



US Army Corps
of Engineers®

Deep Water Ports and Harbors

Value to the Nation



DEEP WATER PORTS

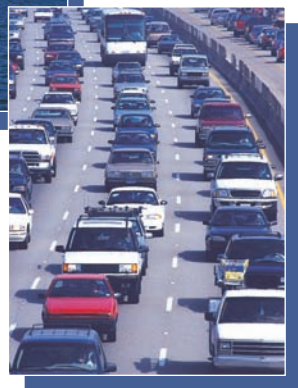
Ports and Harbors

VALUE OF U.S. PORTS AND HARBORS



The mission of the U.S. Army Corps of Engineers navigation program is to ensure that water traffic can move safely, reliably and efficiently in and out of these ports and harbors with minimal impact upon the environment.

In partnership with local port authorities, the Corps spends nearly \$1.5 billion annually on operations, maintenance and construction projects for hundreds of channels and harbors nationwide.



Every day the work taking place at our nation's ports and harbors impacts our lives. For example, more than 95 percent of overseas trade moves in and out of the United States by ship.

Our nation's ports and harbors serve as an entry point for everything from the gas that runs our cars, to the food on our tables, to the computers in our offices. They also are an exit point for imports to other nations.

Our ports and harbors are America's gateway to participation in the global economy, providing the nation's farmers, manufacturers and businesses with convenient, affordable access to world markets.

In fact, virtually all of our jobs depend in one form or another on the free flow of goods through U.S. ports and harbors.



VALUE TO THE ECONOMY

Even in this era of instant ordering and real-time communication we still need to move goods from Point A to Point B and beyond. In the majority of cases the most cost-efficient, environmentally friendly way to do so is by ship.



- Every day, 12 million barrels of oil to heat our homes and businesses, and fuel our cars, are imported into the United States by ship.
- Over 70 percent of imported oil comes through harbors maintained by the Corps.
- More than 48 percent of consumer goods bought by Americans pass through harbors maintained by the Corps.



The transport of goods by water is one of the most efficient means of freight transportation. The extensive use of waterborne shipping helps to keep the costs of durable, bulk and consumer goods affordable for businesses and consumers.

Our nation's ports and harbors are a crucial component of our shipping system and a linchpin of our economy, allowing America to remain one of the world's largest trading nations.

For example, did you know that...

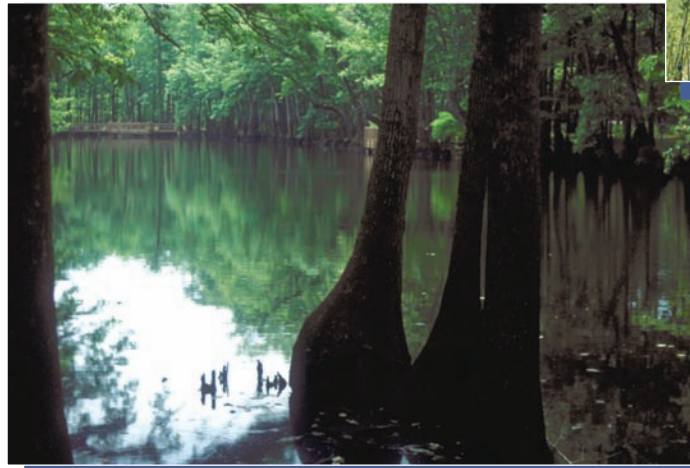
- The U.S. marine transportation industry supports nearly \$2 trillion in commerce and creates employment for more than 13 million people.
- U.S. ports and harbors handle more than 2.5 billion short tons of domestic and foreign commerce.

The Corps is proud to play an important role in guaranteeing the effective operation of our nation's ports and harbors and the smooth flow of commerce through them.



VALUE TO THE ENVIRONMENT

Dredged material is one of the major by-products of Corps efforts to keep our ports working effectively. Corps personnel consistently work to identify environmentally beneficial ways to use dredged material from harbor maintenance projects.



For instance, dredged material has been used by the Corps to enhance wildlife habitats by creating nesting islands for waterfowl. Fisheries also have been improved by mounding dredged material to establish fish refuge habitats.

One of the key uses of dredged material, though, is to create, preserve and restore wetlands. These projects are particularly important because of the crucial role wetlands play in our environment, providing homes for thousands of plants, fish and wildlife, including many species that are endangered. Wetlands also serve as rest stops for migratory birds, help prevent flooding and control erosion.



Corps personnel carefully consider the environmental impact of each construction or dredging project they undertake. During the planning phase, we conduct computer modeling to project the potential impact of proposed changes and make adjustments as needed before work even begins. We also conduct dredging operations during "environmental windows," which are time periods when disruption to marine species can be minimized.



Did you know that...

Shipping goods by water results in far fewer pollutants being emitted into the air than other forms of transportation.



BALANCING THE BENEFITS

When undertaking harbor studies the Corps strives to find the proper balance between society's needs for economic growth and environmental protection.

PORT OF LOS ANGELES/BATIQUITOS LAGOON

To accommodate larger international container ships, the Corps worked with several agencies to dredge new and deeper navigation channels at the Port of Los Angeles. The dredged material was used to construct a new pier in the outer harbor to allow for construction of additional cargo terminals.



These changes have enabled the Port of Los Angeles to keep up with the demands placed upon it by its ever-expanding role as a linchpin of America's participation in the global economy. Los Angeles is the seventh largest port in the

world handling containerized shipping. It is a regular host to the Marsk S class, the world's largest container ship. Overall, the port handles over \$100 billion in cargo annually, including an array of manufactured and consumer goods from the Pacific Rim.

The dredging of the port has been a tremendous economic success, but it also had an impact on marine life in the area. To offset this impact, the Corps and other agency partners dredged the



inlet to nearby Batiquitos Lagoon, opening it up to the ocean for the first time since the 1930s. Marine fish have returned in record numbers and the salt marsh has been revitalized by the tidal exchange.

The Batiquitos Lagoon Enhancement Project is one of the largest restoration projects completed in America.



TOMORROW'S CHALLENGES

Challenges

Many challenges lie ahead for those who operate and maintain the nation's ports and harbors and the companies and individuals that rely upon them for livelihoods.

The good news is that in the next 20 years experts predict a 65 percent increase in the amount of cargo transported by container ships. Containerized trade is the fastest growing segment of the economy, doubling every 10 years, which means a steady increase in the number of vessels calling on U.S. ports. In turn, that means more jobs and a stronger economy.



ports. To address this challenge, the Corps and other organizations have undertaken a systematic effort to modernize and upgrade the nation's ports and harbors to keep pace with these larger vessels.

This effort received a boost with the passage of the 2009 American Recovery and Reinvestment Act (ARRA). Overall, ARRA made available \$4.6 billion for "shovel-ready" Corps Civil Works projects. Part of this funding is being used for channel-deepening projects in key ports and harbors from San Diego to Baltimore and to

facilitate recovery efforts for ports decimated by the 2005-2008 hurricanes.

Environmental considerations remain at the forefront of our thinking and planning throughout this process.

However, many of the world's marine transportation companies are beginning to use container ships that require channel depth of up to 55 feet. Very few U.S. ports have sufficient depth for these ships. Many nearby ports in Canada and the Bahamas can accommodate ships of this size. America runs the risk of losing imports and jobs in the years ahead to these

TOMORROW'S CHALLENGES

Challenges

HOUSTON-GALVESTON NAVIGATION CHANNELS

the 1.5 million direct and indirect jobs and \$285 billion of economic activity related to these ports.

The Ports of Houston and Galveston received \$98.3 million and \$40 million respectively from the 2009 American Recovery and Reinvestment Act (ARRA). These funds will be used to restore the Galveston shipping channel to pre-Hurricane Ike depths of 40 feet and then to complete efforts to deepen the Houston-Galveston Channel to 45 feet to better accommodate today's larger ships.



Funding also is being used for related environmental projects and to provide construction and dredged material placement capacity to avoid the increased costs of transporting dredged material to distant sites.

The Port of Houston is home to the second largest petrochemical complex in the world and accommodates 225 million tons of cargo annually. The ARRA funding will help support



WORKING TOGETHER

Together

In carrying out its navigation responsibilities, the Corps works closely with a variety of federal agencies including the Environmental Protection Agency, Maritime Administration, National Oceanic and Atmospheric Administration, U.S. Coast Guard, U.S. Customs Service and the U.S. Department of Agriculture.



We also partner with state and local governments, port authorities, and many private environmental groups and trade organizations to solve problems and take advantage of water resource development opportunities that are in the national interest.

We look forward to expanding these partnerships and building new alliances as we work to meet the challenges and opportunities facing our nation's ports and harbors in the years ahead.

LEARNING MORE

To learn more about the nation's ports and harbors and the Corps role in maintaining them, please visit www.CorpsResults.us.



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