



Section 2

Market Assessment Element



2.0 ELEMENT 2 - MARKET ASSESSMENT ELEMENT

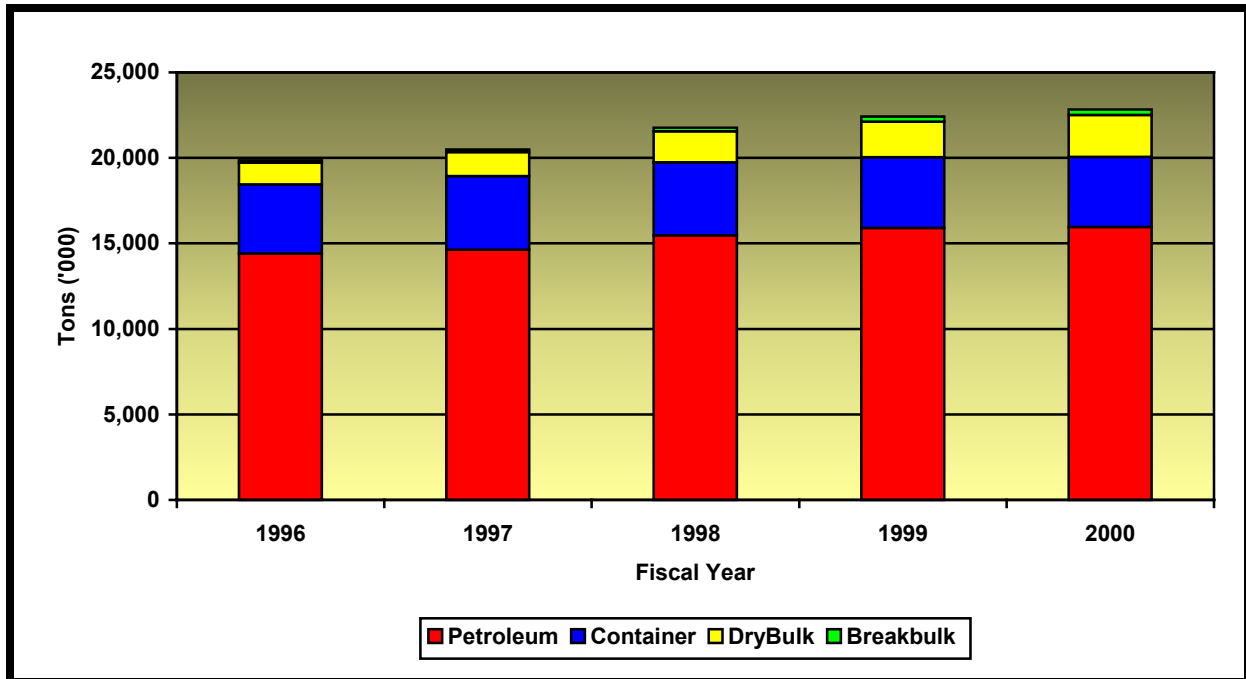
Port Everglades exists in the highly competitive international cargo and cruise markets. The Port is widely diversified, handling a variety of business segments, including general cargo (container, break bulk, dry bulk and liquid bulk), cruise, liquid bulk and dry bulk. The Master Plan Market Assessment included evaluations of the Port’s businesses, including:

- Conducting a market assessment of all cargo types and cruise business.
- Assessing the Port’s competitive strengths and weaknesses in the areas of port vessel access, facilities and infrastructure, and inland access for its container business.
- Preparing alternative long-term growth projections by business segment and developing business strategies for the Port’s cargo and cruise businesses.

2.1 ANALYZE CURRENT THROUGHPUT ACTIVITY

Port Everglades is a large, diversified port serving businesses and companies in Florida and the Southeastern United States. Port Everglades has experienced consistently strong growth in most of its major lines of business during the five-year fiscal period FY1995-FY2000 (see Figure 2.1 and Figure 2.2).

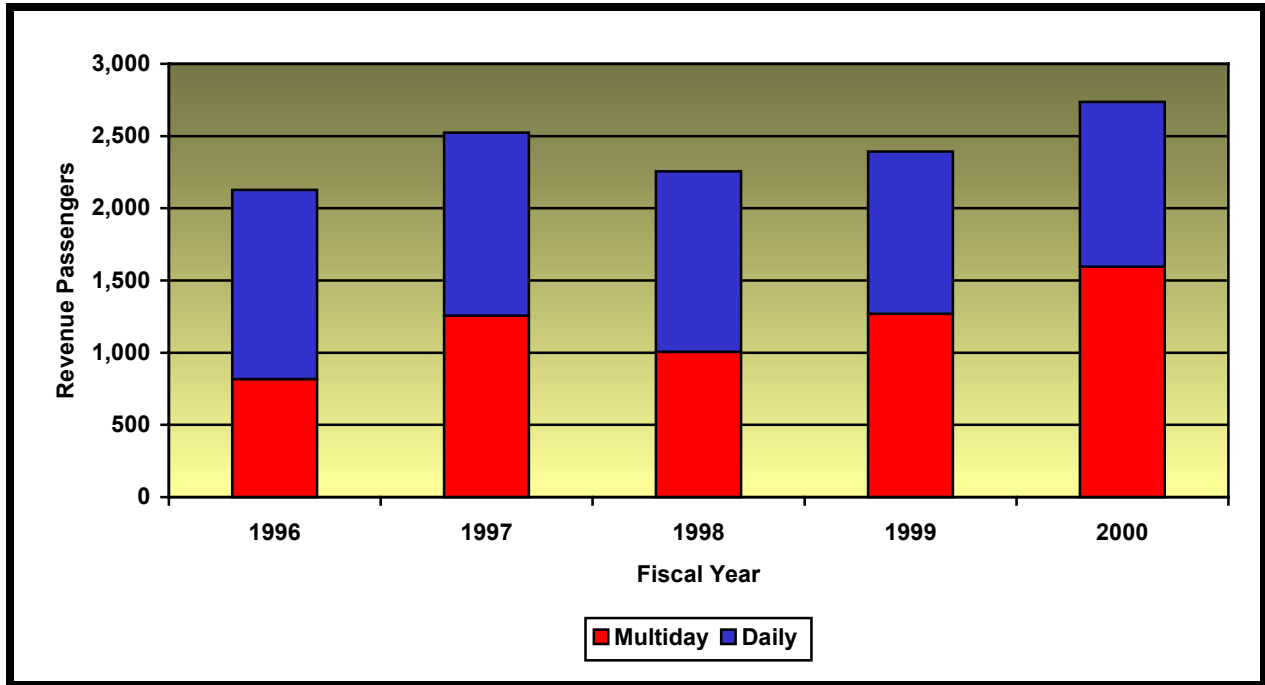
Figure 2.1: Port Everglades Total Tonnage by Cargo Type: FY1996- FY 2000



Source: Norbridge Analysis



Figure 2.2: Port Everglades Cruise Passenger Traffic, FY 1996- FY 2000



Source: Norbridge Analysis

Container cargoes and cruise passengers were the consistent drivers of the Port’s growth during this period, both in absolute volumes and in percentage terms. Port Everglades’ consistent performance is result of its competitive strengths, which include:

- Deep water and easy access to the ocean
- Available capacity and the ability to expand
- Efficient and competitive operations
- Excellent landside access to highway and rail facilities
- Lack of congestion
- Proximity to large and rapidly growing markets, namely South Florida, the Caribbean and Latin America

These strengths will continue to benefit the Port during the master-planning horizon and therefore continue to drive growth in the Port’s major lines of business.

2.2 REVIEW AND ASSESS CURRENT PASSENGER AND CARGO ACTIVITIES

2.2.1 Passenger

Cruise business is a major line of business for the Port. Port Everglades is the second largest cruise port in the world after the Port of Miami. In fiscal year 1999 the Port accommodated 2.4 million passengers and generated \$16 million in revenue. Cruise line revenue represented 21% of the Port’s total operating revenue in FY1999. The Port’s cruise line customers include most of the world’s cruise lines--name or subsidiary brands—including multiple Carnival subsidiaries, Royal Caribbean and Princess.



The cruise lines calling at the Port offer a wide array of products and itineraries for passengers. Cruise products available via the Port include daily, two, three, five, seven, and ten day cruises and extended cruises. The Caribbean is the principal destination offered by the Port's cruise line customers. The size (largest cruise market in the world) and growth of this market, combined with the Port's proximity to this market, make it the natural deployment for the Port's cruise lines. The ten-day and extended cruise products tend to offer a diversity of voyages that extend beyond the core Caribbean itineraries encompassed by the shorter cruises.

The Port's cruise business has experienced significant growth during the past five years. Between 1995 and 2000 (estimated), the Port's cruise business increased by 0.7 million passengers or 32%. This reflects an annual compound rate of growth of 5.6 percent. Major factors driving this growth include:

- New cruise line customers
- Expanded products and itineraries by existing customers
- Continued growth in the North American cruise market in general and the Caribbean market in particular

Multi-day cruises have been the fastest growing segment of the Port's cruise business. They have accounted for most of the growth and expansion in new products and services. Today, multi-day cruises account for approximately two-thirds of the Port's total cruise passenger throughput.

2.2.2 Container Cargo

Container cargo has been the largest contributor to the Port's total gross revenue, generating \$18.5 million in Fiscal Year 1999, or 25% of the Port's total revenue. Container cargo has maintained the leading revenue generating position for the past five (5) years.

Port Everglades is a gateway for regional trade to Southern Florida consumer, industrial and agricultural markets handling approximately 4 million tons of container cargo in FY 2000. Port Everglades' competitive strengths include deep-water access, productive terminal facilities, competitive intrastate rail service, and superior highway connections. Port Everglades' competitive position as a gateway to southern Florida markets is expected to remain strong. Anticipated growth in regional trade, along with limited container terminal space at Southern Florida ports should increase competition with Miami. Port Everglades' efficient terminals, deep-water access and superior highway connections will ensure the Port's long-term success.

2.2.3 Breakbulk & Dry Bulk Cargoes

Breakbulk cargoes are typically manufactured or semi-manufactured goods that are packaged and are not handled either in containers or in bulk. Examples include iron and steel products and lumber. Dry bulk cargoes are any cargo that is not a liquid, are not packaged, are free-flowing and are handled in bulk in relatively large volume. Dry bulk cargoes include cement, aggregate, grain and coal.

The breakbulk cargoes handled by the port include commodities that are closely associated with the construction industry. The Port's major breakbulk cargoes include iron and steel and lumber products. Cement and other related materials used to make concrete and related building products dominate the Port's total tonnage throughput of dry bulk commodities. Cement,



gypsum, and aggregate are key inputs to the construction sector and are used both in private home and commercial development as well as for the construction and major public works projects. High levels of economic activity in the region have driven steady tonnage increases in recent years.

2.2.4 Liquid Bulk

Liquid bulk cargo comprises any cargo moving as a free-flowing liquid in large volumes. These cargoes are typically carried on tankers and tank barges. Examples include crude oil, heating oil and gasoline.

Port Everglades is the distribution center for a South Florida's waterborne fuel deliveries. The private sector's extensive network of tank storage facilities and supporting pipeline infrastructure make it the natural distribution center for handling petroleum products. This has enabled Port Everglades to capture a large share of liquid bulk that move through South Florida.

2.3 PROJECT FUTURE TRAFFIC

The Master Plan is a market-driven plan, i.e. the recommended capital investments are based on detailed traffic projections for each of the Port's major business lines. The traffic projections are based on market analyses, econometric analyses, an assessment of the Port's competitive position, selected customer interviews and the public charrettes. This section presents a summary of the master plan forecasts for each major line of business.

2.3.1 Cruise Traffic Forecasts

The cruise industry is currently being driven by the complex interaction of both demand side and supply side factors. Demand side factors that are driving the cruise industry include:

- An aging population
- Increasing per capita income
- Growing recognition of the positive attributes of cruising as reflected in reportedly high repeat factors by many cruise lines

Supply side factors driving the industry include:

- The proliferation of products and itineraries
- The mass appeal of the Caribbean cruise market due to its proximity to the US and Canada, its diversity and seasonal appeal
- The pricing strategies of major cruise lines
- The proactive marketing strategies of the cruise line industry to broaden their market reach and increase their share of the world's tourist industry

Norbridge developed two alternative forecast methodologies. The first is a demand driven forecast methodology. This methodology assumes over the forecast horizon that underlying demand side factors-population demographics and economic factors-will be the primary drivers of the Port's cruise business. The second methodology presumes that for at least the next seven to ten years, the cruise industry will continue to be driven by cruise lines' supply side strategies and therefore they will continue to be successful in pulling demand increases. Key



fleet assumptions driving the future growth in the Port’s cruise business under the supply-side strategy are shown in Figure 2.3.

Figure 2.3: Norbridge Supply Side Cruise Forecast Cruise Fleet Assumptions

Through 2004	Circa 2012
7 day cruises migrate to combined 3,000/2,000 passenger vessels, 6 calls per weekend	7 day services comprise 10 – 3,000 passenger calls per week
3 / 4 day cruises migrate to 2,000/1,200 passenger vessel mix, 6 calls per week (Monday, Friday)	3 / 4 day cruises comprise 10 – 2,000 passenger calls per week (Monday, Friday)
Daily plus extended average 1.1 million passengers per year	Daily plus extended average 1.3 million passengers per year

Source: Norbridge Analysis

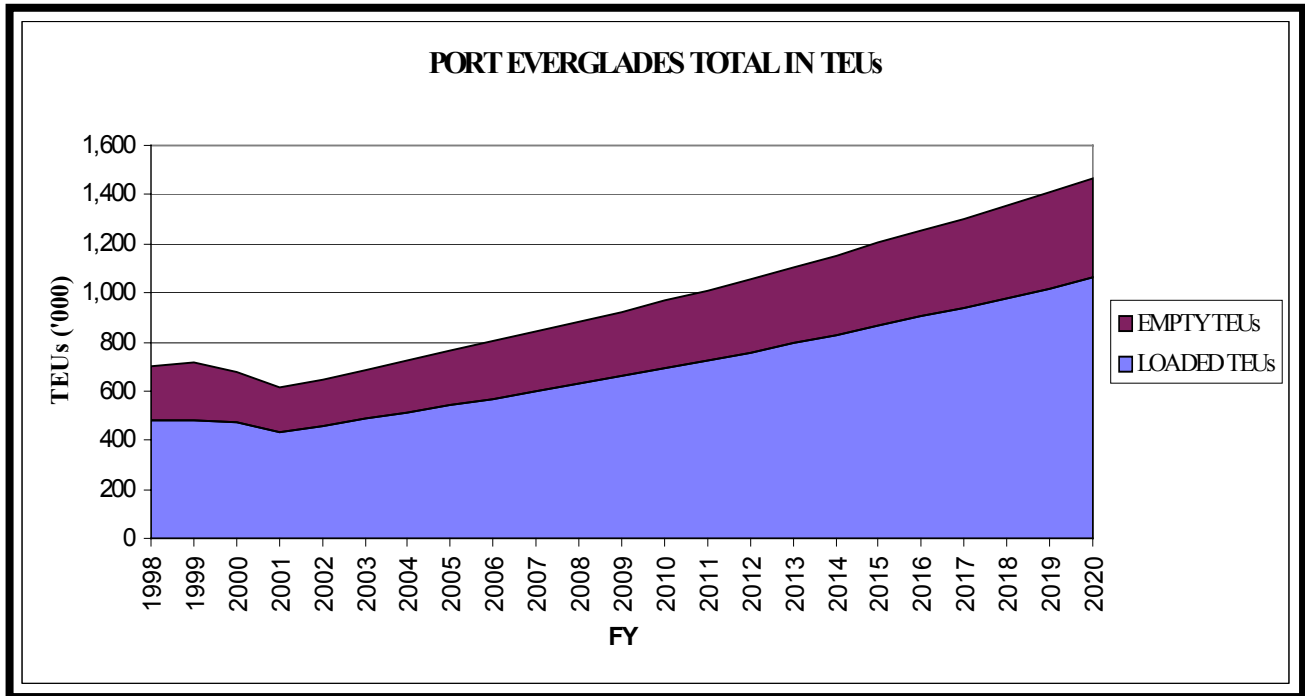
Under Norbridge’s demand side forecast, the Port’s cruise business is projected to increase from an estimated 2.7 million passengers in 2000 to 7.7 million passengers in 2020. This represents a 185 percent increase on passenger throughput and reflects a compound annual rate of growth of 5.4 percent per year.

2.3.2 Container Traffic Projections

Port Everglades’ competitive strengths include deep-water access, productive terminal facilities, competitive intrastate rail service, and superior highway connections. Port Everglades’ competitive position as a gateway to southern Florida markets is expected to remain strong. Anticipated growth in regional trade, along with limited container terminal space at Southern Florida ports should increase competition with Miami. Port Everglades’ efficient terminals, deep-water access and superior highway connections will ensure the Port’s long-term success.

The baseline container cargo forecast includes all regularly scheduled liner services currently calling at Port Everglades. The baseline container forecast is a conservative forecast since it is based only on the growth of the Port’s existing customer base. It does not include the attraction of new customers or the opening of trade with Cuba, which is anticipated to occur during the planning horizon. Given both the capital-intensive nature of the port industry and the dynamic nature of international trade, this conservative approach to planning future port development is prudent. The baseline forecast projects cargo to grow from 4 million tons to 9.5 million tons by the year 2020, for a compound annual growth rate of 4.4%.

Figure 2.4: Port Everglades Container Traffic Forecast



Source: Norbridge Analysis

2.3.3 Breakbulk, Dry Bulk and Liquid Bulk Traffic Projections

The volume of future liquid bulk, breakbulk and dry bulk trade moving through Port Everglades will be a function of the port’s current mix of existing business in terms of shippers, commodities, and market (geographic) reach; and the future levels of economic growth and activity experienced by Southeast Florida. The broader competitive environment will influence future throughput, which will determine Southeast Florida shipper’s strategies.

Based on the previous analyses of individual commodity volumes and projected future growth rates trends, Port Everglades’ total traffic is projected to increase to 21.9 million tons by 2010, and then increase again to 26.3 million by 2020.



Table 6: Port Everglades Projected Traffic Cargo Category in Tons

Year	Liquid Bulk	Dry Bulk	Breakbulk	Total
2001	16,000,236	2,100,691	205,542	18,306,468
2002	16,363,785	2,131,635	207,052	18,702,472
2003	16,708,132	2,202,826	212,142	19,123,100
2004	17,055,786	2,267,777	217,114	19,540,677
2005	17,404,449	2,323,528	221,073	19,949,050
2006	17,749,408	2,371,528	223,800	20,344,736
2007	18,081,717	2,406,535	225,326	20,713,578
2008	18,424,566	2,456,279	228,211	21,109,056
2009	18,762,260	2,494,975	229,919	21,487,154
2010	19,104,665	2,539,204	232,332	21,876,201
2011	19,459,714	2,585,064	234,724	22,279,502
2012	19,822,041	2,631,764	237,145	22,690,950
2013	20,191,796	2,679,321	239,595	23,110,712
2014	20,569,135	2,727,749	242,074	23,538,958
2015	20,954,214	2,777,065	244,583	23,975,863
2016	21,347,196	2,827,286	247,123	24,421,605
2017	21,748,245	2,878,427	249,693	24,876,364
2018	22,157,528	2,930,506	252,293	25,340,327
2019	22,575,219	2,983,536	254,926	25,813,683
2020	23,001,491	3,037,545	257,589	26,296,624

Source: Norbridge Analysis

2.3.4 Traffic Forecast Summary

The Port’s cargo businesses are projected to increase by an annual compound rate of growth of 2.4 percent during the 20 year planning horizon. This rate of growth results in a 13 million ton or 60 percent increase in the Port’s cargo business.

The future growth in the Port’s cargo businesses will be primarily driven by growth in liquid bulk and container cargoes. Continued steady growth in the South Florida economy, combined with the port’s role as the major gateway for waterborne deliveries of fuel to support this growth will result in a 7.0 million ton increase in liquid bulk cargoes. This increase accounts for 52 percent of the total projected increase of 13.0 million tons.

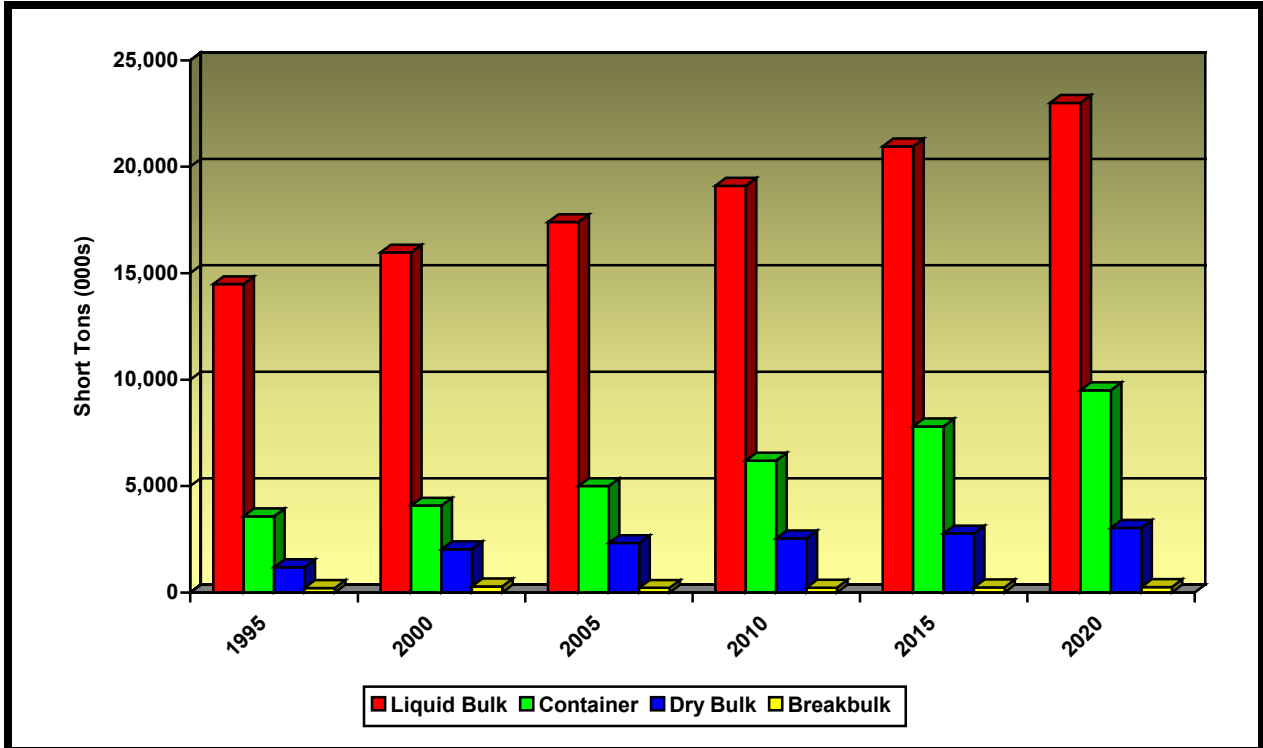
Container cargoes are projected to more than double to 9.5 million tons during the planning horizon. A solid customer base serving South Florida’s fastest growing trade lanes, significant capability to expand its container facilities, the potential for a contiguous intermodal rail facility



and continued growth in the South Florida economy are the key factors driving the growth in the port’s container cargo businesses.

Dry bulk cargoes are also projected to increase significantly during the planning horizon from 2.0 million tons in 2000 to approximately 3.0 million tons in 2020. The projected growth in dry bulk cargoes is driven by anticipated steady growth in the South Florida construction industries, which in turn is driven by projected growth in the South Florida economy. Breakbulk cargo is projected to range between 0.2 million and 0.3 million tons during the forecast horizon.

Figure 2.5: Summary of Port Everglades Future Growth in Cargo by Cargo Type



Source: Norbridge Analysis

2.4 ANALYZE COMPETITIVE ISSUES AND CONSTRAINTS OF SOUTH ATLANTIC SEAPORTS

Port Everglades primarily competes with Florida ports for cruise passenger and cargo traffic. Consequently, its competitive position in each of its lines of business are determined by its ability to offer comparable or superior facilities, services and costs relative to other Florida ports:

- Cruise competitors
 - Primary: Miami and Port Canaveral
 - Secondary: Tampa
- Cargo
 - Container: Miami, Jacksonville, Palm Beach
 - Breakbulk, dry bulk and liquid bulk: Palm Beach, Tampa, Port Canaveral



2.4.1 Cruise Business

The Port has a strong competitive position in both the North American and South Florida cruise industries. It is the second largest cruise port in North America. It has a highly diversified mix of cruise lines. The cruise lines calling at the Port offer a wide array of products and itineraries for passengers. Cruise products available via the Port include daily, two, three, five, seven, ten and extended cruises. The Caribbean is the principal destination offered by the Port's cruise line customers. The size (largest cruise market in the world) and growth of this market, combined with the Port's proximity to this market, make it the natural deployment for the Port's cruise lines. The ten and extended cruise products tend to offer a diversity of voyages that extend beyond the core Caribbean itineraries encompassed by the shorter cruises.

The Port's cruise line facilities are also a key competitive strength. The Port has developed a win-win facilities package for its cruise line customers-terminals that can be dedicated to individual cruise line customers while maintaining the flexibility to assign multiple lines to a single terminal during the week in order to maximize facility utilization.

The Port faces two challenges to sustaining the growth of its cruise business. The first is redeveloping and enhancing its cruise terminal infrastructure to meet the needs of the new generation of mega ships that are entering the market today and during the next five to seven years. The second challenge is generating the capital required to fund the requisite investment.

2.4.2 Container Business

Port Everglades' container business has a number of salient strengths. These strengths include deep water, significant existing terminal capacity, the largest expansion potential of any South Florida port and highly efficient highway and rail access. In addition, the port is served by many of the largest carriers in the Latin American trades. The opening of the Port's first public container terminal will further enhance the Port's competitive position by enabling it to attract carriers whose individual volumes are not sufficient to justify investment in dedicated container terminals. Finally, the Port's expansion potential and the ability to phase the expansion in response to market changes provides the Port with a unique capability to tailor future expansion to current and potential customers future requirements.

Port Everglades also faces several challenges to its container business. Ongoing changes in the container shipping industry pose potentially significant challenges. These include:

- The ongoing consolidation of carriers, which reduces the number of container shipping line customers
- Changes in container-shipping lines' fleet deployment, service and alliance strategies that result in frequent realignment of port calls
- The emergence of Freeport, Bahamas as a major transshipment hub which could potentially result in significant changes in the number and average size of container ships and shipping lines that call Port Everglades

Port Everglades also faces challenges in competing in the South Florida container market. These challenges include:

- Competition with the Port of Miami and its major tenants



- Optimizing future container terminal development between dedicated and multi-user terminals
- Balancing the need to price competitively with the need to generate sufficient funds to support ongoing modernization and market-driven expansion of its container facilities

2.4.3 Breakbulk, Dry Bulk and Liquid Bulk

The Port's competitive strengths in these lines of business include flexible facilities, current ample capacity, proximity to the strong local economy, efficient inland transport access (highway and pipeline) and the commitment of major dry and liquid bulk customers to using the Port. With the exception of terminal capacity, particularly for breakbulk cargoes, these competitive strengths are sustainable over the next five-to-ten years.

The Port faces two major challenges in sustaining these businesses. The first is the ability to sustain current and future operations in light of the significant growth potential and associated terminal requirements in the cruise and container businesses. The Port may not be able to sustain growth in all of its business lines during the next decade. Secondly, the Port will need to modernize its liquid bulk marine terminals in order to maximize efficient, environmentally safe operations and support anticipated growth. The challenge will be to prepare and implement a redevelopment plan without disrupting ongoing operations that are vital to the South Florida economy.

2.5 ASSESS FACTORS THAT COULD AFFECT THE CRUISE INDUSTRY

The major challenges facing the South Florida cruise industry in particular include security, customs and immigration regulations, environmental regulation and gaming legislation. Maintaining and enhancing security processes is a continued focus of the industry and regulatory agencies. Balancing the need to handle passengers in an efficient, customer-friendly manner while simultaneously maximizing the protection of the passengers and their baggage poses significant challenges for the cruise lines and ports.

U.S. Customs and Immigration processes are integrally linked to security issues. Balancing the enforcement of customs and immigration regulations with the need to maximize the efficiency and service of disembarking operations is important to sustaining the significant growth Port Everglades and the South Florida cruise industry has experienced during the past five years.

Environmental regulation poses ongoing challenges to cruise lines and ports. In particular, the disposal of wastewater and solid waste create challenges to maximizing the efficiency of port operations.

Finally, any regulatory initiative that restricts cruise lines' onboard service offerings, poses challenges to both cruise lines and the ports they call. In particular, regulation that restricts cruise lines' onboard gaming operations poses significant challenges to cruise lines' revenue generating capacity. This is particularly true for daily cruise line operators that rely on such operations for a significant portion of their overall revenue. Port Everglades and the cruise line industry need to continuously monitor all regulatory developments that could affect the cruise line industry and the ports that serve this growth industry.



2.6 PERSONAL VEHICLE (POV) AND TRUCK TRAFFIC PROJECTIONS

Using projected employment and other economic projections provided by other team members and truck data obtained from the University of Central Florida's Truck Traffic study, estimates of future POV and truck traffic have been developed. Two important factors should be noted which affect the future traffic projections. First, growth in traffic volumes on the Port's internal roadways is expected to vary due to the different mix of vehicles expected to use each roadway. Second, should the multi-modal rail yard be constructed, the volumes reported in this study may be too large.

2.7 RAIL TRAFFIC PROJECTIONS

A key strength of Port Everglades has been its proximity to the Florida East Coast Railroad's (FEC) Andrews Avenue intermodal rail terminal. The FEC is one of the most efficient railroads in North America and offers highly efficient intermodal rail services to container lines serving Port Everglades. Continued access to these intermodal rail services will influence the future growth of Port Everglades' container business.

Recognizing the importance of intermodal rail service, a forecast of Port Everglades' future intermodal rail traffic potential was prepared as part of the master planning effort. The forecast was based on detailed discussions with the FEC, Port Everglades' staff and selected container lines. The base line forecast projects Port Everglades' intermodal rail traffic to increase from an estimated 65,000 TEUs in 2000 to 198,000 TEUs in 2020. This represents 205 percent increase or an annual compound rate of growth of 5.7 percent. Maintaining efficient access to FEC's intermodal rail services is a key to realizing this significant growth potential.