

# **Atlantic Coast U.S. Seaports**

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#### By Matthew Chambers

Atlantic coast U.S. seaports from Eastport, MÖ, through Key West, FL, are preparing for an expected increase in cargo generated by an expansion of the Panama Canal scheduled for completion in 2014¹ (figure 1). Preparations at east coast ports include installation of larger cranes and dredging channels to accommodate container ships with nearly two and one-half times² the capacity of current Panamax vessels, the largest ships that now transit the canal (figure 2).

The Atlantic coast seaports facilitate freight flow and international trade for both the long-established and populous Northeast, and the growing areas along the Southeast Atlantic coast.

This fact sheet highlights the major Atlantic container ports of New York/New Jersey, Virginia, Savannah, and Charleston. Containerships and containerized cargo comprise the bulk of vessel calls and most of the vessel value at these seaports along the eastern seaboard. Commodities transiting the canal to the Atlantic ports include auto parts, bananas, chemicals, canned and frozen fish, and pulpwood, among others.<sup>3</sup> Mississippi

# Select Atlantic Coast U.S. Seaports

#### Port of New York/New Jersey

The Port of New York/New Jersey was the largest Atlantic coast U.S. seaport in terms of total tonnage and the third largest in terms of intermodal TEU<sup>4</sup> containers handled in 2008.<sup>5</sup> Only the ports of Los Angeles and Long

Figure 1: Atlantic Coast U.S. Seaports



**SOURCES**: Ports: U.S. Department of Transportation, Maritime Administration, *U.S. Port Calls by Vessel Type*. Available at http://www.marad.dot.gov/ as of May 2010. **Terminals**: U.S. Army Corps of Engineers, Navigation Data Center, *Ports and Waterways Facilities*. Available at http://www.ndc.iwr.usace.army.mil/data/datapwd.htm as of May 2010.

Beach are larger.<sup>6</sup> The public Port Authority of New York and New Jersey, which coexists with privately managed terminals in the area, manages marine terminals (e.g., Brooklyn, Elizabeth, and Newark) and specialized facili-

<sup>&</sup>lt;sup>1</sup> Panama Canal Authority, *Panama Canal News (December 2009)*. Available at <a href="http://www.pancanal.com/">http://www.pancanal.com/</a> as of August 2010.

<sup>&</sup>lt;sup>2</sup> Calculations utilize a 4,500 v. 12,000 Twenty-foot Equivalent Unit (TEU) container vessels based on Panama Canal Authority, *Proposal for the Expansion of the Panama Canal: Third Set of Locks Project (April 24, 2006)*. Figure 30. Available at <a href="http://www.pancanal.com/">http://www.pancanal.com/</a> as of August 2010.

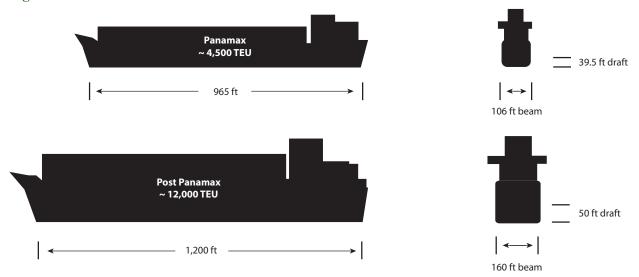
<sup>&</sup>lt;sup>3</sup> Panama Canal Authority, *Principle Commodities Shipped Through the Panama Canal (FY07-09)*. Available at <a href="http://www.pancanal.com/">http://www.pancanal.com/</a> as of August 2010.

<sup>&</sup>lt;sup>4</sup> Twenty-foot Equivalent Unit.

<sup>&</sup>lt;sup>5</sup> U.S. Army Corps of Engineers, Navigation Data Center, *Tonnage for Selected U.S. Ports in 2008*. Available at <a href="http://www.iwr.usace.army.mil/">http://www.iwr.usace.army.mil/</a> as of August 2010, and U.S. Army Corps of Engineers, Navigation Data Center, *U.S. Waterborne Container Traffic by Port/Waterway in 2008*. Available at <a href="http://www.iwr.usace.army.mil/">http://www.iwr.usace.army.mil/</a> as of August 2010.

<sup>&</sup>lt;sup>6</sup> U.S. Army Corps of Engineers, Navigation Data Center, *U.S. Waterborne Container Traffic by Port/Waterway in 2008*. Available at <a href="http://www.iwr.usace.army.mil/">http://www.iwr.usace.army.mil/</a> as of August 2010.

Figure 2: Panamax Versus Post-Panamax



This diagram illustrates the relative dimensions of current Panamax versus Post-Panamax containerships. The larger Post-Panamax vessels will be able to fit through the expanded Panama Canal, which the Panama Canal Authority has scheduled for completion in 2014.

**SOURCE**: Diagram based upon Panama Canal Authority, *Proposal for the Expansion of the Panama Canal: Third Set of Locks Project (April 24, 2006)*. Figure 30. Available at http://www.pancanal.com/ as of August 2010.

Table 1: Port of New York/New Jersey

Measure	Value
Vessel calls (all types), 2009	4,430
Tanker	1,296
Containerized	2,319
Dry bulk	221
RO/RO	494
Other (e.g., combination)	100
Vessel (all types) foreign value (in \$billion), 2009	\$146.01
Total foreign cargo tonnage (metric tons), 2009	77,836,857
Containerized foreign cargo value (in \$billion), 2009	\$104.55
Containerized foreign cargo tonnage (metric tons), 2009	27,829,184

**NOTES**: For an explanation of ship types, please refer to the Maritime Administration's *Glossary of Shipping Terms*, available at http://www.marad.dot.gov/documents/Glossary\_final.pdf as of August 2010. The source reports foreign value and tonnage entering by U.S. Customs District.

**SOURCES:** Vessel calls: U.S. Department of Transportation, Maritime Administration, U.S. Port Calls by Vessel Type. Available at http://www.marad. dot.gov/ as of October 2010. Value and tonnage: USA Trade Online, Annual Port-level Exports and Imports. Available at http://www.usatradeonline.gov/ as of August 2010.

ties in a 25-mile long port district. These ports handle a wide array of cargo, including break-bulk, container, and Roll On/Roll Off (RO/RO) vessels. However, containerships (52 percent) and tankers (29 percent) account for the majority of vessel calls (table 1).

# **Bayonne Bridge Air Draft**

The Port Authority of New York and New Jersey (PA-NYNJ) commissioned the U.S. Army Corps of Engineers to study the Bayonne Bridge's approximately 150 ft navigational clearance (a.k.a. air draft). The Bayonne Bridge connects Bayonne, NJ, and Staten Island, NY, over the Kill Van Kull<sup>2</sup>. The bridge's current air draft may pose a navigational barrier to larger vessels passing underneath. The PANYNJ is considering a range of options, including raising up the existing arch to provide clearance of 215 ft.<sup>3</sup>

#### Port of Savannah

The Port of Savannah, GA, was the second largest Atlantic coast container port<sup>9</sup> and the 22<sup>nd</sup> largest U.S. port in terms of tonnage handled in 2008.<sup>10</sup> Containerships

<sup>&</sup>lt;sup>7</sup> Port Authority of New York and New Jersey, *About*. Available at <a href="http://www.panynj.com/">http://www.panynj.com/</a> as of August 2010.

<sup>8</sup> Roll On/Roll Off vessels are equipped with ramps that allow wheeled vehicles to unload.

<sup>&</sup>lt;sup>1</sup> Port Authority of New York and New Jersey, *Bayonne Bridge Air Draft Analysis* (September 2009). Available at <a href="http://www.panynj.gov/">http://www.panynj.gov/</a> as of August 2010.

<sup>&</sup>lt;sup>2</sup> Port Authority of New York and New Jersey, *Bayonne Bridge History*. Available at <a href="http://www.panynj.gov/">http://www.panynj.gov/</a> as of August 2010.

<sup>&</sup>lt;sup>3</sup> Port Authority of New York and New Jersey, Bayonne Bridge Air Draft Analysis (September 2009). Available at <a href="http://www.panynj.gov/">http://www.panynj.gov/</a> as of August 2010.

<sup>&</sup>lt;sup>9</sup> U.S. Army Corps of Engineers, Navigation Data Center, *U.S. Waterborne Container Traffic by Port/Waterway in 2008*. Available at <a href="http://www.iwr.usace.army.mil/">http://www.iwr.usace.army.mil/</a> as of August 2010.

<sup>&</sup>lt;sup>10</sup> U.S. Army Corps of Engineers, Navigation Data Center, *Tonnage for Selected U.S. Ports in 2008.* available at <a href="http://www.iwr.usace.army.mil/">http://www.iwr.usace.army.mil/</a> as of August 2010.

accounted for over 77 percent of the vessel calls (table 2).

The Georgia Port Authority (GPA) owns and operates the major marine terminals (e.g., Garden City, Colonel's Island) in the region. <sup>11</sup> The GPA is adding container and gantry cranes. <sup>12</sup>

Table 2: Port of Savannah

Measure	Value
Vessel calls (all types), 2009	2,219
Tanker	186
Containerized	1,714
Dry Bulk	90
RO/RO	158
Other (e.g., combination)	71
Vessel (all types) foreign value (in \$billion), 2009	\$53.03
Total foreign cargo tonnage (metric tons), 2009	29,743,702
Containerized foreign cargo value (in \$billion), 2009	\$38.37
Containerized foreign cargo tonnage (metric tons), 2009	15,690,252

**NOTES**: For an explanation of ship types, please refer to the Maritime Administration's *Glossary of Shipping Terms*, available at http://www.marad.dot.gov/documents/Glossary\_final.pdf as of August 2010 The source reports foreign value and tonnage entering by U.S. Customs District.

**SOURCES**: Vessel calls: U.S. Department of Transportation, Maritime Administration, *U.S. Port Calls by Vessel Type*. Available at http://www.marad.dot.gov/ as of October 2010. Value and tonnage: USA Trade Online, *Annual Port-level Exports and Imports*. Available at http://www.usatradeonline.gov/ as of August 2010.

### **Bi-State Jasper County Terminal**

Georgia and South Carolina are jointly developing a new bi-state marine terminal in Jasper County, SC, along the Savannah River. The states are drafting an interstate compact, similar to the Port of New York and New Jersey, authorizing a bi-state port authority to own and operate this facility. The new bi-state marine terminal is in the early planning stages.

#### Port of Virginia

The Port of Virginia includes Norfolk and Newport News, with Norfolk accounting for 96 percent of the value handled. Over 85 percent of the value passing through Norfolk was containerized cargo. Norfolk was the third

largest container port along the Atlantic coast in 2008.<sup>13</sup> Norfolk and Newport News were the 16<sup>th</sup> and 34<sup>th</sup> largest customs ports in the United States, respectively, in terms of tonnage handled in 2008.<sup>14</sup> Containerships accounted for 65 percent and dry bulk accounted for 22 percent of vessel calls in the Port of Virginia in 2009 (table 3).

The Virginia Port Authority (VPA) owns and operates the major marine terminals (Newport News, Norfolk, and Portsmouth) in the region. In addition, the VPA recently signed a 20-year lease agreement to take charge of a private terminal in Portsmouth, VA.<sup>15</sup>

#### **Heartland Corridor**

The Heartland Corridor, a public-private partnership, will allow double-stack rail operations between the port, intermediate destinations, and Chicago, IL. The intermediate destinations include inland terminals in Winchester, VA, and near Columbus, OH<sup>1</sup>.

Table 3: Port of Virginia

Measure	Value
Vessel calls (all types), 2009	2,502
Tanker	131
Containerized	1,615
Dry bulk	547
RO/RO	122
Other (e.g., combination)	87
Vessel (all types) foreign value (in \$billion), 2009	\$45.49
Total foreign cargo tonnage (metric tons), 2009	45,444,276
Containerized foreign cargo value (in \$billion), 2009	\$37.14
Containerized foreign cargo tonnage (metric tons), 2009	10,509,713

**NOTES**: For an explanation of ship types, please refer to the Maritime Administration's *Glossary of Shipping Terms*, available at http://www.marad.dot.gov/documents/Glossary\_final.pdf as of August 2010 The source reports foreign value and tonnage entering by U.S. Customs District.

**SOURCES:** Vessel calls: U.S. Department of Transportation, Maritime Administration, *U.S. Port Calls by Vessel Type*. Available at http://www.marad.dot.gov/ as of October 2010. Value and tonnage: USA Trade Online, *Annual Port-level Exports and Imports*. Available at http://www.usatradeonline.gov/ as of August 2010.

#### Port of Charleston

Along the Atlantic coast, the Port of Charleston was the fourth largest U.S. container port in terms of TEU

<sup>&</sup>lt;sup>1</sup> Jasper County, SC. *Progress Update: Program Management for the Jasper Ocean Terminal (July 19, 2009)*. Available at <a href="http://www.jaspercountysc.org">http://www.jaspercountysc.org</a> as of August 2010.

<sup>&</sup>lt;sup>2</sup> SC State Ports Authority, *Future Port Development*. Available at <a href="http://www.port-of-charleston.com/">http://www.port-of-charleston.com/</a> as August 2010.

<sup>&</sup>lt;sup>11</sup> Georgia Port Authority, *Future Expansion*. Available <a href="http://www.gaports.com/">http://www.gaports.com/</a> of August 2010.

<sup>&</sup>lt;sup>12</sup> Georgia Port Authority, *Future Expansion*. Available <a href="http://www.gaports.com/">http://www.gaports.com/</a> of August 2010.

<sup>&</sup>lt;sup>1</sup> The Port of Virginia, *Heartland Corridor on Target for Summer Opening*. Available at <a href="http://blog.portofvirginia.com/">http://blog.portofvirginia.com/</a> as of August 2010.

<sup>&</sup>lt;sup>13</sup> U.S. Army Corps of Engineers, Navigation Data Center, *U.S. Waterborne Container Traffic by Port/Waterway in 2008*. Available at <a href="http://www.iwr.usace.army.mil/">http://www.iwr.usace.army.mil/</a> as of August 2010.

<sup>&</sup>lt;sup>14</sup> U.S. Army Corps of Engineers, Navigation Data Center, *Tonnage for Selected U.S. Ports in 2008*. Available at <a href="http://www.iwr.usace.army.mil/">http://www.iwr.usace.army.mil/</a> as of August 2010.

<sup>&</sup>lt;sup>15</sup> The Port of Virginia, *VPA Inks 20 – Year Lease Agreement for APMT Virginia*. Available at <a href="http://blog.portofvirginia.com/">http://blog.portofvirginia.com/</a> as of August 2010.

handled,<sup>16</sup> but the 39<sup>th</sup> largest U.S. port in terms of tonnage handled in 2008.<sup>17</sup> Containerships accounted for 70 percent and RO/RO accounted for 14 percent of the vessel calls (table 4).

The South Carolina State Ports Authority (SCSPA) owns and operates five marine terminals in the region, three of which are container terminals (North Charleston, Columbus Street, and Wando Welch). <sup>18</sup> The SCSPA is also constructing a new container terminal on the site of the former Naval Base Charleston. <sup>19</sup>

**Table 4: Port of Charleston** 

Measure	Value
Vessel calls (all types), 2009	1,865
Tanker	156
Containerized	1,312
Dry Bulk	64
RO/RO	261
Other (e.g., combination)	72
Vessel (all types) foreign value (in \$billion), 2009	\$44.93
Total foreign cargo tonnage (metric tons), 2009	12,673,486
Containerized foreign cargo value (in \$billion), 2009	\$33.53
Containerized foreign cargo tonnage (metric tons), 2009	7,668,617
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**NOTES**: For an explanation of ship types, please refer to the Maritime Administration's *Glossary of Shipping Terms*, available at http://www.marad.dot.gov/documents/Glossary\_final.pdf as of August 2010. The source reports foreign value and tonnage entering by U.S. Customs District.

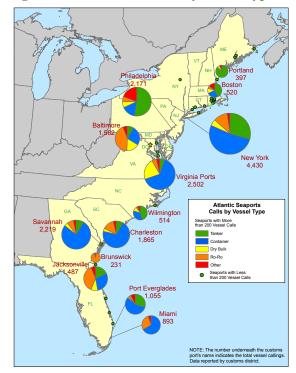
**SOURCES:** Vessel calls U.S. Department of Transportation, Maritime Administration, *U.S. Port Calls by Vessel Type*. Available at http://www.marad.dot.gov/ as of October 2010. Value and tonnage: USA Trade Online, *Annual Port-level Exports and Imports*. Available at http://www.usatradeonline.gov/ as of August 2010.

#### Select Atlantic Seaports, Vessel Type

Figure 3 shows that seaports often specialize in cargo handling by vessel type. For instance, Baltimore is the leading port for RO/RO vessels. New York/New Jersey followed by Philadelphia are the leading ports for tankers.

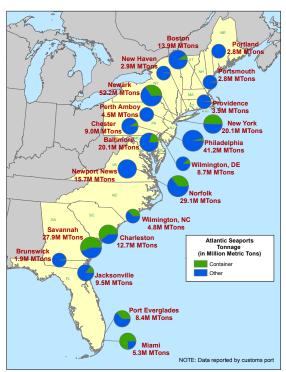
Table 5 shows that the ports of New York/New Jersey, Savannah, Virginia, and Charleston are the leading container ports along the Atlantic coast. Figure 3 and table 5 have different port ranges than figure 4 and table 6 due to differing data sources.<sup>20</sup>

Figure 3: Atlantic Port Call by Vessel Type, 2009



**SOURCE**: U.S. Department of Transportation, Maritime Administration, *U.S. Port Calls by Vessel Type*. Available at http://www.marad.dot.gov/as of August 2010.

Figure 4: Atlantic Port Call by Tonnage, 2009



**SOURCE**: USA Trade Online. *Annual Port-level Imports and Exports*. Available at http://www.usatradeonline.gov/ as of August 2010.

<sup>&</sup>lt;sup>16</sup> U.S. Army Corps of Engineers, Navigation Data Center, *U.S. Waterborne Container Traffic by Port/Waterway in 2008*. Available at <a href="http://www.iwr.usace.army.mil/">http://www.iwr.usace.army.mil/</a> as of August 2010.

<sup>&</sup>lt;sup>17</sup> U.S. Army Corps of Engineers, Navigation Data Center, *Tonnage for Selected U.S. Ports in 2008*. Available at <a href="http://www.iwr.usace.army.mil/">http://www.iwr.usace.army.mil/</a> as of August 2010.

<sup>&</sup>lt;sup>18</sup> SC State Ports Authority, *Terminals*. Available at <a href="http://www.scspa.com/">http://www.scspa.com/</a> as August 2010.

<sup>&</sup>lt;sup>19</sup> SC State Ports Authority, Charleston Expansion Advances – Major Construction Project Out for Bid (02/13/2009). Available at <a href="http://www.port-of-charleston.com/">http://www.port-of-charleston.com/</a> as of August 2010.

<sup>&</sup>lt;sup>20</sup> For additional information on Customs Districts and Ports, please see Schedule D, which is available at <a href="http://www.census.gov/foreign-trade/schedules/d/distcode.html">http://www.census.gov/foreign-trade/schedules/d/distcode.html</a>.

Table 5: Select Atlantic Coast U.S. Seaports' Vessel Calls, 2009

Port	State	All types	Tanker	Container	Dry bulk	RO-RO	Other
New York/New Jersey	NY/NJ	4,430	1,296	2,319	221	494	100
Virginia Ports	VA	2,502	131	1,615	547	122	87
Savannah	GA	2,219	186	1,714	90	158	71
Philadelphia	PA	2,171	1,140	340	146	125	420
Charleston	SC	1,865	156	1,312	64	261	72
Baltimore	MD	1,562	128	397	267	675	95
Jacksonville	FL	1,487	267	434	135	555	96
Port Everglades	FL	1,055	316	597	21	38	83
Miami	FL	893	2	591	1	251	48
Boston	MA	520	221	133	58	31	77
Wilmington	NC	514	235	174	51	19	35
Portland	ME	397	345	0	26	0	26
Brunswick	GA	231	0	0	4	215	12

**NOTES**: For an explanation of ship types, please refer to the Maritime Administration's *Glossary of Shipping Terms*, which is available at http://www.marad.dot.gov/documents/Glossary\_final.pdf.

**SOURCE**: U.S. Department of Transportation, Maritime Administration, *U.S. Port Calls by Vessel Type*. Available at http://www.marad.dot.gov/as of October 2010.

### Select Atlantic Seaports, Tonnage

Figure 4 shows Newark, NJ, as the leading U.S. Customs port for vessel tonnage. Philadelphia, PA, is second, followed by Norfolk, VA, Savannah, GA, and Baltimore, MD.

Table 6 shows Newark is the leading U.S. Customs port for total cargo tonnage and vessel value. Savannah is second in foreign vessel value, followed by New York, NY, Charleston, SC, and Norfolk, VA. ❖

Table 6: Select Atlantic Coast U.S. Seaports' Total and Containerized and Tonnage Value, 2009

U.S. Customs Port	State	Total foreign cargo tonnage (metric tons)	Vessel (all types) foreign value (in U.S. \$millions), 2009	Containerized foreign cargo tonnage (metric tons), 2009	Containerized foreign cargo value (in U.S. \$millions), 2009
Newark	NJ	52,232,350	\$97,615	17,994,998	\$69,808
Philadelphia	PA	41,189,897	\$23,270	1,706,121	\$5,342
Norfolk	VA	29,056,426	\$42,954	10,327,440	\$36,548
Savannah	GA	27,884,125	\$46,573	15,643,752	\$38,006
Baltimore	MD	20,130,933	\$30,117	4,005,727	\$14,910
New York	NY	20,087,191	\$45,203	9,823,596	\$34,562
Newport News	VA	15,653,767	\$2,006	66,812	\$179
Boston	MA	13,890,509	\$8,295	1,249,613	\$3,579
Charleston	SC	12,654,943	\$44,903	7,662,403	\$33,531
Jacksonville	FL	9,456,622	\$13,505	1,393,230	\$3,683
Chester	PA	8,957,434	\$6,863	763,135	\$2,856
Wilmington	DE	8,681,392	\$4,580	1,012,013	\$721
Port Everglades	FL	8,351,458	\$16,269	3,041,837	\$9,913
Miami	FL	5,347,475	\$18,536	4,024,261	\$14,627
Wilmington	NC	4,778,994	\$6,116	1,728,475	\$4,421
Perth Amboy	NJ	4,522,623	\$2,414	8,591	\$175
Providence	RI	3,885,236	\$3,759	69,003	\$23
New Haven	CT	2,930,609	\$1,337	35,261	\$3
Portland	ME	2,822,972	\$1,362	6,672	\$4
Portsmouth	NH	2,787,322	\$1,080	56,593	\$88
Brunswick	GA	1,859,577	\$6,457	46,501	\$363

**NOTES**: Please refer to the Maritime Administration's *Glossary of Shipping Terms*, which is available at http://www.marad.dot.gov/documents/Glossary\_final.pdf for an explanation of container.

SOURCE: USA Trade Online, Annual Port-level Exports and Imports. Available at http://www.usatradeonline.gov/ as of August 2010.

# **BTS Fact Sheet**

#### **About This Fact Sheet**

Matthew Chambers, a Senior Transportation Specialist, in the Bureau of Transportation Statistics (BTS) prepared this fact sheet. Dominic Menegus, a Geographic Information Systems (GIS) Analyst, provided special assistance creating the maps. BTS is a component of the U.S. Department of Transportation's Research and Innovative Technology Administration (RITA).

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