

U.S. Port and Inland Waterway Modernization: Preparing for Post-Panamax Vessels

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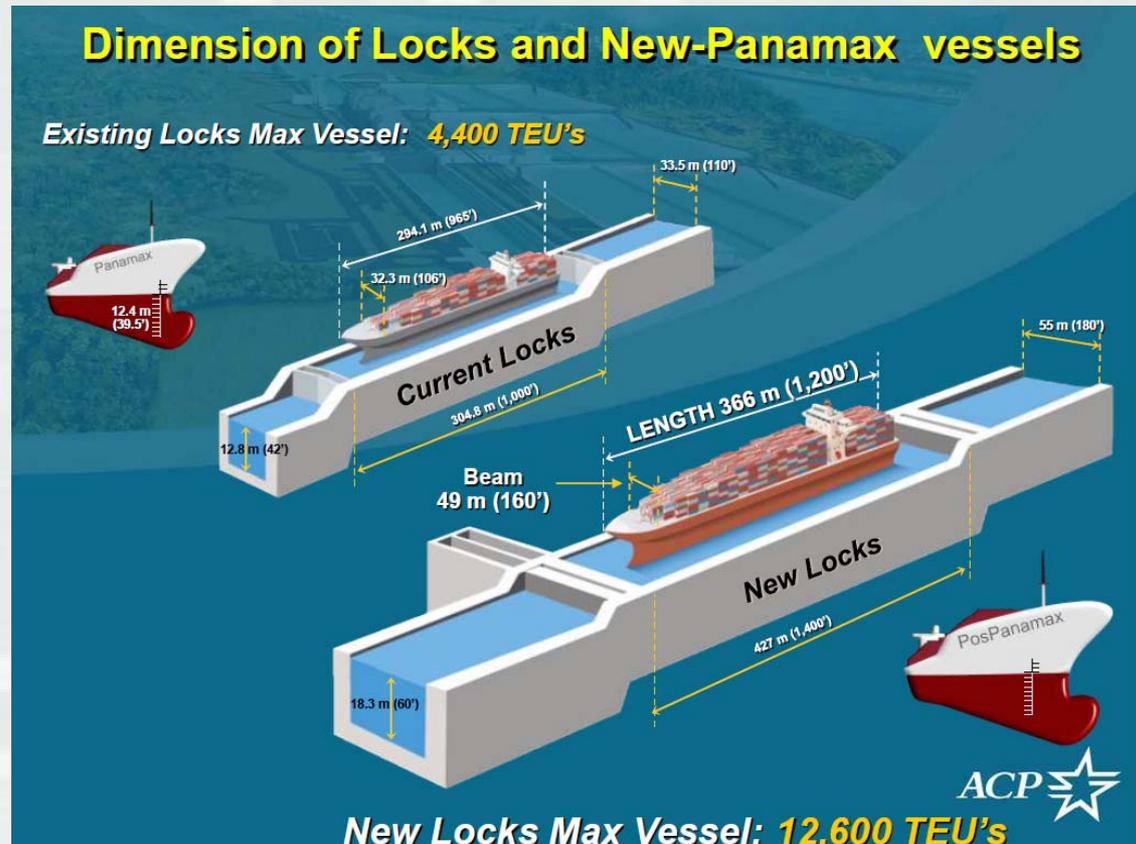


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Preparing for Post-Panamax Vessels

- Capacity of Ports
- Capacities of the Inland Waterway System
- Fiscal Challenges and Opportunities
- Environmental considerations



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Capacity Maintenance & Expansion Concerns

- Channel Depth
- Channel Width
- Bridge heights
- Port Support Structures
 - Dock & crane
 - Capacity to off/on load



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- The Ports along the U.S. Southeast and Gulf coast (where the population growth is expected) could be candidates for investment to deepen to be "post-Panamax" or "cascade" ready.



Source: USACE Institute for Water Resources

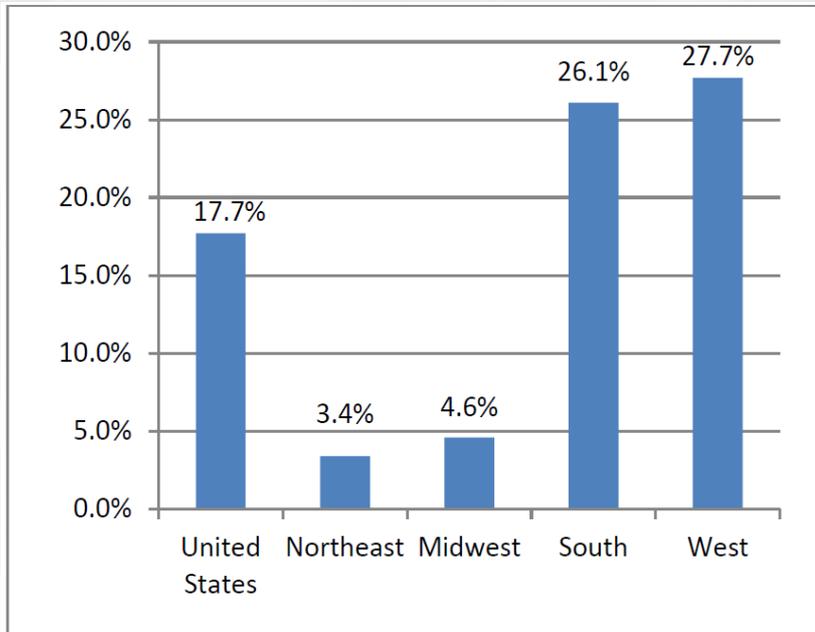
Figure 21: Main Channel Depths at Selected Ports



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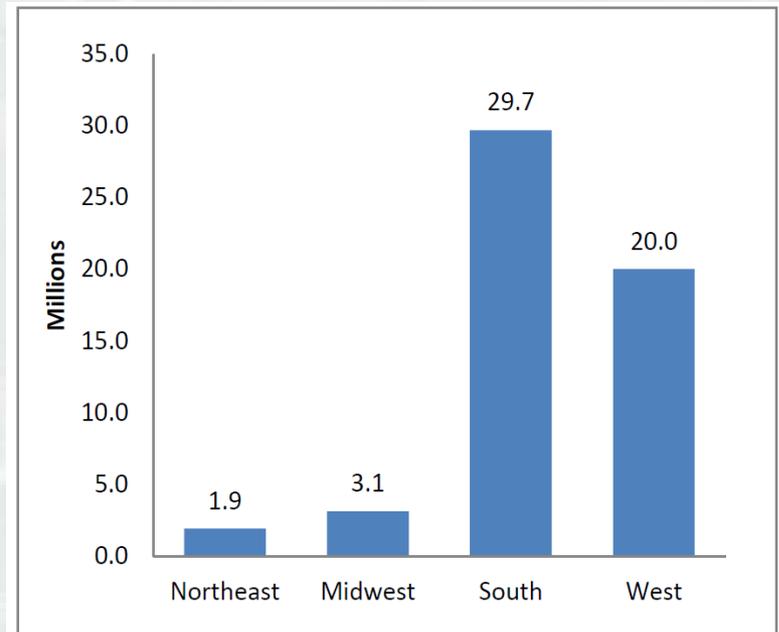
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In the U.S. population growth is expected to be greatest in the South and West.



Source: U.S. Census Bureau, Population Division; 2005 Interim State Population Projections

Figure 5: Percent Change in Population by Region of U.S. 2010-2030



Source: U.S. Census Bureau, Population Division; 2005 Interim State Population Projections

Figure 6: Change in Population by U.S. Region 2010-2030



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Role of Inland Waterways



Source: USACE Institute for Water Resources

Figure 22: The Inland Waterway Connection: Linking the Heartland to the Coasts



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Fiscal Challenges and Opportunities

- The primary challenge with the current process to deliver navigation improvements is to ensure adequate and timely funding to take advantage of potential opportunities.
- It is anticipated that a variety of options may be desirable, and in all cases individual project characteristics, including its economic merits, would need to be considered in selecting the optimal financing mechanisms.
- Adaptive management techniques can also be used to address uncertainty issues.



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ENVIRONMENTAL CONSIDERATIONS

Marsh Creation : Houston Ship Channel

Aerial of Atkinson Island cells with containment levees



Areas of potential concern

- degraded air and water quality that threatens human health and safety, especially of low income and minority groups,
- mitigation costs
- loss of important natural and cultural heritage found in parks, refuges, wetlands and scarce species; and
- loss of recreation, commercial and other economically important resources.



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Wrap UP

- 95% of our international trade moves through the Nations ports
- Post- Panamax vessels will dominate world trade and call on US Ports regardless of the expansion
- Expect to be/represent 62% of total container ship capacity by 2030
- Sustaining a competitive US Navigation system that can enhance economic opportunity without significant harm to environment will require coordinated effort between government, industry and other stakeholders.



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U.S. Port and Inland Waterways Modernization: Preparing for Post- Panamax Vessels (full report)

<http://www.iwr.usace.army.mil>



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