

# **The Senate Interim Committee on Natural Resources**



**Interim Report  
to the 77th Legislature**

***The Economic Impact of Port  
Regionalization and Expansion***

**November 2000**

# TEXAS SENATE NATURAL RESOURCES COMMITTEE

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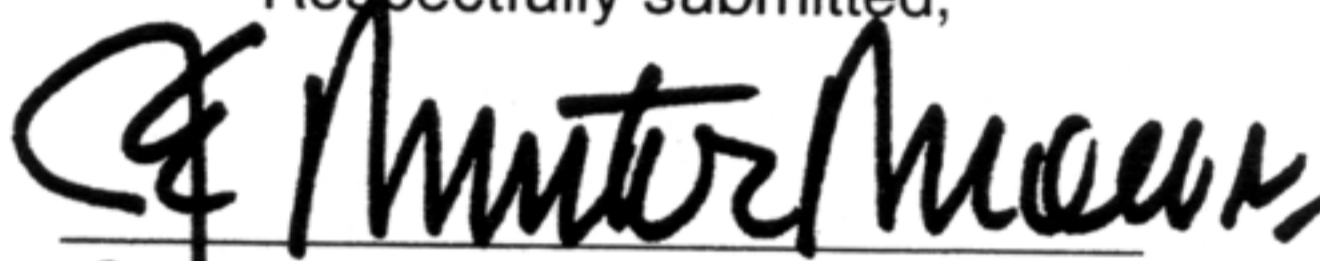
November 1, 2000

The Honorable Rick Perry  
Lieutenant Governor of Texas  
Members of the Texas Senate  
Texas State Capitol  
Austin, Texas 78701

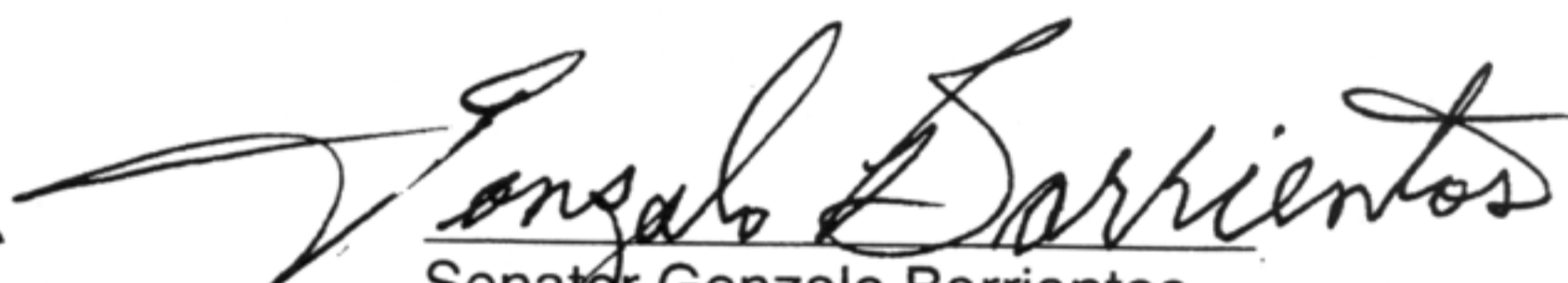
Dear Governor Perry and Fellow Members:

The Committee on Natural Resources of the Seventy-Sixth Legislature hereby submits its interim report including findings and recommendations for consideration by the Seventy-Seventh Legislature.

Respectfully submitted,

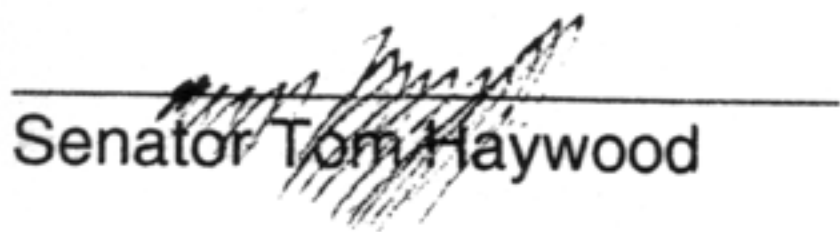
  
Senator J.E. "Buster" Brown, Chair

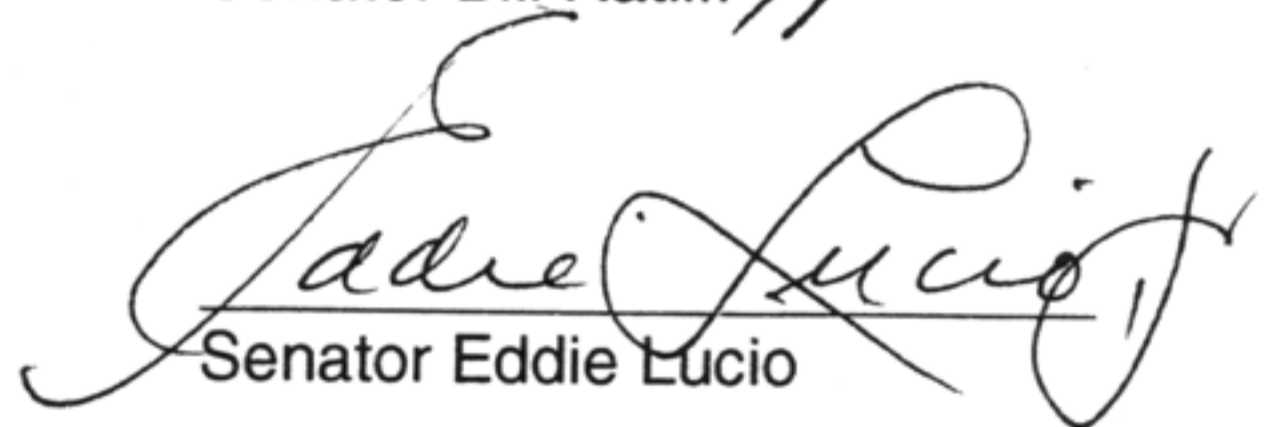
  
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**“For whomsoever commands the sea commands the trade; Whomsoever commands the trade of the world commands the riches of the world, and consequently the world itself.”**

**Sir Walter Raleigh**

**The Invention of Ships (early 1600's)**

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**ACRONYMS**

APEC	Asia Pacific Economic Cooperation
CERCLA	Comprehensive Environmental Response, Cleanup, and Liability Act
CPW	Center for Ports and Waterways
EPA	Environmental Protection Agency
HGB	Houston-Galveston-Brazoria
GATT	General Agreements on Tariffs and Trade
GIWW	Gulf Intracoastal Waterway
IDP	Intermodal Development Program
IGR	Senate Intergovernmental Committee
NAFTA	North American Free Trade Agreement
NOAA	National Oceanic and Atmospheric Administration
NRC	National Research Council
PAAC	Port Authority Advisory Committee
PCB	Polychlorinated Biphenyls
PHA	Port of Houston Authority
POG	Port of Galveston
SIP	State Implementation Plan
TAMU	Texas A&M University
TEA	Transportation Economic Assistance
TEEX	Texas Engineering Extension Service
TEU	Twenty-foot Equivalent Unit
TNRCC	Texas Natural Resource Conservation Commission
TPWD	Texas Parks and Wildlife Department
TTI	Texas Transportation Institute
USACE	United States Army Corps of Engineers
UT-B	The University of Texas at Brownsville
WTO	World Trade Organization

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**INTRODUCTION**

The story of Texas' ports is one of business and commerce. Over the past few decades, state leadership has responded to public concerns through actions such as direction to state agencies to focus on port issues, consideration of regionalization, and the future growth of ports, initiation of more public involvement in developing responses to port issues, statewide water planning initiatives, and proactive efforts to ensure high quality air and water. Long-term planning and careful development in Texas have given rise to some of the most accessible ports in North America. Recent innovations in state law and regulation regarding the regionalization of Texas ports have set the pace for future economic development.

**INTERIM CHARGE**

The Senate Committee on Natural Resources ("the Committee") was charged by Lieutenant Governor Rick Perry to examine issues related to port expansion and growth, including the implementation of SB 1665, 76th Legislature, Regular Session, relating to the authority of certain navigation districts to acquire land, equipment, or improvements and issue bonds. The Committee was further directed to study the potential economic impact of losing cargo to other states due to inadequate port infrastructure, as well as to examine the statutory and constitutional powers granted to those political subdivisions with jurisdiction over ports and which are organized pursuant to Article 16, Section 59 of the Texas Constitution, and to determine how regional port cooperation might assist in easing congestion at current ports and cargo exchange terminals. Finally, the Committee was charged to measure the success of other state, national, or international efforts to regionalize port planning and expansion.

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**BACKGROUND**

**History of Texas Ports and Their Role in Commerce**

To understand the role that Texas' ports play in shipping and navigation, some history needs to be provided. Historically, economic development has been based on commerce, the flow of trade moving goods and people from city to city, region to region, or country to country. Traditionally, that trade began in

**Twenty percent of the total tonnage of goods flowing through all U.S. ports moves through Texas ports. In a nation of 50 states, one-fifth of waterborne commerce moves through one state.**

seaports and the great cities of the world. The coasts and inlets where that trade docked and stopped became the great port cities of the world we know and talk about.<sup>1</sup> Twenty percent of the total tonnage of goods flowing through all U.S. ports moves through Texas ports. In a nation of 50 states, one-fifth of the waterborne commerce moves through one state.<sup>2</sup> A record of U.S. waterborne traffic by state shows Texas to be 2nd only to Louisiana in tonnage over the past two years, both carrying significantly more tonnage than any other state.<sup>3</sup> The chart of state rankings can be found in Appendix A.

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<sup>1</sup> Jurey, Wes. Texas Transportation Comm. Mtg., Austin, Texas. March 25, 1999.

<sup>2</sup> Pat Younger, Government Relations Manager, Port of Houston Authority during her presentation at the Ports and Waterways Conference, Brownsville, Texas. August 1999.

<sup>3</sup> U.S. Waterborne Traffic by State in 1998. U.S. Army Corps of Engineers Navigation Data Center. [www.wrsc.usace.army.mil/ndc/fcstate.htm](http://www.wrsc.usace.army.mil/ndc/fcstate.htm)

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**Brief Overview of Ports in the Lone Star State<sup>4</sup>**

In Texas there are 11 deep-draft ports, each of which is directly accessible to the Gulf of Mexico, and there are 18 shallow-draft ports or port districts.<sup>5</sup> Texas has a great number of major ports which are operated by independent administrative authorities.

Following is a list of the ports and their governing bodies:

- ***Port of Beaumont Navigation District***—Governed by a five-member board of commissioners that is elected for two-year terms; residents and qualified voters are eligible for election; the president, vice president and secretary/treasurer are elected and compensated in the following manner: all commissioners are paid travel expenses while the president is paid \$150 per month and other commissioners \$125 per month.
- ***Brazos River Harbor Navigation District (Port of Freeport)***—Six-member board of commissioners who are all elected for six-year terms and provided \$200 per month as compensation.
- ***Brownsville Navigation District***—Three-member board of commissioners who are elected for two-year terms; no compensation.
- ***Calhoun County Navigation District***—Six- Map Courtesy of the Texas Ports Association member board of commissioners who are elected and provided \$75 per meeting as compensation.
- ***Port of Corpus Christi Authority***— Five-member board of commissioners who are appointed to six-year terms; no compensation.

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<sup>4</sup> CanagaRetna, Sujit M., Southern Legislative Conference “The Future of Southern Ports: Megaships and Megachanges on the Horizon”, October 1999.

<sup>5</sup> Younger, Pat. During testimony given to the Agenda Meeting of the Texas Department of Transportation. October 26, 2000.

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- **Port of Galveston**—Seven-member board of trustees appointed by the City Council, including one ex-officio member of the City Council, appointed for three-year terms and provided \$10 per month as compensation; appointees should have been residents of Galveston for at least one year in the preceding appointment period.
- **Port of Houston Authority**—Five-member board with the city and county each appointing two members and the remaining member being appointed jointly by both the city and county.
- **Orange County Navigation Port District**—Five-member board of commissioners elected to four-year terms; compensation includes \$10 per day served to a maximum of \$600 per year, excluding mileage allowance.
- **Port Arthur Navigation District of Jefferson County**—Five-member board of commissioners who are elected to serve two-year terms; all commissioners are paid travel expenses while the president is paid \$75 per meeting and the other commissioners \$50 per month.
- **Port Isabel-San Benito Navigation District**—Three-member board of commissioners who are elected to six-year terms; compensation involves a flat rate per month regardless of number of meetings attended.
- **Port of Houston**— courtesy Port of Houston Authority terms; compensation involves a flat rate per month regardless number of meetings attended.

Overall annual tonnage at different Texas ports:

- **Arthur** (1998) — 923,021 short tons (break bulk)
- **Beaumont** (1996) — 2,743,761 total tons consisting of 640,269 (break bulk) and 2,103,492 (dry bulk)

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- **Brownsville** (1996) — 1,028,165 metric tons (liquid bulk) and 1,100,189 metric tons (dry bulk)
- **Corpus Christi** (1998) — 89,528,133 short tons consisting of 136,780 (break bulk); 1,463,127 (bulk grain); 2,001,658 (chemicals); 7,867,258 (dry bulk); 53,649 (liquid bulk); 78,005,661 (petroleum)
- **Freeport** (1998) — 931,168 tons including 516,082 (containerized); 72,718 (break bulk) and 342,368 (dry bulk)
- **Galveston** (1997) — 6,080,568 short tons including 94,327 (containerized); 332,214 (break bulk); 4,974,187 (dry bulk) and 679,840 (liquid bulk)
- **Houston** (1998) — 170.0 million short tons in total tonnage handled; 968,169 TEUs or 20-foot container units handled (this is a total of 8.1 million short tons)\*

**\*Special Note:** The Port of Houston, the world's eighth largest port, is a 25-mile long complex of diversified public and private facilities several hours sailing time from the Gulf of Mexico. The Port of Houston Authority, which owns and operates the public facilities along the Houston Ship Channel, notes that the Port ranks first in the United States in foreign waterborne commerce and second in total tonnage. The Port's top five trading partners in 1998—in terms of tonnage—were Mexico, Venezuela, Algeria, Iraq and Saudi Arabia. In terms of preparing for the onset of megaships, the Port of Houston is the most likely candidate to capture the role of load center containership megaport for

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the Gulf.<sup>6</sup> Study indicates that the Port's management has initiated various measures

**If you drive a car; drink coffee; live in a house; dine on seafood, cereal, vegetables or fruit; wear clothes; drink imported wine and eat imported cheese, then you can thank your Texas ports. Specifically, you can thank Freeport for your fruit; Harlingen, Port Isabel, Palacios and Port Mansfield for delicious Texas seafood; Beaumont for the wood used to build your house; Port Lavaca-Point Comfort for the convenience of plastics; Brownsville for the oil you use for cooking; Corpus Christi for much needed petroleum; Galveston for your breakfast cereal; Houston for your car and the steel needed for its tires; Orange for your vegetables; Port Arthur for the paper you use everyday; and Texas City for the chemicals used in so many products.**

**Pat Younger  
Port of Houston Authority**

to improve their facilities to prepare for container growth in the 21st century.<sup>7</sup> (For a chart of the main channel depth and primary cargoes see Appendix B.)

### **History of Ocean Shipping in Texas<sup>8</sup>**

*1845-1858<sup>9</sup>*

*Ocean shipping from Texas ports has grown with the development of the state's*

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<sup>6</sup> Texas Transportation Institute, Texas A&M University. [tti.tamu.edu](http://tti.tamu.edu)

<sup>7</sup> CanagaRetna, Sujit M., Southern Legislative Conference "The Future of Southern Ports: Megaships and Megachanges on the Horizon", October 1999.

<sup>8</sup> "Ocean Shipping." The Handbook of Texas Online. [www.tsha.utexas.edu/handbook/online/articles/view/OO/eto1.html](http://www.tsha.utexas.edu/handbook/online/articles/view/OO/eto1.html)

<sup>9</sup> id.

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*commerce and resources. Before 1845 Galveston and Velasco, the most important ports on the Gulf, engaged mostly in trade with New Orleans. In 1845 a total of 250 vessels arrived at Galveston, 52 of which were steamships. In 1855 this total had grown to 326, including 93 steamships. On both the regular runs between Galveston and New Orleans and the unscheduled runs to the Atlantic coast, most of the trade was of the common-carrier type, as opposed to the merchant-trader sort found in the early part of the nineteenth century. Galveston's principal export was cotton, two-thirds of which went to Britain. Other ports of importance before the Civil War were Brazos Santiago (at Port Isabel), Indianola, Port Lavaca, Corpus Christi, Port Aransas, and Sabine Pass. These ports were shallow and served principally as ports for Intracoastal trade, which generally cleared at Galveston. Indianola was a possible exception to this, for as early as 1858, 125 beef cattle were shipped from there each week on average.*

*Post Civil War-1890<sup>10</sup>*

*After the Civil War, port traffic expanded and numerous small towns along the Gulf Coast felt the stimulus of ocean commerce. Partially because of the rapid growth of rail connections in the 1870s and 1880s and partially because of the steadily increasing draft of oceangoing vessels, these shallow-water ports later suffered a decline, and many of them, like Indianola, vanished. About 1890, considerable political and commercial activity was directed toward the establishment of deepwater ports in Texas. Of the private efforts, perhaps the most ambitious was that of the Brazos River*

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<sup>10</sup> "Ocean Shipping." The Handbook of Texas Online.  
[www.tsha.utexas.edu/handbook/online/articles/view/OO/eto1.html](http://www.tsha.utexas.edu/handbook/online/articles/view/OO/eto1.html)

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*Channel and Dock Company, which proposed to dredge a forty-foot-deep harbor at the mouth of the Brazos and make the river navigable to Waco. Congressional appropriations were made for the survey of possible Texas harbors, and the harbor at Galveston was deepened. Improvements were made at Sabine Pass, Quintana, and Port Aransas. For the 1890s the average number of annual arrivals at Galveston was 290.*

1910-1946<sup>11</sup>

*By 1910 Texas had four serviceable deepwater seaports at which thirty-five steamship lines maintained regular schedules. Galveston, as a result of large expenditures by the federal government, had become an important national port, and the total number of arrivals in that year was 1,672. The port of Sabine Pass, with five miles of waterfront and direct ship channels to Port Arthur and Beaumont, exported large quantities of lumber, cotton, and oil. Port Arthur and Beaumont, by virtue of channels to Sabine Pass, were also open to deepwater vessels. In 1910 some coastwise trade was carried on through Aransas Pass, Velasco, Corpus Christi, and Brazos Santiago, which had also received government appropriations. These expenditures on Texas harbors continued. In 1925 Galveston, Texas City, Freeport, Port Bolivar, Corpus Christi, and the Sabine ports of Port Arthur, Beaumont, and Orange were suitable for oceangoing traffic, and a ship channel was making Houston a port of the first magnitude. An intracoastal canal had been completed from New Orleans to Sabine Pass and from Galveston to Corpus Christi. By 1936 Port Aransas, Port Isabel, and*

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<sup>11</sup> id.

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*Port Neches had been converted to deepwater ports, and the port of Houston, a man-made harbor, had become the most important port in Texas. In 1946 the Texas deepwater ports were Houston, Galveston, Texas City, Beaumont, Port Arthur, Orange, Sabine Pass, Corpus Christi, Freeport, Port Aransas, Ingleside, Brownsville, and Port Isabel. The total value of the traffic through these ports was \$1,814,183,762. In 1946 also the Gulf Intracoastal Waterway was opened from Brownsville to Florida.*

*1954-1959<sup>12</sup>*

*The 370-mile Texas Gulf Coast had become a major seaboard by 1954, when a total of 138,360,878 tons was shipped through twenty-six Texas ports. By 1959 this amount increased to 160,535,334 tons. For the 1954-63 decade Texas averaged \$2,676,000,000 yearly in foreign trade (\$2,113,000,000 in exports and \$563,000,000 in imports), led all states in the export of chemical and petroleum products, and ranked second in agricultural products, fourth in food products, and eighth in manufactured items.*

*1962-1989<sup>13</sup>*

*Port Mansfield, in Willacy County, became the thirteenth deepwater Texas port in 1962. The others were (in order of importance by shipping tonnage in 1971): Houston, Beaumont, Corpus Christi, Port Arthur, Texas City, Freeport, Port Aransas (Harbor*

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<sup>12</sup> "Ocean Shipping." The Handbook of Texas Online.  
[www.tsha.utexas.edu/handbook/online/articles/view/OO/eto1.html](http://www.tsha.utexas.edu/handbook/online/articles/view/OO/eto1.html)

<sup>13</sup> "Ocean Shipping." The Handbook of Texas Online.  
[www.tsha.utexas.edu/handbook/online/articles/view/OO/eto1.html](http://www.tsha.utexas.edu/handbook/online/articles/view/OO/eto1.html)

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*Island), Brownsville, Galveston, Orange, Port Isabel, and Sabine Pass. These thirteen major ports accounted for 183,801,593 tons of the state's total shipping of 195,995,241 tons in 1971, with Houston alone handling over 68,000,000 tons of cargo. The port of Houston annually ranked second or third in the nation in tonnage among deepwater ports. Among the major shallow-water ports in Texas were Port Lavaca, Sweeny, Dickinson Bayou, and Rio Hondo-Harlingen. Traffic along the Gulf Intracoastal Waterway, which linked most of the major ports, continued a steady increase during the 1950s, 1960s, and early 1970s; short tons of commerce amounted to 24,700,000 tons in 1954, 34,000,000 in 1960, 55,500,000 in 1967, and 67,617,562 in 1971. Tonnage for the thirteen major ports in 1988 and 1989 was more than 81,000,000. In 1990 it was 71,000,000. Tonnage for all ports was 260,000,000 in 1982, 291,000,000 in 1987, and 330,000,000 in 1989. In 1990 the total of receipts and shipments for the thirteen largest ports was more than 321,000,000 tons and for all Texas ports more than 335,000,000 tons.*

**The Gulf Intracoastal Waterway**

Along the 1,300 miles of coastal waterways in the Gulf of Mexico, the Gulf Intracoastal Waterway (GIWW) is an essential part of the intermodal transportation of goods throughout the United States. In Texas there are 426 miles of waterway supplying both foreign and domestic markets with products and chemicals. The Gulf Intracoastal Waterway transportation system came to be after several historical occurrences. The following excerpts taken from Willie Younger's *Texas' Unsung Hero in the Battle for*



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*Economic Independence*<sup>14</sup> best describes the GIWW's formation. *The discovery of the famous Spindletop oilfield near Beaumont in 1901 planted the seed for development of such a major artery of maritime commerce. These seeds, nurtured by the visions of two young Texas businessmen as they ushered in a new century and a new era of fossil energy, soon took root. A federal survey of the Texas coastline in 1874 had already proven the technical feasibility of such a waterway, and a second survey in the early 1900s confirmed that such a transportation system would serve not only the "black gold" but coal, rice, sugar and molasses, lumber, cotton and general merchandise as well.*

*Construction began on the Texas Intracoastal Waterway in 1905 with canals dredged 5 feet deep and 40 feet wide from Corpus Christi to Aransas pass, Aransas Pass to Pass Cavallo, and from the Brazos River to West Galveston Bay. These canals were finished in 1909. Although surveys were ordered for a continuous waterway from Boston to the Rio Grande, a plan for the whole system still did not exist in 1924. The need for sheltered passage of troops and supplies during both World War I and World War II re-emphasized the importance of water transportation to national defense. A channel terminating in Corpus Christi was pushed to completion in 1942 and a channel between Corpus and Brownsville was completed June 18, 1949, thus forming a continuous waterway from Apalachee Bay, Florida, to the Mexican border. At that time the waterway was dredged to its present dimensions of 12-feet deep by 125 feet wide.*

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<sup>14</sup> Younger, Willie. *The Gulf Intracoastal Waterway. Texas' Unsung Hero in the Battle for Economic Independence.* [www.mts.tamug.tamu.edu/tti-giww.html](http://www.mts.tamug.tamu.edu/tti-giww.html)

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*By 1961, nearly 90 tributaries had been incorporated into the GIWW system, more than half of these in Texas and Louisiana. The addition of each tributary channel enhanced the value of the main canal by providing increased access and service to users.*

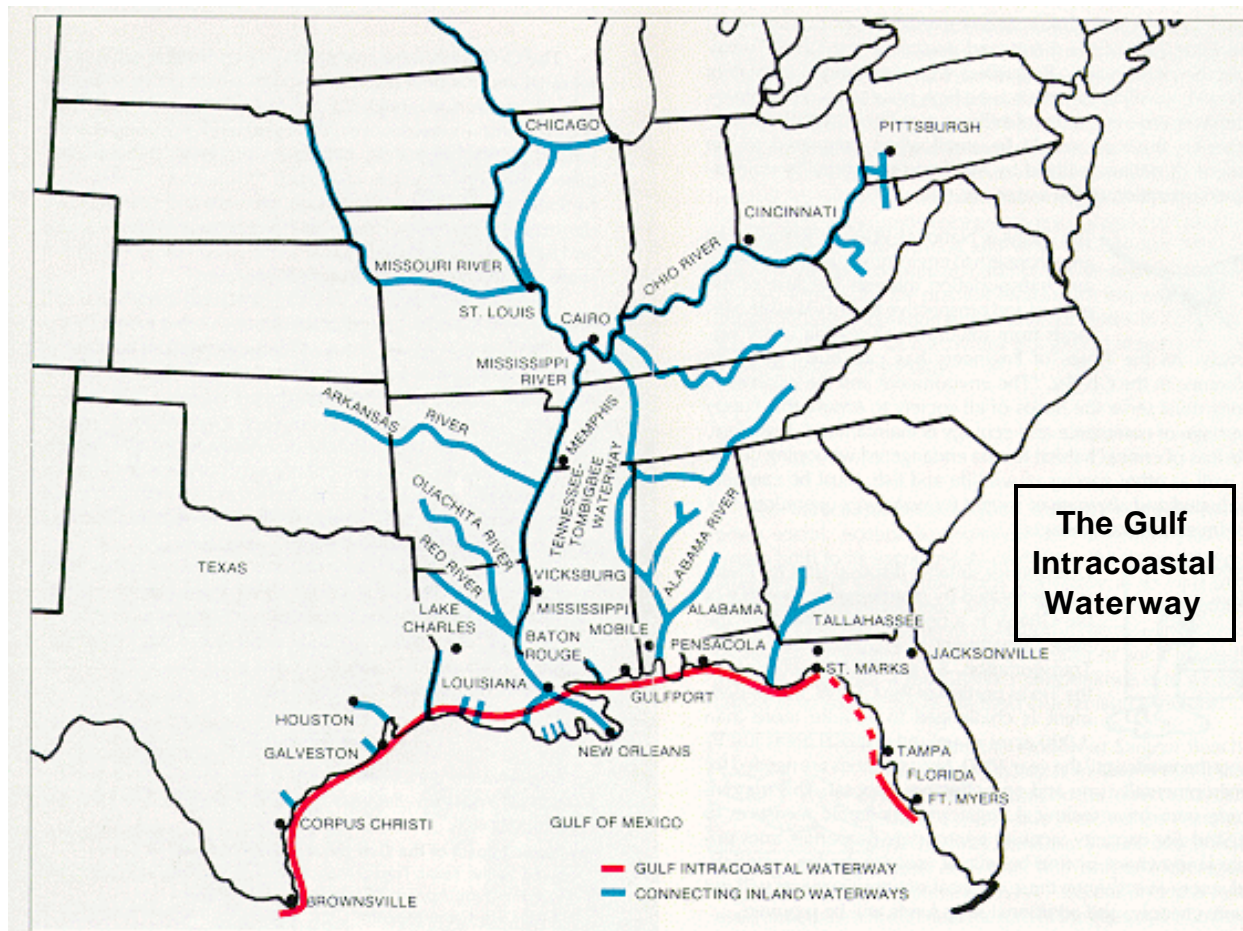
The GIWW now extends along the entire length of the Texas coast. In most places, it is 12-feet deep by 125-feet wide. The GIWW transports 100 million tons of goods annually. It links Texas ports to U.S. and international destinations.<sup>15</sup> In 1984, the Texas Department of Transportation formed a GIWW Advisory Committee that is comprised of members from the Texas Natural Resource Conservation Commission, the Texas Parks and Wildlife Department, the Texas General Land Office, and the Governor's Office.<sup>16</sup>

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<sup>15</sup> *Texas Water Resources*, Volume 21 Number 1: Spring 1995. Texas Water Resources Institute.

<sup>16</sup> *id.*

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Map Courtesy of the Gulf Intracoastal Waterway

### Role of the Federal Government

In researching the role of the federal government, the Committee found that the following excerpt from *The Future of Southern Ports: Megaships and Megachanges on the Horizon*<sup>17</sup> best described this function: *The federal government continues to be the primary actor in setting port policy across the United States. Given the critical role of waterborne transportation in the commercial and military success of the nation, the*

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<sup>17</sup> CanagaRetna, Sujit M., Southern Legislative Conference “The Future of Southern Ports: Megaships and Megachanges on the Horizon”, October 1999.

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*role of the federal government goes back to the time of the founding fathers. In fact, the founding fathers knew that only through active commerce, an extensive navigation system, and a flourishing maritime industry would the new nation survive against foreign powers. These perspectives resulted in the U.S. Constitution containing the initial statement of federal port policy in Article I, Section 9. “No preference shall be given by any regulation of commerce on revenue to the ports of one State over those of another; nor shall vessels bound to, or from, one State be obliged to enter, clear, or pay duties in another.” (See Appendix C for Article I, Section 9 of the United States Constitution.)*

*This provision of the Constitution sought to ensure that port policy across the country remained free from competitive or discriminatory bias in interstate affairs. In addition, it sought to diminish the interstate trade rivalries that prevailed under the Articles of Confederation. The supremacy of the federal government in regulating interstate and foreign commerce was further reinforced and upheld by the United States Supreme Court in the landmark decision, Gibbons v. Ogden.<sup>18</sup>*

*Consequently, Congress has authorized and funded activities to ensure the free and efficient navigational access to the nation’s waterways since independence. For instance, in 1789, Congress authorized the first navigation channel improvement project. Then, the General Survey Act of 1824 established the U.S. Army Corps of Engineers, giving it chief responsibility for planning and maintaining the nation’s waterways, roads and railways. To this day, the federal government, through the U.S.*

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<sup>18</sup> Gibbons v. Ogden, 22 U.S. 1 (1824).

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*Army Corps of Engineers, controls, constructs and maintains all U.S. access and navigational channels. In this context, it is the Corps of Engineers which plays the dominant role in preparing ports for the onset of megaships since it is the government agency responsible for deepening channels in ports.*

*The role of the federal government in port policy is particularly important since all ports and channels serve multi-state needs. For instance, the foreign trade activities of a state are supported by a number of ports—both within, and, quite often, outside the state. It is estimated that on average, each state relies on between 13 and 15 ports to handle 95 percent of its exports and imports. Louisiana ports, for example, handle goods from 27 states on their way to foreign destinations. Similarly, imported crude oil refined in New Jersey and Pennsylvania swiftly reaches East Coast consumers from Maine to Florida. This type of efficient goods transfers, facilitated by the nation's ports, is possible due to the involvement of the federal government acting on the aforementioned Constitutional provision.*

*Notwithstanding the primary role played by the federal government in port policy across the United States, state and local governments have begun to play increasingly important roles as well. Most state governments have established separate departments to plan and administer the ports within their states. It is also important to note that the federal government is encouraging state and local governments to better coordinate their activities in the transportation sphere, including those in port development.*

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**Comparison of Other Ports Nationwide**

In comparing other ports nationwide, the Committee found the following excerpt from *The Future of Southern Ports: Megaships and Megachanges on the Horizon*<sup>19</sup> to best make this comparison. Information on U.S. port rankings, by total cargo volume, remains very useful in assessing the relative importance of ports. This data shows the magnitude of cargo moving through certain ports and as the Table in Appendix D indicates, several southern port levels remain impressive.

*Thirteen of the top 20 and seven of the top 10 U.S. ports—by cargo volume—are located in the southern states, a clear indication of the dominant role southern state ports play in overall U.S. port calculations. Furthermore, an overwhelming 70 percent of the cargo moved in the top 20 U.S. ports was in the southern state ports. Other state ports accounted for the remaining 30 percent. Among the southern states, Texas and Louisiana accounted for a majority of the cargo volume.*

Another interesting measurement perspective involves a ranking of the top 20 U.S. ports by the total dollar value of the cargo (imports and exports). While the Table in Appendix D affords comparisons by sheer cargo volume, the Table in Appendix E enables comparisons along the lines of which U.S. port moves the most expensive cargo.

The committee heard testimony regarding the comparison of ports across the nation. In this excerpt from Dr. Leigh Boske, a comparison of nationwide port trends is given.

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<sup>19</sup> CanagaRetna, Sujit M., Southern Legislative Conference “The Future of Southern Ports: Megaships and Megachanges on the Horizon”, October 1999.

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*Regardless of the expected short-term decline in seaborne traffic due to souring global economic conditions, it is important to note that internationally, there is an inexorable trend toward greater openness and trade liberalization extending to practically every corner of the globe. This trend will result in many new trade gateways, causing dramatic changes in market demand and cargo forecasts. This trend also will produce a huge upsurge in international trade and, consequently, in seaborne traffic. Codifying this liberalization trend are several international agreements such as the Asia Pacific Economic Cooperation (APEC); the Uruguay Round of Talks of the General Agreement on Trade Tariffs (GATT), now replaced by the World Trade Organization (WTO); and the North America Free Trade Agreement (NAFTA). The World Trade Organization (WTO) is the only international body dealing with the rules of trade between nations. The specific thrust of these efforts allows for freer trade, i.e., enhancing trade opportunities internationally through greater degrees of liberalization, deregulations and lower levels of protectionism. Since the ultimate goal of all these efforts is to expand trade among member nations, it has a direct impact on waterborne commerce. In fact, experts predict that this potential growth explosion in international trade will be transported largely as containerized cargo in the global liner trade, all the more reason for the southern ports to augment their current capacity levels.<sup>20</sup>*

**Senate Bill 1665: Port of Houston's Acquisition of the Port of Galveston**

Upon passage by the 76th Legislature, Senate Bill 1665 (Author: Lindsay, Sponsor: Moreno) was signed into law by Governor George W. Bush on June 18, 1999. The Port

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<sup>20</sup> Boske, Dr. Leigh B. During testimony given to the Senate Natural Resources Committee in Corpus Christi, Texas on June 29, 2000.

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of Houston Authority (PHA), a navigation district and political subdivision of the state, manages the public port facilities along the Houston Ship Channel. The Port of Galveston (POG) is a separate utility of the City of Galveston and operates the navigation and port facilities owned by that city. At certain times, there had been discussions about cooperative undertakings between the PHA and the POG, and in recent years the PHA had leased from the POG certain container facilities in Galveston. S.B. 1665 authorizes the PHA to acquire additional facilities of the POG on terms not otherwise authorized under current law.

S.B. 1665 has been characterized by some people as a port regionalization bill. However, it has been described by others as merely a vehicle for the Port of Houston to acquire the Port of Galveston's assets and liabilities. While the bill language allows ports in neighboring counties, such as Brazoria County and Port Freeport, the same opportunity, S.B. 1665 has not been totally embraced by all. S.B. 1665 regulates the authority of certain navigation districts to acquire land, equipment, or improvements and issue bonds. See Appendix F for the full text and a bill analysis of S.B. 1665.

### **ECONOMIC IMPACT**

Texas Ports present an enormous economic opportunity for the State of Texas. The Port system already has a huge effect on the economy of the state and will continue to do so into the future. Texas currently operates 29 ports and navigation districts along the Gulf Coast. The ports and their related industries are contributing significantly to the job base and economic well being of the state. However, the ports have serious challenges to meet in order to continue their present level of operations and compete for future business.



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**Economic Impact of Texas Ports<sup>21</sup>**

From *Texas Water Resources*, the Committee discovered the following data regarding the economic impact of Texas ports. *Assessing and comparing the economic impact of Texas ports is complicated because there are subtle differences that must be taken into account. Still, some general information about the value of ports can be shown. Today, many of Texas' deep draft ports -- Houston, Texas City, Beaumont, Port Arthur, and Corpus Christi -- are among the top 20 in the U.S. in terms of the value and amount of cargo shipped. In 1992, Texas seaports handled roughly 378 million tons of cargo. In 1993, 54 million tons of imports worth \$11 billion and 25 million short tons of exports valued at \$14 billion moved through Houston, making it the busiest port in the U.S. An economic study conducted for the Port of Corpus Christi in 1993 suggests the port generated more than 38,000 jobs and \$40 billion in sales, that port payrolls were \$650 million, and that total port cargo was 72 million tons. Research at the University of Texas at Brownsville (UT-B) provides more insights into the impact of ports on local economies. In 1993, Suzanne Hardebeck of the UT-B Business Administration Department and Luis Cabezas and John Cox of the UT-B School of Business and the Texas Engineering Extension Service (TEEX) assessed the economic impact of the Port of Brownsville. Their studies show that the port directly and indirectly generates 3,700 jobs producing more than \$60 million in wages, more than \$207 million in sales in Cameron County, and roughly \$2.5 million in taxes.*

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<sup>21</sup> *Texas Water Resources*, Volume 21 Number 1: Spring 1995. Texas Water Resources Institute.

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**Economic Impact of Ports Along the Gulf Intracoastal Waterway<sup>22</sup>**

*Research by Hillary Garrett and Dock Burke of the Texas Transportation Institute (TTI) at Texas A&M University (TAMU) provides some insights on the value of the GIWW. The Texas portion of the GIWW transported 73 million tons of commodities worth more than \$21 billion in 1986. Roughly 65% of GIWW cargo flowed from Houston to Beaumont and Port Arthur, while the portion of the GIWW from Corpus Christi to Brownsville was used the least. Total revenues that could be directly attributed to the GIWW totaled \$3.1 billion. Previous studies estimate that roughly 20% of Texas' gross state product can be linked to water-related transportation and that 20,000 Texans are employed statewide by water transportation industries.*

**Economic Impact of U.S. Ports<sup>23</sup>**

*For a small measure of the importance of marine transportation, take a look at U.S. ports directly and indirectly. U.S. ports are responsible for more than 13 million jobs, nearly \$500 billion in personal income, \$1.5 trillion in business sales, about \$743 billion to the nation's gross domestic product and almost \$200 billion in federal, state and local taxes.*

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<sup>22</sup> Younger, Willie. The Gulf Intracoastal Waterway. *Texas' Unsung Hero in the Battle for Economic Independence*. [www.mts.tamug.tamu.edu/tti-giww.html](http://www.mts.tamug.tamu.edu/tti-giww.html)

<sup>23</sup> H. Thomas Kornegay, Director of the Port of Houston Authority during his presentation at the Ports and Waterways Conference, Brownsville, Texas. August 1999.

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**Economic Importance of Waterways<sup>24</sup>**

*With tremendous exposure to the Gulf and the Gulf Intracoastal Waterway, Texas relies heavily upon water transportation to ship its products all over the world. The mining, manufacturing, agricultural, and water transportation industries in Texas employ over 114,500 people and generate \$287 million in state and federal payroll taxes. The state's total domestic waterborne commerce each year amounts to nearly 129 million tons, worth over \$34 billion. Chemical products top the list of commodities transported on Texas waterways, with a value of almost \$15.7 billion. Other cargo transported include an abundance of petroleum products, crude oil, and manufactured goods. Inland water transportation alone moves cargo worth \$36 billion, provides over 9,800 jobs, and produces nearly \$58 million in state and federal payroll taxes each year. (See Appendix G for tables of the Value of Cargoes Transported Via Texas Waterways and the Total Waterway-Related Jobs by County and Percentage of Total County Jobs)*

**GROWTH AND REGIONALIZATION TRENDS**

Although the international trend leans toward the increased use of megaships it is important to note that Texas has much to consider and prepare before becoming a megaport. When larger ships are allocated onto routes that affect Gulf flows, there may be a series of new hub-and-spoke services from the megaship load center that may offer new opportunities for a variety of Texas ports, and not just those currently handling

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<sup>24</sup> *The Economic Importance of Waterways: Texas Fact Sheet.* National Waterways Conference, Inc. [www.waterways.org/res/res\\_pub.html](http://www.waterways.org/res/res_pub.html)

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containers.<sup>25</sup> Therefore, as the Texas Department of Transportation further researches the selection of a megaship load center in the Gulf of Mexico, a megaship load center selection matrix and a containerport evaluation process should be used for statewide planning purposes, as well as a system evaluation which captures much of the supply chain now being used by shippers and logistics companies.<sup>26</sup>

**Megaships and Megaports: An Emerging Trend in Shipping**

The most recent information on the future of megaships was found in the following excerpts from *Megaships and Megachanges on the Horizon*<sup>27</sup>. *In the long history of merchant shipping, two seminal events loom larger than all others: the introduction of the compound engine in the late 1860's, and about a century later, the widespread adoption of containers. The container, a big steel box of two basic sizes,<sup>28</sup> enables entire ships to be filled up with crates of the same size as opposed to the previously used break build approach. Under this former approach, cargo of varying sizes, shapes and designs was stowed in the holds and decks of merchant vessels. While loading and unloading under this method took inordinate periods of time and was labor-*

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<sup>25</sup> Harrison, Robert, Miguel A. Figliozi, C. Michael Walton. *Infrastructure Impacts of Containerships (Including Mega-Containerships) on the Texas Transportation System*. Center for Transportation Research, Bureau of Engineering Research, University of Texas at Austin. Revised edition: October 1999.

<sup>26</sup> id.

<sup>27</sup> Canagaretna, Sujit. *The Future of Southern Ports: Megaships and Megachanges on the Horizon*. The Council on State Governments. October 1999.

<sup>28</sup> The two basic sizes are: a smaller one of 20x8x8, measured in the previously mentioned TEU's, or Twenty-foot Equivalent Units, and a larger one of 40x8x8, measured in FEU's, Forty-foot Equivalent Units.

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*intensive, transporting cargo in similar-sized containers not only significantly cuts down on time and labor costs, it significantly reduces the damaged goods quotient. The reduced time devoted to loading and unloading cargo enables containerships to spend more time traveling between ports, delivering cargo faster and at a considerably diminished cost.*

*Currently the world's container fleet consists of three main vessel categories: Feeder (less than 1,000 TEU capacity); Panamax and Sub-Panamax (between 1,000 and 4,000 TEU capacity, capable of transiting the Panama Canal); and Post-Panamax (4,000+ TEU capacity, which exceeds the Panama Canal's dimensions). As expected, the physical and operational characteristics of these container vessels differ widely as their capacities increase, placing rising demands on navigation channels, port infrastructure and landside access capabilities. Interestingly, the newest generation of megaships, the Regina Maersk, the Hanjin London and the Hyundai Independence, for instance, all are considerably bigger than the largest Post-Panamax vessel from the earlier era. Specifically, the Regina Maersk is 1,043 feet in length while even the largest Post-Panamax vessel from the earlier era averages only 925 feet; in addition, the Regina Maersk can carry up to 6,600 containers while the former Post-Panamax era vessels carries a little over 4,000 containers. Shipping experts project that the vessels of the future will be even larger, capable of ferrying 15,000 20-foot containers across the oceans.*

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**Characteristics of a Megaship Terminal:**

- , Size ---150 acres**
- , Berths---2 for 1,250 foot megaships and 3 for 1,000 foot mixed vessel sizes**
- , Cranes---6-10 BPP Cranes**
- , Projected Yearly Throughput---450,000 TEUs (Minimum); 900,000 TEUs (Maximum)**
- , Rail Connections---On-dock or adjacent intermodal railyard; 2 to 4 unit daily train calls**
- , Truck Traffic---1,730-3,460 trips/day with 40 percent by rail; 2,880-5,770 trips/day with no rail movements**

*As noted earlier, a rapidly-liberalized trade environment will bring about a tremendous surge in transportable cargo volumes in the medium-to long-term.<sup>29</sup> Significantly, this cargo growth is expected to be transported largely in containers; even now, an estimated 55 percent of all general cargo is moved in them. Furthermore, shipping experts project that by 2010 some 90 percent of all international liner freight will be shipped in containers. Leaving aside future growth, worldwide container trade is currently growing at an annual rate of 9.5 percent, with U.S. ports recording that 6 percent of these containers will be transported in megaships. The need for ports to be prepared for this development remains critical, especially in the southern states.*

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<sup>29</sup> The ensuing section draws on *The Impact of Changes in Ship Design on Transportation and Infrastructure Operations*, U.S. Department of Transportation, February 1998; *Megaports and Load Centers of the Future with the Port of Houston as the Baseline Port*, Texas Transportation Institute, Texas A&M University System, September 1997; *Containerization International Yearbook*, 1998; *ISL Shipping Statistics and Market Review*, Institute of Shipping Economics and Logistics (ISL).

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*Even though only 1 percent of the world's containership fleet currently is in the 4,500 TEU category, i.e. megaship category, 8 percent of the containerships currently on order are ships in that class. Also, experts predict that by 2010, nearly 33 percent of all general cargo traveling through U.S. ports will be on ships built to carry more than 4,500 TEU container units, or megaships.<sup>30</sup> Furthermore, ships in the 6,000 to 9,000 TEU range are expected to grow to about 9.5 percent of the total containerized fleet by 2010.<sup>31</sup> All these factors point to a scenario in which in a few years, an overwhelming share of transportable cargo will be in containers and on megaships.*

*Use of containers, particularly in Asia, is expanding by as much as 25 percent annually. This has resulted in the Asian continent producing a majority of the world's busiest container ports. According to the Containerization International Yearbook 1998, worldwide container port traffic exceeded the 147 million TEU barrier in 1996, compared with 137 million in 1995. The continuing growth of the regional hub ports, Hong Kong and Singapore - major transshipment points in the East Asian region - proved to be notable once again. In fact, Hong Kong continues to work on a plan to handle 32 million containers per year by 2010, an amount that would far exceed projected volumes for the very largest U.S. port.*

*In terms of containerization in U.S. waterborne trade, experts anticipate that the fastest growth rates will be seen in shipping patterns with Latin America. The rapid*

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<sup>30</sup> "How Big Ships Will Change Port Systems," *The Journal of Commerce*, September 27, 1999.

<sup>31</sup> U.S. Department of Transportation, February 1998, p.2.

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*pace of industrial development in Latin America is expected to stoke the demand for manufacturing inputs southbound and finished goods heading north. The expanding world trade scenario has enabled an even greater array of commodities to be transported in containers. For instance, the banana trade from Central and South America -- long dominated by bulk shipments on pallets -- is quite likely to be shipped in containers given the tremendous improvements in containerized refrigeration technology.<sup>32</sup>*

*Another measure indicating the growing importance of container traffic in international seaborne trade revolves around the degree of containers at the different ports, i.e., the amount of general cargo moved in containers through a specific port. According to the Institute of Shipping Economics and Logistics (ISL), American ports have the highest degree of containerization in the world,<sup>33</sup> further evidence that megaships will assume a dominant role in international shipping circles in upcoming years, and that container shipping will become the preferred course of waterborne transportation.*

*While orders for megaships gradually increase in response to the preference for containers and other world economic conditions, many shipping carriers are entering into alliances and/or merging with one another to pay for the huge capital expenditures associated with megaships. This trend, replicated in so many other spheres of the*

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<sup>32</sup> Rising Containerization of U.S. Waterborne Trade, *The Journal of Commerce/PIERS* Winter 1998, Volume VIII, Number 1.

<sup>33</sup> "Shipping, Shipbuilding and Ports," *The Institute of Shipping Economics and Logistics*, December 1998.



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*international economy from banking (NationsBank and Bank of America) to finance (Solomon Brothers and Smith Barney) to automobiles (Daimler-Mercedes Benz and Chrysler Corporation) to telecommunications (GTE and BellAtlantic) to pharmaceuticals (American Cyanamid and American Home Products) to gasoline (BP, Amoco and ARCO) to aviation (General Dynamics and Gulfstream or Boeing and McDonnell Douglas), to agro-industry (Dupont and Pioneer Hi-Breed) for instance, is certainly evident in the shipping industry too. Shipping alliances, vessel-sharing and other cooperative arrangements continue to flourish as carriers seek to maximize the use of these megaships, consolidate operations and lower operating costs.*

*The driving force behind the construction of megaships is an attempt to reduce shipping costs, i.e., further lower the unit cost of shipping a container. Megaships are costlier than their smaller counterparts -- an estimated \$100 million per ship at least -- with actual unit costs varying based on design characteristics and the number of vessels ordered. However, they offer numerous operational advantages such as lower transit costs, reduced transit time and fewer required vessels. Experts indicate that a fully loaded 6,000-TEU capacity ship costs about 21 percent less to operate per TEU than does a 4,000-TEU capacity ship.<sup>34</sup> The high-speed hull design of these megaships cuts transit time while the faster port turnaround time reduces the number of vessels required to maintain departure schedules.<sup>35</sup> According to the Institute of Shipping Economics and Logistics, ships entering the merchant vessel fleet in the*

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<sup>34</sup> Porter, Janet, "Ocean Carriers Told to Buy Big or Lose Money," *The Journal of Commerce*, December 10, 1996.

<sup>35</sup> "Last Call for Port Director," *The Baltimore Sun*, July 26, 1998.

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*years to come will be largely built in shipping yards overseas, with Japan, South Korea, China, Germany, Italy, Finland and Poland being the primary manufacturers in order of significance.*<sup>36</sup>

*Since these megaships are extremely capital-intensive, carriers will deploy them in concentrated trade lanes and utilize them over longer routes so as to reduce the number of port calls. However, an important requirement for the success of these megaships involves substantial improvements in the infrastructure of the ports at which they will call. Hence, even though these vessels offer economies of scale at sea, the failure to enhance port facilities could negate the advantages of economies of scale in port. Therefore, it is vital for port infrastructure to grow in tandem with the onset of megaships so that the inherent economies of scale may be fully captured.*

**Transitioning to Megaships**

In looking for the prerequisites of a megaship terminal, the Committee found the following from *The Future of Southern Ports: Megaships and Megachanges on the Horizon*<sup>37</sup>: *There are currently very few ports in the United States with the infrastructure capacity to fully handle the megaships being added to the contemporary Post-Panamax fleet. Given the thrust toward these megaships, it is imperative for ports to improve their facilities to share in the projected growth in container traffic. While the rationale for*

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<sup>36</sup> “World Shipbuilding,” *The Institute of Shipping Economics and Logistics* December 1998.

<sup>37</sup> Canagaretna, Sujit. *The Future of Southern Ports: Megaships and Megachanges on the Horizon*. The Council on State Governments. October 1999.

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*megaships was laid out earlier, it is relevant to consider the basic requirements for a port to accommodate megaships. According to the U.S. Department of Transportation, a single optimal megaship terminal should have, at a minimum, the following physical characteristics:*

- 2,500 linear feet of berthing for megaships; this amount to two 1,250 foot megaship berths;*
- 3,000 linear feet of berthing for mixed vessels; this amounts to three 1,000 foot Post-Panamax berths, or a greater quantity for smaller vessels;*
- 50 foot water depths in channel and at berths; 800-1,000 foot channel width; 1,430 to 1,650 foot turning basin;*
- high rates of berth occupancy (targeted at 50 percent or greater); given two berths, this means that both would be occupied 25 percent of the time, one occupied 50 percent of the time, and both empty 25 percent of the time;*
- three or more large, heavy lift Beyond Post-Panamax (BPP) cranes per berth, this means that given the berth occupancy targets above, there will be three cranes available per vessel 33 percent of the time and six cranes per vessel 67 percent of the time, for an average of five cranes per vessel; three BPP cranes will provide an adequate vessel turnaround time;*
- stronger wharves to support more and heavier load-bearing cranes, accommodate deeper drafts at berths, permit more yard equipment such as trucks and rail cars;*
- projected annual “throughput” (cargo transported through the gate less possible transshipment) should range from a minimum of 450,000 TEU’s per year (3,000 TEU’s per acre) to 900,000 TEU’s per year (6,000 TEU’s per acre);*

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- *rail connections should be on-dock, or adjacent intermodal railyard, with 2-4 unit train calls per day (40 percent intermodal split);*
- *truck traffic on a typical day should accommodate 1,730 to 3,460 trips per day (40 percent split with rail system) or 2,880 to 5,770 trips per day (with no rail transportation);*
- *75 acres of terminal space per megaship berth and 50 acres per standard berth; this translates to 150 acres per 3,000 linear feet of berthing;*
- *a gate complex and dockside rail system using the latest available technologies.*<sup>38</sup>

The City of Texas City officials view a new port as an economic development engine that will bring jobs and industry to Texas City. Texas City already has permission to dredge a 50-foot channel, which was granted by Congress in 1986. Under the auspices of the Texas City Foreign Trade Zone Corporation, a city owned corporation, the City of Texas City is pursuing a project it bills as the Texas Gulf Coast Megaport.<sup>39</sup> Texas City asserts that growth in the container cargo market, Shoal Point's location and access to intermodal transportation makes the island an ideal location for a container terminal that would accommodate the new generation of large container ships.

The Port of Houston is currently operating near its maximum capacity of about 1 million TEU's per year, therefore it is looking to Bayport as its next port facility. Located about

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<sup>38</sup> Canagaretna, Sujit. *The Future of Southern Ports: Megaships and Megachanges on the Horizon*. The Council on State Governments. October 1999.

<sup>39</sup> Hiney, Jim. *Liquid Assets*, Texas Shores Magazine.

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5 miles from Barbours Cut, Bayport will have a capacity of about 2 million TEU's per year. The Port of Houston's Bayport expansion is estimated to create more than 28,000 new jobs. The Port of Houston contends that it has several advantages with its experience in container handling and its proximity to Houston's tax base while the City of Texas City claims that it's location offers good highway and rail access as well as closer access to the Gulf of Mexico.<sup>40</sup> (See Appendix H for arguments on the ability of Texas ports to become megaports.)

**Center for Ports and Waterways<sup>41</sup>**

*Seventeen percent of Texas' gross state product arrives through the international gateways of the 12 major seaports and more than 1,000 miles of inland waterways. Texas is one of the country's largest maritime states.*

*Texas Transportation Institute's (TTI) Center for Ports and Waterways (CPW) was established in 1995 by the Texas Legislature. In order to support this industry and commerce, the state has established entities of support to the Texas Transportation Institute's (TTI) Center for Ports and Waterways (CPW). Through research and development, TTI has improved the effectiveness and efficiency of transportation systems. The Institute has been instrumental in improving mobility, safety, and economic competitiveness throughout Texas and the nation.*

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<sup>40</sup> Hiney, Jim. *Liquid Assets*, Texas Shores Magazine.

<sup>41</sup> Center for Ports and Waterways. *Overview*. Texas Transportation Institute · Texas A&M University System . [www.tti.tamu.edu/cpw/overview.stm](http://www.tti.tamu.edu/cpw/overview.stm)

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*From local issues in water transportation to hemispheric issues such as the North American Free Trade Agreement (NAFTA) and the General Agreement on Tariffs and Trade (GATT), TTI and the CPW are working to help ensure the safety, efficiency, and productivity of our state and national maritime interests.*

*The CPW links seaports, shippers, carriers (all modes), government, universities and the private sector. Working with these agencies, which have interests in water and intermodal transportation, the Center addresses complex issues such as:*

- *Trade flows and trends*
- *Intermodal concerns*
- *Regional competitiveness*
- *Landside accesses*
- *Economic and environmental impacts*
- *International commerce*
- *NAFTA and GATT*
- *Port development*
- *Transportation Policy formulation and implementation*

*The CPW provides maritime interests with research, development, technology transfer, and education programs that:*

- *Improve the productivity of ports and waterways*
- *Increase the efficiency of operations upon those waterways*
- *Ensure that the environmental concerns are considered and included in findings and recommendations*

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- *Augment maritime and marine industry efforts to become more competitive internationally*
- *Test new technologies and support implementation*
- *Help coordinate projects among multiple agencies*
- *Provide educational opportunities for marine transportation professionals*

**Port Authority Advisory Committee**

The Texas Department of Transportation's Port Authority Advisory Committee (PAAC) was created in 1997 by Senate Bill 370 (Author: Armbrister, Sponsor: Bosse). The purpose of the 5 member PAAC is to advise the commission and TxDOT on matters relating to port authorities. The PAAC members are representative of the various geographical regions around the state. The PAAC has overseen the Maritime Intermodal Impediment Research Project. This project was conducted as a tool to be used by the TxDOT districts in developing projects to improve both landside access and navigational restrictions caused by roadways that cross the GIWW. See Appendix I for the statutory language enabling the PAAC.

**Maritime Intermodal Impediment Research Project<sup>42</sup>**

*In August 1999, the PAAC asked the Texas Transportation Institute's Center for Ports and Waterways (CPW), Texas A&M University at Galveston, to assist the committee in identifying current port access needs as well as needs which may arise from future*

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<sup>42</sup> *Maritime Intermodal Impediment Research Project Executive Summary*, Center for Ports and Waterways, Texas Transportation Institute, Texas A&M University at Galveston. August 2000.

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*developments. The CPW requested that each Texas port complete the Maritime Intermodal Impediment Inventory and Input Forms; designed to collect information regarding intermodal impediments pertaining to road, rail, and waterwide access, as well as identification of current infrastructure status and requirements.*

*Of all impediments reported, road access accounted for the majority with routes and lane widths being most frequently reported. Several ports addressed rail access impediments varying from the location of the railway to inadequate amount of tracks at the ports. The waterside access impediments reported pertained to the necessity of dredging, inadequate dimension (width) and depths, channel markings, and vessel navigation. The two most common impediments were the need for dredging and inadequate dimension and depth of the port harbors and channels. Infrastructure status and requirements were also addressed in this survey. The most frequent infrastructure concern involved the repair and replacement of docks and piers. The only other infrastructure concerns dealt with warehouses, open storage, and the implementing of a railyard.*

**Port Infrastructure**

In 1998, ports invested nearly \$1.5 billion to update and modernize their facilities, almost equaling the record set in 1997, including: \$154 million for general cargo; about \$507 million in investments related to containers; \$260 million on infrastructure improvements; and \$152 million related to dredging. During the 5-year period between 1999 and 2003, ports predict they will spend just over \$9 billion (a record level), compared to \$7.7 billion



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between 1998 and 2002.<sup>43</sup>

The following excerpt from *Liquid Assets*<sup>44</sup> offers great insight to the infrastructure of Texas ports. *Texas' ports have direct connections to all inland rail, highway and barge transportation systems within the state, and are equipped to meet the needs of importers, exporters and vessel operators. Texas now has 12 deep-draft ports and 15 shallow-draft ports. Most of these ports have been substantially modified and improved by man's activities.*

*It is noteworthy to mention that states have implemented multi modal/intermodal transportation funding programs that also assist ports. Two such programs are found in Wisconsin and Florida. Wisconsin's Transportation Economic Assistance (TEA) Program provides grants to help communities pay for road, rail, harbor, or airport improvements. It was created in 1987 with the intent of helping to support new business development in Wisconsin by providing the funds to private or public entities for transportation improvements. Business or local governments apply for funding for a transportation project, and if they pass an evaluation, the Wisconsin Department of Transportation finances up to 50 percent of the costs of the improvement. The amount of the grant is linked to the number of jobs created by the project. The program currently provides \$3.5 million annually. From 1987 through August 1998,*

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<sup>43</sup> *Port Facts and Statistics*. U.S. Public Port Facts. [www.aapa-ports.org/portfacts/portfact.html](http://www.aapa-ports.org/portfacts/portfact.html)

<sup>44</sup> Boske, Dr. Leigh B. During testimony given to the Senate Natural Resources Committee in Corpus Christi, Texas on June 29, 2000.

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*nearly 38,000 jobs were directly and indirectly created through the \$39 million in grants awarded to 135 communities.<sup>45</sup>*

*The Florida Intermodal Development Program (IDP) was established by the Florida Legislature in 1990. The program funds have been allocated to finance fixed-guideway transportation systems and adequate access to ports, airports, and other transportation terminals. This money is allocated on an annual basis from the State Transportation Trust Fund. The candidate projects to be funded by the Intermodal Development Program are reviewed by the Intermodal Project Review Committee. According to the IDP statute, no single transportation authority receives more than 33.3 percent of the total intermodal funds. Since the inception of program, intermodal development funds channeled to implement projects have totaled \$205.6 million, including almost 200 access improvement projects.*

**Environmental Aspects of Port Operations**

**Air Quality**

Of the many advantages to water transport, including being the least expensive mode of transportation and the ability to transport extremely dangerous materials through relatively unpopulated areas, shipping via water poses a lower threat to the contamination of air. One study showed that one gallon of fuel will move one ton of materials 59 miles by truck, 200 miles by railcar, 250 miles by pipeline and 514 miles by a barge traveling an inland waterway like the GIWW. It merits further study to determine what sorts of

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<sup>45</sup> Boske, Dr. Leigh B. During testimony given to the Senate Natural Resources Committee in Corpus Christi, Texas on June 29, 2000.

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emissions reductions might result from shipping cargo on barges along the GIWW as opposed to transporting them via truck along the NAFTA highway.<sup>46</sup>

Currently the Houston-Galveston-Brazoria (HGB) area is classified as a severe-17 nonattainment area for the one-hour ozone standard. Concerns have arisen with regards to expansion of the Bayport Terminal which is within the 8-county nonattainment area. No specific numbers for Bayport have been included in the Houston-Galveston State Implementation Plan (SIP), however, an overall factor for growth and expansion was included in the SIP for the area as a whole.

One impact estimate of the terminal would be an increase of up to 7,000 truck trips per day. Most of the impact from the port facilities would be things such as the on-and-off-road equipment which do not require permitting. Construction activities (e.g. dredging, dock construction), however, will require a Corps of Engineers permit and will, therefore, subject at least part of the project to a conformity determination with the SIP<sup>47</sup>.

Another environmentally sensitive air quality issue around ports is the abrasive blasting used for cleaning vessels. Blasting adds particulate emissions to the air. The Texas Natural Resource Conservation Commission has dealt with this issue on a case-by-case basis and has committed to continue to study this issue. New abrasive blasting technology is becoming available which results in fewer particulate emissions.

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<sup>46</sup> Hiney, Jim. *Liquid Assets*, Texas Shores Magazine.

<sup>47</sup> Jordan, Bill. Interview. Austin, Texas. November 2000.

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**Dredging<sup>48</sup>**

*A role of the Gulf Intracoastal Waterway Advisory Committee is to find environmentally and economically acceptable dredge disposal sites. Finding these sites is difficult because many people oppose having dredged materials placed on their land. Potential sites become uneconomical if dredged material has to be transported too far. So far, the GIWW Advisory Committee had identified and acquired roughly 1,800 acres of upland sites that could be used for disposal of dredged material, but as many as 3,000 more acres could be needed.*

*Demand for suitable disposal sites for materials generated by maintenance dredging of the GIWW is a perplexing problem for the Texas Department of Transportation. As non-federal sponsors of the Texas portion of the GIWW, the Department is challenged to acquire appropriate properties from private landowners, or find beneficial uses for dredge materials. Advances in satisfying these disposal site requirements will not come cheaply, and additional state funds will be required.*

*The GIWW needs to be widened and deepened along portions of the Texas link and some sections, such as sharp bends where counter flow traffic is precarious, need to be realigned. Most of the intracoastal canal is 12 feet deep and 125 feet wide. These dimensions were more than adequate during earlier years of its operation, but new and large barge designs and extended usage has made passage along the canal increasingly difficult. Such renovations will undoubtedly improve navigation once*

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<sup>48</sup> *Texas Water Resources*, Volume 21 Number 1: Spring 1995. Texas Water Resources Institute.

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*completed, but may compound the problems of dredge material disposal and environmental protection of vital habitat. These are problems that the GIWW's stewards, in cooperation with industry and local government, must strive to resolve satisfactorily.*

**Contaminated Sediments**

Contaminated marine sediments threaten ecosystems, marine resources, and human health. Sediment contamination also can have major economic impacts when controversies over risks and costs of sediment management interfere with the regular and periodic need to dredge major ports.

There are four principal reasons to manage contaminated marine sediments: (1) to identify and clean up threats to public health and wildlife; (2) to meet water and environmental quality standards; (3) to identify and clean up sites that have the potential to cause wider environmental harm; and (4) to ameliorate dredging controversies, particularly concerning the designation of disposal sites for contaminated dredged material. A strategy for achieving these objectives must strike a balance among various risks and among risks, costs, and benefits. There is no simple solution to the problems created by contaminated marine sediments, which are widespread in coastal waters and can pose risks to human health, the environment, and the state's economy. Marine sediments are contaminated by chemicals that tend to sorb to fine-grained particles; contaminants of concern include trace metals and hydrophobic organics, such as dioxins, polychlorinated biphenyls (PCBs), and polyaromatic hydrocarbons.

The management of these sediments is also an issue in the remediation of an estimated

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100 marine sites targeted for cleanup under the Comprehensive Environmental Response, Cleanup, and Liability Act (CERCLA), commonly known as Superfund, as well as in the cleanup of many other near-shore contaminated sites. The Committee on Contaminated Marine Sediments was established by the National Research Council under the auspices of the Marine Board to assess the nation's capability for remediating contaminated marine sediments and to chart a course for the development of management strategies.

**Wetlands<sup>49</sup>**

*An example of wetlands impact can be found at the Aransas National Wildlife Refuge. It is of great concern to environmental, engineering and transportation interests because of the present and prospective loss of valuable wetlands from internal bank erosion in the waterway. As the Corps of Engineers has cautiously noted in reference to the GIWW, "The environment and the waterways today must serve the needs of all society to ensure this happy marriage of commerce and ecology is maintained." Therefore, this loss of critical habitat for the endangered whooping crane, as well as other species of wildlife and fish, must be carefully evaluated and alternatives sought for waterway operations that minimize adverse impact.*

*An example of wetlands protection comes through the Port of Houston's Galveston Bay Project. The Port's proposed modernization plan to deepen and widen the Ship Channel was crafted with the preservation of Galveston Bay in mind. Through*

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<sup>49</sup> *Texas Water Resources*, Volume 21 Number 1: Spring 1995. Texas Water Resources Institute.

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*teamwork focused on finding solutions, the coalition secured input from environmental and bay interest groups in the development of the plan. Their strategy was guided by three principles: One, dredge material was to be regarded as a resource; two, only environmentally acceptable methods would be used for dredged disposal; and three, the plan was to result in a long-term "net positive environmental effect" on Galveston Bay. Thus, the material from the channel bottom will see new life as bird islands, marshes and boater destinations in an environmentally improved Galveston Bay.<sup>50</sup>*

**Erosion<sup>51</sup>**

*Erosion control is also needed for port facilities. A section of the GIWW at Sargent Beach near Freeport suffers from as much as 36 feet of erosion each year. If the erosion continues, waters from the Gulf could enter the GIWW, make navigation difficult, and close traffic south of that point. In response, the Corps engineered and will construct a 7-mile stone and concrete seawall to stabilize the shoreline. Gulf shoreline erosion at Sargent Beach in Matagorda County is so severe that it poses an immediate threat to the intracoastal canal. Along a seven-mile stretch of the Waterway, the channel parallels a Gulf beach that is alarmingly closer each year. With only 650 feet separating the Gulf of Mexico and the GIWW, experts on coastal processes anticipate a fusion near the turn of the century if conditions go unchanged. Were such a union to occur, shoaling of the channel and open sea condition would present a major navigational crisis of barge transporters.*

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<sup>50</sup> Port of Houston Authority website, Port Overview. [portofhouston.com/overview/](http://portofhouston.com/overview/)

<sup>51</sup> Younger, Willie. The Gulf Intracoastal Waterway. *Texas' Unsung Hero in the Battle for Economic Independence*. [www.mts.tamug.tamu.edu/tti-giww.html](http://www.mts.tamug.tamu.edu/tti-giww.html)

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*This predicted breaching date is based on the current 10-year erosion pattern of 56 feet per year. No acceleration has been estimated should a hurricane occur, an event that can cause massive overnight losses of shoreline property. This is troubling to many who are aware of the potential such storms pose and the fact that this particular stretch of the coast has no history of natural beach replenishment following such events. Time, therefore, may be of the essence in analyzing options and initiating actions to remedy the problem before a state of emergency is reached.*

*The U.S. Army Corps of Engineers is evaluating three primary approaches to resolving the Sargent Beach problem. These include protecting the existing beachfront through fixed structures, such as groins and seawalls; sand renourishment of the Beach in order to maintain and/or extend its position seaward; and relocation of the threatened portion of the GIWW away from the erosion area. Regardless which method is ultimately selected, it will admittedly have a high price tag - preliminary estimates range in the tens of millions of dollars. In relative terms, however, this cost would be small when compared to the billions of dollars realized by the Texas Economy by uninterrupted operation of the waterway.*

#### **DESIGN BUILD AUTHORITY**

As defined, design-build is a project in which the owner contracts directly with an individual or company to perform both design and construction. Advantages in using the design-build method can be found in time efficiencies and cost savings. Several port interests testified regarding their desire for design build authority to be granted in building public ports.



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An example of eliminating duplicate efforts by an outside design firm can be found at the Port of Corpus Christi Authority with their recent addition of a refrigerated warehouse facility. Refrigerated warehouses are specialized facilities, which are normally built by specialty firms offering a combination of design and construction services. The specialty firm already had their own standard design details, which allowed them the savings of cost and time in developing these details. The combination of these services in one firm eliminated duplicate efforts by separate entities.<sup>52</sup>

Some of the ports have contended that they need design build authority to allow them to compete with other ports in the fast paced world of marine commerce. The Senate Intergovernmental Relations (IGR) Committee studied the design build authority on a limited basis, in the context of state agencies. The IGR committee report concludes that further study is needed and that pilot projects should be implemented to monitor this study on a case-by-case basis.

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<sup>52</sup> *Design Build Project Information*, Port of Corpus Christi Authority.

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**TESTIMONY RECEIVED BY THE INTERIM COMMITTEE**

In order to receive as much public input as possible on all interim charges, the Committee held 12 public hearings throughout the state beginning in September 1999, and ending in June, 2000. The Economic Impact of Port Regionalization and Expansion was discussed at nine of these hearings, with most testimony received in Corpus Christi, Galveston, Houston and Victoria. During these hearings, 20 persons testified on the subject and seven registered and submitted written testimony. For a listing of the testimony received, see Appendix J.

**CONCLUSIONS/RECOMMENDATIONS**

The Senate Natural Resources Committee received eight interim charges for the 1999-2000 legislative interim period. Each of these charges was complex and focused on issues key to the continued economic vitality and quality of life enjoyed by all Texans. Since the passage of Senate Bill 1665, awareness and concerns have been raised regarding port regionalization and growth. In its review of this matter, the Committee heard testimony from port industries, interest groups, state agencies, and the public at large.

All trends indicate that containerized cargo will increase as a percentage of the marine commerce handled by all ports including Texas ports. However, the time frame within which true megaport facilities will be needed to accommodate container cargo traffic in the Gulf of Mexico may not be as aggressive as previously estimated. Therefore, the Committee believes that the prudent next step is to consider including marine commerce, intermodal impediments and other infrastructure impediments in the statewide transportation planning initiative.

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Testimony concludes that other states have been spending more public dollars on port facility improvements than Texas has. However, the testimony received by the Committee did not reveal a clarion call for increased state funding that would outweigh the ports' desire for their present levels of autonomy and state oversight. Therefore, any state policy changes regarding the level of state funding for port facilities should be considered as part of TxDOT's Statewide Transportation Plan.

The Committee does not recommend any statutory changes at this time with regard to the economic impact of port expansion and growth. The Committee strongly encourages the legislature and state agencies which play a role in facilitating or regulating marine commerce to remain sensitive to the challenges facing Texas' ports, the increasing competition from other ports in the U.S. and abroad, and environmental concerns. The Committee also wants to monitor any design build changes from the Senate Committee on Intergovernmental Relations before expanding to include ports.

Based on its findings, the Committee has the following recommendations:

1. Continue to monitor the state and local funding mechanisms for ports as part of the Texas Department of Transportation's Statewide Transportation Plan, including the use of the results of the Maritime Intermodal Impediments Research Project.
2. Encourage the Texas Department of Transportation's Port Authority Advisory Committee to further study how design build authority should be extended to Texas public ports and what, if any, limits should be placed on such authority for ports.
3. Further study the use of barging to transport materials north as an alternative to trucking it along the NAFTA corridors.
4. Continue to monitor the economic impact of port expansion and growth in Texas

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with a particular focus toward megaship and megaport trends, especially as more research on these trends becomes available.

Photo courtesy of Maritime Images.  
[www.maritime-images.com/defaultbackup.htm](http://www.maritime-images.com/defaultbackup.htm)



# **APPENDIX A**

## U.S. Waterborne Traffic by State in 1998<sup>1</sup>

(Millions of Short Tons and Change from 1997)

Rank	State	Domestic Tons	%	Foreign Tons	%	Total Tons	%
1	Louisiana	277.3	-0.2	215.4	0.1	492.7	0.0
2	Texas	120.1	-1.5	307.2	2.2	427.3	1.1
3	California	60.5	-18.8	109.6	12.7	170.2	-0.9
4	Ohio	110.8	-1.1	25.4	14.2	136.2	1.4
5	Florida	84.7	6.8	49.1	8.8	133.8	7.5
6	Pennsylvania	79.2	3.9	47.9	11.5	127.1	6.7
7	Illinois	108.8	3.2	5.2	35.1	114.1	4.3
8	New York	61.7	2.3	46.1	6.9	107.9	4.2
9	Washington	55.9	-9.2	46.5	-17.2	102.5	-13.0
10	New Jersey	58.3	-4.7	37.4	1.5	95.6	-2.4
11	Kentucky	89.6	2.6	0.0	0.0	89.6	2.6
12	Michigan	69.2	.2	15.4	11.7	84.6	2.1
13	Alaska	69.4	-15.6	10.3	-15.7	79.6	-15.6
14	Indiana	76.9	-3.3	0.6	-75.4	77.6	-5.5
15	Virginia	23.4	-3.5	53.6	0.3	77.0	-0.9
16	West Virginia	76.3	-4.0	0.0	0.0	76.3	-4.0
17	Alabama	48.1	3.0	25.1	1.1	73.2	2.3
18	Minnesota	49.1	0.9	5.9	-10.7	55.0	-0.5
19	Tennessee	47.2	-6	0.0	0.0	47.2	-0.6
20	Maryland	19.3	-1.9	26.8	-11.2	46.0	-7.6
21	Mississippi	24.7	-5.1	20.2	-14.6	45.0	-9.6
22	Virgin Islands	20.3	-0.7	24.2	-2.6	44.5	-1.7
23	Wisconsin	32.5	2.6	8.0	16.8	40.5	5.1
24	Oregon	15.7	-8.9	20.6	5.8	36.3	-1.1
25	Missouri	31.7	0.8	0.0	0.0	31.7	0.8
26	Puerto Rico	14.6	6.2	14.6	0.7	29.2	3.4
27	Massachusetts	14.5	3.7	13.5	0.1	28.0	2.0
28	Delaware	17.6	-5.6	7.9	40.6	25.5	5.1
29	Hawaii	13.5	4.0	7.1	-14.6	20.6	-3.3
30	South Carolina	5.5	13.1	15.2	3.2	20.6	5.6
31	Georgia	3.6	-5.3	16.9	-1.8	20.5	-2.4

32	Connecticut	14.8	-10.0	4.0	21.3	18.8	-4.7
33	Maine	2.9	-0.8	15.6	-8.9	18.5	-7.7
34	Iowa	14.4	5.9	0.0	0.0	14.4	5.9
35	North Carolina	6.4	-0.2	7.3	2.6	13.7	1.2
36	Arkansas	13.4	0.3	0.0	0.0	13.4	0.3
37	Rhode Island	4.5	-19.3	3.6	-6.2	8.1	-13.9
38	Oklahoma	4.5	11.0	0.0	0.0	4.5	11.0
39	New Hampshire	0.8	-24.3	3.4	16.8	4.2	6.1
40	Idaho	2.0	21.0	0.0	0.0	2.0	21.0
41	District of Columbia	0.6	-13.9	0.0	0.0	0.6	-13.9
42	Guam	0.4	-4.0	0.0	0.0	0.4	-4.0
43	Kansas	0.4	19.7	0.0	0.0	0.4	19.7
44	Nebraska	0.3	-1.1	0.0	0.0	0.3	-1.1

1. Includes shipments, receipts and intrastate commerce.

2. Total may not equal column sum due to rounding.

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## **APPENDIX B**



MAIN CHANNEL DEPTH AND PRIMARY CARGOES, TEXAS <sup>53</sup>			
Port	Depth	Inbound	Outbound
Arthur	40 ft.	Iron and steel products; forest products	Forest products; iron and steel products
Beaumont	40 ft.	Aggregate; military cargoes; iron and steel products	Forest products; iron and steel; military cargoes; bulk grain
Brownsville	42 ft.	Steel coils and plates; limestone; magnesite; sunflower seed oil; pig iron; lubricants	Iron and steel coils, billets and plate; soybean oil; sunflower seed oil; celestite; steel products
Freeport	45 ft.	Bananas; miscellaneous fruit; project cargo	Rice; chemicals; general cargo
Galveston	40 ft.	Bulk sugar; containers; bananas; plywood	Bulk grain; containers; sack/bagged goods
Houston	36-40* ft.	Petroleum products; crude fertilizers and crude minerals; steel; organic chemicals	Petroleum products; organic chemicals; grains; plastics * = 45 foot depth being constructed at the Port of Houston
Orange	30 ft.	Not Available	Lentils; corn soya blend; flour; beans; bulgur; plywood
Lavaca/Point Comfort	36 ft.	Liquid bulk petro-chemicals; dry bulk commodities	Refined petro-chemicals; break-bulk chemical materials

## **APPENDIX C**

**United States Constitution Article I, Section. 9.**

**Clause 1: The Migration or Importation of such Persons as any of the States now existing shall think proper to admit, shall not be prohibited by the Congress prior to the Year one thousand eight hundred and eight, but a Tax or duty may be imposed on such Importation, not exceeding ten dollars for each Person.**

**Clause 2: The Privilege of the Writ of Habeas Corpus shall not be suspended, unless when in Cases of Rebellion or Invasion the public Safety may require it.**

**Clause 3: No Bill of Attainder or ex post facto Law shall be passed.**

**Clause 4: No Capitation, or other direct, Tax shall be laid, unless in Proportion to the Census or Enumeration herein before directed to be taken. (See Note 7)**

**Clause 5: No Tax or Duty shall be laid on Articles exported from any State.**

**Clause 6: No Preference shall be given by any Regulation of Commerce or Revenue to the Ports of one State over those of another: nor shall Vessels bound to, or from, one State, be obliged to enter, clear, or pay Duties in another.**

**Clause 7: No Money shall be drawn from the Treasury, but in Consequence of Appropriations made by Law; and a regular Statement and Account of the Receipts and Expenditures of all public Money shall be published from time to time.**

**Clause 8: No Title of Nobility shall be granted by the United States: And no Person holding any Office of Profit or Trust under them, shall, without the Consent of the Congress, accept of any present, Emolument, Office, or Title, of any kind whatever,  
from any King, Prince, or foreign State.**

## **APPENDIX D**

**TOP 20 U.S. PORT RANKINGS 1997--BY TOTAL CARGO VOLUME<sup>54</sup>**  
**(SHORT TONS)**

Rank	Port	Foreign Trade	Domestic Trade	Total Trade
1	South Louisiana, LA	76,782,064	106,846,289	183,628,353
2	Houston, TX	102,846,554	62,609,724	165,456,278
3	New York/New Jersey, NY/NJ	56,713,865	78,552,576	135,266,441
4	New Orleans, LA	52,438,422	37,003,350	89,441,772
5	Corpus Christi, TX	62,218,692	24,625,068	86,843,760
6	Baton Rouge, LA	38,406,994	45,616,108	84,023,102
7	Valdez, AK	3,540,109	70,107,042	73,647,151
8	Hampton Roads, VA	50,062,910	17,014,384	67,077,294
9	Plaquemines, LA	16,648,172	46,959,050	63,607,222
10	Long Beach, CA	38,356,545	18,898,756	57,255,301
11	Texas City, TX	37,430,678	19,214,997	56,645,675
12	Tampa, FL	18,603,685	36,729,922	55,333,607
13	Pittsburgh, PA	0	51,662,378	51,662,378
14	Lake Charles, LA	29,710,037	21,568,542	51,278,579
15	Mobile, AL	24,844,100	24,275,907	49,120,007
16	Beaumont, TX	33,626,741	15,038,639	48,665,380
17	Philadelphia, PA	29,957,511	15,010,358	44,967,869
18	Duluth/Superior, MN	10,774,747	31,154,138	41,928,885
19	Los Angeles, CA	28,579,542	13,194,710	41,774,252
20	Baltimore, MD	25,222,074	14,806,774	40,028,848

The above table demonstrates the importance of the SLC state ports in overall U.S. The Seaports of the Americas: The 1999 AAPA Directory tabulates this information for 1997, the most recent year available.

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<sup>54</sup> CanagaRetna, Sujit M., Southern Legislative Conference “The Future of Southern Ports: Megaships and Megachanges on the Horizon”, October 1999.

# **APPENDIX E**

**TOP 20 U.S. PORT RANKINGS 1997**

By Total Dollar Volume (Imports and Exports) \$ Millions

Imports			Exports		
Rank	Port	Value-\$	Rank	Port	Value-\$
1	Long Beach, CA	65,529	1	Houston	20,808
2	Los Angeles, CA	57,725	2	New York, NY	20,638
3	New York, NY	47,392	3	Long Beach, CA	19,088
4	Seattle, WA	23,300	4	Los Angeles, CA	16,116
5	Houston, TX	16,230	5	Norfolk, VA	14,178
6	Oakland, CA	15,440	6	Charleston, SC	11,714
7	Charleston, SC	15,168	7	Seattle, WA	10,305
8	Tacoma, WA	15,104	8	Oakland, CA	9,875
9	Baltimore, MD	11,682	9	New Orleans, LA	9,351
10	Norfolk, VA	11,185	10	Miami, FL	8,456
11	New Orleans, LA	8,775	11	South Louisiana, LA	8,411
12	Savannah, GA	7,469	12	Baltimore, MD	7,133
13	Philadelphia, PA	7,201	13	Savannah, GA	7,083
14	Miami, FL	6,490	14	Port Everglades, FL	4,727
15	Jacksonville, FL	5,971	15	Tacoma, WA	4,442
16	Corpus Christi, TX	5,725	16	Portland, OR	4,225
17	Portland, OR	5,359	17	Jacksonville, FL	3,166
18	Port Everglades, FL	4,592	18	Wilmington, NC	2,612
19	Boston, MA	4,230	19	Tampa, FL	2,152
20	Baton Rouge, LA	4,006	20	Baton Rouge, LA	2,063

# **APPENDIX F**



Senate Bill1665 - 76th Regular Session

AN ACT

- 1-1 relating to the authority of certain navigation districts to  
1-2 acquire land, equipment, or improvements and issue bonds.
- 1-3 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF TEXAS:  
1-4 SECTION 1. Subchapter D, Chapter 62, Water Code, is amended  
1-5 by adding Sections 62.1071 and 62.1072 to read as follows:  
1-6 Sec. 62.1071. ACQUISITION OF LAND, EQUIPMENT, OR  
1-7 IMPROVEMENTS IN CERTAIN COUNTIES. (a) This section applies only  
1-8 to a district that has a county of jurisdiction with a population  
1-9 of more than 2.8 million.
- 1-10 (b) A district may acquire, by any means except by  
1-11 condemnation, and own land, equipment, or improvements located in a  
1-12 county that is adjacent to the district's county of jurisdiction if  
1-13 the commission considers the land, equipment, or improvements:  
1-14 (1) necessary, required, or convenient for any purpose  
1-15 necessary or incident to the development and operation of navigable  
1-16 water or a port located in the district's county of jurisdiction or  
1-17 a county adjacent to that county; or  
1-18 (2) may be in aid of, or necessary, required, or  
1-19 convenient for, the development of industries and businesses on the  
1-20 land in the county of jurisdiction or a county adjacent to that  
1-21 county.
- 1-22 (c) Notwithstanding any other law or municipal charter, a  
1-23 district may acquire, and any public or private owner may dispose  
1-24 of, land, equipment, or improvements on any terms to which the  
2-1 commission and the property owner agree.
- 2-2 (d) If in connection with an acquisition or disposition of  
2-3 land, equipment, or improvements under this section the governing  
2-4 body of a municipality decides to discontinue operations of a port,  
2-5 as a utility of the municipality or otherwise, the acquisition or  
2-6 disposition of the land, equipment, or improvements may not be  
2-7 completed until a majority of the qualified voters of the  
2-8 municipality voting at an election called and held for that purpose  
2-9 approve of the discontinuance of the operations.
- 2-10 (e) The commissioners may change the name of the district in  
2-11 connection with the acquisition of land, equipment, or improvements  
2-12 under this section.
- 2-13 (f) Notwithstanding the source of the revenue, a district  
2-14 that acquires land, equipment, or improvements under this section  
2-15 may use or pledge to the payment of obligations of the district for  
2-16 the development of any district facility, regardless of the  
2-17 location of the facility, any revenue of the district, except as  
2-18 provided by Section 62.209.
- 2-19 (g) Section 41.001(a), Election Code, does not apply to an  
2-20 election held under this section.
- 2-21 (h) Except as provided by this section, an election held  
2-22 under this section must be conducted as provided by the Election

2-23 Code.  
2-24 Sec. 62.1072. ADDITIONAL COMMISSIONERS FOR ACQUISITIONS FROM  
2-25 CERTAIN MUNICIPALITIES. (a) A district that acquires land,  
2-26 equipment, or improvements under Section 62.1071 from a  
3-1 municipality with a population of more than 35,000 that operates  
3-2 navigation and port facilities and that is located in a county  
3-3 adjacent to the county of jurisdiction may add positions for  
3-4 members of the commission, as determined by the commission. Not  
3-5 more than two positions may be added to the commission under this  
3-6 section.  
3-7 (b) The governing body of the municipality in which the  
3-8 acquired land, equipment, or improvements are located shall appoint  
3-9 the additional commissioners.  
3-10 (c) Commissioners serving in the positions added under  
3-11 Subsection (a) shall serve terms that are consistent with the law  
3-12 governing the terms of the other commissioners.  
3-13 SECTION 2. Subchapter F, Chapter 62, Water Code, is amended  
3-14 by adding Section 62.209 to read as follows:  
3-15 Sec. 62.209. USE OF BOND PROCEEDS FOR CERTAIN ACQUISITIONS  
3-16 OF CERTAIN DISTRICTS. A district to which Section 62.1071 applies  
3-17 may not spend for the acquisition of land, equipment, or  
3-18 improvements under that section the proceeds of bonds authorized by  
3-19 the district's voters before the district undertakes the  
3-20 acquisition.  
3-21 SECTION 3. The importance of this legislation and the  
3-22 crowded condition of the calendars in both houses create an  
3-23 emergency and an imperative public necessity that the  
3-24 constitutional rule requiring bills to be read on three several  
3-25 days in each house be suspended, and this rule is hereby suspended,  
3-26 and that this Act take effect and be in force from and after its  
4-1 passage, and it is so enacted.

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President of the Senate      Speaker of the House  
I hereby certify that S.B. No. 1665 passed the Senate on  
May 7, 1999, by the following vote: Yeas 29, Nays 1.

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Secretary of the Senate  
I hereby certify that S.B. No. 1665 passed the House on  
May 22, 1999, by the following vote: Yeas 144, Nays 0, two present  
not voting.

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Chief Clerk of the House  
Approved:

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Date  
  
Governor

**SECTION 1.** Amends Chapter 62D, Water Code, by adding Section 62.1071, as follows: **Sec. 62.1071. ACQUISITION OF LAND, EQUIPMENT, OR IMPROVEMENTS IN CERTAIN COUNTIES.** Provides that this section applies only to a district that has a county of jurisdiction with a population of more than 2.8 million. Authorizes a district to acquire, by any means except condemnation, and own land, equipment, or improvements located in a county that is adjacent to the district's county of jurisdiction if the commission considers the land, equipment, or improvements to be necessary. Authorizes any public or private owner to dispose of land, equipment, or improvements on any terms to which the commission and the property owner agree. Sets forth certain provisions regarding the discontinued operations of a port. Authorizes the commissioners to change the names of the district in connection with the acquisition of a land equipment, or improvements under this section. Authorizes a district that acquires land, equipment, or improvements under this section to use or pledge to the payment of obligations of the district for the development of any district facility, regardless of the location of the facility, any revenue of the district, except as provided by Section 62.209. Provides that this Section 41.001(a), Election Code, does not apply to an election held under this section. Requires an election held under this section to be conducted as provided by the Election Code.

**Sec. 62.1072. ADDITIONAL COMMISSIONERS FOR ACQUISITIONS FROM CERTAIN MUNICIPALITIES.** Requires a district that acquires land, equipment, or an improvement under 62.1071 from a municipality that has a population of more than 35,000 that operates navigation and port facilities and that is located in a county adjacent to the county of jurisdiction may add positions for members of the commission, as determined by the commission. Provides that not more than two positions may be added to the commission under this section. Requires the governing body of the municipality in which the acquired land, equipment, or improvements are located to appoint the additional commissioners. Requires the additional commissioners to serve terms that are consistent with the law governing the terms of the other commissioners.

**SECTION 2.** Amends Chapter 62F, Water Code, by adding Section 62.209, as follows: **Sec. 62.209. USE OF BOND PROCEEDS FOR CERTAIN ACQUISITIONS OF CERTAIN DISTRICTS.** Prohibits a district to which Section 62.1071 applies from spending for the acquisition of land, equipment, or improvements under that section the proceeds of bonds authorized by the district's voters before the district undertakes the acquisition. See Appendix D for a complete listing of the Senate Bill 1665.

## **APPENDIX G**

Table 1<sup>55</sup>

Value of Cargoes Transported Via Texas Waterways

Commodity	Value (\$Million)
Chemicals	15,697
Petroleum Products	10,415
Manufactured Goods	1,644
Crude Oil	1,517
Chemical Fertilizers	810
Primary Metal Products	548
Food & Food Products	140
Sand & Gravel	22

Table 2<sup>56</sup>

Total Waterway-Related Jobs by County and Percentage of Total County Jobs

County	# of Jobs	% of Jobs
Aransas	241	9%
Brazoria	14,451	27%
Calhoun	2,876	40%
Cameron	4,333	7%
Chambers	1,876	42%
Galveston	8,610	14%
Harris	50,413	4%
Jefferson	13,563	13%
Kleberg	132	2%
Matagorda	633	7%
Nueces	7,265	8%
Orange	5,565	29%
Refugio	87	7%
San Patricio	2,034	21%
Victoria	1,980	8%
Willacy	115	7%

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<sup>55</sup> *The Economic Importance of Waterways: Texas Fact Sheet.* National Waterways Conference, Inc. [www.waterways.org/res/res\\_pub.html](http://www.waterways.org/res/res_pub.html)

<sup>56</sup> *The Economic Importance of Waterways: Texas Fact Sheet.* National Waterways Conference, Inc. [www.waterways.org/res/res\\_pub.html](http://www.waterways.org/res/res_pub.html)

## **APPENDIX H**

**Question: Can Houston compete as a megaport?**

**Answer: The term "megaport" implies a port that would accommodate the "megaships" which generally reference the newer ships with a capacity in excess of 5,000- 6,000+ TEUs and are generally confined for use in the trans-Pacific or the trans-Atlantic trade routes. If fully laden, these new ships would generally require at least a 50-foot draft. The Port Authority has made no request to Congress to deepen Bayport to 50 feet and the project is not dependent on a 50-foot channel. These new megaships are not expected in the Gulf for many years to come. Even then, should one of these megaships call in the Gulf, it would not be expected to be fully laden and could, therefore, be accommodated in Houston. The Port of Houston Authority considers itself to be a "hub port" and a "transshipment port". It has all the elements in place now for a successful hub port - a vast local market, inland transportation networks, rail links, ancillary service providers, a critical mass of steamship customers, and adequate water depth. It can also build a facility on land which it now owns within its jurisdictional boundaries of Harris County. Planned as a modern container yard facility with proper rail links, state-of-the art terminal design and appropriate road improvements, Bayport is projected to handle the expanding volumes of cargo destined for the Houston and Texas markets, as well as cargo destined for Central and Latin America. The proposed 40-45 foot water depth can handle the anticipated vessel traffic for many years to come.**

**Question: Texas City wants a megaport. Why don't you build the terminal in Texas City?**

**Answer: If one puts aside the fact that the Port of Houston Authority is prohibited from spending Harris County taxpayer dollars in Galveston County, the Port Authority would hesitate to invest in the Texas City location because of the following reasons: With 49% of the cargo now passing through the Port of Houston destined for Houston, Texas City's more distant location would result in higher inland transportation costs; The proposed Texas City site is a dredge disposal facility already committed to use as a dredge site. Costs to build on dredge sites are considerably higher than costs to build on stable ground. As an example, Port Authority engineers estimate that it would cost an additional \$600,000/acre to build on a dredge site similar to the proposed Texas City site, but owned by the Port Authority. The proposed Texas City site does not have any of the basic infrastructure in place (roadway, railsystems) required for such a development. There are no roads or railroads within two miles of proposed Texas City site at Shoal Point. Houston needs a terminal now. It cannot afford the investment of time or capital on the development of basic infrastructure to provide access to/egress from the island or for the development of inland road or rail transportation systems.**

# **APPENDIX I**



**CHAPTER 53. PORT AUTHORITY ADVISORY COMMITTEE**

**§ 53.001. Port Authority Advisory Committee**

(a) The port authority advisory committee consists of five members appointed by the Texas Transportation Commission to advise the commission and the Texas Department of Transportation on matters relating to port authorities, including:

- (1) intermodal and multimodal transportation issues relating to Texas waterways and ports and port improvements; and
- (2) the identification and development of funding mechanisms, including the state infrastructure bank, for addressing the issues described by Subdivision (1).

(b) The members shall be appointed as follows:

- (1) one member who represents the Port of Houston Authority of Harris County, Texas;
- (2) two members who represent ports other than Houston on the upper Texas coast; and
- (3) two members who represent ports on the lower Texas coast.

(c) A committee member serves at the pleasure of the Texas Transportation Commission.

(d) A committee member may not receive compensation for serving as a member but is entitled to reimbursement for reasonable expenses incurred in performing the member's duties.

(e) The Texas Transportation Commission may adopt rules to govern the operations of the committee.

Added by Acts 1997, 75th Leg., ch. 1171, § 1.34, eff. Sept. 1, 1997.

## **APPENDIX J**

**Large Ports:**

William Dodge, Port of Corpus Christi

Frank Brogan, Port of Corpus Christi

**Small Ports:**

Fred Wichlep, Port of Galveston

John Mathis, Port of Texas City

**Agency:**

John Basilotto, Center for Ports and Waterways

James Randall, Texas Department of Transportation

Leigh Boske, LBJ School of Public Affairs

**Citizens:**

Michael Godinich, self

Ann Gunnells, self

Alice Bissel, self

Gerald Guerrieri, El Jardin Community Association

Douglas Godinich, self

Hilary Smith, Houston Property Rights Association

Richard Rogan, self

**Regulators:**

Ned Holmes, Port of Houston Authority

Mike Mahaffey, Port of Corpus Christi Authority

Janis Lowe, Board of Pilots Commission for the Ports of Galveston County

**Cities:**

Cargo Handler & Industry

Robert H. "Bob" Van Borssum, Texas Ports Association

John May, Texas Intermodal Truckers Association

**Written Testimony:**

Rick Maldonado, Texas Ports Association

Samuel Jones, Texas Natural Resource Conservation Commission

James Randall, Texas Department of Transportation

Linda Shead, Galveston Bay Foundation

Robert H. "Bob" Van Borssum, Port of Port Lavaca

Carlos Truan, Jr., Port of Corpus Christi