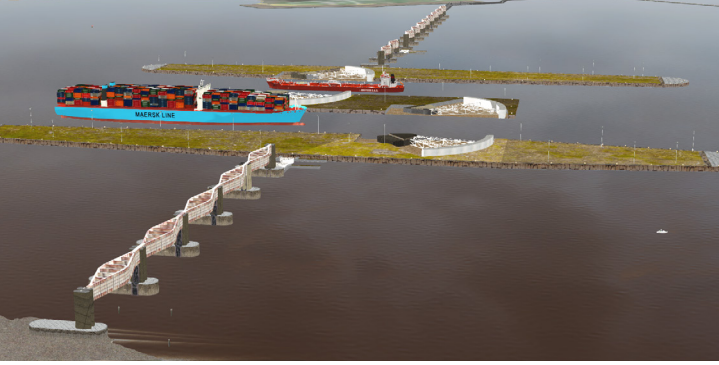

Proposed Bolivar Roads Gate System from the ship simulation study. Photo courtesy of the USACE,Texas General Land Office.

Barrier Roads Gate System

The U.S. Army Corps of Engineers ("USACE") and the Gulf Coast Protection District are currently developing the Galveston Bay Storm Surge Barrier System which includes the Bolivar Roads Gate System. The systems are intended to protect the port of Houston region and surrounding areas from storm surge. The Greater Houston Port Bureau ("GHPB") fully supports the mission of protecting the communities, environment, and economy of the port of Houston from severe weather.

The success of the project must also consider the safe and efficient navigation of the Houston Ship Channel. The port of Houston provides the region, the state, and our nation with:

- 1.5 million jobs in Texas
- $440 billion in economic value statewide or about 20% of Texas GDP
- $63 billion in tax revenue each year for the federal, state, and local economies
- Nearly $1 trillion in economic activity annually for the U.S.

The proposed design includes two gates that are 650' wide and 60' deep that can be closed in severe storm/hurricane conditions.

Greater Houston Port Bureau

txgulf.org

Ship simulation study by the pilots at San Jacinto Maritime College, LaPorte, Texas

The GHPB sponsored a ship simulation study involving the Houston Pilots and Galveston-Texas City Pilots. More than 40 separate ship transit scenarios, which considered variables such as weather, vessel size, currents, and visibility were performed. The results indicated:

- The 650' gates are too narrow, creating conditions that make it difficult to maintain a ship's heading and speed.
- The location of the gates is problematic for vessels and cruise ships leaving and entering Galveston because of the severe turn angle required to align with the gates.
- Visibility of the gate openings aboard large vessels was obstructed.
- The gate design restricts the opening at Bolivar Roads, resulting in swifter currents beyond what is considered safe by the pilots.

In most scenarios, the simulations resulted in collisions with vessels or the gate complex, groundings, and difficulty in maintaining control of the ship.

Among the other effects from the gate design:

- State-mandated, two-way traffic during construction and maintenance would be compromised
- An anchorage area used by 2,000 ships a year would be eliminated
- Project 11 and future expansion projects would be hampered, limiting future growth and competitiveness of the busiest waterway in the U.S.

For information and the full report visit:
https://www.txgulf.org/houston-ship-channel-gate-complex