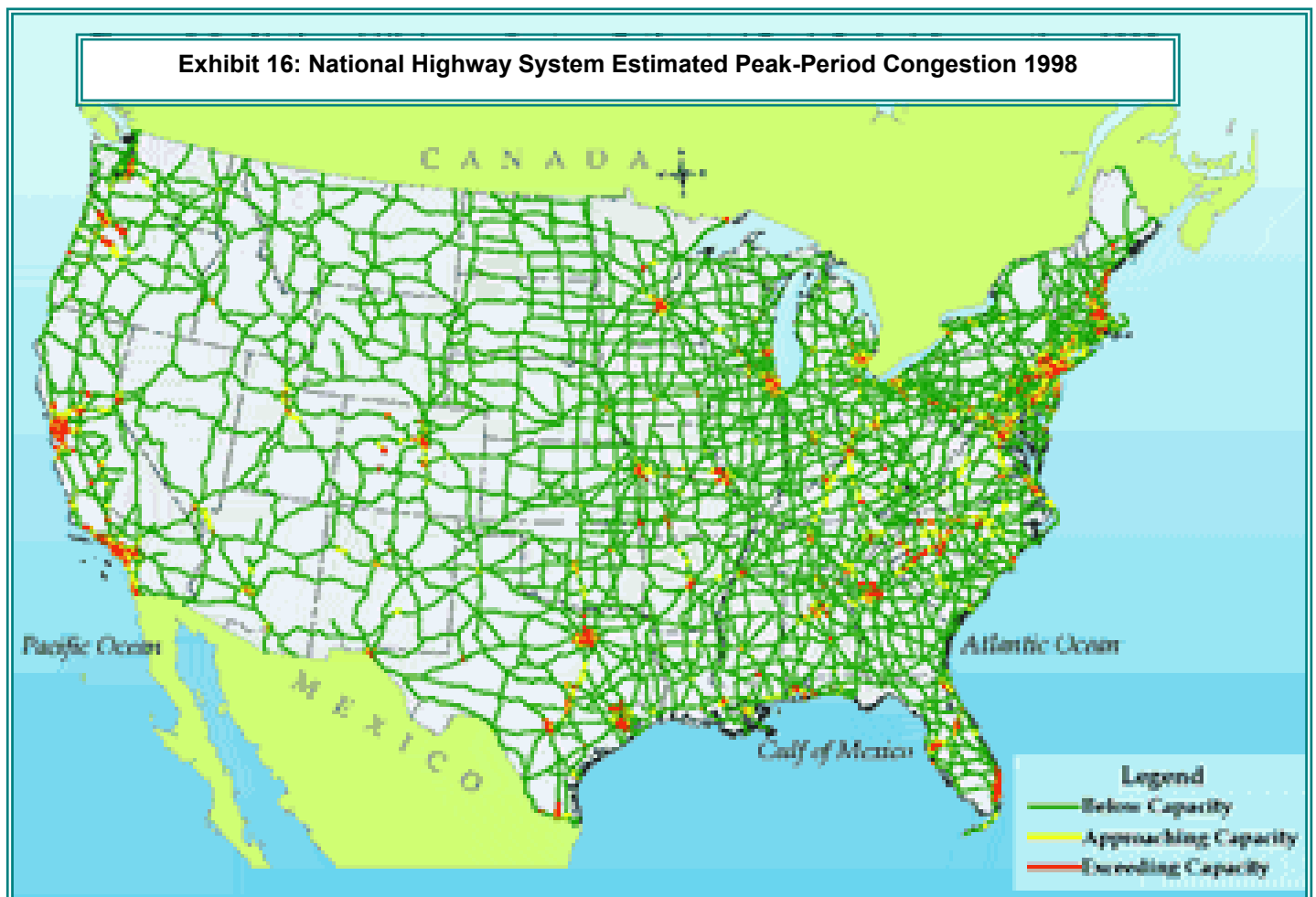


## V. Statewide Intermodal Connectivity: Trade Corridor Development

**The Challenge of Increasing Traffic Congestion.** In the effort to catch up with the effects of traffic congestion, American cities are falling farther behind with each passing year, according to 20-year trends presented in the 2004 Urban Mobility Report, published by the Texas Transportation Institute. The report shows traffic congestion growing across the nation in cities of all sizes, consuming more hours of the day, and affecting more travelers and shipments of goods than ever before. And, say the study's authors, "We can only expect more of the same."<sup>16</sup>



As highway traffic increases over the next twenty years, the conditions that truckers will encounter on the roads are expected to worsen considerably. Exhibits 16 and 17 (the latter on Page 33) show how peak-period conditions on the National Highway System are expected to deteriorate by 2020. The roads within Florida's important Corridors of Commerce are among those that are expected to exceed capacity and suffer the effects of increased congestion.



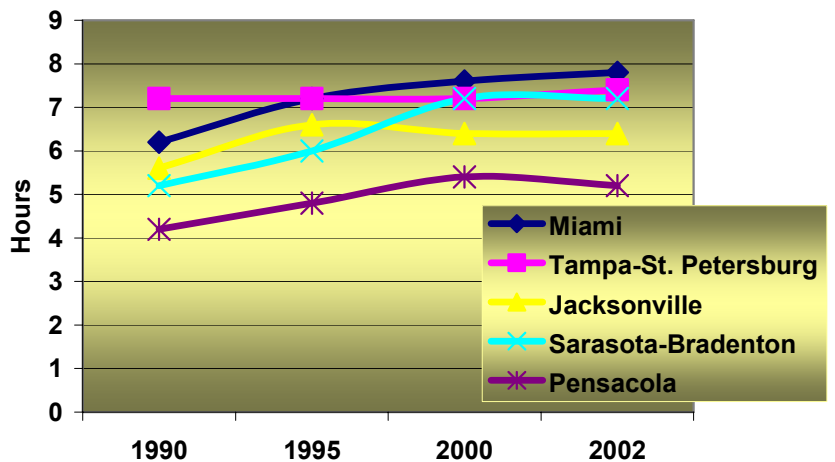
<sup>16</sup> Texas Transportation Institute, *2004 Urban Mobility Study*

**Exhibit 17: National Highway System Estimated Peak-Period Congestion 2020**



Exhibit 18 shows how these traffic constraints are affecting five areas where seaports are located: Miami (which includes all of South Florida), Tampa-St. Petersburg, Jacksonville, Sarasota-Bradenton, and Pensacola. This chart shows that the congestion-worsening trend is not confined to the larger urban areas, but is affecting the smaller communities as well.

**Exhibit 18: Number of “Rush Hours” (Time when System Might Have Congestion)**



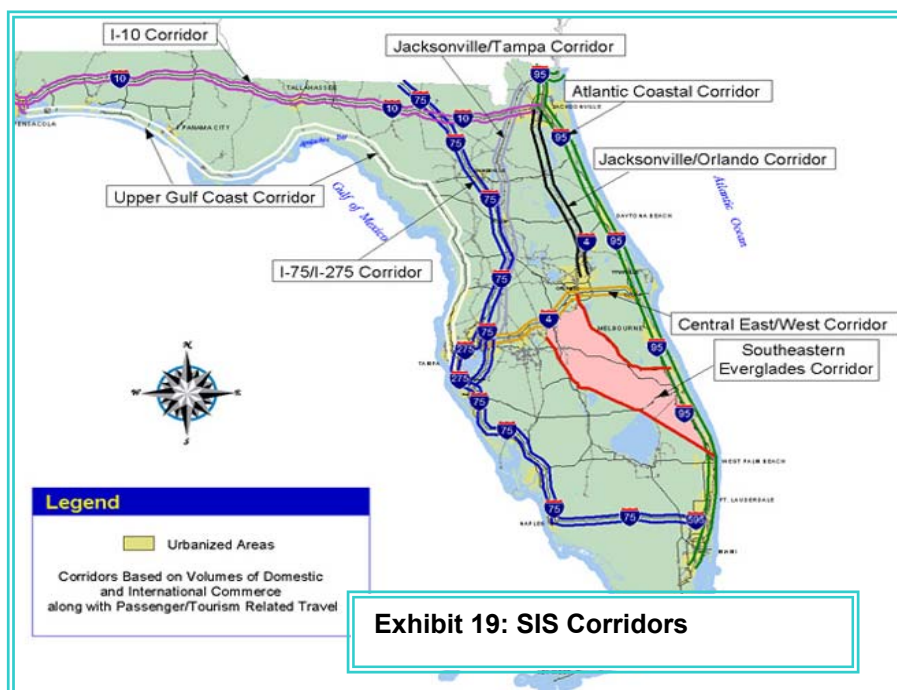
Source: Texas Transportation Institute, 2004 Urban Mobility Study

***The twin seaport objectives of expanding capacity and enhancing efficiency depend on improving critical intermodal connectors on a corridorwide basis to carry goods and passengers from Point A to Point B.***

**Corridors of Commerce.** In its initial SIS development, FDOT identified eight transportation corridors. As authorized by the Florida Legislature in 2003, and described in Section 341.0532, F.S., these corridors are defined as “a system of transportation infrastructure that collectively provides for the efficient movement of significant volumes of intrastate, interstate, and international commerce by seamlessly linking multiple modes of transport.” The identified statewide transportation corridors, or Corridors of Commerce, include the following (see Exhibit 19):

- The Atlantic Coast Corridor, from Jacksonville to Miami, including Interstate 95.<sup>17</sup> [This corridor, the extended Atlantic Commerce Corridor, is proposed for federal designation from the Georgia border to Miami.]
- The Gulf Coast Corridor, from Pensacola to St. Petersburg and to Tampa, including U.S. 98 and U.S. 19/State Road 27.
- The Central Florida/North-South Corridor, from the Florida-Georgia border to Naples and Fort Lauderdale/Miami, including Interstate 75.
- The Central Florida/East-West Corridor, from St. Petersburg to Tampa and to Titusville [the Canaveral area], including Interstate 4 and the Beeline Expressway.
- The North Florida Corridor, from Pensacola to Jacksonville, including Interstate 10 and U.S. 231, State Road 77, and State Road 79 from the Florida-Alabama border to Panama City.
- The Jacksonville to Tampa Corridor, including U.S. 301.
- The Jacksonville to Orlando Corridor, including U.S.17.
- The Southeastern Everglades Corridor, linking Wildwood, Winter Garden, Orlando, and West Palm Beach via Florida's Turnpike.

Florida's seaports have long cited intermodal connectivity as one of their top competitive concerns. In conjunction with their state partners, the seaports have continued to assess and promote systemic statewide trade corridor needs. They are not alone in this concern, as connectivity issues are a major focus of seaports throughout the country as essential road and rail networks experience near-critical congestion. The twin seaport objectives of expanding capacity and enhancing efficiency depend on critical intermodal connectors to carry goods and passengers from Point A to Point B.



<sup>17</sup> The Atlantic Commerce Corridor has been designated in the new House Transportation Bill (H.R. 3 EH, Section 1804) as Corridor 49. It is one of twelve new high priority corridors proposed for federal designation in that bill and approved by the House of Representatives on March 10, 2005.

Within these corridors and the economic regions they serve, FDOT is looking at multimodal approaches to statewide transportation system needs. The 2003 intermodal connectivity assessment in the tri-county (Miami-Dade, Broward, and Palm Beach) Atlantic Commerce Corridor, supported by FDOT, the South Florida ports, and their rail partners, confirmed the appropriateness of this approach.<sup>18</sup> Creating systemic synergies among the modes and implementing agencies has captured the attention of regional entities, including the South Florida Regional Transportation Authority (SFRTA). An example of how FDOT could use the corridor approach to eliminate the old “stovepipe” way of implementing projects is presented in the box on the next page.

Now that the SIS Plan has been completed and adopted, FDOT is focusing on the connectors that link the identified transportation hubs on the SIS. Developing SIS criteria for these connectors and identifying a funding source to build projects with a regional approach and impact will help improve the critical intermodal infrastructure needed to move goods from Point A to Point B. These connections must be the focus of a continued comprehensive approach to intermodal transportation system development at the state level. Similarly, the cross-border extensions of these corridors are essential for the movement of goods to and from the state. Florida is continuing to seek recognition of its Corridors of Commerce as high-priority corridors (previously called Corridors of National Significance) to capture funding opportunities.

**Project Prioritization.** At the request of FDOT, in late 2004, the seaports that are designated as hubs on Florida’s Strategic Intermodal System (SIS)<sup>19</sup> developed a five-year prioritized list of candidate SIS projects for funding. Subsequently, FDOT initiated phased development of a project prioritization process for the SIS that would be driven by policy and supported by data. The envisioned process is to provide the information needed to prioritize investments from a statewide and systemwide perspective, rather than be limited to a single mode or facility. The SIS seaports along with representatives of the other modes – airports, railroads, and highways – contributed to the analysis of how each mode currently prioritizes its capital improvement projects, what criteria they use in their respective prioritization processes, and how each prioritization criterion relates to the five SIS goals established in *Florida’s Strategic Intermodal System Plan*:

- **Safety and Security:** A safe and more secure transportation system.
- **System Preservation:** Effective preservation and efficient operations and management.
- **Intermodal Mobility:** Increased mobility for people and freight, with integration and connectivity across and between modes.
- **Economic Enhancement:** Increased economic competitiveness and economic diversification.
- **Quality of Life:** Enriched quality of life and responsible environmental stewardship.

***"If Florida's economy is to remain competitive in this global economic environment over the next 10 to 20 years, then it must have an efficient international trade transportation network...."***

***"Transportation infrastructure – both its capacity and efficiency – is essential for economic growth and development...."***

***"Florida's seaports are essential for Florida-origin manufactured exports."***

*A Forecast of Florida's International Trade Flows and the Economic Impact of Florida's Seaports,*  
Washington Economics Group, November 2003.

<sup>18</sup> *Intermodal Connectivity in the Atlantic Commerce Corridor*, CH2MHill in association with J.D. Sanchez Consulting, Inc., November 2003.

<sup>19</sup> Ten of Florida’s 14 public deepwater seaports are on the SIS: Port of Miami, Port Everglades, Port of Palm Beach, Port Canaveral, Port of Jacksonville, Port of Fernandina, Port of Pensacola, Port Panama City, Port of Tampa, and Port Manatee. These ports, located along Florida’s Atlantic and Gulf Coasts, are of various sizes and have different mixes of cargo and cruise operations.

### **Best Practices Example of a Multimodal Corridor Plan: the Atlantic Commerce Corridor**

(Condensed from *Florida's Strategic Intermodal System Plan, Implementation Guidance*, Chapter 3, Needs, Priorities & Project Selection, Adopted January 20, 2005)

*FDOT and its partners in Southeast Florida already have begun a corridor-level multimodal planning process as part of the Atlantic Commerce Corridor initiative. This plan was developed under the auspices of the Port of Palm Beach and FDOT with the support of the Port of Miami, Port Everglades, the Florida East Coast Railway, the FSTED Council and the Florida Ports Financing Commission. Although the Atlantic Commerce Corridor Plan emphasizes seaport and rail freight transport in Southeast Florida, its concept could be expanded to include passenger transport and to involve other partners along the entire Atlantic Coast from Jacksonville to Miami. The concept is also applicable to the seven other multimodal corridor plans that will be developed in other areas of the state.*

*As one example, FDOT and partners might identify a need to reduce travel time and cost for freight imports and exports moving to and from manufacturers in the Atlantic Commerce Corridor. A multimodal package of improvements to address that need might include:*

- *Expansions of air cargo facilities;*
- *Longer runways at SIS airports to accommodate long-haul air cargo flights, reducing the need to transfer freight over long distances to other airports in the corridor or in other states;*
- *Bottleneck relief, operational improvements and new technology to improve the efficiency and reliability of SIS highways and rail lines connecting to SIS hubs and serving interstate trips to Georgia and Alabama;*
- *Operational and safety improvements on the SIS connectors and improvements at the hubs to facilitate the transport of freight onto and off of the hubs;*
- *New technologies to expedite safety and security checks and processing of freight at the SIS hubs and on SIS highways;*
- *Additional container cranes and new berths at SIS seaports to expedite the loading process and accommodate more ships;*
- *Creation of one or more inland ports to help facilitate freight distribution;*
- *Improvements to the Atlantic Intracoastal Waterway and SIS waterway connectors to accommodate short sea shipping services between major SIS seaports and smaller SIS and Emerging SIS seaports; and*
- *Expansions of the shipping channels linking SIS seaports to the Atlantic Ocean.*

*FDOT owns only the SIS highways and some of the SIS roadway connectors in the Atlantic Commerce Corridor. Other partners and stakeholders would include the rail operators; the airport and seaport authorities; the Army Corp of Engineers (for the waterway improvements); regulatory and oversight agencies at the local, state and federal levels; and representatives of all jurisdictions that the imports and exports pass through in the corridor on their way to or from the Atlantic Ocean, Georgia and Alabama.*

*To determine which improvements or combinations of improvements would best satisfy the demand for freight shipments to, from and within the Atlantic Commerce Corridor, FDOT and its partners would gather information related to all proposed improvements in the corridor. Each proposed investment would be evaluated and ranked on the basis of how well it meets identified needs in the corridor and how well it meets the goals and objectives of the SIS. The proposed investments would then be included in a list of prioritized projects specific to the Atlantic Commerce Corridor plan.*

In participating in this initiative, the seaports were able to underscore the importance of this evolving statewide and systemwide perspective. Since off-port efficiencies are as important as on-port efficiencies in moving freight and passengers, the seaports emphasized integrated packages of corridor improvements, that is, integrated multimodal systems within SIS corridors, to achieve the primary seaport goal of “maintaining the logistics chain to move goods and passengers better, faster, cheaper – and more safely.” Speed to market and global competitiveness were means of achieving this goal, as reflected in the following key prioritization criteria:

- Trip time and cost savings.
- Operational and navigational efficiencies.
- Capacity expansion to meet forecasted demand.
- A balance between security and commerce.
- Leveraged financial resources.

Business capture and retention and job creation, vital interests of the seaports, are closely related objectives, as is preservation of existing waterside and landside infrastructure.

At stake in achieving the seaports' primary goal are Florida's strategic economic and global competitiveness, business retention and growth, and the resulting economic impact. As discussed in Section II, this projected economic impact was quantified in a 2008 forecast by the Washington Economic Group led by Tony Villamil, head of the Governor's Economic Development Council:

- \$62 billion in waterborne trade.
- \$42.8 billion in gross economic output.
- Thousands of businesses.
- 350,000 jobs

#### **2008 Economic Forecast**

- **\$62 billion in waterborne trade**
- **\$42.8 billion in gross economic output**
- **Thousands of businesses**
- **350,000 jobs**

As each mode's own prioritization criteria were presented, it became clear that many of the primary criteria important to the seaports are appropriate to all modes, not just to the seaports. This finding reinforces the concept of developing a multimodal approach to implementing the SIS and achieving statewide economic development through trade, tourism, and other transportation-dependent industries.

**Intermodal Rail Connections.** Florida's railroad system is an integral part of the state's intermodal transportation infrastructure. Because of its potential importance in alleviating the highway congestion that will increase with the forecasted growth in population and trade, the rail components of the SIS deserve particular attention. The Florida East Coast Railway (FEC) and CSX Transportation (CSXT), which serve South Florida, North Florida, and Tampa Bay seaports, are on the SIS; others that serve less developed regions in Northwest Florida are not.

Whether on the SIS or not, the majority of Florida's fourteen seaports rely on the railroad network to transport a portion of the domestic and international cargoes crossing their docks:

- In South Florida, only the FEC serves the three ports, although the CSXT carries domestic bulk cargoes over the South Florida Rail Corridor, which it shares with the regional passenger service provided by Tri-Rail under the SFRTA. Through interline agreements, the FEC is able to move commodities through Atlanta and beyond, as well as up the East Coast and along the Gulf Coast.

- Three of the deep-water seaports (Port Manatee, the Port of Palm Beach, and the Port of Jacksonville) operate their own terminal switching railroads.
- Others, such as Port Panama City and the Port of Port St. Joe, depend on Class III railroads (the Bay Line and the AN, respectively, owned by Rail Management Corporation) to connect to the CSXT mainline/trunk-route system.

All of Florida's ports experience to differing degrees the constraints of one-railroad service. Even in Jacksonville, where interchanges with several railroads occur, the Port experiences this constraint at its Blount Island and Dames Point terminals. This and other physical and policy constraints hurt the ability of Florida's seaports to compete with out-of-state rail-oriented load centers, including New Orleans, Houston, Savannah, and Charleston. These constraints include:

- A lack of on-dock railroad transfer capability.
- Numerous highway/grade crossings.
- Service and scheduling problems in reaching consumption centers at either end of the peninsula.
- Multiple cargo-handling movements.



These impediments to intermodal efficiency can be corrected by:

- Intermodal improvements to improve cargo transfers between modes.
- Double-tracking projects where needed to enhance existing capacity, provide for more efficient railroad operations and eliminate crossing conflicts.
- Crossing improvements to eliminate or minimize crossing blockage of motorists.
- New track to allow better and more efficient transfers between rail carriers.
- Vehicular access improvements to provide better truck access and intermodal transfers in particular locations.
- At-grade crossing closures where alternative crossings are nearby.

Again, as SIS implementation proceeds, improving the seaport-rail interface will make moving freight by rail more attractive to potential users, thereby taking trucks off the road and reducing highway congestion. Projects that are important to each mode should be viewed as a whole if they are to achieve this objective. (A similar approach should be followed in improving the seaport-road and the seaport-airport interfaces.)

As part of its trade corridor development, Florida needs an effective and efficient railroad network to serve its citizens. The state's strategic railroad system must be better recognized and equipped in partnering with the public sector as a key component of the state's economic development planning. State policymakers, in their systemic and regional approach to transportation development, should consider providing capital resources to rail system projects where public benefits can be demonstrated to exceed resource costs and where operating efficiencies will provide relief to congested highway transportation networks. By minimizing commodity transfers and enhancing road and rail connections with markets beyond state borders, Florida will go a long way towards improving both internal and external conditions. Internally, the state will address the otherwise inevitable constraints and costs generated by serious traffic congestion; externally, the state will address one of the top competitive issues facing its role in the global marketplace. With its 1,350-mile coastline, Florida is a natural trade border. A vital element of its continued success as a trading state is what happens along that border.

**Short-Sea Shipping Initiatives.** An evolving alternative to moving freight by road or rail is the concept of short-sea shipping, the coastwise movement of containers or trailers. This concept is being pursued at both the national and the state levels, and has the support of several Florida seaports. The state's lengthy coastline – with SIS Atlantic and Gulf waterways -- offers particular opportunities to utilize the concept to good effect once specific policy issues have been resolved and the appropriate infrastructure built.

The U.S. Maritime Administration (MARAD), which has been actively trying to encourage waterborne services to relieve highway congestion, has launched a Short-Sea Shipping Initiative. Objectives of this initiative include creating a public-private partnership to investigate short-sea shipping alternatives to ease congestion and the strains on the nation's highways. The partnership would include truck companies, shippers, railroads, terminal operators, port authorities, government entities, shipyards, equipment owners, environmentalists, labor, and others.



MARAD'S initiative also includes launching the Short Sea Shipping Cooperative Program (SCOOP), most recently comprising more than 60 public and private participants, similar to existing MARAD cooperatives for cargo technology and ship operations activities, and developing appropriate legislation. SCOOP's near-term objectives are to educate the public, agencies, and politicians on short-sea shipping; to improve the quality of life through less congestion and pollution; to identify new opportunities for short-sea projects; and to make sure that any solutions contemplated will be compatible with the requirements of the shippers using the system.

With U.S. DOT support for its Short-Sea Shipping Initiative, MARAD has awarded a contract to analyze four case studies for market viable short-sea shipping corridors, including origin/destination pairs. This study will characterize the requirements for feasible short-sea shipping as a baseline for pursuing viable opportunities in specific locations. Each case study will develop a proposed short-sea corridor for different shipping lanes. Port Canaveral is participating in this study.



**Intelligent Transportation Systems.** In its efforts to alleviate highway congestion and promote more efficient traffic flows, FDOT is partnering with other states, as part of the I-95 Corridor Coalition, to develop innovative intelligent transportation system (ITS) solutions to their mutual traffic concerns. Florida's seaports, which have benefited from the on-port and off-port ITS improvements implemented in recent years, are actively collaborating in this exchange of information technology to achieve faster, better, and cheaper freight movements.

**Partnering for Improved Intermodal Connectivity.** Florida faces both opportunities and challenges in the pursuit of statewide economic development through international trade. Through their partnership with FDOT in identifying priority projects on the SIS, the seaports have renewed confidence that the improvements to the intermodal infrastructure essential to moving goods from Point A to Point B along the state's Corridors of Commerce can be accelerated to maintain the state's competitiveness in global markets.