

*This Draft Navigational Impact Report is prepared to further define the bridge clearance heights for alternatives under consideration for the Wilmington Rail Realignment Project, as required by the US Coast Guard (USCG) for projects requiring a USCG bridge permit. The clearance requirements recommended in this report do not preclude any of the alternatives under consideration from being selected as the Preferred Alternative during the National Environmental Policy Act (NEPA) process.*

# DRAFT

## NAVIGATION IMPACT REPORT

### for the Rail Realignment Project

### Wilmington Harbor

Completed by the City of Wilmington  
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June 28<sup>th</sup>, 2021

#### A. Means of data collection:

The primary sources of user data were Automatic Identification System (AIS) datasets from 2019 which were analyzed and refined for the purposes of this report by the City of Wilmington in collaboration with MarineCadastre.gov (a collaboration between the Bureau of Ocean Management (BOEM) and the National Oceanic and Atmospheric Administration (NOAA)) and bridge lift data from the North Carolina Department of Transportation (NCDOT). Additional information was gathered via direct outreach from known stakeholders with navigational interests, users of the relevant waterway as well as from other publically available sources.

- AIS Data for 2019 (<https://coast.noaa.gov/htdata/CMSP/AISDataHandler/2019/index.html>)
- USGC's National Vessel Documentation Database Queries via NOAA website
- On-site visits
- Bridge lift logs from NCDOT for 2018 through 2020
- Outreach to various government, private and public stakeholders (see Exhibit H)
- Comment period between June 28<sup>th</sup> and July 26<sup>th</sup>, 2021 which was publicized via press release, newspaper advertisement, social media applications, flyers, mailers, local government meetings and on television
- Other resources as made available online (specific citations made in each section)

#### B. Present governing bridge(s) or aerial structure(s) on the waterway:

1. *Identify all bridges upstream and downstream of the proposed bridge site and their existing horizontal and vertical clearances to determine the existing minimum horizontal and vertical clearances (including overhead transmission line clearances). Provide in table format.*

*(If all bridges downstream have the same minimum clearance, state instead of the above requested information).*

Note that Table 1 depicts three upstream bridges of the proposed railroad bridge site. There are no bridges downstream of the proposed bridge site. Table 1 does, however, depict an overhead transmission line which is downstream of the proposed bridge site.

Also note that the proposed railroad bridge site related to this NIR is located immediately south of the Cape Fear Memorial Bridge. The bridge site proposed seeks to be compatible with the impending replacement of the Cape Fear Memorial Bridge (US 74/76) by NCDOT (see Section M for additional information). See Exhibit A for conceptual engineering drawings of the Rail Realignment Project depicting the proposed site for the new railroad bridge. Also see Exhibit B for NCDOT's Express Design Summary for the replacement of the Cape Fear Memorial Bridge, specifically Option 4 which contemplates the replacement of the highway bridge alongside the proposed railroad bridge.

**TABLE 1:**

| <b>Facility Carried</b>              | <b>Feature Intersected</b>             | <b>Waterway Milepoint</b> | <b>Channel Depth (MHW)</b> | <b>Vertical Clearance (MHW)</b> | <b>Horizontal Clearance</b> |
|--------------------------------------|--|---------------------------|----------------------------|---------------------------------|-----------------------------|
| CSXT Hilton Bascule Bridge           | Wilmington Harbor, NE Cape Fear River  | 1.0                       | 25'                        | 4' closed; Unlimited open       | 200'                        |
| Isabel Holmes Bridge NC 133          | Wilmington Harbor, NE Cape Fear River  | 1.5                       | 32'                        | 40' closed; Unlimited open      | 200'                        |
| Cape Fear Memorial Bridge US 74 / 76 | Wilmington Harbor, Cape Fear River     | 26.8                      | 32'                        | 65' closed; 135' open           | 350'                        |
| Overhead Transmission Line           | Lower Brunswick Range, Cape Fear River | 21.2                      | 42'                        | 216'                            | Full Channel                |

2. *Does the proposed bridge match (or is greater than) the navigational clearance of the existing structures on the waterway?*

Yes, the proposed bridge would match or provide for greater navigational clearances than exist on the waterway today.

As is represented in the data and statistics herein, all vessels of significant size use the waterway to serve the single active industry upstream of the CSXT Hilton Bascule Bridge. Thus, all of the largest vessels using the waterway transit all three bridges identified in Table 1 – the Cape Fear Memorial Bridge, the Isabel Holmes Bridge and CSXT Hilton Bascule Bridge. The limiting clearances across these three bridges are 200 feet horizontal and 135 feet vertical.

For the purposes of this Navigational Impact report, the City of Wilmington proposes the following navigational clearances be considered as reasonably meeting the navigational needs of the waterway:

Horizontal Clearance: 200 feet

Vertical Clearance: Unlimited in the open position. The bridge would rest in the open position (as does the CSXT Hilton Bascule Bridge upstream) and would only close for passing train traffic. Vertical clearance in the closed position would be approximately 20 feet.

3. *What is the most restrictive horizontal clearance on the waterway? (This may be a fixed bridge downstream/upstream of the proposed structure, a low hanging power line downstream/upstream of the bridge(s), or it may be some other structure that limits horizontal clearance. Sometimes the existing to-be-replaced bridge(s) is the most restrictive structure.*

Upstream of the proposed bridge location the structure which creates the most restrictive horizontal clearance is the Isabel Holmes Bridge and the CSXT Hilton Bascule Bridge.

- a. Milepoints: 1.0 and 1.5 of the Northeast (Cape Fear) River
- b. Horizontal clearance: 200 feet

There are no bridges, structures or other impediments to horizontal clearance over the waterway downstream of the proposed bridge site.

4. *What is the most restrictive vertical clearance on the waterway? (This may be a fixed bridge downstream/upstream of the proposed structure, a low hanging power line downstream/upstream of the bridge(s), or it may be some other structure that limits vertical clearance. Sometimes the existing to-be-replaced bridge(s) is the most restrictive structure.*

Upstream of the proposed bridge location the structure which creates the most restrictive vertical clearance is the CSXT Hilton Bascule Bridge.

- a. Milepoint: 1.0 of the Northeast (Cape Fear) River
- b. Vertical clearance (bridge in closed position): 4 feet
- c. Vertical clearance (bridge in open position): Unlimited

Downstream of the proposed bridge location the structure which creates the most restrictive vertical clearance is an overhead transmission line.

- a. Milepoint: 21.2 of the Cape Fear River
- b. Vertical clearance: 216 feet

5. *Will the proposed bridge(s) become the most restrictive/obstructive structure across the waterway?*

No, the bridge will not become the most restrictive or obstructive structure across the waterway to the users of this portion of the waterway.

### **C. Waterway characteristics:**

*(All domestic bridge navigational clearances should be stated in linear feet in decimal form vs. feet and inches. All international bridge navigational clearances should be state in linear unit of measure as well as the metric equivalent).*

1. *Various water stages: (Datum that is used).*

The various waterway stages are listed in Table 2 below. All data values are relative to North American Datum of 1988 (NAVD88). Elevations are from National Oceanic and Atmospheric Administration (NOAA) station 8658120 in Wilmington, NC near the Cape Fear Memorial Bridge is adjacent to the proposed bridge site.

**TABLE 2**

| <i>Waterway Stage</i> |                                       | <i>Elevation (NAVD88)</i> |
|-----------------------|---------------------------------------|---------------------------|
| MHHW                  | Mean Higher – High Water              | 2.08 feet                 |
| MHW                   | Mean High Water                       | 1.83 feet                 |
| MTL                   | Mean Tide Level                       | -0.31 feet                |
| MSL                   | Mean Sea Level                        | -0.16 feet                |
| DTL                   | Mean Diurnal Tide Level               | -0.26 feet                |
| MLW                   | Mean Low Water                        | -2.44 feet                |
| MLLW                  | Mean Lower-Low Water                  | -2.60 feet                |
| NAVD88                | North American Vertical Datum of 1988 | 0.00                      |

Source: <https://tidesandcurrents.noaa.gov/stations.html?type=Datums>

2. *Natural flow of the waterway including currents, waterway velocity, water direction, and velocity fluctuations (seasonal, daily, hourly, etc.), that might affect navigation.*

Tides are normally semi-diurnal on the waterway (2 lows, 2 highs daily cycles on average) and micro-tidal (tidal range < 2 meters). The waterway experiences both ebb and flood tidal flows, with direction and velocity of flow varying with tidal cycles. Generally, water flows east-west until reaching the confluence of the Northeast Cape Fear River and the Cape Fear River.

NOAA performed a Cape Fear River, NC survey in 2016 with results published in June 2019. The report made use of numerous observation stations for data collection, one of which was CFR1605 located at USS North Carolina Battleship which is less than a mile upstream from the proposed bridge location. Speed and timing relative to the tidal day of mean maximum ebb current (MEC) and mean maximum flood current (MFC) at the near surface were:

MFC = 81.3 cm/s (1.58 knots)  
MEC = 106.6 cm/s (2.07 knots)

Source:  
[https://tidesandcurrents.noaa.gov/publications/Techrpt\\_089\\_Cape\\_Fear\\_Tech\\_Report\\_Final.pdf](https://tidesandcurrents.noaa.gov/publications/Techrpt_089_Cape_Fear_Tech_Report_Final.pdf)

3. *Width of the waterway at bridge site.*

The width of the waterway at all of the considered bridge sites is approximately 875 feet measured from the bulkhead at the Army Corps of Engineer's Repair Yard at 232 Battleship Rd NE, Leland, NC 28451, perpendicular to the navigational channel, to the bulkhead on the east bank of the river .

The width of the navigational channel as maintained by the United States Army Corp of Engineers (USACE) varies from 1,100 feet wide immediately downstream of the Cape Fear Memorial Bridge (Anchorage Basin) to 800 feet upstream of the Cape Fear Memorial Bridge (Battleship to Hwy 74/76 – Reach 5). See Figure 1 below.

FIGURE 1:



4. *Depth of the waterway and elevation fluctuations at bridge site: [List the depth at each waterway bridge stage (ex. Range of tides, average high water elevation, etc.).]*

The depths of the waterway at various stages at the proposed bridge site(s) are depicted in Exhibit C. Generally the depths range from 38 feet to 42 feet at the proposed bridge site, with elevations referring to MLLW. As seen from data provided in C.1, waterway elevations vary 4.43 feet from MLLW to MHW.

Sources

<https://www.saw.usace.army.mil/Missions/Navigation/Hydrographic-Surveys/Wilmington-Harbor/>

5. *Waterway layout and geometry: (For example, is there a dam or lock, does the elevation of the approach impact the required bridge(s) clearance?)*

There are no dams, locks or elevation changes along the waterway which are relevant to the proposed railroad bridge site.

The Cape Fear River and the Northeast (Cape Fear) River meet approximately one mile north of the proposed railroad bridge site. Approximately four miles south of the proposed railroad bridge site the Cape Fear River meets with the Brunswick River and then proceeds approximately 22 additional miles south before emptying into the Atlantic Ocean.

6. *Channel and waterway alignment: Location of the channel(s).*

The portion of the Cape Fear River in which the proposed railroad bridge site is located is generally oriented north-south. The proposed railroad bridge site lies immediately south of the existing Cape Fear Memorial Bridge (US 74/76) over the northern portion of the USACE maintained Anchorage Basin for the Wilmington Harbor. Within 200ft of the proposed railroad bridge site is the southernmost boundary of the Battleship to Hwy 74/76 – Reach 5 channel, also a part of the USACE Wilmington Harbor project. The Battleship to Hwy 74/76 – Reach 5 portion of the channel begins a gentle bend in both the river and the channel upstream. South of the proposed railroad bridge site the maintained channel is straight for a considerable length. The proposed railroad bridge site is expected to align with a slight skew to the navigable channel, similar to the alignment which exists at the existing Cape Fear Memorial Bridge (US 74/76). Coordination between USCG, NCDOT and the City of Wilmington would further define the project site with channel and waterway alignment.

7. *Other limiting factors: (For example, bends in the waterway within one-half mile of the project site, hindrances to free navigation, fog, hydraulics, etc.).*

There are no other known hindrances to free navigation within one-half mile of the proposed bridge sites. See NOAA Chart 11537 and appendices for additional information.

**D. Do vessels that engage in emergency operations (i.e., law enforcement, fire, rescue, emergency dam repair, etc.), national defense activities (i.e. cruisers, fuel barges, munitions ships, etc.) or channel maintenance (i.e., dredges, dam and levee repair, etc.) operate on the waterway? If yes, describe the vessels and provide the following information:**

1. *Does levee maintenance, bridge work (other bridges), channel maintenance and emergency operations upstream of bridge require certain vessels to transit the waterway?*

No, per coordination with the NCDOT, USACE, USCG and other local agencies (see Exhibit H).

2. *Does the proposed bridge(s) impact USCG and/or other government vessels' ability to transit the bridge(s) to conduct mission essential functions (icebreakers, patrols, etc.)?*

No, per coordination with USCG.

Coast Guard Station Oak Island is the only Coast Guard unit that has the potential to operate in the area identified within in this Navigation Impact Report. USCG does not have any Aids to Navigation (ATON) in the area that require servicing from ANT Oak Island, CGC Bayberry, or CGC Maple.

Coast Guard Search and Rescue Station Oak Island generally does not conduct operations in the portion of waterway under study. USCG relies on other government agencies (OGA's) to assist in the area in the event of an emergency. In the event USCG response is required, they would utilize the 29' RBS-II which would not experience navigational restrictions based on the proposed railroad bridge recommendation.

3. *Vessels using the waterway during the proposed bridge(s) lifespan:*

See Exhibit D for a full list of vessels using the waterway.

*USCG Oak Island Vessel:*

Vessel did not transit the waterway under study in 2019.

- i. Vessel name: 29' RBS-II
- ii. Registration/documentation numbers: CG 29216, CG29217
- iii. Vessel type: Enclosed Cabin, outboards
- iv. Vessel owner contact information: USCG Station Oak Island
- v. Primary vessel mooring location (include waterway milepoint, if known): 300A Caswell Beach Rd., Oak Island, NC 28465
- vi. Vessel overall length: 31' 7"
- vii. Vessel beam: 8' 5"



- viii. Vessel draft (depth of hull below waterline at full load): 2' 9" trimmed down, 1' 10" trimmed up
- ix. Vessel air draft (height of the highest fixed point of the vessel above the waterline, when empty): 7' 10"



US Army's Sunny Point, NC firefighting and rescue vessel:

Vessel currently transits the waterway twice per year for scheduled maintenance (and as needed for emergency repairs) at the Cape Fear Boat Works located upstream from the proposed bridge locations. This is reflected in the 2019 AIS dataset.

- i. Vessel name: Sunny Point
- ii. Registration/documentation numbers: Vessel # CG 1167165, Galdding-Hearn Shipbuilding Hull Number 387
- iii. Vessel type: Unclassified vessel, Aluminum, Jet Propulsion
- iv. Vessel owner contact information: US Army, Military Ocean Terminal Sunny Point (MOTSU), Fire & Emergency Services Division /Chief Michael Scott / 6280 Sunny Point Rd. Southport, NC 28461 / 910-457-8218
- v. Primary vessel mooring location (include waterway milepoint, if known): MOTSU Boat Basin / Buoy # 33 Cape Fear River
- vi. Vessel overall length: 82' 6"
- vii. Vessel beam: 20' 6"
- viii. Vessel draft: 4' 2"
- ix. Vessel air draft: 37' 3"
- x. Does the vessel have limited maneuverability due to inherit design or mode of operation?: To operate one fire pump the vessel requires 6' of draft, 10' of draft to operate two pumps



4. *Will the proposed bridge(s) provide the horizontal and vertical clearances for the safe, efficient passage of the largest of these vessels? Why?*

Yes. Horizontal and vertical clearances are no more restrictive than structures over the waterway which are presently transited by these vessels

5. *If no, estimate the number of vessels in each of the above categories unable to pass through the proposed bridge(s). Give the name, length overall (LOA), beam, draft and height of highest fixed point above the waterline for vessels affected by the bridge(s).*

Not applicable.

6. *Can these vessels be modified (i.e., folding mast, relocation or equipment, etc.) without decreasing their respective response times? If so, name the vessels.*

Not applicable.

7. *If modifications are feasible, state the name of the vessel(s), their trip frequency, the necessary modifications, the cost of the modification(s) and who will pay for them (i.e., vessel owner, applicant, other).*

Not applicable.

8. *Provide any additional information concerning the potentially impacted or burdened users of the waterway as well as the future use of the waterway.*

Not applicable.

**E. Has the United States Corps of Engineers (USACE) completed or does it plan to complete a federal navigation project on the waterway? If yes, provide the following information:**

Yes, USACE has completed a federal navigation project on the waterway.

1. *Project name, downstream/upstream milepoints, depth, type of project, scope, status of project and other limiting factors.*

Project Name: Wilmington Harbor

Channels: 38 FT MLLW (UPPER) ANCHORAGE BASIN

32 FT MLLW HWY 74-76 BRIDGE TO BATTLESHIP  
Reach 1, 2, 3, 4 & 5

32 FT MLLW BATTLESHIP TO HWY 133 BRIDGE INCLUDING  
TURNING BASIN  
Reach 1, 2 & 3

32 FT MLLW HWY 133 BRIDGE TO HILTON BRIDGE  
Reach 1, 2, 3 & 4

25 FT MLLW 25 FOOT PROJECT  
Reach 4

Milepoints: Not applicable. See geographic references above.

Depth: See Exhibit C

Type: Federal Navigation Channel

Status: Complete

2. *Whether there is/was a "design vessel" used in planning the channel? What is/was the design vessel? Was the design vessel reviewed by the Coast Guard?*

No "design vessel" was identified for the navigation project.

3. *The following specification of the vessel for which the navigation project is or will be designed: LOA, beam, draft and height of the highest fixed point above waterline.*

Not applicable.

4. *Will the proposed bridge(s) provide the horizontal and vertical clearances necessary for the safe, efficient passage of the vessel for which the navigation project was designed?*

Not applicable.

5. *If so, can the vessel be modified to clear the proposed bridge(s) without substantially increasing operating costs?*

Not applicable.

6. *If modifications are feasible, state the necessary modifications, costs of any modifications(s), who will pay for the modifications.*

Not applicable

7. *Are the projected changes in the waterway usage based upon anticipated waterway improvement projects?*

There are no projected changes for waterway usage based upon any waterway improvement projects.

8. *Does the proposed bridge impact USACE ability to transit the bridge in a Federal project channel?*

There are no projected changes for waterway usage based upon any waterway improvement projects.

**F. Describe the present and prospective recreational navigation:**

*Will the proposed bridge(s) affect the safe, efficient movement of any segment of the present or prospective recreational fleet operation on the waterway? If yes, provide the following information:*

The proposed bridge will not affect the safe, efficient movement of recreational vessels over any segment of the waterway under study for this report presently or prospectively.

Exhibit D captures all vessels which appeared in the 2019 AIS dataset as well as all vessels which required a bridge lift at either the Cape Fear Memorial Bridge or the Isabel Holmes Bridge.

Summary statistics from Exhibit D for recreational vessels only are as follows:

|                     |     |
|---------------------|-----|
| Unique Vessel Count | 209 |
| % Sailboats         | 50% |
| Average Length (ft) | 55  |
| Max Length (ft)     | 164 |
| Average Beam (ft)   | 19  |
| Max Beam (ft)       | 52  |
| CFMB Transits       | 296 |
| CFMB Lifts          | 64  |
| IHB Transits        | 81  |
| IHB Lifts           | 121 |

CFMB = Cape Fear Memorial Bridge

IHB = Isabel Holmes Bridge

The data in Exhibit D demonstrates that while recreational vessels are significantly smaller than the commercial vessels which transit the waterway under study, they transit the waterway more frequently. Furthermore, it should be noted that sailboats accounted for 50% of all recreational vessel types in 2019, which is relevant to this study since they typically require greater vertical navigational clearances. Of the 64 total lifts required for recreational vessels at the CFMB in 2019, 53 (83%) were for sailboats. The proportion was similar at the IHB with 102 (84%) of the 121 lifts resulting from sailboat transits.

Also of note, Exhibit F shows statistics from the City of Wilmington related to the usage of public docking facilities on the waterway from 2003 to 2019. The average vessel length from year to year range from 25 feet to 38 feet. These statistics show an 84% decline in usage at the City's docks between 2016 and 2019. There are a number of private marinas in the Wilmington Harbor (see Section H) however data on usage related to these facilities is not available.

**G. Describe the present and prospective commercial navigation and the cargoes moved on the waterway:**

*Will the proposed bridge(s) affect the safe, efficient movement of any segment of the present or prospective commercial fleet operating on the waterway? If yes, provide the following information:*

The proposed bridge will not affect the safe, efficient movement of commercial vessels over any segment of the waterway under study for this report presently or prospectively.

Exhibit D captures all vessels which appeared in the 2019 AIS dataset as well as all vessels which required a bridge lift at either the Cape Fear Memorial Bridge or the Isabel Holmes Bridge.

Summary statistics from Exhibit D for all non-recreational vessels (this would include search and rescue vessels, survey vessels, etc.) are as follows:

|                     |     |
|---------------------|-----|
| Unique Vessel Count | 70  |
| Average Length (ft) | 277 |
| Max Length (ft)     | 604 |
| Average Beam (ft)   | 50  |
| Max Beam (ft)       | 105 |
| CFMB Transits       | 232 |
| CFMB Lifts          | 117 |
| IHB Transits        | 208 |
| IHB Lifts           | 163 |

The largest of the vessels categorized as non-recreational are the tanker vessels / articulated pusher tug vessels which service the Kinder Morgan facility located on the east bank of the Northeast Cape Fear River immediately north of the CSXT Hilton Bascule Bridge. These vessels occur at a frequency of approximately once per week. The largest vessel dimensions observed were a length of 604 feet (4 unique vessels

shared this length) and a beam of 105 feet which belonged to the Bunga Angsana which flies under a Malaysian flag. It should be noted that all of these vessels transit the Cape Fear Memorial Bridge, the Isabel Holmes Bridge and the CSXT Hilton Bascule Bridge to service the Kinder Morgan facility. These vessels carry chemicals, fertilizers and other related products (see Exhibit G for additional information on commerce statistics as reported by USACE).

Commercial vessels are restricted to mean high tide north of the Cape Fear Memorial Bridge (US 74/76) and a draft limitation 31 feet maximum.

Only one prospective use for by commercial vessels was identified – the inactive Cemex terminal located between the Isabel Holmes Bridge and the CSXT Hilton Bascule Bridge on the west bank of the Northeast (Cape Fear) River. According to local river pilots, this facility has been dormant for years up until early 2021. The pilots indicated that these vessels are of similar size to the vessels servicing the Kinder Morgan facility upstream and thus require the same navigational considerations as those vessels.

#### **H. Identify the name and contact information for marine facilities located within a 3-mile radius of the proposed project (public boat ramps, marinas or major docking facilities, boat repair facilities, etc.):**

1. Cape Fear Boat Works  
1690 Royster Rd NE  
Navassa, NC 28451  
(910) 371-3460  
info@capefearboatworks.com  
<https://capefearboatworks.com/>
2. Smith Creak Boatyard  
805 Cornelius Harnett Dr  
Wilmington, NC 28401  
(910) 443-5313  
harborlinesllc@aol.com  
<http://www.smithcreekboatyard.com/>
3. Bennet Brothers Yachts / Off the Hook Yacht Services  
1701 JEI Wade Dr  
Wilmington, NC 28401  
(910) 772-9277  
service@offthehookys.com  
<https://service.offthehookyachts.com/>
4. Industrial Hardware & Marine / Old Wilmington Shipyard, LLC  
1551 Point Harbor Rd  
Wilmington, NC 28401  
(910) 343-8135
5. Sawmill Point Marina  
1015 Nutt Street  
Wilmington, NC 28401  
(833) 455-5003  
<https://sawmillpoint.com>
6. City of Wilmington Docks  
302 Willard Street  
Wilmington, NC 28401  
(910) 520-6875  
jonathan.batts@wilmingtonnc.gov  
<https://www.wilmingtonnc.gov/departments/parks-recreation/docking>
7. Cape Fear Community College  
411 N Front St  
Wilmington, NC 28401  
(910) 362-7403  
jsrogers57@cfcc.edu  
<https://cfcc.edu/marine-technology/>
8. Dram Tree Park Boat Ramp  
W Castle St  
Wilmington, NC 28401  
(910) 520-6875  
jonathan.batts@wilmingtonnc.gov

orders@ihmnc.com

<https://www.wilmingtonnc.gov/departments/parks-recreation/docking>

5. Port City Marina  
10 Harnett Street  
Wilmington, NC 28401  
(910) 620-9904  
hello@usainvestco.com  
<https://portcitymarina.com/>

10. Army Corps of Engineers  
Wilmington District Repair Yard  
232 Battleship Rd NE  
Leland, NC 28451  
(910) 251-4979  
<https://www.saw.usace.army.mil/Missions/Navigation/Engineer-Yard/>

**I. Will the proposed bridge(s) block access of any vessel presently using local service facilities (i.e., repair shops, parts distributors, fuel stations)? If yes, provide the following information:**

The proposed bridge will be no more restrictive to vessels presently using the waterway to access local marine service facilities.

**J. Are alternate routes bypassing the proposed bridge(s) available for use by vessels unable to pass the proposed bridge(s)? If yes, provide the following information:**

No, there are no alternate navigable routes available for use by vessels unable to pass the proposed bridge.

**K. Will the bridge(s) prohibit the entry of any vessels to the local harbor of refuge? If yes, describe the harbor and provide the following information:**

No, the proposed railroad bridge will not prohibit the entry of any vessels to the local harbor of refuge.

**L. Will the proposed bridge(s) be located within one-half mile of a bend in the waterway? If yes, describe the bend and provide the following information:**

Yes, the proposed railroad bridge site is located within one-half mile of a gentle bend in the waterway. Said bend is located approximately 0.3 miles north of the proposed site of the proposed railroad bridge

1. *Is there sufficient distance between the bridge(s) and the bend to allow proper vessel alignment for the safe, efficient passage of vessels through the proposed bridge(s)?*

Yes, there is sufficient distance between the bridge and the bend to allow proper vessel alignment for safe and efficient passage of vessels through the proposed bridge.

2. *If no, what factors make construction of the bridge(s) at an alternate location impractical?*

Not applicable.

**M. Are there other factors (i.e., dockages, lightering areas, existing bridges, etc.) located within one-half mile of the proposed bridge(s), which would create hazardous passage through the proposed structure? If yes, provide the following information:**

1. *Describe the factors. (For example, construction impacts to navigation and waterway users, etc.)*

The Cape Fear Memorial Bridge (CFMB) (US 74/76) is located within close proximity of the proposed railroad bridge site. For the purposes of this section of the report, it should be noted that the existing or planned replacement CFMB has the potential to create a hazard to navigation dependent upon distance between the structures, relative skews to the waterway and other similar factors which at present are not known. Combining the replacement of the CFMB with the proposed railroad bridge on a single substructure (with independent superstructures) would likely mitigate the hazard to navigation as considered in this section, and is being explored by the City of Wilmington and NCDOT.

The North Carolina Department of Transportation (NCDOT) released an Express Design Summary in May of 2020 which presented four (4) options for the replacement of the CFMB. NCDOT states that the bridge will need to be replaced by 2030. It is anticipated that the proposed railroad bridge would be located within close proximity of the replacement highway bridge, either on a shared substructure or entirely separated from the highway bridge.

An examination of navigational considerations such as current vessel usage and prospective vessel usage on the waterway was not conducted to inform NCDOT's Express Design Summary for the replacement of the CFMB. Since the Express Design Summary did not have the benefit of the data and analysis contained herein, the report assumed horizontal clearances consistent with the existing CFMB structure and varying proposal for vertical clearances, any of which may be carried forward into USCG's Bridge Permit Application Process.

Option 4 of the NCDOT's Express Design Summary contemplates a highway bridge with a moveable span alongside a single track moveable span railroad bridge, i.e. incorporating the Wilmington Rail Realignment Project (see Exhibit B for additional information). As described in the Express Design Summary, a single substructure would accommodate both the superstructure for the highway mode and the superstructure of the railway mode. The superstructures would operate independently of one another.



No other factors have been identified which are located within the navigable waterway within one-half mile of the proposed bridge.

Source: <https://www.starnewsonline.com/news/20200514/4-options-chosen-for-wilmington-bridge-replacement>

2. *What mitigative measures are being recommended? (For example, navigation safety during construction, etc.) Why?*

None at this time, however, mitigative measures will be considered as the design for the proposed railroad bridge is refined with further guidance from USCG and USACE, and as NCDOT's plans for the replacement for the Cape Fear Memorial Bridge take shape.

**N. Do local hydraulic conditions (i.e., wave chop, cross currents, tides, shoals, etc.) increase the hazard of passage through the proposed bridge(s)? If yes, provide the following information:**

Local hydraulic conditions are not expected to increase the hazard of passage through the proposed bridge.

Currents generally run concurrently with passage through the proposed bridge. The latest USACE hydrographic surveys did not depict any shoaling which would impact the proposed location.

**O. Do local atmospheric conditions (i.e., strong, prevailing winds, fog, rapidly developing storms, etc.) increase the hazard of passage through the proposed bridge(s)? If yes, provide the following information:**

No, local atmospheric conditions are not expected to increase the hazard of passage through the proposed bridge..

1. *Describe the conditions:*

No conditions were identified.

2. *What mitigative measures are being recommended? Why?*

Not applicable.

**P. Have guide clearances been established for the waterway? If yes, provide the following information:**

Yes, guide clearances have been establish for the waterway upstream of the proposed railroad bridge site. Note that proposed railroad bridge site is located across the Cape

Fear River while the guide clearance detailed below are applicable to the Northeast (Cape Fear) River approximately one mile upstream.

**TABLE 3:**  
Cape Fear River, NC:

| No. | Waterway                 | Bridge Type            | Horizontal Clearance | Vertical Clearance                                 | Reference Plane |
|-----|--------------------------|------------------------|----------------------|--|-----------------|
| 26  | Mouth to mile 2.75       | Fixed or vertical Lift | 200 ft.              | 135 ft.  | Maximum HW      |
|     |                          | Swing or bascule       | 200 ft.              | 5 ft. (closed) railroad<br>40 ft. (closed) highway |                 |
| 26  | Mile 2.75 to Lanes Ferry | Fixed or vertical Lift | 60 ft.               | 50 ft,   | Maximum HW      |
|     |                          | Swing or bascule       | 60 ft.               | 5 ft. (closed)                                     |                 |

Source: <https://www.dco.uscg.mil/Our-Organization/Assistant-Commandant-for-Prevention-Policy-CG-5P/Marine-Transportation-Systems-CG-5PW/Office-of-Bridge-Programs/Bridge-Guide-Clearances/>

3. *Horizontal guide clearance;*

See Table 3 above.

4. *Vertical guide clearance;*

See Table 3 above.

5. *Do the proposed bridge(s) clearances differ from these guide clearances?*

Yes, the proposed bridge clearances differ from guide clearances in that they exceed the guidance for vertical clearances (unlimited in the open position and approximately 20 ft. in the closed position vs. the 5 ft. guidance for railroad bridges).

6. *If yes, what factors justify deviating from these guide clearances?*

The horizontal and vertical clearances for the proposed railroad bridge meets or exceeds the guidance for the Northeast (Cape Fear) River upstream of the proposed railroad bridge location.

**Q. Are there other natural or man-made conditions that affect navigation (atmospherics, exclusion zones, etc.)?**

There are no natural or man-made conditions that are known which affect navigation.

1. *Describe the conditions:*

The channel is maintained by USACE.

2. *What mitigative measure are being recommended? Why?*

None at this time.

**R. State any other factors considered necessary for the safe, efficient passage of vessels through the proposed bridge(s)? Are clearance gauges needed? Why?**

Fixed navigational lighting on the bridge to indicate channel perimeters. Clearance gauges should be used as a safety precaution. Information on the final bridge would be provided for inclusion in the US Coast Pilot and during construction through Notices to Mariners and other standard maritime information methods.

**S. Include a description of the impacts to navigation caused or which could be reasonably caused by the proposed bridge(s) including but not limited to: proposed or prospective changes to the existing bridge(s) operating schedule (for movable bridges), and any proposed mitigation to all unavoidable impacts to navigation.**

The proposed railroad bridge is not expected to cause any detrimental impacts to navigation.

The bridge type as contemplated for the purposes of this draft Navigation Impact Report is a moveable single leaf, single track bascule bridge.

Horizontal navigational clearances proposed are no more restrictive than existing structures upstream or the guidance from USCG for the Northeast (Cape Fear) River. The vertical navigation clearance of the bridge will be unlimited in the open position, and approximately 20 feet in the closed position.

The operating schedule for the proposed bridge is expected to mirror the operating schedule for the CSXT Hilton Bascule Bridge upstream which rests in the open position and closes as needed for train operations.

No mitigative efforts are being proposed since no unavoidable impacts to navigation have yet been identified.

**T. Is there any proposed or completed mitigation for impacted waterway users? Are there any impacts that cannot be mitigated?**

No impacts to waterway users have been identified as a result of the proposed bridge. Therefore, mitigation efforts are not proposed.

# **EXHIBIT A**

Conceptual Engineering Drawing for the  
Proposed Railroad Bridge

DRAFT



## **EXHIBIT B**

# NCDOT's Express Design Summary for the Replacement of the Cape Fear Memorial Bridge (US 74/76)

For the highest quality images, please visit:

<https://www.starnewsonline.com/news/20200514/4-options-chosen-for-wilmington-bridge-replacement>

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# **EXHIBIT C**

## Hydrographic Surveys

For highest quality river survey imaging, please visit:

<https://www.saw.usace.army.mil/Missions/Navigation/Hydrographic-Surveys/Wilmington-Harbor/>

See "ANCHORAGE BASIN" with survey date March 24, 2021 and select the PDF for survey south of the existing Cape Fear Memorial Bridge.

See "32 FOOT PROJECT SOUTH" with survey date March 15, 2021 and select the PDF for survey immediately south of the existing Cape Fear Memorial Bridge north to confluence of the Cape Fear River with the Northeast Cape Fear River.

See "32 FOOT PROJECT NORTH" with survey date March 15, 2021 and select the PDF for survey which covers the Northeast Cape Fear River from its confluence with the Cape Fear River to the CSXT Hilton Bascule Railroad Bridge.

See "25 FOOT PROJECT" with survey date October 26, 2020 and select the PDF for survey beginning near the north end of the existing CSXT Hilton Bascule Railroad Bridge.

## **EXHIBIT D**

Vessel Summary Compiled from 2019 AIS Data &  
Bridge Lift Log Data



| #  | MMSI      | Name                    | Type                   | Flag             | Length (ft) | Beam (ft) | Max Draft (ft) | CFMB Lifts | IHB Lifts | CFMB Transits | IHB Transits |
|----|-----------|-------------------------|------------------------|------------------|-------------|-----------|----------------|------------|-----------|---------------|--------------|
| 1  | 367362010 | CORPUS CHRISTI          | Articulated Pusher Tug | USA              | 604         | 72        | 31             | 2          | 2         | 1             | 1            |
| 2  | 538005779 | NAVIG8 AMESSI           | Tanker                 | Marshall Islands | 604         | 89        | 48             | 2          | 2         | 1             | 1            |
| 3  | 538005772 | NAVIG8 AMETHYST         | Tanker C               | Marshall Islands | 604         | 89        | 39             | 2          | 2*        | 1             | 1            |
| 4  | 538005775 | NAVIG8 ANDESINE         | Tanker B               | Marshall Islands | 604         | 89        | 38             | 2          | 2         | 1             | 1            |
| 5  | 369262000 | PAUL MCLERNAN           | Spare - Local Vessel   | USA              | 594         | 72        | 33             | 26         | 31        | 16            | 16           |
| 6  | 533051500 | BUNGA ANGSANA           | Oil / Chemical Tanker  | Malaysia         | 590         | 105       | 35             | 2          | 2         | 1             | 1            |
| 7  | 220480000 | BRITTA MAERSK           | Oil / Chemical Tanker  | Denmark          | 574         | 95        | 33             | 2          | 2         | 1             | 1            |
| 8  | 319155600 | ULRIKEN                 | Oil / Chemical Tanker  | Cayman Islands   | 571         | 89        | 38             | 2          | 2         | 1             | 1            |
| 9  | 369113000 | BARBARA CAROL ANN MORAN | Spare - Local Vessel   | USA              | 554         | 79        | 30             | 6          | 6         | 3             | 3            |
| 10 | 314444000 | CAROLUS MAGNUS          | Oil / Chemical Tanker  | Barbados         | 541         | 79        | 33             | 2          | 2         | 1             | 1            |
| 11 | 314445000 | ROSY                    | Oil / Chemical Tanker  | Barbados         | 538         | 75        | 33             | 2          | 2         | 1             | 1            |
| 12 | 255804340 | HARBOUR PIONEER         | Oil / Chemical Tanker  | Portugal         | 531         | 75        | 57             | 2          | 2         | 1             | 1            |
| 13 | 367115000 | LINDA LEE BOUCHARD      | Articulated Pusher Tug | USA              | 531         | 79        | 28             | 6          | 6         | 2             | 2            |
| 14 | 366843420 | SEA HAWK                | Spare - Local Vessel   | USA              | 531         | 72        | 31             | 14         | 15        | 11            | 11           |
| 15 | 368009000 | SCOTT TURECAMO          | Articulated Pusher Tug | USA              | 512         | 75        | 56             | 2          | 2*        | 1             | 1            |
| 16 | 636015074 | IVORY RAY               | Oil / Chemical Tanker  | Liberia          | 482         | 82        | 34             | 2          | 2         | 2             | 2            |
| 17 | 636016362 | CHEM ALTAMIRA           | Tanker                 | Liberia          | 476         | 79        | 33             | 2          | 2         | 1             | 1            |
| 18 | 564054000 | BRO ALMA                | Oil / Chemical Tanker  | Singapore        | 472         | 75        | 31             | 2          | 2         | 1             | 1            |
| 19 | 220495000 | BRO NIBE                | Oil / Chemical Tanker  | Denmark          | 472         | 75        | 30             | 2          | 2         | 1             | 1            |
| 20 | 636017426 | CHEM ANTARES            | Oil / Chemical Tanker  | Liberia          | 472         | 79        | 36             | 2          | 2         | 1             | 1            |
| 21 | 255804280 | HARBOUR FEATURE         | Oil / Chemical Tanker  | Portugal         | 472         | 75        | 43             | 2          | 2         | 2             | 2            |
| 22 | 249207000 | PATALYA                 | Oil / Chemical Tanker  | Malta            | 469         | 75        | 33             | 1          | 1*        | 1             | 1            |
| 23 | 367416750 | BLUE FIN                | Articulated Pusher Tug | USA              | 466         | 72        | 52             | 2          | 2         | 1             | 1            |
| 24 | 538005215 | CHEM AMSTERDAM          | Oil / Chemical Tanker  | Marshall Islands | 466         | 79        | 46             | 2          | 2         | 1             | 1            |
| 25 | 636015587 | GOLDEN RAY              | Oil / Chemical Tanker  | Liberia          | 466         | 79        | 34             | 2          | 2         | 1             | 1            |
| 26 | 367469290 | MAKO                    | Articulated Pusher Tug | USA              | 446         | 79        | 26             | 6          | 5         | 4             | 4            |
| 27 | 351778800 | CHEMBULK JAKARTA        | Oil / Chemical Tanker  | Panama           | 436         | 79        | NA             | 2          | 2         | 0             | 0            |
| 28 | 352182000 | HAIJILI                 | Oil / Chemical Tanker  | Panama           | 259         | 43        | 33             | 0          | 0         | 1             | 1            |
| 29 | 367438210 | INDEPENDENCE            | Passenger              | USA              | 213         | 46        | 8              | 0          | 0         | 2             | 0            |
| 30 | 367267000 | CG DILIGENCE            | Law Enforcement        | USA              | 210         | 30        | 31             | 7          | 0         | 3             | 0            |
| 31 | 367184740 | AMERICAN STAR           | Passenger              | USA              | 197         | 46        | 7              | 0          | 0         | 2             | 0            |

| #  | MMSI      | Name                 | Type                       | Flag           | Length (ft) | Beam (ft) | Max Draft (ft) | CFMB Lifts | IHB Lifts | CFMB Transits | IHB Transits |
|----|-----------|----------------------|----------------------------|----------------|-------------|-----------|----------------|------------|-----------|---------------|--------------|
| 32 | 369024000 | GRANDE MARINER       | Passenger                  | USA            | 184         | 43        | 7              | 0          | 0         | 1             | 0            |
| 33 | 369970571 | MURDEN               | Dredging or Underwater Ops | USA            | 164         | 66        | 6              | 0          | 0         | 1             | 0            |
| 34 | 338926428 | CGNATHAN BRUCKENTHAL | Law Enforcement            | USA            | 151         | 23        | 10             | 0          | 0         | 2             | 0            |
| 35 | 366929330 | CAPE HATTERAS        | Research / Survey Vessel   | USA            | 134         | 39        | 10             | 0          | 12        | 15            | 0            |
| 36 | 367126620 | CAPE HENRY           | Tug                        | USA            | 112         | 26        | 13             | 0          | 5         | 8             | 8            |
| 37 | 366909510 | MARGARET MCALLISTER  | Tug                        | USA            | 108         | 26        | 7              | 0          | 10        | 14            | 11           |
| 38 | 367553370 | PATRICK MCALLISTER   | Towing                     | USA            | 105         | 33        | 13             | 0          | 1         | 1             | 1            |
| 39 | 367384520 | ANNE JARRETT         | Reserved for future use    | USA            | 102         | 36        | 20             | 2          | 0         | 1             | 0            |
| 40 | 367199860 | MAURANIA 3           | Tug                        | USA            | 102         | 33        | 16             | 0          | 1         | 4             | 3            |
| 41 | 366962220 | CAPE CHARLES         | Tug                        | USA            | 98          | 23        | NA             | 0          | 15        | 15            | 15           |
| 42 | 367005850 | MISS ASHLEY          | Tug                        | USA            | 98          | 26        | 7              | 0          | 2         | 0             | 0            |
| 43 | 366377000 | TRANQUILITY          | Towing                     | USA            | 98          | NA        | 8              | 0          | 0         | 3             | 0            |
| 44 | 367126590 | CAPE HATTERAS        | Tug                        | USA            | 95          | 33        | 19             | 0          | 12        | 23            | 23           |
| 45 | 366922110 | DEACON               | Tug                        | USA            | 95          | 33        | NA             | 0          | 3         | 0             | 0            |
| 46 | 367667560 | SEA CRESCENT         | Tug                        | USA            | 95          | 26        | 26             | 0          | 0         | 1             | 0            |
| 47 | 367049160 | ERIN MCALLISTER      | Tug                        | USA            | 89          | 33        | 41             | 0          | 7         | 13            | 12           |
| 48 | 369970445 | MERRITT              | Dredging or Underwater Ops | USA            | 85          | 33        | 7              | 0          | 0         | 3             | 0            |
| 49 | 367642480 | CAMIE                | Tug                        | USA            | 75          | 26        | 8              | 0          | 0         | 1             | 0            |
| 50 | 367501840 | SUNNY POINT          | Other Type                 | USA            | 75          | 26        | NA             | 0          | 0         | 5             | 1            |
| 51 | 366939080 | MISS SHELBY          | Tug                        | USA            | 72          | 26        | 8              | 0          | 2         | 0             | 0            |
| 52 | 368077920 | RANGER               | Tug                        | USA            | 69          | 33        | 11             | 0          | 0         | 1             | 0            |
| 53 | 366961670 | CAPT LEROY           | Tug                        | USA            | 66          | 13        | NA             | 0          | 11        | 0             | 0            |
| 54 | 367712460 | R/V CAPE FEAR        | Other Type                 | USA            | 66          | 20        | NA             | 0          | 0         | 4             | 0            |
| 55 | 367044360 | CAPE FEAR            | Towing                     | USA            | 59          | 20        | NA             | 0          | 4         | 8             | 11           |
| 56 | 366959780 | PONCA                | Tug                        | USA            | 59          | 13        | NA             | 0          | 1         | 2             | 2            |
| 57 | 367666060 | CAPE FEAR PILOT 3    | Pilot Vessel               | USA            | 56          | 20        | NA             | 0          | 0         | 1             | 1            |
| 58 | 366996190 | ISLAND FOX           | Tug                        | USA            | 56          | 23        | 8              | 4          | 0         | 9             | 0            |
| 59 | 367473540 | ROYAL ENGINEER       | Towing                     | USA            | 52          | 26        | 8              | 3          | 2         | 13            | 1            |
| 60 | 319018500 | ASPEN ALTERNATIVE    | Yacht                      | Cayman Islands | 50          | 8         | 22.3           | 0          | 0         | 2             | 0            |
| 61 | 368068410 | SIRENUSE III         | Pleasure Craft             | USA            | 50          | 14        | NA             | 0          | 0         | 1             | 1            |
| 62 | 366816340 | CAPE FEAR PILOT 2    | Pilot Vessel               | USA            | 49          | 20        | NA             | 0          | 0         | 1             | 1            |
| 63 | 338019000 | CABERNET             | Pleasure Craft             | USA            | 47          | 10        | NA             | 0          | 0         | 2             | 0            |

| #  | MMSI      | Name               | Type              | Flag    | Length<br>(ft) | Beam<br>(ft) | Max<br>Draft (ft) | CFMB<br>Lifts | IHB<br>Lifts | CFMB<br>Transits | IHB<br>Transits |
|----|-----------|--------------------|-------------------|---------|----------------|--------------|-------------------|---------------|--------------|------------------|-----------------|
| 64 | 338115176 | BILL SLAYER        | Fishing           | USA     | 46             | 16           | NA                | 0             | 0            | 7                | 10              |
| 65 | 368059860 | M/V CAZADOR        | Pleasure Craft    | USA     | 37             | NA           | 3                 | 0             | 0            | 2                | 0               |
| 66 | 378353000 | & YACHT SCARLET    | Pleasure Craft    | BVI     | 34             | 16           | NA                | 0             | 0            | 1                | 0               |
| 67 | 367713690 | R/V SEAHAWK        | Other Type        | USA     | 34             | 12           | 3                 | 0             | 0            | 2                | 0               |
| 68 | 338222072 | EL DORADO          | Fishing           | USA     | 33             | 10           | NA                | 0             | 0            | 2                | 0               |
| 69 | 338179748 | OUTNUMBERED        | Pleasure Craft    | USA     | 31             | 6            | NA                | 0             | 0            | 1                | 0               |
| 70 | 367796330 | LETTAMELINA        | Pleasure Craft    | USA     | 30             | 8            | NA                | 0             | 0            | 5                | 0               |
| 71 | 367594960 | SOUTHERN BELLE     | Pleasure Craft    | USA     | 29             | 8            | 7.4               | 0             | 0            | 7                | 0               |
| 72 | 225988673 | NAO SANTA MARIA    | Pleasure Craft    | Spain   | 28             | 8            | NA                | 2             | 0            | 2                | 0               |
| 73 | 338097574 | SPREZZATURA        | Pleasure Craft    | USA     | 27             | 6            | NA                | 0             | 0            | 2                | 0               |
| 74 | 338926874 | CG26274            | Search and Rescue | USA     | 26             | 10           | 3                 | 0             | 0            | 1                | 0               |
| 75 | 367795830 | NEVER MY LOVE      | Pleasure Craft    | USA     | 26             | 7            | NA                | 0             | 0            | 2                | 0               |
| 76 | 369302000 | NEXT DEAL          | Pleasure Craft    | USA     | 26             | 4            | NA                | 0             | 0            | 1                | 1               |
| 77 | 338122714 | SEA MACK           | Pleasure Craft    | USA     | 25             | 7            | NA                | 0             | 0            | 2                | 2               |
| 78 | 369164000 | SWEETWATER         | Pleasure Craft    | USA     | 25             | 9            | NA                | 0             | 0            | 4                | 0               |
| 79 | 367654040 | POMBOO             | Pleasure Craft    | USA     | 23             | 8            | NA                | 0             | 0            | 2                | 0               |
| 80 | 368053030 | ANTARES            | Pleasure Craft    | USA     | 22             | 5            | NA                | 0             | 0            | 2                | 1               |
| 81 | 367695960 | BEST REVENGE       | Pleasure Craft    | USA     | 22             | 5            | NA                | 0             | 0            | 1                | 3               |
| 82 | 367643510 | DAMN NANCY         | Pleasure Craft    | USA     | 22             | 6            | NA                | 0             | 0            | 1                | 1               |
| 83 | 338108969 | GEM                | Pleasure Craft    | USA     | 22             | 6            | NA                | 0             | 0            | 2                | 0               |
| 84 | 338180788 | KNEE DEEP          | Pleasure Craft    | USA     | 21             | 7            | NA                | 0             | 0            | 3                | 0               |
| 85 | 211811860 | YES                | Pleasure Craft    | Germany | 21             | 6            | 3.8               | 0             | 0            | 2                | 0               |
| 86 | 338223978 | G FORCE            | Pleasure Craft    | USA     | 20             | 5            | NA                | 0             | 0            | 1                | 0               |
| 87 | 338301061 | JOLLY MON III      | Pleasure Craft    | USA     | 20             | 6            | NA                | 0             | 0            | 4                | 0               |
| 88 | 338330064 | ROBINS NEST        | Pleasure Craft    | USA     | 20             | 5            | NA                | 0             | 0            | 2                | 2               |
| 89 | 338324416 | SOMERSET           | Pleasure Craft    | USA     | 20             | 5            | NA                | 0             | 0            | 1                | 0               |
| 90 | 338330523 | FAMILY TRADITION   | Pleasure Craft    | USA     | 19             | 6            | NA                | 0             | 0            | 6                | 5               |
| 91 | 338076478 | NORTH STAR II      | Pleasure Craft    | USA     | 19             | 6            | 2                 | 0             | 0            | 2                | 0               |
| 92 | 339759000 | ZARPE              | Pleasure Craft    | Jamaica | 19             | 6            | 2                 | 0             | 0            | 1                | 0               |
| 93 | 338082472 | APAISER            | Pleasure Craft    | USA     | 18             | 5            | 1.6               | 0             | 0            | 1                | 0               |
| 94 | 367747760 | FAST BETTY         | Pleasure Craft    | USA     | 18             | 6            | NA                | 0             | 0            | 2                | 1               |
| 95 | 367094530 | FREE RANGE CHICKEN | Sailing           | USA     | 18             | 5            | NA                | 3             | 3            | 2                | 2               |

| #   | MMSI      | Name                | Type           | Flag   | Length (ft) | Beam (ft) | Max Draft (ft) | CFMB Lifts | IHB Lifts | CFMB Transits | IHB Transits |
|-----|-----------|---------------------|----------------|--------|-------------|-----------|----------------|------------|-----------|---------------|--------------|
| 96  | 338209811 | M/Y SEA CHANGE      | Pleasure Craft | USA    | 18          | 6         | NA             | 0          | 0         | 4             | 1            |
| 97  | 338207029 | PHANTHOM            | Pleasure Craft | USA    | 18          | 6         | NA             | 0          | 0         | 2             | 2            |
| 98  | 338177776 | SIDEKICK            | Pleasure Craft | USA    | 18          | 6         | NA             | 0          | 0         | 2             | 0            |
| 99  | 366897460 | ALLY DEE            | Pleasure Craft | USA    | 17          | 6         | NA             | 0          | 0         | 1             | 1            |
| 100 | 368001660 | CONSULTING TIME III | Pleasure Craft | USA    | 17          | 6         | NA             | 0          | 0         | 1             | 1            |
| 101 | 338205762 | JEN EM              | Pleasure Craft | USA    | 17          | 5         | NA             | 0          | 0         | 2             | 2            |
| 102 | 338304133 | JOURNEY             | Pleasure Craft | USA    | 17          | 7         | NA             | 0          | 0         | 3             | 0            |
| 103 | 368055780 | KALLIOPE            | Sailing        | USA    | 17          | 5         | NA             | 0          | 0         | 1             | 1            |
| 104 | 338204565 | KARINE              | Pleasure Craft | USA    | 17          | 4         | NA             | 0          | 0         | 1             | 1            |
| 105 | 338090282 | LAST CHANCE         | Pleasure Craft | USA    | 17          | 6         | NA             | 0          | 0         | 1             | 0            |
| 106 | 367637640 | MOONLIGHT           | Sailing        | USA    | 17          | 6         | NA             | 0          | 0         | 2             | 0            |
| 107 | 338323386 | NAUTICAL DREAMER    | Pleasure Craft | USA    | 17          | 5         | NA             | 0          | 0         | 2             | 0            |
| 108 | 338303156 | PERFEITA            | Pleasure Craft | USA    | 17          | 5         | NA             | 0          | 0         | 2             | 2            |
| 109 | 338328718 | ALANI               | Pleasure Craft | USA    | 16          | 8         | NA             | 2          | 3         | 2             | 0            |
| 110 | 367728450 | BRANDY              | Pleasure Craft | USA    | 16          | 6         | 4              | 0          | 0         | 2             | 0            |
| 111 | 367766370 | CLARITY             | Sailing        | USA    | 16          | 8         | NA             | 1          | 0         | 1             | 0            |
| 112 | 338338074 | FIREFLY             | Pleasure Craft | USA    | 16          | 8         | NA             | 4          | 0         | 4             | 0            |
| 113 | 367713280 | SALT N LIGHT        | Pleasure Craft | USA    | 16          | 6         | NA             | 0          | 0         | 4             | 4            |
| 114 | 367585630 | SPIRIT              | Pleasure Craft | USA    | 16          | 6         | NA             | 0          | 0         | 2             | 2            |
| 115 | 367768550 | TO THE MAX          | Pleasure Craft | USA    | 16          | 6         | NA             | 0          | 0         | 3             | 3            |
| 116 | 338237526 | VOYAGER             | Sailing        | USA    | 16          | 8         | NA             | 0          | 1         | 1             | 1            |
| 117 | 367765830 | BLUEMOON            | Pleasure Craft | USA    | 15          | 6         | NA             | 0          | 0         | 1             | 0            |
| 118 | 368086640 | BLUEMOON            | Pleasure Craft | USA    | 15          | 6         | NA             | 0          | 0         | 1             | 0            |
| 119 | 367664250 | DELFINA             | Sailing        | USA    | 15          | 4         | NA             | 0          | 2         | 2             | 2            |
| 120 | 338304806 | DIFFERENT DRUMMER   | Pleasure Craft | USA    | 15          | 5         | NA             | 0          | 0         | 3             | 0            |
| 121 | 338180905 | ESCAPE              | Pleasure Craft | USA    | 15          | 5         | NA             | 0          | 0         | 1             | 0            |
| 122 | 367464120 | FIVE O CLOCK        | Pleasure Craft | USA    | 15          | 5         | NA             | 0          | 0         | 1             | 0            |
| 123 | 338183911 | FOREVER YOUNG       | Pleasure Craft | USA    | 15          | 5         | NA             | 0          | 0         | 12            | 5            |
| 124 | 367530680 | FULL MONTY          | Sailing        | USA    | 15          | 8         | NA             | 2          | 1         | 2             | 2            |
| 125 | 338152546 | GS LOLLIPOP IV      | Pleasure Craft | USA    | 15          | 5         | NA             | 0          | 0         | 4             | 0            |
| 126 | 367663260 | LECHEILE            | Pleasure Craft | USA    | 15          | 4         | NA             | 0          | 0         | 1             | 0            |
| 127 | 316040216 | LES VOGUER          | Pleasure Craft | Canada | 15          | 6         | 1.8            | 0          | 0         | 2             | 0            |

| #   | MMSI      | Name              | Type           | Flag           | Length (ft) | Beam (ft) | Max Draft (ft) | CFMB Lifts | IHB Lifts | CFMB Transits | IHB Transits |
|-----|-----------|-------------------|----------------|----------------|-------------|-----------|----------------|------------|-----------|---------------|--------------|
| 128 | 338350963 | LILY GRACE        | Pleasure Craft | USA            | 15          | 4         | NA             | 0          | 0         | 3             | 2            |
| 129 | 211705870 | LULLABYE          | Pleasure Craft | Germany        | 15          | 5         | NA             | 0          | 0         | 1             | 1            |
| 130 | 338144808 | MADRINE           | Pleasure Craft | USA            | 15          | 3         | NA             | 0          | 0         | 2             | 0            |
| 131 | 367502860 | MARCO POLO        | Sailing        | USA            | 15          | 4         | NA             | 0          | 0         | 6             | 0            |
| 132 | 366834110 | PACHIS            | Pleasure Craft | USA            | 15          | 5         | 1.5            | 0          | 0         | 2             | 0            |
| 133 | 368073970 | PAPILLON          | Pleasure Craft | USA            | 15          | 6         | NA             | 0          | 0         | 2             | 0            |
| 134 | 368100490 | PAWSEIDON         | Pleasure Craft | USA            | 15          | 4         | NA             | 0          | 0         | 1             | 0            |
| 135 | 338205733 | AHULLYACHTAFUN    | Pleasure Craft | USA            | 14          | 6         | NA             | 0          | 0         | 4             | 0            |
| 136 | 338230775 | DON'T THINK TWICE | Pleasure Craft | USA            | 14          | 6         | NA             | 0          | 0         | 2             | 0            |
| 137 | 338328525 | FARMER'S RETREAT  | Pleasure Craft | USA            | 14          | 5         | NA             | 0          | 0         | 2             | 0            |
| 138 | 367688590 | FOXHOLE           | Pleasure Craft | USA            | 14          | 6         | NA             | 0          | 0         | 2             | 0            |
| 139 | 338338916 | INDIGO II         | Pleasure Craft | USA            | 14          | 6         | NA             | 0          | 6         | 1             | 1            |
| 140 | 338236607 | INTEGRITY         | Pleasure Craft | USA            | 14          | 4         | NA             | 0          | 0         | 1             | 0            |
| 141 | 338334548 | KINVARA II        | Pleasure Craft | USA            | 14          | 6         | NA             | 0          | 0         | 2             | 0            |
| 142 | 367155120 | KOHINA            | Sailing        | USA            | 14          | 6         | NA             | 0          | 0         | 4             | 0            |
| 143 | 368009980 | LUSCA             | Pleasure Craft | USA            | 14          | 7         | NA             | 0          | 0         | 3             | 0            |
| 144 | 211770800 | NOMAD             | Pleasure Craft | Germany        | 14          | 5         | NA             | 0          | 0         | 2             | 0            |
| 145 | 367797070 | PAPIANA           | Sailing        | USA            | 14          | 9         | NA             | 2          | 0         | 2             | 0            |
| 146 | 368037470 | REMEDY            | Sailing        | USA            | 14          | 8         | NA             | 0          | 0         | 2             | 0            |
| 147 | 232012541 | SAUL GOODMAN      | Pleasure Craft | United Kingdom | 14          | 8         | NA             | 0          | 0         | 2             | 0            |
| 148 | 368110860 | SEASCAPE          | Sailing        | USA            | 14          | 8         | NA             | 0          | 0         | 1             | 1            |
| 149 | 338328994 | STARDUST          | Pleasure Craft | USA            | 14          | 4         | NA             | 0          | 0         | 4             | 2            |
| 150 | 368077930 | SUNDANCE          | Pleasure Craft | USA            | 14          | 6         | NA             | 0          | 4         | 2             | 0            |
| 151 | 368060350 | 360 DEGREES       | Sailing        | USA            | 13          | 8         | NA             | 2          | 0         | 2             | 0            |
| 152 | 367649140 | AN ALARC H        | Sailing        | USA            | 13          | 5         | NA             | 0          | 0         | 1             | 0            |
| 153 | 368116150 | AS YOU WISH       | Sailing        | USA            | 13          | 8         | NA             | 2          | 0         | 1             | 0            |
| 154 | 367462710 | BUMPER CROP       | Pleasure Craft | USA            | 13          | 4         | NA             | 0          | 0         | 1             | 0            |
| 155 | 316029431 | DAGNY             | Sailing        | USA            | 13          | 4         | NA             | 2          | 0         | 1             | 0            |
| 156 | 367596430 | ESCAPADE          | Pleasure Craft | USA            | 13          | 5         | NA             | 0          | 0         | 1             | 1            |
| 157 | 316028384 | FALCO             | Pleasure Craft | Canada         | 13          | 4         | NA             | 0          | 1         | 1             | 0            |
| 158 | 368048370 | GABRIELLA         | Sailing        | USA            | 13          | 4         | NA             | 0          | 0         | 2             | 0            |
| 159 | 367794240 | GIRO              | Sailing        | USA            | 13          | 8         | NA             | 0          | 1         | 2             | 2            |

| #   | MMSI      | Name             | Type           | Flag   | Length (ft) | Beam (ft) | Max Draft (ft) | CFMB Lifts | IHB Lifts | CFMB Transits | IHB Transits |
|-----|-----------|------------------|----------------|--------|-------------|-----------|----------------|------------|-----------|---------------|--------------|
| 160 | 338310059 | MISTY            | Pleasure Craft | USA    | 13          | 4         | NA             | 0          | 0         | 2             | 0            |
| 161 | 368077210 | OHANA KAI        | Pleasure Craft | USA    | 13          | 8         | NA             | 1          | 0         | 1             | 0            |
| 162 | 367758330 | PANORAMA         | Sailing        | USA    | 13          | 7         | NA             | 0          | 0         | 1             | 0            |
| 163 | 338126999 | PIPER CLEMENTINE | Pleasure Craft | USA    | 13          | 4         | NA             | 0          | 0         | 1             | 0            |
| 164 | 338325114 | PURA VIDA        | Pleasure Craft | USA    | 13          | 4         | NA             | 0          | 0         | 5             | 5            |
| 165 | 338336795 | RHAPSODY         | Pleasure Craft | USA    | 13          | 4         | NA             | 0          | 0         | 2             | 0            |
| 166 | 367033160 | SATORI           | Sailing        | USA    | 13          | 4         | NA             | 0          | 0         | 1             | 0            |
| 167 | 368009970 | SOLMATES         | Sailing        | USA    | 13          | 3         | NA             | 0          | 0         | 1             | 0            |
| 168 | 367671250 | TERANGA          | Sailing        | USA    | 13          | 4         | NA             | 0          | 1         | 2             | 1            |
| 169 | 338232498 | WATERLILY        | Pleasure Craft | USA    | 13          | 5         | NA             | 0          | 0         | 1             | 0            |
| 170 | 265695350 | ZIROCCO          | Sailing        | Sweden | 13          | 4         | NA             | 0          | 1         | 2             | 1            |
| 171 | 338324168 | ALYSANA          | Pleasure Craft | USA    | 12          | 4         | NA             | 0          | 0         | 2             | 2            |
| 172 | 368052750 | AMAROK           | Pleasure Craft | USA    | 12          | 4         | NA             | 0          | 0         | 2             | 0            |
| 173 | 369044000 | JULE III         | Sailing        | USA    | 12          | 4         | NA             | 0          | 0         | 2             | 0            |
| 174 | 338324601 | JULE OF THE SEA  | Sailing        | USA    | 12          | 4         | NA             | 0          | 0         | 2             | 0            |
| 175 | 367638350 | LA BELLA VITA    | Sailing        | USA    | 12          | 6         | NA             | 0          | 0         | 9             | 0            |
| 176 | 316026363 | MIGRATOR 1       | Pleasure Craft | Canada | 12          | 4         | NA             | 0          | 0         | 1             | 0            |
| 177 | 338324433 | SEA EAGLE        | Pleasure Craft | USA    | 12          | 4         | NA             | 0          | 0         | 1             | 0            |
| 178 | 338205201 | STELLA           | Pleasure Craft | USA    | 12          | 4         | NA             | 0          | 0         | 2             | 0            |
| 179 | 338186597 | TRAVELER         | Pleasure Craft | USA    | 12          | 4         | NA             | 0          | 0         | 2             | 2            |
| 180 | 367066460 | TWOCAN           | Pleasure Craft | USA    | 12          | 4         | NA             | 0          | 0         | 1             | 0            |
| 181 | 367753190 | WAXY             | Sailing        | USA    | 12          | 4         | NA             | 0          | 0         | 2             | 0            |
| 182 | 367655360 | ANCON            | Pleasure Craft | USA    | 11          | 4         | NA             | 0          | 0         | 2             | 0            |
| 183 | 338240807 | GUMP STUMP       | Pleasure Craft | USA    | 11          | 4         | NA             | 0          | 0         | 2             | 0            |
| 184 | 338096053 | YAWATEG          | Sailing        | USA    | 11          | 3         | NA             | 0          | 1         | 1             | 1            |
| 185 | 316027819 | ALTERA           | Sailing        | Canada | 10          | 4         | NA             | 0          | 2         | 1             | 0            |
| 186 | 338125806 | MARADEL          | Pleasure Craft | USA    | 10          | 4         | NA             | 0          | 0         | 2             | 0            |
| 187 | 367452320 | QUINITA          | Sailing        | USA    | 10          | 6         | NA             | 0          | 0         | 1             | 0            |
| 188 | 368045070 | LAST TANGO       | Pleasure Craft | USA    | 9           | 4         | NA             | 0          | 0         | 2             | 0            |
| 189 | 368069690 | SEA SHANTY       | Pleasure Craft | USA    | 9           | 3         | NA             | 0          | 0         | 2             | 0            |
| 190 | 367683680 | CAPT HENRY RAY   | Not Available  | USA    | 8           | 4         | NA             | 0          | 0         | 2             | 2            |
| 191 | 338332418 | STARDUST         | Pleasure Craft | USA    | 8           | 4         | NA             | 0          | 0         | 1             | 0            |

| #   | MMSI      | Name            | Type                  | Flag   | Length (ft) | Beam (ft) | Max Draft (ft) | CFMB Lifts | IHB Lifts | CFMB Transits | IHB Transits |
|-----|-----------|-----------------|-----------------------|--------|-------------|-----------|----------------|------------|-----------|---------------|--------------|
| 192 | NA        | ARGONAUT        | Sailing               | NA     | NA          | NA        | NA             | 0          | 1         | 0             | 0            |
| 193 | NA        | ATC 21          | Barge (non-propelled) | NA     | NA          | NA        | NA             | 0          | 4         | 0             | 0            |
| 194 | NA        | AVENTYR         | Sailing               | NA     | NA          | NA        | NA             | 2          | 3         | 0             | 0            |
| 195 | 366950440 | BAYOU BRAVE     | Tug                   | USA    | NA          | NA        | NA             | 0          | 4         | 3             | 3            |
| 196 | 368094510 | BELLE           | Pleasure Craft        | USA    | NA          | NA        | NA             | 0          | 0         | 1             | 1            |
| 197 | NA        | BIG EZ          | Sailing               | NA     | NA          | NA        | NA             | 3          | 3         | 0             | 0            |
| 198 | NA        | BISHOP III      | Sailing               | NA     | NA          | NA        | NA             | 1          | 1         | 0             | 0            |
| 199 | NA        | BRAVEHEART      | Sailing               | NA     | NA          | NA        | NA             | 0          | 1         | 0             | 0            |
| 200 | NA        | CALLIOPI        | Sailing               | NA     | NA          | NA        | NA             | 0          | 1         | 0             | 0            |
| 201 | NA        | CARDUFF         | Sailing               | NA     | NA          | NA        | NA             | 0          | 2         | 0             | 0            |
| 202 | NA        | CARIBBEAN DREAM | Sailing               | NA     | NA          | NA        | NA             | 1          | 2         | 0             | 0            |
| 203 | 367444230 | CAROLINA GIRL   | Pleasure Craft        | USA    | NA          | NA        | NA             | 2          | 3         | 2             | 2            |
| 204 | NA        | CHRISTABEL I    | Sailing               | NA     | NA          | NA        | NA             | 0          | 1         | 0             | 0            |
| 205 | NA        | CORDILIA        | Sailing               | NA     | NA          | NA        | NA             | 0          | 1         | 0             | 0            |
| 206 | NA        | COVERED         | Sailing               | NA     | NA          | NA        | NA             | 0          | 3         | 0             | 0            |
| 207 | NA        | DAGNY           | Sailing               | NA     | NA          | NA        | NA             | 2          | 0         | 0             | 0            |
| 208 | NA        | DAYO            | Sailing               | NA     | NA          | NA        | NA             | 5          | 5         | 0             | 0            |
| 209 | NA        | DURANGO         | Sailing               | NA     | NA          | NA        | NA             | 0          | 1         | 0             | 0            |
| 210 | NA        | ELUSIVE         | Sailing               | NA     | NA          | NA        | NA             | 0          | 1         | 0             | 0            |
| 211 | NA        | ENDAXY          | Sailing               | NA     | NA          | NA        | NA             | 0          | 1         | 0             | 0            |
| 212 | NA        | EYRA            | Sailing               | NA     | NA          | NA        | NA             | 0          | 7         | 0             | 0            |
| 213 | NA        | FAIR WIND       | Sailing               | NA     | NA          | NA        | NA             | 1          | 0         | 0             | 0            |
| 214 | NA        | FAT CAT         | Sailing               | NA     | NA          | NA        | NA             | 0          | 1         | 0             | 0            |
| 215 | NA        | FORMONA         | Sailing               | NA     | NA          | NA        | NA             | 0          | 1         | 0             | 0            |
| 216 | NA        | FRESH BREEZE    | Sailing               | NA     | NA          | NA        | NA             | 0          | 1         | 0             | 0            |
| 217 | NA        | JADE            | Sailing               | NA     | NA          | NA        | NA             | 1          | 2         | 0             | 0            |
| 218 | 368072130 | JOURNEY ON      | Pleasure Craft        | USA    | NA          | NA        | NA             | 0          | 0         | 2             | 0            |
| 219 | NA        | KATMANDU        | Sailing               | NA     | NA          | NA        | NA             | 1          | 2         | 0             | 0            |
| 220 | NA        | KEEL JOY        | Sailing               | NA     | NA          | NA        | NA             | 0          | 2         | 0             | 0            |
| 221 | 316029052 | KING AND I      | Pleasure Craft        | Canada | NA          | NA        | NA             | 0          | 0         | 2             | 0            |
| 222 | NA        | KUDU            | Sailing               | NA     | NA          | NA        | NA             | 0          | 1         | 0             | 0            |
| 223 | NA        | LANDSCAPE       | Sailing               | NA     | NA          | NA        | NA             | 1          | 3         | 0             | 0            |

| #   | MMSI      | Name                   | Type                  | Flag | Length (ft) | Beam (ft) | Max Draft (ft) | CFMB Lifts | IHB Lifts | CFMB Transits | IHB Transits |
|-----|-----------|------------------------|-----------------------|------|-------------|-----------|----------------|------------|-----------|---------------|--------------|
| 224 | NA        | LATITUDE               | Sailing               | NA   | NA          | NA        | NA             | 1          | 0         | 0             | 0            |
| 225 | NA        | LEAWARD                | Sailing               | NA   | NA          | NA        | NA             | 1          | 0         | 0             | 0            |
| 226 | NA        | LOANA                  | Sailing               | NA   | NA          | NA        | NA             | 0          | 1         | 0             | 0            |
| 227 | NA        | LOUISIANA              | Barge (non-propelled) | NA   | NA          | NA        | NA             | 0          | 4         | 0             | 0            |
| 228 | NA        | LOURANNE               | Sailing               | NA   | NA          | NA        | NA             | 0          | 1         | 0             | 0            |
| 229 | 338314632 | LOVELY LADY            | Pleasure Craft        | USA  | NA          | NA        | NA             | 0          | 0         | 3             | 0            |
| 230 | NA        | MA CHERIE              | Sailing               | NA   | NA          | NA        | NA             | 0          | 3         | 0             | 0            |
| 231 | NA        | MAIA                   | Sailing               | NA   | NA          | NA        | NA             | 0          | 2         | 0             | 0            |
| 232 | NA        | MARBELLA               | Sailing               | NA   | NA          | NA        | NA             | 0          | 1         | 0             | 0            |
| 233 | NA        | MARI'S LEONARDO        | Sailing               | NA   | NA          | NA        | NA             | 0          | 2         | 0             | 0            |
| 234 | NA        | MARY DOLL              | Sailing               | NA   | NA          | NA        | NA             | 1          | 1         | 0             | 0            |
| 235 | NA        | MERYGOLD               | Sailing               | NA   | NA          | NA        | NA             | 0          | 1         | 0             | 0            |
| 236 | NA        | MIAHA                  | Sailing               | NA   | NA          | NA        | NA             | 0          | 1         | 0             | 0            |
| 237 | 367192120 | MIGRATION              | Pleasure Craft        | USA  | NA          | NA        | NA             | 0          | 0         | 2             | 2            |
| 238 | NA        | MOODY                  | Sailing               | NA   | NA          | NA        | NA             | 0          | 1         | 0             | 0            |
| 239 | 368080840 | MOONPEARL              | Pleasure Craft        | USA  | NA          | NA        | NA             | 0          | 2         | 2             | 0            |
| 240 | NA        | MOONRAKER              | Sailing               | NA   | NA          | NA        | NA             | 0          | 1         | 0             | 0            |
| 241 | NA        | MUOI                   | Sailing               | NA   | NA          | NA        | NA             | 1          | 0         | 0             | 0            |
| 242 | 367384540 | NA                     | NA                    | NA   | NA          | NA        | NA             | 0          | 0         | 1             | 1            |
| 243 | 367545660 | NA                     | NA                    | NA   | NA          | NA        | NA             | 0          | 0         | 1             | 1            |
| 244 | 338153674 | NA                     | NA                    | NA   | NA          | NA        | NA             | 0          | 0         | 1             | 1            |
| 245 | NA        | NC E197 WLM            | Sailing               | NA   | NA          | NA        | NA             | 0          | 1         | 0             | 0            |
| 246 | NA        | NESUS                  | Sailing               | NA   | NA          | NA        | NA             | 2          | 0         | 0             | 0            |
| 247 | NA        | NINA                   | Sailing               | NA   | NA          | NA        | NA             | 2          | 0         | 0             | 0            |
| 248 | NA        | PAU HANA               | Sailing               | NA   | NA          | NA        | NA             | 1          | 0         | 0             | 0            |
| 249 | NA        | PEACE LOVE & HAPPINESS | Sailing               | NA   | NA          | NA        | NA             | 0          | 2         | 0             | 0            |
| 250 | 368011570 | PHOENIX                | Sailing               | USA  | NA          | NA        | NA             | 0          | 0         | 2             | 0            |
| 251 | NA        | PIECES                 | Sailing               | NA   | NA          | NA        | NA             | 0          | 1         | 0             | 0            |
| 252 | NA        | PL&S                   | Sailing               | NA   | NA          | NA        | NA             | 0          | 1         | 0             | 0            |
| 253 | NA        | QUEST                  | Sailing               | NA   | NA          | NA        | NA             | 0          | 7         | 0             | 0            |
| 254 | NA        | REMANI                 | Sailing               | NA   | NA          | NA        | NA             | 1          | 0         | 0             | 0            |
| 255 | NA        | ROCKIN ROBBIN          | Sailing               | NA   | NA          | NA        | NA             | 1          | 1         | 0             | 0            |



| #   | MMSI      | Name           | Type                | Flag | Length (ft) | Beam (ft) | Max Draft (ft) | CFMB Lifts | IHB Lifts | CFMB Transits | IHB Transits |
|-----|-----------|----------------|---------------------|------|-------------|-----------|----------------|------------|-----------|---------------|--------------|
| 256 | 338224804 | SCALIWAG       | Pleasure Craft      | USA  | NA          | NA        | NA             | 0          | 0         | 1             | 0            |
| 257 | NA        | SEA COW        | Sailing             | NA   | NA          | NA        | NA             | 1          | 1         | 0             | 0            |
| 258 | NA        | SEA TOW 10     | Commercial / Towing | NA   | NA          | NA        | NA             | 0          | 1         | 0             | 0            |
| 259 | NA        | SEAS THE DAY   | Sailing             | NA   | NA          | NA        | NA             | 0          | 1         | 0             | 0            |
| 260 | NA        | SIRICO         | Sailing             | NA   | NA          | NA        | NA             | 1          | 0         | 0             | 0            |
| 261 | 338154994 | SMOOTH         | Pleasure Craft      | USA  | NA          | NA        | NA             | 0          | 0         | 5             | 0            |
| 262 | NA        | SOUTHERN CHARM | Commercial          | NA   | NA          | NA        | NA             | 0          | 2         | 0             | 0            |
| 263 | NA        | SQIRIGA        | Sailing             | NA   | NA          | NA        | NA             | 1          | 0         | 0             | 0            |
| 264 | NA        | STORMY MONDAY  | Sailing             | NA   | NA          | NA        | NA             | 0          | 1         | 0             | 0            |
| 265 | NA        | SUBLIME        | Sailing             | NA   | NA          | NA        | NA             | 1          | 1         | 0             | 0            |
| 266 | NA        | THREE JESTERS  | Sailing             | NA   | NA          | NA        | NA             | 0          | 1         | 0             | 0            |
| 267 | NA        | TOW BOAT US    | Commercial / Towing | NA   | NA          | NA        | NA             | 0          | 4         | 0             | 0            |
| 268 | NA        | TWO GRAND      | Sailing             | NA   | NA          | NA        | NA             | 0          | 1         | 0             | 0            |
| 269 | 338173625 | VA BENE        | Sailing             | USA  | NA          | NA        | NA             | 2          | 0         | 2             | 0            |
| 270 | NA        | VERRICCO       | Sailing             | NA   | NA          | NA        | NA             | 1          | 0         | 0             | 0            |
| 271 | NA        | VISION III     | Sailing             | NA   | NA          | NA        | NA             | 1          | 1         | 0             | 0            |
| 272 | NA        | VIVID          | Sailing             | NA   | NA          | NA        | NA             | 0          | 1         | 0             | 0            |
| 273 | NA        | VOYAGER        | Sailing             | NA   | NA          | NA        | NA             | 0          | 1         | 0             | 0            |
| 274 | NA        | WALLFLOWER     | Sailing             | NA   | NA          | NA        | NA             | 1          | 0         | 0             | 0            |
| 275 | NA        | WATER SONG     | Sailing             | NA   | NA          | NA        | NA             | 0          | 2         | 0             | 0            |
| 276 | NA        | WHITE DREAM    | Sailing             | NA   | NA          | NA        | NA             | 1          | 0         | 0             | 0            |
| 277 | NA        | WHITE LOTUS    | Sailing             | NA   | NA          | NA        | NA             | 0          | 1         | 0             | 0            |
| 278 | 367721980 | WONCE MORE     | Pleasure Craft      | USA  | NA          | NA        | 6              | 0          | 0         | 1             | 0            |
| 279 | NA        | Y DREAM        | Sailing             | NA   | NA          | NA        | NA             | 0          | 2         | 0             | 0            |

Notes:

\*Fields updated per counsel from Cape Fear River Pilots Association and other precedents in the dataset. See Exhibit E for information related to AIS.

# **EXHIBIT E**

## **Automatic Identification System (AIS) Information**

The automatic identification system (AIS) is an automatic tracking system that uses transceivers on vessels to track their positions to enable safer navigation and enhance reporting. AIS data is available to the public and is advertised for use for planning purposes. With tools and assistance from MarineCadastre.gov the AIS data can be used to display vessel traffic characteristics and frequencies.

For the purposes of this report, the last full year of available AIS data was used which was 2019.

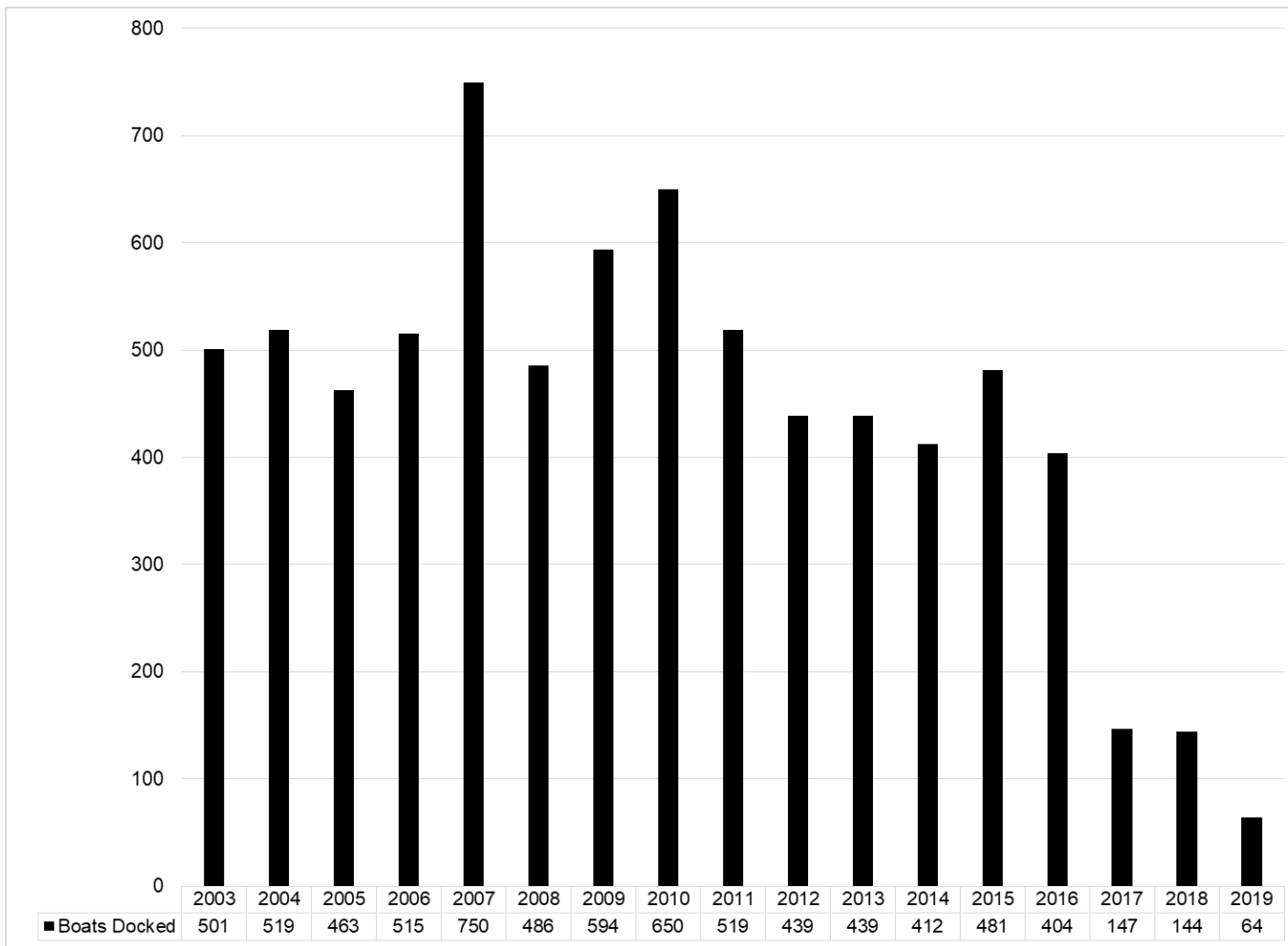
Use of AIS data in assessing recreational and commercial waterway usage is fitting given the requirements set forth in Code of Federal Regulations, Title 33 § 164.01(b) which, in summary, require AIS carriage on the following vessels:

- A self-propelled vessel of 65 feet or more in length, engaged in commercial service.
- A towing vessel of 26 feet or more in length and more than 600 horsepower, engaged in commercial service.
- A self-propelled vessel that is certificated to carry more than 150 passengers.
- A self-propelled vessel that carries less than 150 passengers, does not operate in a Vessel Traffic Service or Vessel Movement Reporting System area defined in Table 161.12(c) of § 161.12, and does not operate at speeds in excess of 14 knots.
- A self-propelled vessel engaged in dredging operations in or near a commercial channel or shipping fairway in a manner likely to restrict or affect navigation of other vessels.
- A self-propelled vessel engaged in the movement of (1) certain dangerous cargo as defined in subpart C of part 160 of this chapter, or (2) flammable or combustible liquid cargo in bulk that is listed in 46 CFR 30.25–1, Table 30.25–1.
- Fishing industry vessels

Source: <https://www.navcen.uscg.gov/?pageName=AISRequirementsRev>  
Title 33, Code of Federal Regulations Section 164

# **EXHIBIT F**

## City of Wilmington Facilities Docking Usage Statistics 2003 – 2019



# EXHIBIT G

## USACE 2019 Cargo & Trip Reports Northeast (Cape Fear) River, NC

2019 Trips Report (Excerpt)

| Draft (ft) | All Traffic Types |          |           | Self-Propelled Tanker |          |           | Self-Propelled Towboat |          |           | Non-Self-Propelled Tanker Liquid Barge |          |           |
|------------|-------------------|----------|-----------|-----------------------|----------|-----------|------------------------|----------|-----------|--|----------|-----------|
|            | Total             | Receipts | Shipments | Total                 | Receipts | Shipments | Total                  | Receipts | Shipments | Total                                  | Receipts | Shipments |
| 0          | 133               | 68       | 65        | 39                    | 19       | 20        | 39                     | 20       | 19        | 51                                     | 28       | 23        |
| 7          | 58                | 27       | 31        | 0                     | 0        | 0         | 36                     | 17       | 19        | 22                                     | 10       | 12        |
| 9          | 3                 | 1        | 2         | 0                     | 0        | 0         | 0                      | 0        | 0         | 0                                      | 0        | 0         |
| 10         | 2                 | 1        | 1         | 0                     | 0        | 0         | 0                      | 0        | 0         | 2                                      | 1        | 1         |
| 14         | 15                | 8        | 7         | 1                     | 0        | 1         | 0                      | 0        | 0         | 14                                     | 8        | 6         |
| 15         | 5                 | 3        | 2         | 5                     | 3        | 2         | 0                      | 0        | 0         | 0                                      | 0        | 0         |
| 16         | 5                 | 4        | 1         | 0                     | 0        | 0         | 3                      | 3        | 0         | 2                                      | 1        | 1         |
| 17         | 2                 | 1        | 1         | 2                     | 1        | 1         | 0                      | 0        | 0         | 0                                      | 0        | 0         |
| 18         | 1                 | 0        | 1         | 1                     | 0        | 1         | 0                      | 0        | 0         | 0                                      | 0        | 0         |
| 19         | 1                 | 1        | 0         | 0                     | 0        | 0         | 0                      | 0        | 0         | 1                                      | 1        | 0         |
| 20         | 2                 | 2        | 0         | 2                     | 2        | 0         | 0                      | 0        | 0         | 0                                      | 0        | 0         |
| 21         | 5                 | 1        | 4         | 4                     | 0        | 4         | 0                      | 0        | 0         | 1                                      | 1        | 0         |
| 22         | 1                 | 1        | 0         | 1                     | 1        | 0         | 0                      | 0        | 0         | 0                                      | 0        | 0         |
| 23         | 3                 | 3        | 0         | 2                     | 2        | 0         | 0                      | 0        | 0         | 1                                      | 1        | 0         |
| 24         | 1                 | 1        | 0         | 1                     | 1        | 0         | 0                      | 0        | 0         | 0                                      | 0        | 0         |
| 25         | 5                 | 1        | 4         | 3                     | 0        | 3         | 0                      | 0        | 0         | 2                                      | 1        | 1         |
| 26         | 3                 | 3        | 0         | 2                     | 2        | 0         | 0                      | 0        | 0         | 1                                      | 1        | 0         |
| 27         | 5                 | 2        | 3         | 4                     | 1        | 3         | 0                      | 0        | 0         | 1                                      | 1        | 0         |

|    |   |   |   |   |   |   |   |   |   |   |   |   |
|----|---|---|---|---|---|---|---|---|---|---|---|---|
| 28 | 7 | 3 | 4 | 2 | 1 | 1 | 0 | 0 | 0 | 4 | 2 | 2 |
| 29 | 2 | 0 | 2 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 30 | 3 | 2 | 1 | 3 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 33 | 2 | 1 | 1 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 34 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 36 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Note: For full report please visit the source link below. This excerpt excludes fields for Non-Self Propelled Dry Cargo Barge because there were zero trip reported, and excludes Self-Propelled Dry Cargo because only two trips were reported (one vessel with zero feet of draft and another with 28 feet of draft).

### 2019 Cargo Report

| Commodity   | All Traffic Types |           |          |           |         |
|---|-------------------|-----------|----------|-----------|---------|
|   | Total             | Intraport | Receipts | Shipments | Through |
| Other Chemicals and Related Products                        | 188,836           | 0         | 176,549  | 12,287    | 0       |
| Fertilizers   | 92,758            | 0         | 92,758   | 0         | 0       |
| Petroleum Pitches, Coke, Asphalt, Naptha and Solvents       | 18,823            | 0         | 18,823   | 0         | 0       |
| Unknown or Not Elsewhere Classified                         | 2,261             | 0         | 1,855    | 406       | 0       |
| All Manufactured Equipment, Machinery and Products          | 2,135             | 0         | 0        | 2,135     | 0       |
| Other Agricultural Products; Food and Kindred Products      | 246               | 0         | 0        | 246       | 0       |
| Forest Products, Lumber, Logs, Woodchips                    | 43                | 0         | 0        | 43        | 0       |
| Primary Non-Ferrous Metal Products; Fabricated Metal Prods. | 21                | 0         | 0        | 21        | 0       |
| All Commodities   | 305,123           | 0         | 289,985  | 15,138    | 0       |

| Commodity   | Domestic |           |          |           |         |
|---|----------|-----------|----------|-----------|---------|
|   | Total    | Intraport | Receipts | Shipments | Through |
| Other Chemicals and Related Products                  | 155,481  | 0         | 143,214  | 12,267    | 0       |
| Fertilizers   | 68,462   | 0         | 68,462   | 0         | 0       |
| Petroleum Pitches, Coke, Asphalt, Naptha and Solvents | 18,823   | 0         | 18,823   | 0         | 0       |
| Unknown or Not Elsewhere Classified                   | 0        | 0         | 0        | 0         | 0       |

|  |         |   |         |        |   |
|--|---------|---|---------|--------|---|
| All Manufactured Equipment, Machinery and Products         | 0       | 0 | 0       | 0      | 0 |
| Other Agricultural Products; Food and Kindred Products     | 0       | 0 | 0       | 0      | 0 |
| Forest Products, Lumber, Logs, Woodchips                   | 0       | 0 | 0       | 0      | 0 |
| Primary Non-Ferrous Metal Products;Fabricated Metal Prods. | 0       | 0 | 0       | 0      | 0 |
| All Commodities  | 242,766 | 0 | 230,499 | 12,267 | 0 |

| Commodity  | Foreign |           |          |           |         |
|--|---------|-----------|----------|-----------|---------|
|  | Total   | Intraport | Receipts | Shipments | Through |
| Other Chemicals and Related Products                       | 33,355  | 0         | 33,335   | 20        | 0       |
| Fertilizers  | 24,296  | 0         | 24,296   | 0         | 0       |
| Petroleum Pitches, Coke, Asphalt, Naptha and Solvents      | 0       | 0         | 0        | 0         | 0       |
| Unknown or Not Elsewhere Classified                        | 2,261   | 0         | 1,855    | 406       | 0       |
| All Manufactured Equipment, Machinery and Products         | 2,135   | 0         | 0        | 2,135     | 0       |
| Other Agricultural Products; Food and Kindred Products     | 246     | 0         | 0        | 246       | 0       |
| Forest Products, Lumber, Logs, Woodchips                   | 43      | 0         | 0        | 43        | 0       |
| Primary Non-Ferrous Metal Products;Fabricated Metal Prods. | 21      | 0         | 0        | 21        | 0       |
| All Commodities  | 62,357  | 0         | 59,486   | 2,871     | 0       |

Source

<http://cwbi-ndc-nav.s3-website-us-east-1.amazonaws.com/files/wcsc/webpub/#!/report-landing/year/2019/region/1/location/844>

# **EXHIBIT H**

## **OUTREACH LOG**

**Broad outreach requesting information, feedback and comments from the public will be conducted between June 28<sup>th</sup> and July 26<sup>th</sup>, 2021. Waterway users are asked to complete a survey. This public outreach opportunity will be publicized via press releases, press reports, television, newspaper advertisement, social media applications, flyers, mailers and during government meetings open to the public.**

### Agency & Government Consultations

United States Coast Guard – Fifth District Bridge Office

United States Coast Guard – Waterways Management Division for North Carolina Sector

United State Army Corp of Engineers – Operations Division

MarineCadastre.gov (Bureau of Ocean Management / National Oceanic and Atmospheric Administration)

National Oceanic and Atmospheric Administration

North Carolina Department of Transportation – Division 3

Military Ocean Terminal – Sunny Point, Fire and Emergency Services

University of North Carolina Wilmington

New Hanover County

- Sheriff's Office
- Fire Captain
- Emergency Management

City of Wilmington

- Parks & Recreation
- Police Department
- Fire Department

### Other Direct Stakeholder Outreach

Cape Fear River Pilots Association

Cape Fear Boat Works

Specialty Boatworks