CENTER FOR TRANSPORTATION RESEARCH

PROJECT SUMMARY

Texas Department of Transportation

5-6690-01: Impact to Texas' Multi-modal Freight Networks: Panama Canal and South American Markets

Background

The new Panama Canal locks and the strategy of the Panama Canal Authority to offer steamship companies a variety of related services benefits both the Texas economy and its deepwater ports. The locks represent a new competitive asset for Texas ports and exports. They opened in June 2016 and immediately had an impact on shipping, including both the energy and container sectors. The key containership impact was in the transpacific trade—specifically the Asia-US East Coast routes—although Port Houston has benefited from handling larger containerships up to 10,000 TEU through investments in terminal operations at Bayport and Barbours Cut. The new locks can now handle almost 80 percent of the 2016 global shipping fleet and recently transited a 15,000 TEU ship (Figure 1).

Texas shale oil and natural gas reserves, as noted in TxDOT project report 0-6990-1, stimulated U.S. and foreign manufacturers to announce multi-billion dollar investments on or near the Gulf of Mexico. In Texas, the plants form clusters on the Houston/Freeport ship channels, the Neches River, and around Port Corpus Christi, impacting the immediate state deepwater ports. The investments range from retrofitting existing refineries to building new plants. Energy, chemicals, plastics, and resin production is growing strongly in Texas and remains a key strategy at state deepwater ports, most especially at the Ports of Houston and Corpus Christi.

What the Researchers Found

Several factors over the next five years will shape the scale and routing of both Texas exports and the impact of the Panama Canal locks on Gulf trade lanes. They are driven by both demand and supply conditions, which together drive global trade and are not known with certainty.

Demand for Maritime Services

The marked decline in commodity prices in 2015 mostly halted in 2016, with the exception of energy prices. The global economic outlook for 2017 continues to brighten. In short and intermediate run, the volume of Panama Canal seaborne trade will depend on global economic growth in general, and Northeast Asia demand (China, Japan, and South Korea) in particular. In the long term, the eventual fate of the Trans Pacific Partnership and NAFTA will govern the overall future Panama Canal transit volumes as they relate to Texas ports. U.S Gulf exports—particularly in the energy and chemical sectors—will strongly benefit from the new canal locks.

Texas ports have longstanding ties with Latin America. The new Panama Canal locks offer economies of scale between the Gulf ports and Latin America west coast countries and this will strengthen shipper choice when Latin American economic growth returns.

It is important that TxDOT freight planners understand the nature of Texas export supply chains and the related infrastructure needs of manufacturers, particularly exporters, especially those expanding their operations using Gulf Coast ports.

Supply of Maritime Services

The maritime industry is slowly recovering from a series of economic setbacks, many

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created by its own members. Mergers, alliances, bankruptcy and financial losses have weakened the sector and made it more conservative in its strategic planning. Where possible, carriers have moved displaced ships—many in the Neopanamax class— and reallocated them to more profitable lanes. The Gulf ports of Mobile, New Orleans, and Houston are competing for new Neopanamax services, although the steamship companies are taking a cautious position in the light of their financial resources and may not reveal any new services until early 2018.

The potential role of Caribbean transshipment hubs in serving US Gulf ports is also uncertain and their feasibility is countered by port strategists who argue that direct calls provide the shipper with the lowest landed cost per container. However, Dominican Republic, Jamaica, and Panama logistics hubs are being expanded and upgraded, and are intended to consolidate freight from both North and South America. The Asia-East Coast services also pass close by many Caribbean hubs. If smaller Panamax ships were used for the final delivery of a transshipped container, it would immediately obviate the need to deepen channels below 45 ft., purchase Neopanamax cranes, or manage costly peak load operations.

What This Means

The new Panama Canal locks benefit both Texas ports and the state economy. The Gulf is now being treated as a third coast, recognizing that its ports play a different role from those on the US east and west coasts. Texas has the modal capacity to handle energy, manufacturing, and agriculture growth but export supply chains should be monitored by TxDOT planners to identify bottlenecks. This implementation report was sharply focused and readers are encouraged to examine the Policy Briefs in Appendix 1 of the main report (5-6690-01-1), which cover Panama Canal utilization; commodities and infrastructure; global logistics hubs in Texas; Texas-Latin American trade; port competition and best practices; and transportation and trade forecasts.

Figure 1: CMA CGM Theodore Roosevelt (14,885 TEU) transited the new locks on August 22, 2017

For More Information

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