Diagnosing the Marine Transportation System:  
Measuring Performance and Targeting Improvement  

Biennial Research and Development Conference  
National Academy of Sciences  
2101 Constitution Avenue NW • Washington, DC  
June 26 - 28, 2012

TUESDAY, June 26

7:30am – 4:00pm  
Registration

7:30am – 8:45am  
Exhibits and Breakfast

8:45am-9:00am  
Welcome and Call to Order  
W. Jeff Lillycrop, USACE and Conference Organizer

9:00am - 9:15am  
Opening Session: Conference Overview and Introduction of Keynote Speakers  
Margaret Spring, NOAA COS/CMTS CB Chair, presiding

9:15am - 9:45am  
Keynote Address, National Freight Policy – John Porcari, Deputy Secretary of US DOT

9:45am - 10:15am  
Keynote Address, An Integrated Transportation System – General Michael J. Walsh, USACE

10:15am – 10:45am  
Morning Break and Exhibits

10:45am - 12:15pm  
Plenary Session I: Highway, Railroad, and Waterway Performance Indicators  
Ed Strocko, FHWA, presiding (INVITED)

American Association of State Highway Transportation Officials – Sean Connaughton  
Association of American Railroads - John Gray  
American Waterways Operators –Rick Calhoun, Cargill (INVITED)  
U.S. Army Corps of Engineers- Jim Walker

12:15pm - 2:00pm  
LUNCH & Keynote Speaker – Dr. Vijay Perincherry, HDR Decision Economics

2:00pm - 3:30pm  
TECHNICAL BREAKOUT SESSIONS – Measuring Performance  
1A: Capacity  
- “Marine Highway Transport of Toxic Inhalation Hazard (TIH) Materials” - Annie Protopapas, C. James Kruse, Leslie E. Olson, Mike Donelan and Nathan Hutson  
- “Measuring the Effect of a Lack of Maintenance Dredging of Ship Channels” - C. James Kruse  
- “Container Port Capacity and Productivity Metrics” – Daniel Smith and Frank Harder  
- AIS presentation – Jason Tieman
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1B: Energy & Environment
- “A PIANC Standard of Practice for Performing Initial Assessments of Environmental Effects for Navigation Infrastructure Projects” - Burton C. Suedel, Edmond J. Russo, Todd S. Bridges, and Sandra M. Brasfield
- “Effects of EEDI on the Marine Transportation System” - William Hockberger

1C: Resilience & Reliability
- “The Navigation Strategic Vision’s Contribution to Performance Metrics” - James E. Clausner
- National Dredging Quality Management Program Presentation – Vern Gwin

1D: Investment, Economics & Jobs
- “AMH Modeling Toolset” – Jacek Kawecki
- “Navigation Investment Model: Challenges in measuring economic benefits” - Ingrid K. Busch and Michael R. Hilliard
- “Ultimate Economic Measures of Performance” - William Hockberger

3:30pm – 4:00pm
Afternoon Break and Exhibits

4:00pm - 5:30pm
TECHNICAL BREAKOUT SESSIONS – Targeting Improvement

2A: Capacity
- “AIS History and Future Improvements in Waterway Management” – Brandan Scully and Ned Mitchell
- “Combination Marine Highway System (CMH) for Avoiding Recurring Congestion Bottlenecks” - K. Thirumalai and Michael S. Bronzini
- “U.S. Seaports and Megaregions: A Social Network Analysis Approach” - Jonathan L. Gifford, Laurie Schintler, Xin Zhou, Nobuhiko Daito, Junyang Yuan, Zhenhua Chen, Jing Li

2B: Safety & Security
- “Measuring MTS Safety & Security – A Coast Guard perspective” - Aaron Sanders
- “A Geospatial Tool for Assessing the Importance of Marine Waterways” - Shih-Miao Chin, Ho-Ling Hwang and Francisco Moraes de Oliveira-Neto

2C: Energy & Environment

2D: Resilience & Reliability
- “Measuring Port Effectiveness in User Service Delivery” – Mary R. Brooks and Tony Schellinck

TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES
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- “Port Commerce and Urban Land Use: Economic Competitiveness in the 21st Century” - Adam Davidson, Jonathan Peters, Rich Flanagan and Cameron Gordon
- “Assessing the Feasibility of Inland Waterway Emergency Services” - Heather Nachtmann, Edward A. Pohl

2E: Investment, Economics & Jobs
- “New Approaches for Lock and Dam Maintenance Funding” - C. James Kruse and Annie Protopapas
- “Financing the Future: Financial Performance, Modernization and Funding Options for the Port Authority's Staten Island Bridges” – Thomas Brigandi and Jonathan Peters
- “Measuring a Port's Performance Using the Economic Value of Commodities” – Zamira Simkins and Richard Stewart
- Marine Data Presentation – Jim McCarville

WEDNESDAY, June 27

7:30am – 4:00pm
Registration

7:30am – 8:30am
Exhibits and Breakfast

8:30am - 10:30am
Plenary Session II: Gateways & Intermodal Connection Performance Indicators
Jean Godwin, AAPA, presiding

U.S. Coast Guard – Commander Aaron Sanders
Maritime Administration – Buff Byington (INVITED)
Port of Pittsburgh – Jim McCarville
Virginia Port Authority – Greg Edwards
National Industrial Transportation League

10:30am – 11:00am
Morning Break and Exhibits

11:00am - 12:30pm
TECHNICAL BREAKOUT SESSIONS
3A: Supply Chain Interdependencies
- “Concordance of Maritime Performance Measures for Deepwater, Waterway and Landside Systems” – Sophie Hartshorn
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• “It’s Elemental - How Principles and Simple Tools of Performance Management Can ‘Anchor’ CMTS and Facilitate ‘Managing and Messaging’ Performance” - Elizabeth Davenport
• “Validation and Integration of Waterway Flows in the Freight Analysis Framework with the Waterborne Commerce of the United States” - Shih-Miao Chin, Moraes Oliveira-Neto, and Ho-Ling Hwang

3B: Data Framework
• "Maritime Data and Statistics Support the National Export Initiative” – Matthew Chambers and Mindy Liu
• “Information Sharing and Communication through the Marine Transportation System Data Portal” – Alyson Azzara
• "Supporting Secure and Resilient Inland Waterways: Data Frameworks to Improve Emergency Decision Making Capabilities” - Henry Mayer, Heather Nachtmann, Letitia Pohl, Matt Campo, Jennifer Rovito

3C: Asset Management / Risk Management
• "Asset Management Process for Coastal Navigation Structures” – George Domurat
• “Characterizing Risk in the Global Supply Chain” – Aaron Sanders
• “Modeling the Effect of Sea-Level Rise on Risks to Coastal Infrastructure using Bayesian Networks” - Martin T. Schultz and Edmond J. Russo

3D: Future and Emerging Capabilities

12:30pm - 2:00pm
LUNCH & Keynote Speaker – Steven Caldwell, GAO

2:15pm - 4:00pm
Plenary Session III: Carriers, Users & Marketplace Dynamics
TBD, presiding
   Walmart – Tracy Rosser (INVITED)
   Ingram Barge – Jerry Knapper
   Maersk – Steven Carmel
   USDA – Nick Marathon
   FMC – Roy Pearson (INVITED)

4:30pm - 7:30pm
Reception
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THURSDAY, June 28

7:30am – 8:00am
Exhibits and Breakfast

8:00am – 8:30am
Keynote Speaker – Dr. Tom Wakeman, Steven Institute of Technology

The Role of Technology to Enhance Competitiveness and Reliability: Tools, Trends and the Global Perspective

8:30am – 10:30am
Plenary Session IV: Conference Products
W. Jeff Lillycrop & Kenneth N. Mitchell, USACE, presiding

• Reports from Breakout Groups
• Conceptual Description and Key Performance Indicators Panel Discussion
• Tasks, Milestones and Next Steps
• Closing Remarks and Adjournment

10:30am-11am
Morning Break and Exhibits

11:00am-12:00pm
Recommendations
Margaret Spring, NOAA COS/CMTS CB Chair, presiding

12:00pm - 2:00pm
LUNCH and Debrief with R&D IAT and Conference Planning Committee