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U.S. Port and Inland Waterways Modernization Strategy: Options for the Future

Information Brief

Congressional Interest

International maritime trade volume is expected to increase over the next several decades. The average and maximum sizes of maritime freight-transport vessels have been increasing and are expected to increase further because of cost advantages. Increasing numbers of larger vessels are expected to call at U.S. ports with harbors and facilities large enough to accommodate them. Expected completion of Panama Canal expansion in 2014 will allow passage of vessels over twice as large volumetrically (post-Panamax vessels). These trends are likely to significantly affect the patterns of maritime and waterway freight transport in and out of the United States, depending on which ports and waterways are appropriately modernized. Modernization would have potential environmental impacts. On December 21, 2011, Congress directed the Institute for Water Resources of the U. S. Army Corps of Engineers to submit to the Senate and House Committees on Appropriations "a report on how the Congress should address the critical need for additional port and inland waterway modernization to accommodate post-Panamax vessels."

Congress also indicated the importance of environmental impact among report considerations: "Factors for consideration should include costs associated with deepening and widening deep-draft harbors; the ability of the waterways and ports to enhance the nation's export initiatives benefitting the agricultural and manufacturing sectors; the current and projected population trends that distinguish regional ports and ports that are immediately adjacent to population centers; the availability of inland intermodal access; and the environmental impacts resulting from the modernization of inland waterways and deep-draft ports." The report is to be submitted by June 23, 2012. In response to the Congressional directive, the IWR study will survey existing conditions, review factors impacting future demand, evaluate regional environmental impacts and address elements of benefit and cost estimation in order to develop a broad vision and strategy for meeting U.S. port and Inland waterway modernization needs to accommodate increasing trade and vessel size.

International Freight Transport Status

Increasingly more international freight is being shipped in intermodal-transport containers that are readily transferred among vessels, railroads and trucks for more efficient transport to final destinations. Most freight originating in western Asia, Africa and Europe moves through eastern ports. Most Pacific Rim trade with the United States now moves through ports on the Pacific coast, where a number of ports are able to accept Post-Panamax vessels and provide intermodal transport needs for much of the U. S. west of the Appalachian Mountains. Fully loaded post-Panamax vessels generally require port access and berth depths up to 50 feet deep and significantly wider channels. A limited number of Atlantic coast ports are post-Panamax ready.

Depending on the extents to which Pacific- and Atlantic-coast intermodal transport systems adapt to Panama Canal expansion, the relative efficiency and competiveness of Atlantic ports, including ports on the Gulf of Mexico, may increase significantly, redirecting a larger fraction of Pacific Rim freight to the Atlantic coast. An increased demand for more water-borne freight movement through Midwestern and

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Eastern waterways also may occur. Adaptation will require modernization investments with potential environmental impacts, both adverse and beneficial, depending on location.

On the Atlantic coast, ports at Hampton Roads, Virginia and Halifax, Nova Scotia are fully capable of receiving post-Panamax vessels and the ports of New York-New Jersey and Baltimore are fast approaching post-Panamax capability. A number of other ports have made initial investments in modernization planning and implementation, but the post-Panamax focus of attention has been on southeastern ports closest to the Panama Canal and on waterways that convey barge shipments to and from inland and coastal ports. In anticipation of increased waterway traffic, the environmental impact of waterway modernization is an additional consideration of the study, as are the effects of traffic redistribution on West Coast ports and intermodal links. Also considered are the possible environmental effects of using freight transfer hubs in Caribbean ports outside the United States.

Study Approach

The focus of this study is options for how Congress should address the critical need for additional port and inland waterway modernization to accommodate post-Panamax vessels. Factors that will be addressed include:

- Costs associated with deepening and widening deep-draft harbors;
- Ability of waterways and ports to enhance export initiatives benefitting the agricultural and manufacturing sectors;
- Current and projected population trends that distinguish regional ports and ports that are immediately adjacent to population centers;
- Inland intermodal access;
- Environmental impacts resulting from modernization of inland waterways and deep-draft ports.

Desired Outcomes of the Webinar Listening Session

The main purpose of the Webinar is to listen to industry concerns, opinions, and insights regarding the nation's options for modernizing our ports and inland waterways. After a brief summary of the study context, we wish to spend most of the webinar time on March 13 listening to participants. Our primary interest is in determining specific as well as generic ideas and concerns that we might otherwise overlook. These will be used to develop study findings and conclusions. We do not solicit or expect participants in the Webinar meeting to collectively make recommendations or to establish priority rankings for port and waterway modernization. Participants will have the opportunity to provide additional comments via e-mail for about four weeks following the webinar.