Combined domestic and international United States freight movements are projected to grow by over 45 percent by 2040. During this same time period, our nation's seaports are anticipated to handle more than twice the amount of freight at their facilities[1]. A major factor for this dramatic growth is the ever-increasing globalization of U.S. business markets. With the opening of more international markets to U.S. businesses and consumers, the need for diverse goods and services worldwide has placed increasing demands on the existing freight network.

United States domestic and international freight movements are projected to grow by over 45 percent by 2040.

The nation's transportation network serves as a large "rolling" warehousing facility. Trucks, trains, ships, and planes used for transport also store large volumes of goods until final distribution. As inventory systems become more efficient and accurate in responding to market demands, more and more products will be "stored" on the freight network than ever before.

As the nation prepares for increased freight activity, issues such as national security, aging infrastructure, intermodal access, capacity constraints, and increasing congestion will become fixtures in national transportation discussions. The compatibility of freight transport with residential, office and mixed-use developments will also become more prevalent. Transportation solutions that provide good freight accessibility to intermodal, distribution, and industrial centers, and are also sensitive to community livability issues, need to be a focus of our freight transportation investment strategy.

NATIONAL FREIGHT POLICY

The policy basis for freight planning at the federal level is built on a foundation of legislation that extends back to the landmark Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991. ISTEA established a framework that has been refined and expanded upon by the Transportation Equity Act for the 21st Century (TEA-21) and the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). As a result of these bills metropolitan planning organizations (MPOs) must take into consideration economic development and freight movement in long-range plans and short-range transportation improvement programs for their regions. It has long been recognized, however, that freight issues transcend regional, state, and international boundaries. National level freight planning and policy is necessary to deal with issues such as the expansion of the Panama Canal or increasing American exports. The scale of freight issues is a strong argument for greater federal involvement in this area of transportation.

The latest federal transportation bill, Moving Ahead for Progress in the 21st Century (MAP-21), was adopted by Congress and approved by the President in June 2012. It recognizes the importance of a

1 *Freight Analysis Framework 3.1.2, 2010, FHWA Office of Freight Management and Operations*

more unified national policy on freight and makes greater strides than prior legislation at establishing these policies. MAP-21 places more emphasis on the federal role in freight transportation and includes several provisions to facilitate freight transportation across state and national boundaries. The Secretary of the United States Department of Transportation (US DOT) is required by MAP-21 to identify a National Freight Network, to develop a National Freight Strategic Plan, and to report regularly on the condition and performance of the National Freight Network.

The National Freight Network will consist of a primary network of 27,000 miles of existing highways that are the most critical to the movement of freight. An additional 3,000 miles of highway may be designated by the Secretary as being critical to the future movement of freight. Railroads, as largely private entities, are not included in the network. However, intermodal connectors that provide access to important rail, port, and airport facilities will be important pieces of the National Freight Network. Every 10 years the Secretary will be required to redesignate the Network.

The National Freight Strategic Plan must be established within three years and will be updated every five years. The plan will assess the condition and performance of the freight network, identify key highway bottlenecks, forecast future freight volumes, and assess barriers to improve freight transportation performance. The Secretary will be required to report on the conditions and performance of the National Freight Network every two years.

A freight funding program was proposed during the development of MAP-21. While it was not included in the final bill, Congress and the President provided an incentive for states to prioritize projects that improve freight movement. Typically, the federal government funds 80 percent of projects that are eligible for federal aid. However in some instances, such as interstate maintenance, the federal government has historically paid a higher share. Likely the most significant provision of MAP-21 for states and metropolitan planning organizations is that the bill authorizes a 90 percent federal share for freight projects, which increases to 95 percent if the project is on the Interstate Highway System. To be eligible for the higher federal share a project must be identified in a state freight plan and make progress towards performance targets for freight movement.

MAP-21 also encourages states to establish freight advisory committees and state freight plans. The state freight plan may be a stand-alone document, or incorporated into a statewide long-range transportation plan.

While MAP-21 is a step forward for federal freight planning, it remains to be seen what effect the bill will ultimately have on project selection. What has largely been a process of negotiation and collaboration between state departments of transportation and metropolitan planning organizations will now likely include a more

MAP-21 places more emphasis on the federal role in freight transportation. The bill authorizes a 90 percent federal funding share for freight projects, which increases to 95 percent if the project is on the Interstate Highway System.

substantial role for the Federal Highway Administration (FHWA). FHWA's primary role is to provide oversight of the planning, programming, and construction process related to federal-aid highways. In the future, the FHWA may be a more active player in the selection of freight projects. How the new federal role plays out remains to be seen, but it is certainly a milestone in the evolution of the nation's freight policy.

MOVING FLORIDA TO A GREATER ECONOMIC ACTIVITY

Florida serves as a freight gateway to the nation. Products produced in the United States are exported to other countries through Florida roads, ports, rail lines, and airports. Conversely, this freight infrastructure serves to transport products imported from other nations to be distributed in Florida and other parts of the country. In 2009, Florida moved approximately 1.89 billion tons of freight to, from, and within its borders, as shown in **Figure 2-1**. It is anticipated that in the year 2040, Florida will move approximately 3.2 billion freight tons supporting greater economic activity within the state.

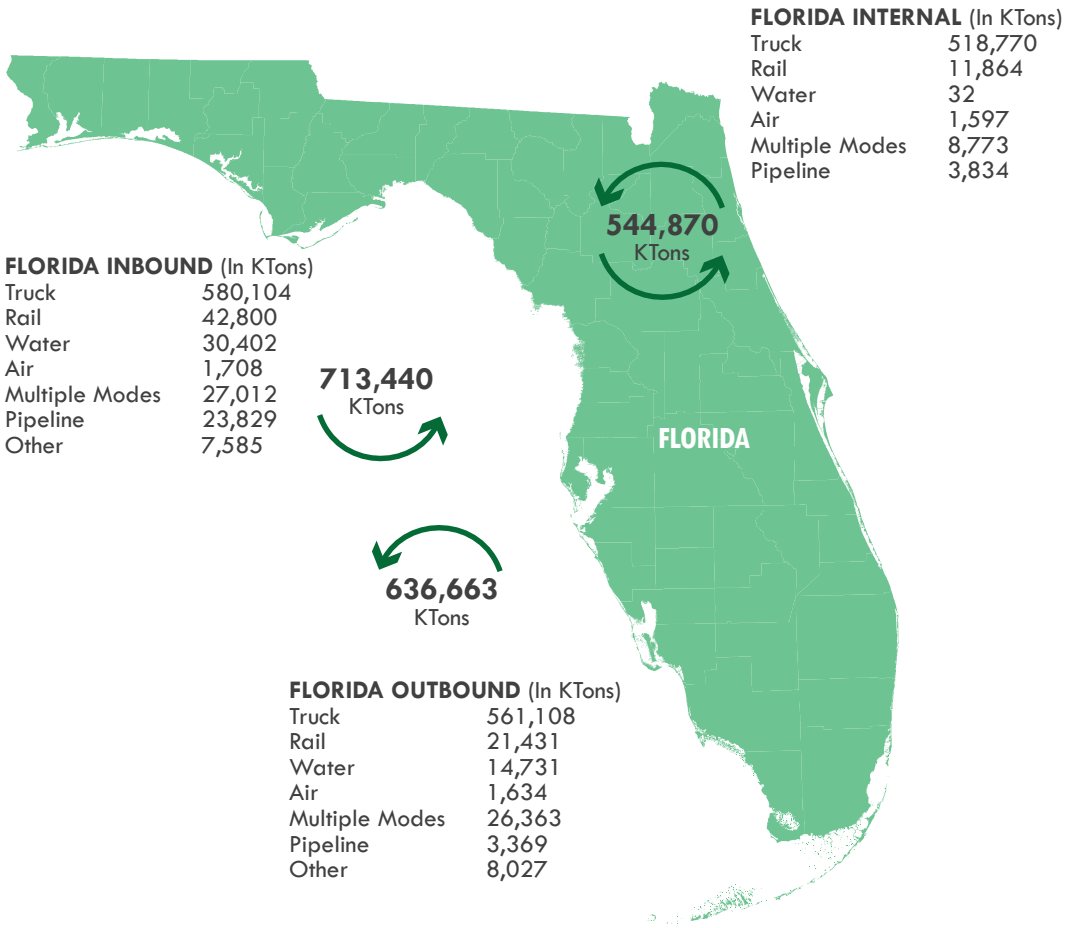

Figure 2-1: Estimated Commodity Flows in Florida (2009 Annual Tons)

Source: Freight Analysis Framework 3.1.2, 2010, FHWA Office of Freight Management and Operations

Economically, the state of Florida is poised to take advantage of the growing international trade with Central and South America as well as with Asia and Europe. Florida is positioned to be the gateway to Cuba when friendly relations resume. In the shorter term, the planned opening of an expanded Panama Canal in 2014 has the potential to realign global trade flows and strengthen Florida and eastern seaboard ports in their competition with west coast ports to capture a greater share of Asia's commerce with the eastern United States and Canada. The widened canal will also enhance connections with Florida's existing trading partners along the western coast of South America. To remain competitive in emerging and expanding business markets, investments in Florida's freight infrastructure are critical.

The Office of Freight, Logistics and Passenger Operations was recently created by the FDOT in recognition of the significant role of freight mobility in Florida's economic prosperity.

Office of Freight, Logistics, and Passenger Operations

The FDOT has recently created the Office of Freight, Logistics and Passenger Operations in recognition of the significant role that freight mobility has on Florida's economic prosperity. The office will coordinate, develop and implement a freight planning process that integrates transportation modes and maximizes the use of existing facilities. The office will play a prominent role in advancing Florida's trade, logistics, and export-oriented manufacturing activities nationally and globally. It will work in conjunction with the Office of State Transportation Development in the development and planning of the Strategic Intermodal System.

Strategic Intermodal System

Florida's Strategic Intermodal System (SIS) is a network of critical transportation facilities and services supporting statewide and interregional movement of people and goods. The SIS encompasses all modes of transport and includes linkages between modes and facilities to provide a single, comprehensive integrated transportation network. The SIS handles almost all of the state's air and maritime passengers and cargo and freight rail activity, as well as 89 percent of interregional rail and bus passengers, 70 percent of truck traffic and 55 percent of total traffic.[2] The SIS was established to enhance Florida's overall economic competitiveness by serving the mobility needs of residents, visitors, and businesses.

Since the SIS carries the vast majority of the state's freight traffic, strategies enhancing the ability of these facilities to move goods quickly and efficiently are emphasized in the Strategic Freight Plan.

2 *FDOT Strategic Intermodal System Plan, 2010*

POSITIONING THE TAMPA BAY REGION FOR SUCCESS

The Tampa Bay region's central location within Florida positions it to increase trading activity with Florida, national, and international markets. The anticipated population growth of West Central Florida, the continued development of the Interstate-4 corridor as a distribution hub, the widening of the Panama Canal in 2014, the potential for resumed trade with Cuba, and the expansion of Latin American and Caribbean markets will spur increased goods movement across the state and in the Tampa Bay region. Florida has the opportunity to emerge as an important trade hub linking the southeastern U.S. with trading partners to the south, west, and east.

Growth of the Interstate-4 Corridor as a Distribution Hub

Hillsborough County has historically served as a freight distribution hub for the Tampa Bay region and beyond mainly due to the intense freight activities supporting the Port of Tampa and the CSX freight rail operations. These significant freight distribution activities have expanded along the Interstate-4 corridor, and its attractiveness to distribution companies can be attributed to several conditions:

- Polk County's centralized location to Florida markets and reduced transportation costs
- Abundant available land for distribution services with a relatively low land value
- Large workforce and technical training institutions that develop skills needed for the freight distribution industry
- Business friendly environment that incentivizes companies to locate

Complementing the many companies that have distribution facilities in the Interstate-4 corridor is one of the largest intermodal distribution centers in the state that is planned for the Winter Haven area - the CSX Integrated Logistics Center (ILC). The ILC will serve as a centralized transportation and logistics hub for CSX Transportation. It will be centered on a new rail and truck based intermodal terminal. As part of consolidating its operations to the ILC in Winter Haven, CSX plans to move a portion of the existing automotive distribution operation located in Taft, Florida and another located just north of Tampa International Airport. The ILC terminal will be the first of its kind in the southeastern United States. It will handle the transfer of new automobiles as well as containers from railcars to trucks. The contents of the containers will consist of consumer goods such as merchandise, food products, and building materials. Value-added manufacturing will include assembly and packaging activities. Shipments from the ILC are anticipated to be distributed to retailers throughout Florida. The ILC is intended to increase reliability and efficiency of freight movement, while significantly decreasing transport costs.

The larger Post Panamax ships passing through the Panama Canal will not call on the Port of Tampa or Port Manatee due to the inadequate depth of its navigation channels and insufficient clearance under the Skyway Bridge. However, both Ports are positioning themselves to handle higher volumes of container cargo through the Panama Canal to and from Asian markets, as well as Caribbean and South American markets that also serve as transshipment points for Post Panamax ships. The Port of Tampa is expected to continue to experience growth in bulk, break bulk, roll-on/roll-off and other general cargoes, which will result from the increased shipments through the Panama Canal.

Panama Canal

Begun in 2009, the widening of the Panama Canal will improve travel times for waterborne cargo between Asia and seaports in the Gulf of Mexico and along the Eastern Seaboard, continuing and augmenting the trend of increased all-water trade between these regions. For certain lines of trade/cargoes, the all-water shipping routes offer economic advantages for accessing the Eastern Seaboard and Gulf Coast regions of the U.S. compared to moving imported Asian goods by rail or truck from Pacific ports. The comparative advantages of all-water trade routes to Asia are likely to be augmented by rising fuel costs and initiatives to create more environmentally-friendly supply lines.

The Panama Canal expansion will create opportunity for continued growth in container operations as well as general cargo and bulk commodity trade at the Port of Tampa and Port Manatee. The widened canal will allow more ships to transport cargo through the canal at competitive costs due to greater accessibility to ports in the Gulf of Mexico and Eastern Seaboard. Moreover, the development of hub ports in Panama and the Caribbean able to handle larger Post Panamax container vessels will lead to transshipment opportunities which will then call on ports such as Tampa and Manatee.

Free Trade with Cuba

The opening of Cuba for travel and trade with the United States has the potential to have a positive impact on the economy of the region. Tourism is now the number one industry in Cuba, and the synergies with Florida and the Tampa Bay area are obvious. With respect to the movement of goods, the long term prospects are very positive, but even with free trade, short-term growth would be limited by the relatively low level of economic activity in Cuba. Florida's Gross Domestic Product (GDP) was approximately $734.7 billion for 2009; the GDP of Cuba was approximately $57.5 billion for the same period. Per capita GDP in Florida was $35,603[3]; per capita GDP in Cuba was $8,500.[4]

In addition to low economic activity, it may be some time until Cuba can develop a strong system of finance and credit to be an internationally significant economic engine. However, there are some products produced in Florida that will find a ready marketplace within an increasingly market-based economy in Cuba: agricultural products (excluding sugar and citrus), fertilizer, feed, building materials and fuel. Cuba's current major exports include sugar, nickel, tobacco, fish, medical products, citrus, and coffee. The Port of Tampa is likely to serve ships that call on Cuba as well as ships that use Cuba as a hub for transshipments from new or improved Cuban ports envisioned to serve as cargo hubs for international trade.

As the economy recovers and as population grows in Florida, much of the all-water cargo transport from Asia will divert from the ports on the U.S. West Coast to a host of ports in the Gulf of Mexico and on the Eastern Seaboard. While there is potential for increased freight activity as a result of renewed trade with Cuba, there is no clear indication of when that possibility will emerge. Currently, trade with Cuba is heavily restricted by U.S. law that limits commerce to agricultural and medical products in cash advance deals. Nevertheless, the Port of Tampa and Port Manatee are laying the groundwork for trade with Cuba in anticipation of lessened trade restrictions. They are very well positioned for an expansion of maritime business with Cuba given its geographic location, historic ties, and the modern cargo facilities in place to serve this trade.

3 U.S. Burearu of Economic Analysis
4 U.S. Central Intelligence Agency World Fact Book

Caribbean and Latin American economies will continue to benefit from increased global trade, especially with the expansion of the Panama Canal. Free trade agreements will facilitate economic expansion and diversification in the region. Given that the major cargoes moving between the U.S. and Latin American and Caribbean markets are primarily bulk and liquid bulk commodities, the Tampa Bay region is well positioned – geographically and functionally – to grow as a result of the increased activity.

Other Latin American and Caribbean Markets

Trade with South America has been getting more and more attention as Brazil continues to lead the continent through a period of economic expansion. Florida already leads all states in the percentage of goods exported from the U.S. to South America. The opportunity for increased trade of commodities and finished goods is significant given the industrial and technological expansion that is taking place in South America. To put it in perspective, the combined GDP of the countries in South America is almost sixty times that of Cuba. In dollar terms the U.S. is a net exporter to Brazil with a total trade of almost $60 billion, making it the 10th largest trading partner in the world.[5]

Additionally, two free trade agreements between the U.S. and Colombia and the U.S. and Panama stand to boost the prospects for Latin American trade. Both are comprehensive free trade agreements that will eliminate most tariffs on U.S. exports, reduce technical and regulatory barriers to trade, and drop the prices consumers in those countries pay for commodities shipped from the U.S. U.S. imports from Colombia totaled $15.6 billion in 2010; exports totaled $12 billion. Imports from Panama were valued around $380 million and exports near $6.1 billion in 2010.[6] The potential for increased trade in agricultural goods and related commodities will likely have the greatest impact on goods movement in the Tampa Bay region.

Finally, through the Caribbean Basin Initiative (CBI) and the Dominican Republic-Central America-United States Free Trade Agreement (CAFTA-DR), the U.S. continues to strengthen economic ties with Caribbean and Central American nations. The CBI was initially envisioned as a collection of programs to spur economic development and export diversification in Caribbean countries, but has brought the ancillary benefit of increased U.S. exports throughout the region. The CBI region was the 14th largest export market for the U.S. in 2008, absorbing 1.9 percent of the nation's exports to the world, valued around $25.1 billion. Meanwhile, CBI countries supplied slightly less than one percent of U.S. imports, valued $19.6 billion in 2008. Major imports from the CBI region include produce, apparel articles, and fuels, including petroleum, natural gas (methanol), and fuel grade ethanol; the primary U.S. exports include refined petroleum products, semiconductors, corn, jewelry, and aircraft.[7]

5 *U.S. Census 2010*
6 *ibid.*
7 *Eighth Report to Congress on the Operation of the Caribbean Basin Economic Recovery Act, 2009*