

Presentation to the Warrior-TomBigbee Waterway Association

54th Anniversary Meeting - Mobile, Alabama

Friday, April 30, 2004

Ports in the South

It is a great honor to be here and my thanks to Sheldon Morgan for extending this invitation to me and to The Council of State Governments to talk about ports in the South. Established in 1933, The Council works primarily with state legislatures in tracking trends, carrying out research and analysis and promoting state interests. While I work for The Council's Southern Office, the Southern Legislative Conference (SLC) in Atlanta, The Council is headquartered in Lexington, Kentucky and has regional offices in California, New York, Illinois and Washington, DC. The Southern office covers 16 states.

My presentation this morning will cover five main areas:

- (1) The critical role played by ports in our nation's economy
- (2) The linkages between global economic trends and maritime transportation
- (3) The record of Southern ports in this relationship
- (4) The challenges faced by ports in the South and across the country
- (5) Issues related to maritime security

(1) Ports in Our Economy

Ports across the United States play a critical role in the nation's economic life, impacting directly and indirectly at all levels-national, regional, state and local. By facilitating the nation's water transportation needs and serving as the initial point of contact for waterborne cargo, both domestic and foreign, ports are an integral component of the country's economic calculations. From the huge amounts of petroleum products that transit through the Ports of South Louisiana and Houston to the tens of thousands of automobiles that roll-on and roll-off at the Ports of Baltimore and Jacksonville to the thousands of containers loaded with retail goods that come into the Port of Savannah to the million plus tons of coal and wood pulp that transit through the Alabama State Docks, our nation's ports are the gateways that connect the United States to the world. Interestingly, many Americans are unaware of this important economic contribution. For instance,

U.S. ports and waterways handle more than 2 billion tons of cargo each year, i.e., a billion tons of domestic and another billion tons of foreign;

Many Americans are unaware that the waterborne cargo moving through our nation's marine transportation system contributes more than \$780 billion to our Gross Domestic Product, creates more than 16 million port-related jobs and generates more than \$515 billion in personal income, \$1.5 trillion in business sales and almost \$210 billion in taxes at all levels;

It is not widely known 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; and

Finally, many Americans are unaware that commercial and recreational fishing contributes more than \$111 billion to state economies annually.

Our nation's marine transportation system is gigantic. More than 1,000 harbor channels and 25,000 miles of inland, intra-coastal, and coastal waterways in the United States support over 350 ports and 3,700 terminals that handle passenger and cargo movements. In turn, these waterways and ports are connected to 152,000 miles of rail, 460,000 miles of pipelines, and 45,000 miles of interstate highways.

The United States relies heavily on an efficient and effective marine transportation system to retain its preeminent role as the global economic powerhouse. In fact, as the world's most active trading nation, the United States accounts for nearly one billion metric tons or nearly 20 percent of the annual world ocean borne trade. More importantly, over 95 percent of U.S. overseas trade by weight and 75 percent by value is shipped by sea. Given that international trade is projected to more than double by 2020 and that most of this cargo will be transported by ship, the nation's policymakers—at all levels—have to be made increasingly aware of the need to heighten the efficiency, capacity and infrastructure of our marine transportation system.

In addition to its economic role, the marine transportation system plays an important role in national defense by facilitating the movement of military equipment and supplying troops deployed overseas. Furthermore, ships and barges are among the safest and most environmentally friendly forms of transportation while millions of Americans use the marine transportation system for recreational and leisure purposes too.

(2) Links between Global Economic Trends and Maritime Transportation

Global economic trends and maritime transportation remain tightly interconnected forces that continually feed off each other. In fact, the major contributory factor to a flourishing port system is international trade. An expanding international trade environment generally results in a bustle of activity at ports across the globe. Even though turmoil in the last few years, both within the United States and in the global economy, has caused short-term declines in shipping activity, the past 30 years have seen

a tremendous increase in the level of international trade and foreign waterborne commerce. Two trends are important here.

One, the growing importance of international trade in the U.S. economy. For instance, in 1960, total U.S. exports amounted to about \$26 billion, while imports stood at about \$22 billion. Some 43 years later, in 2003, U.S. exports had soared to \$1.1 trillion while imports had expanded to \$1.5 trillion, an increase of over 4,100 percent in exports and over 6,700 percent in imports.

Two, the increasing role played by the foreign component of U.S. waterborne commerce. From 33 percent in 1963 to 44 percent in 1983 to 56 percent in 2002, there has been a steady growth in the foreign component of total U.S. waterborne commerce.

Hence, while the transfer of goods between land and water remains crucial to the expansion of trade and the growth of the economy, the mounting foreign component of U.S. waterborne commerce reflects the enhanced role played by international trade in the U.S. economy.

Given these twin trends, a downturn in international trade has an immediate negative impact on activity levels at ports. In fact, world trade patterns directly influence the amount of cargo loaded and unloaded at the world's ports. The recession that swept the United States in 2001, and almost all parts of the globe, affected activity levels in the nation's ports too. In fact, a review of international economic trends in 2001 and 2002 reveals both a slump in international trade and shipping activity.

According to just released data from the International Monetary Fund, world economic output is expected to grow by 4.6 percent in 2004 and by 4.4 percent in 2005. In contrast, in the 2001 to 2003 period, world output grew by 3.1 percent. Similarly, world trade grew by only 2.6 percent between 2001 and 2003 but is expected to surge forward by 6.8 percent this year and 6.6 percent next year. Alongside this optimism about stronger economic growth across the globe in the short-term, the likelihood of increased seaborne traffic remains a certainty too. Regardless of the decline in seaborne traffic due to souring global economic conditions, as experienced in the past few years, 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, and it is imperative that ports in the South remain poised to take advantage of this international trend.

(3) Ports in the South

Ports in the South play a monumental role in overall U.S. waterborne commerce and international trade. According to the latest figures, almost three-fourths of U.S. waterborne exports and imports transited through a Southern port. Specifically, almost 35 percent of total U.S. international trade traveled through a Southeastern port, 24

percent through a Southwestern port and over 14 percent through a Mid-Atlantic port: an overwhelming 73 percent, all involving Southern states.

Information on U.S. port rankings shows the impressive magnitude of cargo moving through a number of ports located in the South. According to the latest data on U.S. waterborne tonnage, 13 of the top 20 ports are Southern ports; as many as 8 of these Southern ports are in the top 10, led by 4 ports in Louisiana and 3 ports in Texas. Even in terms of containerized cargo, Southern ports hold sway. In 2003, 16 of the top 30 ports in the country were located in the South, led by Charleston (4th), Savannah (5th), Norfolk (6th) and Houston (8th), all in the top 10.

(4) Challenges Faced by Ports given Expanding International Trade

Alongside this surge in international trade and activity at ports across the globe, the use of containers to transport all types of cargo has surfaced as a radically different transportation technique in shipping in recent decades. Containerized shipping is not only the fastest growing technique for transporting all types of cargo but it is also considered the most efficient and cost effective method. This movement towards containerization has resulted in tremendous improvements in intermodal transportation methods with rail, truck and barge movements gaining significantly. A corollary of this rapid drift towards containers has been the need for ever larger vessels to take advantage of the economies of scale available in cargo transportation. This has resulted in numerous alliances, mergers, and vessel-sharing arrangements among carriers and shipping lines, often crossing national boundaries in their quest to lower operating costs and enhance profit margins. In certain instances, these alliances and mergers have spilled across modes of transportation too, with shipping carriers joining forces with railroad operations.

The notion that substantial cost savings might be realized by increasing vessel size is practically a given in contemporary shipping circles. Megaships, or ships capable of carrying in excess of 4,500 20-foot containers, or TEUs, have become more widespread. In fact, when the first megaship with the capacity to carry 6000+ TEUs, the *Regina Maersk*, called on several Southern state ports (Baltimore, Norfolk and Charleston) back in 1999, it was a highly acclaimed event. Furthermore, orders for megaships with similar, and even greater, load-bearing capacities, have stepped up in recent years and this class of vessel is expected to totally dominate shipping well into the century.

In this era of slashing costs and constantly striving for higher levels of efficiency, the driving force behind the introduction of megaships is lowering operating costs. Given the economies of scale, these megaships will be less expensive, on a per-slot basis, to build and operate. In fact, analysts expect that a reduced number of these megaships will be able to carry more containers with fewer crew members while using less fuel. Consequently, the cost of carrying a container will be lowered, enabling shippers to become more competitive by reducing rates. Since ships only produce revenue when

they are at sea, these megaships will increase their market share while simultaneously curtailing the number of port calls.

Upgrading a port to fully handle these megaships promises to be a complex, lengthy and expensive proposition. Not only must the channel and berth depth of a port be a minimum 50 feet, a number of related developments such as bigger and an increased number of container cranes; high-speed truck and rail routes to transport cargo both to and from the megaships; warehouses to store the increased cargo load; and, sophisticated computer systems to efficiently track this cargo, remain a few essential requirements. Regardless of whether a port acquires this elite megaport status, all ports, including those in the Southern region, have to continue devoting resources to improve their capacities to deal with the introduction of these megaships to the oceans.

Given the enormous size of these megaships, the constraints and challenges—both logistical and infrastructural—remain extraordinary for the ports at which these megaships will call. More ports in the United States need to be better equipped to handle these megaships when they are loaded to capacity. Given that shipping experts predict that in the next decade some 90 percent of all international liner freight will be shipped in containers, policy makers across the country, and particularly in the Southern states, are well served to develop an appropriate strategy to address this phenomenon.

Another emerging trend forecasted with the development of megaships involves a *hub-and-spoke* system, similar to the model used by the airline industry. According to this model, these megaships will connect the "global pivot ports," (such as the super-hubs of Asia and the United States) cargo will then be transshipped to medium-sized "regional pivot ports," and finally transported to their ultimate destinations by rail and road. Therefore, shipping experts do not envisage the need for a number of U.S. ports capable of handling these megaships, but only for a select number that will play the role of "global pivot ports."

(5) Maritime Security

In the light of the 2001 terrorist attacks, there has been renewed focus on warding off similar onslaughts at the nation's ports. Port officials continue fine tuning a range of preventive measures including improved perimeter lighting and fencing, maritime port security barriers, closed-circuit cameras, pull-aside spaces for closer inspection of trucks, widened roadways, state-of-the-art credentialing systems for port employees, underwater inspection teams and a number of additional steps.

Yet, security experts have been bemoaning the lack of security around containers, that post World War II invention that soon become indispensable to world commerce. Given that every day, over 15 million containers are moving around at sea or land, or sitting in yards waiting to be delivered and that inspectors only examine a small percentage of containers (now reputed to be about 6 percent), the fears of security experts are well-founded. In response, the federal government, which continues to be the primary actor in setting port policy across the United States, now requires each seaport to

implement a federally approved security program; demands more information about shippers' cargo, crew and passengers before entering a U.S. port; imposes background checks on people working in security-sensitive areas; funds more U.S. agents and security screening agents at ports; coordinates federal, state, local and private law enforcement at ports; and, stations additional U.S. Customs Officials at major overseas ports.

The burden and disruption of extra security to inspect containers would weigh heavily on a shipping industry that is already reeling from the blows of the global economic slowdown. Most industries—whether Ford and General Motors, with their just-in-time manufacturing, or computer companies such as Cisco and Compaq, which ship parts in from Asia—rely heavily on global supply chains in which the humble container box is the critical link. Hence, inspection-related delays would pose substantial dilemmas to efficiency-oriented operations. Consequently, government and industry are working in partnership on an effective and efficient solution to this question, including pursuing better intelligence on inbound vessels and using technology to enhance operations.

Several developments on the technology front are important here. A number of U.S. ports—Baltimore, Houston, Everglades, Miami—are deploying mobile, non-intrusive gamma-ray units to swiftly inspect containers and trucks for explosive devices and contraband. Then, some of the world's busiest seaports—Seattle, Tacoma, Los Angeles/Long Beach, New York/New Jersey—are using electronic seals on containers. Using radio signals, these seals can transmit information on where the container is, what is inside and whether it has been opened. Also, U.S. Customs recently unveiled radiation portal monitors to better prevent the smuggling of radiological devices through U.S. seaports. These portals will be deployed at all major seaports alongside the handheld radiation detection devices already in use.

Between September 2002 and December 2003, the federal government disbursed a number of grants adding up to several hundred million dollars to ports across the country to help beef up security. A number of ports in the South were major beneficiaries here.

Closing Remarks

In closing, given the expected growth potential in international trade and the swift movement towards containers, the onset of megaships as the vessel of choice in the shipping industry is assured. Certain Southern states have anticipated this development and have begun preparations to enhance their capabilities to efficiently accommodate these megaships. In this connection, the ports in Baltimore, Norfolk, Charleston, Savannah, Nawlins and Houston have initiated programs to brace themselves for the wave of megaships that will surely be coming their way. Nevertheless, it is important for policy makers to continue to monitor these development efforts and ensure that they continue on pace. It is also important that these capacity enhancements include the smaller "pivot ports" given the fact that they remain critical elements in the *hub-and-spoke* system. The roster of ports in the Southern states occupies an extremely important

position in our nation's economic measurements, a trend clearly demonstrated in the proportion of U.S. exports and imports flowing through the Southern ports. Hence, it is vital that Southern state ports maintain and strive to expand this role as the trade gateway to the United States.