



## 0-6690-CTR: Selected 2012–2014 Trade Flows and Texas Gulf Ports: Panama Canal and South American Markets

### Background

In 2015, a new set of locks on the Panama Canal offered new routes to larger ships moving between the Atlantic and Pacific oceans. Widespread interest resulted in concerns that U.S. ports and state transportation systems might be unprepared for the potential growth in Panama Canal–related trade. The Texas Department of Transportation (TxDOT) sponsored a 2-year study with a team from the Center for Transportation Research and the Texas A&M Transportation Institute to address a wide range of related issues, particularly as they relate to Texas deep-water ports, connectivity, and timing of port investments.

### What the Researchers Did

The scope of the research was extended beyond that of Latin America and the United States to include trade routes to and from Asia. Two reports were produced. Report 0-6690-1 discusses current trade patterns, the Panama Canal lock project, and transshipment hubs, and also provides a number of key Latin American and Asian country profiles that frame current and future patterns of routes and ship size. Report 0-6690-2 discusses on a wide range of related maritime subjects from current forecasts to U.S. port channel, terminal, and landside investments. A ship operating cost and terminal cost model were also provided for TxDOT planning use.

### What They Found

Report 0-6690-1 discusses three fundamental results known in 2012. First, the new locks will

offer global shippers new choices based on routes, cost, and service. Second, their impact on particular ports and trading partners was speculative, and their use by large post-Panamax vessels is linked to specific trade lanes, commodities, global trends in labor cost and related transportation costs, and future free-trade agreements. Third, the new locks broaden shipper options for Texas *exports*, particularly bulk commodities, on specific Panama Canal routes. Beyond these results, there was no agreement among experts about the likely pace or scale of future port activity due to the Panama Canal expansion.

Report 0-6690-2 examines both main and terminal channel projects in the U.S. Atlantic and Gulf of Mexico, showing that many ports wish to deepen their approach channels even though larger ships will call at fewer ports. The landside impact of increased port tonnage—especially when it enters or leaves port terminals on a truck or rail—is of interest to TxDOT. Three components—water channels, terminal operations, and landside gateway and corridor

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access—must integrate efficiently to form a compelling case for a steamship company to offer a port call and a shipper’s decision to use a specific maritime gateway. The report identifies, by U.S port, investments impacting landside operations. All-water services are addressed in two chapters. The first deals with direct service where cargo is loaded at an originating port and remains until the ship reaches the destination port. While this system typifies how most bulk products, autos, and break-bulk are transported, container services can use transshipment terminals where boxes are transferred to another ship for final delivery. Both study reports conclude that transshipment hubs are growing because larger ships stop infrequently at strategic global locations. This result was independently corroborated after the study was completed (see text box).

### What This Means

The Panama Canal expansion will allow new routes for larger ships carrying a wide variety of commodities and should enhance Texas Gulf Coast ports, especially in terms of Asian export markets. While the emphasis has been on channel dimensions, transshipment terminals will allow smaller containerships to provide Texas ports with hub-and-spoke services for key markets. Shippers and steamship companies have been discreet in their pronouncements on the impacts of the new locks and are currently offering Suez Canal service to some East Coast ports. Also, many beneficiaries of the move of

production from China—particularly Vietnam, South Korea, Indonesia, Thailand, and Singapore—can serve U.S. markets effectively without using the Panama Canal. The main recommendation is that TxDOT should continue to closely monitor the Panama Canal impacts by working closely with TxDOT ports and should be ready to support more effective rail-terminal connectivity. The focus should be on all commodities, not simply containerized trade, especially exports to Latin American, China, and Southeast Asian markets. Finally, in the next 6–8 years, energy may become an even more important Texas export; because the new locks can handle large bulk and liquefied natural gas ships, the Panama Canal expansion offers a new and critical route to all Asian markets.

#### Carriers Silent on Post-Panama Canal Expansion

Existing main hub ports and terminals in Central America and the Caribbean are likely to be the biggest beneficiaries of the growth in transshipment traffic that takes place after the expanded Panama Canal opens in mid-2015.

Source: Drewry Container Insight, October 20, 2013

#### For More Information

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