Shifting Trade Patterns
A VIEW FROM THE WEATHER DECK

National Freight Infrastructure Policies
The Impact of Shifting Trade Patterns
Infrastructure Needs & Investment Plans

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A Presentation By
Bruce E. Cashon
CCO & Senior Vice President
Ceres Terminals Incorporated
The Backdrop: National Freight Policy
(Or Lack Thereof)

- Ports and their respective intermodal landside connections move 90% of our Country’s international trade.

- 2011 U.S. waterborne freight totaled nearly 1.4 billion metric tons with a value of over $1.4 trillion.

- This shipping activity represents over 25% of the U.S. Gross Domestic Product and provides over 13 million U.S. jobs.
◆ SHIFTING TRADE PATTERNS
What Does It Mean To The Stevedore/TO?

◆ INFRASTRUCTURE REQUIREMENTS & INVESTMENTS
Who Is Investing Where?

◆ NATIONAL INFRASTRUCTURE FREIGHT POLICY
What Is The Best Way That The Private Stevedore/TO Can Participate?
**SHIFTING TRADE PATTERNS:** The So-Called “MEGA SHIPS” Are Already Here With More Coming In Multiple Trade Lanes. For The Stevedore/TO, It’s All About The Ship!

### Newbuilding Delivery Projections - Cellular Fleet

<table>
<thead>
<tr>
<th>Nominal TEU</th>
<th>2010 Deliveries</th>
<th>2011 Deliveries</th>
<th>2012 Deliveries</th>
<th>2013 Deliveries</th>
<th>2014 Deliveries</th>
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<tr>
<td></td>
<td>No.</td>
<td>TEU</td>
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<td>47</td>
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<td>7,500-9,999</td>
<td>32</td>
<td>275,295</td>
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<td>218,717</td>
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### Cellular Fleet Projections

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<tr>
<td>Nominal TEU</td>
<td>No.</td>
<td>TEU</td>
<td>No.</td>
<td>TEU</td>
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### Global Capacity Deployment Breakdown By Trade (As At 1 Nov. 2011)

#### By Vessel Count

<table>
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<tr>
<th>Trade</th>
<th>Size Range</th>
<th>Total Cellular Units</th>
<th>Non-Cellular Units</th>
<th>Total Liner Units</th>
<th>%</th>
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<td>3</td>
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<td>Europe-Far East</td>
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<td>108</td>
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</table>
Dredging: The Beat Goes On But Seems Fragmented & Tedious

◆ **Ports Want Army Corps, HMT Reform In WRDA** • September 20, 2012

◆ **Congress Hears Calls for New Approach on Port Funding** • June 22, 2012
Army Corps of Engineers urges thinking outside the box to fund harbor dredging, locks and dams projects

◆ **Dredging Projects Fast-Tracking In The East** • July 30, 2012
A federal promise puts East Coast Ports from New York to Miami on the fast track to deeper channels

◆ **Savannah River Dredging Gets Green Flag** • October 30, 2012

◆ **Charleston Dredging Project Beating Expectations** • July 11, 2012

◆ **Florida Governor Seeks Dredging, Highway Funds Over Rail** • February 16, 2011

◆ **Kickoff Of Port Of Miami’s Deep Dredge Project’s Contracting Phase** • October 16, 2012

◆ **Final $7.5 Million In Funding Approved For The Port of Los Angeles’ Main Channel Deepening Project** • September 24, 2012

◆ **Dredging: Seemingly A Fragmented and Tedious Process**
Trust Fund Surplus Is Skyrocketing!

Sources: AAPA, Budgets of the United States, Energy and Water Development Appropriations Acts, MARAD, and the Corps of Engineers
INFRASTRUCTURE REQUIREMENTS & INVESTMENT PLANS

ROADS, BRIDGES & TUNNELS
While Port Authorities and their business partners are making major investments into port facilities, studies show the intermodal links, such as roads, bridges and tunnels to access these facilities, get scant attention by state and federal agencies responsible for their upkeep. Thus, resulting in traffic bottlenecks that increase product costs and hamper job growth. (AAPA)

HIGHWAYS
Number of Highway Miles in the U.S. 47,013
Current Spending 42 Billion Annually
Ideal Spending $146 Billion to $310 Billion Annually
Over A 15 to 50-Year Period

The top 10 highway interchange bottlenecks in the nation delay truck shipments by an average of 1.5 million hours a year. (Kiplinger)

BRIDGES
Number of Bridges in the U.S. 590,766
Number of Deficient Bridges 152,316
Current Spending $5.2 billion annually
Ideal Spending $19 billion annually over a 50-year period

The average age of bridges in America stands at 43. (Kiplinger)

PORTS
Number of Commercial U.S. Seaports 360
Current Spending About $850 million annually
Ideal Spending About $1.8 billion annually (Kiplinger)
RAILROAD INFRASTRUCTURE INVESTMENT:
PRIVATE & PUBLIC/PRIVATE PROJECTS
Railroads have spent $500 billion since 1980 building, maintaining and growing their 140,000 mile rail network. During the economic downturn, America’s freight railroads spent approximately $20 billion annually to build and maintain the most efficient rail system in the world. In 2012, that investment is expected to increase to an estimated $23 billion, helping to keep America competitive. (AAR)

HEARTLAND CORRIDOR
A public-private partnership among Norfolk Southern and federal and state agencies to increase vertical clearances in 28 tunnels and remove 24 overhead obstructions to allow passage of double-stacked container trains between the Port of Virginia and Columbus, Ohio.

NATIONAL GATEWAY
A partnership between CSX, six states and the District of Columbia, CSX’s National Gateway will be a state-of-the-art rail corridor connecting Mid Atlantic seaports and consumption centers to consumers and manufacturing centers in the Midwest.

TRANSCON CORRIDOR
Spanning 4,647 route miles and traversing 13 states, BNSF Railway’s Transcon Corridor connects the ports and markets in California and the Southwest to the Midwest, Texas and the Southeast.
**SANTA TERESA**
Union Pacific Railroad (UP) and the State of New Mexico recently announced a partnership to construct a state-of-the-art rail facility in the southern part of the state. It will provide southern New Mexico, with a key inland port, positioning the Santa Teresa area as a strategic focal point for goods movement in the southwestern U.S.

**CRESCENT CORRIDOR**
A partnership between Norfolk Southern (NS) and 13 states, the Crescent Corridor is a 2,500 mile rail infrastructure project stretching from the Gulf Coast to the East Coast.
MAP-21, the MOVING AHEAD FOR PROGRESS IN THE 21ST CENTURY ACT does not include a stand alone freight program or dedicated formula funding for freight but introduces several new provisions to Federal Transportation Policy.

◆ In particular, MAP-21 establishes the need for a National Freight Policy, prioritizes freight projects and recommends the creation of State Freight Advisory Boards and State Freight Plans.

◆ The Projects of National and Regional Significance, a MAP-21 program applicable to freight, was authorized out of the General Fund at $500 million for FY 2013 although it will not be funded at all in FY 2014.

◆ The National Freight Policy program will establish goals and recommend the designation of a National Freight Network.

◆ MAP-21 directs U.S. DOT to develop a freight strategic plan to assess the conditions and performance of the National Freight Network, identify highway bottlenecks and estimate the cost of resolving those bottlenecks.

◆ On the financing side, MAP-21 also raises the federal share for eligible projects to 95 percent for projects on the Interstate System and 90 percent for other eligible projects. Eligible projects include construction and operational improvements for freight, intelligent transportation systems, grade separations, geometric improvements, truck-only lanes, improvements to freight intermodal connectors, and improvements to truck bottlenecks.
What Is The Best Way That The Private Stevedore/TO Can Participate?

ADD/UPGRADE TERMINAL CAPACITY
U.S. ports and their private sector partners plan to spend more than $46 billion collectively over the next five years in marine terminal capital improvements - most public ports have sound master plans in place but may face funding challenges to complete. The private sector is increasingly being included in these plans.

◆ Port Newark Container Terminal Details Expansion Plan • January 14, 2013
◆ LB Terminal Investment Gives CMA CGM Home in U.S. • December 18, 2012
◆ LA Approves TraPac Construction Projects • November 8, 2012
◆ APL Terminal Project Gets Green Light in LA • June 7, 2012
◆ Port of Los Angeles Approves Eagle Marine Services' "Pier 300" Container Terminal Expansion • June 8, 2012
◆ Baltimore Gets Four Super-Post-Panamax Cranes • June 21, 2012
◆ OOCL, Long Beach Sign 40-Year Lease • April 3, 2012
◆ NY-NJ's Global Reach • March 26, 2012
◆ APM Terminals Bids to Take Over Virginia Terminals • May 23, 2012
◆ Global Details Terminal Expansion Plans • May 9, 2012
What Is The Best Way That The Private Stevedore/TO Can Participate?

IMPROVE VELOCITY/DENSITY
◆ Technology critical to improving operations
◆ Equipment enhancements maximize space utilization
◆ Gate/TOS – systems continue to evolve/improve
◆ Automate – one size does not fit all and likely will be gradual
◆ OOCL Middle Harbor, Trapac, APL LA, APM NFK, Global NY
◆ Off Peak Terminal Ops, Pier Pass LALB

CHASSIS POOLS
Improved asset utilization, reduce terminal space requirements

SATELLITE/INLAND TERMINALS
Accommodate inbound loads/mts

INTERMODAL/RAIL INFRASTRUCTURE INTERFACE
On/near dock rail improvements

GREY BOX POOLS
Unlikely near-term but perhaps now more momentum

FREIGHT POLICY COUNCIL
Continue active participation
NATIONAL FREIGHT POLICY??
THE SIGNS ARE PROMISING BUT CAREFUL WHAT YOU WISH FOR!

TRADE PATTERNS
◆ VLCS/ULCS (More than 7500 TEU vessels) are here.
◆ Larger ships will increasingly be staple of major trade lanes/ports

INFRASTRUCTURE INVESTMENT REQUIREMENTS
◆ Substantial Private/Public investment in play
◆ Focus remains fragmented by modal type
NATIONAL FREIGHT POLICY??
THE SIGNS ARE PROMISING BUT CAREFUL WHAT YOU WISH FOR!

NATIONAL FREIGHT INFRASTRUCTURE POLICY
◆ Heightened Focus On Dredging
◆ MP-21 Designates The Need For A National Freight Program
◆ The Private Sector Is Investing Carefully
◆ Sound Signs Of Public/Private Success
◆ National Network Funding Sources Remain Murky
Thank You!
Enjoy Your Stay in Tampa.