

THE 2009 ECONOMIC IMPACT OF PORT CANAVERAL



**PREPARED FOR:
CANAVERAL PORT AUTHORITY**

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EXECUTIVE SUMMARY

Martin Associates was retained by the Canaveral Port Authority to measure the local, regional and state economic impacts generated by maritime cargo activity, cruise terminals, marina activity on Port-owned land and real estate activity at Port Canaveral. This study focuses on impacts generated during the Fiscal Year 2009. Impacts are estimated in terms of jobs, personal earnings, business revenue, and state and local taxes. In addition to the baseline impact estimates, computer models specific to each terminal operation have been prepared that can be used in evaluating the sensitivity of impacts to changes in tonnage, labor productivity, labor work rules, commodity mix, inland origins/destinations of commodities and vessel size.

This report is based on interviews conducted with 233 firms providing services to the cargo and vessels handled at Port Canaveral's cargo and cruise terminals, marinas on Port-owned land and the real estate tenants. These 233 firms interviewed represent 100 percent of the firms in the Port Canaveral's seaport community, underscoring the defensibility of the study. Furthermore, the impacts can be traced back to the individual firm. The data collected from these interviews is used to develop operational models of the terminals located at Port Canaveral.

The economic impacts generated by the cargo and cruise terminals are summarized in Exhibit E-1.

Table E-1
Summary of the Economic Impacts Generated by Port Canaveral Lines of Business
FY 2009

JOBS	Cruise	Cargo	Real Estate	Marina	Total
DIRECT JOBS	3,673	1,116	712	174	5,675
INDUCED	2,575	999	352	133	4,060
INDIRECT	<u>2,659</u>	<u>274</u>	<u>304</u>	<u>120</u>	<u>3,358</u>
TOTAL	8,908	2,389	1,369	427	13,093
INCOME (\$1000)					
DIRECT	\$93,468	\$42,783	\$22,367	\$4,908	\$163,525
RE-SPENDING/LOCAL CONSUMPTION	\$213,477	\$122,901	\$21,413	\$11,684	\$369,475
INDIRECT	<u>\$85,250</u>	<u>\$12,709</u>	<u>\$13,814</u>	<u>\$3,993</u>	<u>\$115,767</u>
TOTAL	\$392,195	\$178,393	\$57,594	\$20,585	\$648,767
BUSINESS REVENUE (\$1000)	\$916,011	\$126,187	\$86,139	\$12,572	\$1,140,910
LOCAL PURCHASES (\$1000)	\$107,903	\$22,940	\$21,307	\$13,497	\$165,646
STATE AND LOCAL TAXES (\$1000)	\$29,022	\$13,201	\$4,262	\$1,523	\$48,009

Totals may not add due to rounding

As Table E-1 indicates, Port Canaveral generated the following economic impacts for the local and regional economy in FY09:

- **13,093** total jobs are generated by Port Canaveral cruise, cargo, marina and real estate activity. These include:
 - 5,675 direct jobs
 - 4,060 induced jobs
 - 3,358 indirect jobs

- **\$648.8 million** of direct, induced, indirect wages and salaries and local consumption expenditures were generated by Port Canaveral's cargo, cruise, marina and real estate activity.

- Businesses providing services at the Port-owned marine cargo and cruise terminals, marinas, as well as real estate tenants, received **\$1.1 billion** of revenue, excluding the value of cargo shipped through the marine facilities, and price of the cruises homeported at Port Canaveral.

- **\$48 million** of state and local taxes were generated by activity at Port Canaveral marine cargo and cruise terminals, marinas and real estate tenants.

- These economic impacts are further identified by each line of business at Port Canaveral:
 - **Cargo Impacts:**
 - 2,389 Total Jobs
 - \$178.4 Million Total Income
 - \$126.2 Million Business Revenue
 - \$13.2 Million of State & Local Taxes

 - **Cruise Impacts:**
 - 2,389 Total Jobs
 - \$392.2 Million Total Income
 - \$916 Million Business Revenue
 - \$29 Million of State & Local Taxes

 - **Marina Impacts:**
 - 427 Total Jobs
 - \$20.6 Million Total Income
 - \$12.6 Million Business Revenue
 - \$1.5 Million of State & Local Taxes

 - **Real Estate Impacts:**
 - 1,369 Total Jobs
 - \$57.6 Million Total Income
 - \$86.1 Million Business Revenue
 - \$4.3 Million of State & Local Taxes

The Port provided Martin Associates with projections of cruise service and cargo levels for the year 2012. Cruise passengers are projected to increase by about 300,000 passengers, and the size of the vessels deployed at Port Canaveral is projected to increase, as larger cruise vessels are substituted for the current smaller vessels now calling Port Canaveral. In addition, the Port projected the deployment of a daily gaming ship by 2012. With respect to cargo activity, the impact of Seaport Canaveral is projected to significantly increase the petroleum activity at the Port by 2012, with about 84 vessel calls per year at the terminal. The impact of the projected level of activity by 2012 is shown in Exhibit E-2.

Exhibit E-2
Economic Impacts of Projected Activity in 2012

JOB	Cruise	Cargo	Real Estate	Marina	Total
DIRECT JOBS	4,851	1,199	712	174	6,936
INDUCED	3,337	1,098	352	133	4,921
INDIRECT	<u>3,511</u>	<u>332</u>	<u>304</u>	<u>120</u>	<u>4,267</u>
TOTAL	11,698	2,629	1,369	427	16,124
INCOME (\$1000)					
DIRECT	\$120,288	\$46,320	\$22,367	\$4,908	\$193,883
RE-SPENDING/LOCAL CONSUMPTION	\$273,969	\$133,065	\$21,413	\$11,684	\$440,130
INDIRECT	<u>\$112,423</u>	<u>\$15,402</u>	<u>\$13,814</u>	<u>\$3,993</u>	<u>\$145,632</u>
TOTAL	\$506,680	\$194,787	\$57,594	\$20,585	\$779,646
BUSINESS REVENUE (\$1000)	\$1,258,245	\$152,920	\$86,139	\$12,572	\$1,509,876
LOCAL PURCHASES (\$1000)	\$151,316	\$27,799	\$21,307	\$13,497	\$213,919
STATE AND LOCAL TAXES (\$1000)	\$37,494	\$14,414	\$4,262	\$1,523	\$57,694

By 2012, the overall economic impact of Port Canaveral is projected to reach 16,124 direct, induce and indirect jobs annually, an increase of nearly 3,300 total full-time equivalent jobs over the current economic impact.

I. OVERVIEW OF THE ANALYSIS

The Canaveral Port Authority retained the services of Martin Associates to evaluate the economic impacts generated by cargo, cruise, marina and real estate activity. The measurement of the economic impacts of Port Canaveral consists of the measurement of the impacts of four distinct types of activity that occurs at the seaport. These four types of activities are:

- *Marine cargo activity*, which includes waterborne cargo moving via Port Canaveral marine terminals, including petroleum, salt, aggregates, limestone, concentrated juices, etc.
- *Cruise activity*, which consists of the Port's cruise business activity, including cruise operations that are homeported at the Port, as well as port of calls, and gaming/daily cruises. The impacts of the passenger services are limited to the actual waterborne operations and shore-side operations of the passenger vessel operators. Also included are the impacts of cruise passengers on the local visitors industry, as well as on the regions airports, in particular Orlando International Airport.
- *Marina activity*, which includes recreational boats that are moored at, as well as transient recreational boating activity at the private marinas on Port-leased land such as the Bluepoints Marina, Cape Marina, Ocean Club Marina, Port Canaveral Yacht Club, Scorpion's New Port Marina, Sunrise marina and the two marinas located on the barge canal (Harbor Square Marina and Harbor Town Marina). The Canaveral Barge Canal is owned by the Canaveral Port Authority and links the Port to the Atlantic Ocean.
- *Canaveral real estate tenants*, which include offices, restaurants, retail stores, industrial and recreational related operations located on Port Canaveral owned property.

A major emphasis of the study is its defensibility and realistic assessment of the impacts generated by activity at Port Canaveral. The study is based on interviews with 233 firms providing services to the Port Canaveral cruise and cargo operations, the marinas, and real estate tenants. A 100% coverage of the firms in the Port Canaveral seaport community and real estate tenants has been achieved, underscoring the defensibility of the study. The impacts can be traced back to the company level of detail. The data collected from the interviews were then used to develop operational models of the Port's cruise operations, the cargo operations, the activity at the marinas, and the Port's real estate tenants. In addition to the data collected from the interviews, a survey of 900 cruise passengers and ship crew was conducted as part of this study to estimate the expenditure patterns of passengers boarding cruise ships at the Port.

The results of the analysis include a snapshot of the economic impact of the cruise, cargo, recreational boating and real estate activity in fiscal year 2009, as well as the development of impact models for each business unit operated by the Port. These models provide the Port with tools to update the economic impacts on an annual basis, as well as to evaluate the sensitivity of the resulting local and regional impacts to changes in underlying factors, and to assess the economic impacts of specific Port Canaveral capital development projects.

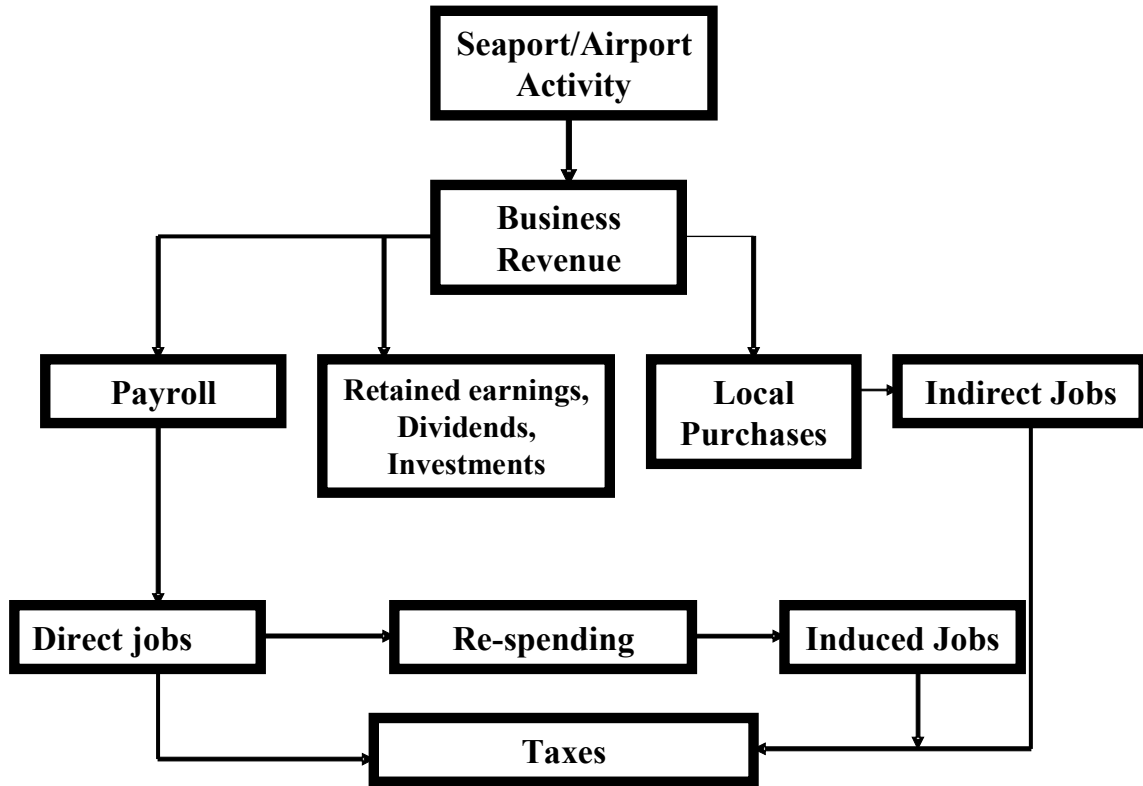
With respect to the cargo impact model, the impacts of changes in such factors as tonnage levels (by commodity and trade route), vessel call levels, labor productivity, inland modal distribution (rail vs. truck), and inland markets for waterborne cargo can be evaluated. The marina model can be used to assess the impacts of changes in the composition of the boats moored at each marina, the expenditures of moored boats, the number of moored and transient boats and the characteristics of spending patterns associated with the passengers of transient boats. The cruise model can be used to estimate the impact of new cruise service, changes in passenger expenditures, size of ship, and type of cruise, and annual updates. The real estate model can be used to assess the potential impacts of new tenants on the local and regional economy.

The remainder of this chapter presents an overview of the impact analysis and a summary of the results.

1. FLOW OF IMPACTS

Cruise passenger activity, waterborne cargo activity, recreational boating, and real estate activity contribute to the local and regional economy by generating business revenue to local and national firms providing services to these sectors. These firms, in turn, provide employment and income to individuals, and pay taxes to state and local governments. Exhibit I-1, below, shows how cruise, cargo, recreational boating and real estate activity of the Port's tenants generate impacts throughout the local, state and national economies. As this exhibit indicates, the impact of a Port on a local, state or national economy cannot be reduced to a single number, but instead, the port activities create several impacts. These are the revenue impact, employment impact, personal income impact, and tax impact. *These impacts are non-additive*. For example, the income impact is a part of the revenue impact, and adding these impacts together would result in double counting. Exhibit I-1 shows graphically how activity at Port Canaveral generates the four impacts.

Exhibit I-1
Flow of Economic Impacts Generated by
Marine and Airport Activity



1.1 Business Revenue Impact

At the outset, activity at the Port generates business revenue for firms that provide services. This business revenue impact is dispersed throughout the economy in several ways. It is used to hire people to provide the services, to purchase goods and services, to pay for the use of airports and seaports and to make state and local tax payments. The remainder is used to pay stockholders, retire debt, make investments, or is held as retained earnings. It is to be emphasized that the only portions of the revenue impact that can be definitely identified as remaining in the State of Florida are those portions paid out in salaries to Florida employees, for local purchases by individuals and businesses directly dependent on the port activity, and in contributions to state and local taxes. Terminal leases paid to the Port by terminal operators; wharfage and dockage fees paid by the steamship lines and cruise lines; and revenue from real estate leases, generate revenue to Port Canaveral.

1.2 Employment Impact

The employment impact of port activity consists of four levels of job impacts.

- Direct employment impact - jobs directly generated by cargo, cruise, recreational boating and real estate activity. Direct jobs generated by marine cargo include jobs with trucking companies moving cargo between inland origins and destinations and the marine terminals, steamship agents, marine service providers, terminal operators, marine construction firms, etc. Direct jobs supported by the passenger cruise service include jobs with firms providing services to the vessel as well as local hotels, restaurants, transportation firms, and retail stores providing services to the passengers. Direct jobs supported by the marina activity include jobs directly involved with operating the marinas, as well as jobs supported by the direct purchases by the boat owners including boat repair, equipment, nautical supplies, etc. For transient boats calling the Port's marinas, direct jobs are measured for the local restaurants and retail outlets. Finally, for the real estate tenants, the direct jobs include those individuals directly employed by the real estate tenants of the Port.

It is to be emphasized that these are classified as directly generated in the sense that these jobs would experience near term dislocation if the Port's cargo, cruise and marina facilities were closed and Port Canaveral's real estate tenants were not able to relocate to non-port property, and as a result leave the area. These jobs are, for the most part, local jobs and are held by residents of Brevard County.

- Induced employment impact - jobs created throughout the local economy because individuals directly employed due to port activity spend their wages locally on goods and services such as food, housing and clothing. These jobs are held by residents located throughout the region and state, since they are estimated based on local and regional statewide purchases.
- Indirect Jobs - are jobs created in Brevard County and the State of Florida due to purchases of goods and services by firms, not individuals. These jobs are estimated directly from local purchases data supplied to Martin Associates by the 233 companies interviewed as part of this study, and include jobs with local office supply firms, maintenance and repair firms, parts and equipment suppliers, etc. It is to be emphasized that special care was taken to avoid double counting, since the current study counts certain jobs as direct, which are often classified as indirect by other approaches.
- Related user employment impact - jobs with firms using the cargo terminals to ship and receive cargo. These jobs are not entirely dependent upon the seaport, but reflect the importance of Port Canaveral to local firms. While the facilities and services provided in the seaport are a crucial part of the infrastructure allowing these jobs to exist, they would not necessarily be immediately displaced if marine cargo were to cease. These jobs include jobs associated with imported petroleum products, as well as aggregates and limestone.

1.3 Personal Earnings Impact

The personal earnings impact is the measure of employee wages and salaries (excluding benefits) received by individuals directly employed due to port activity. Re-spending of these earnings throughout Brevard County and the State of Florida for purchases of goods and services is also estimated. This, in turn, generates additional jobs -- the induced employment impact. This re-spending throughout the county and state is estimated using a state personal earnings multiplier, which reflects the percentage of purchases by individuals that are made within a state. The re-spending effect varies by state: a larger re-spending effect occurs in states that produce a relatively large proportion of the goods and services consumed by residents, while lower re-spending effects are associated with states that import a relatively large share of consumer goods and services (since personal earnings "leak out" of the state for these out-of-state purchases). The direct earnings are a measure of the local impact since those directly employed by airport or seaport activity receive the wages and salaries. The re-spending effect is regional.

1.4 Tax Impact

State and local tax impacts are tax payments to the state and local governments by firms and by individuals whose jobs are directly dependent upon and supported (induced and indirect jobs) by activity at Port Canaveral and the Port's real estate tenants. The tax impacts include state and local taxes collected from all sources, both personal and business taxes. State and local taxes are based on income indices developed by the Tax Foundation and these indices are applied to the direct, induced and indirect personal income impacts.¹

2. SUMMARY OF METHODOLOGY

The methodological approach to this study is designed to provide highly defensible, as well as accurate results. This same methodology has been used by Martin Associates in the last 25 years to assess the economic impacts of cargo and cruise activity at the Florida ports of Miami, Port Everglades, Jacksonville, and Tampa, as well as to quantify the impacts of marine cargo activity at all seaports in the State of Florida (for the Florida Ports Council). In addition, Martin Associates has used this same methodology to estimate the economic impacts of cargo and passenger activity at more than 250 seaports including:

<i>Los Angeles</i>	<i>Texas City, TX</i>	<i>Brunswick, GA</i>
<i>Long Beach</i>	<i>Baton Rouge</i>	<i>Richmond, VA</i>
<i>Oakland</i>	<i>Port Everglades</i>	<i>Providence, RI</i>
<i>Portland</i>	<i>Palm Beach</i>	<i>Montreal</i>
<i>Sacramento</i>	<i>Jacksonville</i>	<i>Quebec City</i>
<i>San Francisco</i>	<i>Wilmington/Morehead City, NC</i>	<i>Prince Rupert, BC</i>
<i>Vancouver, BC</i>	<i>Virginia Port Authority</i>	<i>Halifax</i>
<i>Houston</i>	<i>Baltimore</i>	<i>Saint John, NB</i>
<i>Corpus Christi</i>	<i>Philadelphia</i>	<i>18 U.S. Great Lakes Ports</i>
<i>Freeport, TX</i>	<i>Wilmington, DE</i>	

¹ The Tax Foundation publishes similar tax indices for state and local tax burdens for each state in the United States.

2.1 Data Collection

The cornerstone of the Martin Associates approach is the collection of detailed baseline impact data from firms providing services at the seaport. To ensure accuracy and defensibility, the baseline impact data was collected from personal and telephone interviews with 233 firms in the Port Canaveral community. These firms represent the universe of firms providing services at the seaport marinas and real estate tenants.

These 233 firms represent a 100 percent coverage of all firms identified in the Port's seaport, cruise, marina and real estate community. For the most part, multiple interviews were conducted with several persons in each firm.

In addition to the interviews, a passenger survey of 900 cruise passengers and crew was also conducted to develop passenger characteristics and spending patterns for the home ported cruise vessels as well as port of call cruise vessels calling Port Canaveral. These interviews were conducted January 13th and 17th, 2010.

2.2 Direct Jobs, Income, and Revenue Impacts

The results of these interviews were then used to develop the baseline direct job, revenue, and income impacts for the cargo, cruise, recreational boating and real estate activity and for the economic sectors and job categories associated with the each activity and the real estate tenants.

This baseline survey data was also used to develop operational models that can be used to update the impacts of the marine cargo activity, marina activity, cruise activity, and real estate tenants on an annual basis and to evaluate the impacts of changes in:

- Marine cargo tonnage, by commodity;
- Seaport labor productivity, and work rules;
- Modal distribution of seaport cargo (what percent of the inland transportation of a commodity is truck versus rail), as well as the geographical distribution of each commodity;
- Vessel calls;
- Local purchases made by recreational boat owners moored at the private marinas located on Port-owned land;
- Cruise service at the Port's cruise terminals; and
- New real estate tenants of the Port, by type of activity.

Also, the operational models can be used to evaluate alternative facilities expansion projects and new construction, such as a new or expanded marine cargo or cruise terminal.

2.3 Induced Impacts

Induced impacts are those generated by the purchases of the individuals employed as a result of cruise, cargo, recreational boating and real estate activity. For example, a portion of the personal earnings received by those directly employed due to activity at the seaport is used for purchases of goods and services, both in-state, as well as out-of-state. These purchases, in turn, create additional jobs in the State of Florida, which are classified as induced. To estimate these induced jobs, a personal earnings multiplier for the Cape Canaveral/Brevard County region was developed from data provided by the Bureau of Economic Analysis, Regional Input-Output Modeling System. This income multiplier is used to estimate the total personal earnings generated in the Cape Canaveral region, primarily defined as Brevard County. A portion of this total personal earnings impact is next allocated to specific local purchases (as determined from consumption data for Brevard County residents, as developed from the U.S. Bureau of Labor Statistics, Consumer Expenditure Survey, 2008). These purchases are next converted into retail and wholesale induced jobs in the regional economy.

Induced jobs are not estimated at lower levels of purchasing rounds (after the wholesale round) since it is not possible to trace with a sufficient degree of accuracy, geographically, where purchases at the remaining levels occur. However, about 80 percent of the consumption will likely occur at the first two rounds of purchases, which are most likely local retail and wholesale purchases.

2.4 Indirect Jobs

Indirect jobs are generated in the local economy as the result of purchases by firms that are directly dependent upon activity at the marine cargo terminals, cruise activity at the Port's cruise terminals, marinas at Port Canaveral, as well as by the real estate tenants of Port Canaveral. These purchases are for goods such as office supplies and equipment, maintenance and repair services, raw materials, communications and utilities, transportation services and other professional services. To estimate the indirect economic impact, local purchases, by type of purchase, were collected from each of the 233 firms interviewed. These local purchases were then combined with employment to sales ratios in local supplying industries, developed from U.S. Bureau of Economic Analysis, Regional Input-Output Modeling System for the State of Florida and Brevard County. These job to sales ratios capture the numerous spending rounds associated with the supply of goods and services. Special care has been exercised to avoid double counting the indirect impacts, and to specifically include only the expenditures by the directly dependent firms that are, in fact, local.

2.5 Related Impacts

Related impacts measure the jobs with shippers and consignees moving cargo through the marine terminals. These jobs are classified as related jobs, since the firms using the seaport facilities for the movement of marine cargo can and do use other seaports. Related impacts for

the seaport were estimated by multiplying the value of the cargo moving via the marine terminals with jobs to sales ratios specific to the exporters and importers.²

2.6 Tax Impacts

The tax impacts include state and local taxes collected from all sources, both personal and business taxes, as well as airport specific taxes. The state and local per capita income tax burdens (developed by the Tax Foundation for the State of Florida) are applied to the total direct, induced and indirect income impacts to estimate total state and local taxes created by activity at Port Canaveral.

3. TOTAL IMPACT OF PORT CANAVERAL

As Table I-1 indicates, Port Canaveral generated the following economic impacts for the local and regional economy in FY09:

- **13,093** total jobs are generated by Port Canaveral cruise, cargo, marina and real estate activity. These include:
 - 5,675 direct jobs
 - 4,060 induced jobs
 - 3,358 indirect jobs
- **\$648.8 million** of direct, induced, indirect wages and salaries and local consumption expenditures were generated by Port Canaveral's cargo, cruise, marina and real estate activity.
- Businesses providing services at the Port-owned marine cargo and cruise terminals, marinas, as well as real estate tenants, received **\$1.1 billion** of revenue, excluding the value of cargo shipped through the marine facilities, and price of the cruises homeported at Port Canaveral.
- **\$48 million** of state and local taxes were generated by activity at Port Canaveral marine cargo and cruise terminals, marinas and real estate tenants.
- The direct and induced economic impacts are primarily generated in the Port Canaveral District, including Cape Canaveral, Cocoa, Cocoa Beach, Merritt Island, Rockledge and Titusville. Other Brevard County is also included in the impacts. The indirect economic impacts, those generated as a result of purchases by firms that are directly dependent upon activity at Port Canaveral, are located within the State of Florida.

Table I-1

² The value of cargo moving via the marine terminals was determined from U.S. Census of Foreign Trade Statistics, while the ratios of jobs to sales data for related Florida State exporters and importers were developed from data supplied to Martin Associates by the Bureau of Economic Analysis, Regional Input-Output Modeling System.

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Totals may not add due to rounding

II. THE ECONOMIC IMPACTS OF MARINE CARGO ACTIVITY

In FY2009, a total of 2.5 million tons of cargo moved over marine facilities owned by Port Canaveral. Of the 2.5 million tons of cargo, petroleum products represented nearly 1 million tons, followed by aggregates, limestone and salt.

1. OVERVIEW OF THE SEAPORT IMPACT STRUCTURE

The movement of these 2.5 million tons of cargo through Port Canaveral marine cargo terminals generates economic activity in various business sectors of the state and local economy. Specifically, four distinct economic sectors are involved in providing services to move the cargo through Port Canaveral marine terminals. These are the:

- Surface Transportation Sector
- Maritime Service Sector
- Port Canaveral Administration
- Shippers/Consignees using Port Canaveral

Jobs, income, revenue, and tax impacts are estimated for each sector, as well as for specific job categories within each sector.

1.1 Economic Impact Sectors

Within each sector, various participants are involved. Separate impacts are estimated for each of the participants. A discussion of each of the four economic impact sectors is provided below, including a description of the major participants in each sector.

(1) The Surface Transportation Sector

Many local and national trucking firms serve the seaport, as do numerous individual owner-operators. Trucking firms are involved in distributing imported petroleum products to consumers in Brevard County and the central Florida region, including Orlando; the movement of aggregates and limestone for the local construction industry, and salt for use in water conditioning and animal feed products.

(2) The Maritime Service Sector

This sector consists of numerous firms and participants performing functions related to the following maritime services:

- Cargo Marine Transportation;
- Vessel Operations;
- Cargo Handling; and
- Federal, State, and Local Government Agencies.

A brief description of the major participants in each of these categories is provided below:

- Cargo Marine Transportation - Participants in this category are involved in arranging for overland and water transportation for export or import freight through the seaport. The freight forwarder/customhouse broker is the major participant in this category. The freight forwarder/customhouse broker arranges for the freight to be delivered between the port and inland destinations, as well as the ocean transportation. This function performed by freight forwarders is most prevalent for general cargo commodities. For bulk cargo, arrangements are often made by the shipper/receiver.

- Vessel Operations - This category consists of several participants. The steamship agents provide a number of services for the vessel as soon as it enters Port Canaveral harbor, the agents arrange for pilot services and towing, for medical and dental care of the crew, and for ship supplies. The agents are also responsible for vessel documentation. In addition to the steamship agents arranging for vessel services, those providing the services include:
 - Pilots - assist vessels navigating the channel into Port Canaveral;
 - Chandlers - supply the vessels with ship supplies (food, clothing, nautical equipment, etc.);
 - Towing firms - provide tug assist service to vessels docking and undocking at a terminal;
 - Bunkering firms - provide fuel to the vessels;
 - Marine surveyors - inspect the vessels and the cargo; and
 - Shipyards/marine construction firms - provide repairs, either emergency or scheduled, as well as marine pier construction and dredging.

- Cargo Handling - This category involves the physical handling of the cargo at the Canaveral seaport between the land and the vessel. Included in this category are the following participants:
 - Terminal operators - are often stevedoring firms who operate the maritime terminals where cargo is loaded and off-loaded; and
 - Warehouse operators - store cargo after discharge or prior to loading and consolidate cargo units into shipment lots.

- Government Agencies - This maritime service sector category involves Federal, state and local government agencies that perform services related to cargo handling and vessel operations. U.S. Customs and Border Protection employees are involved. In addition, both civilian and military personnel with the U.S. Coast Guard, U.S. Navy (Naval Surface Warfare Center) and the U.S. Army Corps of Engineers dedicated to the marine cargo moved via Port Canaveral marine terminals are included. The Port Canaveral Fire Department and Maritime Academy are also included.

(3) Port Canaveral Administration

This sector includes those individuals employed by the Canaveral Port Authority whose purpose is to oversee port activity. Port Canaveral leases terminal space to steamship lines and terminal operators and overseas cruise, cargo and real estate tenants, including the marinas located on Port-owned property.

(4) Shippers/Consignees Using Port Canaveral Marine Cargo Facilities

Shippers/Consignees included in this category are those shippers and consignees located throughout the State and Brevard County whose businesses use the marine cargo facilities for the export and import of cargo. These users also ship and/or receive materials via other ports in Florida. It is to be emphasized that these shippers/consignees are not dependent upon the use of Port Canaveral, since they could be users of other ports as well. Since these users are not dependent upon Port Canaveral, employment with these shippers/consignees is considered port-related, and not port-generated.

1.2 **Commodities Included in the Study**

A major use of an economic impact analysis is to provide a tool for port development planning. As a port grows, available land and other resources for port facilities become scarce, and decisions must be made as to how to develop the land and utilize the resources in the most efficient manner. Various types of facility configurations are associated with different commodities. For example, breakbulk cargo requires covered warehouse space, while containerized cargo requires significant investments in cranes and intermodal facilities.

An understanding of the commodity's relative economic value in terms of employment and earnings to the local community, the utilization and cost of providing the facilities, and the relative demand for the different commodities is essential in making future port development decisions. Because of this need for understanding relative commodity impacts and the impacts associated with marine terminal investments, economic impacts are estimated for the following commodities and commodity types handled via Port Canaveral-owned marine terminals:

- Containerized cargo
- Petroleum
- Salt

- Concentrate/Juice
- Fresh Citrus
- Aggregates
- Limestone
- Slag
- Automobiles
- General Cargo
- Newsprint
- Lumber
- Melons

It should be emphasized that commodity-specific impacts are not estimated for each of the economic sectors described in the last section. Specific impacts by commodity cannot be allocated to individual commodities with any degree of accuracy for the marine construction and the government job categories.

The impacts, by commodity, are estimated on a per ton basis order to determine the contribution of each commodity to the local economy on a throughput basis. The impacts per 1,000 ton ratio is a key input into port planning decisions regarding new facilities development and expansion.

The impacts generated by Port Canaveral marine terminals are estimated:

- By sector of the local and regional economy, e.g., maritime service sector, surface transportation sector;
- By commodity; and
- By the residency of individuals directly employed by the activity at Port Canaveral marine terminals.

2. ECONOMIC IMPACTS GENERATED BY CARGO ACTIVITY AT PORT CANAVERAL MARINE TERMINALS

The economic impacts generated by marine cargo handled at Port Canaveral marine terminals are summarized in Table II-1.

Table II-1
Economic Impacts of Cargo
Activity at Port Canaveral

		CARGO IMPACTS
JOBS		
	DIRECT JOBS	1,116
	INDUCED	999
	INDIRECT	274
	TOTAL	2,389
INCOME (\$1000)		
	DIRECT	\$42,783
	RE-SPENDING/LOCAL CONSUMPTION	\$122,901
	INDIRECT	\$12,709
	TOTAL	\$178,393
REVENUE (\$1000)		\$126,187
LOCAL PURCHASES (\$1000)		\$22,940
STATE AND LOCAL TAXES (\$1000)		\$13,201
USER IMPACTS		
	USER JOBS	574
	USER INCOME (\$1000)	\$19,155
	USER STATE/LOCAL TAXES (\$1000)	\$1,417
	STATE ECONOMIC VALUE (\$1000)	\$641,964

As this table indicates, maritime activity (cargo and vessel activity) at Port Canaveral facilities created the following economic impacts:

- 1,116 direct jobs;
- 999 induced jobs were supported by the purchases of the 1,116 directly employed individuals;
- 274 indirect jobs were generated as a result of \$22.9 million of local purchases by firms directly dependent upon seaport activity at Port Canaveral marine cargo facilities;
- The 1,116 direct employees earned \$42.8 million of wages and salaries, for an average salary of \$38,350 per year;

- Businesses providing services to the cargo activity received \$126.2 million of business revenue;
- A total of \$13.2 million of state and local taxes were generated by seaport activity; and
- 574 jobs in the State of Florida were related to the cargo moving via Port Canaveral marine terminals, the majority of which were related to the distribution and storage of petroleum products as well as the aggregates and bulk cargoes used in local construction activity.

The next section details the employment impacts generated by the cargo activity.

3. EMPLOYMENT IMPACTS OF THE CARGO ACTIVITY AT PORT CANAVERAL

This section details the direct, induced, indirect and related job impacts generated by marine cargo and vessel activity.

The direct employment impacts are first described.

3.1 Direct Employment Impacts

The distribution of the 1,116 direct job impacts by economic sector and job category is presented in Table II-2.

Table II-2
Direct Jobs by Detailed Category

SURFACE TRANSPORTATION	Direct Jobs
TRUCK	354
MARITIME SERVICE	
TERMINAL EMPLOYEES	232
TOWING/PILOTAGE/LINEHANDLING	40
AGENTS	7
MARITIME SERVICES	29
MARINE CONST/ SHIPYARDS	157
GOVERNMENT	136
PORT CANAVERAL ADMINISTRATION	<u>161</u>
TOTAL	1,116

As this table indicates, the largest direct job impact occurs with truckers serving the Port's marine terminals, followed by terminal employees.

Employment Impacts by Commodity

Table II-3 presents the distribution of the direct job impacts by commodity/handling type. A total of 633 direct jobs are allocated to commodities moving over Port Canaveral marine cargo terminals³. The importance of the dry bulk cargoes of aggregates, salt, and limestone is underscored by the fact that 340 direct jobs are supported by the dry bulk cargoes. The nearly 1 million tons of petroleum products creates 102 direct jobs, the majority of which are involved in the truck distribution of these products.

Table II-3
Direct Jobs by Commodity Group

	Direct Jobs	Tons (1,000)	Jobs/1,000 Tons
Containers	1	5.7	0.24
Petroleum	102	990.6	0.10
Salt	119	210.9	0.57
Concentrate/Juice	35	112.9	0.31
Fresh Citrus	2	8.5	0.18
Aggregate	160	681.0	0.23
Limestone	61	263.4	0.23
Slag	30	48.8	0.61
Automobiles	73	21.1	3.43
General Cargo	2	5.9	0.41
Newsprint	16	56.4	0.28
Lumber	7	30.7	0.22
Melons	26	70.2	0.38
Not Allocated	483		
Total	1,116	2,506.0	

Table II-3 also shows the direct job impacts per 1,000 tons of cargo. This exhibit indicates that on a per 1,000 ton basis, automobiles generate the greatest impact, primarily due to the labor intensive handling associated with loading the autos onto the vessel.

Employment Impact by Place of Residency

The importance of the cargo activity to the local and regional economy is underscored by the residency of those holding the 1,116 marine cargo generated direct jobs. As Table II-4 indicates, about 92 percent of the 1,116 direct jobs generated by cargo activity are held by residents of Brevard County, of which about 42 percent are held by residents of Cape Canaveral, Cocoa, and Merritt Island.

³ 483 jobs generated by cargo and vessel activity at seaport-wide marine terminals are not allocated to specific commodities. These direct jobs are with government agencies, shipyards and marine construction firms, banking and law firms, and Port Canaveral.

Table II-4
Distribution of Direct Jobs by Place of Residence

	Direct Jobs	Percent
Cape Canaveral	199	17.83%
Cocoa	176	15.79%
Cocoa Beach	86	7.70%
Merritt Island	196	17.55%
Rockledge	39	3.49%
Titusville	86	7.73%
Other Brevard County	264	23.67%
Other FL	67	6.01%
Other US	3	0.24%
TOTALS	1,116	100.00%

3.2 Induced Job Impact

The induced jobs are generated as the result of purchases of goods and services by those 1,116 directly employed as a result of marine cargo and vessel activity. As the result of the local and regional purchases by these directly employed individuals, 999 induced jobs were supported in the State of Florida. The greatest number of induced jobs is supported in non-consumption driven sectors of the economy such as business services, state and local government agencies, social services and education services, followed by impacts with restaurants and grocery stores.

3.3 Indirect Job Impact

Indirect jobs are generated in the local economy as the result of local purchases by the firms directly dependent upon Port Canaveral marine cargo activity. These purchases were identified from the surveys of directly dependent firms supplying services in support of the vessel and cargo activity at Port Canaveral marine terminals. Based on the surveys, a total of \$22.9 million of local purchases were made in the local economy. Based on employment to purchase ratios in supplying firms, produced for the State of Florida by the U.S. Bureau of Economic Analysis, Regional Input-Output modeling system, these local purchases supported 274 indirect jobs in the state.

3.4 Related Job Impact

In addition to the direct, induced and indirect jobs, an estimate of jobs related to cargo moving via the Port was developed. It is estimated that 574 jobs with regional petroleum distribution and construction firms are related to cargo moving via Port Canaveral marine cargo terminals. It is to be emphasized that these jobs are only related jobs, not jobs dependent upon Port Canaveral.

4. BUSINESS REVENUE IMPACT

The revenue impact is a measure of the *total economic activity* in the state that is generated by the cargo moving via Port Canaveral. In FY2009, marine cargo activity at the Port generated a total of \$768.2 million of total economic activity in the region. Of the \$768.2 million, \$126.2 million is the direct business revenue received by the firms directly dependent upon the Port and providing maritime services and inland transportation services to the cargo handled at the marine terminals and the vessels calling the port. The remaining \$642.0 million represents the value of the output to the State of Florida that is created due to the cargo moving via the Port Canaveral marine terminals. This includes the value added at each stage of producing an export cargo, as well as the value added at each stage of production for the firms using imported raw materials and intermediate products that flow via the marine terminals and are consumed by industries within the state.

The balance of the discussion focuses on the \$126.2 million of direct business revenue generated from the provision of services to the cargo and vessels handled at Port Canaveral marine terminals.

Table II-5 shows the distribution of this revenue impact by category and economic sector. As this exhibit indicates Port Canaveral receives the largest share of the total revenue impact, \$44.4 million, but this includes revenue generated by all lines of business including cargo, cruise, marina, and real estate activity. Trucking firms receive the next largest revenue impact, followed by marine construction.

Table II-5
Revenue Impact by Category and Economic Sector

	REVENUE (\$1,000)
SURFACE TRANSPORTATION	
TRUCK	\$36,969
MARITIME SERVICE	
TERMINAL EMPLOYEES	\$7,003
TOWING/PILOTAGE	\$982
AGENTS	\$574
MARITIME SERVICES	\$4,575
MARINE CONST/SHIPYARDS	\$31,681
PORT CANAVERAL	<u>\$44,404</u>
TOTAL	\$126,187

5. EMPLOYEE EARNINGS IMPACT

The 1,116 individuals directly employed as a result of activity at Port Canaveral marine terminals received \$42.8 million in wages and salaries, for an average annual salary of \$38,350. These individuals, in turn, use the earnings to purchase goods and services (both from in-state as well as out-of-state sources), to pay taxes, and for savings. The purchase of goods and services from local sources creates a local re-spending effect known as the personal earnings multiplier effect. This re-spending, or multiplier effect, was estimated using a personal earnings multiplier of 3.87, which indicates that for every \$1 earned in the state, an additional \$2.87 is created due to re-spending of the initial \$1 throughout the state. Using the local personal earnings multiplier, an additional \$122.9 million of income and local consumption are created in the local economy. In addition, the 274 indirectly employed workers receive indirect wages and salaries totaling \$12.7 million. Combining the direct, induced and indirect income impacts, the maritime activity at Port Canaveral marine cargo terminals created \$178.4 million of wages and salaries and local consumption.

The 574 related port users earned \$19.2 million in wages and salaries.

6. STATE AND LOCAL TAX IMPACT

Total state and local tax impacts generated by activity at Port Canaveral marine cargo terminals are estimated at \$13.2 million. In addition, \$1.4 million of state and local taxes were created in the related users sector.

In the following section, the economic impacts generated by Port Canaveral's Cruise operations are presented.

III. THE ECONOMIC IMPACT OF PASSENGER TRANSPORTATION OPERATIONS AT PORT CANAVERAL MARINE TERMINALS

In FY2009, Port Canaveral hosted 1,583 calls by cruise lines carrying 3.25 million passengers. These 1,583 port calls included 442 homeport calls, 53 ports of call and 1,088 gaming calls. For the vessels homeporting, passengers embark and disembark to begin and end their cruise, and the vessel often takes on supplies. For those vessels making port of calls, passengers embark and disembark for day visits in Canaveral, but the vessels typically do not take on supplies. To identify these impacts, interviews were held with cruise and gaming cruise operators to identify Canaveral-based impacts, as well as the potential to initiate/expand cruise service in Canaveral. A separate computer model has been developed by Martin Associates to measure the impacts of existing cruise and gaming cruise operations based at Port Canaveral facilities.

Each of these types of calls creates economic impacts in the local economy.

1. ECONOMIC IMPACT OF HOMEPORT CRUISE CALLS

Homeport cruise activity at Port Canaveral affects two sectors of the local and regional economy. These sectors are the:

- Maritime Service Sector; and
- Visitor Industry Sector.

The maritime service sector includes those firms that provide services to the cruise vessels while in port, such as:

- Chandlers and other local retailers and wholesalers that provide ship stores and provisions to be used by passengers and crew.
- Towing services that assist vessels in docking and undocking (a majority of the new cruise vessels are equipped with bow and stern thrusters and the need for tug assistance is minimized);
- Pilots assist the vessels navigating the channels from the open sea to the docks;
- Stevedoring services performed by members of the International Longshoreman's Association (ILA) and including handling baggage and ship supplies;
- Linehandling services that are required when a vessel enters port;
- Bunkering firms that provide fuel to the vessels;

- Landside tours and other charters;
- Parking services for the passengers driving from their place of residence to embark on the cruise; and
- Ground transfers from the airport and hotels to the ship prior to and after the cruise.

In addition, the passengers arriving via the Orlando International Airport also generate impacts on site at the airport, including jobs with airlines (ticket agents, baggage, concessions, taxis, security, etc.). To estimate the impact on the Airport, Martin Associates used average impact ratios developed from our recently completed airport impact study conducted for Miami International Airport.

The visitor industry sector consists of firms providing services to the passengers and crew of the current cruises prior to and after the cruise. Included in this category are:

- Hotels and motels;
- Restaurants/bars;
- Retail goods; and
- Entertainment establishments such as ground tours, movies, amusements, etc.

To estimate these impacts, the cruise lines currently calling Port Canaveral were interviewed, including Disney Cruise Lines, Carnival Cruise Lines and Royal Caribbean Cruise Lines. The purpose of these interviews was to determine the amount of purchases, by type of service, made by each vessel call and type of service. Types of purchases include vessel purchases for:

- Ship stores
- Bunkers
- Water
- Liquor
- Flowers
- Pilots
- Tugs
- Local advertising
- Local travel agents
- Linehandling
- Tendering services
- Stevedoring
- Retail items
- Maintenance and repair
- Trash disposal
- Laundry
- Crew allowance

- Wharfage and dockage

Cruise ship expenditure data was provided by Disney Cruise Lines, Carnival Cruise Lines and Royal Caribbean Cruise Lines. The results of these interviews were used to develop a typical ship disbursement account profile. Associated with each vessel expenditure category are jobs to sales ratios with the types of firms providing the goods and services to a homeported vessel. These jobs to sales ratios as well as personal income levels were developed from the U.S. Bureau of Census data sources for the Cape Canaveral Metropolitan Area. The total annual expenditures, by type of service, is multiplied by the corresponding jobs to sales ratios to estimate the total direct job impacts in the maritime service sector, by type of service.

The revenue impacts are estimated directly from the expenditure profiles provided by the carriers. Direct income is estimated from the average annual salaries developed by type of firm, from the interviews.

The jobs generated in the Visitor Industry/Tourism Sector (for example, hotels, restaurants, etc.) are estimated based on a survey of 900 passengers and crew conducted by Martin Associates. These surveys were conducted on January 13th and 17th, 2010. Of particular interest is the total number of passengers per vessel call, the percent of those passengers arriving by air as well as the percent that stay in local hotels prior to or after the homeport cruise, as well as the purchases made by the passengers in the local economy. These purchases include expenditures on hotels for embarking and debarking passengers, as well as local purchases for retail items, food and local landside tours. The average expenditures on hotel lodging and nights stayed pre- and post cruise, as well as food and in-town cabs are entered into the visitor industry model. The key findings indicate that on average, 55.3% of the passengers arrive via air, and about 45% of the passengers spend a night before the cruise. In contrast, about 15% of the passengers indicated that they plan to spend at least one night in the area after the cruise. For those spending a night before or after the cruise, about 85% stay in area hotels, while the balance stays with friends or relatives. Each passenger spends about \$40 in the Cape Canaveral area on a homeported vessel.

Also included in the visitor industry impacts are the impacts created by crew spending. On average about 5% of the crew is rotated on and off the homeported vessel each call at Port Canaveral. Each crewmember spends an average of about \$300 per call at Port Canaveral, the majority of which is spent on retail purchases.

Martin Associates also developed a visitors industry economic impact model for Port Canaveral, and this model is used to translate the local purchases by the passengers and crew into impacts with hotels, restaurants, retail outlets and amusements in the local and regional economy. Using these purchase patterns, and the appropriate jobs to sales ratios and personal income measures for the supplying firms, the visitor industry model calculates the direct jobs, induced and indirect impacts that are generated by the homeport cruise service at Port Canaveral.

2. PORT OF CALL ECONOMIC IMPACTS

Economic impacts created by a port of call, rather than a homeport call, generate impacts primarily on the landside consisting of tour packages and individual sightseeing excursions. To estimate these impacts, Martin Associates interviewed passengers embarking on Port of Call vessels to develop expenditure profiles to be used in estimating visitor industry impacts. In addition, the Port of Call vessels homeporting at Ports in the Mid-Atlantic, such as Baltimore, also take on supplies at Port Canaveral, further creating economic impacts in the maritime services sector. These local purchases by passengers and crew were converted into direct, induced and indirect impacts using the visitor industry methodology described above. In addition to the passenger expenditures, the purchases for supplies by the vessels as well as for linehandling, pilots, tender services, security, and in some cases miscellaneous emergency purchases. These purchases are also included in the port of call impact analysis in the maritime services sector.

3. CRUISE SERVICE IMPACT MODEL

In order to assess the economic impacts of potential cruise business at Port Canaveral, Martin Associates developed a cruise model which can be used to assess the impacts of changes in such factors as:

- Number of cruise vessel calls;
- Number of passengers;
- Passenger characteristics:
 - Local expenditures;
 - Local residents versus tourists;
 - Length of time and where stayed after disembarking;
- Different types of cruise service, including:
 - Homeport;
 - Port of Call;
 - Gaming/Daily Cruises;
- Size of crew; and
- Size of vessel.

This model will estimate the impacts of current and potential cruise operations at Port Canaveral.

4. ECONOMIC IMPACTS OF THE CRUISE SERVICES AT PORT CANAVERAL

Cruise operations for the FY2009 cruise season at Port Canaveral created the economic impacts summarized in Table III-1.

Table III-1
Economic Impact of Cruise Service at Port Canaveral
(FY2009)

	Cruise	Airport	Total Cruise
JOB			
DIRECT	3,370	303	3,673
INDUCED	2,487	88	2,575
INDIRECT	<u>1,908</u>	<u>752</u>	<u>2,659</u>
TOTAL JOBS	7,764	1,144	8,908
INCOME (\$1000)			
DIRECT	\$86,867	\$6,601	\$93,468
INDUCED/LOCAL CONSUMPTION	\$206,812	\$6,665	\$213,477
INDIRECT	<u>\$62,951</u>	<u>\$22,300</u>	<u>\$85,250</u>
TOTAL INCOME	\$356,630	\$35,565	\$392,195
REVENUE(\$1000)	\$598,531	\$358,443	\$956,974
LOCAL PURCHASES (\$1000)	\$66,940	\$40,963	\$107,903
STATE/LOCAL TAX (\$1000)	\$26,391	\$2,632	\$29,022

The cruise vessel activity at Port Canaveral in FY2009 supported the following economic impacts:

8,908 direct, induced and indirect jobs were created in the State of Florida due to the cruise activity at Port Canaveral. Of the 8,908 jobs:

- 7,764 direct, induced and indirect jobs were generated by the cruise operations;
- 1,144 direct, induced and indirect jobs were created by the passenger activity at Orlando International Airport;

\$392.2 million of local wages and salaries and consumption expenditures were generated by the cruise activity at Port Canaveral in FY2009:

- \$93.5 million of direct wages and salaries were generated and received by the 3,673 directly generated jobs, for an average salary of \$25,440 per direct employee.
- As the result of re-spending, another \$213.5 million of re-spending and consumption purchases were generated and supported the 2,575 induced jobs.

- Firms providing the services to the cruise vessels at Port Canaveral made \$107.9 million of local purchases, supporting 2,659 indirect jobs. The 2,659 indirect job holders received \$85.3 million of wages and salaries.

The FY2009 cruise activity at Port Canaveral generated \$957 million of business revenue to local businesses supplying services to the cruise vessels, passengers and crew as well as to the airport-related businesses at Orlando International Airport.

\$29 million of state and local taxes were generated by the cruise activity at Port Canaveral in FY2009.

IV. THE ECONOMIC IMPACT OF RECREATIONAL BOATING AT PORT CANAVERAL MARINAS

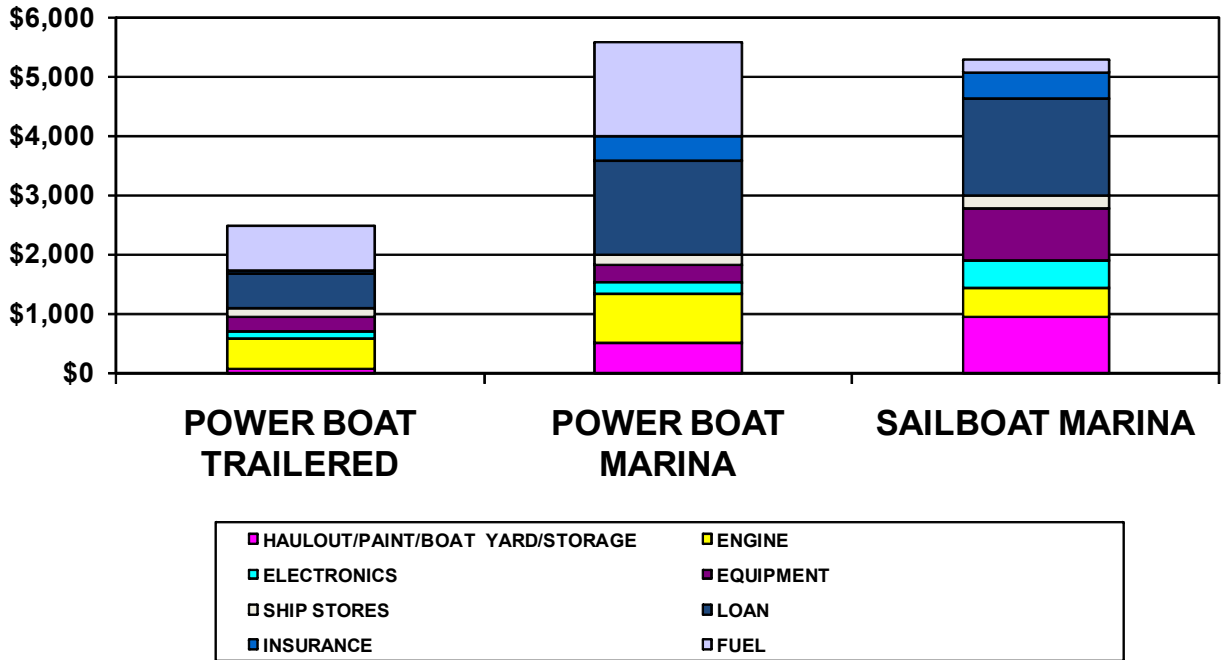
Port Canaveral operates and leases land to several private marinas, including Bluepoints Marina, Cape Marina, Ocean Club Marina, Port Canaveral Yacht Club, Scorpion's New Port Marina, Sunrise Marina, as well as Harbor Square Marina and Harbor Town Marina, which are both located on the barge canal. The impacts created by the recreational boating activity include the impacts generated by the vessels moored at each of these marinas, as well as the impacts of transient boats that temporarily use these marinas. To estimate the impacts, Martin Associates developed a profile and inventory of recreational boats, by size and type, at each Port Canaveral marina. For example, there were 138 recreational boats that were moored at Harbor Town, of which 113 were power boats. Nineteen boats were moored at Sunrise, 116 boats were moored at Harbor Square, 67 recreational boats were moored at Ocean Club, 69 boats at Cape Marina, 25 boats and Port Canaveral Yacht Club and 21 boats at Bluepoints Marina. In addition to the recreational boats that are moored at each of these facilities, there are about 30 transient boats that tie up at these marinas and the passengers typically go ashore for eating, shopping and entertainment. There were approximately 500 boats stored in dry slips at these marinas in FY2009.

To develop the impact data, Martin Associates conducted interviews with tenants at each marina, including yacht clubs, restaurants and retail stores. The results of these surveys were used directly in estimating marina tenant impacts. Next, typical annual expenditures by type of moored boat and for transient boats were developed from published sources, including:

- Boating 2000: A Survey of Boater Spending In Maryland, University of Maryland Sea Grant Program;
- Marine Manufacturers Association;
- The Economic Impact of Michigan's Recreational Boating Industry, Michigan State University, Ed Mahoney;
- Marine Operators Association of America; and
- Clean Vessel Act, Michigan Boating Survey, 1994-1995.

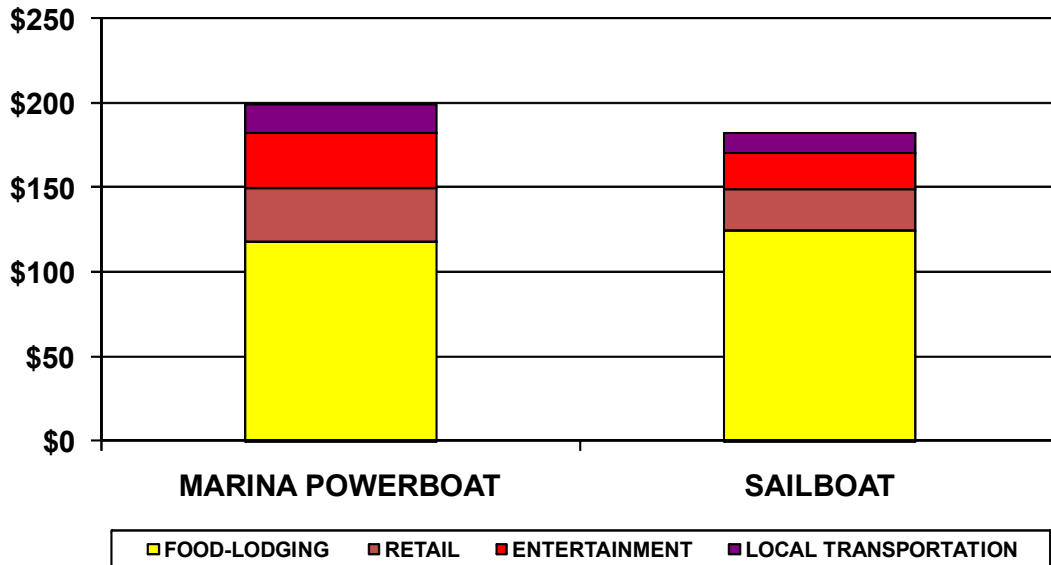
Exhibit IV-1 shows the breakdown of annual purchases by type of boat as developed from the "Boating 2000: A Survey of Boater Spending in Maryland", Maryland Sea Grant Program, University of Maryland, and adjusted to current price levels. Exhibit IV-2 shows the breakdown for local spending by transient boat operations.

Exhibit IV-1
Annual Operating Expenses by Type of Boat



Source: Boating 2000: A Survey of Boater Spending in Maryland, University of Maryland Sea Grant Program – adjusted for current dollars

Exhibit IV-2
Local Spending per Trip for Transient Boats



Boating 2000: A Survey of Boater Spending in Maryland, University of Maryland Sea Grant Program – adjusted for current dollars

These annual purchases per boat are multiplied by the number of boats in each category at each of the marinas at Port Canaveral. The annual purchases by type of boat at each marina are then converted into direct jobs using survey data from suppliers and marina support services firms interviewed by Martin Associates.

The local purchases per trip for transient calls at each marina are converted into jobs, income and revenue impacts using a visitor's industry model developed for the cruise industry impact analysis.

Indirect impacts are developed from local purchases data supplied by support services providers (from interviews) and upland tenants (restaurants, retail, boat yard, etc.)

Table IV-1
Economic Impact of Recreational Boating at Marinas at Port Canaveral

JOBS		MARINA IMPACTS
DIRECT JOBS		174
INDUCED		133
INDIRECT		<u>120</u>
TOTAL		427
INCOME (\$1000)		
DIRECT		\$4,908
RE-SPENDING/CONSUMPTION IMPACTS		\$11,684
INDIRECT		<u>\$3,993</u>
TOTAL		\$20,585
REVENUE (\$1000)		\$12,572
LOCAL PURCHASES (\$1000)		\$13,497
STATE AND LOCAL TAXES (\$1000)		\$1,523

In FY2009, the recreational boating activity at Port Canaveral generated the following economic impacts.

- 174 direct jobs were created by recreational boating activity at Port Canaveral marinas;
- As a result of purchases by these 174 direct jobs, 133 induced jobs were generated in the local economy;
- As the result of \$13.5 million of local purchases by the firms dependent upon recreational boating activity at Port Canaveral marinas, 120 indirect jobs were supported in the local economy;

- The 174 direct jobs holders received \$4.9 million of direct wages and salaries. As the result of the re-spending impact, an additional \$11.7 million of personal income and local consumption expenditures were generated. The indirect jobholders received \$4 million of indirect wages and salaries;
- The recreational boating created \$13.5 million of business revenue; and
- \$1.5 million of state and local taxes were generated by Port Canaveral marina activity.

The majority of the 174 direct jobs created by the marina activity reside on Merritt Island followed by Cape Canaveral and Cocoa Beach. All of the direct jobs holders with the marinas reside in Brevard County. The job impacts by residency are summarized in Table IV-2.

Table IV-2
Place of Residence of Direct Jobs Generated by the Marinas at Port Canaveral

	Direct Jobs	Percent
Cape Canaveral	38	21.61%
Cocoa	24	13.57%
Cocoa Beach	28	16.08%
Merritt Island	39	22.61%
Rockledge	10	6.03%
Titusville	12	7.04%
Other Brevard County	23	13.07%
Other FL	0	0.00%
Other US	0	0.00%
TOTALS	174	100.00%

V. ECONOMIC IMPACT OF PORT CANAVERAL REAL ESTATE TENANTS

With respect to the real estate analysis of Port non-maritime tenants, the impacts created with the real estate tenants of Port Canaveral are generated by the demand for the goods and services produced by the tenants, and not by activity specific to transportation services provided by Port Canaveral. In contrast, the capital investments made by the Port in the marine terminals are essential for the existence of cruise and cargo operations. As a result, the impacts generated by tenants of the Port's real estate holdings are not as directly dependent upon Port Canaveral and its investment as are the cargo and cruise impacts. Some of these companies are located on Port-owned property as a direct result of efforts by Port Canaveral to recruit them, and would likely not have located in Cape Canaveral area otherwise. Other firms would likely have located in the region regardless of the Port's efforts and infrastructure investment.

The impact analysis of the real estate tenants are based on a survey of the tenants not included in other Port operations (cruise, cargo and marina). Martin Associates developed a separate real estate impact model to estimate the impacts of these tenants on the Cape Canaveral regional economy. In addition, the impact model can be used to assess the impacts of potential uses of Port-owned property, including, office, restaurant, retail and industrial uses.

Table V-1 summarizes the economic impacts of the real estate tenants of Port Canaveral.

TableV-1
Economic Impacts of Port Canaveral's Real Estate Tenants

JOBS	Impacts
DIRECT JOBS	712
INDUCED	352
INDIRECT	<u>304</u>
TOTAL	1,369
INCOME (\$1000)	
DIRECT	\$22,367
RE-SPENDING/LOCAL CONSUMPTION	\$21,413
INDIRECT	<u>\$13,814</u>
TOTAL	\$57,594
BUSINESS REVENUE (\$1000)	\$86,139
LOCAL PURCHASES (\$1000)	\$21,307
STATE AND LOCAL TAXES (\$1000)	\$4,262

As summarized in Table V-1, Port Canaveral Seaport real estate tenants create the following economic impacts:

- 712 direct jobs are generated by these tenants, and as the result of local purchases by these direct employees, another 352 induced jobs are supported in the Cape Canaveral regional economy. Due to \$21.3 million of local purchases, 304 indirect jobs are supported. This indirect impact reflects the dependency on the local economy supply infrastructure for port tenants such as business offices;
- The 712 directly employed workers received \$22.4 million of wages and salaries. As the result of the local purchases by these employees, another \$21.4 million of income and consumption expenditures were generated, resulting in the induced job impact. The 304 indirect jobholders received \$13.8 million of indirect wages and salaries for a total personal income impact of \$57.6 million;
- The Port tenants received \$86.1 million of revenue, of which \$21.3 million was used for local purchases, as identified from the surveys of these tenants. These local purchases supported the 304 local indirect jobs; and
- Port Canaveral Seaport Real Estate Tenants generated \$4.3 million of state and local taxes.

Table V-2 shows the distribution of the direct, induced and indirect impacts by type of tenant.

Table V-2
Distribution of Total Direct, Induced, and Indirect Impacts by Type of Business

	DIRECT JOBS	INDUCED JOBS	INDIRECT JOBS	TOTAL JOBS	DIRECT INCOME (\$1,000)	INDUCED INCOME (\$1,000)	INDIRECT INCOME (\$1,000)	TOTAL INCOME (\$1,000)	REVENUE (\$1,000)	LOCAL PURCHASES (\$1,000)	TAXES (\$1,000)
INDUSTRIAL											
Auto Repair	4	1	12	17	\$55	\$52	\$653	\$760	\$219	\$1,713	\$56
Boat Manufacturing/Repairs/Storage	32	16	3	51	\$1,084	\$1,037	\$285	\$2,406	\$2,060	\$258	\$178
Industrial	40	19	4	64	\$1,093	\$1,046	\$315	\$2,454	\$4,518	\$471	\$182
Aerospace	166	115	18	299	\$9,803	\$9,381	\$1,293	\$20,477	\$18,552	\$1,936	\$1,515
Towing/salvage	7	4	0	11	\$245	\$234	\$0	\$479	\$280	\$35	\$35
SECTOR TOTAL	248	155	37	441	\$12,280	\$11,750	\$2,546	\$26,576	\$25,629	\$4,413	\$1,967
COMMERCIAL											
Miscellaneous Commercial	21	11	1	33	\$690	\$670	\$42	\$1,402	\$1,767	\$101	\$104
Restaurants	272	104	141	517	\$4,181	\$4,001	\$3,622	\$11,804	\$14,261	\$5,342	\$873
Retail Fishing Supplies	5	2	0	8	\$125	\$119	\$15	\$259	\$250	\$24	\$19
Wholesale Seafood	36	16	28	80	\$753	\$721	\$2,758	\$4,232	\$13,503	\$4,290	\$313
Recreational Activity	13	6	0	20	\$310	\$297	\$43	\$650	\$742	\$67	\$48
Storage Units	6	3	2	11	\$210	\$201	\$169	\$580	\$600	\$263	\$43
Office	31	18	26	75	\$1,341	\$1,284	\$1,376	\$4,001	\$10,199	\$1,915	\$296
Boat Sales	8	4	11	23	\$256	\$245	\$475	\$976	\$8,000	\$759	\$72
Charter Boats	46	20	42	107	\$1,078	\$1,031	\$2,121	\$4,230	\$3,744	\$3,284	\$313
Wholesale	12	7	0	19	\$615	\$589	\$23	\$1,227	\$3,500	\$56	\$91
Retail	14	7	15	36	\$528	\$505	\$624	\$1,657	\$3,944	\$793	\$123
SECTOR TOTAL	464	197	267	928	\$10,087	\$9,663	\$11,268	\$31,018	\$60,510	\$16,894	\$2,295
TOTAL	712	352	304	1,369	\$22,367	\$21,413	\$13,814	\$57,594	\$86,139	\$21,307	\$4,262

The commercial sector creates the largest total direct jobs, but within the industrial sector, aerospace tenants of the Port create the largest number of direct jobs.

The majority of direct job holders with the real estate tenants reside in Merritt Island, followed by Cape Canaveral and Cocoa Beach. Overall, 97% of the direct jobs with Port Canaveral real estate tenants reside in Brevard County.

Table V-3
Direct Real Estate Employees by Place of Residence

	Direct Jobs	Share
Cape Canaveral	133	18.63%
Cocoa	64	8.98%
Cocoa Beach	120	16.88%
Merritt Island	194	27.24%
Rockledge	25	3.50%
Titusville	59	8.30%
Other Brevard County	95	13.29%
Other FL	23	3.18%
Other US	0	0.00%
TOTALS	712	100.00%

VI. SUMMARY OF THE ECONOMIC IMPACTS OF PORT CANAVERAL

Martin Associates was retained by the Canaveral Port Authority to measure the local, regional and state economic impacts generated by maritime cargo activity, cruise terminals, marina activity on Port-owned land and real estate activity at Port Canaveral. This study focuses on impacts generated during the Fiscal Year 2009. Impacts are estimated in terms of jobs, personal earnings, business revenue, and state and local taxes. In addition to the baseline impact estimates, computer models specific to each terminal operation have been prepared that can be used in evaluating the sensitivity of impacts to changes in tonnage, labor productivity, labor work rules, commodity mix, inland origins/destinations of commodities and vessel size.

This report is based on interviews conducted with 233 firms providing services to the cargo and vessels handled at Port Canaveral's cargo and cruise terminals, marinas on Port-owned land and the real estate tenants. These 233 firms interviewed represent 100 percent of the firms in the Port Canaveral's seaport community, underscoring the defensibility of the study. Furthermore, the impacts can be traced back to the individual firm. The data collected from these interviews is used to develop operational models of the terminals located at Port Canaveral.

The economic impacts generated by the cargo and cruise terminals are summarized in Exhibit VI-1.

Table VI-1
Summary of the Economic Impacts Generated by Port Canaveral Lines of Business
FY 2009

JOB	Cruise	Cargo	Real Estate	Marina	Total
DIRECT JOBS	3,673	1,116	712	174	5,675
INDUCED	2,575	999	352	133	4,060
INDIRECT	<u>2,659</u>	<u>274</u>	<u>304</u>	<u>120</u>	<u>3,358</u>
TOTAL	8,908	2,389	1,369	427	13,093
INCOME (\$1000)					
DIRECT	\$93,468	\$42,783	\$22,367	\$4,908	\$163,525
RE-SPENDING/LOCAL CONSUMPTION	\$213,477	\$122,901	\$21,413	\$11,684	\$369,475
INDIRECT	<u>\$85,250</u>	<u>\$12,709</u>	<u>\$13,814</u>	<u>\$3,993</u>	<u>\$115,767</u>
TOTAL	\$392,195	\$178,393	\$57,594	\$20,585	\$648,767
BUSINESS REVENUE (\$1000)	\$916,011	\$126,187	\$86,139	\$12,572	\$1,140,910
LOCAL PURCHASES (\$1000)	\$107,903	\$22,940	\$21,307	\$13,497	\$165,646
STATE AND LOCAL TAXES (\$1000)	\$29,022	\$13,201	\$4,262	\$1,523	\$48,009

Totals may not add due to rounding

As Table VI-1 indicates, Port Canaveral generated the following economic impacts for the local and regional economy in FY09:

- **13,093** total jobs are generated by Port Canaveral cruise, cargo, marina and real estate activity. These include:
 - 5,675 direct jobs
 - 4,060 induced jobs
 - 3,358 indirect jobs

- **\$648.8 million** of direct, induced, indirect wages and salaries and local consumption expenditures were generated by Port Canaveral's cargo, cruise, marina and real estate activity.

- Businesses providing services at the Port-owned marine cargo and cruise terminals, marinas, as well as real estate tenants, received **\$1.1 billion** of revenue, excluding the value of cargo shipped through the marine facilities, and price of the cruises homeported at Port Canaveral.

- **\$48 million** of state and local taxes were generated by activity at Port Canaveral marine cargo and cruise terminals, marinas and real estate tenants.

- These economic impacts are further identified by each line of business at Port Canaveral:
 - **Cargo Impacts:**
 - 2,389 Total Jobs
 - \$178.4 Million Total Income
 - \$126.2 Million Business Revenue
 - \$13.2 Million of State & Local Taxes

 - **Cruise Impacts:**
 - 2,389 Total Jobs
 - \$392.2 Million Total Income
 - \$916 Million Business Revenue
 - \$29 Million of State & Local Taxes

 - **Marina Impacts:**
 - 427 Total Jobs
 - \$20.6 Million Total Income
 - \$12.6 Million Business Revenue
 - \$1.5 Million of State & Local Taxes

 - **Real Estate Impacts:**
 - 1,369 Total Jobs
 - \$57.6 Million Total Income
 - \$86.1 Million Business Revenue
 - \$4.3 Million of State & Local Taxes