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U.S. Ocean Passenger Terminals: *serving larger vessels closer to home and central transit connections*

by Matthew Chambers

The ocean passenger industry has undergone substantial changes in recent years. In response to market conditions, passenger vessel operators are deploying larger vessels, cutting fares, changing destinations, and embarking from seaports closer to travelers in major metropolitan areas. In the United States, many new and renovated ocean passenger terminals have opened in port cities along the Atlantic and Pacific coasts, as well as across the Gulf coast, to help accommodate these changes.

Since 2004, the number of passenger vessel cruises have decreased (table 1), yet larger vessels helped maintain passenger levels—growing by about a half million (5.3 percent) over the 2004 to 2008 5-year period. The 9.9 million passengers in 2008 was up from 9.4 million in 2004, but down from the record high of 10.3 million-passengers in 2007.

Table 1: Passenger Vessel Cruises and Passengers Departing From U.S. Departure Ports, 2004–2008

	Cruises	Percent change*	Passengers	Percent change*
2004	4,465		9,418,317	
2005	4,463	0.00%	9,747,188	3.49%
2006	4,435	-0.60%	9,970,922	2.30%
2007	4,464	0.60%	10,288,583	3.19%
2008	4,212	-5.60%	9,914,755	-3.63%

* From previous year.
SOURCES: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics calculations derived from U.S. Department of Transportation, Maritime Administration, Office of Policy and Plans, Cruise Detail Table (Updated 07/07/09), available at http://www.marad.dot.gov/documents/north_america_cruise_detail_data.xls as of Sept. 1, 2009.

Larger Vessels

Regardless of whether measured in terms of staterooms, gross tonnage, or passengers, average vessel size has increased. Passenger vessel operators have opted to deploy their new, larger vessels in the U.S. market, while concurrently relocating smaller existing vessels overseas. During retrofits, lines have even lengthened the hulls of existing vessels serving the U.S. market, thus increasing the number of berths and passenger capacities. Table 2 reveals how much the average nominal[1] and maximum[2] passenger capacity has increased between 2004 and 2008 due to these changes.

Table 2: Passenger Vessel Average Nominal and Maximum Capacity Departing From U.S. Departure Ports, 2004–2008

Year	Average nominal capacity	Average maximum capacity
2004	1,939	2,428
2005	1,991	2,487
2006	2,049	2,559
2007	2,095	2,624
2008	2,131	2,672

SOURCES: U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics calculations derived from U.S. Department of Transportation, Maritime Administration, Office of Policy and Plans, Cruise Detail Table (Updated 07/07/09), available at http://www.marad.dot.gov/documents/north_america_cruise_detail_data.xls as of Sept. 1, 2009.

Passenger vessel operators discount fares to fully book ships. From 2004 through 2008, prices for passenger water transportation remained about 20 percent below their 2000 level, after a precipitous drop following 2000 (table 3).

Today's passenger vessels are the largest passenger vessels ever to sail. For example, Royal Caribbean *Oasis of the Seas*, launched in November 2009, can carry more than 6,000 passengers and grosses 220,000 tons.[3] A sister ship is planned for completion in 2010.

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[1] Nominal capacity considers two passengers per stateroom.

[2] Maximum capacity considers three or four people passengers per stateroom, which many double staterooms can accommodate.

[3] Jan M. Olsen, "Largest Cruise Ship Squeezes Under Danish Bridge", *The Washington Post*, Sunday, Nov. 1, 2009.

Table 3: Passenger Water Transportation Services, 2004–2008

	Annual Percent Growth in Prices	Chain-Type Price Indexes (Index: 2000=100)
2004	-1.5	80.2
2005	1.3	81.2
2006	0.3	81.4
2007	-0.1	81.3
2008	-1.9	79.8

SOURCE: Griffith, Eric S. and Steven L. Zemanek; U.S. Travel and Tourism Satellite Accounts for 2005-2008, U.S. Department of Commerce, Bureau of Economic Analysis, available at http://www.bea.gov as of July 9, 2009.

These larger passenger vessels have put substantial demands on critical infrastructure, ground transportation, passenger screening, and landside access at the ocean passenger terminals and surrounding seaports. Carrying thousands of crewmembers and passengers, ships require seaports to handle hundreds of buses, cars, trucks, and motorcycles as passengers arrive and depart, vendors bring in needed supplies, and haulers remove trash.

Closer to Home

Passenger vessels have traditionally operated from U.S. departure ports[4] located in warm climates because they are more conducive to year-round operations. Today, however, a number of operators have expanded their locations to include cooler climates. Figure 1 shows that departure ports are spread out along the Nation's coastline. Cruise lines save vacationers transportation costs and travel times by serving additional departure ports located within or close to major metropolitan areas and their large population bases (e.g., Baltimore, Philadelphia, New York, Norfolk, and Seattle). In those locations, ships sail during the summer months, although a few year-round operations from more northerly ports are available. In addition, during the cold winter months, passenger vessels relocate from the North American to the European market where fares are higher.[5]

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[4] Departure ports are where ships take on passengers at the beginning (and disembark or discharge at the end) of voyages.

[5] U.S. Department of Transportation, Maritime Administration; *Cruise Statistical Snapshot: 2nd Quarter 2009*; available at http://www.marad.dot.gov/ as of Oct. 14, 2009.
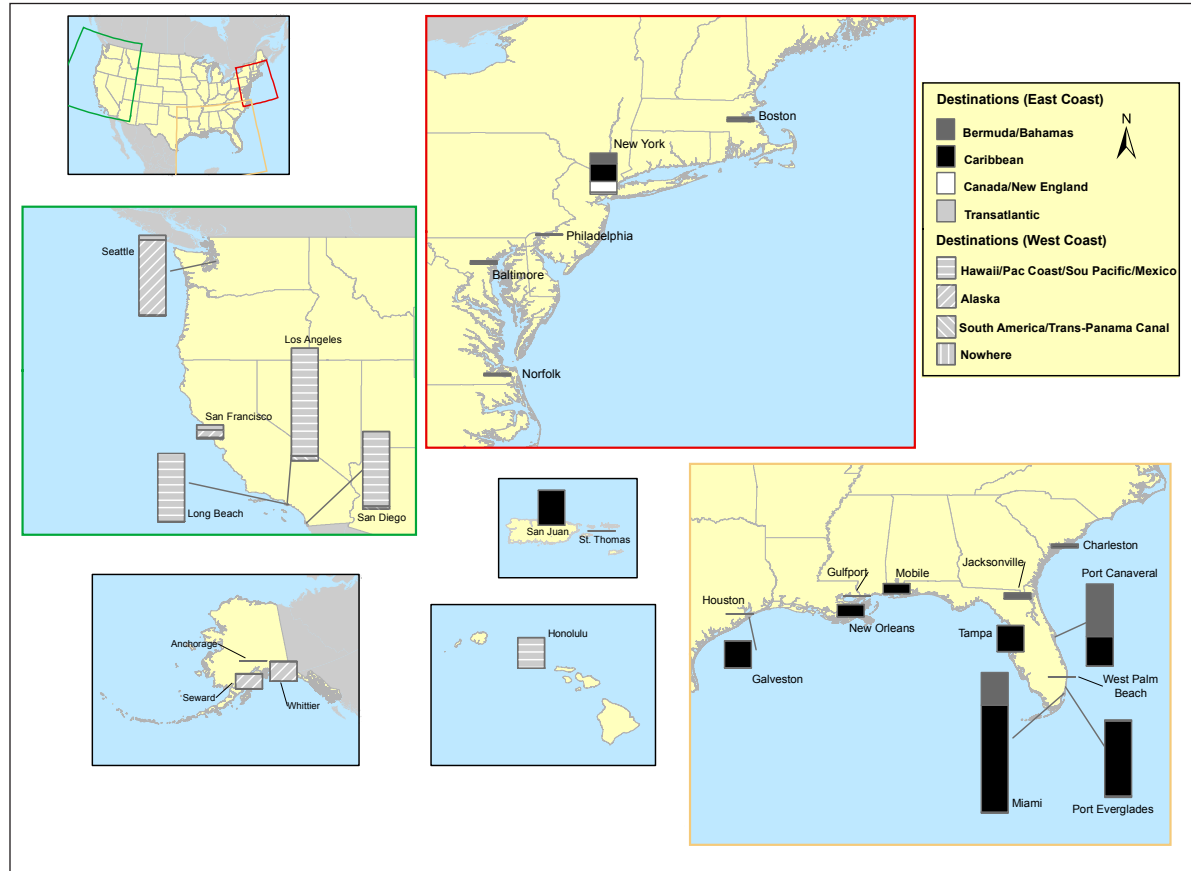
Figure 1: U.S. Ocean Passenger Counts by Departure Port, 2008
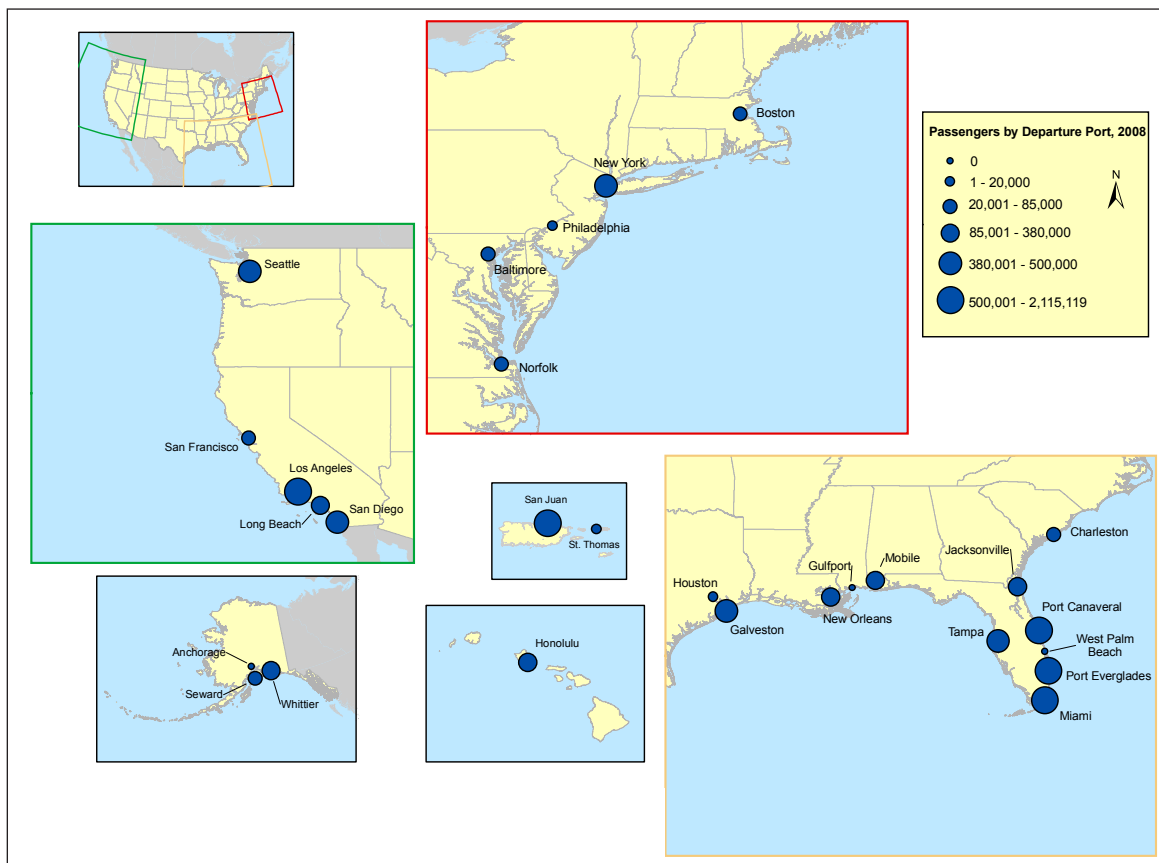
NOTE: In 2008, the Anchorage, Gulfport, and West Palm Beach departure ports did not record any cruise ship departures. Maps are not to scale, but all legends are directly comparable.

SOURCE: U.S. Department of Transportation, Maritime Administration, Office of Policy and Plans, Cruise Detail Table (Updated 07/07/09), available at http://www.marad.dot.gov/documents/north_america_cruise_detail_data.xls as of Sept. 1, 2009.

Figure 2: Passenger Vessel Destination by U.S. Departure Port, 2008

NOTE: In 2008, the Anchorage, Gulfport, and West Palm Beach departure ports did not record any cruise ship departures. Maps are not to scale, but all legends are directly comparable.

SOURCE: U.S. Department of Transportation, Maritime Administration, Office of Policy and Plans, Cruise Detail Table (Updated 07/07/09), available at http://www.marad.dot.gov/documents/north_america_cruise_detail_data.xls as of Sept. 1, 2009.

Florida is home to the Nation's three largest and most popular departure ports.[6] These top three U.S. departure ports (Miami, Port Canaveral, and Fort Lauderdale), which account for about 45 percent of ocean passengers.[7] Many passenger vessel operators prefer to sail their cruise ships from departure ports in Florida, where the temperate climate supports year-round operations.

Figure 2 shows scheduled passenger vessel destinations by departure port. Northerly departure ports also allow cruise lines to offer many different destinations while maintaining passenger-preferred cruise durations. More specifically, they allow operators to offer 2- to 5-day long cruises, which is the fastest growing cruise choice when measured by duration.[8] The average cruise is 7.2 days.[9]

Passenger Terminal Operations

State and local governments, economic development corporations, and port authorities own and operate marine passenger terminals. These entities can manage anywhere from 1 to 11 passenger vessel terminals, each of which can process passengers from one or more vessels. Many of these entities have recently opened new terminals or revamped existing terminals to accommodate new larger vessels, additional security regulations, and other passenger and operators demands.

In response to the September 11, 2001 attacks, the U.S. Coast Guard implemented the Maritime Transportation Security Act of 2002,[10] which aligns federal regulations with the International Ship and Port Facility Security Code. These regulations require passenger vessel owners and/or operators to screen all passengers and baggage. In turn, these requirements call for passenger terminals to house metal detectors and x-ray machines. Passenger vessel terminals must process thousands of embarking and

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[6] U.S. Department of Transportation, Maritime Administration; *Cruise Statistical Snapshot: 2nd Quarter 2009*; available at http://www.marad.dot.gov/ as of Oct. 14, 2009.

[7] Ibid.

[8] Cruise Line International Association, *2008 CLIA Cruise Market Overview: Statistical Cruise Industry Data Through 2007,* available at http://www.cruising.org/ as of July 31, 2009.

[9] Business Research and Economic Advisors Study prepared for the Cruise Lines International Association; *Executive Summary: The Contribution of the North American Cruise Industry to the U.S Economy in*

2007; available at http://www.cruising.org as of Sept. 25, 2009.

[10] U.S. Department of Homeland Security; U.S. Coast Guard; *International Port Security Program*, available at http://homeport.uscg.mil/ as of July 29, 2009.

disembarking passengers in the span of a few short hours through customs, luggage handling, ticketing, and passenger screening. In addition, cruise terminals may accommodate eateries, retail shopping, travel services, and vending.

A terminal building may serve several cruise lines or provide dedicated service to a single cruise line. Figure 3 shows the market share of the passenger vessel operators sailing from the departure ports. Passenger vessel operators through public-private partnerships (PPPs) may help offset terminal development and operating costs. Otherwise, passenger terminal operators may collect cruise passenger fees and/or taxes, which range from $4 to $50.[11]

Connecting to Downtown

In many cities, passenger vessel terminals have been relocated from the cargo handling areas of the port to new terminals in or near the city center. This not only improves passengers' access to the cruise ships, but these terminals return cargo handling facilities, which had been used for

passenger automobile parking and berth space for the passenger liners, to industrial use.

Below are a few recent examples of this trend:

- In 2009 the Port of Seattle opened the Smith Cove Terminal, located at Pier 91 near the city's central business district, in place of a temporary terminal at Pier 30[12].

- A new passenger vessel terminal opened in the Red Hook neighborhood of Brooklyn, NY, in 2006.[13]

- Norfolk, Virginia opened a new downtown terminal in 2007.[14]

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[11] Ross A. Klein, *Playing off the Ports: BC and the Cruise Tourism Industry,* Vancouver: Canadian Center for Policy Alternatives, available at http://www.policyalternatives.ca as of July 29, 2009.

[12] Port of Seattle, *Port of Seattle Kicks off 2009 Cruise Season*, available at http://www.portseattle.org/ as of July 29, 2009.

[13] New York City Economic Development Corporation (NYCEDC). *Mayor Bloomberg and Borough President Markowitz Open New York City's Newest Cruise Terminal on the Brooklyn Waterfront.* Available at http://www.nycedc.com/ as of July 29, 2009.

[14] Cruise Norfolk, Norfolk's Cruise Passenger Service Voted Best in the United States, available at http://www.cruisenorfolk.org as of July 29, 2009.

Figure 3: U.S. Market Share by Departure Port: 2008
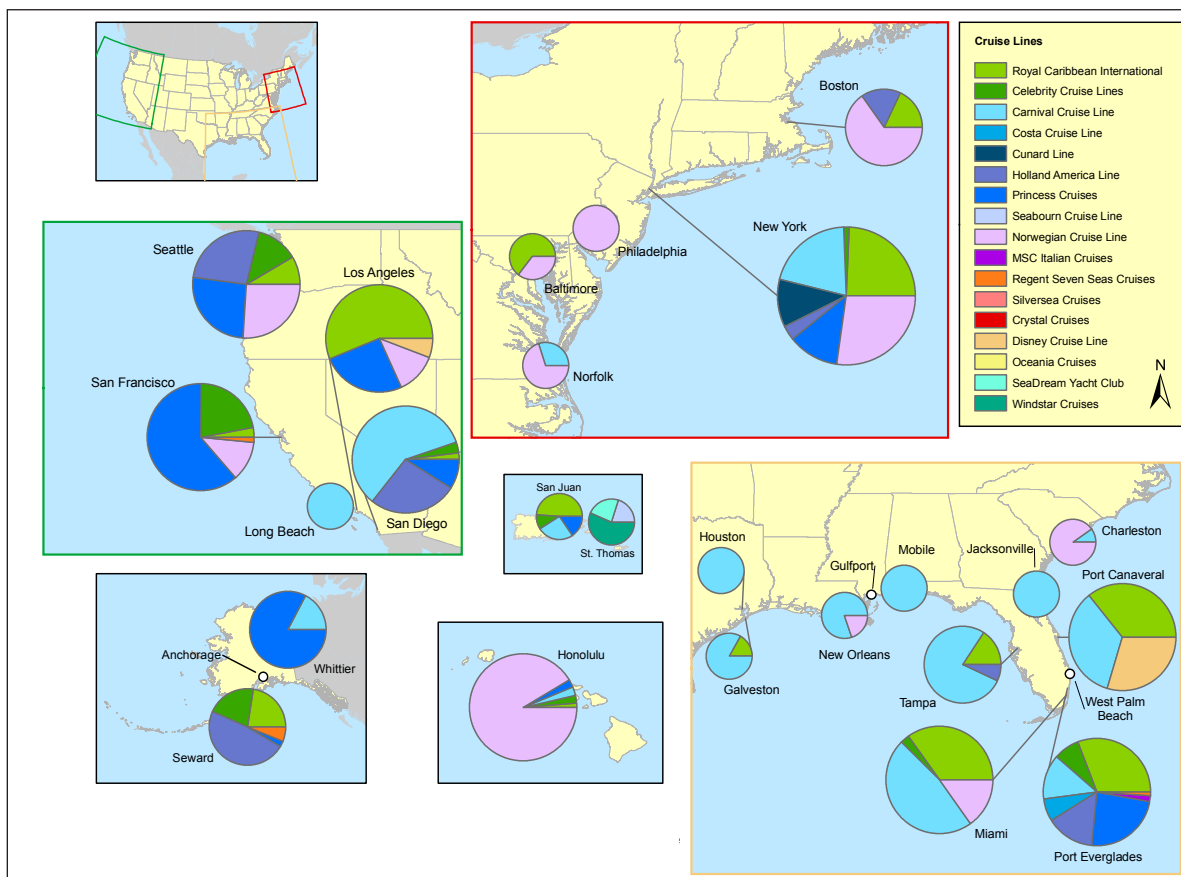
NOTE: In 2008, the Anchorage, Gulfport, and West Palm Beach departure ports did not record any cruise ship departures. Maps are not to scale, but all legends are directly comparable.

SOURCE: U.S. Department of Transportation, Maritime Administration, Office of Policy and Plans, Cruise Detail Table (Updated 07/07/09), available at http://www.marad.dot.gov/documents/north_america_cruise_detail_data.xls as of Sept. 1, 2009.

• The Helen Delich Bentley Port of Baltimore moved its terminal from the Dundalk Marine Terminal to the South Locust Point Marine Terminal in 2006[15], which is closer to the city's Inner Harbor.

Downtown terminals often put connecting modes of transportation (e.g., bus, rail, and ferries) within easy reach of cruise ship passengers. BTS examined the proximity of other modes to determine whether an intermodal connection existed with the cruise ships, and whether that connection was onsite, close-by (e.g., on the same block), or nearby (e.g., within walking distance). About two-thirds of the cruise terminals have a bus, rail, and/or ferry connection (table 4). In addition, about four-fifths of the terminals have dedicated transportation.

Table 5 provides information on the specific modes connecting with each ocean passenger terminal. In addition to examining connections with transit bus intercity bus, transit/light rail, intercity rail, transit water taxi, and interstate/international ferry, BTS also looked at the dedicated transporta-

tion to and from the terminal offered for cruise passengers by many cruise lines or private operators.

Table 4: U.S. Ocean Passenger Terminal Connectivity, 2009

	Bus	Rail	Ferry	Other
Terminals with connections	14	22	34	9
Close by/onsite	23	9	6	45
Nearby	16	20	15	1

SOURCES: Data derived from multiple public sources by the U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics as of Sept. 25, 2009.

These connections provide passengers with travel options that help quickly and efficiently move them to and from the terminal, which is essential for serving larger passenger vessels. Passengers may turn to public transportation instead of the private automobile at ports of calls and departure ports if public transportation is quick and easy to access.

[15] The Helen Delich Bentley Port of Baltimore. *Smooth Sailing.* Baltimore: April 2007, available at http://www.cruisemaryland.com/ as of July 29, 2009.

Table 5: U.S. Ocean Passenger Terminal Connectivity, 2009

Terminal	Bus	Rail	Ferry	Other	Terminal	Bus	Rail	Ferry	Other
Anchorage	2	2	0	1	Port Canaveral No. 8	0	0	0	1
Baltimore	1	2	2	1	Port Everglades No. 1	2	2	0	1
Boston	1	1	2	1	Port Everglades No. 18	2	2	0	1
Cape Liberty	2	2	0	1	Port Everglades No. 19	2	2	0	1
Charleston	1	0	1	0	Port Everglades No. 2	2	2	0	1
Galveston No. 1	OOS	OOS	0	1	Port Everglades No. 21	2	0	0	1
Galveston No. 2	OOS	OOS	0	1	Port Everglades No. 22	2	0	0	1
Gulfport	0	1	1	2	Port Everglades No. 24	2	0	0	1
Honolulu	1	0	1	1	Port Everglades No. 25	2	0	0	1
Houston (Barbour's Cut)	NS	NS	NS	NS	Port Everglades No. 26	2	0	0	1
Houston (Bayport)	0	0	0	1	Port Everglades No. 27	2	0	0	1
Jacksonville	0	0	0	1	Port Everglades No. 29	2	0	0	1
Long Beach	1	2	1	1	Port Everglades No. 4	2	2	0	1
Los Angeles	1	0	2	1	San Diego (B St)	1	2	1	0
Miami D	1	2	0	1	San Diego (Broadway)	1	2	1	0
Miami E	1	2	0	1	San Francisco (Pier 27)	1	2	2	0
Mobile	1	2	0	0	San Francisco (Pier 35)	1	2	2	0
New Orleans (Erato St)	1	1	2	1	San Juan (Pier 4)	1	0	0	1
New Orleans (Julia St)	1	1	2	1	Seattle (Pier 66)	0	1	2	0
New York (Brooklyn)	1	0	0	1	Seattle (Pier 91)	1	0	0	0
New York (Manhattan)	2	2	2	1	Seward	0	1	2	1
Norfolk	1	FS	2	0	St. Thomas (Crown Bay)	0	0	2	1
Philadelphia	1	2	2	1	St. Thomas (West Indian)	0	0	2	1
Port Canaveral No. 10	0	0	0	1	Tampa No. 2	1	2	0	1
Port Canaveral No. 2	0	0	0	1	Tampa No. 3	1	1	0	1
Port Canaveral No. 3	0	0	0	1	Tampa No. 6	1	1	0	1
Port Canaveral No. 4	0	0	0	1	West Palm Beach	1	2	0	1
Port Canaveral No. 5	0	0	0	1	Whittier	0	1	2	1

KEY: 0 - No Connection, 1 - Onsite or Close by, 2 - Nearby
FS - Future Service, NS - No Longer in Service, OOS - Temporarily Out of Service

SOURCES: Data derived from multiple public sources by the U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics as of Sept. 25, 2009.

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Publications –

- U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics; *Ocean Passenger Vessels: migrating south for the winter*; available at http://www.bts.dot.gov/.