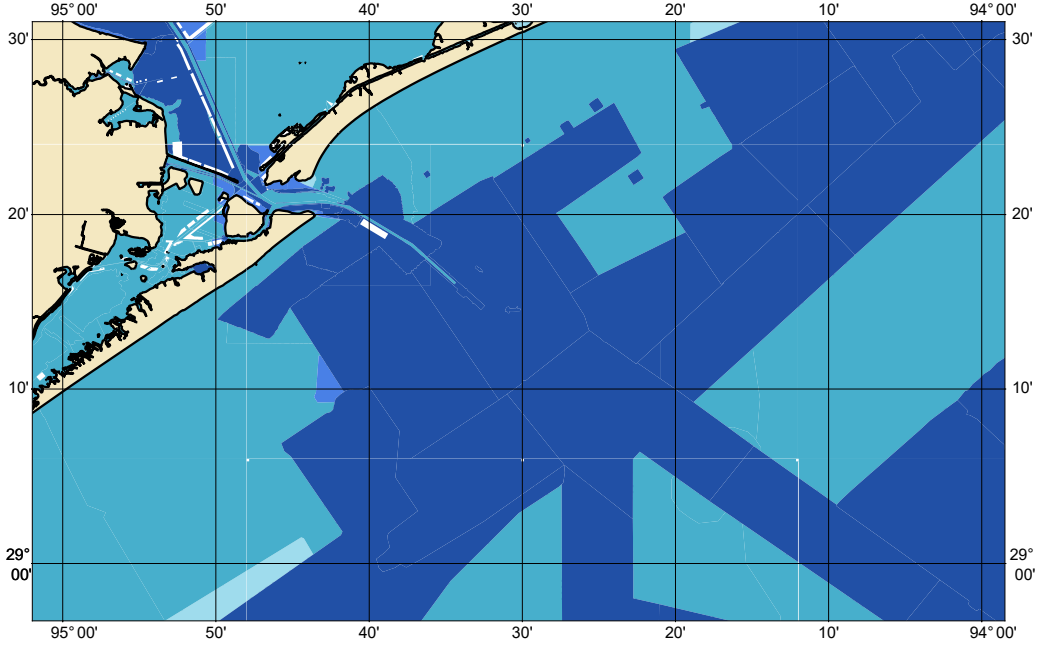


### Zone of Confidence (ZOC) Diagram



ZOC CATEGORIES

ZOC	COLOR	POSITION ACCURACY	DEPTH ACCURACY	SEAFLOOR COVERAGE
A1		± 5 m + 5% depth ± 16.4 ft + 5% depth	= 0.50 m +1% d = 1.6 ft +1% d = 0.3 fm +1% d	All significant seafloor features detected.
A2		± 20 m ± 65.6 ft	= 1.00 m +2% d = 3.3 ft +2% d = 0.6 fm +2% d	All significant seafloor features detected.
B		± 50 m ± 164.0 ft	= 1.00 m +2% d = 3.3 ft +2% d = 0.6 fm +2% d	Uncharted features hazardous to surface navigation are not expected but may exist.
C		± 500 m ± 1640.4 ft	= 2.00 m +2% d = 6.6 ft +2% d = 1.1 fm +2% d	Depth anomalies may be expected.
D		Worse than ZOC C	Worse than ZOC C	Large depth anomalies may be expected.
U		Unassessed - The quality of the bathymetric data has yet to be assessed.		

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NOAA CUSTOM CHART  
NOTES GEOSPATIAL DATABASE  
VERSION 3.0B - 20 FEBRUARY 2025

The records of the NOAA Custom Chart Notes Geospatial Database are current as of February 20, 2025. Subsequent additions and refinements are to be expected. Please refer to all available navigational publications for complete information about the charted area.

## CAUTION CHART UPDATES

This NOAA Custom Chart contains up-to-date information only as of the time of creation, and will become outdated. Mariners are advised to visit <https://distribution.charts.noaa.gov/navigation-updates/> to check for critical and routine updates, and to render a new NOAA Custom Chart when the ENC data used to make the chart is updated. Notices to Mariners are not issued for corrections to this NOAA Custom Chart.

## AUTHORITIES

Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Geological Survey, U.S. Coast Guard and National Geospatial-Intelligence Agency.

## COMMENTS REQUESTED

NOAA encourages users to submit inquiries, discrepancies, or comments about this chart via NOAA's ASSIST tool at <https://nauticalcharts.noaa.gov/customer-service/assist/>.

## CAUTION AUTOMATED CHART GENERATION

This NOAA Custom Chart has been automatically rendered from NOAA Electronic Navigational Chart (NOAA ENC®) data. Mariners using this NOAA Custom Chart are advised that this is a static reproduction of the NOAA ENC®. This NOAA Custom Chart has not been individually quality checked or adjusted for optimal use for navigation. The portrayal may be at a different scale from that of the original NOAA ENC®. Mariners are advised to use caution when using this NOAA Custom Chart for navigation and are encouraged to use the latest NOAA ENC® to access the most up-to-date information. Mariners must also comply with all applicable regulatory requirements.

## HEIGHTS

Heights of fixed aids to navigation and vertical clearances of overhead obstructions will be shown in feet if the units are set to feet or fathoms. If units are set to meters, heights will be shown in meters. Land elevation values are shown in meters only.

## WATER LEVELS, CURRENTS, AND TIDES

Real-time water levels, tide predictions, and tidal current predictions are available on the internet from NOAA's Center for Operational Oceanographic Products and Services (CO-OPS) at [https://tidesandcurrents.noaa.gov/water\\_level\\_info.html](https://tidesandcurrents.noaa.gov/water_level_info.html) and [https://tidesandcurrents.noaa.gov/currents\\_info.html](https://tidesandcurrents.noaa.gov/currents_info.html).

## ABBREVIATIONS

For complete list of Symbols and Abbreviations, see Chart No. 1.

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## POLLUTION REPORTS

Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

## WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

## SUPPLEMENTAL INFORMATION

Consult U.S. Coast Pilot 5 for important supplemental information.

Refer to charted regulation section numbers.

## VERTICAL DATUM

Overhead clearances are referred to Mean High Water (MHW).

## COLREGS DEMARCATION LINE

The Inland Navigational Rules Act of 1980 is in effect for vessels transiting this area. The seaward boundaries of this area are the COLREGS demarcation lines. In the area seaward of the COLREGS demarcation lines, vessels are governed by COLREGS: International Regulations for Preventing Collisions at Sea, 1972. The COLREGS demarcation line is defined in COLREGS 33 CFR 80.845a.

## AIDS TO NAVIGATION

Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

## RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

## ADDITIONAL INFORMATION

Additional information can be obtained at [www.nauticalcharts.noaa.gov](http://www.nauticalcharts.noaa.gov)

## SOUNDING DATUM

Soundings referred to Mean Lower Low Water (MLLW).

## NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 5. Additions or revisions to Chapter 2 are published in the Notices to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 8th Coast Guard District in New Orleans, LA or at the Office of the District Engineer, Corps of Engineers in Galveston, TX.

Refer to charted regulation section numbers.

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## COLREGS DEMARCATION LINE

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## MINERAL DEVELOPMENT STRUCTURES

Obstruction lights and sound (fog) signals are required for fixed mineral development structures, subject to approval by the District Commander, U.S. Coast Guard (33 CFR 67).

## VESSEL TRAFFIC SERVICES (VTS)

The U.S. Coast Guard operates a mandatory Vessel Traffic Services (VTS) system in the Hudson, Galveston, and Texas City waterways. Vessel operating procedures and designated radiotelephone frequencies are published in 33 CFR 161, the U.S. Coast Pilot, and/or the VTS User's Manual. Mariners should consult these sources for applicable rules and reporting requirements. Although mandatory VTS participation is limited to the navigable waters of the United States, certain vessels are encouraged or may be required, as a condition of port entry, to report beyond this area to facilitate advance vessel traffic management within the VTS area.

## HURRICANES AND TROPICAL STORMS

Hurricanes, tropical storms and other major storms may cause considerable damage to marine structures, aids to navigation and moored vessels, resulting in submerged debris in unknown locations. Charted soundings, channel depths and shoreline may not reflect actual conditions following these storms. Fixed aids to navigation may have been damaged or destroyed. Buoys may have been moved from their charted positions, damaged, sunk, extinguished or otherwise made inoperative. Mariners should not rely upon the position or operation of an aid to navigation. Wrecks and submerged obstructions may have been displaced from charted locations. Pipelines may have become uncovered or moved. Mariners are urged to exercise extreme caution and are requested to report aids to navigation discrepancies and hazards to navigation to the nearest United States Coast Guard unit.

## ALTERNATE NORTHBOUND ROUTE TO HOUSTON SHIP CHANNEL

The U.S. Coast Guard has established an alternate route for vessels transiting inbound from the Intracoastal Waterway to the Houston Ship Channel. The alternate route is marked with a 300° T head range, and is in naturally deep water. Houston Traffic requests that all vessels proceeding northbound in the alternate route conduct a Sécurité broadcast of their intentions prior to entering into the Houston Ship Channel. Outbound tows normally proceed south to Houston Ship Channel Buoy 26, then east to Point Bolivar.

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## PRECAUTIONARY AREA

A pilot boarding area is located near the center of the inshore precautionary area. Due to heavy vessel traffic, mariners are advised not to anchor or linger in this precautionary area except to pick up or disembark a pilot.

### CAUTION

Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.

### CAUTION LIMITATIONS ON THE USE OF RADIO SIGNALS

Limitations on the use of radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and National Geospatial-Intelligence Agency Publication 117.

Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.

### CAUTION

Open bascule overhangs Galveston Channel.

### HOUSTON SHIP CHANNEL

Large vessels traversing the Houston Ship Channel can cause swells engulfing the shoals alongside the channel. Small craft should use extreme caution when operating in these areas.

## INTRACOASTAL WATERWAY AIDS

The U.S. Aids to Navigation System is designed for use with nautical charts, and the exact meaning of an aid to navigation may not be clear unless the appropriate chart is consulted. Aids to navigation marking the Intracoastal Waterway exhibit unique yellow symbols to distinguish them from aids marking other waterways. When following the Intracoastal Waterway westward from Carrabelle, FL to Brownsville, TX, aids with yellow triangles should be kept on the starboard side of the vessel and aids with yellow squares should be kept on the port side of the vessel. A horizontal yellow band provides no lateral information, but simply identifies aids to navigation as marking the Intracoastal Waterway.

### CAUTION GAS AND OIL WELL STRUCTURES

Numerous uncharted gas and oil well structures, pipes, piles, and stakes exist within the obstruction area. Uncharted structures may exist outside the obstruction area.

### CAUTION SUBMERGED CABLES AND PIPELINES

Additional uncharted submarine pipelines and submarine cables may exist within the area of this chart. Not all submarine pipelines and submarine cables are required to be buried, and those that were originally buried may have become exposed. Mariners should use extreme caution when operating vessels in depths of water comparable to their draft in areas where pipelines and cables may exist, and when anchoring, dragging or trawling.

Covered wells may be marked by lighted or unlighted buoys.

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## CAUTION

USACE conducts hydrographic surveys to monitor navigation conditions. These surveys are not intended to detect underwater features. Uncharted features hazardous to surface navigation are not expected but may exist in federal channels. For more information visit <https://navigation.usace.army.mil/Survey/Hydro>.

## OBSTRUCTIONS

Numerous stakes may exist between piling and platforms along Houston Ship Channel. Pilings, platforms, and stakes may be submerged.

## MOORING BUOYS

Mooring buoys are located north of the Galveston-Freeport Cutoff Channel.

## NOAA WEATHER RADIO BROADCASTS

The NOAA Weather Radio station listed below provides continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.  
Beaumont, TX WXX-28 162.475 MHz

## CAUTION

Improved channels are subject to shoaling, particularly at the edges.

## GAS AND OIL WELL STRUCTURES

Uncharted platforms, gas and oil well structures, pipes, piles and stakes exist in the vicinity of Galveston Bay. Uncharted structures may exist outside the obstruction area.

## STRONG CURRENTS

Mariners should be alert to the possibility of strong cross-currents as they transit Galveston Bay Entrance Channel.

## RACING BUOYS

Racing buoys within the limits of this chart are not shown hereon. Information may be obtained from the U.S. Coast Guard District Offices as racing and other private buoys are not all listed in the U.S. Coast Guard Light List.

## NOAA WEATHER RADIO BROADCASTS

The NOAA Weather Radio station listed below provides continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.  
Galveston, TX KHB-40 162.550 MHz