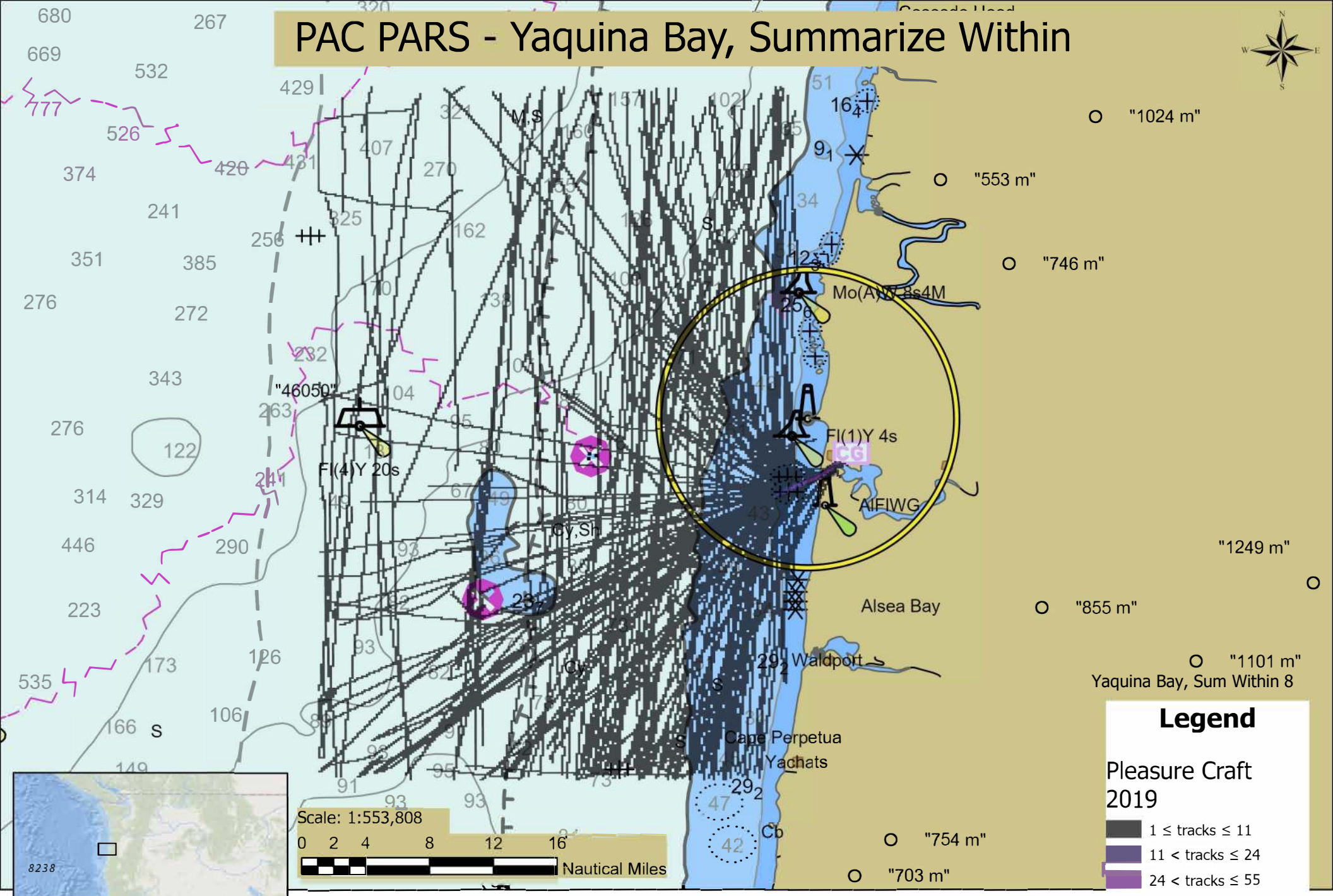
- 1 ≤ tracks ≤ 11
- 11 < tracks ≤ 24
- 24 < tracks ≤ 55
- 55 < tracks ≤ 132
- 132 < tracks ≤ 307
- 307 < tracks ≤ 642
- 642 < tracks ≤ 984
- 984 < tracks ≤ 1349

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/25/2022 12:16 PM

PAC PARS - Yaquina Bay, Summarize Within



Legend

Pleasure Craft 2019

- 1 ≤ tracks ≤ 11
- 11 < tracks ≤ 24
- 24 < tracks ≤ 55
- 55 < tracks ≤ 132
- 132 < tracks ≤ 307
- 307 < tracks ≤ 642
- 642 < tracks ≤ 984
- 984 < tracks ≤ 1349

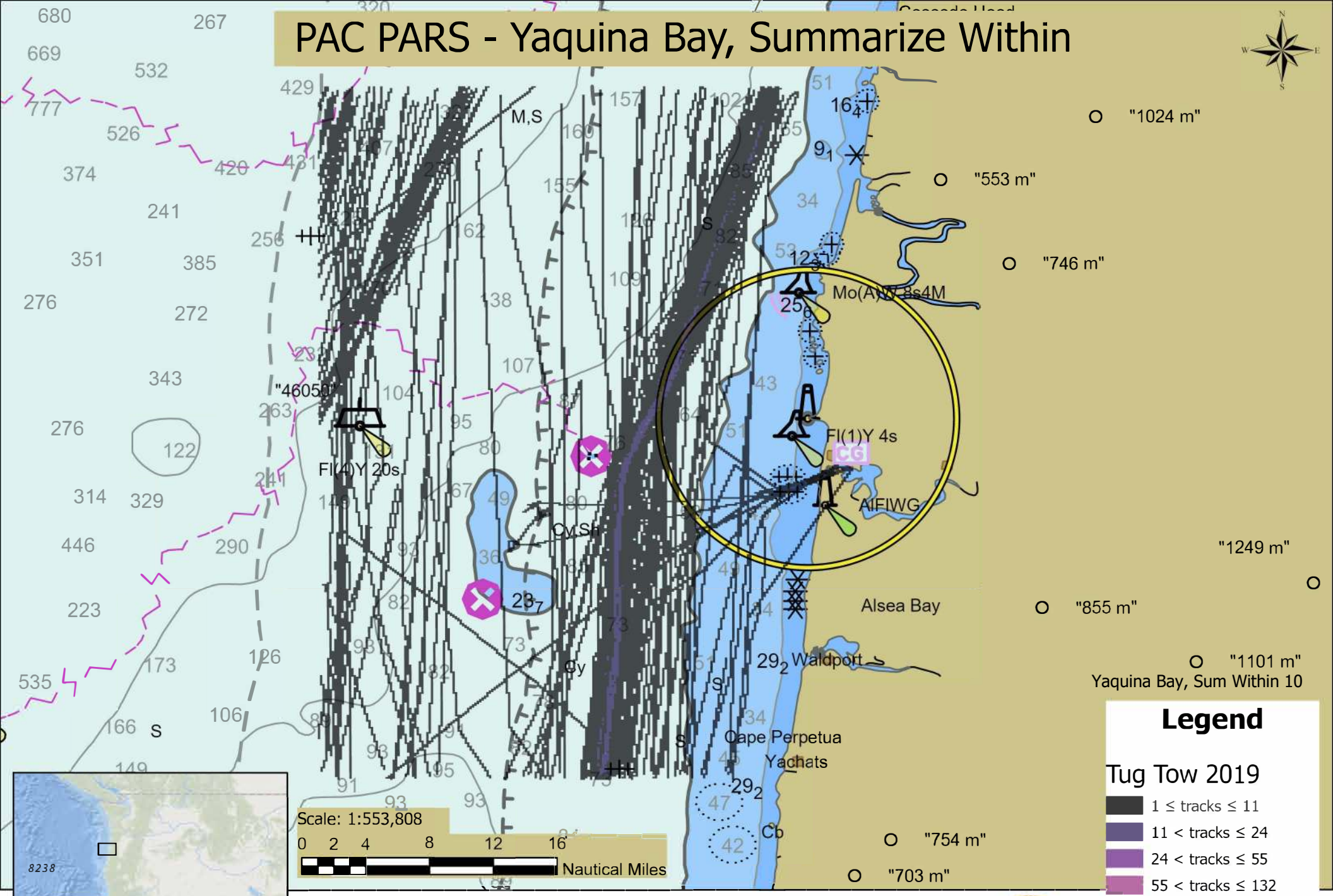
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/25/2022 12:14 PM

PAC PARS - Yaquina Bay, Summarize Within



Legend

Tug Tow 2019

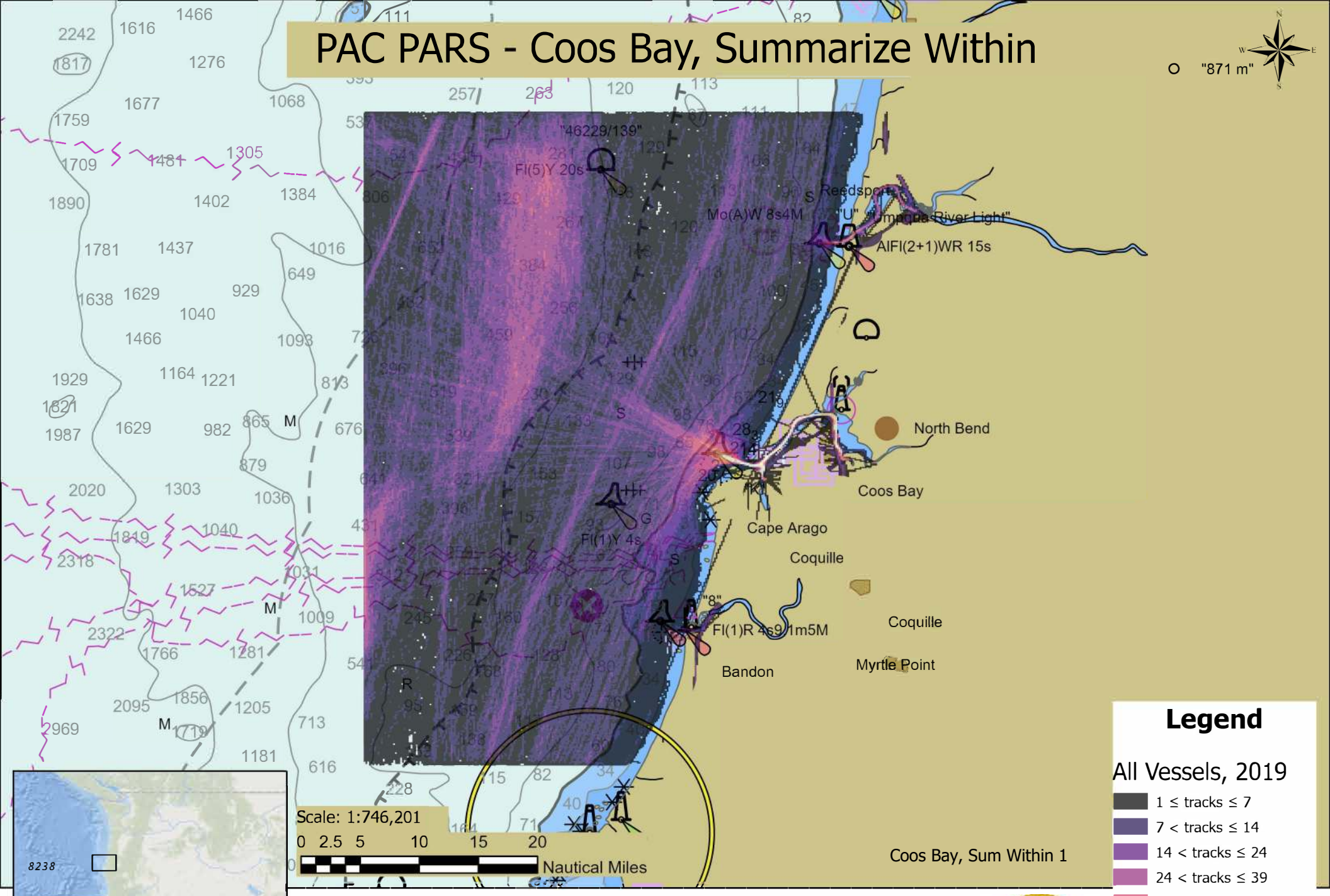
- 1 ≤ tracks ≤ 11
- 11 < tracks ≤ 24
- 24 < tracks ≤ 55
- 55 < tracks ≤ 132
- 132 < tracks ≤ 307
- 307 < tracks ≤ 642
- 642 < tracks ≤ 984
- 984 < tracks ≤ 1349

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/25/2022 12:10 PM

PAC PARS - Coos Bay, Summarize Within



Legend

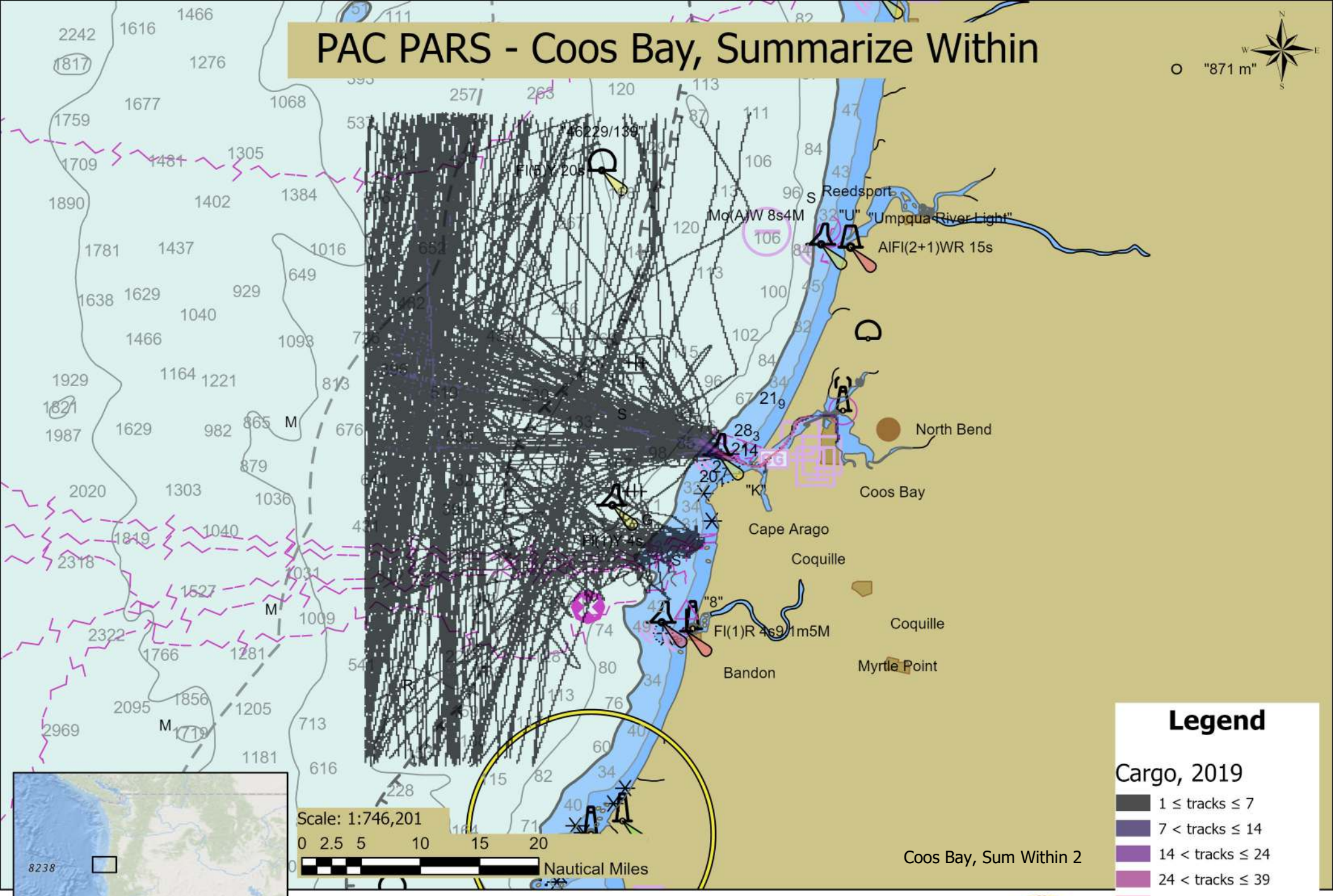
All Vessels, 2019

- 1 ≤ tracks ≤ 7
- 7 < tracks ≤ 14
- 14 < tracks ≤ 24
- 24 < tracks ≤ 39
- 39 < tracks ≤ 68
- 68 < tracks ≤ 121
- 121 < tracks ≤ 195
- 195 < tracks ≤ 964

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.
Last Update: 3/21/2022 11:36 AM

PAC PARS - Coos Bay, Summarize Within



Legend

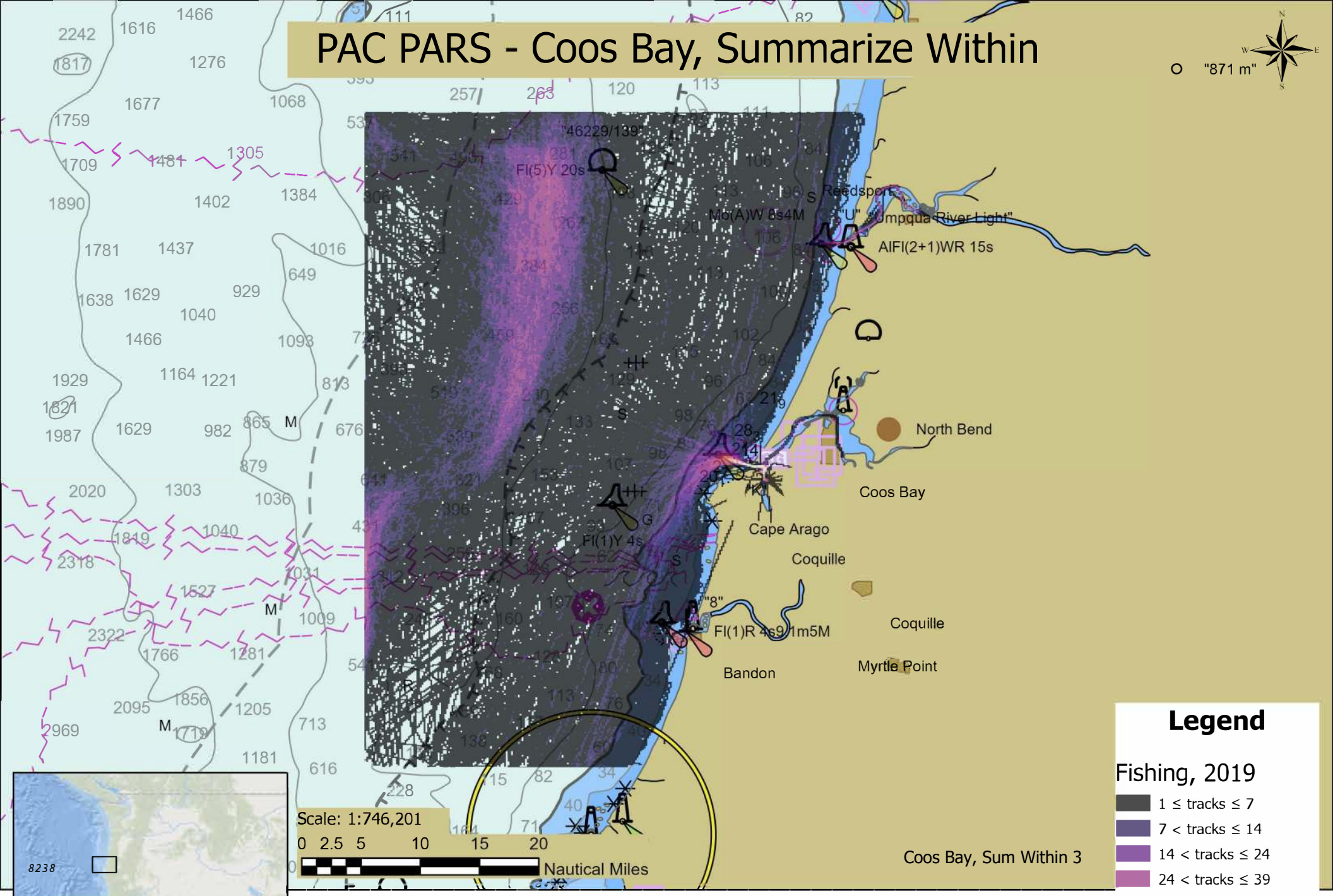
Cargo, 2019

- 1 ≤ tracks ≤ 7
- 7 < tracks ≤ 14
- 14 < tracks ≤ 24
- 24 < tracks ≤ 39
- 39 < tracks ≤ 68

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.
Last Update: 3/21/2022 11:38 AM

PAC PARS - Coos Bay, Summarize Within



Legend

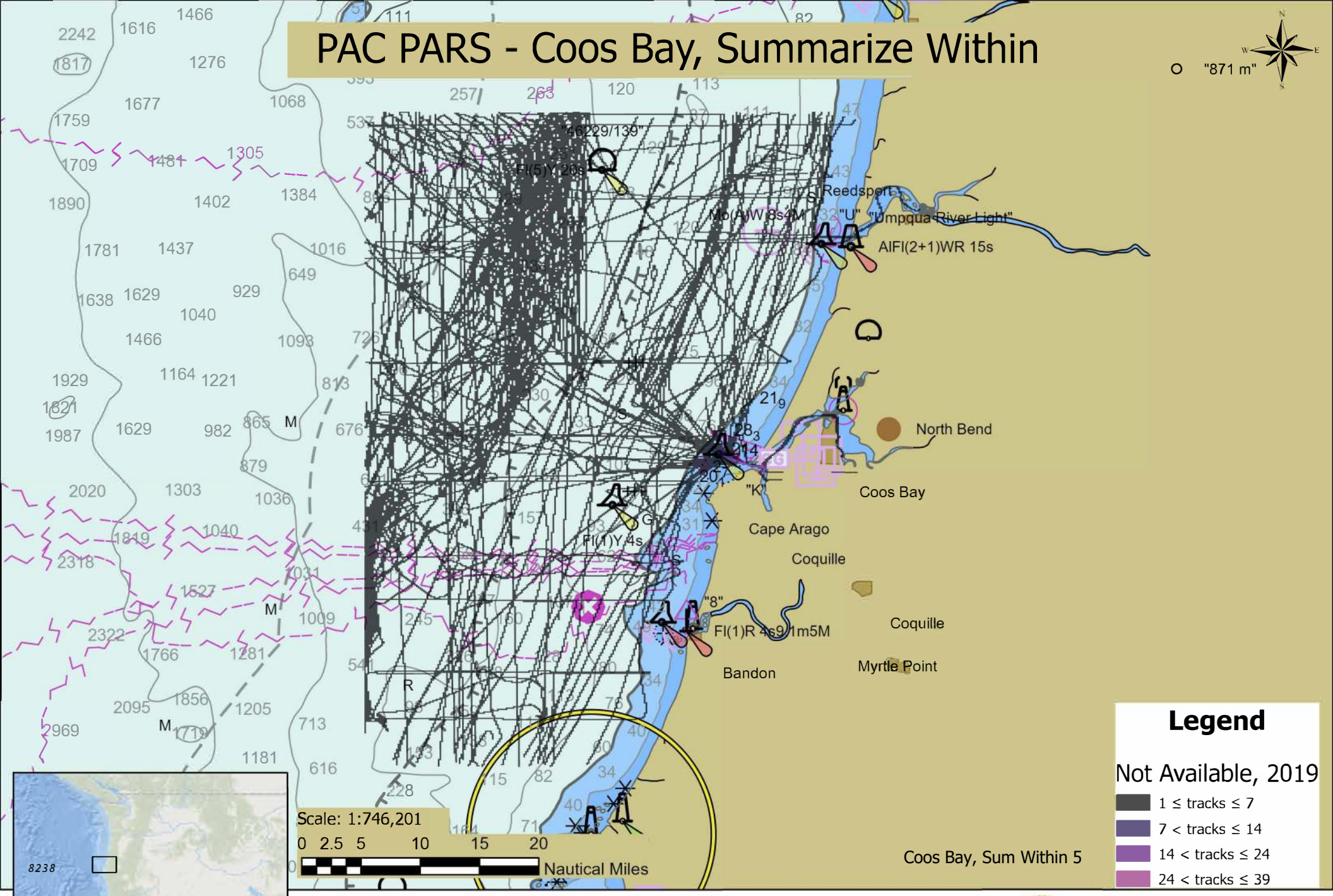
Fishing, 2019

- 1 ≤ tracks ≤ 7
- 7 < tracks ≤ 14
- 14 < tracks ≤ 24
- 24 < tracks ≤ 39
- 39 < tracks ≤ 68
- 68 < tracks ≤ 121
- 121 < tracks ≤ 195
- 195 < tracks ≤ 964

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.
Last Update: 3/21/2022 11:40 AM

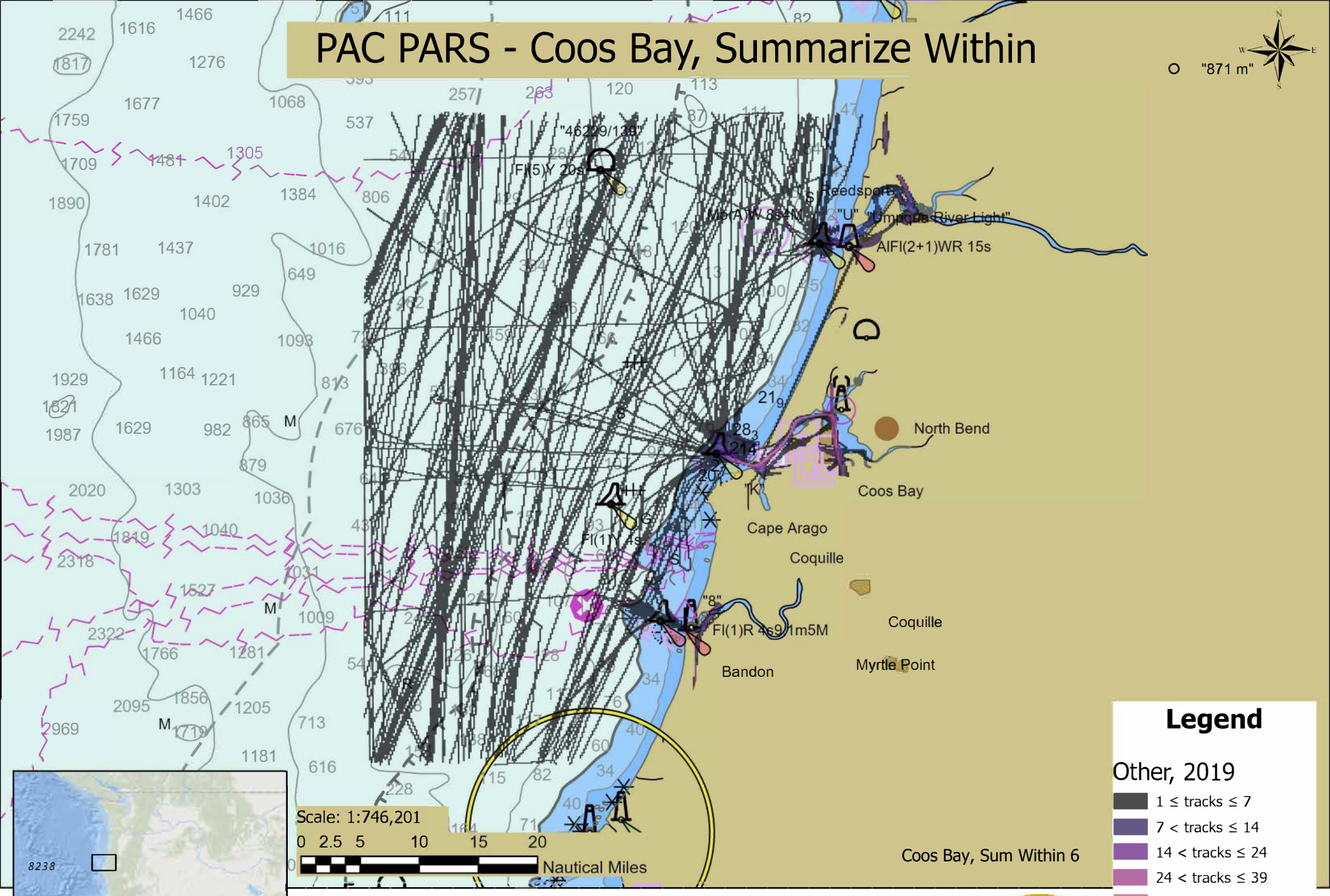
PAC PARS - Coos Bay, Summarize Within



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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.
Last Update: 3/21/2022 11:43 AM

PAC PARS - Coos Bay, Summarize Within



Legend

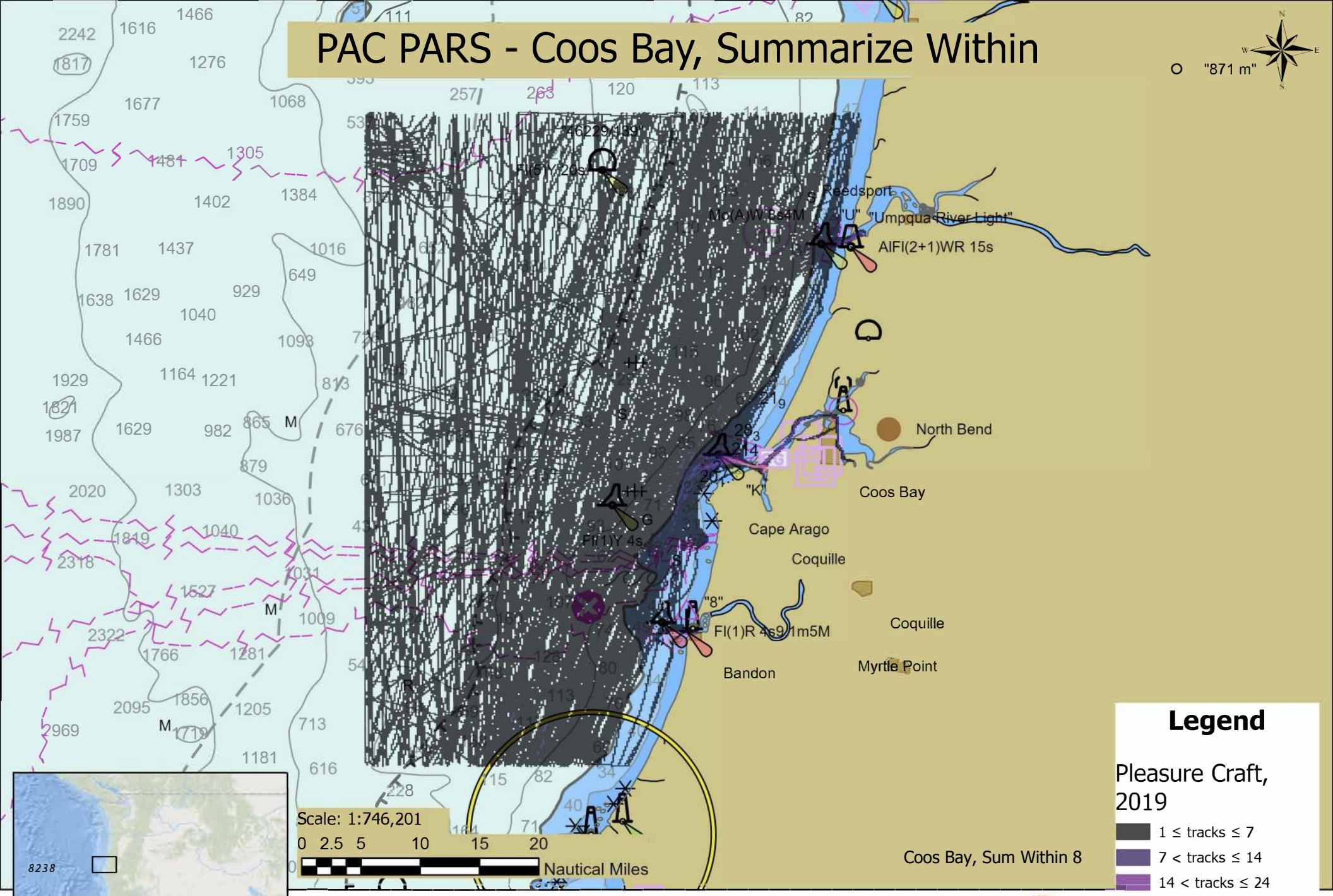
Other, 2019

- 1 ≤ tracks ≤ 7
- 7 < tracks ≤ 14
- 14 < tracks ≤ 24
- 24 < tracks ≤ 39
- 39 < tracks ≤ 68
- 68 < tracks ≤ 121

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.
Last Update: 3/21/2022 11:45 AM

PAC PARS - Coos Bay, Summarize Within



Legend

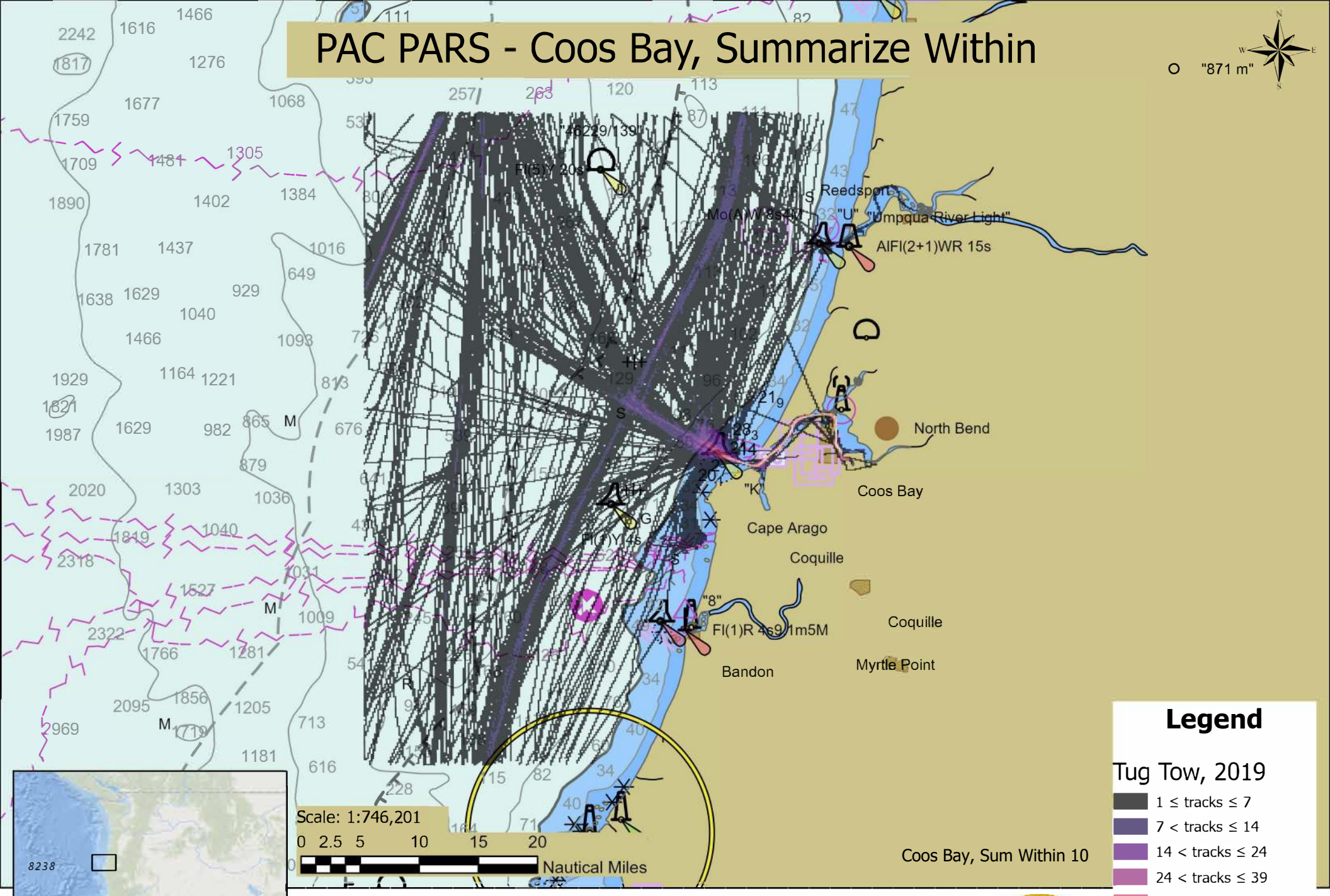
Pleasure Craft, 2019

- 1 ≤ tracks ≤ 7
- 7 < tracks ≤ 14
- 14 < tracks ≤ 24
- 24 < tracks ≤ 39
- 39 < tracks ≤ 68
- 68 < tracks ≤ 121

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.
Last Update: 3/21/2022 11:47 AM

PAC PARS - Coos Bay, Summarize Within



Legend

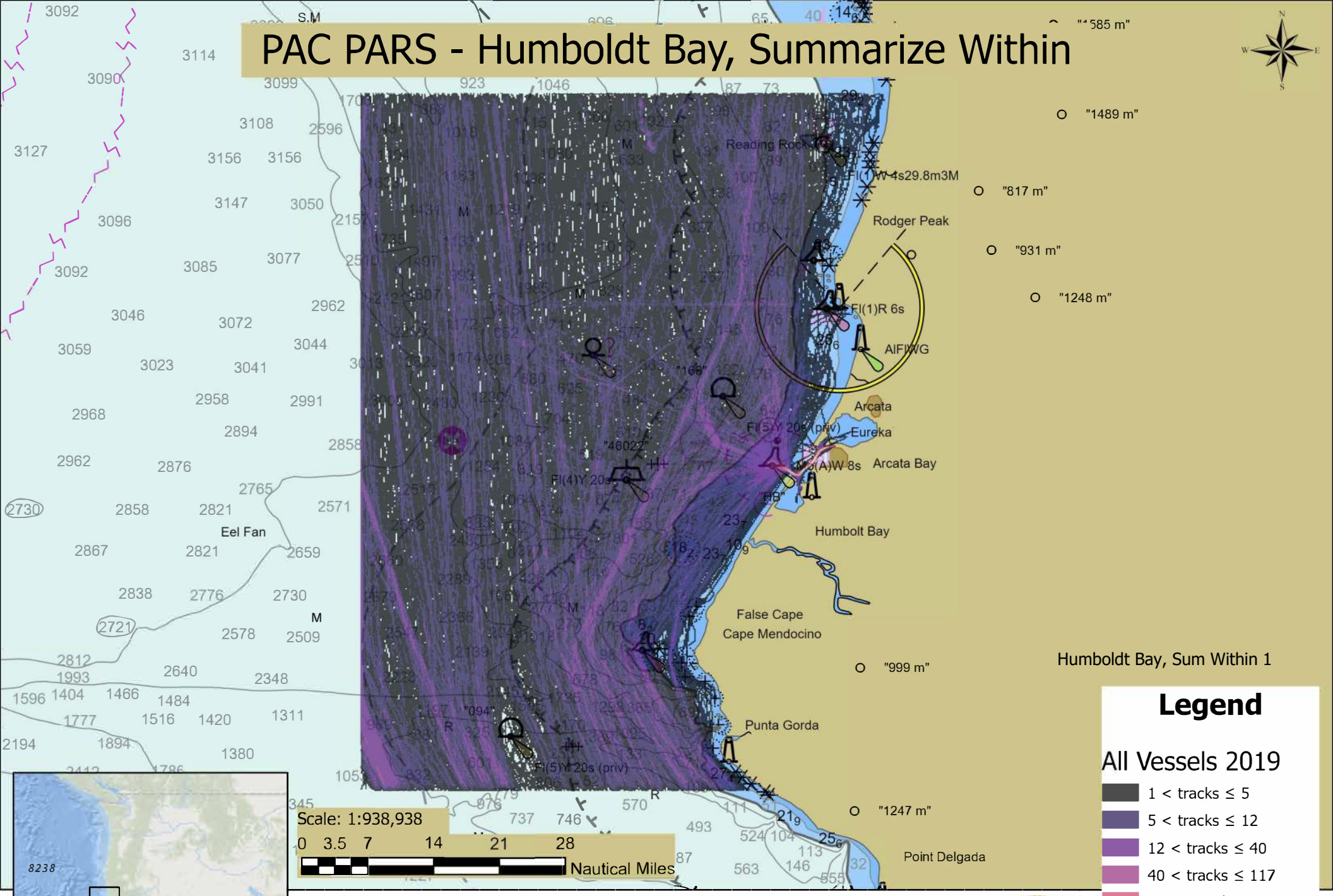
Tug Tow, 2019

- 1 ≤ tracks ≤ 7
- 7 < tracks ≤ 14
- 14 < tracks ≤ 24
- 24 < tracks ≤ 39
- 39 < tracks ≤ 68
- 68 < tracks ≤ 121
- 121 < tracks ≤ 195
- 195 < tracks ≤ 964

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.
Last Update: 3/21/2022 11:48 AM

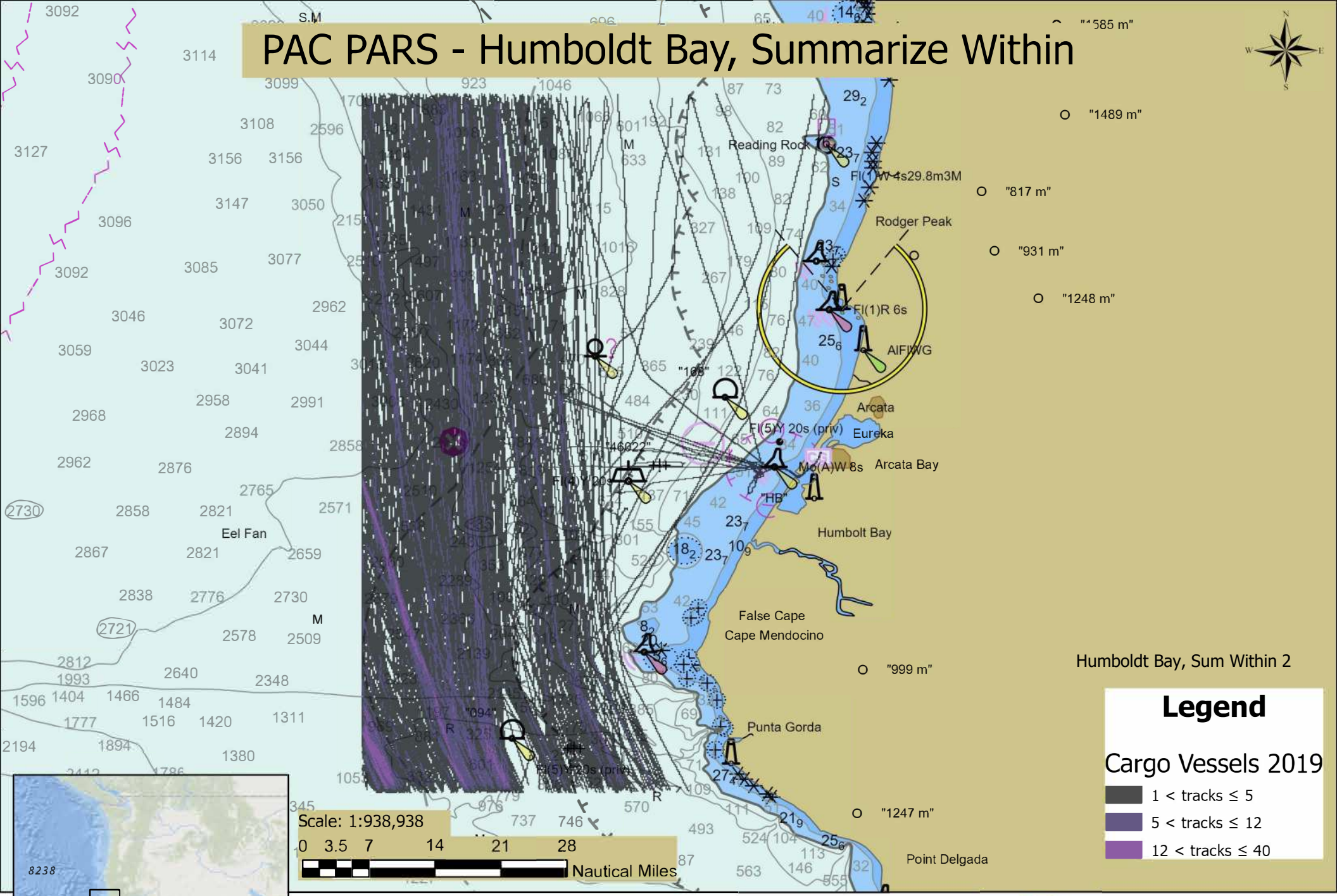
PAC PARS - Humboldt Bay, Summarize Within



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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.
Last Update: 3/22/2022 9:06 AM

PAC PARS - Humboldt Bay, Summarize Within



Humboldt Bay, Sum Within 2

Legend

Cargo Vessels 2019

- 1 < tracks ≤ 5
- 5 < tracks ≤ 12
- 12 < tracks ≤ 40

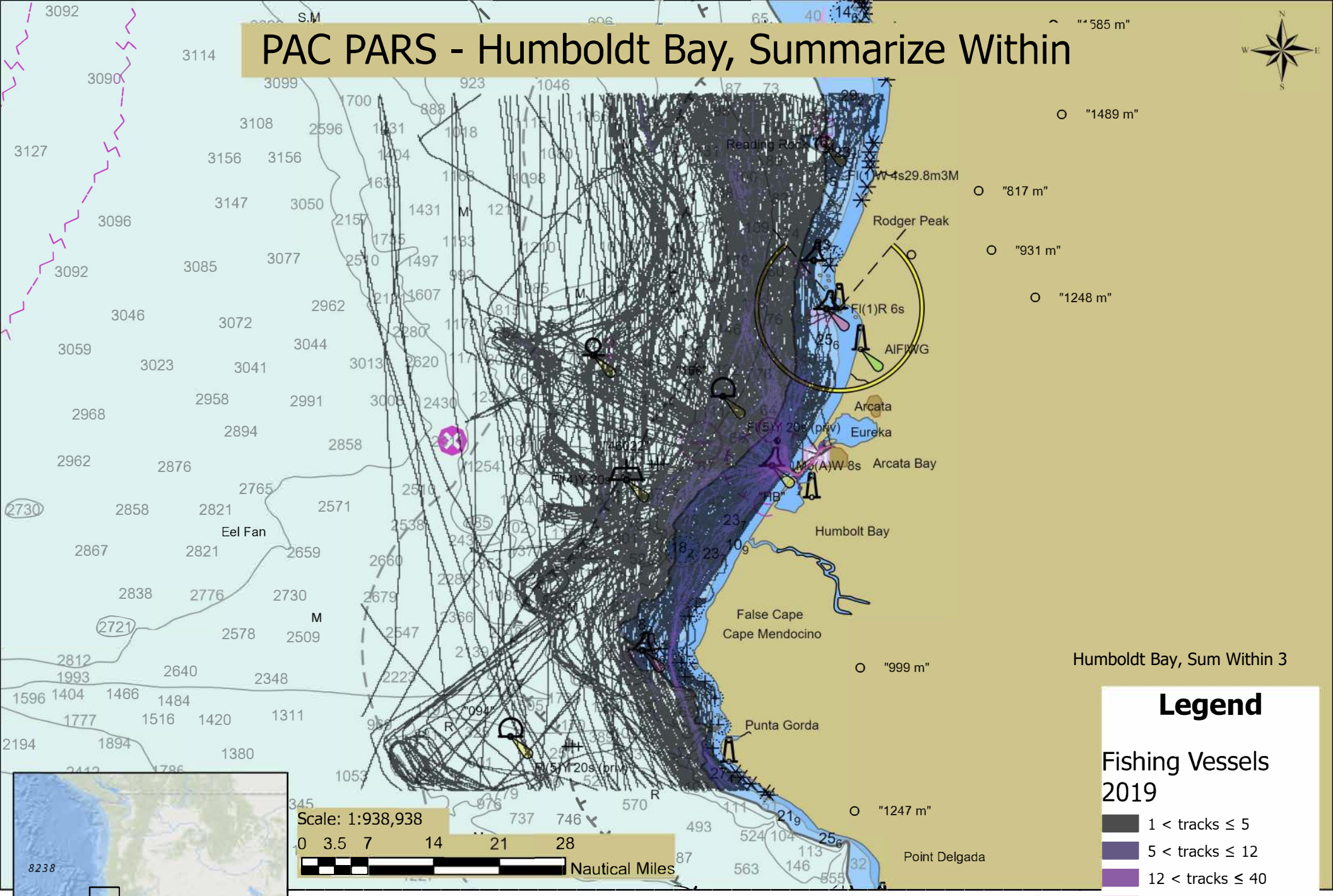
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/22/2022 9:04 AM

PAC PARS - Humboldt Bay, Summarize Within



Humboldt Bay, Sum Within 3

Legend

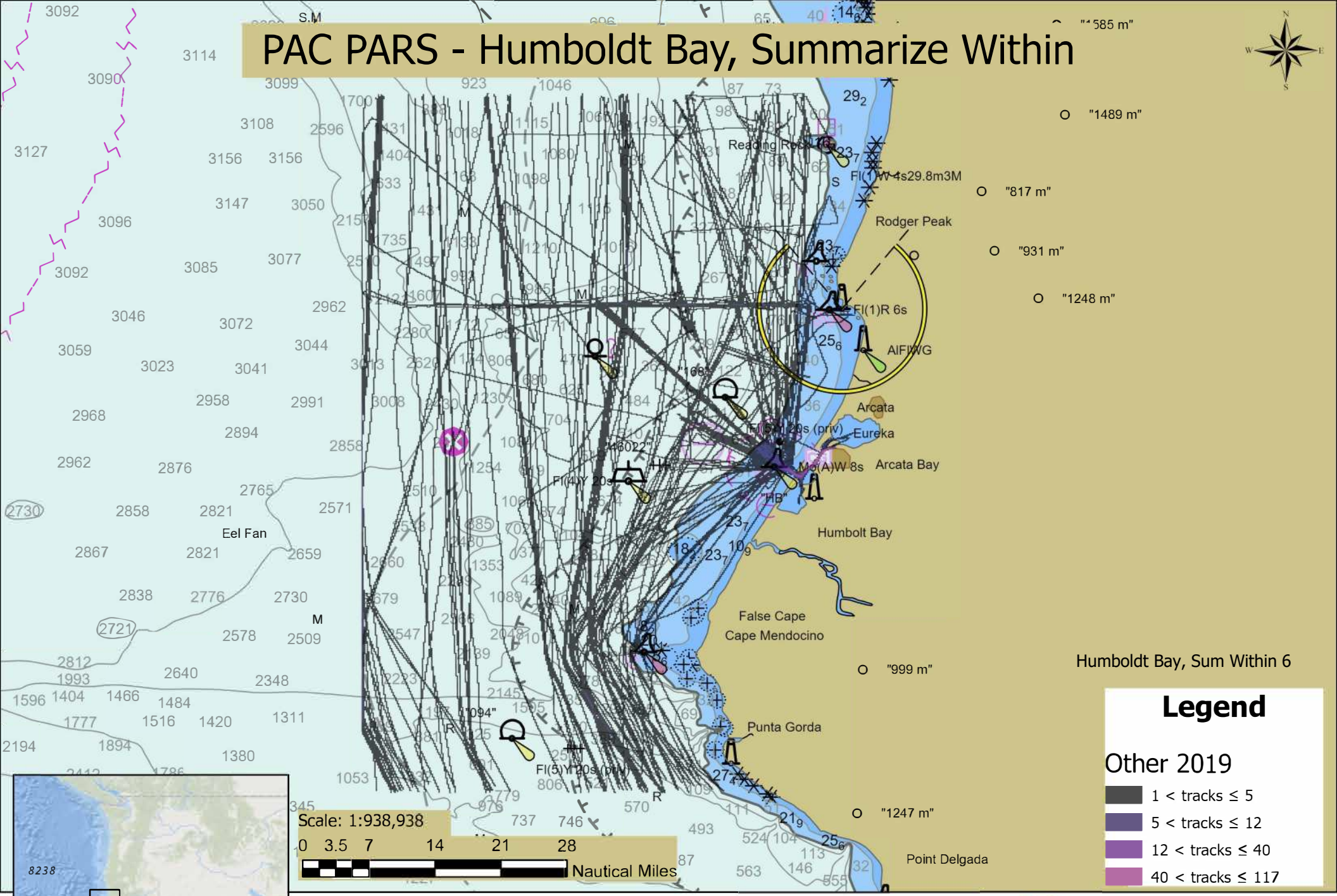
Fishing Vessels 2019

- 1 < tracks ≤ 5
- 5 < tracks ≤ 12
- 12 < tracks ≤ 40
- 40 < tracks ≤ 117
- 117 < tracks ≤ 229

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.
Last Update: 3/22/2022 9:02 AM

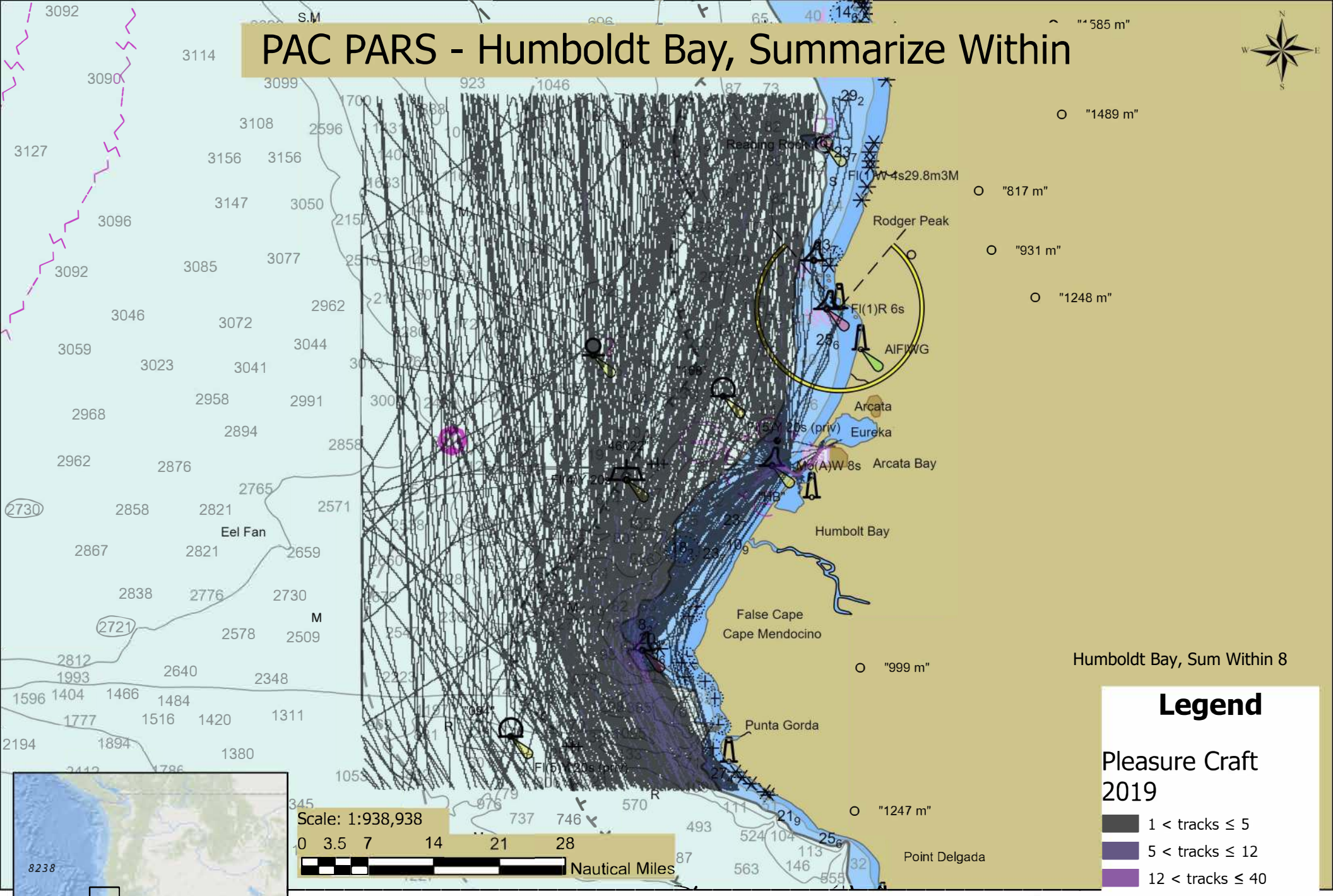
PAC PARS - Humboldt Bay, Summarize Within

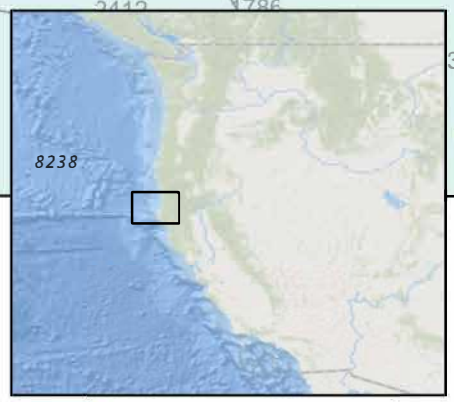


Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.
Last Update: 3/22/2022 9:00 AM

PAC PARS - Humboldt Bay, Summarize Within





Scale: 1:938,938

0 3.5 7 14 21 28

Nautical Miles

Humboldt Bay, Sum Within 8

Legend

Pleasure Craft 2019

- 1 < tracks ≤ 5
- 5 < tracks ≤ 12
- 12 < tracks ≤ 40
- 40 < tracks ≤ 117

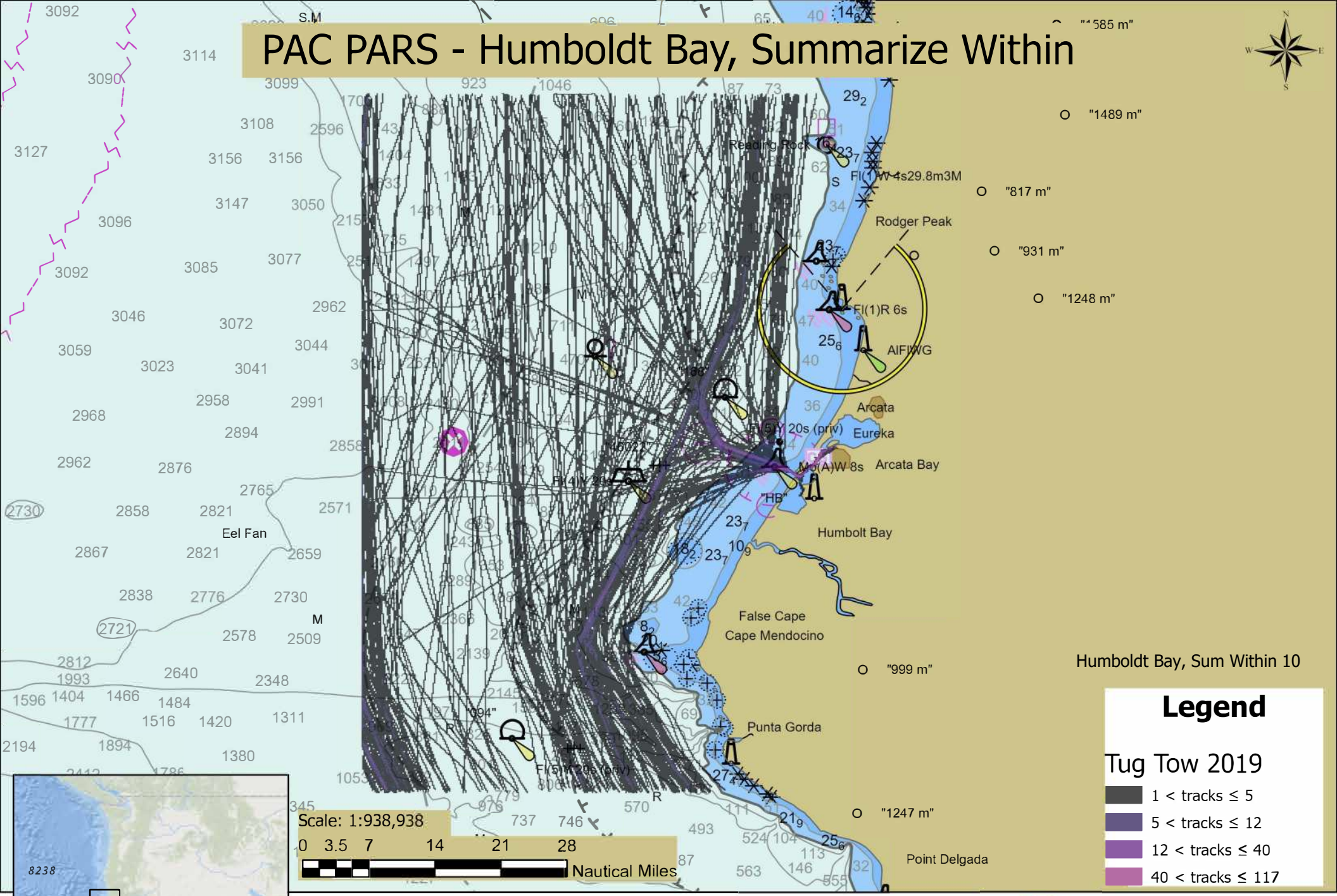
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/22/2022 8:58 AM

PAC PARS - Humboldt Bay, Summarize Within



Humboldt Bay, Sum Within 10

Legend

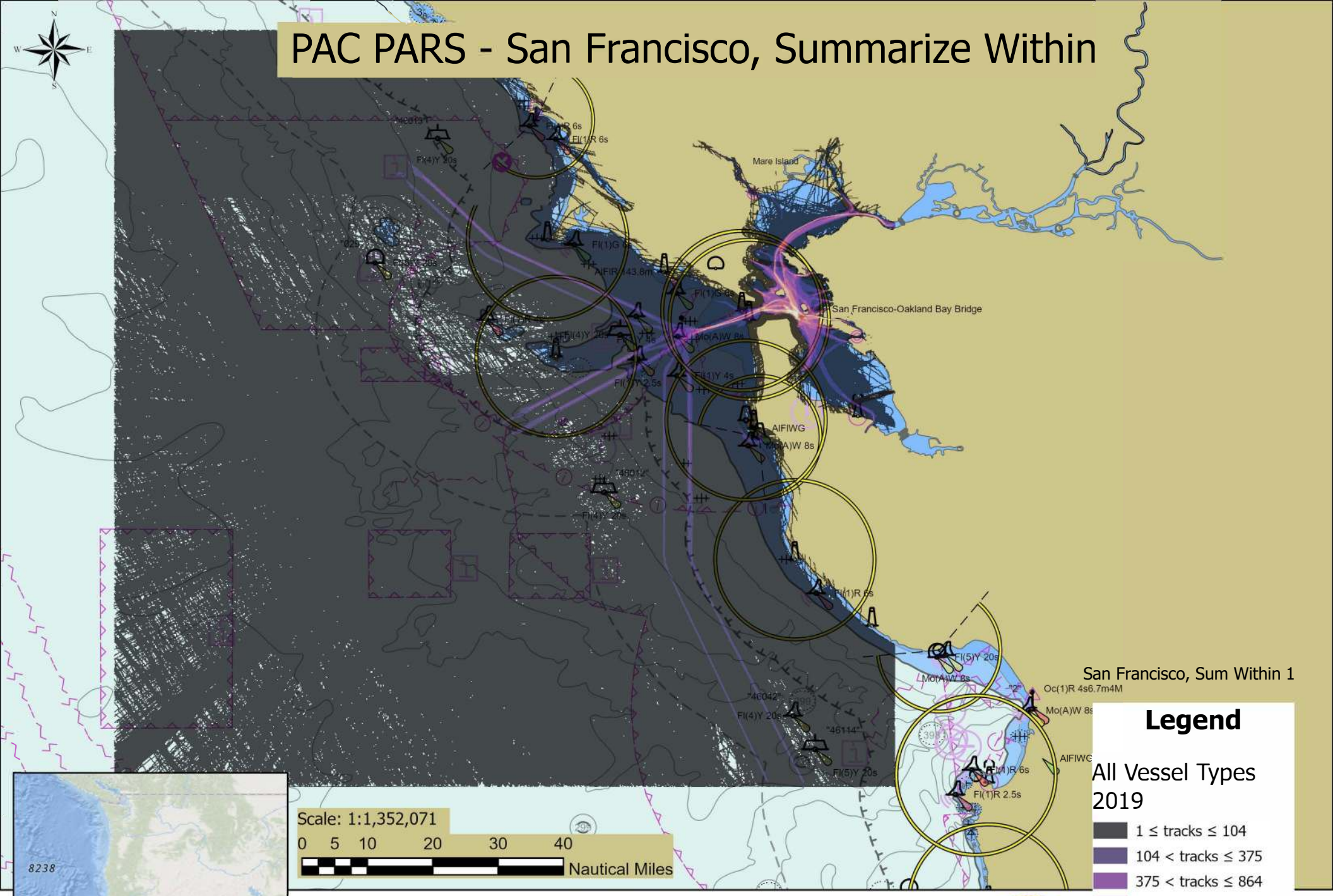
Tug Tow 2019

- 1 < tracks ≤ 5
- 5 < tracks ≤ 12
- 12 < tracks ≤ 40
- 40 < tracks ≤ 117

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.
Last Update: 3/22/2022 8:56 AM

PAC PARS - San Francisco, Summarize Within



San Francisco, Sum Within 1

Scale: 1:1,352,071

0 5 10 20 30 40

Nautical Miles

Legend

All Vessel Types 2019

- 1 ≤ tracks ≤ 104
- 104 < tracks ≤ 375
- 375 < tracks ≤ 864
- 864 < tracks ≤ 1500
- 1500 < tracks ≤ 2253
- 2253 < tracks ≤ 3236
- 3236 < tracks ≤ 4753
- 4753 < tracks ≤ 7278

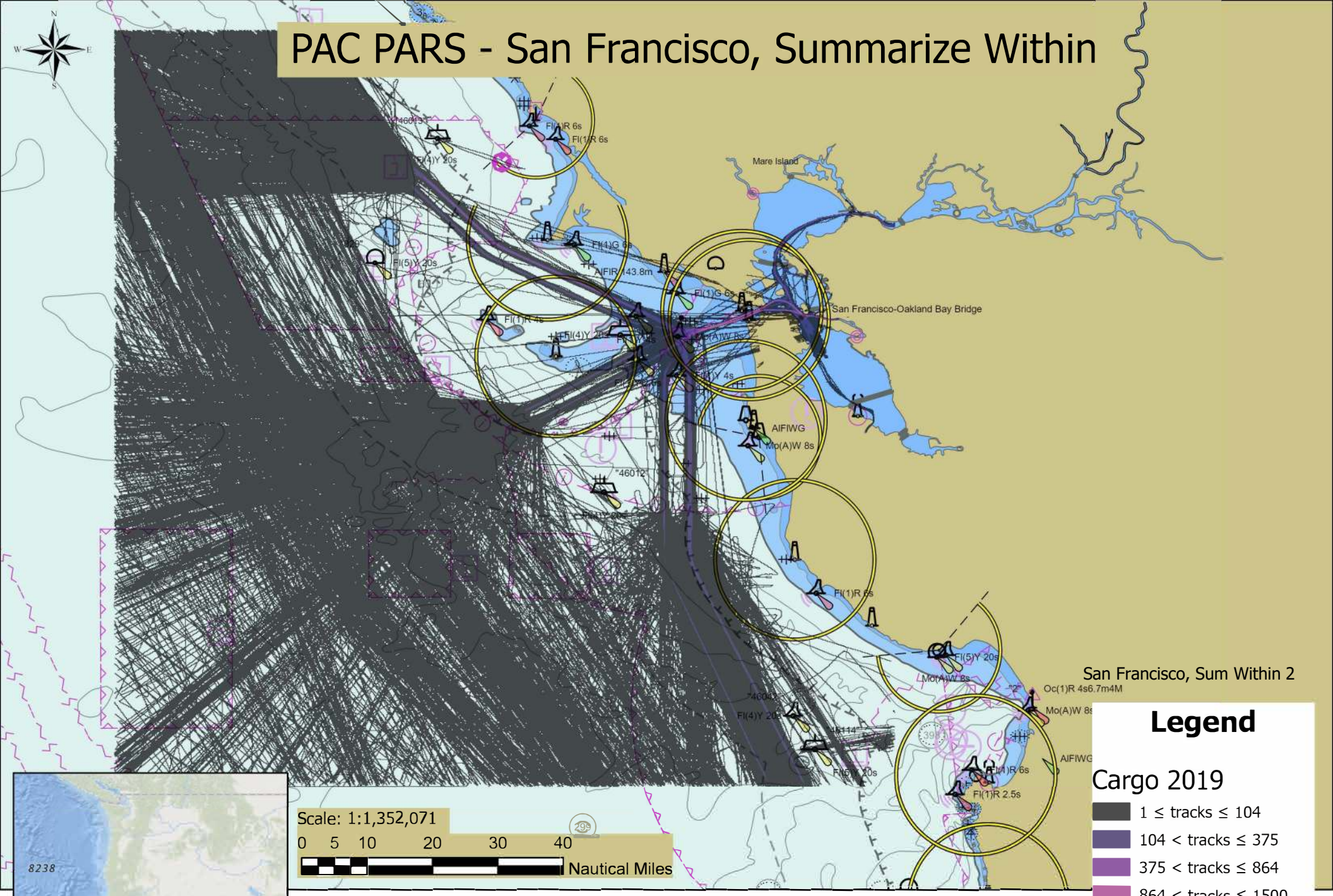
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/25/2022 10:56 AM

PAC PARS - San Francisco, Summarize Within



San Francisco, Sum Within 2

Scale: 1:1,352,071

0 5 10 20 30 40

Nautical Miles

Legend

Cargo 2019

- 1 ≤ tracks ≤ 104
- 104 < tracks ≤ 375
- 375 < tracks ≤ 864
- 864 < tracks ≤ 1500
- 1500 < tracks ≤ 2253
- 2253 < tracks ≤ 3236
- 3236 < tracks ≤ 4753
- 4753 < tracks ≤ 7278

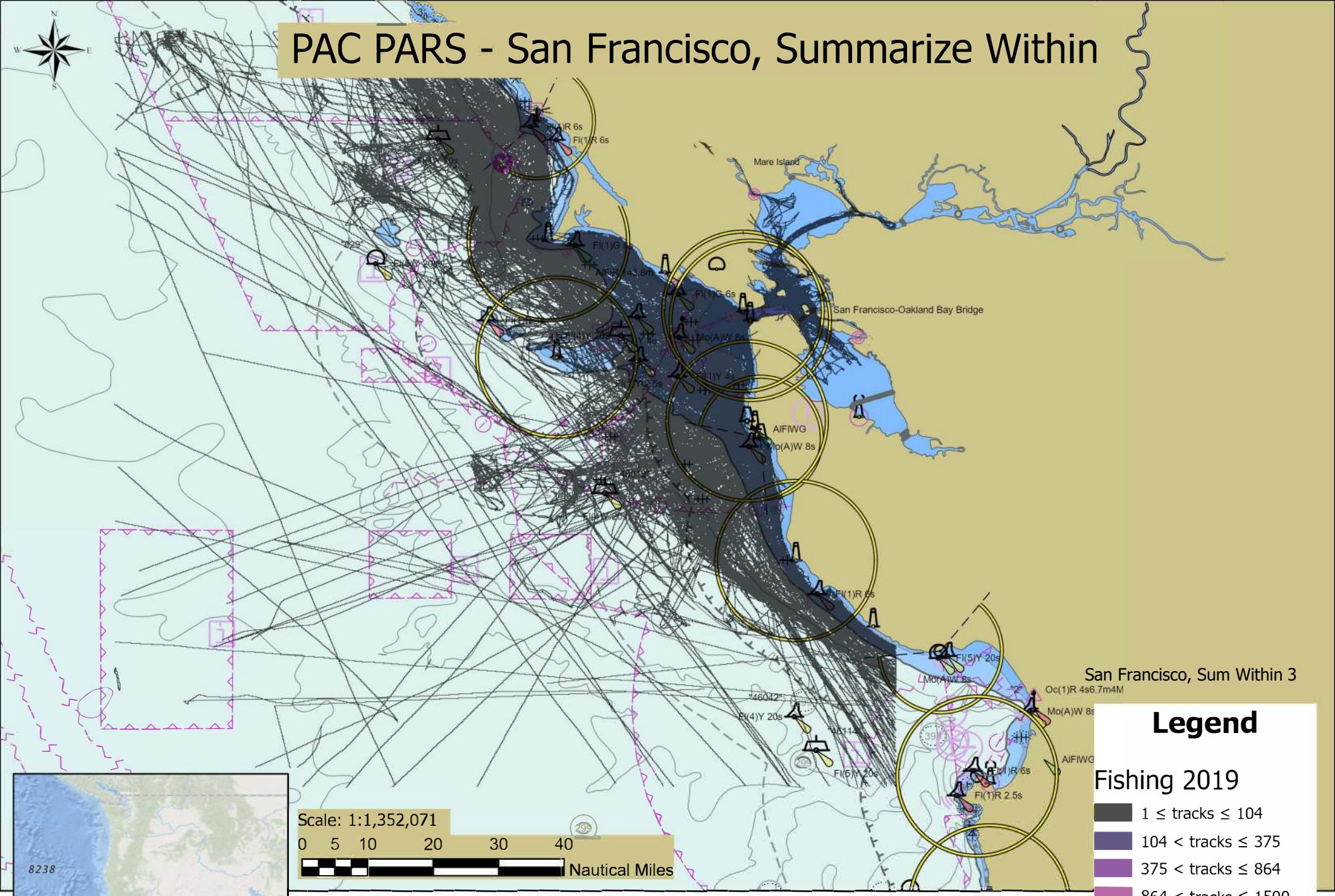
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/25/2022 11:33 AM

PAC PARS - San Francisco, Summarize Within



San Francisco, Sum Within 3

Legend

Fishing 2019

- 1 ≤ tracks ≤ 104
- 104 < tracks ≤ 375
- 375 < tracks ≤ 864
- 864 < tracks ≤ 1500
- 1500 < tracks ≤ 2253
- 2253 < tracks ≤ 3236
- 3236 < tracks ≤ 4753
- 4753 < tracks ≤ 7278

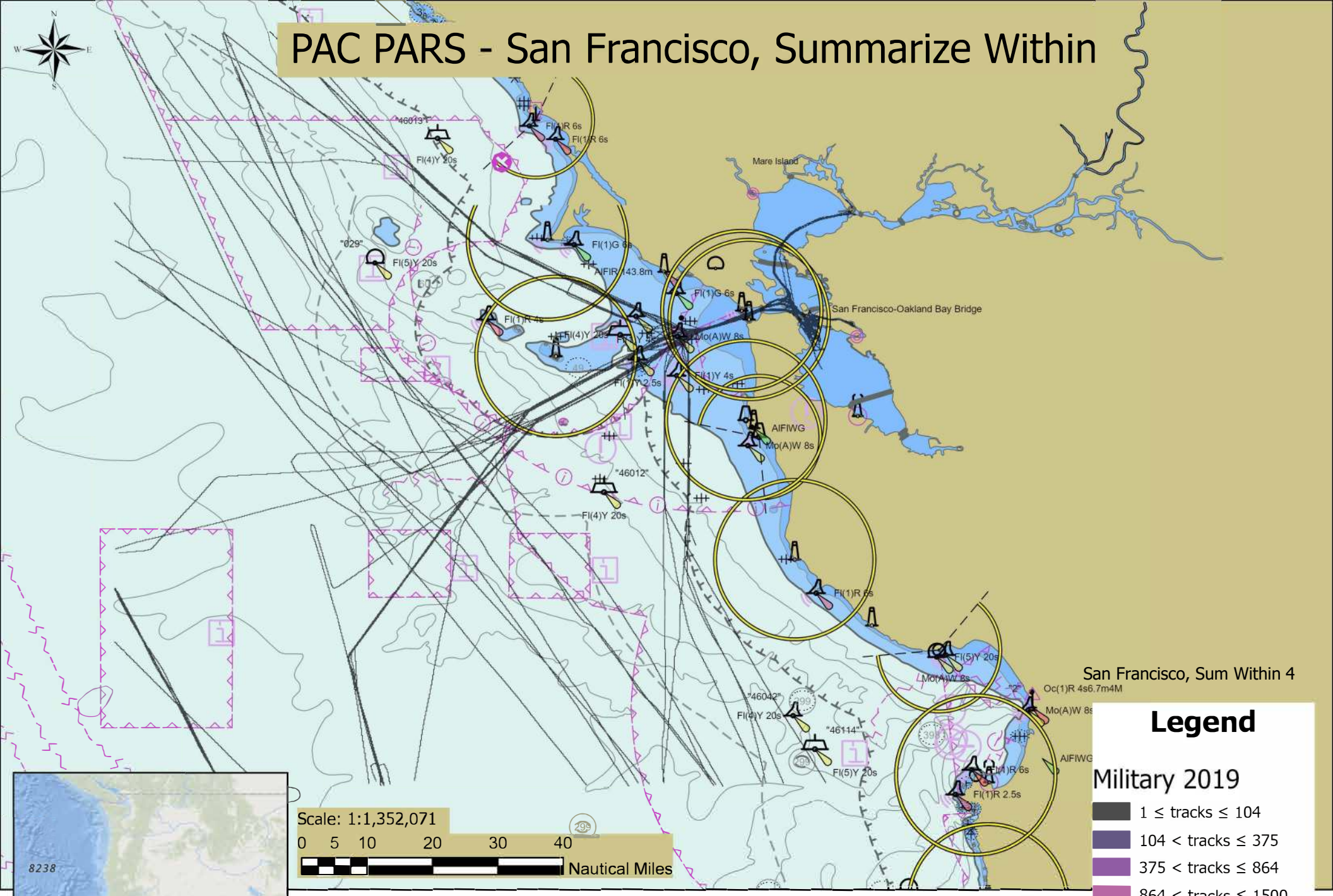
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/25/2022 11:31 AM

PAC PARS - San Francisco, Summarize Within



San Francisco, Sum Within 4

Legend

Military 2019

- 1 ≤ tracks ≤ 104
- 104 < tracks ≤ 375
- 375 < tracks ≤ 864
- 864 < tracks ≤ 1500
- 1500 < tracks ≤ 2253
- 2253 < tracks ≤ 3236
- 3236 < tracks ≤ 4753
- 4753 < tracks ≤ 7278

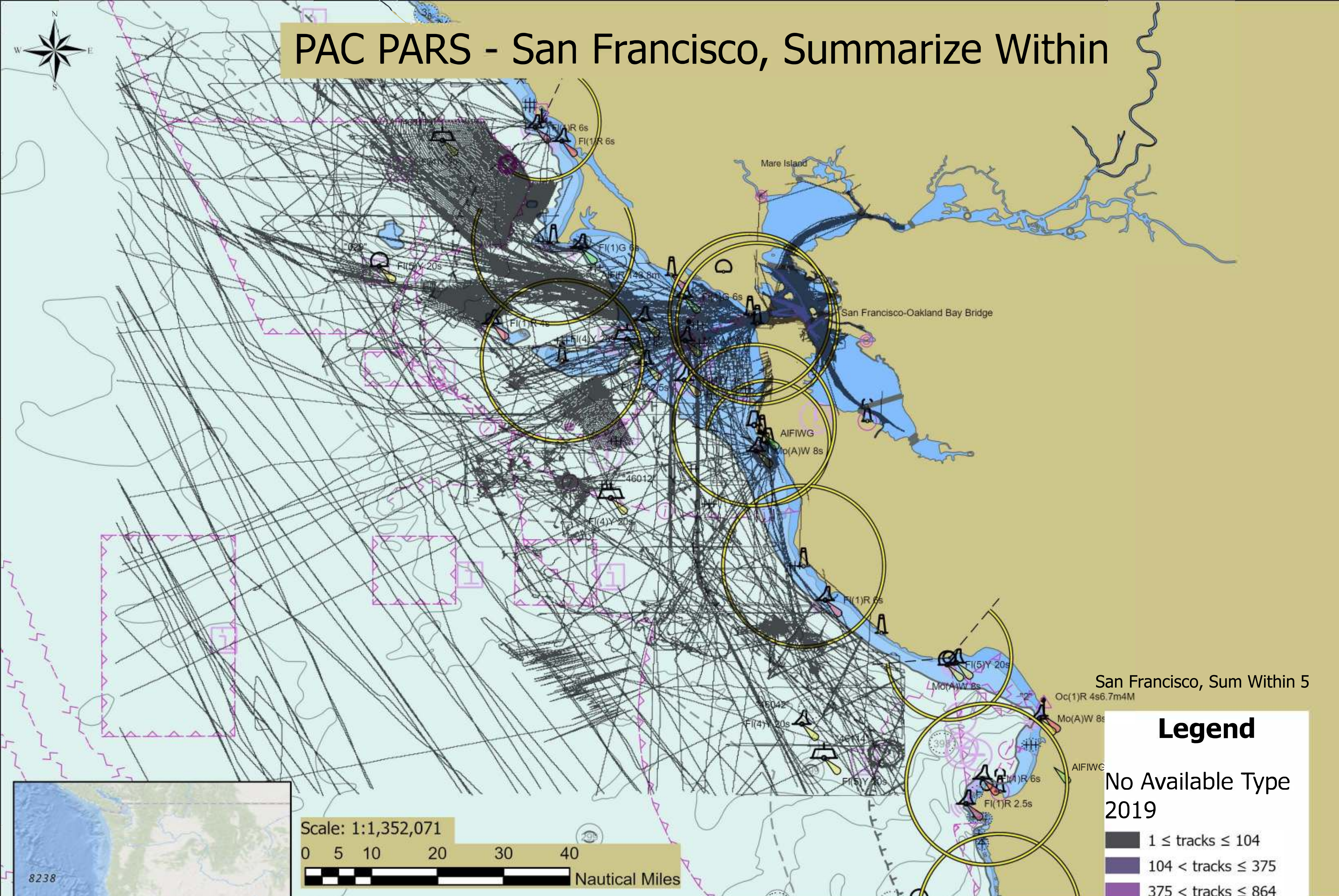
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

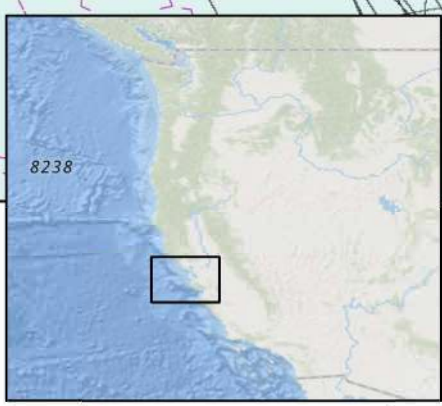
Prepared by the USCG NAVCEN
Data Sources: NAIS

This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/25/2022 11:30 AM

PAC PARS - San Francisco, Summarize Within



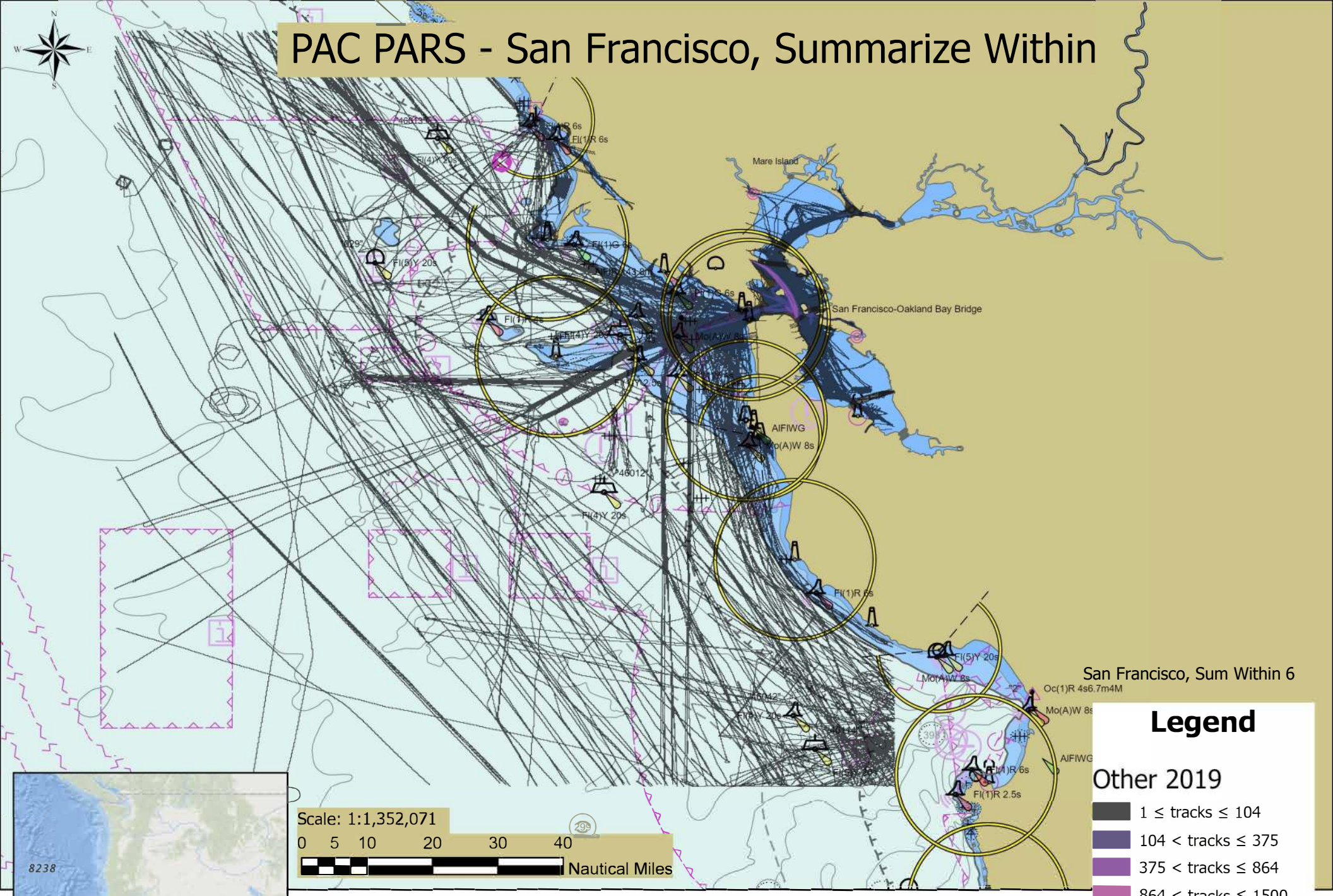


Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/25/2022 11:28 AM

PAC PARS - San Francisco, Summarize Within

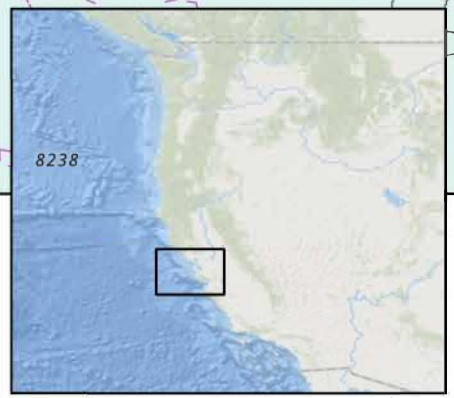


San Francisco, Sum Within 6

Legend

Other 2019

- 1 ≤ tracks ≤ 104
- 104 < tracks ≤ 375
- 375 < tracks ≤ 864
- 864 < tracks ≤ 1500
- 1500 < tracks ≤ 2253
- 2253 < tracks ≤ 3236
- 3236 < tracks ≤ 4753
- 4753 < tracks ≤ 7278



Scale: 1:1,352,071

0 5 10 20 30 40 Nautical Miles

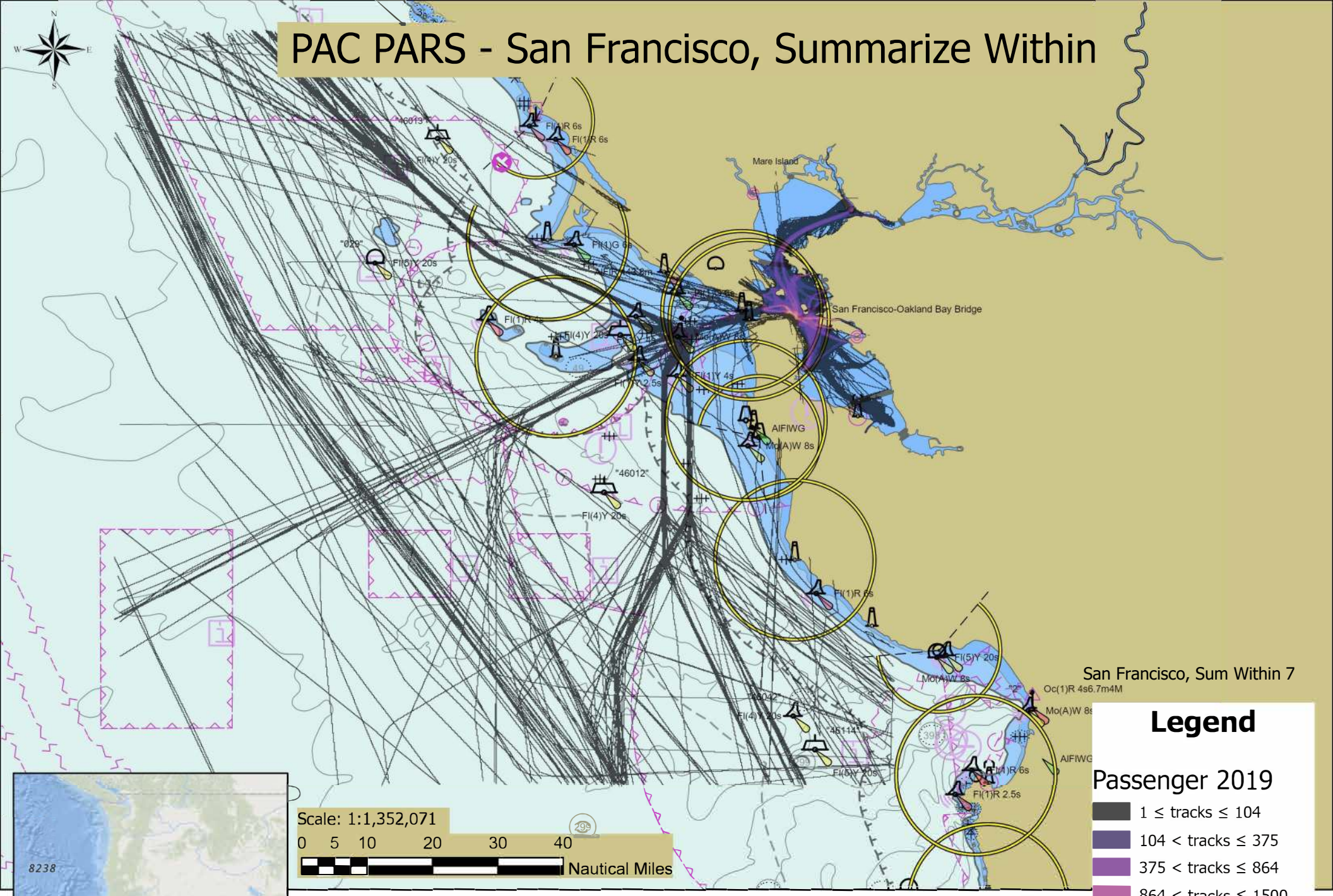
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/25/2022 11:24 AM

PAC PARS - San Francisco, Summarize Within

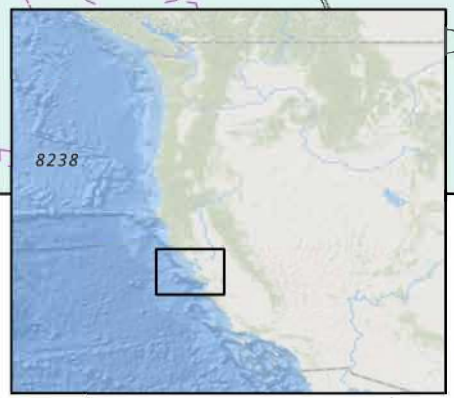


San Francisco, Sum Within 7

Legend

Passenger 2019

- 1 ≤ tracks ≤ 104
- 104 < tracks ≤ 375
- 375 < tracks ≤ 864
- 864 < tracks ≤ 1500
- 1500 < tracks ≤ 2253
- 2253 < tracks ≤ 3236
- 3236 < tracks ≤ 4753
- 4753 < tracks ≤ 7278



Scale: 1:1,352,071

0 5 10 20 30 40

Nautical Miles

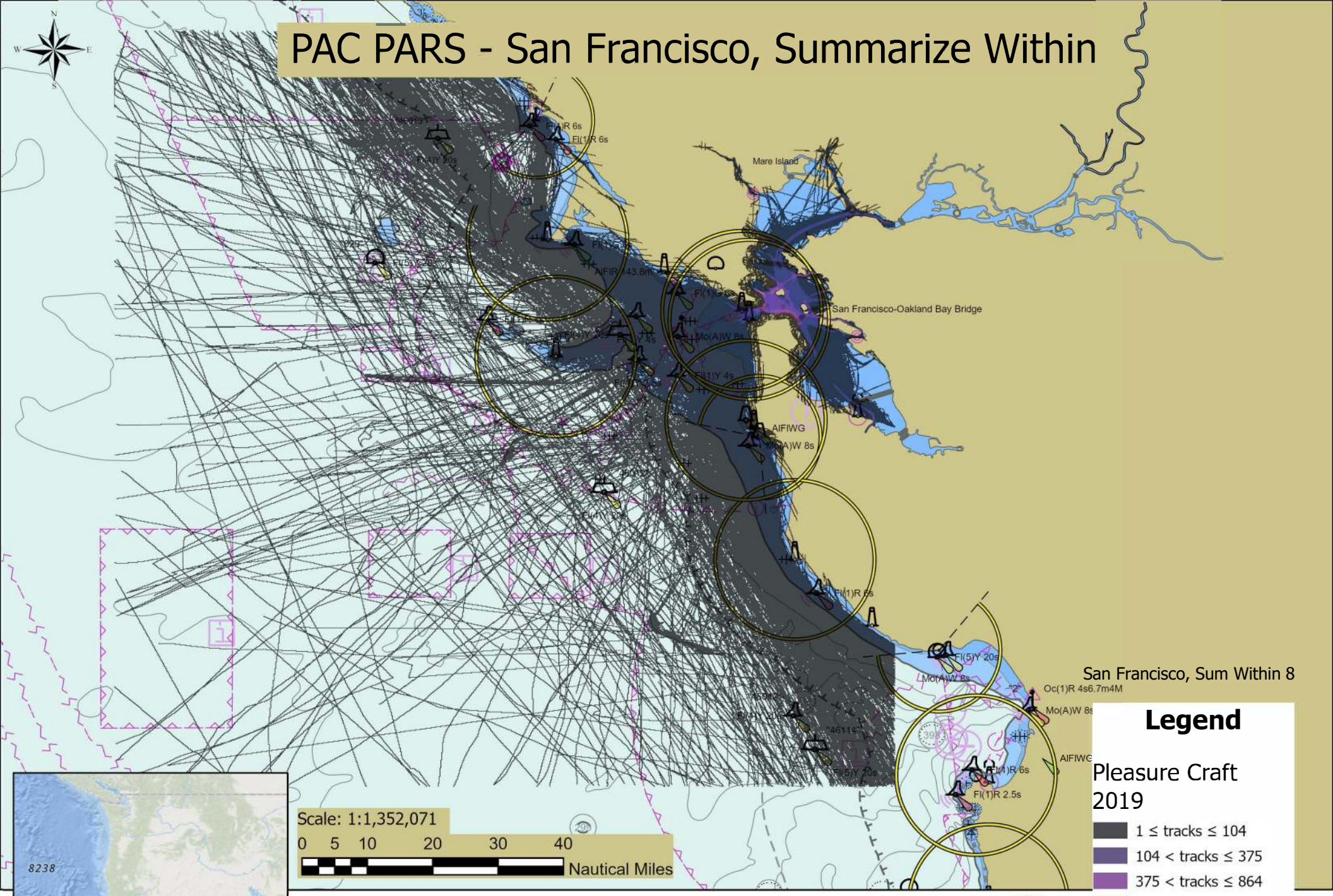
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/25/2022 11:23 AM

PAC PARS - San Francisco, Summarize Within



San Francisco, Sum Within 8

Legend

Pleasure Craft
2019

- 1 ≤ tracks ≤ 104
- 104 < tracks ≤ 375
- 375 < tracks ≤ 864
- 864 < tracks ≤ 1500
- 1500 < tracks ≤ 2253
- 2253 < tracks ≤ 3236
- 3236 < tracks ≤ 4753
- 4753 < tracks ≤ 7278

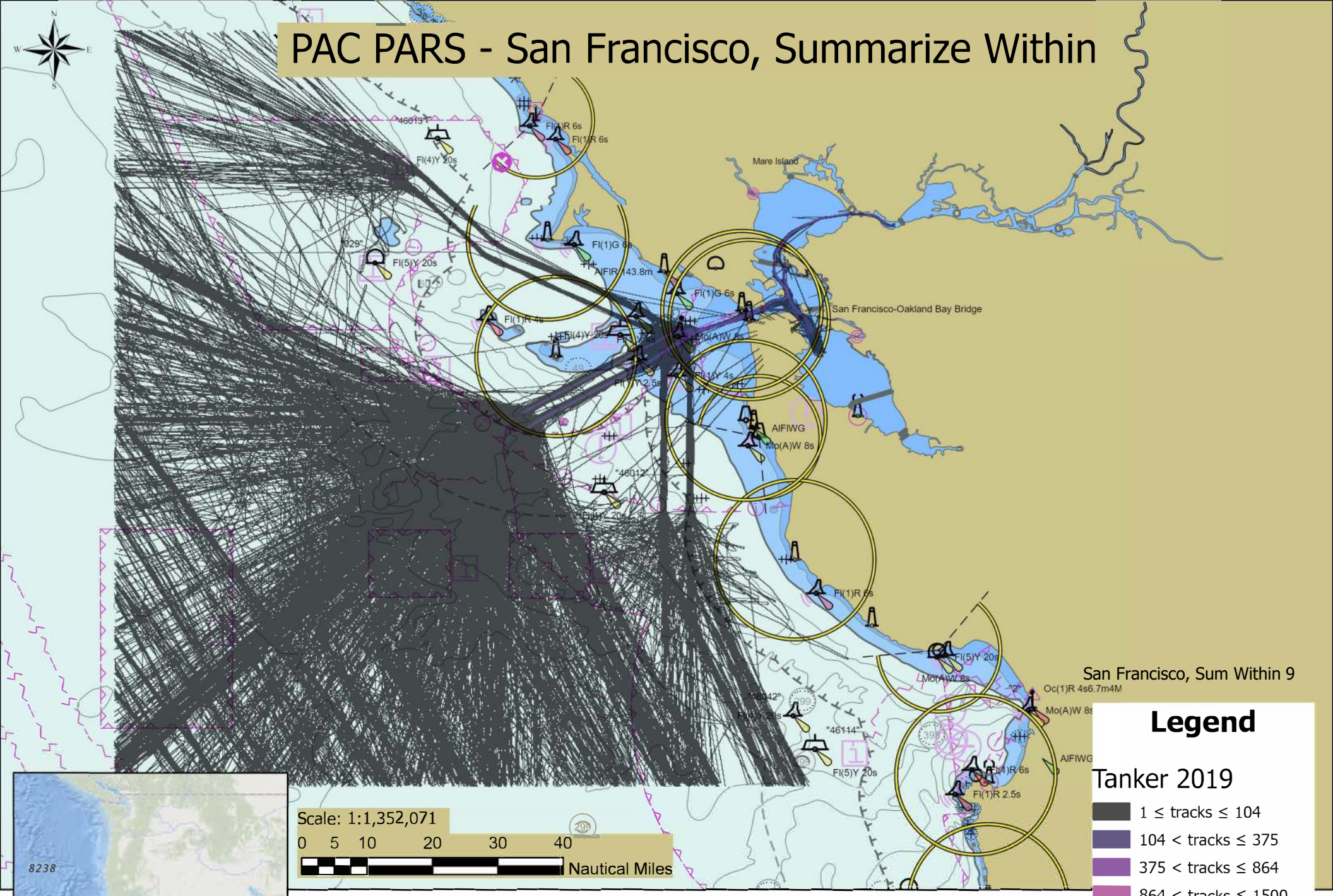
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/25/2022 11:22 AM

PAC PARS - San Francisco, Summarize Within



San Francisco, Sum Within 9

Legend

Tanker 2019

- 1 ≤ tracks ≤ 104
- 104 < tracks ≤ 375
- 375 < tracks ≤ 864
- 864 < tracks ≤ 1500
- 1500 < tracks ≤ 2253
- 2253 < tracks ≤ 3236
- 3236 < tracks ≤ 4753
- 4753 < tracks ≤ 7278

Scale: 1:1,352,071

0 5 10 20 30 40

Nautical Miles

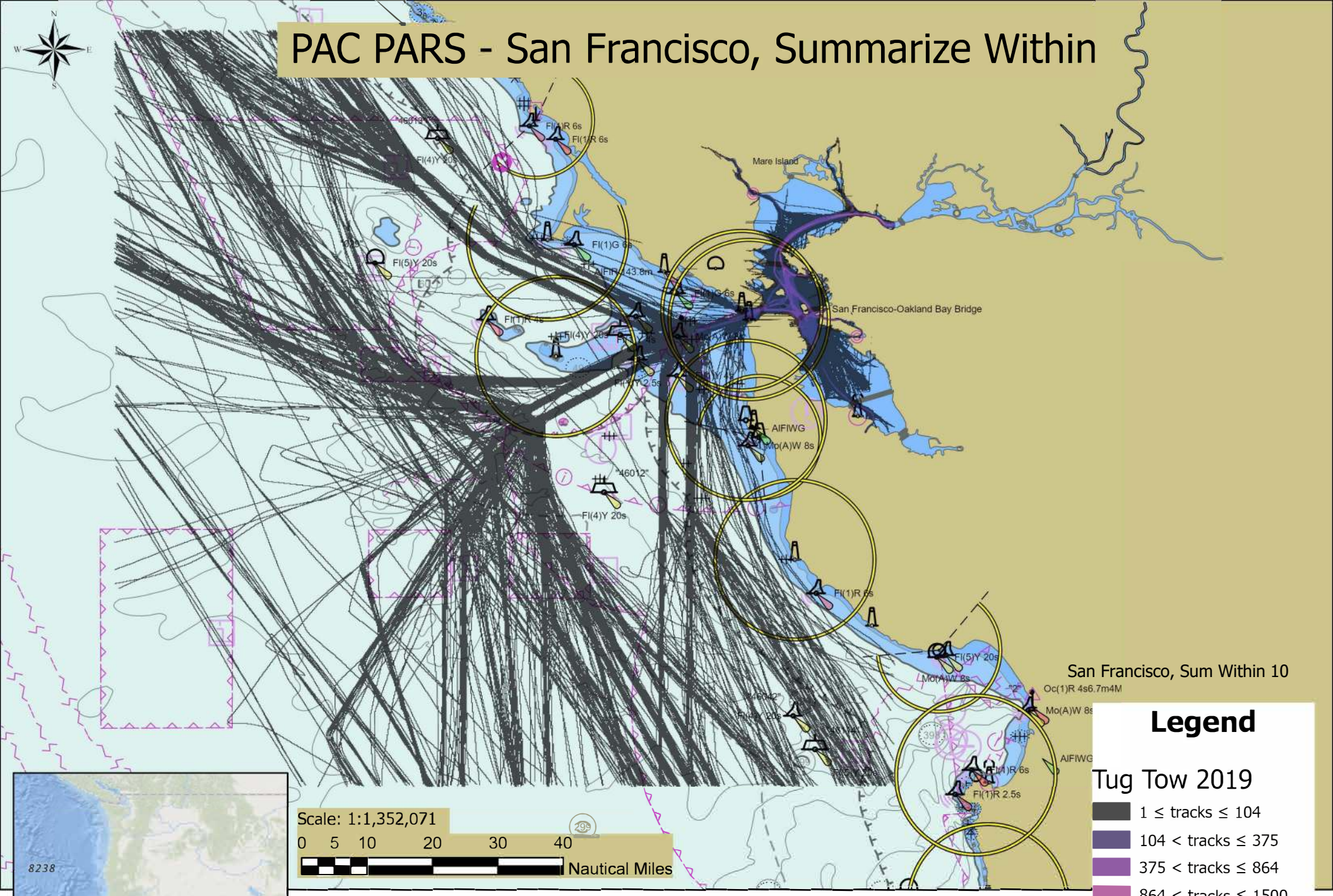
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/25/2022 10:59 AM

PAC PARS - San Francisco, Summarize Within



San Francisco, Sum Within 10

Legend

Tug Tow 2019

- 1 ≤ tracks ≤ 104
- 104 < tracks ≤ 375
- 375 < tracks ≤ 864
- 864 < tracks ≤ 1500
- 1500 < tracks ≤ 2253
- 2253 < tracks ≤ 3236
- 3236 < tracks ≤ 4753
- 4753 < tracks ≤ 7278

Scale: 1:1,352,071

0 5 10 20 30 40

Nautical Miles

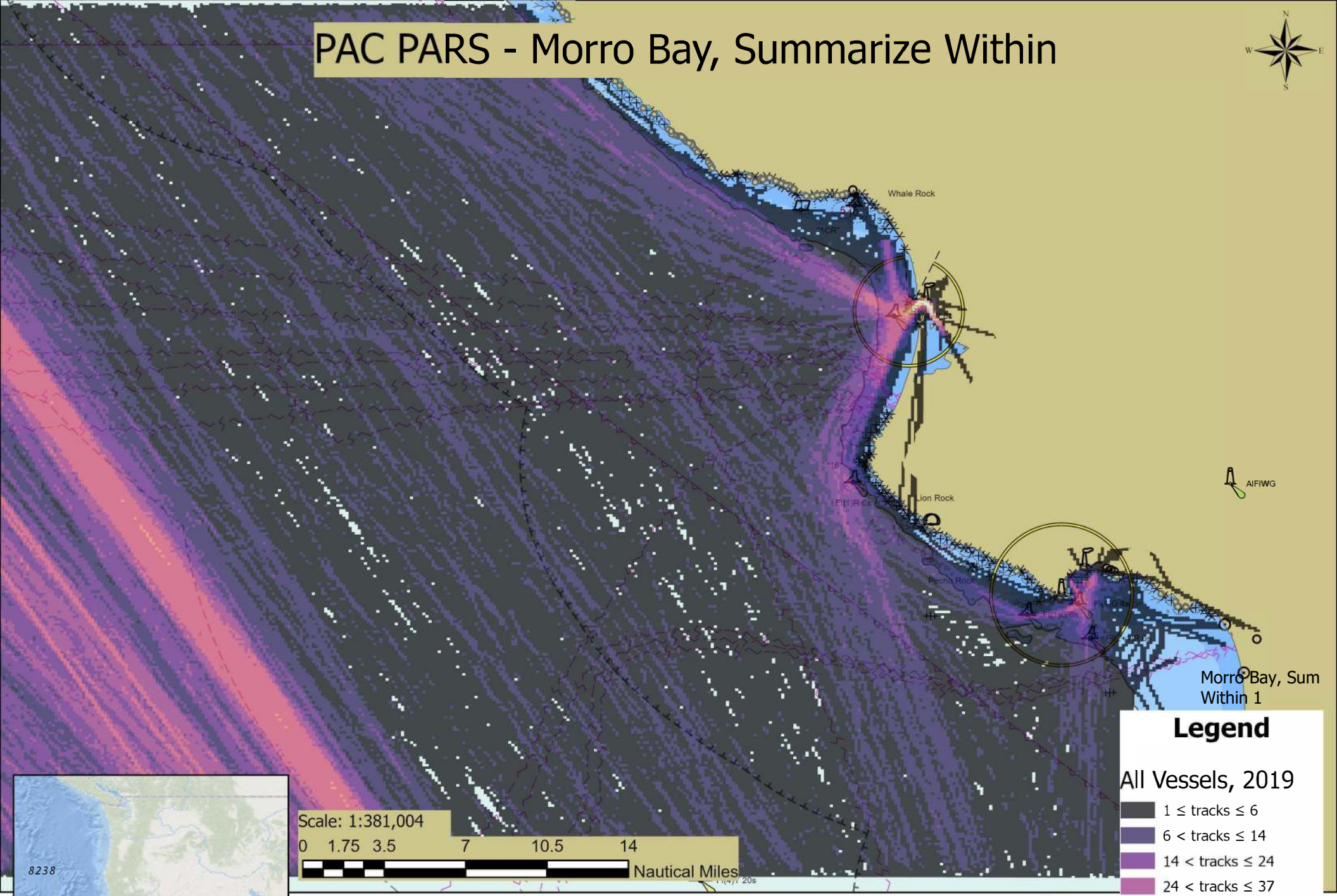
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

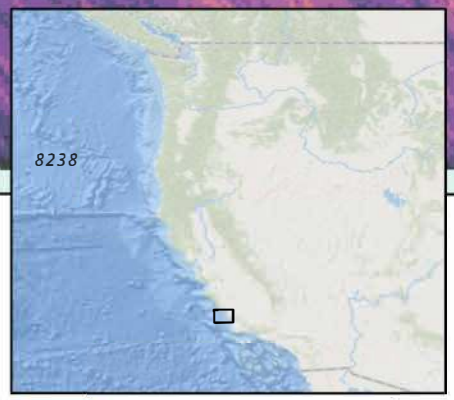
Prepared by the USCG NAVCEN
Data Sources: NAIS

This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/25/2022 11:35 AM

PAC PARS - Morro Bay, Summarize Within





Scale: 1:381,004

0 1.75 3.5 7 10.5 14

Nautical Miles

Legend

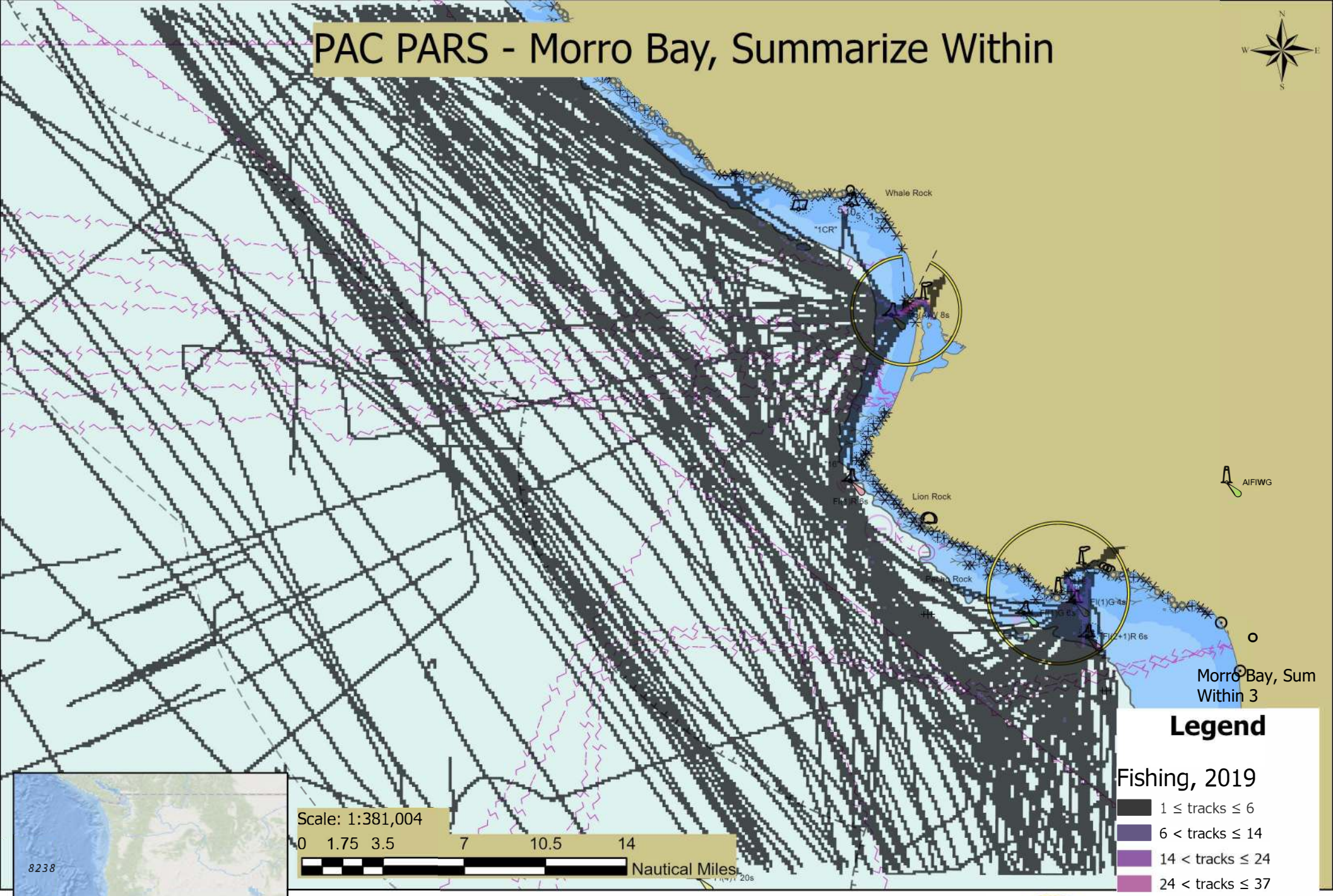
All Vessels, 2019

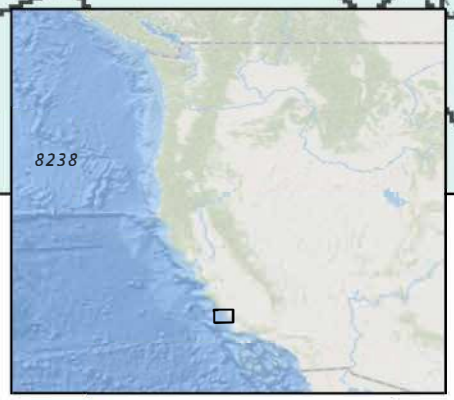
- 1 ≤ tracks ≤ 6
- 6 < tracks ≤ 14
- 14 < tracks ≤ 24
- 24 < tracks ≤ 37
- 37 < tracks ≤ 97
- 97 < tracks ≤ 255
- 255 < tracks ≤ 436
- 436 < tracks ≤ 750

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.
Last Update: 3/22/2022 10:22 AM

PAC PARS - Morro Bay, Summarize Within





Scale: 1:381,004

0 1.75 3.5 7 10.5 14

Nautical Miles

Legend

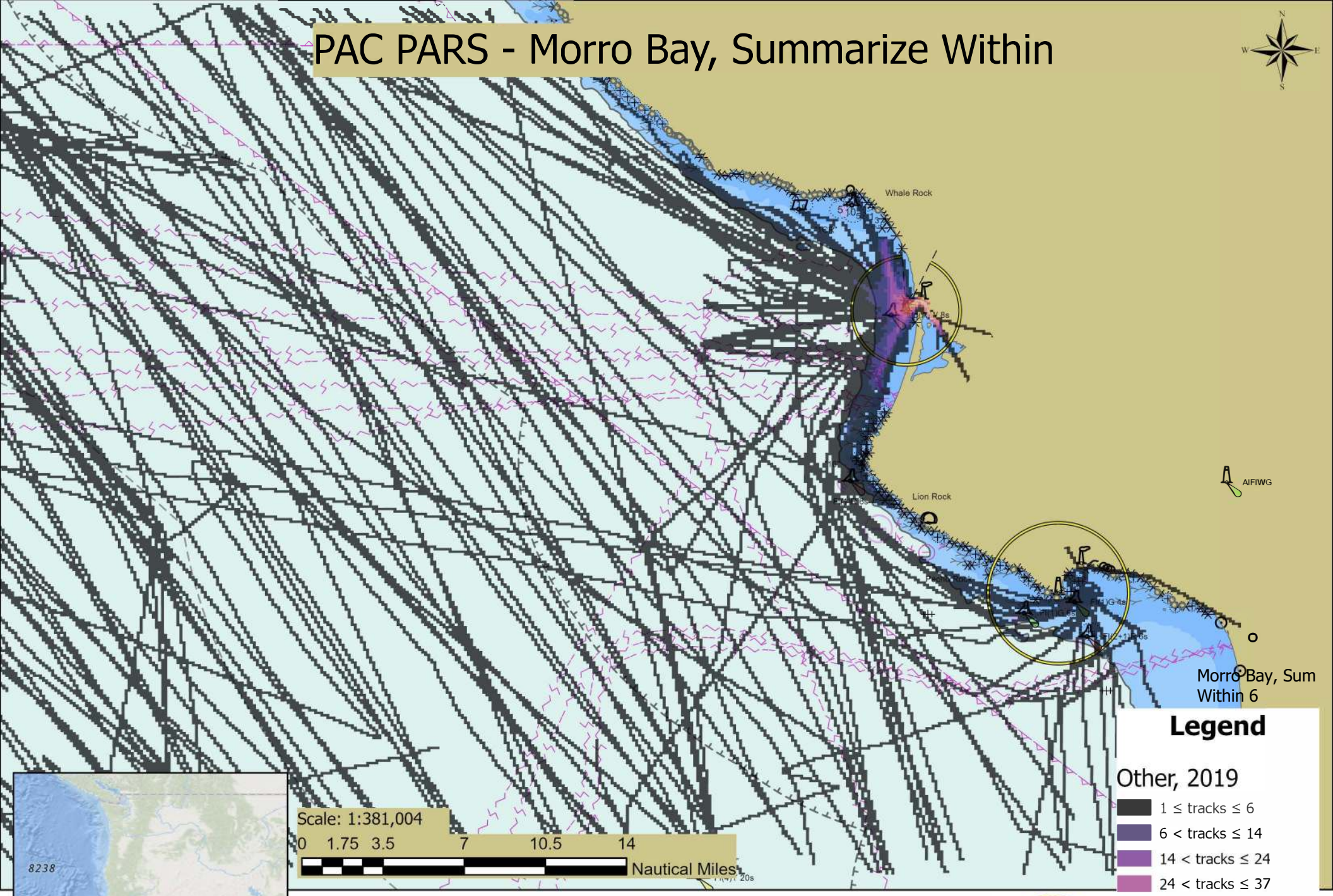
Fishing, 2019

- 1 ≤ tracks ≤ 6
- 6 < tracks ≤ 14
- 14 < tracks ≤ 24
- 24 < tracks ≤ 37
- 37 < tracks ≤ 97
- 97 < tracks ≤ 255
- 255 < tracks ≤ 436
- 436 < tracks ≤ 750

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.
Last Update: 3/22/2022 10:12 AM

PAC PARS - Morro Bay, Summarize Within



Legend

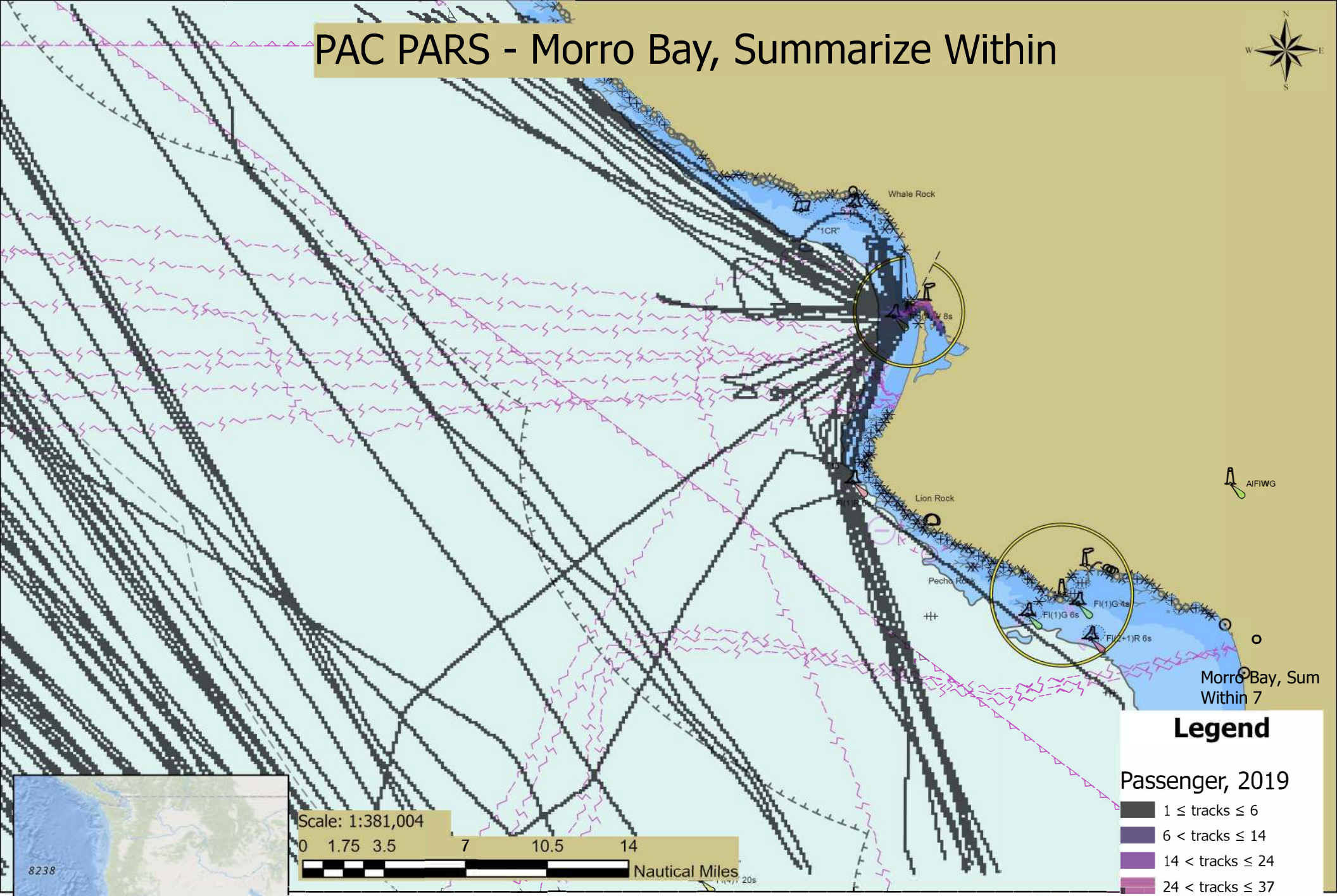
Other, 2019

- 1 ≤ tracks ≤ 6
- 6 < tracks ≤ 14
- 14 < tracks ≤ 24
- 24 < tracks ≤ 37
- 37 < tracks ≤ 97
- 97 < tracks ≤ 255
- 255 < tracks ≤ 436
- 436 < tracks ≤ 750

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.
Last Update: 3/22/2022 10:11 AM

PAC PARS - Morro Bay, Summarize Within



Legend

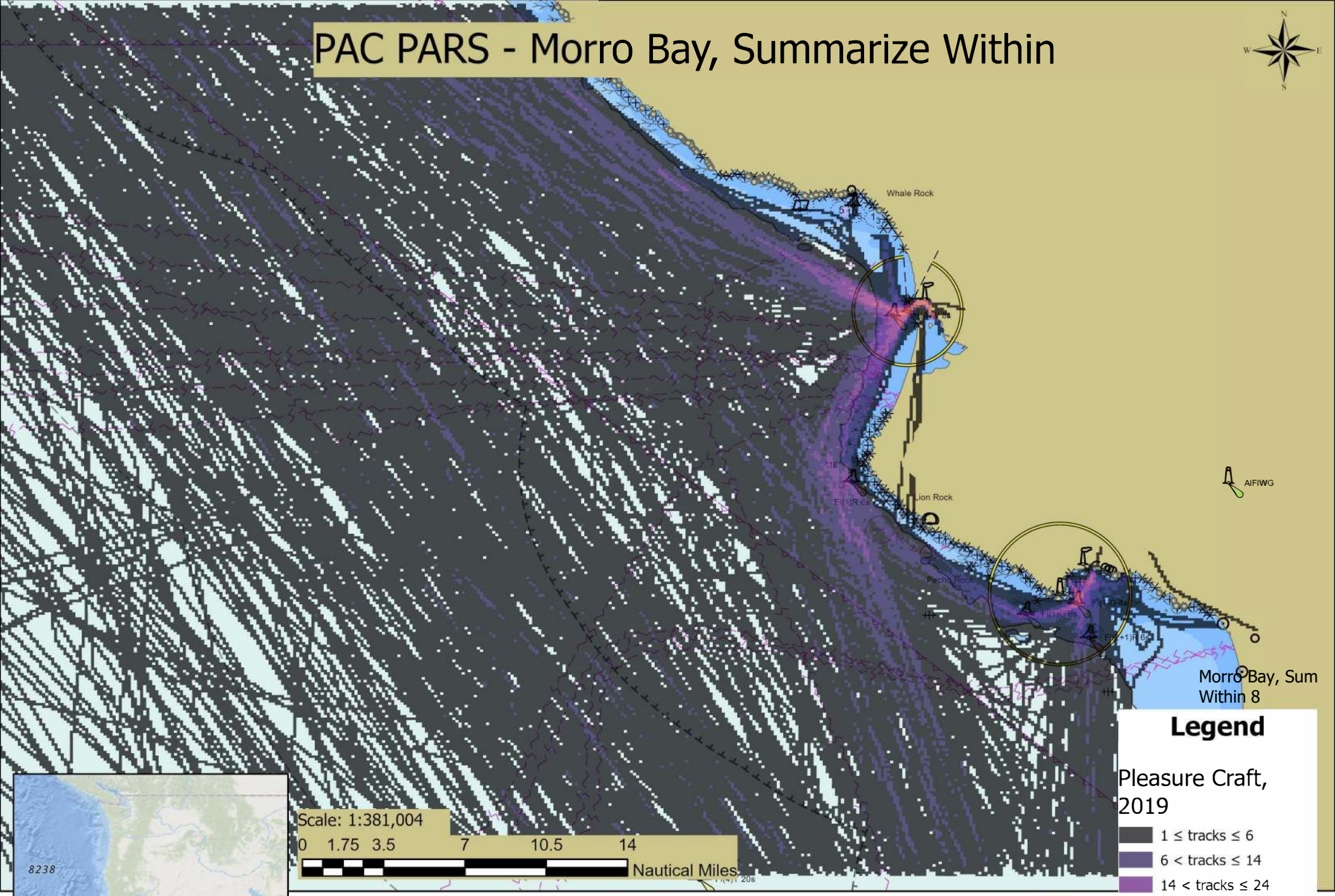
Passenger, 2019

- 1 ≤ tracks ≤ 6
- 6 < tracks ≤ 14
- 14 < tracks ≤ 24
- 24 < tracks ≤ 37
- 37 < tracks ≤ 97
- 97 < tracks ≤ 255
- 255 < tracks ≤ 436
- 436 < tracks ≤ 750

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.
Last Update: 3/22/2022 10:16 AM

PAC PARS - Morro Bay, Summarize Within



Legend

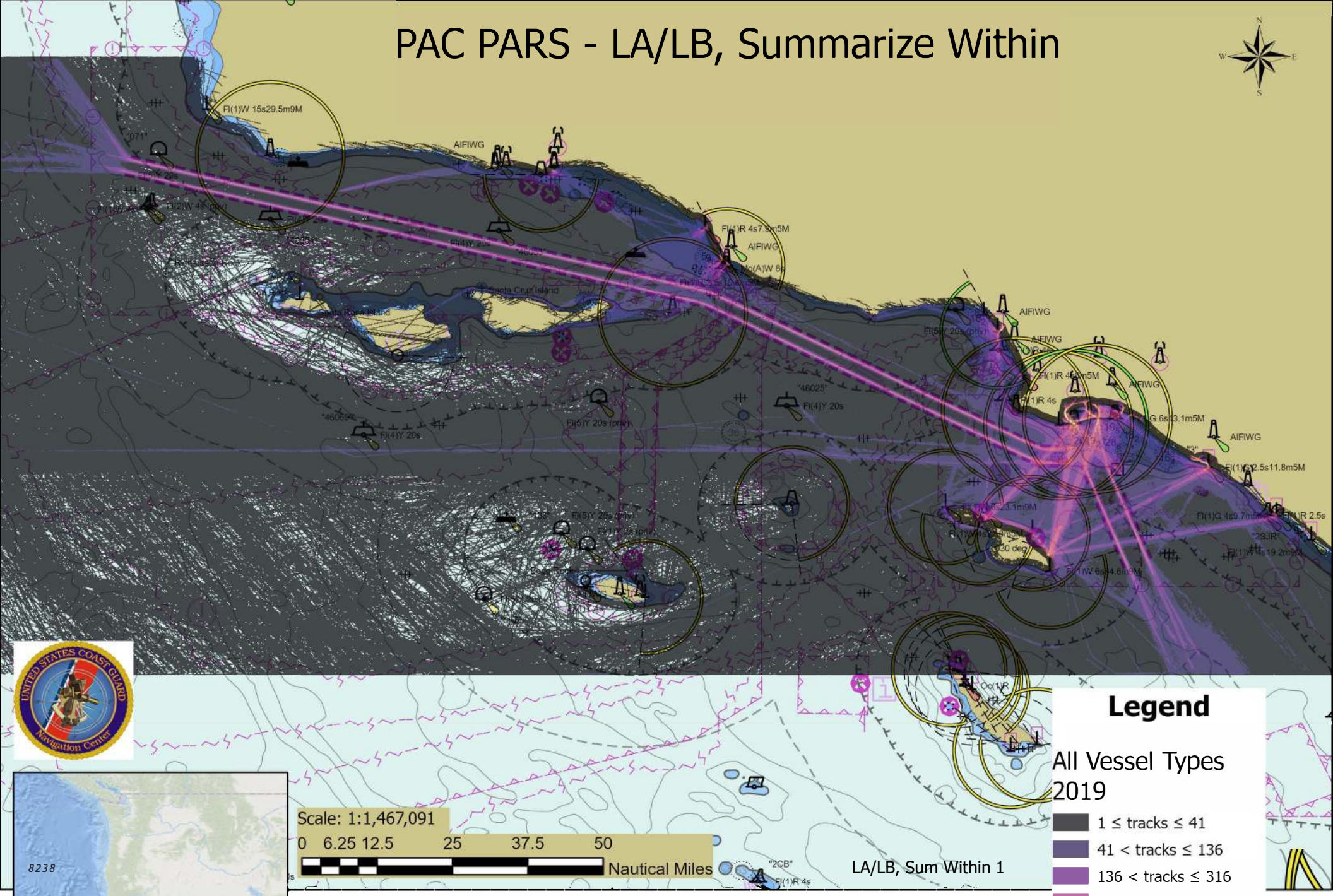
Pleasure Craft, 2019

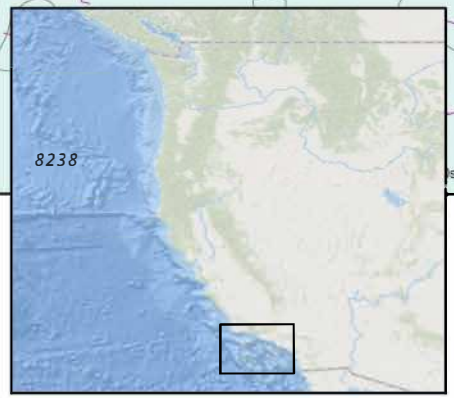
- 1 ≤ tracks ≤ 6
- 6 < tracks ≤ 14
- 14 < tracks ≤ 24
- 24 < tracks ≤ 37
- 37 < tracks ≤ 97
- 97 < tracks ≤ 255
- 255 < tracks ≤ 436
- 436 < tracks ≤ 750

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.
Last Update: 3/22/2022 10:19 AM

PAC PARS - LA/LB, Summarize Within





Scale: 1:1,467,091

0 6.25 12.5 25 37.5 50

Nautical Miles

LA/LB, Sum Within 1

Legend

All Vessel Types 2019

- 1 ≤ tracks ≤ 41
- 41 < tracks ≤ 136
- 136 < tracks ≤ 316
- 316 < tracks ≤ 607
- 607 < tracks ≤ 1198
- 1198 < tracks ≤ 2352
- 2352 < tracks ≤ 4288
- 4288 < tracks ≤ 7583

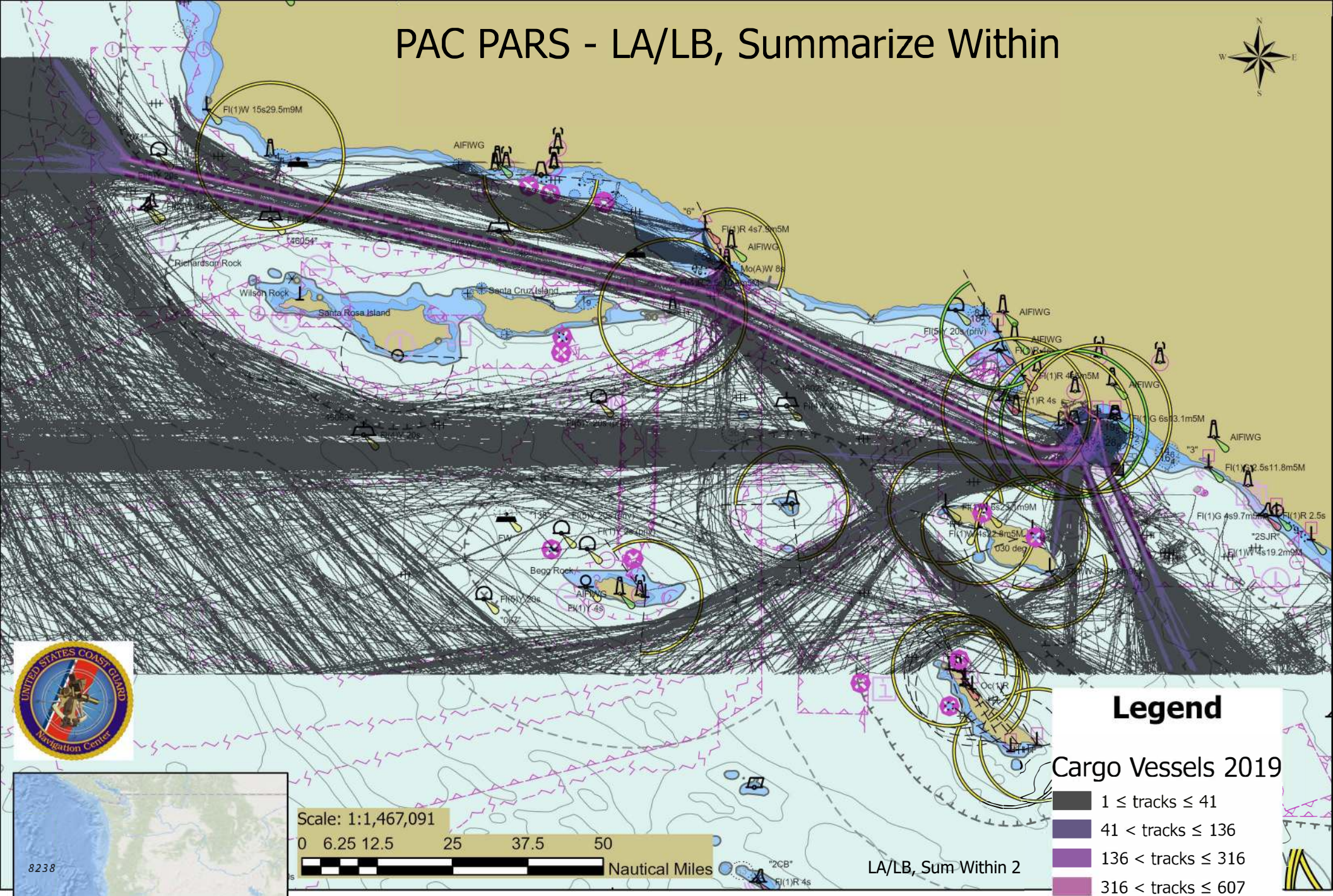
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/22/2022 8:23 AM

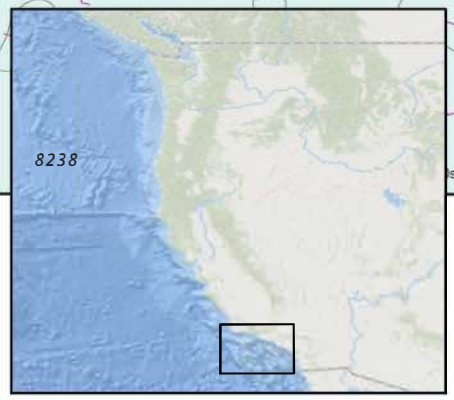
PAC PARS - LA/LB, Summarize Within



Legend

Cargo Vessels 2019

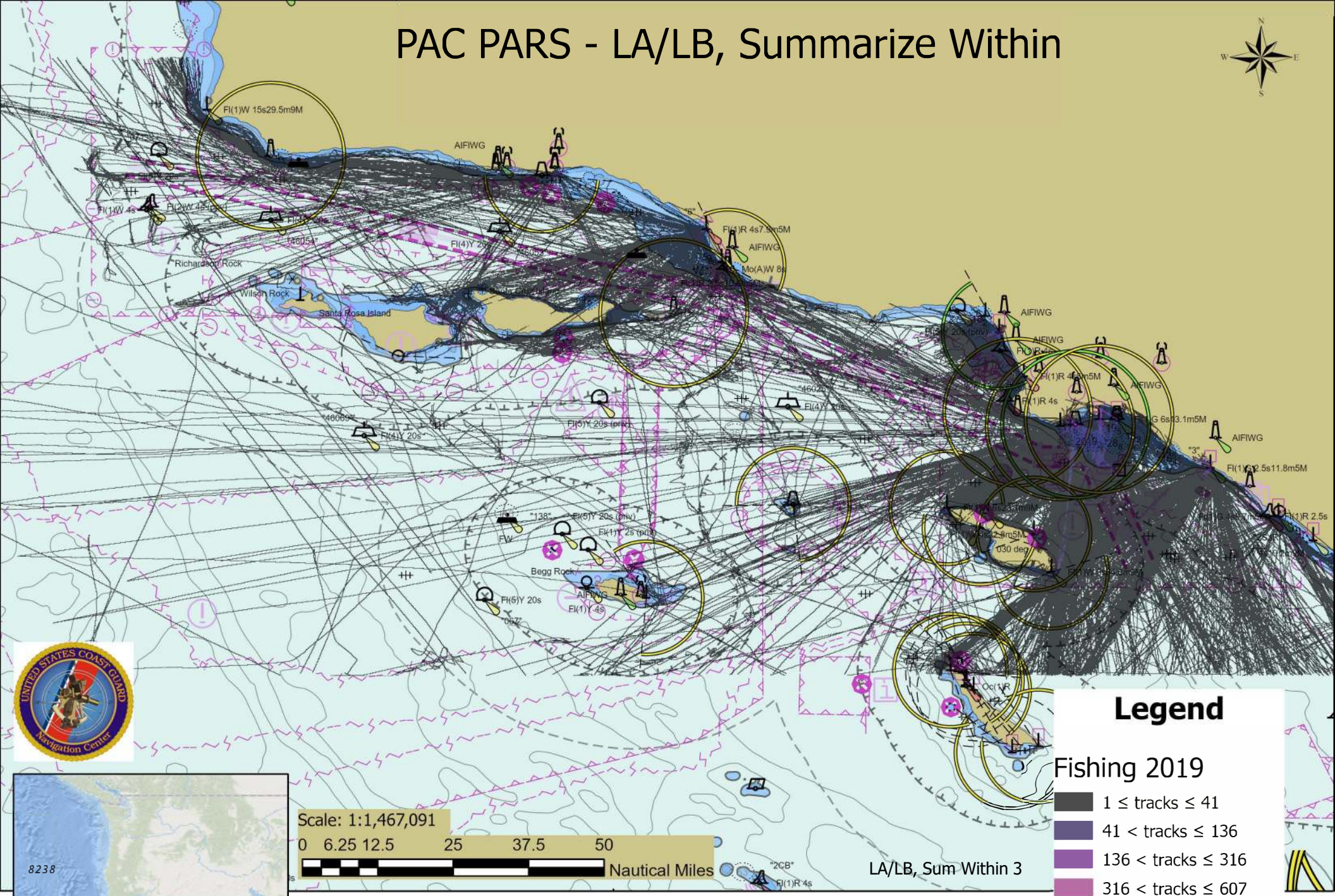
- 1 ≤ tracks ≤ 41
- 41 < tracks ≤ 136
- 136 < tracks ≤ 316
- 316 < tracks ≤ 607
- 607 < tracks ≤ 1198
- 1198 < tracks ≤ 2352
- 2352 < tracks ≤ 4288
- 4288 < tracks ≤ 7583

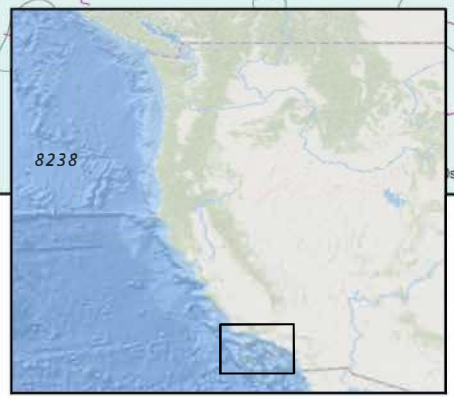


Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.
Last Update: 3/22/2022 8:48 AM

PAC PARS - LA/LB, Summarize Within





Legend

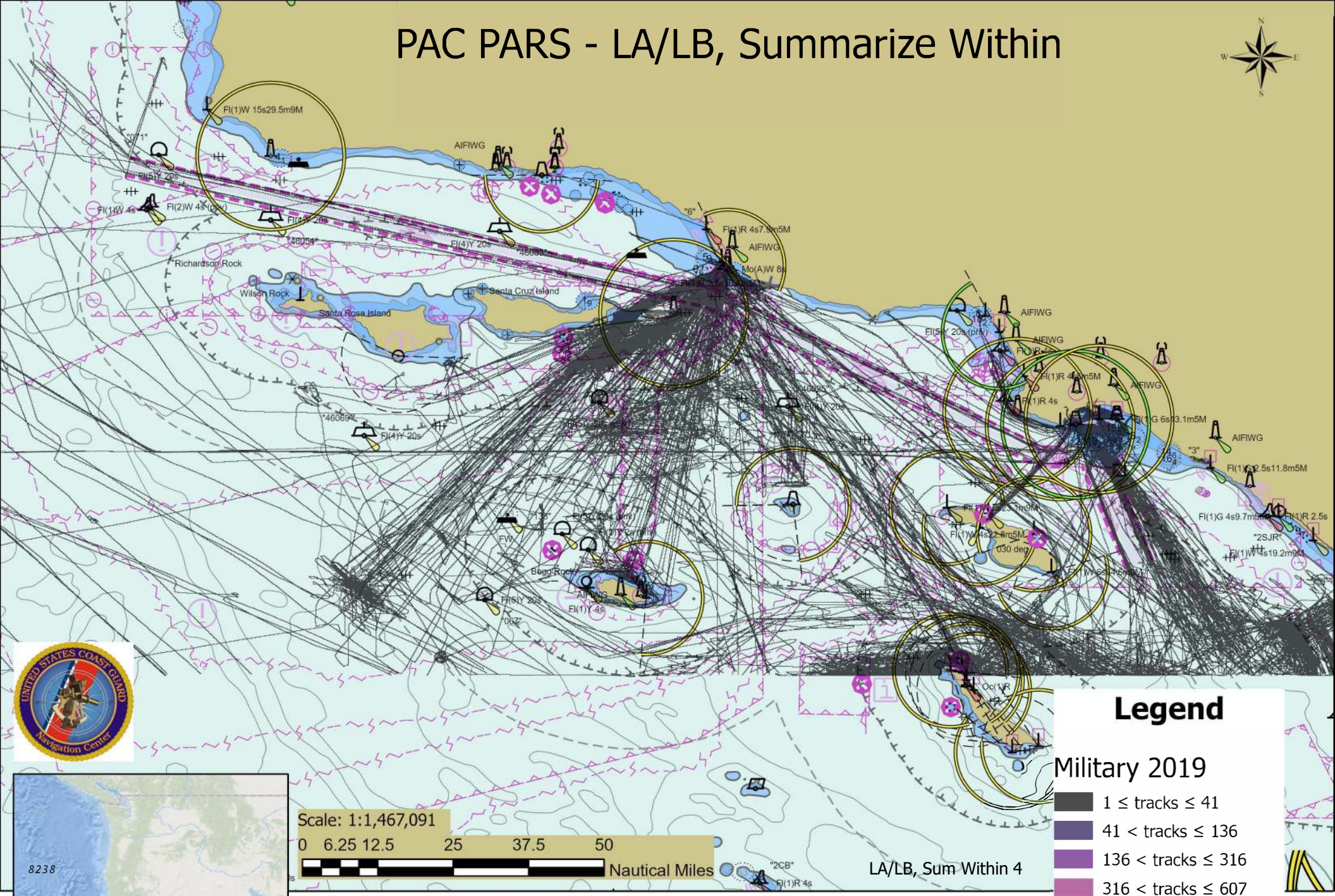
Fishing 2019

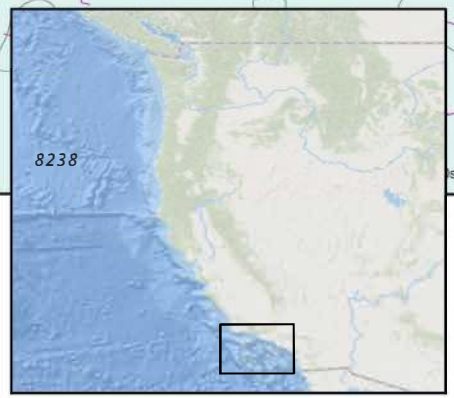
- 1 ≤ tracks ≤ 41
- 41 < tracks ≤ 136
- 136 < tracks ≤ 316
- 316 < tracks ≤ 607
- 607 < tracks ≤ 1198
- 1198 < tracks ≤ 2352
- 2352 < tracks ≤ 4288
- 4288 < tracks ≤ 7583

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.
Last Update: 3/22/2022 8:46 AM

PAC PARS - LA/LB, Summarize Within





Legend

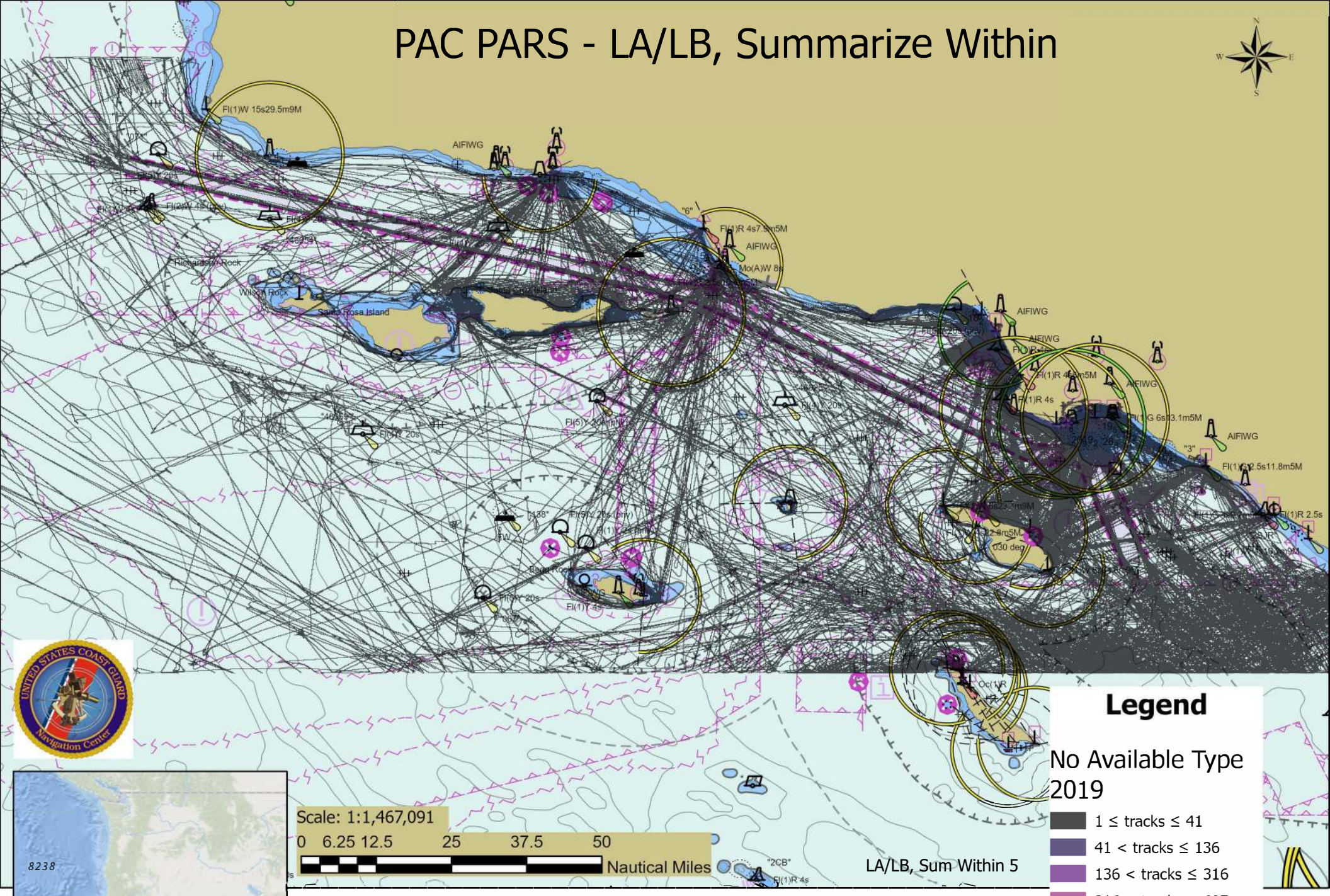
Military 2019

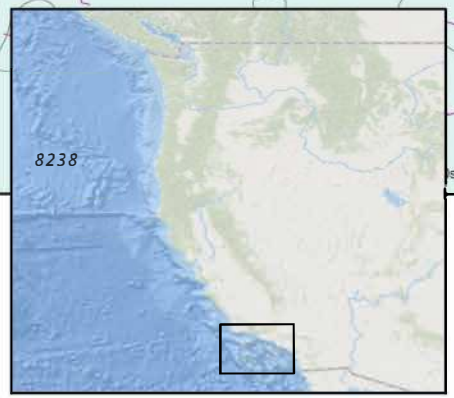
- 1 ≤ tracks ≤ 41
- 41 < tracks ≤ 136
- 136 < tracks ≤ 316
- 316 < tracks ≤ 607
- 607 < tracks ≤ 1198
- 1198 < tracks ≤ 2352
- 2352 < tracks ≤ 4288
- 4288 < tracks ≤ 7583

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.
Last Update: 3/22/2022 8:42 AM

PAC PARS - LA/LB, Summarize Within





Scale: 1:1,467,091

0 6.25 12.5 25 37.5 50

Nautical Miles

LA/LB, Sum Within 5

Legend

No Available Type
2019

- 1 ≤ tracks ≤ 41
- 41 < tracks ≤ 136
- 136 < tracks ≤ 316
- 316 < tracks ≤ 607
- 607 < tracks ≤ 1198
- 1198 < tracks ≤ 2352
- 2352 < tracks ≤ 4288
- 4288 < tracks ≤ 7583

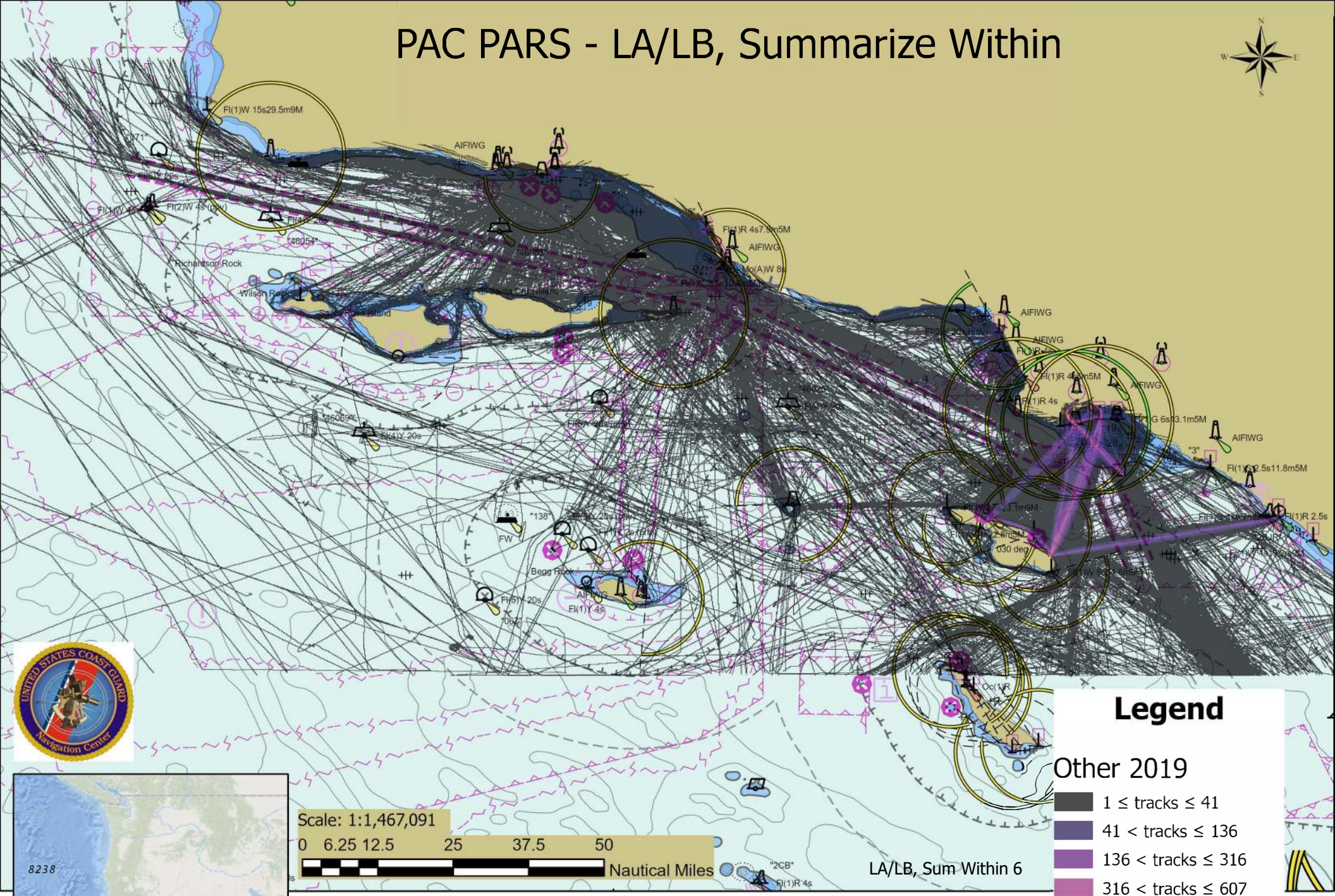
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

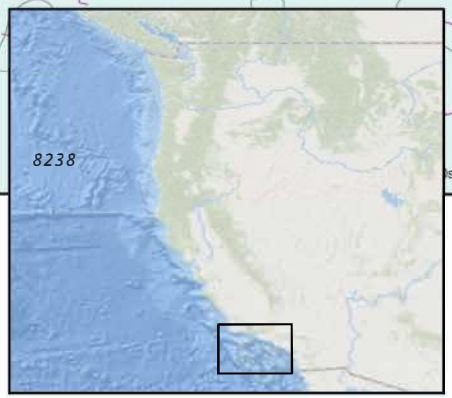
Prepared by the USCG NAVCEN
Data Sources: NAIS

This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/22/2022 8:40 AM

PAC PARS - LA/LB, Summarize Within





Scale: 1:1,467,091

0 6.25 12.5 25 37.5 50

Nautical Miles

LA/LB, Sum Within 6

Legend

Other 2019

- 1 ≤ tracks ≤ 41
- 41 < tracks ≤ 136
- 136 < tracks ≤ 316
- 316 < tracks ≤ 607
- 607 < tracks ≤ 1198
- 1198 < tracks ≤ 2352
- 2352 < tracks ≤ 4288
- 4288 < tracks ≤ 7583

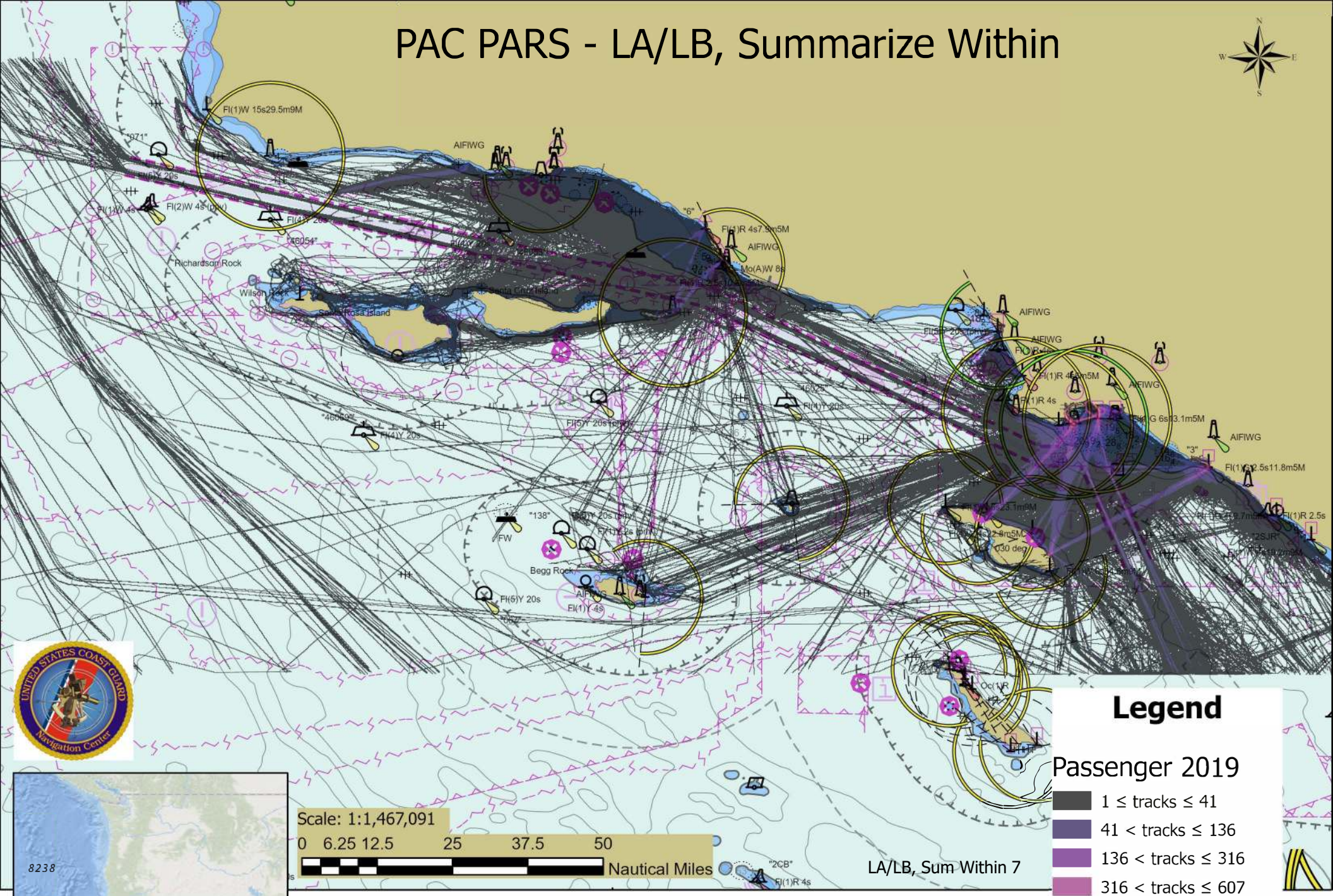
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/22/2022 8:37 AM

PAC PARS - LA/LB, Summarize Within



Legend

Passenger 2019

- 1 ≤ tracks ≤ 41
- 41 < tracks ≤ 136
- 136 < tracks ≤ 316
- 316 < tracks ≤ 607
- 607 < tracks ≤ 1198
- 1198 < tracks ≤ 2352
- 2352 < tracks ≤ 4288
- 4288 < tracks ≤ 7583

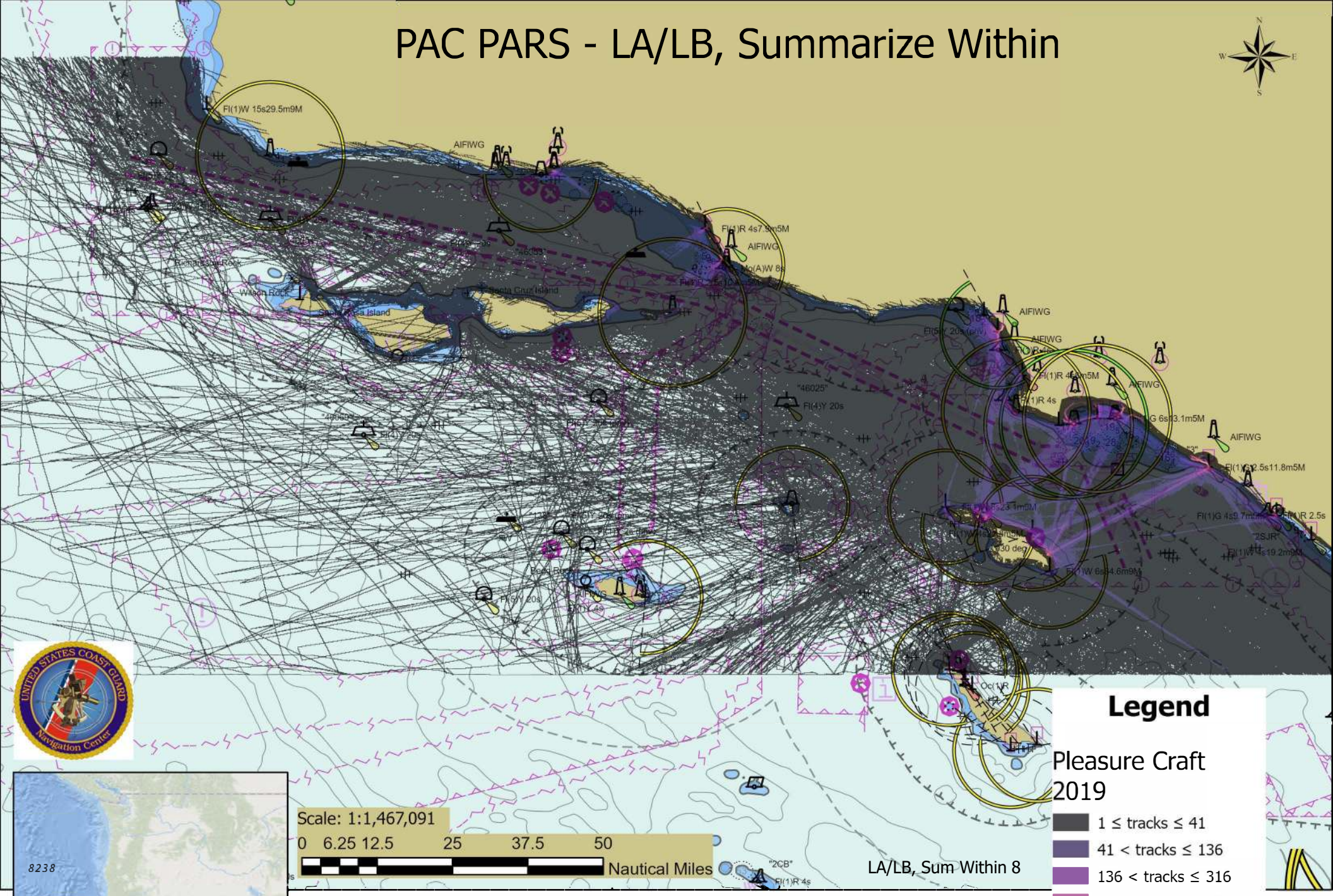
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

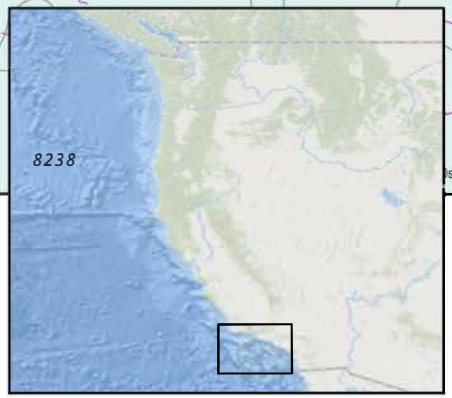
Prepared by the USCG NAVCEN
Data Sources: NAIS

This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/22/2022 8:34 AM

PAC PARS - LA/LB, Summarize Within





Scale: 1:1,467,091

0 6.25 12.5 25 37.5 50

Nautical Miles

LA/LB, Sum Within 8

Legend

Pleasure Craft 2019

- 1 ≤ tracks ≤ 41
- 41 < tracks ≤ 136
- 136 < tracks ≤ 316
- 316 < tracks ≤ 607
- 607 < tracks ≤ 1198
- 1198 < tracks ≤ 2352
- 2352 < tracks ≤ 4288
- 4288 < tracks ≤ 7583

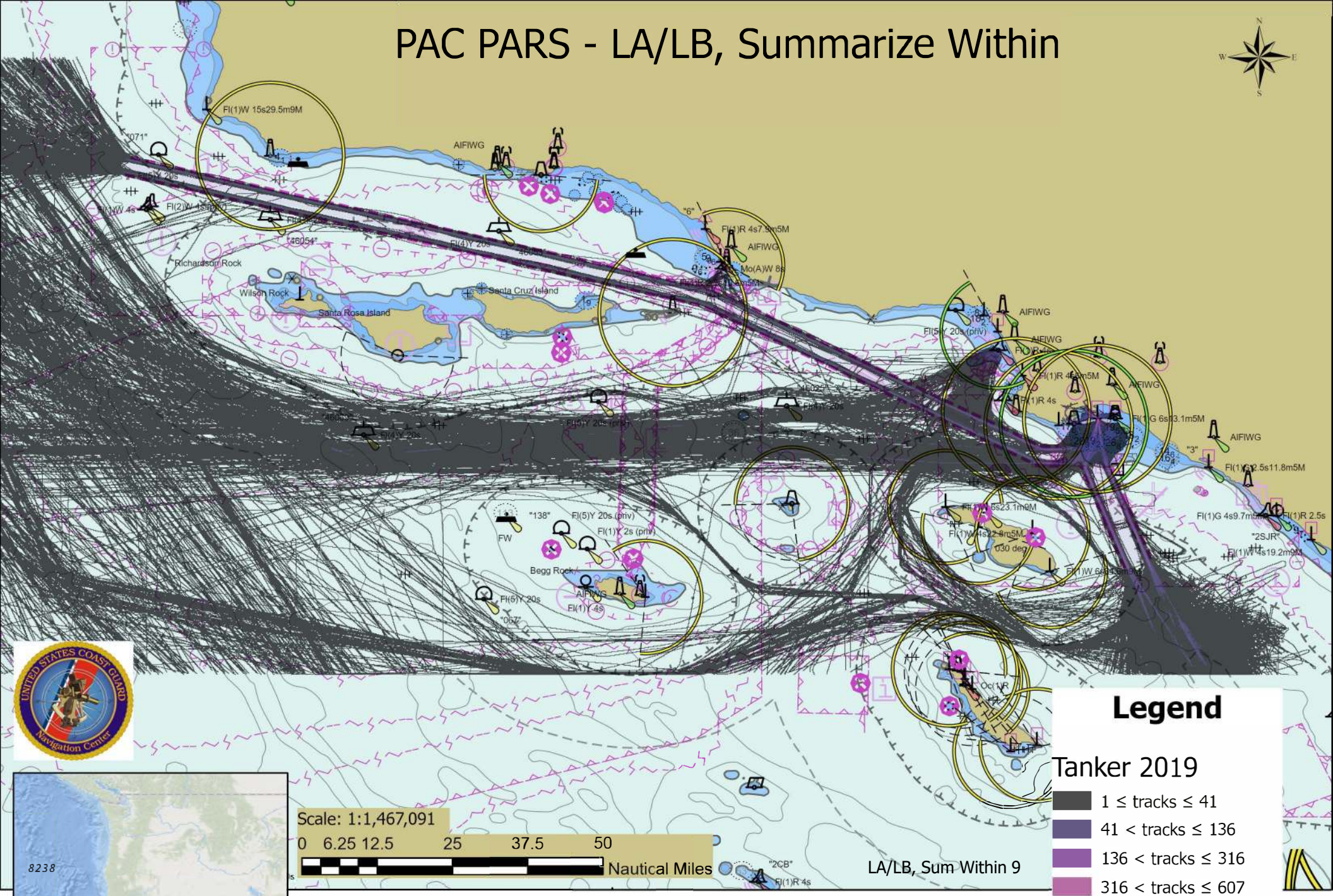
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

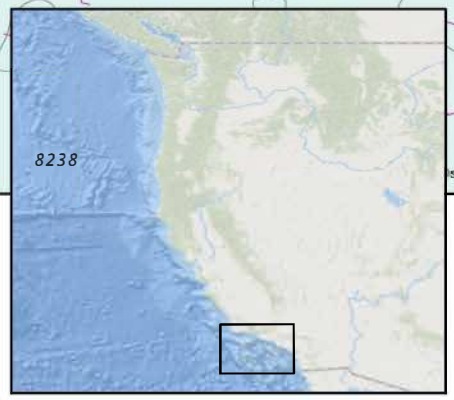
Prepared by the USCG NAVCEN
Data Sources: NAIS

This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/22/2022 8:29 AM

PAC PARS - LA/LB, Summarize Within





Legend

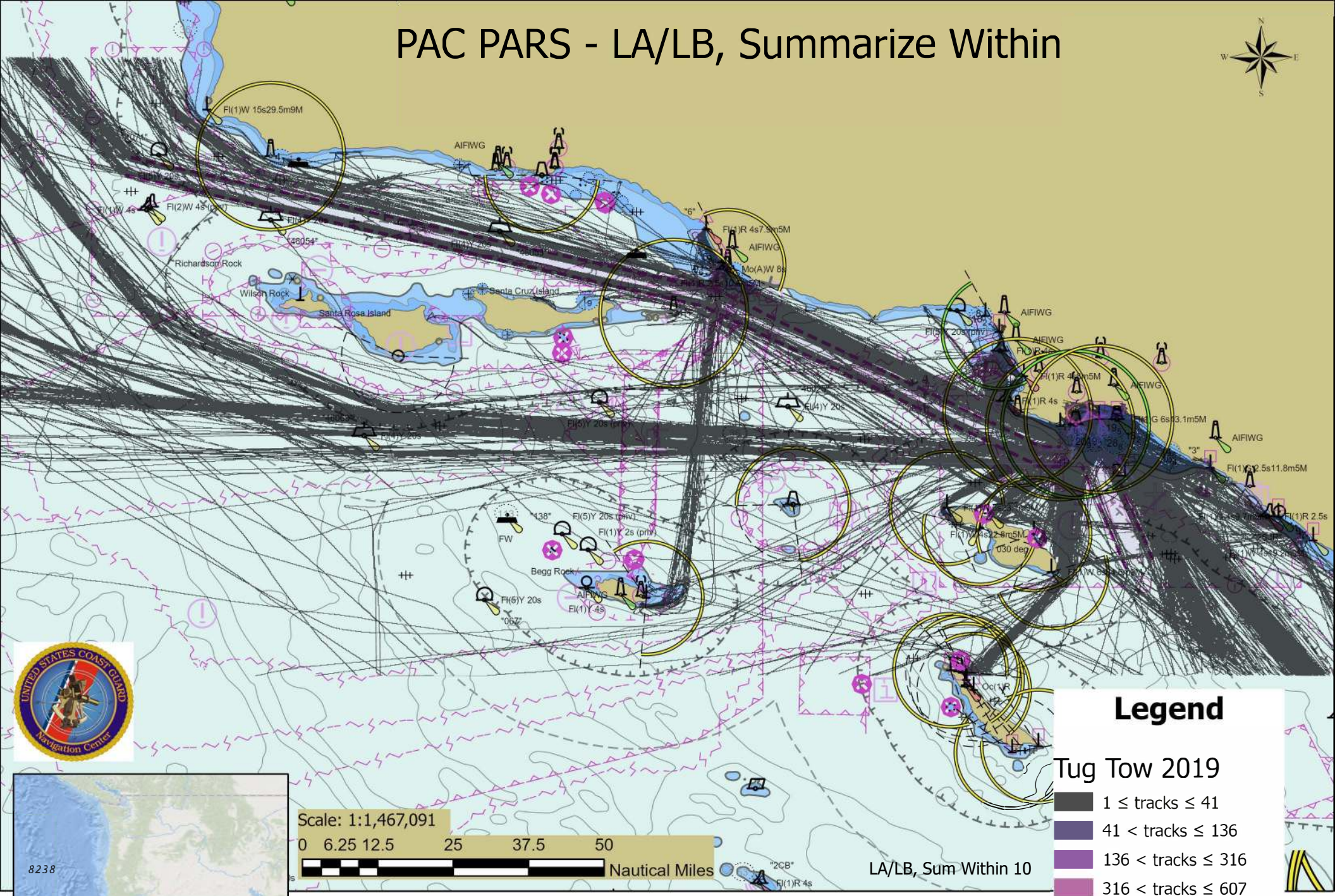
Tanker 2019

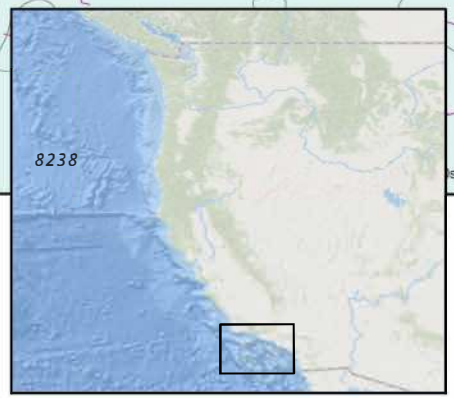
- 1 ≤ tracks ≤ 41
- 41 < tracks ≤ 136
- 136 < tracks ≤ 316
- 316 < tracks ≤ 607
- 607 < tracks ≤ 1198
- 1198 < tracks ≤ 2352
- 2352 < tracks ≤ 4288
- 4288 < tracks ≤ 7583

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.
Last Update: 3/22/2022 8:26 AM

PAC PARS - LA/LB, Summarize Within





Scale: 1:1,467,091

0 6.25 12.5 25 37.5 50

Nautical Miles

LA/LB, Sum Within 10

Legend

Tug Tow 2019

- 1 ≤ tracks ≤ 41
- 41 < tracks ≤ 136
- 136 < tracks ≤ 316
- 316 < tracks ≤ 607
- 607 < tracks ≤ 1198
- 1198 < tracks ≤ 2352
- 2352 < tracks ≤ 4288
- 4288 < tracks ≤ 7583

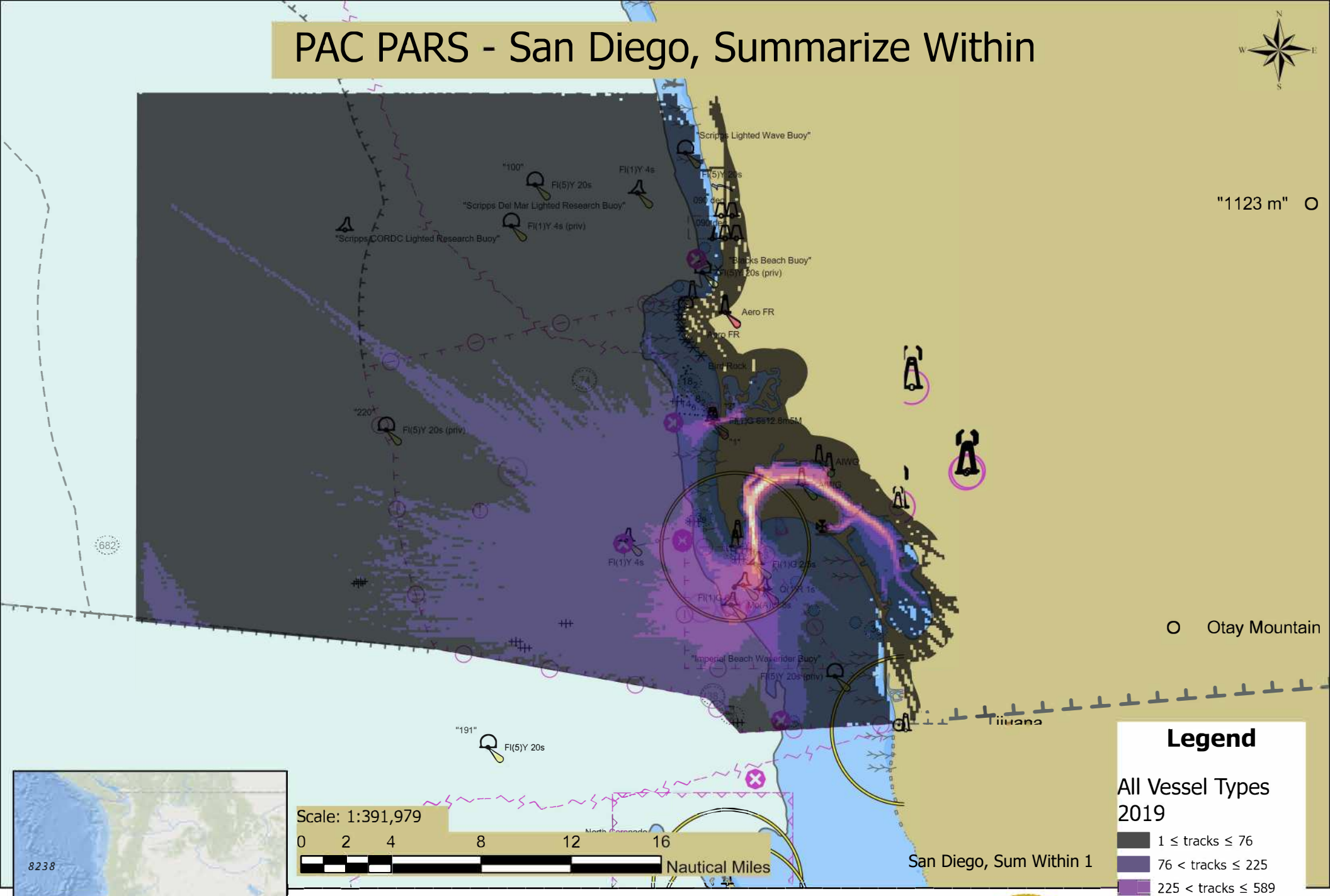
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

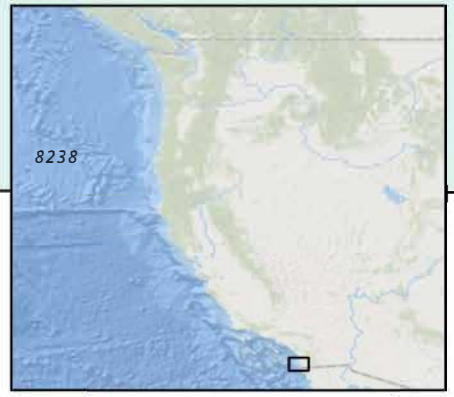
Prepared by the USCG NAVCEN
Data Sources: NAIS

This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/22/2022 8:50 AM

PAC PARS - San Diego, Summarize Within





Scale: 1:391,979

0 2 4 8 12 16 Nautical Miles

San Diego, Sum Within 1

Legend

All Vessel Types 2019

- 1 ≤ tracks ≤ 76
- 76 < tracks ≤ 225
- 225 < tracks ≤ 589
- 589 < tracks ≤ 1349
- 1349 < tracks ≤ 2558
- 2558 < tracks ≤ 4381
- 4381 < tracks ≤ 7057
- 7057 < tracks ≤ 11263

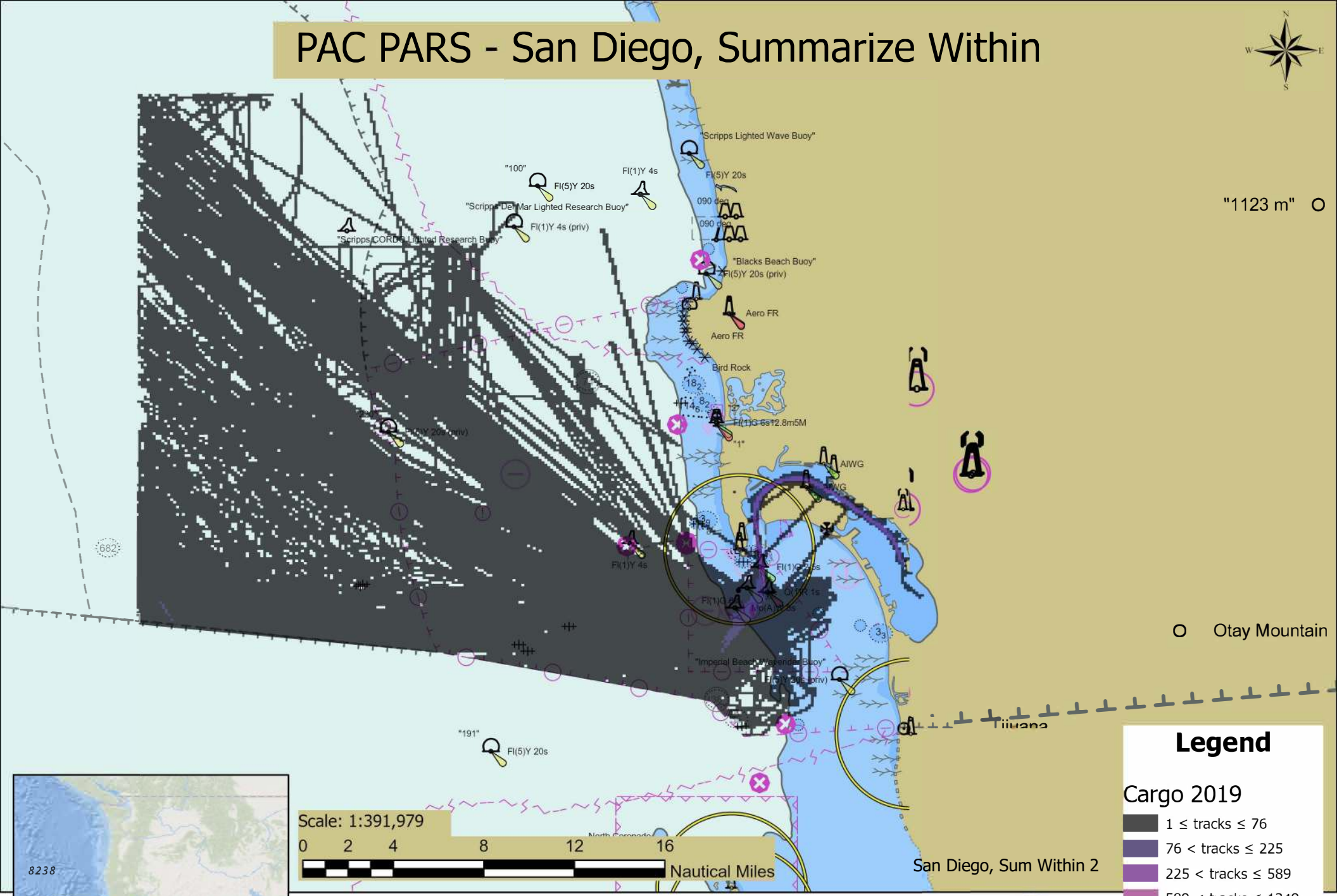
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/25/2022 10:17 AM

PAC PARS - San Diego, Summarize Within



Legend

Cargo 2019

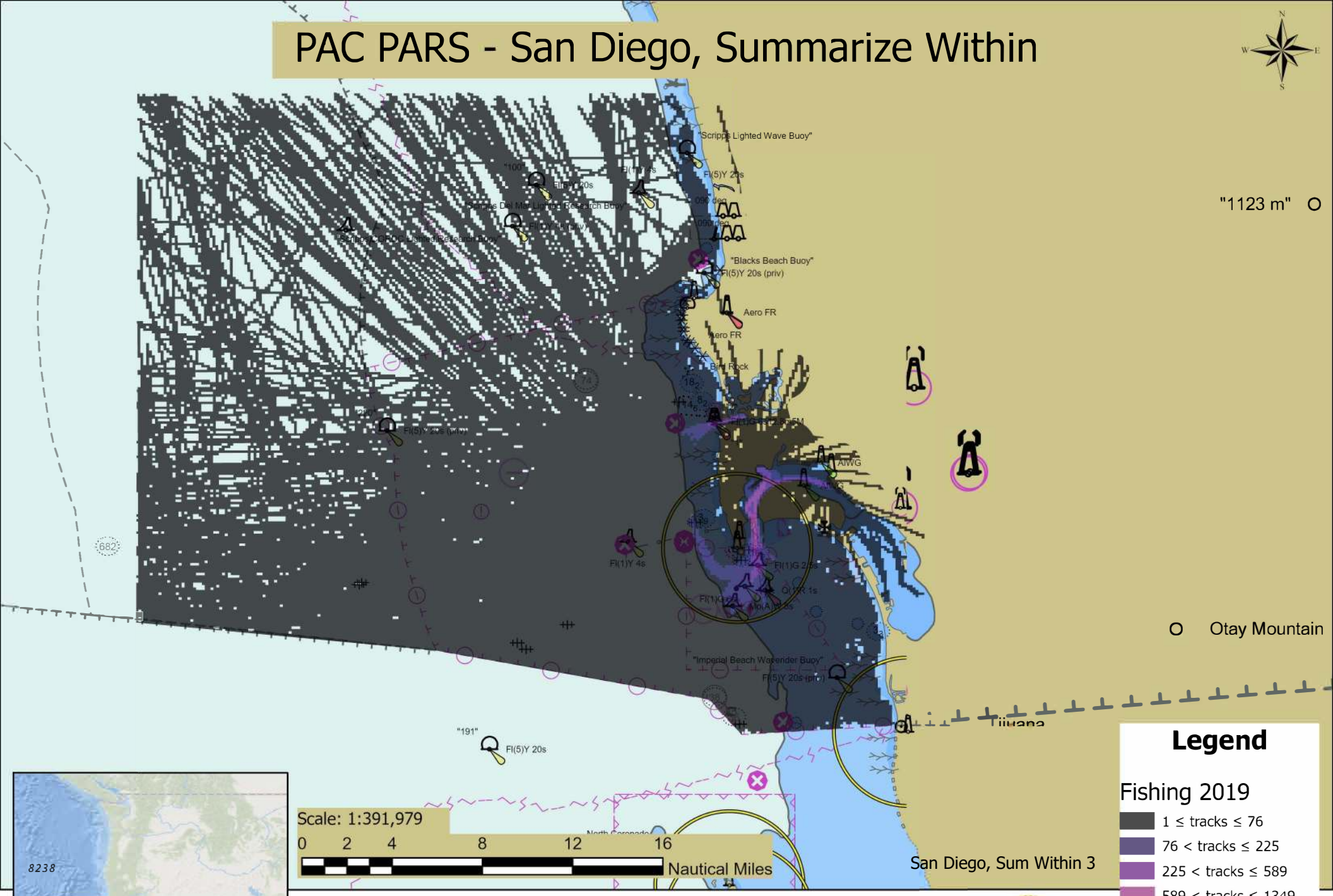
- 1 ≤ tracks ≤ 76
- 76 < tracks ≤ 225
- 225 < tracks ≤ 589
- 589 < tracks ≤ 1349
- 1349 < tracks ≤ 2558
- 2558 < tracks ≤ 4381
- 4381 < tracks ≤ 7057
- 7057 < tracks ≤ 11263

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/25/2022 10:16 AM

PAC PARS - San Diego, Summarize Within



Legend

Fishing 2019

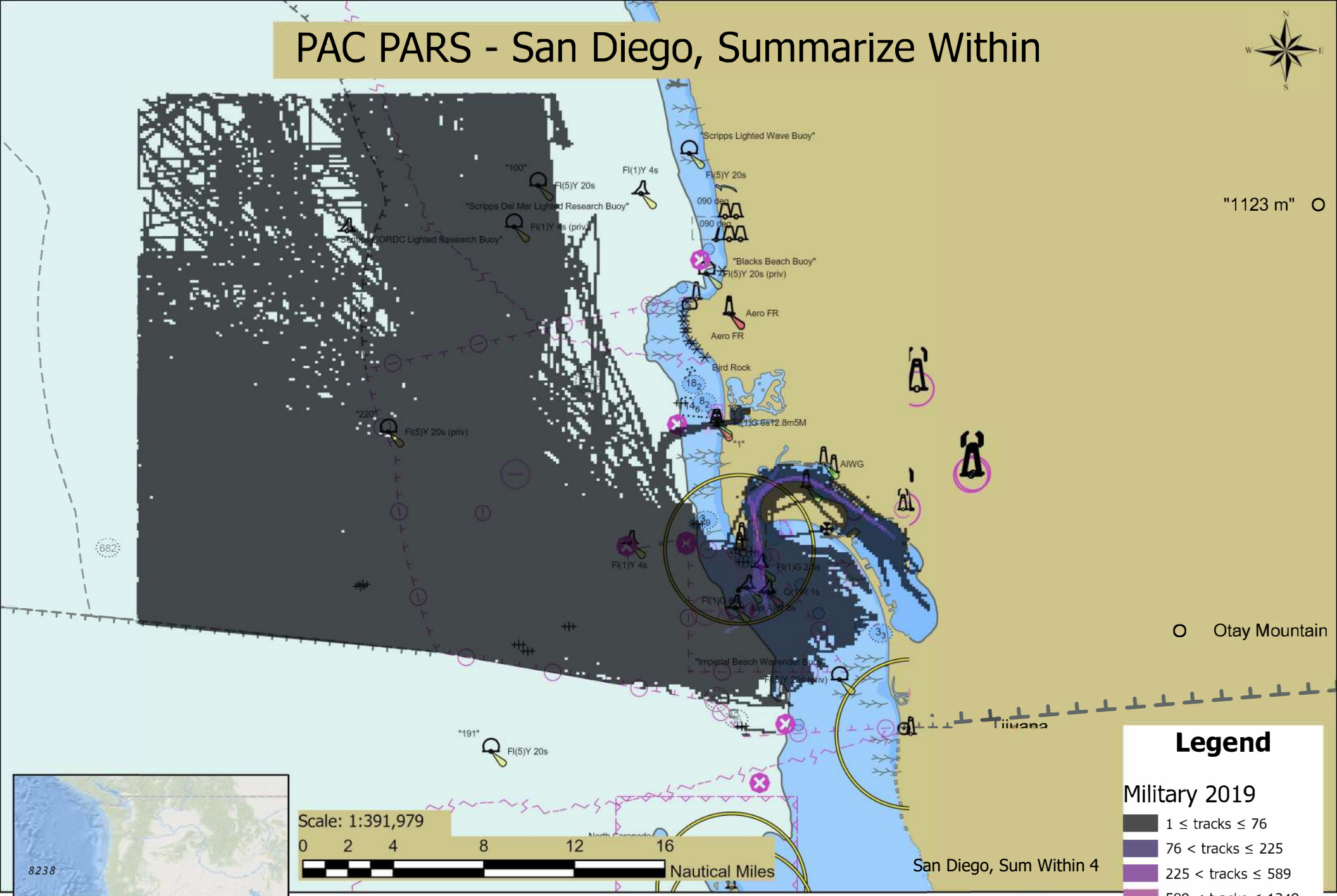
- 1 ≤ tracks ≤ 76
- 76 < tracks ≤ 225
- 225 < tracks ≤ 589
- 589 < tracks ≤ 1349
- 1349 < tracks ≤ 2558
- 2558 < tracks ≤ 4381
- 4381 < tracks ≤ 7057
- 7057 < tracks ≤ 11263

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/25/2022 10:15 AM

PAC PARS - San Diego, Summarize Within



Legend

Military 2019

- 1 ≤ tracks ≤ 76
- 76 < tracks ≤ 225
- 225 < tracks ≤ 589
- 589 < tracks ≤ 1349
- 1349 < tracks ≤ 2558
- 2558 < tracks ≤ 4381
- 4381 < tracks ≤ 7057
- 7057 < tracks ≤ 11263

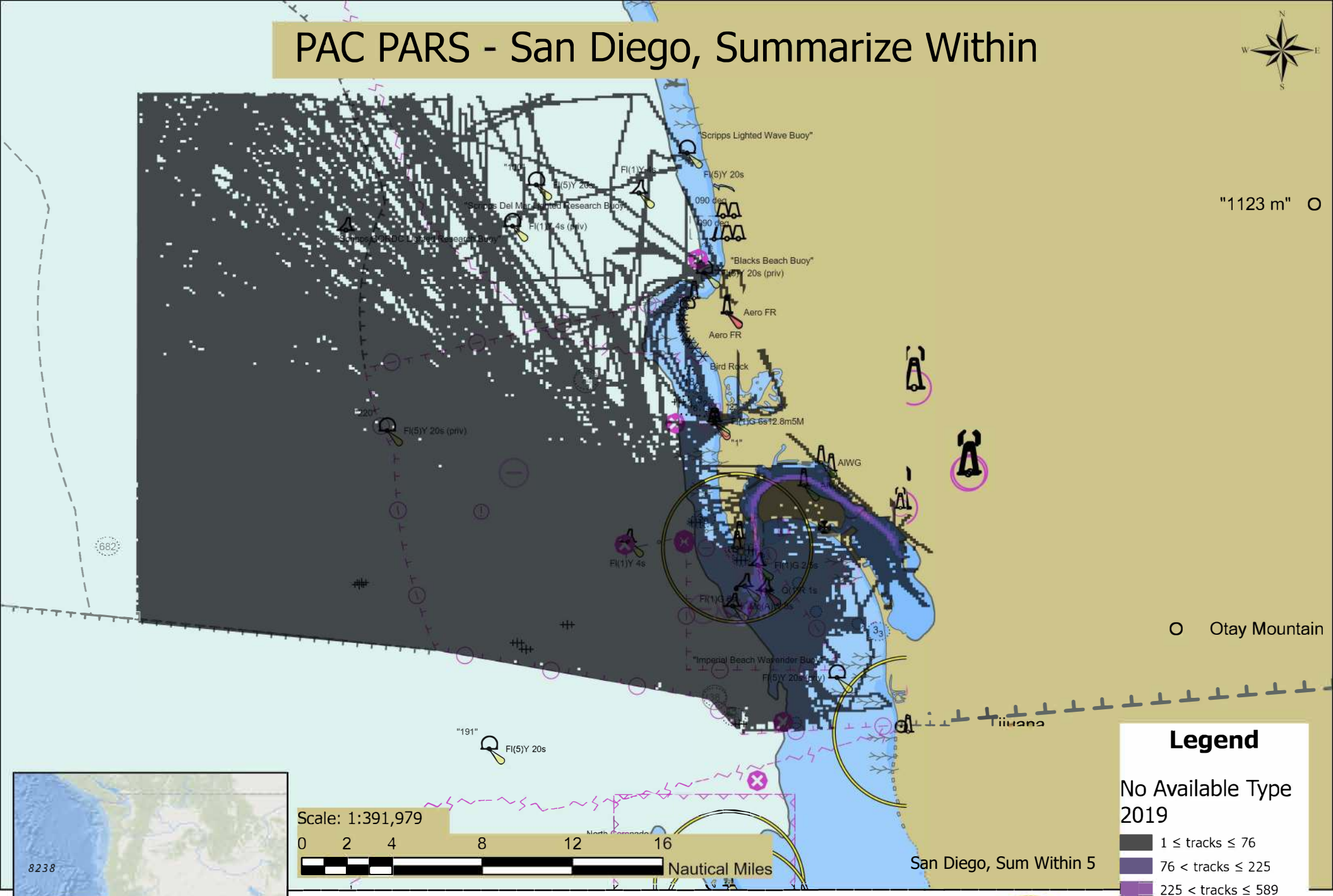
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

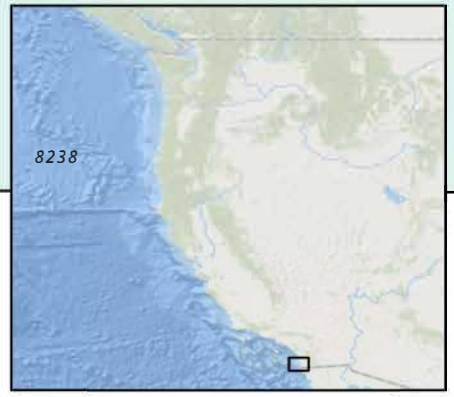
Prepared by the USCG NAVCEN
Data Sources: NAIS

This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/25/2022 10:13 AM

PAC PARS - San Diego, Summarize Within





Scale: 1:391,979

0 2 4 8 12 16 Nautical Miles

Legend

No Available Type
2019

- 1 ≤ tracks ≤ 76
- 76 < tracks ≤ 225
- 225 < tracks ≤ 589
- 589 < tracks ≤ 1349
- 1349 < tracks ≤ 2558
- 2558 < tracks ≤ 4381
- 4381 < tracks ≤ 7057
- 7057 < tracks ≤ 11263

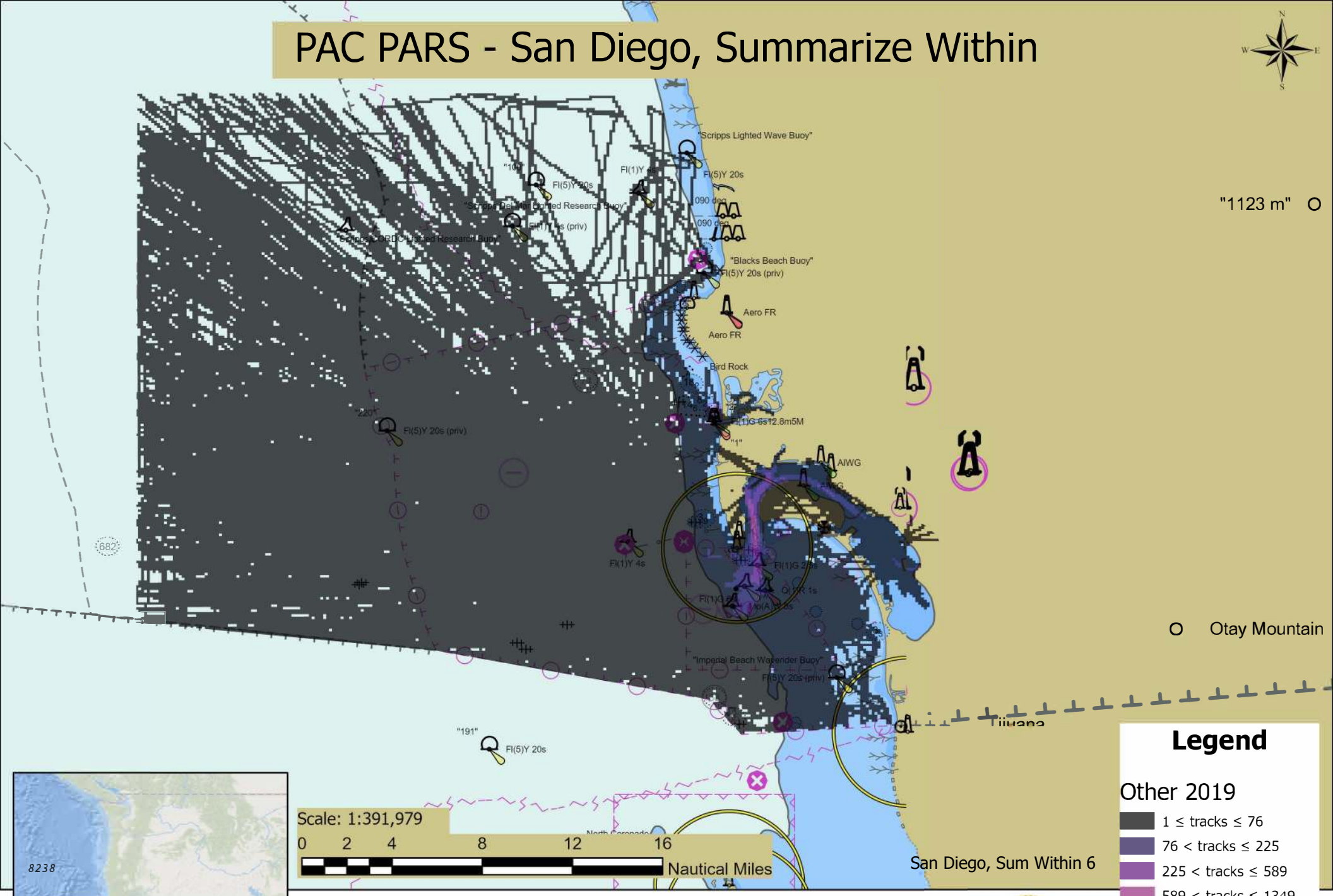
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS

This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/25/2022 10:12 AM

PAC PARS - San Diego, Summarize Within



Legend

Other 2019

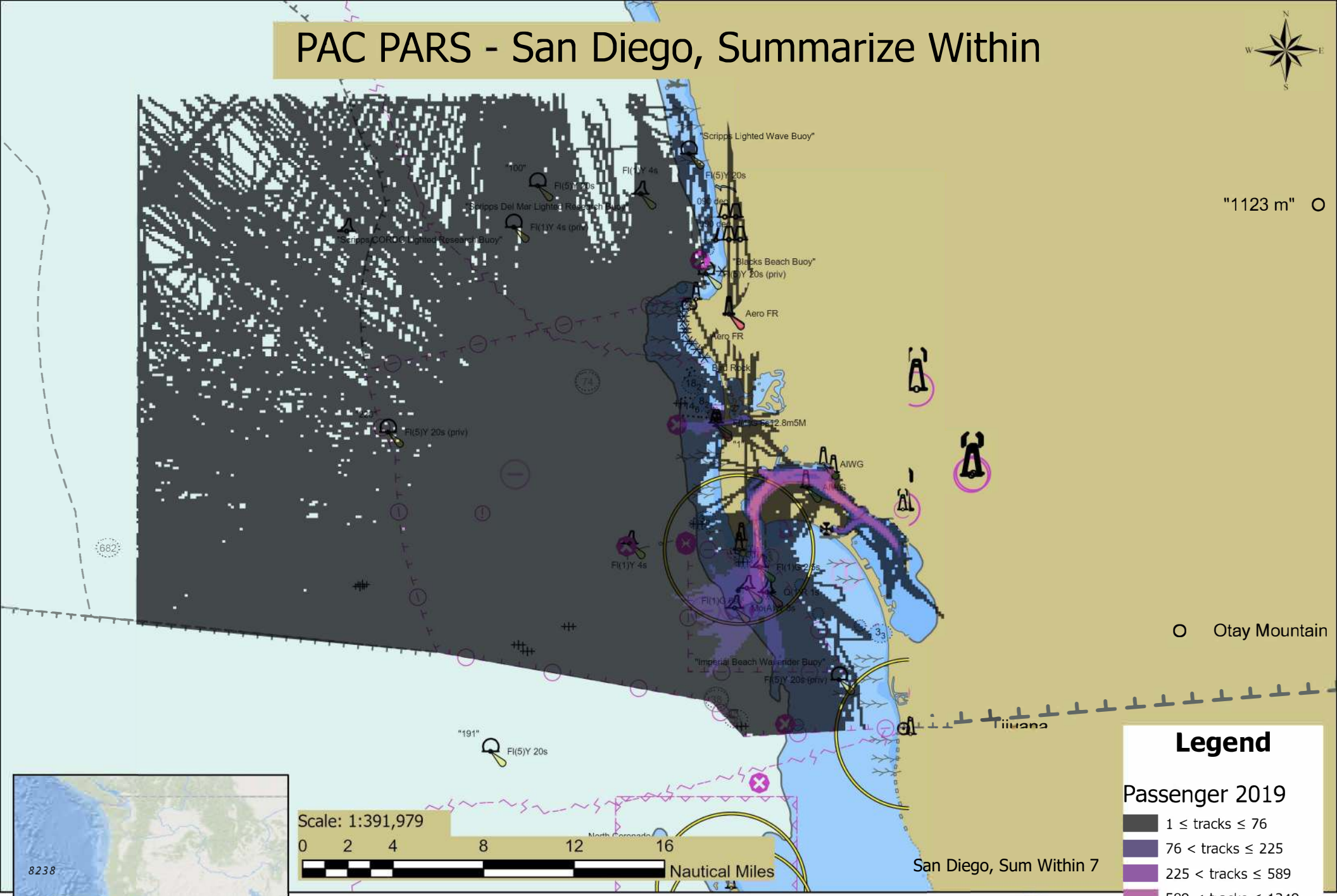
- 1 ≤ tracks ≤ 76
- 76 < tracks ≤ 225
- 225 < tracks ≤ 589
- 589 < tracks ≤ 1349
- 1349 < tracks ≤ 2558
- 2558 < tracks ≤ 4381
- 4381 < tracks ≤ 7057
- 7057 < tracks ≤ 11263

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/25/2022 10:11 AM

PAC PARS - San Diego, Summarize Within



Legend

Passenger 2019

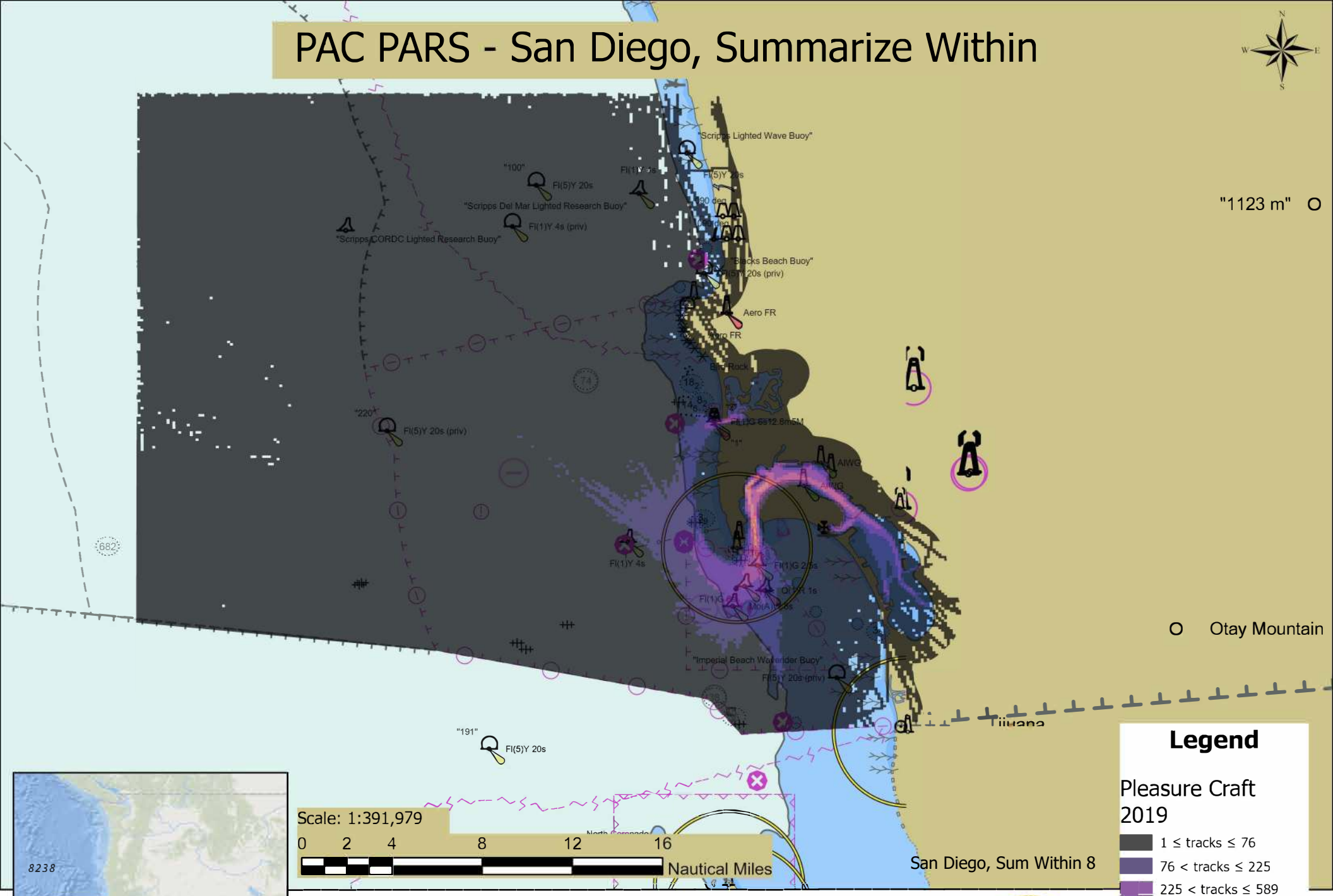
- 1 ≤ tracks ≤ 76
- 76 < tracks ≤ 225
- 225 < tracks ≤ 589
- 589 < tracks ≤ 1349
- 1349 < tracks ≤ 2558
- 2558 < tracks ≤ 4381
- 4381 < tracks ≤ 7057
- 7057 < tracks ≤ 11263

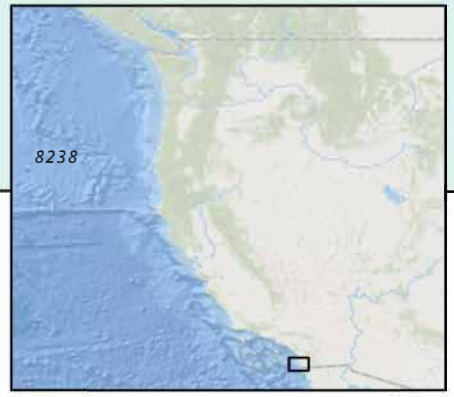
Spatial Reference
Name: GCS WGS 1984
GCS: GCS WGS 1984
Datum: WGS 1984
Map Units: Degree

Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/25/2022 10:09 AM

PAC PARS - San Diego, Summarize Within





Scale: 1:391,979

0 2 4 8 12 16 Nautical Miles

San Diego, Sum Within 8

Legend

Pleasure Craft 2019

- 1 ≤ tracks ≤ 76
- 76 < tracks ≤ 225
- 225 < tracks ≤ 589
- 589 < tracks ≤ 1349
- 1349 < tracks ≤ 2558
- 2558 < tracks ≤ 4381
- 4381 < tracks ≤ 7057
- 7057 < tracks ≤ 11263

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

Prepared by the USCG NAVCEN
Data Sources: NAIS

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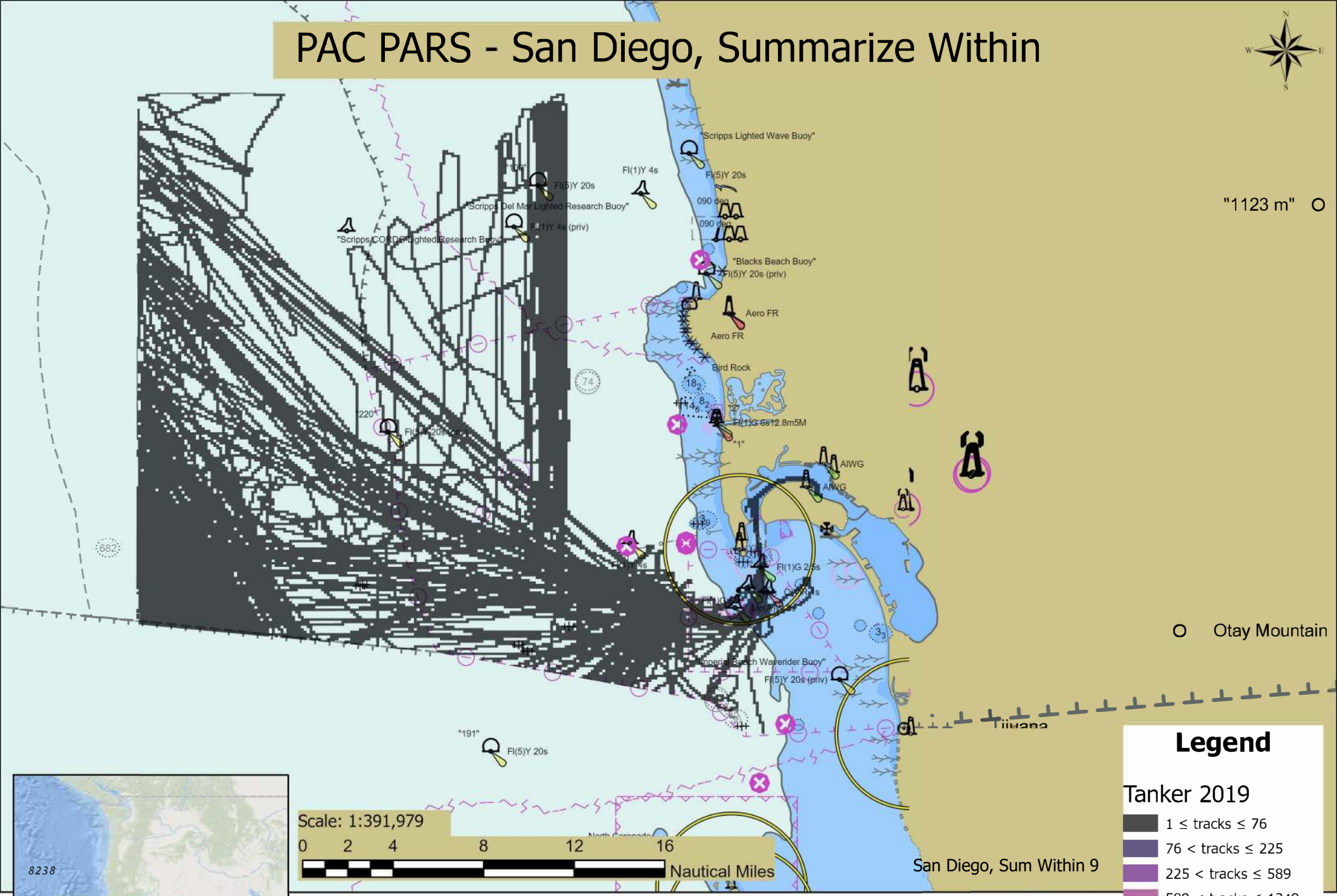
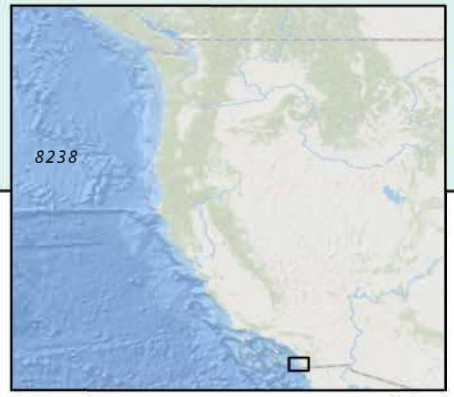
Last Update: 3/25/2022 10:08 AM

PAC PARS - San Diego, Summarize Within





Scale: 1:391,979

0 2 4 8 12 16

Nautical Miles

Legend

Tanker 2019

- 1 ≤ tracks ≤ 76
- 76 < tracks ≤ 225
- 225 < tracks ≤ 589
- 589 < tracks ≤ 1349
- 1349 < tracks ≤ 2558
- 2558 < tracks ≤ 4381
- 4381 < tracks ≤ 7057
- 7057 < tracks ≤ 11263

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

Prepared by the USCG NAVCEN
Data Sources: NAIS

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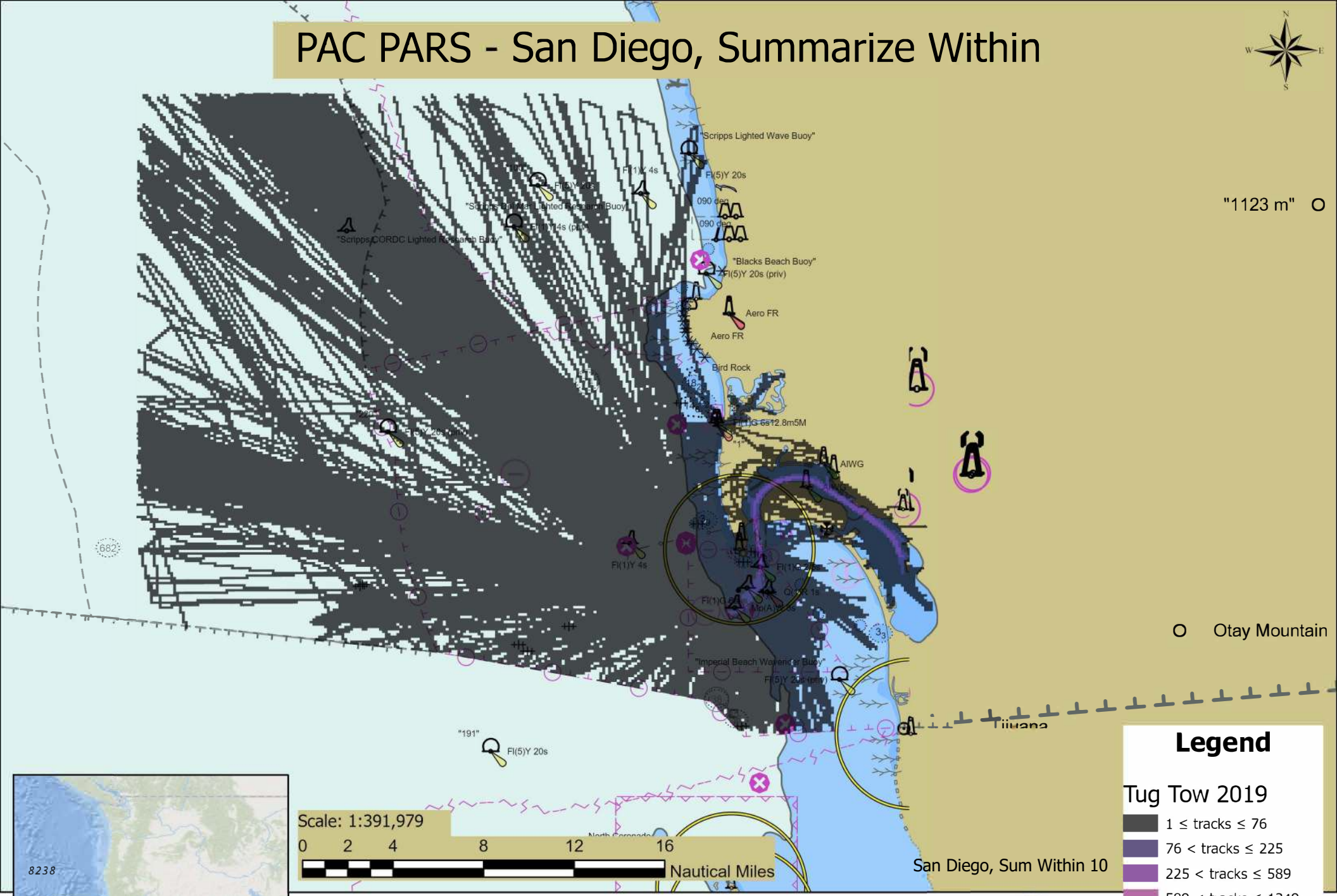
Last Update: 3/25/2022 10:07 AM

PAC PARS - San Diego, Summarize Within



Legend

Tug Tow 2019

- 1 ≤ tracks ≤ 76
- 76 < tracks ≤ 225
- 225 < tracks ≤ 589
- 589 < tracks ≤ 1349
- 1349 < tracks ≤ 2558
- 2558 < tracks ≤ 4381
- 4381 < tracks ≤ 7057
- 7057 < tracks ≤ 11263

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

Prepared by the USCG NAVCEN
Data Sources: NAIS
This visualization depicts only vessel track lines by vessels with AIS codes matching the vessel type in the legend. The same scale is used for different summarize within graphics for the same port area, thus, they can be directly compared to each other.

Last Update: 3/25/2022 10:03 AM