



Keeping Freight Moving 2016 Port & Terminal Technology Conference



















- Charleston is the 9th largest US container port.
- 2 Million TEU in CY2015.
- 250,000 Export Ro/Ro vehicles.
- \$30 Million operating earnings.
- \$1 Billion asset base.
- \$53 Billion annual impact.
- 1 In 11 SC jobs are directly or indirectly tied to port activity.

South Carolina's major strategic asset.

















Fast Facts On US Ports: 2014 Volume

Source: JOC Global Port Tracker, AAPA (Alaska & Hawaii ports excluded).

Measure	USWC	USEC & Gulf	Total
TEU (Load & Empty)	21.5 Million	21.5 Million	43.0 Million
TEU (Loads Only)	14.9 Million	16.7 Million	31.6 MIllion
Asia TEU (Loads Only)	13.4 Million	7.1 Million	20.5 Million





















Observations on US Port Flows:

US Ports = 6% of global port throughput.

LA/LB and NY/NJ = 50% of US container trade.





Fastest growing US ports since 2010 in South & Gulf.

Asia/US trade now 65% USWC and 35% USEC & Gulf.

Asia/US trade can go to 50/50 with Panama Canal expansion.



Lowest total doorto-door cost will determine routing.









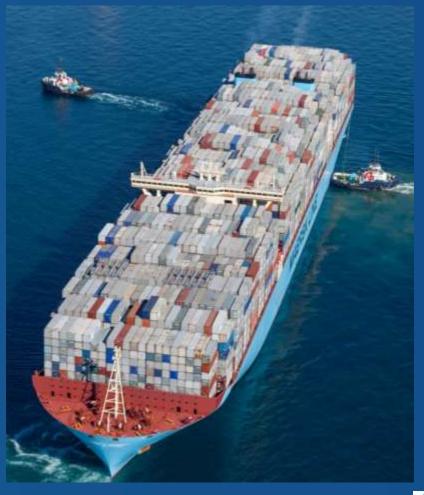








Global Container Fleets Changing Fast:





- Dominant theme is very large containerships.
- By 2018 there will be 19 million TEU of ship capacity over 3,000 TEU in size.
- 61% Of this capacity on vessels greater than 7,500 TEU (VLCS).
- Very little newbuilding below 7,500 TEU.
- 57% of VLCS capacity operated by the world's 4 largest carriers.

















Current & Future USEC Big Ships:



8,750 TEU

LOA: 1,100 ft.

Beam: 142 ft.

Air Draft: 160 ft.

Full Draft: 48 ft.

13,800 TEU

LOA: 1,200 ft.

Beam: 165 ft.

Air Draft: 180 ft.

Full Draft: 52 ft.



















Summary of Implications for US Ports:



Moderate US trade growth (1x – 2x GDP).

Bayonne Bridge last remaining

constraint.

Not all ports can keep up in terms of investment & depth.

Big ships coming to a port near you.

East & Gulf Coast ports continue to grow faster than West Coast.

Enhanced Panama Canal recaptures its share of US flows.





































Sustained Investment In Port Infrastructure Is Critical:

Total 10-Year CAPEX Commitr	\$2 Billion		
New Dual Access Intermodal Railhead	\$250 Million	(\$750 Million)	
Port Access Road	\$225 Million	South Carolina	
Harbor Deepening to 52 Feet	\$300 Million	State of	
Other Infrastructure & IT Projects (Interstate Highway Expansion, Existing Facility Improvements, Container Cranes, New IT Systems, etc.)	\$600 Million	South Carolina Ports Authority (\$1.35 Billion)	
S.C. Inland Port	\$50 Million		
New Container Terminal (Phase 1)	\$700 Million		

















Proper Returns On Capital Required:



Savannah 9%

Charleston 4%





Houston 4%

Norfolk 1%



















The Math of Terminal Investment:

	FY2015 Actual	FY2015 Required	FY2020 Required
Operating Earnings	\$30 Million	\$60 Million	\$120 Million
Asset Base	\$1 Billion	\$1 Billion	\$2 Billion
Percentage ROCE	3%	6%	6%

























Inland Transport Is Also Critical:

Big ships will create spikes in volume. How will we adjust to keep freight moving through the entire supply chain?

- Truck capacity.
- Extended gate hours.
- The rise of inland ports.
- Class 1 rail connectivity.
 - > Intermodal freight.
 - Bulk transload to containers.

















Manufacturing Is Vital To SC Ports:





These "Top 5" manufacturers account for 10% of Charleston container volume today.









Volvo will add 20,000+ imported containers and 50,000 finished vehicles.

