



# RESEARCH PROJECT CAPSULE [13-7SS]

September 2012

TECHNOLOGY TRANSFER PROGRAM

## Use of Containers to Carry Bulk and Break Bulk Commodities and Their Impact on Gulf Region Ports and International Trade

### JUST THE FACTS:

**Start Date:**

July 1, 2012

**Duration:**

18 months

**End Date:**

December 31, 2013

**Funding:**

State: TT-Reg

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Sponsored jointly by the Louisiana  
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Development and Louisiana State  
University

### POINTS OF INTEREST:

Problem Addressed / Objective of  
Research / Methodology Used  
Implementation Potential

[WWW.LTRC.LSU.EDU](http://WWW.LTRC.LSU.EDU)

This project is associated with the Louisiana State University (LSU) partnership with the Regional Southwest University Transportation Center (SWUTC). The SWUTC is a University Transportation Center housed at Texas A&M funded by the Research and Innovative Technology Administration (RITA) of the U.S. Department of Transportation (DOT).



### PROBLEM

Since their introduction in the 1950s, the use of containers now represents roughly 90% of world trade. Their acceptance as the common denominator in international shipping has had profound impacts throughout the shipping industry. More recently, two new impacts of containers are being felt: (1) significantly larger vessels, called "mega" ships with capacity of 12,500+TEU (twenty-foot equivalent unit) and a draft of 50 ft. are now deployed on main trade lanes; and (2) terminals are being redesigned and reequipped to serve these ships, requiring deeper berths and larger cranes. The pending 2015 expansion of the Panama Canal will accelerate these two trends. Their impact on the U.S. Gulf Coast ports is the main concern of this study.

### PANAMA CANAL EXPANSION PROGRAM

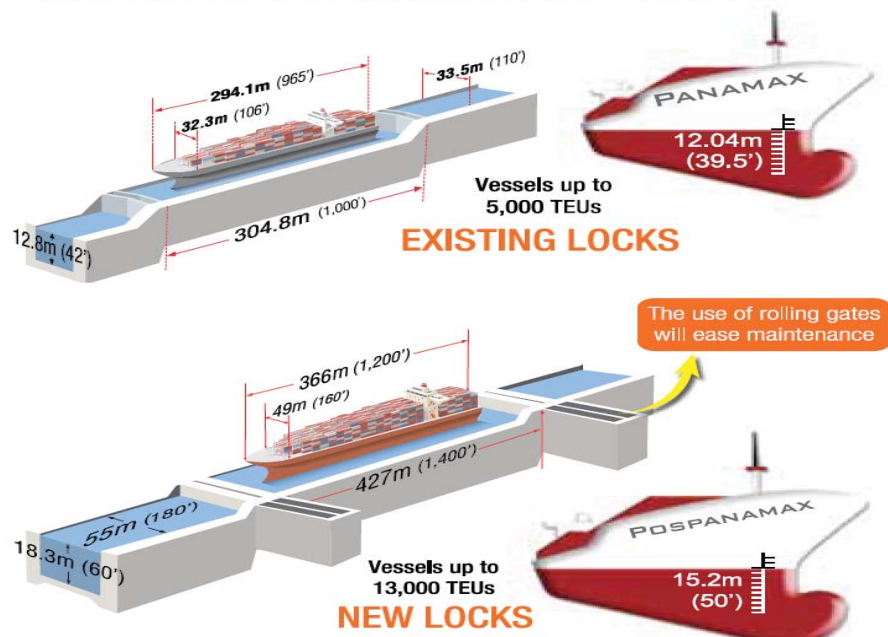


Figure 1  
Panama Canal Expansion Program  
<http://www.pancanal.com/eng/expansion/index.html>

## OBJECTIVE

The overall objective of this study is to assess the impact of all-water Asian service on ports along the U.S. Gulf Coast due to the expansion of the Panama Canal and the resultant growth of the container trade on these ports. The potential impacts on coastal, river, and inland ports in Louisiana will also be assessed as they all will be affected. However, to put these specific impacts in context, the University of New Orleans Transportation Institute (UNOTI) will first investigate its ramifications on shipping services and coastal ports along both the East and West coasts of North, Central, and South America, as well as the Gulf ports. Impacts on selected ports and commodities (import and export) will also be assessed based on historic performance and informed speculation to the year 2020.

Secondly, UNOTI will assess the impact of new shipping services calling on Gulf ports. We will investigate both import and export commodities shipped by container and determine which commodities can grow in Louisiana ports and/or what measures must be taken in order for this growth to occur. In addition, proposed market driven incentives will be “tested” by a selected Advisory Board, representing a broad cross section of transportation leaders in Louisiana.

## METHODOLOGY

Numerous studies have recently been published on the implications of the Panama Canal Expansion on specific ports or regions, but none were devoted to the impacts on Gulf Coastal ports or their import and export commodities shipped by container. Many of these past studies were based on theoretical models. UNOTI will use in-depth interviews with professionals actively involved in international shipping, representing both the public and private sector to formulate our impact assessments. This will be based on previous professional networks UNOTI has developed over the past decade and a professionally diverse Advisory Board. This project will be heavily weighted in qualitative research methods with quantitative tools used as support mechanisms.

## IMPLEMENTATION POTENTIAL

This research project intends to:

1. Determine the implications of the Panama Canal Expansion to all-water Asian services and their ports of call in the U.S. Gulf Coast;
2. Identify additional bulk and break bulk commodities that can use containers as their primary transport mode;
3. Assess physical improvements, intermodal linkages, and/or market incentives required to enhance the use of Louisiana ports for container imports and exports.

Successfully answering these three unknowns will benefit the United States’ international trade, especially the 26 states that use the Mississippi River and its tributaries as transportation arteries for their exports and imports and the Gulf Coast ports handling these cargoes.