



Mariner Guide Navigating the Houston-Galveston Area Waterways

A Publication of the Lone Star Harbor Safety Committee
www.lonestarhsc.org

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1. Introduction

This guide is intended to assist mariners transiting the Houston-Galveston Area waterways with a focus on commercial mariners (brownwater, bluewater, commercial fishermen, and dredge operators); however, information in this document can be valuable to all mariners intending to transit these waterways, including recreational boaters. Vessels and the waterways on which they operate represent a dynamic, ever-changing environment. It is intended to share mariner experiences in the form of guidelines to reduce risk and to better facilitate safe and efficient navigation. This document is not intended to cover every possible scenario on the waterways.

The U.S. Coast Guard (USCG) can implement various traffic schemes to alleviate traffic concerns or following a waterway closure. The USCG will initiate a broadcast notice to mariners advising mariners of the implemented traffic schemes.

Every vessel type transiting our waterways has its own unique navigational challenges and limitations. To maintain a safe environment, it is important to understand the waterway challenges, the differences between vessel types, and how your operations impact others on the waterway. The Houston Area Brownwater-Bluewater Coordination Seminar was developed to help address these challenges. The Seminar creates a facilitated dialogue between the professionals who work on the water in Houston. The goal of the seminar is to improve communication, trust, general knowledge regarding the capabilities and limitations of the different vessels using the waterway, leading to the identification and implementation of solutions to the opportunities identified. A link to the seminar can be found at the [Lone Star Harbor Safety Committee](http://lonestarhsc.org) (Lone Star) web page (lonestarhsc.org).

This guide covers areas served by Lone Star Harbor Safety Committee, including the ports of Houston, Galveston, Texas City, and Freeport, and the associated waterways of the Gulf Intracoastal Waterway (GIWW) from mile markers 319 to 441 and its tributaries. All vertical clearances referenced in this document (i.e. bridges) are in feet above mean high water (MHW) unless otherwise stated. All depths referenced in this document are in feet below mean lower low water (MLLW) unless otherwise stated. All navigation information in this guide is for reference only. Always consult the current Navigation Charts for up-to-date information.

References:

- (a) Navigation Regulations 33 C.F.R. § 207
- (b) All waterways tributary to the Gulf of Mexico 33 C.F.R. § 207.180
- (c) Ports and Waterways Safety 33 C.F.R. § 160
- (d) Vessel Traffic Management 33 C.F.R. § 161

Disclaimer:

This document in no way diminishes or removes authority from any agency listed herein. All agencies retain their full authority to modify the actions listed in accordance with their policies, procedures, and Federal Regulations.

2. Vessel Traffic Service Houston-Galveston

The USCG operates a mandatory Vessel Traffic Service (VTS) system in the Houston, Galveston, and Texas City waterways. Vessels greater than 131 feet in length, vessels greater than 26 feet in length while engaged in towing, and vessels certificated to carry 50 or more passengers, while engaged in trade are required to participate. The VTS Houston/Galveston’s call sign is “Houston Traffic.”

All captains and pilots are required to use their vessel’s official name when calling the VTS. Houston and Galveston-Texas City Pilots may use their individual identification number in addition to the vessel’s name. All communications must be in English. Mariners should utilize the VTS Users Guide located on the USCG Homeport web page ([VTS Houston-Galveston User Guides](#)) for reporting points, operating procedures and a complete list of designated radiotelephone frequencies.

*VTS Users must maintain a listening watch on VHF Bride-to-Bridge (Ch 13) and the Designated VTS Frequency

Greater Galveston Bay VHF-FM Channel Usage:

VHF Channel	Use
5A	VTS Houston-Galveston Sailing Plans
9	Kirby Fleeting Area – Old River
10	Channel Shipyard – San Jacinto River Tow Traffic
11	VTS Houston-Galveston Sector II (HSC LT 33/34 to LT 121/122)
12	VTS Houston-Galveston Sector I (Below HSC LT 33/34)
13	Bridge-to-Bridge Radiotelephone
14	Port Operations and Ship-to-Tug; Pilot Boats
16	International Distress and Calling
19	ExxonMobil Docks - Baytown
21A	VTS Houston-Galveston Sector III (Above HSC LT 121/122)
22A	Government/non-Government Liaison
68/69/72/78	Recreational Boaters
71	Commercial Shrimpers North of Texas City Dike and in the Midbay Area
73	Galveston-Texas City Pilots Working
74	Houston Pilots Working
81/83	USCG Working
88	Commercial Shrimpers in the Texas City channel and Galveston Harbor

Be aware that there are ferries at Bolivar and Lynchburg.

A. Requests

I. Obstruction Requests

Anyone proposing to conduct maritime operations that may interrupt or impede navigation on a shipping channel within the Captain of the Port Zone Houston-Galveston area of responsibility must submit a channel obstruction application. A link providing drop-down menus is available at: [VTSA Channel Obstruction Request](#).

Requests are categorized by location (within or beyond the VTS Area) and by the category (magnitude) of the planned channel obstruction. Applicants should review these categories carefully prior to submitting an application. When submitted, the request is “socialized” to a broad population of maritime stakeholders and agencies.

Category I Obstructions

Include those operations impacting (or potentially impacting) navigation which cannot be completely mitigated by unilateral traffic management measures imposed by the Coast Guard. Complete or near-complete channel closures, or significant restrictions of meeting or overtaking situations, or dredging pipeline constriction, power line placement, dead ship movements, or large off-shore rig movements are examples of Category I obstructions. The Captain of the Port (COTP) requires four days (five days if the period covers a weekend) advance notice for consideration of a Category I obstruction.

Category II Obstructions

Include operations not completely limited to the boundaries of the channel, and with marginal effect on vessel navigation. Heavy-lift operations, roll-on/roll-off evolutions, and most off-shore rig movements are examples. Category II obstructions are typically short duration, short notice undertakings, and must be movable or terminable within one hour of notification from the VTS or COTP. The COTP requires twenty-four hours advance notice for consideration of a Category II obstruction.

II. Special Traffic Management Request (STMR)

There are certain ships which transit the upper reaches of the Houston Ship Channel, (above Shell Deer Park), which because of their purpose, design or cargo are significantly restricted in their maneuverability and/or close-quarters visibility. These types of ships may include car carriers, project bulk, (windmill turbine cylinders, cross-deck gantry cranes), or other special needs.

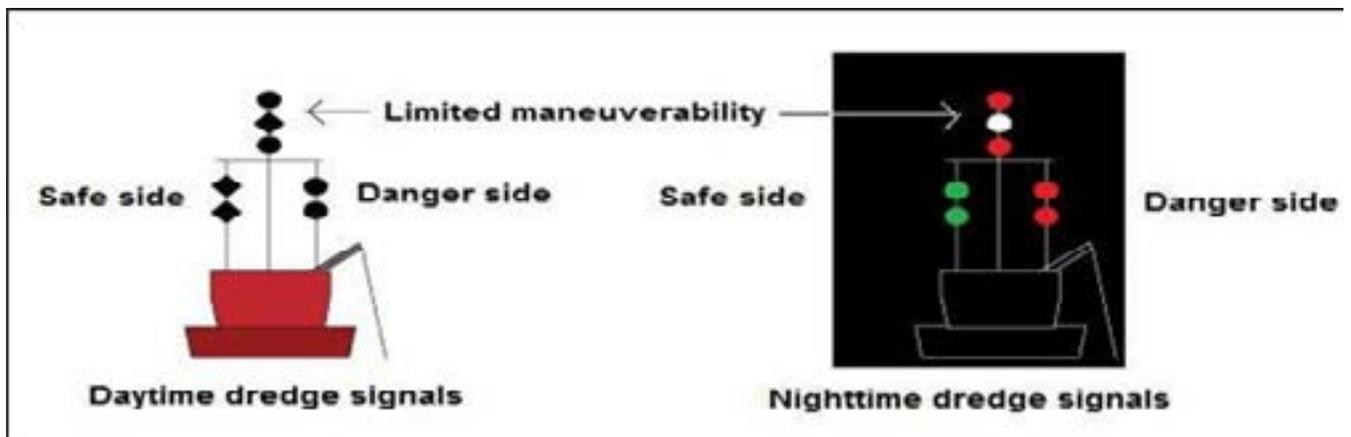
In cooperation with industry, VTS developed a Request for Special Traffic Management process which allows advanced notification and planning to provide an agreed upon “window” for their transits of these types of ships. To provide sufficient coordination, agents shall submit their request at least twelve (12) hours in advance of the planned transit. A Request for Special Traffic Management can be submitted at [Request for Special Traffic Management](#).

3. Dredging

You will find multiple dredges working within the COTP Zone at any given time. It is important to be aware of dredge operations and understand their signals to avoid an accident.

During the day, dredges will display a ball-diamond-ball in a vertical line, usually on the centerline near the forward portion of the dredge. This signals that you are approaching a vessel with limited maneuverability. The “safe side” will be marked with two diamonds. Avoid the “danger side” marked with two black balls. It is the side on which the dredge pipe is connected.

At night, the ball-diamond-ball pattern is replaced with a red over-white over-red pattern; the two diamonds of the safe side by two vertical green lights; and the two black balls of the danger side by two vertical red lights. Do not confuse these with navigation lights, and never pass a dredge until you confirm passing arrangements with the dredge master on VHF-FM Channel 13.



Dredge operations involve a considerable number of support vessels that are necessary to move the dredge, relocate anchors and anchor balls, place dredging pipe and connecting flanges, and ferry personnel and supplies. These boats are on the move 24 hours a day. Maintain a close look-out and be prepared for sudden maneuvers by support vessels. The mariner is responsible for communicating with the dredge and making proper passing arrangements in accordance with the Rules of the Road.

Any dredge operations that may interrupt or impede navigation on a shipping channel within the Captain of the Port Zone Houston-Galveston area of responsibility must submit the appropriate channel obstruction request at [VTSA Channel Obstruction Requests](#).

4. Bunkering

VTS has developed policies to reduce the risks associated with bunkering operations by moored vessels at critical locations in the VTSA.

The mariner is responsible for ensuring vessels comply with Inland Waterway Navigation Regulations, specifically that "a clear channel shall at all times be left open to permit free and unobstructed navigation by all types of vessels and tows normally using the various waterways ...". VTS has determined that the indiscriminate mooring of vessels alongside already moored vessels or the doubling up of vessels at channel side facilities along the ship channel may constrict the navigable waterway to a hazardous level. Restrictions on breasting vessels and conducting transfer operations at specific locations on the channel are established where narrow channel widths and sharp bends make such restrictions necessary to permit safe navigation. The mariner is responsible for complying with directives concerning operations that constrict navigable waterways.

A listing of restricted mooring locations and associated requirements can be found at [Restricted Mooring and Lightering Locations](#).

Bunkering at Bolivar Roads

The Bolivar Roads anchorages are generally a safe place for ships to anchor. However, wakes from passing deep-draft traffic can affect barge-to-ship bunkering operations. Every vessel passing the anchorages should respect the hazards associated with conducting bunkering operations alongside a ship.

The master of the towing vessel is responsible for the conduct and safety of the vessel prior to, during, and at the end of bunkering operations. It is also important to be on the lookout always for passing traffic. Tow safety can be ensured by taking precautions and following operating procedures. Complete text is available at [VTS Houston-Galveston Users Guides](#) (click VTS User's Manual).

Bunkering Safety Guidelines:

- 1) It is incumbent upon the master to check weather conditions – existing and forecasted – before departing for the bunkering operation. There should be adequate familiarity with the receiving vessel to ensure appropriate lines and fenders are prepared prior to departure.
- 2) To ensure safety of the crew, to protect the vessel and the bunkering operation, and to prevent spills, the master should conduct a “pre-critical task conference” with the crew. At minimum, the master and crew should discuss:
 - Weather, tide, and current
 - Duration of the operation
 - Lookout procedures
 - Communications with the receiving ship
 - Definition of crewman responsibilities
 - Identification of situations that would require shutting down the transfer
 - The mooring plan, as well as potential placement of lines and fenders
- 3) When possible, masters should plan to moor on the side of the vessel least affected by the wake effects of passing vessels. While alongside, both the master and crew should continuously monitor conditions – including passing traffic, shifting tides or winds, and changing weather. As conditions change, the master and crew should not hesitate to shift sides or stop the operation if it becomes hazardous.
- 4) Prior to departing, the crew should ensure that all hoses, valves, and any equipment used in bunkering are secured and properly stowed. Following appropriate notifications, the towing vessel may depart for its next job.
- 5) In accordance with 33 CFR 156.118, vessel operators must provide a 4-hour notice of anticipated bunkering operations to the Captain of the Port. This notice is required for all bunkering operations within the Bolivar Roads Anchorage, as defined by 33 CFR 110.197. Operators may make this notification to Houston Traffic via telephone at (281) 464-4837 (preferred) or VHF FM Channel 05A (alternate).

5. Weather

A. Heavy Weather

Heavy weather is any weather or natural activity that could negatively impact operations or navigation. The typical heavy weather found in the region includes high winds, storms and hurricanes, flooding and high currents, and extreme high or low water levels. VTS Houston-Galveston and other agencies augment the inherent weather sensitivity of mariners with advisories and alerts to heavy weather. Should weather conditions require restrictions on the waterways, VTS Houston-Galveston will broadcast notices to mariners and inform the maritime industry.

Heavy weather amplifies the risks in our narrow waterways. While mariners are solely responsible for the determination to continue a voyage, to seek a lay berth, or to go to anchor, the VTS may assist in wheelhouse decision making. Early and effective communications are essential. A vessel electing to anchor in any VTS-monitored waterway, for any reason, should make timely notification to "Houston Traffic." The VTS will coordinate with other vessels in transit to safely close affected segments of the waterway.

Recreational boaters should always exercise extreme caution in vicinity of ships and tows due to their limited sightlines and maneuvering capabilities; especially so in conditions of hazardous weather and restricted visibility.

Due to its proximity to the coast, the waterways covered in this guide may be heavily impacted by hurricanes, and the US Coast Guard, the industry and other associated agencies have worked closely

together to develop detailed plans that address the closure of the ports/waterways prior to landfall and restoration after the storm passes. The latest USCG Heavy Weather Plan should be consulted ahead of hurricane season. A copy of the latest plan can be found at [Sector Houston-Galveston Severe Weather Plan](#).

In general, all capable sea-going vessels must make timely departure for open sea on the approach of a hurricane. Commercial self-propelled vessels greater than 500 gross tons and oceangoing Integrated towboat/barge combinations intending to remain in port will be required to submit a [Declaration of Intent to Remain in Port](#) and can be found at the USCG Homeport site under Local Contingency Plans Hurricane Forms / Declaration of Intent to Remain in Port

Commercial vessels, including tug and barge tows should consider the hazards associated with heavy weather and if deemed appropriate, depart the area. If unable, they should seek alternative refuge by moving as far inland as possible and take shelter on the bayous and fleeting areas within the HSC. Special precautions should be taken for tows with certain dangerous cargoes (CDCs). General towing industry precautions ahead of a hurricane include:

- Double or triple-mooring lines/wires on outboard sides of fleets.
- Double or triple-mooring lines on piles or anchor points.
- Develop a method to close off the fleet and secure all tiers in the fleet together to the extent possible.
- Do not moor empty barges to docks, piers or facilities that have quay walls or wharf faces or other structures to prevent the empty barges from going over the top during surge or rapid rise in the waterway.
- Ensure that the number of towboats available to monitor the fleet is adequate to assist in the event of a break-away.
- During heavy weather, towboats should maintain an underway-equivalent watch when moored in a fleet.

B. Reduced Visibility

Reduced visibility is another hazardous weather condition that mariners must be aware of, particularly when operating in narrow waterways and/or when other vessels are operating in close quarters. Hazardous weather conditions, particularly reduced visibility due to fog, can be localized and patchy at times, forming and moving in an unpredictable manner, and not always aligning with forecasts. The most accurate assessments of visibility come from the mariners operating along the waterway and combining that information with other data sources (i.e. forecasts, VTS, etc.).

Our local waterways have limited availability of layberths, turning basins and anchorages, and any stoppage of a vessel in the navigable waterway has further effect on other traffic that might be moving toward the area of the stoppage. Deepsea vessels are limited to the deeper portions of the channel, and as such, must pre-plan actions when restricted visibility is a possibility. The pilots of these vessels are receiving information from weather forecasts, other mariners on the waterways (including other pilots in transit) and VTS. Pre-determined ship movement strategies are in place to address escalating risks of restricted visibility, including one-way traffic, counter-flow traffic with brownwater vessels, increased vessel separation, reduced speed, and anchoring in the channel (when not safe to continue).

Mariners are encouraged to incorporate VTS advisories into their bridge management practices, utilizing the information that VTS provides to mariners in their wheelhouse decision-making. Early and effective communications are essential. A vessel electing to anchor in any VTS-monitored waterway, for any reason, should make timely notification to "Houston Traffic". The VTS will coordinate with other vessels in transit to safely close any affected segments of the waterway.

Recreational boaters should always exercise extreme caution in vicinity of ships and tows due to their limited sightlines and maneuvering capabilities; especially so in conditions of hazardous weather and restricted visibility.

6. Port Restoration

Any disruption of the normal heavy volume of traffic in the Greater Galveston Bay Port Complex creates a significant backlog of vessels awaiting arrival or departure. Proven, standard procedures are in place to ensure the orderly resumption of traffic and the maintenance of a safe operating environment. A major closure is typically considered as one lasting, or likely to last, 24 hours or more, whether arising from heavy weather, reduced visibility, a channel incident, an elevated MARSEC Condition, or other factors. Mariners will be updated on restoration status via VHF Channels 13/16.

The Port Coordination Team (PCT) is among those processes. At its core, the PCT is a constituency-based representative-driven information exchange. Information generated by the PCT informs COTP and VTS Director decision-making in establishing priorities for waterway management. Among the traffic management options are VTS Measures and Directives establishing one-way traffic schemes (e.g. piloted ships outbound, inland towing vessels inbound for a specified period).

7. Harbor Tugs

Vessel berths along our waterways are numerous and varied, harbor tugs are powerful and maneuverable vessels that may travel in any direction. When assisting ships, harbor tugs may or may not be made up to the vessel with a line, but regardless it is imperative that you recognize the tug is assisting a vessel and provide a wide berth for the operation – one minute the tug can be working against the vessel and the next be stretched out on their lines. Additionally, tugs may be maneuvering around the vessel while they assist with the berthing/ unberthing; they may suddenly move into sight as they move from the one side of the vessel to the other very rapidly.

Tugs also produce very powerful propeller wash that may affect vessels passing in close proximity. Harbor tugs have much deeper drafts than towboats and will usually be restricted to the deeper areas of the channel. While assisting ships, the actions of the tugs are at the direction of a State Pilot or the Ship's Master. It is common practice that the Pilot will make a broadcast on channel 13 before they shift to a working channel to direct the operation of the tugs. If needed, contact the Pilot on the operating frequencies stated in the "Greater Galveston Bay VHF-FM Channel Usage" chart on page 6 of this publication regarding the movement(s) of the vessel and/or tugs.

8. U.S. Coast Guard

A. Aids to Navigation (ATON) Reporting

Maintaining over 1100 ATONs is a major challenge and the high number of M allisions complicates operations even more for the US Coast Guard's Waterways Management Division and its four ATON units. When aids are damaged or missing, navigation safety is jeopardized. Per 33CFR62.65, it is a mariner's legal obligation to report any incident involving damage to or destruction of an ATON. Failure to report could result in severe penalties including fines and/or imprisonment, along with revocation and/or loss of license as referenced in 33CFR66.01-45. However, even more significant, the damage or loss of an ATON puts all other mariners in harm's way. By reporting an ATON discrepancy immediately, the USCG's limited resources may be put to most efficient use, and risk to other mariners can be removed as quickly as possible.

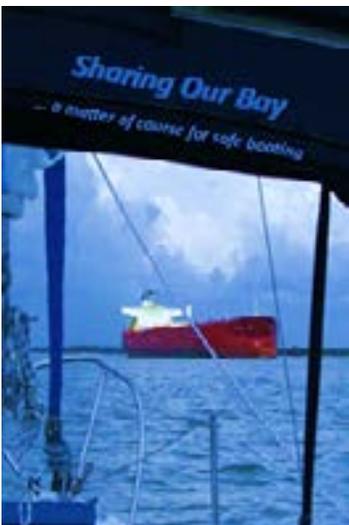


The COTP has established Security Zones for certain areas within our waterways. The most current security regulations should be consulted at 33 CFR 165.813, 33 CFR 165.814, and 33 CFR 165.818. In addition, the US Coast Guard may enact additional and/or moving security zones around certain vessels when deemed appropriate. However, the below information can be used as general guidance.

The regulations noted above identify which vessels are authorized to operate within the security zone without the need for a permit. Recreational vessels, fishing vessels, and unauthorized vessels and persons are prohibited from these areas without permission from the COTP. When entry into a security zone is desired by anyone other than those authorized by the regulations, a request to enter the security zones must be made to the Sector Houston-Galveston Waterways Management (WWM) Division at least five business days in advance of the expected transit. Violators may be subject to civil penalties, fines, and/or imprisonment. The security zones are identified above in red.

9. Sharing Our Bay with Non-VTS Users

A. Information needed for Recreational Boaters when interacting with commercial vessels in the bay.



Sharing Galveston Bay with Commercial Mariners

The publication was developed in 2011 and maintained by the Lone Star Harbor Safety Committee. It was designed to provide information to recreational boaters on how to safely and intelligently, navigate in and around the commercial navigation channels without interfering with the ships, tows, and dredges, which are draft-restricted and otherwise “privileged vessels”. The Sharing Our Bay publication can be accessed from the Lone Star web site under the Recreational boaters resources section at: [Sharing Our Bay - Information for Recreational Boaters](#). Professional mariners are also invited to look at it.

The items covered in the document are:

- Challenges operating near commercial vessels
- Communications on the waterways (VHF, emergency phone numbers, and whistle signals)
- Navigation channels (using the barge lanes, boater cuts into Trinity Bay)
- Navigation Rules (Rule 9 and other area-specific information)
- Dredging (understanding “safe side” and “danger side”, dredge pipelines, support vessels)

The Sharing Our Bay stated: “The ship channel takes up less than 1% of Galveston Bay. The other 99% is for the recreational boaters to enjoy. Together we can share Galveston Bay in a safe and environmentally compatible manner.”

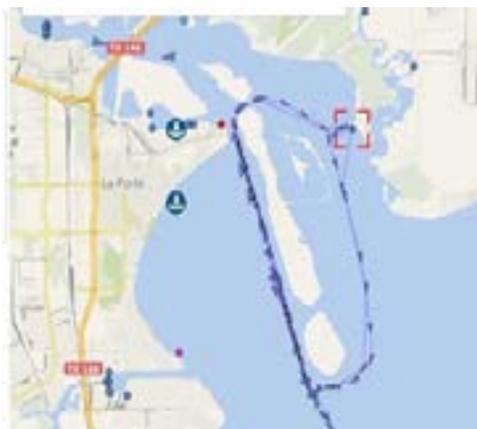
Even if you have a lot of boating experience, before you venture out on Galveston Bay, become familiar with both the Navigation Rules and Sharing Our Bay. Protect your vessel, and more importantly, the life of yourself and your crew, by reading and understanding this information.

B. Commercial Fishermen Information for all mariners when interacting with commercial fishing vessels



Commercial Fishermen on Galveston Bay

Commercial fishing continues to be a significant industry in Texas. Galveston Bay shrimpers work in a variety of locations around the Bay: on the west side of the HSC off the San Leon coastline down to the Texas City Dike, all over Trinity Bay (mostly the western portions), in the very lower portions of the bay along the edges of the various channels located there, and in Galveston Harbor. It is the mid-bay shrimping, where the boats tend to migrate up and down the barge lanes on the edges of the deep HSC, which have the most impact and interaction with other commercial traffic and towboat traffic navigating those same barge lanes.



Shrimp Fishing

To prevent unsafe situations, shrimp captains request that overtaking tows call a mile in advance so that they have time to move over or out of the way completely after picking up their nets. Note: sometimes shrimp captains do not answer VHF calls immediately because they

are working their gear.

The following are the VHF working channels that shrimpers and oysters utilize when fishing in the general Galveston Bay area:

Channel	Use
71	Commercial shrimpers north of Texas City Dike and in the Mid-Bay area
78	Commercial oyster boats
88	Commercial shrimpers in Texas City channel and Galveston Harbor

Oyster Fishing

The local fleets of oyster boats sail out of either the San Leon area to the west of the HSC, or out of Smith Point to the east of the HSC, and they fish whatever leases are open on either side of the HSC dividing line. If they are ever in the HSC, it is merely to cross over to the other half of the bay, and so their impact on other vessels navigating the HSC is relatively small.

C. Recreational Boater Information for All Vessels Information for all mariners when interacting with recreational vessels



Sharing Galveston Bay with Recreational Boaters

If you are a professional mariner navigating a commercial vessel on Galveston Bay, including the Houston Ship Channel, Galveston Harbor, the GIWW, and any adjacent waters, this section is designed to provide information on the numerous recreational boaters who are navigating these waters. Most recreational boaters do not spend a lot of time inside the shipping channels, but when you are sharing these waterways with them it would be good to understand what you may encounter. This section is an introduction to the full “Sharing Galveston Bay With Recreational Boaters” document, which can be accessed from the Lone Star web site

under the Recreational Boaters Resources section at: [Sharing Galveston Bay With Recreational Boaters](#).

Items covered in the document are:

- Where recreational boaters operate and where you might encounter them
- VHF usage by recreational boaters
- AIS usage by recreational boaters
- Whistle signals and VHF communications
- Local VHF terminology and making meeting/overtaking arrangements
- Dangerous situations that threaten recreational boaters

The Commercial Mariner is encouraged to review the “Sharing Our Bay” document that is described in the section 9A and is written for Recreational Boaters.

10. Region-Specific Information

A. Bolivar Roads/Texas City (Y)

I. *Bolivar Roads Inbound Route (BRIR)*

The Coast Guard has established a route for tows entering the Houston Ship Channel from the GIWW at Bolivar. The route is highlighted on NOAA Chart 11324, lies in naturally deep water, and is marked with a lighted 300° T-head range. Houston Traffic directs that vessels not using this route so indicate when checking in. During periods of high traffic volume, preference may be given to tows using the inbound route. All vessels should make a Security broadcast prior to entering the Houston Ship Channel from the GIWW.

Outbound tows eastbound on the GIWW normally proceed south to HSC LT 26, then east to Bolivar Point. With a strong ebb, it may be advisable for longer tows to drop down to the area above the Bolivar Ferry landing while turning east, to stem the tide while making the Bolivar Land Cut. Outbound use of the BRIR may be requested from “Houston Traffic” when traffic permits. Outbound use of the BRIR may be directed when “Houston Traffic” has implemented Traffic Management Procedures effecting one-way inbound ship traffic/one-way outbound tow traffic. This enables tows headed East on the GIWW to cross to the red side when convenient, rather than being constrained to cross inbound ships only at LT 26.”



Note: The Bolivar Roads Inbound Route is 1700 feet wide at its entrance (lower right), 730 feet wide at its exit (upper left) and one nautical mile in length. Range lights assist with staying on the centerline.

II. *Bolivar Roads Anchorages*

Anchorage areas at Bolivar Roads (see NOAA Chart 11324) are intended for temporary use by vessels of all types. Most vessels use the Bolivar Roads Anchorages while waiting for dock space to clear, for bad weather to pass, for bunkering and/or provisioning, or for completion of any required inspections



Mariners should note specific restrictions applicable to Anchorage Areas A and C as set forth at 33 CFR 110.197:

- Unless otherwise authorized by the Captain of the Port Sector Houston-Galveston, vessels shall not anchor in Anchorage Area A or C for more than 48 hours.
- No vessel with a draft of less than 22 feet may occupy Anchorage Area A without prior approval from the Captain of the Port.
- No vessel with a draft of less than 16 feet may occupy Anchorage Area C without prior approval from the Captain of the Port.
- Anchors shall not be placed in the navigation channel, and no portion of the hull or rigging of any anchored vessel shall extend outside the anchorage areas.

VTS Houston-Galveston oversees the management of vessels within Bolivar Roads Anchorages.

III. *Mooring Buoys*

Use of Bolivar and Pelican mooring buoys is limited to maximum 72 hours, unless weather prevents movements. No unattended barges are permitted. Along the GIWW near Bolivar Roads and Pelican Island, vessel traffic can become congested. Whenever necessary, the USCG will then establish temporary VTS reporting points, and the USCG will initiate a broadcast notice to mariners advising mariners of the congestion and the temporary VTS reporting points.

B. **Houston Ship Channel**

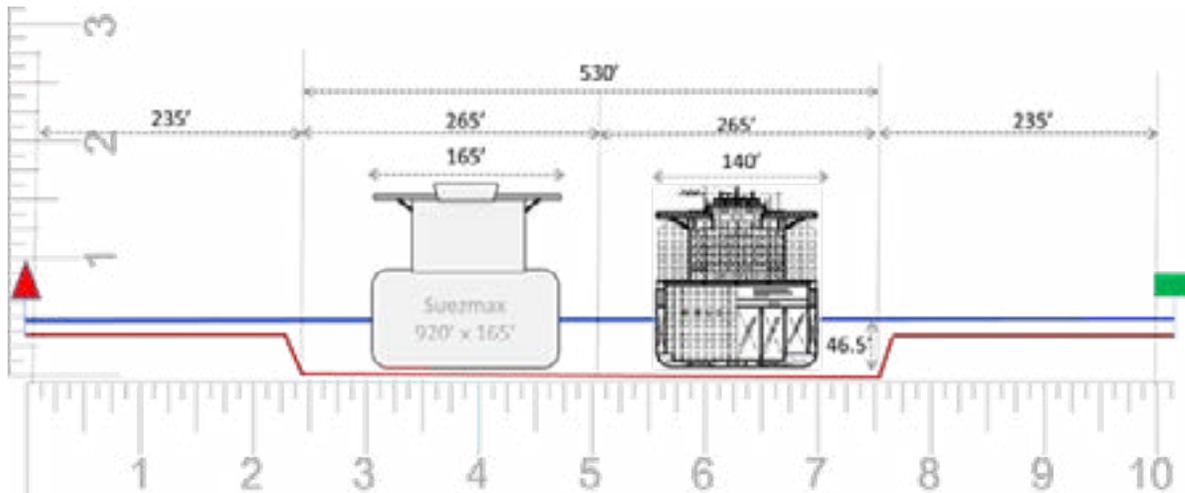
The Houston Ship Channel is one of the busiest and most challenging waterways in the world. On an average day, the Houston Ship Channel has more than 60 ships and 400 barge movements. Project width and depth vary along the HSC between the Galveston Entrance to the upper turning basin, as follows:

- Galveston Entrance to Boggy Bayou – 530'x46.5' with designated barge lanes below Morgans Point. The channel width in the vicinity of Cargill narrows to 400'.
- Boggy Bayou to SP Slip (near the I-610 bridge) – 300'x41.5'
- SP Slip to Upper Turning Basin – less than 300'x37.5', with many berth pockets adjacent to the main federal channel

Below Morgans Point, the HSC is equipped with designated barge lanes on either side of the deep-water channel. The barge lanes permit the safe movement of larger volumes of mixed-use vessel traffic. Tow operators are encouraged to use the barge lanes as a safe navigation space, leaving the main channel free for faster moving vessels and deep-draft ships. While the barge lanes provide space between ships and tows, operators should be aware of hydrodynamic effects caused by the channel configuration. Currents in the barge lanes may run slightly faster due to their shallower depth, and forces exerted by larger displacement ships will be amplified. A cross section of the HSC below Morgans Point shows:

- A main deep draft vessel channel dredged to a project depth of 46.5 feet and width of 530 feet;
- 35-foot wide transition slopes on either side of the main channel, measuring 46.5 feet deep at their innermost point, and a minimum of 12 feet deep at their outermost point;
- 200 feet wide barge lanes outside the transition slopes, measuring a minimum of 12 feet

- deep; and,
- Width of the entire channel along this reach as 1000 feet between beacons.



I. *Deep Draft/Inland Tow Interaction*

The configuration and cargo of a ship may affect the vessel operator's line of sight from the ship's bridge. The blind spot ahead of the bow can range from a few hundred feet to a few thousand feet in the case of deep draft container ships. Cranes, containers, and cargo canopies can create additional blind spots. Towboat and other vessel operators should exercise extreme caution when attempting to overtake or meet a ship especially in the upper ship channel, taking care to avoid blind spots and to communicate intentions when necessary.



Vessels as large as neo-panamax container vessels (1160'x150') and suezmax tankers (950'x165') regularly transit the HSC. The sheer size of these vessels leads to amplification of hydraulic forces exerted on other vessels in the vicinity, especially tow vessels and barges.

Vessel Size Comparison

Aframax

Length: 830 ft
Beam: 145 ft
Draft: 45 ft

Suezmax

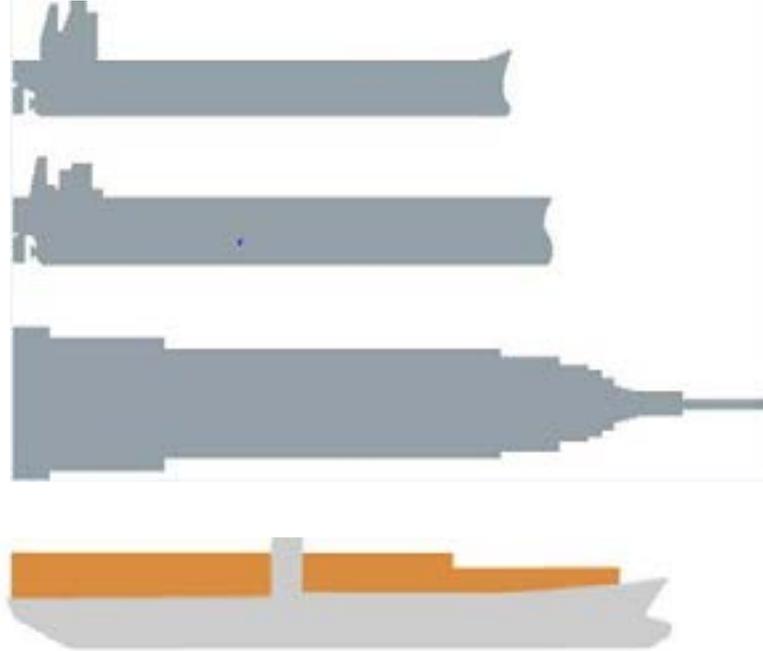
Length: 920 ft
Beam: 165 ft
Draft: 45 ft

Empire State Building

Height: 1250 ft

Neo-Panamax

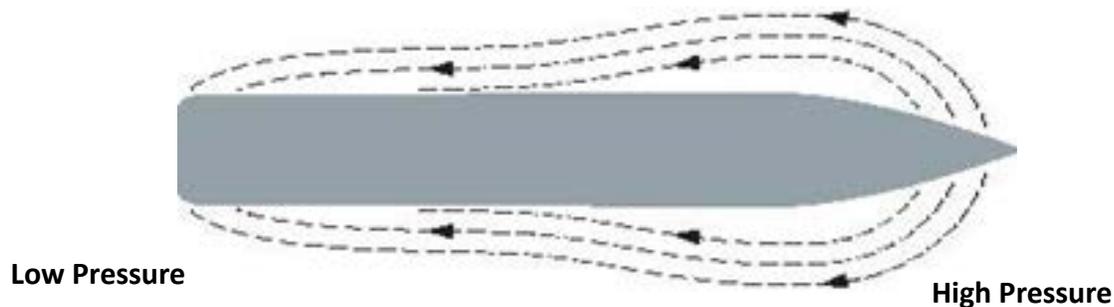
Length: 1160 ft
Beam: 150'
Draft: 45'



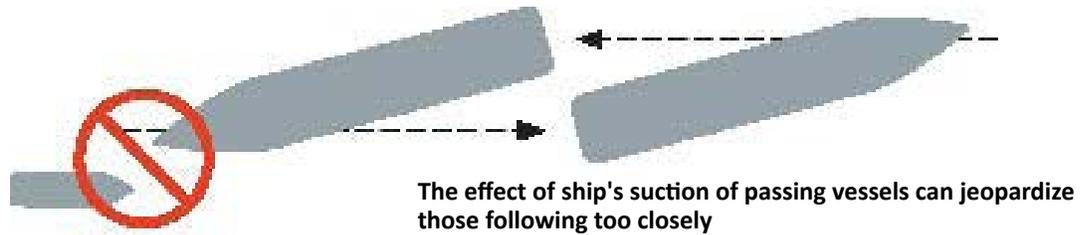
II. *Understanding Hydrodynamics*

A moving ship pushes water away from its hull in all directions. As the ship moves forward, water will flow around and under the vessel to fill space in its wake. Areas of high pressure exist on both sides of the moving ship's bow as water is displaced. As it flows along the sides of the ship, water speed increases until it reaches an area of low pressure near the stern. This is where "ship's suction" occurs. Ship's suction is a hydraulic effect that draws neighboring vessels toward the stern as the ship passes or pulls the stern towards the toe of the channel when transiting near the channel's edge.

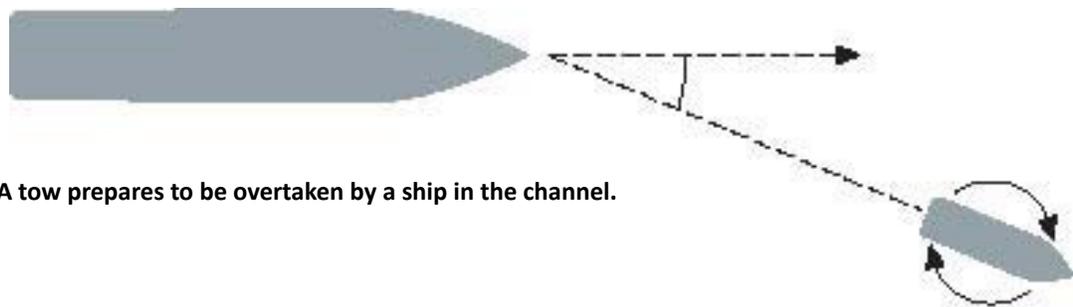
Water Flow Around a Moving Ship



When two ships meet in the Channel, this effect can turn each of them off-course in a counter-clockwise direction (assuming opposing vessels are both on their respective right sides of the Channel). This poses potential danger to vessels following either ship. To avoid this hazard, vessels should maintain following distances large enough to permit meeting ships to correct their course.

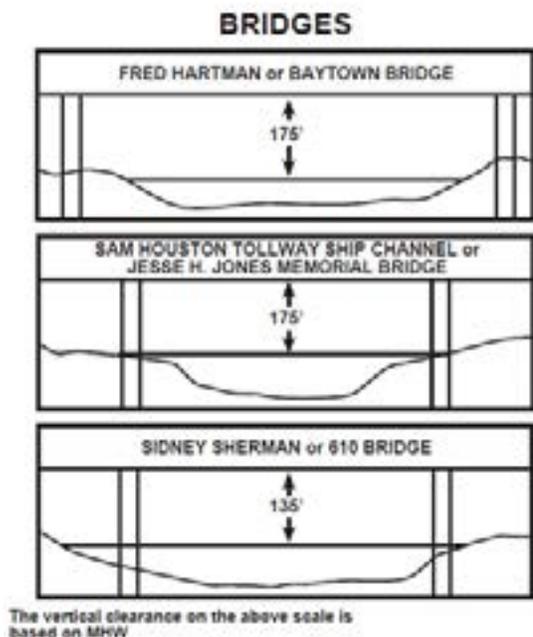


In similar fashion, a ship exerts suction on vessels it overtakes in the Channel. To mitigate the effect, tow operators are encouraged to position their vessels at an angle to the ship's path (with the stern pointing toward the ship and the bow pointing away from the ship). Hydraulic effects on moored vessels are also amplified by the presence of larger ships in the Houston Ship Channel. Please see the section on Mooring Issues for tips on mitigating these effects.



A tow prepares to be overtaken by a ship in the channel.

III. *Bridges*



IV. *Mooring*

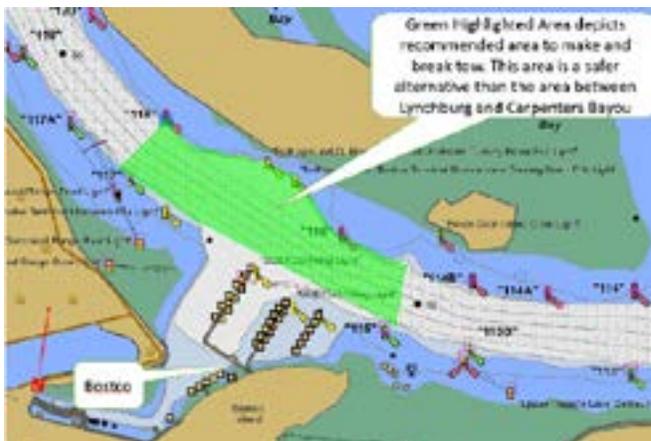
As a passing ship approaches, the water surge ahead of it will cause a water flow at the pier in the direction of the passing ship. As the ship passes, water flow at the berth will shift direction, drawing the moored vessel in the opposite direction. A third force comes into play as the stern of the vessel passes. This force follows the passing vessel and is diametrically opposed to the previous force. In a short period, the moored vessel will be pushed in different directions three times.

Because these forces are amplified by the transit of larger ships, it is particularly important to pay attention to proper dockside moorings. Mariners should tend their lines carefully and make sure loads are equally distributed. Lines should be tensioned such that no movement is allowed at the dock. If slack lines permit movement of even a few feet, the moored vessel will be subjected to a substantial amount of energy that will surge loads and part overloaded mooring lines.

The Lone Star Harbor Safety Committee includes a sub-committee whose purpose is to address issues related to mooring safety along our waterways. This group is working with the USCG to reduce incidents of parted mooring lines and damaged moorings. They are accomplishing this goal by educating mariners and dockhands on the importance of proper mooring leads, adequate mooring lines and optimal use of cleats and bitts. In furtherance of navigation safety, the pilots report vessels with slack mooring lines to VTS.

V. *Area Specific Guidance*

- 1) Bolivar Roads to Barbours Cut: The Bolivar Roads Inbound Route (BRIR) is designed to allow westbound traffic exiting Bolivar Roads to easily enter the HSC rather than navigating the 105-degree turn at the intersection. (See Section 10A for more information).
- 2) Barbours Cut to Baytown: Tows and barges should not transit beyond the GIWW without confirmation of available fleeting area space or dock space. Beyond Baytown, traffic density increases considerably, especially near Lynchburg. Turning around (topping around) due to lack of fleet space unnecessarily increases navigation safety risk.
- 3) Baytown to Boggy Bayou (Shell): The area of Bostco turning basin is a recommended area for tows looking to double up or string out tow on the fly. This area is a better alternative than from the Lynchburg ferry to Carpenters Bayou due to a high density of tow and ship traffic.
- 4) Lynchburg to Boggy Bayou (Shell): It is recommended that no overtaking should be conducted in waterways within this area to include the San Jacinto River.



- 5) Buffalo Bayou: When currents exceed 3 knots in the main stem of the Houston Ship Channel anywhere above Lynchburg, VTS will likely impose additional waterway restrictions via VTS Measures. Firsthand reports from mariners are augmented by monitoring a USGS flow meter at Piney Point (west Houston). When flow rates at this meter reach 15000 cubic ft/sec, the VTS may implement a Measure restricting vessel movements north of the Buffalo Bayou Turning Basin/above the Railway Bridge.

C San Jacinto River

I. High Water Awareness

The Upper San Jacinto River and Buffalo Bayou basins include multiple watersheds draining nearly 3300 square miles of land in urban and developed areas. Heavy rainfalls arising from stalled frontal systems, long periods of excessive rainfall, or heavy weather can lead to remarkable runoffs having direct and substantial impacts upon San Jacinto River and Upper Houston Ship Channel, producing high water and/or strong currents in the waterways of VTS Houston-Galveston's VTSA. These situations may trigger special management protocols. VTS Houston-Galveston protocols are guided by a High Water Action Plan developed under COTP Houston-Galveston guidance. The VTS Houston Galveston High Water Action Plan consists of three phases:

- Watch Phase
- Action Phase
- Recovery Phase

Watch Phase:

- VTS and other USCG activities monitor the United States Geological Survey (USGS) site "San Jacinto River near Sheldon," also known as the Highway 90 bridge site. Closer monitoring begins with the potential for high water conditions. The Watch Phase is triggered at six (6) feet on the Sheldon Gauge.
- During the Watch Phase, VTS evaluates underlying conditions and randomly queries VTS users in the area to gauge the impact on vessels. VTS also initiates a broadcast advising mariners of the high water on the San Jacinto River and the possibility of strong currents in the Houston Ship Channel near the mouth of the San Jacinto River and area bayous.

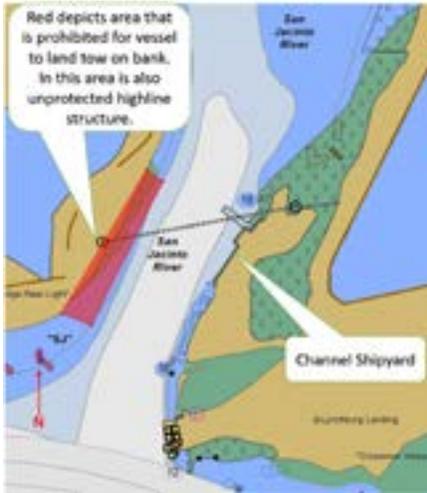
Action Phase:

- The Action Phase is initiated at eight (8) feet on the Sheldon Gauge. Active traffic control and continuous information coordination between the USCG and the various waterway stakeholders are supported by the extension of Houston Traffic's VTSA to, and the activation of a temporary reporting point at the Interstate-10 San Jacinto Causeway.
- When the Sheldon Gauge reaches ten (10) feet, restrictive traffic measures will be implemented by VTS Measures and appropriate paralleling broadcasts.
- Additional traffic measures may be applied to Houston Ship Channel at and below the mouth of the San Jacinto River (generally between HSC beacons 124 and 132). These measures may include prohibiting meeting or overtaking in a specified reach
- When the Sheldon Gauge reaches twelve (12) feet, VTS Measures are extended to cover 1000 yards above and below the Causeway.
- At fourteen (14) feet on the Sheldon Gauge, additional measures may be imposed on the Lower San Jacinto River and the Houston Ship Channel.

Recovery Phase:

Relaxation of Action Phase restrictions will generally mirror the Imposition Thresholds for rising water with additional actions as informed by any necessary channel surveys and an assessment of Aids to Navigation and any emergent pollution fields. (See Port Restoration Section).

II. River Restrictions



The USCG has observed and received repeated complaints of unsafe conditions near the Mud Bank in the San Jacinto River. Sector Houston-Galveston has determined, per 33 CFR 64.06, that current practices by some waterway users present a hazard to navigation.

The following operating restrictions are in place:

- Only towboats with barges in tow are permitted on the Mud Bank. No unattended or shared barges are authorized on the Mud Bank.
- The only towboats, barges and tows permitted on the Mud Bank are those awaiting fleet space or dock space.
- Towboats, barges and tows that make use of the Mud Bank are limited to no more than 48 consecutive hours and shall not exceed this timeframe.
- Towboats, barges and tows using the Mud Bank shall not extend into the San Jacinto River beyond 162 feet from the riverbank. (No Exceptions).
- The area from the mouth of the San Jacinto River across from Channel Shipyard is restricted. Tows should not land or push up in this area. This area also has unprotected highline structures.

The mariner is advised to follow the best practices below:

- Vessels should orient their tows as close to bank as practical.
- Vessels should standby on VHF Channels 10/16
- Vessels must be mindful of their wheel wash and its impact on adjacent marine traffic

Waterway users who fail to comply with the above operating restrictions may be subject to regulatory and administrative action. Persistent disregard of these operating restrictions may result in closure of the San Jacinto River Mud Bank to all tows.

D. Port Freeport

Port Freeport is a growing port, and with growth comes increased traffic. Many vessels share this waterway from pleasure craft to large commercial vessels. The waterway includes the Freeport Ship Channel from the "FP" Buoy to the Stauffer Turning Basin, and the GIWW from Surfside Bridge to Bryan Beach Bridge. Approximately 900-950 commercial vessels call on Freeport and thousands of tug and barges transit the waterway annually.

The Brazos Pilots Association serves this waterway including all ports of Brazoria County. At this time, the Brazos Pilot Station is unmanned and is unable to be reached 24/7 by VHF Radio. The Pilots can be reached on VHF Channel 14/16 from 9am-5pm Mon-Fri and any time the Pilot Boat is underway or when the Pilots are moving a vessel on the channel. The Pilots work exclusively on VHF Channel 14/16 while maneuvering and coordinating traffic. This channel is not to be used by recreational boat operators or as a working channel for any other commercial operations not pertaining to the movement of a vessel within the Freeport Ship Channel. The Brazos Pilots Association advise all mariners transiting the Freeport Ship Channel and its intersection with the GIWW to not impede the movement of any vessels under pilotage. The Freeport Ship Channel is a very narrow waterway with small margins for error. The Brazos Pilots maintain one of the best safety records in all of Texas and want to keep it that way.

I. *Communications*

Vessels calling on or transiting Freeport are advised to make security calls at the following locations:

- a) Inbound at the end of the Freeport Jetties for traffic at the intersection of the Freeport Channel with the GIWW
- b) Westbound at Surfside Bridge
- c) Eastbound at Bryan Beach Bridge (FM 1495 Bridge)
- d) Inbound at the beacon number 10 for Old River Traffic
- e) Outbound before getting underway inside of the Old River
- f) Outbound after exiting Phillips Bend for traffic at the intersection of the Freeport Channel with the GIWW

II. *Fleeting Area*

- a) A fleeting area is established above the Upper Turning Basin in the harbor. The tug and barge fleet operate primarily on VHF Channel 10. Prior to departing, tug and barge traffic is urged to make a security call on VHF Channel 16 alerting other vessels operating to their operation and intentions.

III. *Area Specific Guidance*

- a) Freeport Ship Channel at Intersection with GIWW – All vessels need to be aware that large commercial vessels calling on the port of Freeport use this intersection space to make wide turns inbound and outbound. Vessels transiting the area need to aware not to impede the safe passage of large vessels under pilotage.
- b) Brazosport Turning Basin to Jetty Channel - This section of Freeport Ship Channel is only 400 ft wide. It is a narrow section of the channel to meet oncoming vessels.
- c) Phillips Bend – Meeting other vessels in Phillips Bend is extremely dangerous. The turn requires a 117-degree turn. Judging safe passing is difficult when it is not possible at times to see vessels approaching from the other side of the bend. Security calls when approaching this bend are recommended on VHF Channel 16.

E. **Gulf Intercoastal Waterway And Tributaries (Mile 365.5-441.5)**

Gulf Intracoastal Canal Association (GICA) is a not-for-profit trade association whose mission is to facilitate commerce through ensuring safe, reliable and efficient GIWW. For up-to-date information regarding issues that affect the GIWW contact the GICA at the following link - [Gulf Intracoastal Canal Association](#).

I. *Pelican Island Bridge and Galveston Y– Mile 365.5*



The Pelican Island bridge is located at the most inbound end of the Galveston harbor. The bridge is a bascule type with 12.8 feet closed vertical clearance and an open span of 74.8 feet. The horizontal clearance is 120 feet. Vessels requiring more than 13 feet clearance must know that the bridge (in the raised position) DOES hang over the south side of the channel and vessels should stay to the north side of the channel for proper clearance. The bridge tender must be contacted on VHF channel 16 for transit

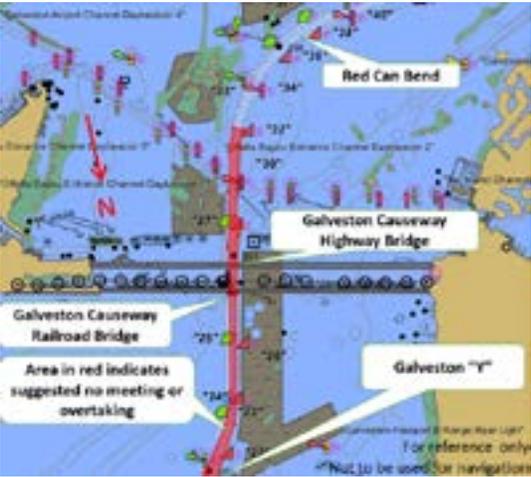
and mariners should carefully consider the strength of the tidal currents and wind before



committing to making the bridge. NOAA chart 11324 (pg 17) identifies this route as the “Intracoastal Waterway (Galveston-Freeport Cutoff)” (i.e. kind of an “alternate” route); however, it is the “Intracoastal Waterway” route through Galveston Harbor that was the original GIWW route. The channel from the Pelican Island bridge to the Galveston “Y” is used primarily for commercial fishing vessels, recreational boaters, and is not generally used for tow traffic. The Pelican Cut (mile 351.7) is maintained by the USACE, and thus most mariners traveling the GIWW between the Port Bolivar area and the Galveston Causeway and points west take the route through Pelican Cut. When entering the GIWW, mariners should consider other commercial traffic approaching the “Y” and traffic transiting the Causeway bridge.

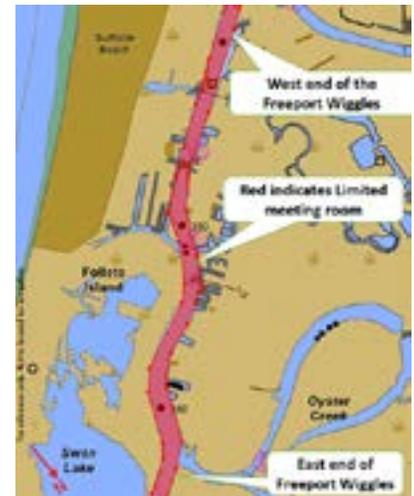
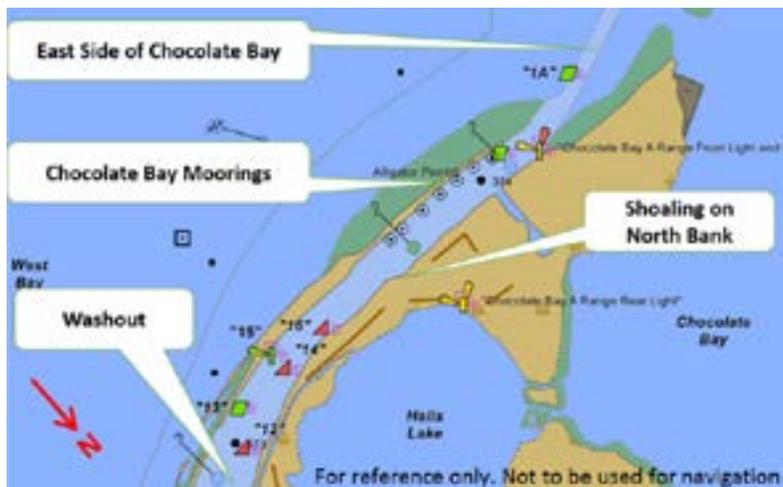
A document (originally created for recreational boaters) that describes in some detail the physical characteristics of the bridge, photos, vertical clearances, and the curfew hours when the bridge is closed to marine traffic is available from the Lone Star website under the recreational boaters resources section at: [Pelican Island Bridge - Info for Recreational Boaters.](#)

II. *Galveston Causeway/Railroad Bridge – Mile 367.3*



The Galveston Causeway Bridges (I-45 Highway and BNSF Railroad Bridge) are located at mile board 357.2 on the Intracoastal Waterway. The Galveston Causeway highway bridge (I-45) is a fixed bridge with clearances of 310 feet x 72.8 feet. The railroad bridge clearance is 7.75 feet when down, and lifted clearance is 72.8 feet, with a horizontal clearance of 300 feet. The bridge tender is contacted on VHF channel 16 and will go to channel 10 for a working frequency. Vessels approaching from the west should contact the bridge at Bird Island. Vessels approaching from the east should call the tender at the Galveston “Y”. Vessels should monitor channel 16 for notices that the railroad bridge is being lowered and should plan accordingly for possible delays in raising the bridge. Vessels should carefully consider the tide direction, speed of current, wind, commercial, and recreational traffic in the area before committing to the bridge transit.

III. *Chocolate Bay Moorings – Mile 374.2*



Chocolate Bay Moorings are located at mile board 374 on the Intracoastal Waterway. These moorings are used by commercial towing vessels for waiting weather and dock space. Vessels utilizing these moorings should tie off securely as empty tows will pass making higher speeds, and vessels with loads (even at a slow bell) may pull tows off the moorings. Meeting or overtaking in this area is not recommended if there are tows on the moorings. Mariners should use caution transiting or pushing in on the east end of the north bank across from moorings as there is shoaling.

IV. *Chocolate Bayou – Mile 376*



The Chocolate Bayou intersection is located at mile marker 376 on the Intracoastal Waterway within Chocolate Bay. Mariners should carefully consider traffic in the area so as not to meet in the intersection or in the bay between the intersection and the land cut of Chocolate Bayou. When transiting the intersection, use caution as buoys have historically drifted, been knocked off station, or found to be missing.

V. *Freeport Wiggles – Mile 392 TO 393.8*

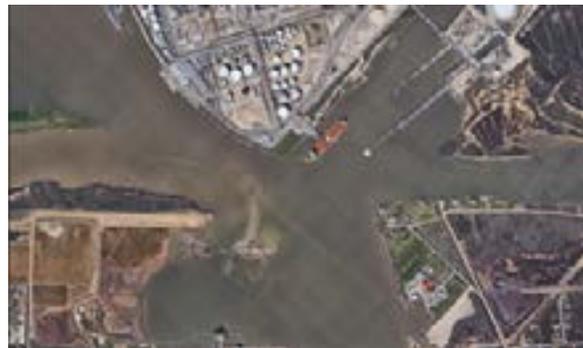
Freeport Wiggles are located at mile marker 392 to 394 on the Intracoastal Waterway. There is limited meeting room in this area. Mariners must carefully consider the wind before transiting the Wiggles, as well as the Surfside Bridge. Tidal currents can be exceptionally strong and may affect towing vessels adversely in the turns depending on their configuration. Be aware of traffic and make agreements on meeting or overtaking before transiting this area. Recreational vessel traffic may be heavy at times between the bridge and the Bridge Harbor Yacht Club.

VI. *Surfside Bridge – Mile 394.9*



The Surfside Bridge is a fixed bridge located at mile 394 on the Intracoastal Waterway. It has a 73 feet vertical clearance, and a 125 feet horizontal clearance. Mariners must consider the tidal currents, wind, and traffic, when transiting this bridge. When transiting eastbound, make passing arrangements prior to transiting this area because of limited meeting room in the Wiggles. Recreational vessel traffic can be heavy, especially at the bait store just west of the bridge on the north side.

VII. *Freeport Ship Channel Intersection – Mile 395*



The Freeport Intersection is located at mile 395 on the Intracoastal waterway. This area is susceptible to strong currents that can originate from multiple directions, including in and out of the GIWW. Carefully watch for any set and ground swells. Situational awareness is a priority as there may be vessel movement at the docks in the intersection. Monitor channel 16 for the Freeport Pilot boat's notice of ships crossing the intersection.

VIII. *Bryan Beach Bridge – Mile 397.6*



The Bryan Beach Bridge is at mile marker 397 on the Intracoastal Waterway. Mariners should give the Freeport Pilot Station a slow bell which is located in a slip on the southeast side of the bridge. Although the channel width is maintained at 125 feet in this area to the Brazos River Locks, be aware that the water towards the banks are shallow and there is limited meeting room from the bend at mile marker 396 through the bridge.

IX. *Brazos River Floodgates - Mile 400.4*



Lockmaster contact phone number: (979) 233-1251

The Brazos River Floodgates are located at mile 400 on the Intracoastal Waterway. These gates are 75 feet x 750 feet and can accommodate barges up to 55 feet wide. The lockmaster can be contacted on channel 13, as will be the traffic standing-by at the gates. While transiting across the Brazos River in between the East and West floodgates, a vessel must maneuver a difficult 60° turn. [USACE Galveston District](#) has certain parameters in place based on water speed and height differentials. The lockmaster monitors changing river conditions and the difference between the river and the canal water height. Be aware of the upstream eddies that are on either side of the river underneath the points on the north shore. The lockmaster will place restrictions on size of tows transiting when the height difference is between 0.7 feet and 1.8 feet. When the height difference exceeds 1.8 feet, the gate will be closed for navigation. Restrictions are also in place when the Brazos river is running 2 mph or faster.

Be aware of dense traffic in this area. Towing vessels will be tying up to or departing the moorings, moving through the gates, or crossing the Brazos River. Towing Vessels should take into consideration the strong currents and traffic when they tie off on the moorings.

The USACE maintains a summary page of information on the Brazos River Floodgates at [USACE Brazos River Floodgates Summary](#). Additionally, the USACE has certain parameters in place based on water speed and height differentials. These can be found at - [USACE Brazos River Flood Gate Operating Parameters](#).

X. *San Bernard River – Mile 405*

The San Bernard River is located near mile 405 on the GIWW. Mariners should refer to NOAA Hydrographic information for river heights, and to the USACE Hydrographic Survey information for current depth survey information. Vessel Operators should closely monitor weather conditions such as winter fronts that would affect the tide height.

The Lower San Bernard Moorings are located at mile 5.6 on the San Bernard River for use by tugboats and tows. J & S Shipyard is located at mile 9.0 and is an area often used for topping

loaded barges. The west bank is an abandoned mooring area. The Highway 2611 Bridge (commonly referred to as the 2004 bridge) is a fixed bridge at mile 10.75 with a 43-ft vertical clearance and a 100-ft horizontal clearance. Crew changes are often made on either bank on the upstream side of the bridge. Hinkle’s Ferry Point is the sharpest bend in the river, located at mile 13. Highway 521 Bridge (McNeil Bridge), is a fixed bridge located at mile 16.9, with a vertical clearance of 45-ft, and a horizontal clearance of 110-ft. Crew changes can be made on the east bank only. The Union Pacific Railroad Bridge is now a lift bridge, located at mile 20.9. Horizontal clearance is 52 feet and vertical clearance is 46 feet when open, based on a 16 feet Flood Stage. Bridge is equipped with radio telephone at (409) 548–3268. The bridge tender monitors VHF-FM channel 10; call sign KI-2524. Tows should plan to come to a complete stop to align for this bridge. Phillips 66 operates a barge terminal at mile 25.6 and typically all commercial tow traffic on the San Bernard is destined for this terminal.

The river is home to many private docks and boat ramps. Commercial traffic should exercise extreme caution when transiting near these structures and avoid excessive noise and wakes. Remain on vigilant lookout for swimmers (both during daytime and nighttime) and avoid unnecessary use of the spotlight on houses, vehicles, or pedestrians on the riverbank.

Commercial vessels are subject to transit curfews to allow recreational use of the river. Rare exceptions may be made to these curfews. The General Curfew is in place from the first weekend in May through October 1, where a transit curfew for commercial traffic is imposed between the hours of 1600 to 2100 on Fridays, and from 0900 to 2100 on Saturdays and Sundays.

Several river parades are held annually during which time Holiday Parade Transit Restrictions are put in place. Commercial traffic should avoid any transits during daylight hours and nighttime transits on the on the night of the Boat Parades, which are typically on Saturday of the second weekend in December for the Christmas Boat Parade, and for the 4th of July Boat Parade.

When the river stage reaches or exceeds 13 feet 6 inches at Sweeny, commercial vessels may not transit the San Bernard River. Transiting the river in fog, or when fog is imminent, is forbidden. The meeting or overtaking of tows is forbidden, except for light boats which may be allowed to meet or overtake another tow when not adjacent to any private docks. Tows should not exceed 5 knots.

XI. *Caney Creek (Sargent) Swing Bridge - Mile 418*



**Location: 27347 FM 457
Sargent, Texas 77404
Phone: (979) 245-4789**

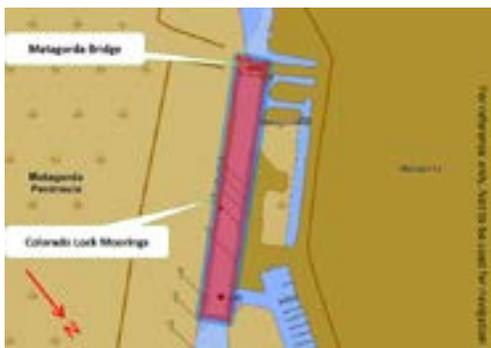
The Caney Creek Swing Bridge (Sargent or FM 457 Swing Bridge) is located at mile 418 on the Intracoastal waterway. This bridge is operated by the Texas Department of Transportation (TXDOT). This is a pontoon swing bridge with a 140 feet horizontal clearance that is cable operated. The aprons on either side of the bridge hang over the water and could be a hazard. The bridge tender is contacted on channel VHF 13/16, and mariners should consider all traffic from mile 413 to 421 before transiting as there is limited meeting room and the possibility of strong currents.

The Swing Bridge opens when the vessel is approximately 1 mile from the bridge, or earlier if the vessel is traveling with a fair tide. When the current exceeds 5 mph, the bridge opens earlier at 1.25 miles. In rare occasions, when the tide is 6 feet higher than normal tide (2 – 3 feet), they will not open the bridge because the bridge aprons will not sit properly on the bridge. When a tropical storm or a hurricane is forecasted, the bridge will be locked in the open position after all residents and the bridge tenders have evacuated.

Recreational vessels are advised to call (979) 245-4789 to request a bridge opening. The bridge tender will lift the apron only for recreational vessels with 12 feet beam or less.

A project to replace the swing bridge with a new fixed bridge is underway with an estimated completion time of 2021.

XII. *Matagorda Bridge – Mile 440.8*



The Matagorda Bridge is a fixed bridge that is located at mile 439 on the Intracoastal Waterway. The horizontal clearance is 125 feet and the vertical clearance is 73 feet. Be watchful of heavy recreational vessel traffic that transit this area as the Matagorda Harbor facilities are in close proximity. With mooring buoys on the east side of the bridge for Colorado locks, and the “bypass” canal just past the bridge on the west side, mariners should consider meeting or overtaking carefully in this area.

XIII. *Colorado River Locks – Mile 441 to 441.5*



The Lockmaster contact phone number: (979) 863-7842 Ext 2005

The Colorado River Locks are located at mile 440 on the Intracoastal Waterway. These locks are 75 feet x 1200 feet and can accommodate tows up to 1,180 feet long and 74 feet in width. The lockmaster can be contacted on channel 13. Mariners should be aware that tows tying off or departing the mooring buoys may have significant wheel wash and sometimes impede through traffic. Towing vessels using the mooring buoys should keep in mind the strong currents that change direction rapidly, as well as the passing traffic. The bypass is located on the east side of the locks and can have strong currents that will affect vessels as they approach the locks headed west bound. The lockmaster will place restrictions on size of tows transiting when the height difference is between 0.7 feet and 1.8 feet. When the height difference exceeds 1.8 feet, the gate will be closed for navigation. Restrictions are also in place when the Colorado river is running 2 mph or faster.

The [USACE Galveston District](#) maintains a summary page of information on the Colorado Locks located at [USACE Colorado River Locks Summary](#). Additionally, the USACE has certain parameters in place based on water speed and height differentials. These can be found at - [USACE Colorado River Locks Operating Parameters](#).

11. Quick Reference Guide to Websites and Contact Numbers

Websites:

- A. [Lone Star Harbor Safety Committee](#)
- B. [VTS Houston-Galveston User Guides](#)
- C. [VTSA Channel Obstruction Request](#)
- D. [Request for Special Traffic Management](#)
- E. [Restricted Mooring and Lightering Locations](#)
- F. [Sector Houston Galveston Severe Weather Plan](#)
- G. [Declaration of Intent to Remain in Port](#)
- I. [Sharing Our Bay - Information for Recreational Boaters](#)
- J. [Sharing Galveston Bay with Recreational Boaters](#)
- K. [Gulf Intracoastal Canal Association \(GICA\)](#)
- L. [Pelican Island Bridge - Info for Recreational Boaters](#)
- M. [USACE Galveston District](#)
- N. [USACE Brazos River Floodgates Summary](#)
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Contact Numbers:

Bolivar Rd Notification for Bunkering/Houston Traffic: (281) 464-4837

Brazis Flood Gate Lockmaster: (979) 233-1251

Caney Creek (Sargent) Swing Bridge: (979) 245-4789

Colorado River Lockmaster: (979) 863-7842 Ext 2005

San Bernard River Bridge: (409) 548-3268

Sector Houston-Galveston Command Center: (281) 464-4855/ VHF Channel 16

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