

Southwest Region University Transportation Center

Project Proposal - FY 2012

TITLE OF PROPOSED PROJECT: USE OF CONTAINERS TO CARRY BULK AND BREAKBULK
COMMODITIES AND ITS IMPACT ON GULF REGION PORTS AND INTERNATIONAL TRADE

STRATEGIC GOAL(S) ADDRESSED: ECONOMIC COMPETITIVENESS

CONSORTIUM MEMBER: UNO

TOTAL PROJECT BUDGET: \$ 120,000

PRINCIPAL INVESTIGATOR: JAMES R. AMDAL

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HAS THIS PROPOSAL BEEN SUBMITTED FOR FUNDING ELSEWHERE? NO

DID THIS PROPOSAL RECEIVE FUNDING FROM ANOTHER SOURCE? YES (LOUISIANA
TRANSPORTATION RESEARCH CENTER/DOTD)

DOES THIS PROPOSED RESEARCH INVOLVE THE USE OF HUMAN SUBJECTS? NO

WILL THIS PROPOSED RESEARCH INVOLVE OTHER ORGANIZATIONS AS PARTNERS? NO

PROJECT MONITOR NAME, ORGANIZATION, ADDRESS AND TELEPHONE NUMBER:

SHARON BALFOUR

LOUISIANA DEPARTMENT OF TRANSPORTATION

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ABSTRACT OF PROJECT:

Since its introduction in the 1950s, the use of the container now represents roughly 90% of world trade. Its acceptance as the common denominator in international shipping is having profound impacts throughout the shipping industry: significantly larger vessels with 50' minimum draft are routinely entering service (+12,500 TEU); terminals are being redesigned

and reequipped to serve mega ships with up to 22 container rows across; more and more commodities are now being shipped by container; the sheer number of empties is presenting a new logistic challenge. Into this dynamic situation, particularly in the Gulf of Mexico, ports are confronting a changed world given the Expansion of the Panama Canal and the all water Asian service it provides. This project will affect ports not only the Gulf but on both coasts of the US, Canada, Central America, as well as Latin America. The significance of the Panama Canal Expansion cannot be overestimated however its individual and collective impact has yet to be determined. The proposed research project has several major concentrations: 1) determine the implications of all water Asian services to Gulf Coast ports: 2) determine how new bulk and breakbulk commodities can use containers as their primary transport mode: 3) determine what physical improvements, intermodal linkages and/or market incentives will be required to maximize the use of Louisiana ports for container exports. Successfully answering these three unknowns will have untold benefits for the United States as an export nation, the 26 states that use the Mississippi River and its tributaries for transportation arteries for their export commodities, and for the countless Gulf Coast ports that have potentially the most to gain from the new all water Asian services and the resultant growth in international trade.

Use of Containers to Carry Bulk and Breakbulk Commodities and its Impact on Gulf Region Ports and International Trade

PROBLEM STATEMENT

There is concern within the general maritime industry and, specifically, in the deep water ports of Louisiana that an increase in container traffic caused by the soon to be completed Panama Canal expansion may require the investment in equipment and support infrastructure necessary to handle this type of cargo. Answering this question based on current data and future projections will allow the LA Department of Transportation and Development, the maritime industry, and deep water ports to assess their future needs for specialized cargo handling equipment and related improvements.

BACKGROUND

Countless studies have recently been published that discuss the implications of the Panama Canal expansion on specific ports or regions, but none, to our knowledge, has attempted to show the impacts on the Gulf coast system of ports and, more specifically, on its ability to handle increased volumes of export commodities. Many of these past studies are based on theoretical models. However, UNOTI's recently completed research project -- New Orleans Metropolitan Inland Waterway Container Transport Feasibility Study -- relied on intensive interviews with industry representatives along the Mississippi River and the Gulf Coast to ascertain the current status of container trade along these trade corridors.

OBJECTIVES OF STUDY

The overall objective of this study is to assess the impact of all water Asian service to the ports along the US Gulf Coast due to the expansion of the Panama Canal, scheduled for completion in 2015, with an emphasis on ports in Louisiana. However, to put this specific expansion in context, UNOTI will 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 by port and by commodity will also be assessed based on historic performance and informed speculation to the year 2020.

Secondly, UNOTI will assess the impact of these new all water Asian services on export commodities and determine which exports can grow in LA ports and/or what measures must be taken in order for this growth to occur. This is of critical importance to the nation as a whole

and more specifically the agricultural growers in states abutting the Mississippi River and its tributaries.

Proposed market-driven incentives will be “tested” by our Advisory Board for implementation. Recent history in LA has shown that well-meaning laws (Import/Export Tax Credit Program) are meaningless if they cannot be implemented. Having two of LA’s foremost economists as members of the Advisory Board as well as a Senator from LA will be extremely valuable as we investigate the feasibility of various incentive programs. Only those with a reasonable chance of success will be recommended.

WORK PLAN

Task 1: Review Professional Literature

UNOTI intends to compile and review only relevant studies on the impact of all water Asian services made possible by the Panama Canal Expansion that have been recently conducted by recognized experts in international shipping. We also intend to conduct an exhaustive search of academic journals, industry publications and trade journals (TRB, Brookings, Global Insight, The Financial Times, The Economist, Port World, Journal of Commerce, Port Technology, Containerization International) from 2005 thru 2012. (July – August, 2012)

Task 2: Infrastructure Assessment and Project Timeline

UNOTI will compile a detailed list of specific infrastructure projects and associated project timelines for significant port enhancements along the coasts of North, Central and South American that ports are planning and/or building at their individual locations: terminal upgrades, access channel deepening, enhanced intermodal connections etc. in anticipation of the completion of the Panama Canal Expansion. This will enable the project team and our Advisory Board to establish a baseline of proposed infrastructure improvements that will impact international shipping. UNOTI will also assess these projects for their potential impact on US import and export trade with particular attention given to Gulf ports. We will also obtain from these same sources existing and projected container trade volumes by commodity for years 2010 thru 2020. The data will be organized by geographic locale as well as commodity and volume. For Gulf ports we will concentrate on Houston, New Orleans, Gulfport, Mobile and Tampa. For the State of LA, we will also compile data from the Port of Lake Charles, Port of South Louisiana and the Port of Greater Ouachita. In essence, this will enable the project team to define the what, the where, and the projected impact of significant infrastructure improvements being made in response to the Panama Canal Expansion. (September - November, 2012)

Task 3: Define New or Altered Trade Lanes and Projected Commodity Volumes

UNOTI will solicit from knowledgeable professionals directly involved in international trade their estimate of the impact of the new all water Asian route using the Panama Canal on selected US ports (LA Long Beach; Prince Rupert, BC; NY/NJ; Charleston, SC; Port of Virginia; Houston, TX; Port of New Orleans; Port of South Louisiana) and significant international port projects in the Americas. Primary import and export cargoes will be identified. We will utilize our pre-existing network of freight forwarders, shipping agents, terminal operators, marketing directors at selected ports, industry and transportation leaders as well as state and regional officials with Louisiana Economic Development, LA's Department of Agriculture, LSU's Ag Extension Program and the state growers associations as principal resources. Similar efforts will be made in other US Coastal states and states bordering the Mississippi River and its tributaries.

(November – December, 2012)

Task 4: Commodity Identification and Growth Projections

UNOTI will identify the commodities and anticipated volumes destined for export and/or may be subject to a modal shift at key LA ports (coastal, river and inland) or at other US Gulf Coast ports. Then a comparison can be made to the existing infrastructure available at these ports and identify gaps that need to be addressed (new rail or road connections, debottlenecking, new equipment required for transport, etc.) and the means available to meet these impediments. In particular, we would look at the unique challenges faced in New Orleans, the Port of South Louisiana, Lake Charles and the Port of Greater Ouachita.

(January – April, 2013)

Task 5: Propose Incentive Programs or State Inducements

UNOTI in collaboration with our Project Advisory Board will determine whether and if so, what specific incentives need to be established in Louisiana to enhance both trade with Asia and to entice export cargoes not using LA's ports to reconsider their logistic decision. Existing incentive programs will be assessed and potential programs investigated for their impact and their likelihood for implementation. (May – September, 2013)

Task 6: Final Report

UNOTI will produce a Final Report with all baseline infrastructure assessments, support data, project timelines, trade flows and projected volumes by commodity thru 2020, proposed incentive programs and related implementation strategies. (October – December, 2013)

SCHEDULE OF ACTIVITIES

It is proposed that the project will be completed within a period of 18 months (July 1, 2012 – December 30, 2013).

Activities	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Combine and review relevant studies ,academic and trade journals, industry publications	■	■																
Infrastructure assessment and project timeline			■	■	■													
Interview industry professionals					■	■												
Identify commodities and growth projections							■	■	■	■								
Propose incentive programs or state inducements											■	■	■	■	■			
Final Report and Delivery																■	■	■

- Combine and review relevant studies ,academic and trade journals, industry publications (July – August, 2012)
- Infrastructure assessment and project timeline (September –November, 2012)
- Interview industry professionals (November – December, 2012)
- Identify commodities and growth projections – (January – April, 2013)
- Propose incentive programs or state inducements – (May – September, 2013)
- Final report and delivery – (October – December 2013)

STAFFING PLAN

The project will be under the direction of James R. Amdal. Mr. Amdal, former Director of the Merritt C. Becker, Jr. UNO Transportation Institute (UNOTI), now serves as a Senior Fellow - Research Associate with the Institute. He has been associated with various transportation initiatives at the University of New Orleans since 1997.

Dr. Asaf Ashar, internationally recognized expert on maritime and transportation, will assist Mr. Amdal with the project.

DELIVERABLES

Quarterly progress reports will be submitted as well as a final research paper documenting the process, key industry input, and significant findings.

PLAN TO PURSUE ADDITIONAL FUNDING AFTER CONCLUSION OF SWUTC PROJECT:

If this research finds that additional infrastructure will be necessary, any future research will most likely be sponsored by the Louisiana Department of Transportation and Development.

References:

Ashar, A., McKesson, C. Inland Waterways Containership, Center of Commercial Deployment of Transportation Technologies, California State University, 2012.

Ashar, A. Impacts of Panama Canal Expansion, Proceeding of Terminal Operator Conference (TOC) Americas 2009, Buenos Aires, Argentina, November 2009.

Amdal, J., Ashar, A., Jawardana, J. and Swigart, S. Strategic Master Plan, Port of Morgan City, LA, USA, 2008.

Ashar, A. and Hochstein, A. Potential for Containers-on-Barge (COB) Transportation on the Mississippi River Waterway, US Army Corps of Engineers, Washington, D.C., 2006.

Ashar, A. Future Panama Canal Improvements and Impacts on International Trade, Proceedings, Annual Transportation Research Board Conference, Transportation Research Board / Marine Board (National Academy of Science), Washington DC, 2003.