

**Southwest Region University Transportation Center**

**Project Proposal – FY 2013**

TITLE OF PROPOSED PROJECT: ASSESSING THE POTENTIAL FOR GULF COAST NAFTA MARITIME TRADE CORRIDORS

STRATEGIC GOAL(S) ADDRESSED: ECONOMIC COMPETIVENESS

CONSORTIUM MEMBER: UNO

TOTAL PROJECT BUDGET: \$ 51,144.00 (UTC Funds)

PRINCIPAL INVESTIGATOR: Bethany Stich

RESEARCH TEAM MEMBERS: Mark Howlett (Co-PI) and Jim Amdal

HAS THIS PROPOSAL BEEN SUBMITTED FOR FUNDING ELSEWHERE? N

DID THIS PROPOSAL RECEIVE FUNDING FROM ANOTHER SOURCE? N

DOES THIS PROPOSED RESEARCH INVOLVE THE USE OF HUMAN SUBJECTS? N

WILL THIS PROPOSED RESEARCH INVOLVE OTHER ORGANIZATIONS AS PARTNERS? N

PROJECT MONITOR NAME, ORGANIZATION, ADDRESS AND TELEPHONE NUMBER:  
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ABSTRACT OF PROJECT:

The North American Free Trade Agreement (NAFTA) was enacted in 1994 with the expressed intent of reducing barriers to trade. However, transborder congestion and delays between the United States and Mexico threaten this goal. Maritime shipping offers a modal alternative for NAFTA trade with the potential for strengthening the resiliency of the North American transportation system as well as alleviating congestion for overland modes. Regional maritime trade, known as short sea shipping or marine highways, could bolster economic connections between Mexico and the Gulf Coast of the United States. This study assesses the potential for Gulf Coast NAFTA maritime shipping corridors. The research plan will document current trade patterns and infrastructure, analyze potential opportunities for trade expansion, and analyze the policy barriers that need to be addressed to strengthen these trade corridors. The study will produce findings and recommendations applicable to state, national, and international policymakers.

## *Assessing the Potential for Gulf Coast NAFTA Maritime Trade Corridors*

### **PROJECT PROBLEM STATEMENT**

There is tension between the goals of the North American Free Trade Agreement (NAFTA) and the existing transportation infrastructure that makes trade possible. NAFTA reduced barriers to trade through tariff reduction and elimination, and yet congestion and delays in freight gateways along the Mexico / US border challenge the policy goals of increasing trade activity. Maritime shipping offers a modal alternative for transborder goods movement that could increase the resiliency of the North American transportation system and alleviate congestion on overland modes. This research project assesses the opportunities and barriers to strengthening NAFTA maritime trade corridors between Mexico and the Gulf Coast of the United States. Findings from this research project will help inform transportation policy to bolster North American trade, transportation resiliency, and more directly connect Mexican and Gulf Coast economies.

### **BACKGROUND**

Enacted in 1994 to bring together the United States, Canada, and Mexico into more unified trading partnerships, NAFTA is nearing two decades in existence. NAFTA transformed North American trade through tariff liberalization, but the agreement led to minimal improvements in the North American transportation system that makes trade possible. The existing United States transportation infrastructure in 1994 did not complement NAFTA's aim of facilitating North American trade and little has changed in the interim. The transportation system in the United States is primarily oriented along an east-west axis reflecting the historical process of westward expansion, whereas NAFTA goods move north and south. The terrorist attacks of September 11, 2001 and the resulting heightened security measures further complicated NAFTA trade, increasing border congestion and delays.

Congestion and delays have been particularly challenging along the 2,000 mile US / Mexico border in part due to the relatively few number of gateways, limited infrastructure, and heightened security. Recent drug-related violence in cities along the Mexican border poses additional challenges to these trade gateways.

Short sea shipping has received increasing attention as a component of a comprehensive multi-modal transportation system. In contrast to intercontinental ocean shipping, short sea shipping connects maritime ports of closer distances. Marine highways, motorways of the sea, and coastwise trade are other terms used to describe this form of shipping. While regional marine shipping has been more developed and utilized in Europe, the United States and other North American countries have begun to develop similar types of initiatives. Short sea shipping not only increases the overall resilience of the transportation system by offering an alternative to land-based modes, it can alleviate land-based congestion. Maritime transportation is also the most energy efficient – and therefore produces the fewest carbon emissions – of any freight mode.

Whereas maritime trade between Canada and the United States has received research attention, the literature on the transportation of goods via water between Mexico and the US remains minimal. Ports, cities, and states along the Gulf Coast maintain extensive historical trading partnerships with other cities and countries in the Gulf of Mexico. Strengthening regionally-oriented international trade would prove beneficial for Gulf Coast economies. Maritime shipping between Mexico and the Gulf Coast has traditionally focused on the movement of bulk goods such as petroleum, but short sea shipping typically focuses on containerized shipments. The growing trend of near-shoring, bringing back the production of goods to locations closer to the United States, also means there is a potentially larger market for containerized trade.

### ***OBJECTIVES OF STUDY***

This research initiative will assess the potential for NAFTA maritime trade corridors between Mexico and the Gulf Coast of the United States. The project will survey and document current trade patterns and supporting infrastructure for transborder freight transportation. By analyzing current and projected commodity flows, the study will identify opportunities for increased Gulf of Mexico trade. A comprehensive analysis of policies -- national and transnational -- will evaluate how the policies support or impede NAFTA maritime trade corridors. The synthesized findings from the study will extend the research into NAFTA maritime trade corridors and highlight opportunities for strengthening the multi-modal resiliency of the North American transportation system.

### ***METHODOLOGY***

The study will address the following components about the potential for Gulf Coast NAFTA maritime trade corridors:

- Documenting current trade patterns and infrastructure
- Analyzing opportunities for expansion
- Identifying barriers to expansion

The research work plan will comprise five tasks:

#### *Task 1: Collection and Review of Literature, Reports, Policies, and Trade Documents*

The UNOTI team will gather and review the relevant literature about NAFTA trade corridors and regionally-oriented maritime shipping (short sea shipping, marine highways, etc.). Literature, reports, and other documents will be drawn from academic journals, trade publications, government reports, and conference proceedings. A representative sample of literature can be found in the references section of this proposal. The policy review will focus on NAFTA and the Merchant Marine Act of 1920 (better known as the Jones Act).

#### *Task 2: Assessment of current commodity flows and existing infrastructure*

In order to identify opportunities for NAFTA Gulf Coast maritime corridors it is important to understand the current patterns of trade and existing infrastructure. For this task the UNOTI team will draw on the data sources from the United States Department of Transportation including the Freight Analysis Framework (FAF3) and North American Transborder Freight Data. The data

analysis will concentrate on commodities with the potential for containerized trade. Data collection and analysis will include both overland modes and maritime trade between Mexico and the Gulf Coast. In addition to the data from US Government sources, this phase of research will also collect data from company websites and trade publications to document existing and former containerized services in this trade corridor. To complete this task the team will gather data and evaluate existing infrastructure with a focus on Gulf of Mexico port facilities.

*Task 3: Identification of opportunities and barriers for trade expansion*

The data collection and analysis of Task 2 will be further refined with a specific focus on opportunities for trade expansion. Potential opportunities include commodities that currently travel on overland routes between Mexico and the Gulf Coast. The analysis will also use the information on regional containerized trade for opportunity expansion. Barriers for trade expansion for this task will concentrate on the assessment of infrastructure. Infrastructure barriers could include capacity issues, lack of intermodal connections, and congestion.

*Task 4: Application of policy analysis to current and potential trade patterns*

Based on the extant literature on post-NAFTA freight transportation as well as short sea shipping in North America, existing policies – both national and transnational – are likely significant barriers to strengthening Gulf Coast NAFTA maritime trade corridors. The UNOTI team will apply the policy analysis focusing on NAFTA and the Jones Act from Task 1 to the findings from Task 2 and 3 about the potential for Gulf Coast NAFTA Maritime Trade Corridors. Additionally, this task will produce policy recommendations to strengthen these trade corridors.

*Task 5: Final analysis and report*

This study will further the existing literature on post-NAFTA trade, regional maritime shipping, and maritime policy by examining an understudied region in terms of international trade: the Gulf of Mexico. The project will conclude with a report detailing study background, methodology and findings. Additionally, the study will likely produce presentations for conferences such as the Transportation Research Board (TRB) Annual Meeting and the International-Urban Freight Conference (I-NUF). Finally, the study should produce an article for publication in a journal such as *Maritime Policy & Management* or the *Journal of Transportation Geography*. The study will provide the foundation for future research on international maritime trade between Gulf Coast states and countries in the Gulf of Mexico, Central America, and the Caribbean.

**WORK PLAN**

<b>Task</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>14</b>
1. Collection and review of literature, reports and policy documents														
2. Assessment of current commodity flows and existing infrastructure														
3. Identification of opportunities for trade expansion														
4. Application of policy analysis to current and projected trade patterns														
5. Final analysis, report and delivery														

**STAFFING PLAN**

The UNOTI research team will be comprised of Dr. Bethany Stich (PI), Marc Howlett (Co-PI), and Jim Amdal. Dr. Stich is Associate Professor in the Department of Planning and Urban Studies with extensive research experience on intermodal transportation and economic development. Mr. Howlett is Research Associate II at UNOTI and brings expertise on freight transportation policy. Mr. Amdal is Senior Fellow at UNOTI and has served as Principal Investigator on numerous maritime transportation research projects including an assessment of the potential for container shipping on inland waterways.

**PURSUIT OF FUTURE FUNDING**

Future funding for research projects focusing on international maritime trade between Louisiana and countries in the Gulf of Mexico, Central America, and the Carribbean could be provided by the Louisiana Transportation Research Center (LTRC). Research on international maritime and trade liberalization in the Gulf of Mexico could receive funding from the The Latin American and Caribbean Research Network or The Latin American and Caribbean Economic Association.