

The Port of Virginia

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THE PORT OF VIRGINIA

Building A Brighter, Cleaner, Greener Future.



October 2010

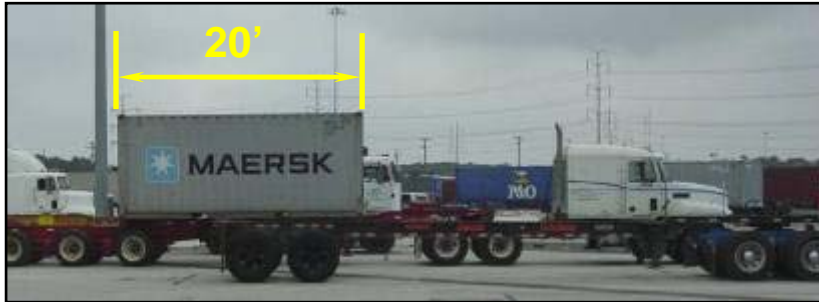
The Hampton Roads Harbor



- Center of Trade and Commerce in Virginia for Nearly 400 Years
 - Located on One of the World's Largest Natural Harbors, Just 18 Miles from the Open Ocean
- The Virginia Port Authority (VPA)
 - An Agency of the Commonwealth reporting to the Secretary of Transportation
 - Fosters and Stimulates the Commerce of the Commonwealth
 - Engages in Promoting, Developing, Constructing, Equipping, Maintaining and Operating the Harbors and Seaports Within the Jurisdiction of the Commonwealth

- The Port of Virginia is an economic engine for the Commonwealth
 - 345,000 Port and port-Related jobs statewide
 - \$41 Billion in business revenues
 - \$1.2 Billion in state and local taxes
- Increased port growth results in more jobs and revenues for the Commonwealth

TEU – What Is It?



One 20' container = 1 TEU



One 40' container = 2 TEU



Typical over the road truck

- Port capacity and productivity is often measured in TEUs
- TEU stands for “Twenty Foot Equivalent Unit”
- Original containers were 20’ Long
- Today, most cargo is moved in 40’ containers

- Containers are used to ship goods
 - Electronics
 - Textiles
 - Toys
 - Beverages
 - Food
 - Cigarettes
 - Raw Materials

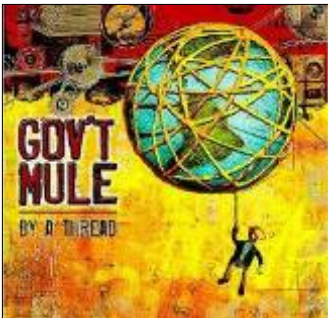


ALMOST ANYTHING CAN BE SHIPPED IN A CONTAINER

One 40 ft. Container



= 1,512 Cases @ \$28.00/case = \$42,336



= 84,000 Music CDs @ \$14.98/ea = \$1,258,320



= 4,500 Pairs @ \$142.00/pair = \$639,000



= 150 42" Flat Panel TVs @ \$899/ea = \$134,568

The nearly 1.8 Million TEUs moving over the Port of Virginia in 2009 were transported by:



4% Barges



30% Rail



66% Trucks



Mid Atlantic Location

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The Port of Virginia is within a day's drive of two-thirds of the U.S. population



APM Terminals Portsmouth

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Opened Sept. 2007
Total Acreage: 230
Pier Length: 3200 ft.
Depth: 55 ft.
Cranes: 6
Capacity: 1 Million TEUs
Cost: \$500 Million

Craney Island Eastward Expansion



Environmental Management



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First Major East Coast Port to Achieve ISO 14001 & 9000 Certification in June 2008

Port Culture

- Environmental Awareness and Stewardship
- Operational Efficiency
- Customer Service

Port Policy

- Pollution Prevention
- Compliance
- Continual Improvement of Business and Environmental Performance

Diesel Engine Replacement 1999 To Present

- Cargo Handling Equipment Meets Or Exceeds EPA Emissions Requirements
 - Use of “On-road” Engines / Engine HP Reduction

From 1995 through 2005 -
Cargo Traffic Increased 55%
Cargo Handling Emissions
Decreased 33%



Universal Chassis Pool Since 2005

- 100% Participation from Shipping Lines
- Average Turn Times Decreased by 10%
- 1.2 M Gallons of Fuel Saved Annually
- 1,500 Tons/YR of GHG



Early Voluntary Conversion to Ultra-Low Sulfur Diesel Fuel in 2007

- All Cargo Handling Equipment
- 3 Years Ahead of EPA Requirements
- Cleaner Fuel = Lower Maintenance Costs

More Efficient Equipment Operation

36% Reduction in PM Emissions / YR

SOx Emissions Eliminated

5% Biodiesel Blend - 2010



I-64 Express Barge Service Started in 2008

- Weekly service between NIT and Port of Richmond
- 12,000 trucks removed from highways and local roads

184,615 gallons of diesel fuel saved annually

\$550,000 annual reduction in fuel costs

30-40% reduction in emissions compared to moves via truck



Inter-Terminal Barge Service



Hybrid and Ultra-Low Emission Locomotives

- 1 - Hybrid Yard Switcher (2,000 HP)
- 2 - Eco-Motive GenSet Yard Switchers (2,000 HP)
 - 50% Reduction in Fuel Consumption (Hybrid)
 - 80% Reduction in NOx Emissions



“Green Goat”

NIT Central Rail Yard Expansion

- 30% of container volume moved by rail
- 240,000 rail moves per year
- Rail capacity will triple upon completion in 2011

Heartland Corridor, 2010

Panama Canal Expansion, 2014

Future Cross Dock Rail Facility
at Virginia Inland Port



Green Operator Retrofit Program – “GO”

- First Voluntary Diesel Truck Retrofit Program
 - Partners include VPA, EPA, VDEQ, VA. Clean Cities Short Distance Freight Carriers & Truck Dealers
 - \$1.2M funding, \$6,000 Rebate
 - 200 Truck Goal, 20% of Fleet Servicing VPA Terminals
- 160 Retrofit/Replace commitments prior October 2010
 - 72 completed as of May 2010
- Emissions Reductions of 15% Expected
 - 15 % Reduction in Ozone Contributors



- Baker Street Office Building - 23,000 sq. ft.
 - Geothermal HVAC
 - Natural, photocell, and occupancy lighting.
 - Exceeds minimum LEED design requirements by 38%.
- Active Energy Management - NIT
 - Web-based, real-time energy management and monitoring technology
- LED Lighting – NIT

Alternative/Supplemental Power Generation

- Wind / Solar/ Biofuel – Power for terminal operation

Emission Reduction Program for Vessels

- Modeled after Green Operator
- Alternative Marine Power

Sustainable Design for the Craney Island Marine Terminal

- Alternative Power Generation
- Alternative Marine Power
- Automation



Environmental Recognition

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- EPA Environmental Achievement Award – September 25, 2008
- Commonwealth of Virginia, Governor's Environmental Excellence Award - 2006
- Sustained Distinguished Service as a Model Level River Star - January 2006-2010



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