

Comparison of the Panama Canal Expansion vs. Mississippi's Ports of Gulfport and Pascagoula Expansions

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Abstract – The expansion of the Panama Canal that is expected to be completed by the year 2015 will significantly affect global transportation systems as it currently stands. This multi-billion dollar expansion will almost triple the size of current vessels (Panamax with 4800 TEUs Capacity to Post-Panamax with 12,000 TEUs Capacity) and increase the traffic capacity of transiting cargo ships through the creation of additional passageways, known also as the “lock and lake systems,” which connects Panama’s two oceans: Pacific and Atlantic. While the full impact of such expansion cannot be accurately predicted, it is safe to assume that this very ambitious and complex project will generate significant economic benefits, both for the country of Panama and the overall global economy. This paper will closely compare the work being done in expanding Mississippi’s ports of Gulfport and Pascagoula in conjunction with the expansion of the Panama Canal. It will also explore how such expansion will positively affect Mississippi’s levels of maritime import and export capacities.

Keywords: Comparison, Expansion, Port of Gulfport, Port of Pascagoula, Panama Canal

INTRODUCTION

The history of the Panama Canal begins in the late 1800s. As it was first envisioned, French settlers in the country of Panama began building a sea-level canal that would cut across the Panamanian Isthmus, connecting the Pacific Ocean with the Atlantic Ocean. Unfortunately, due to lack of financial capital, difficult working conditions, tropical diseases (malaria and yellow fever), and the miscalculation concerning the differences in sea levels between the two bodies of water bordering the country, this project was prevented from being successfully completed until the United States, in the early 1900s, developed a vested interest into the region (Salin, 2010).

On February 23, 1904, the United States purchased what is today known as the “Canal Zone” for a total capital investment in the amount of 50 million US\$; 10 million US\$ went to the country of Panama while 40 million US\$ went to France’s *Compagnie Nouvelle du Canal de Panama* (Salin, 2010). Taking inflation into consideration, such an investment would be worth over 1 billion in today’s US\$. The Panama Canal’s 51 mile stretch was completed in 1914 at a total cost of 375 million US\$ (over 8.3 billion in today’s US\$). Figure 1 shows a picture of the Panama Canal early years.

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Figure 1. The Panama Canal – The Early Years [Source: www.historyking.com]

After construction, the canal and the Canal Zone surrounding it were administered by the United States. On 7 September 1977, U.S. President Jimmy Carter signed the Torrijos-Carter Treaty, which set in motion the process of handing over the canal to Panamanian control. The treaty came into force on 1 October 1979 and provided for a twenty-year period during which Panama would have increasing responsibilities for Canal operations, culminating in complete U.S. withdrawal on 31 December 1999. (Wiki, 2014). Since then the canal has been run by the Panama Canal Authority or the Autoridad de Canal de Panama (the ACP) as the main economic resource of the Republic of Panama.

America's interest in the Panama Canal was that of a strategic and economic nature, which came to revolutionize shipping patterns around the world. Today, there are over 360 commercially functioning sea and river ports located throughout the United States alone (CanagaRetna, 2010). In this globalized economic era, these ports serve the U.S. as viable gateways of trade between the states they represent, efficiently linking the entire nation to the rest of the world.

Cargo ships traveling through the Panama Canal serve a critical role in the overall U.S. global economy of trade. It is not an understatement to acknowledge that the U.S. has, for decades, led the way in its overall levels of imported goods, while simultaneously remaining as one of the top three major exporters of the world (United States Imports, 2012). As presented in Figure 2, all U.S. imports for February 2012 totaled nearly 227.2 billion dollars in economic revenue (United States Imports, 2012).

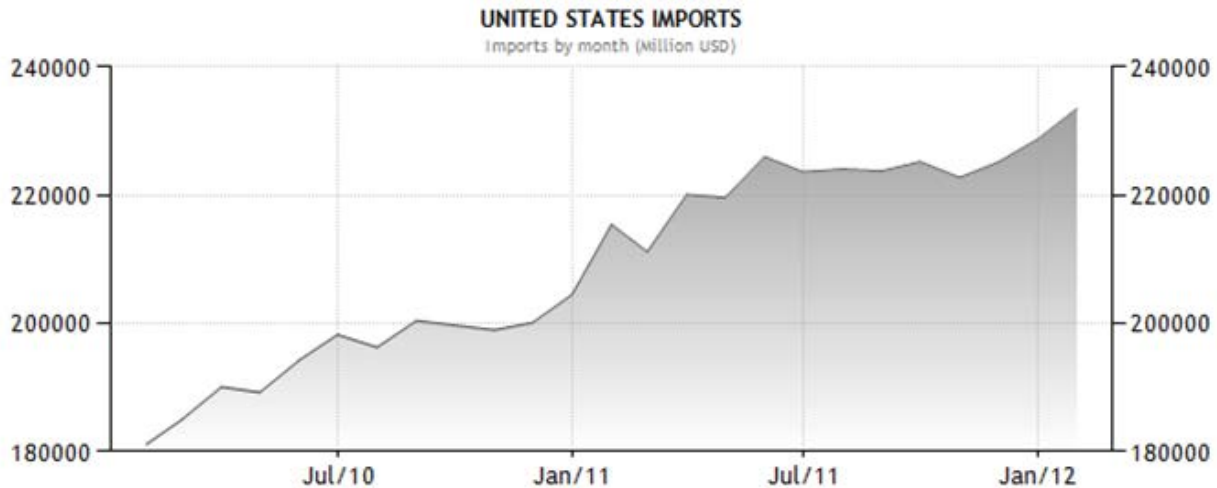


Figure 2. United States Imports [Source: www.tradingeconomics.com / U.S. Census Bureau]

It is expected that the current work being done in expanding the Panama Canal will significantly impact all current U.S. ports – “from the West Coast to the East Coast to the Gulf Coast” (CanagaRetna, 2010).

Governed by the Mississippi State Port Authority Board of Commissioners, the Port of Gulfport is currently the nation’s second largest importer of green fruit and the third busiest container port on the Gulf of Mexico (About Us, 2012). Encompassing a span of just about 204 acres, this port covers “nearly 6,000 feet of berthing space and averages over 2 million tons of cargo a year” (About Us, 2012).

Centrally located on the Gulf of Mexico with two harbors of its own, the Pascagoula River Harbor (West) and the Bayou Casotte Harbor (East), the Port of Pascagoula is currently “the largest seaport in the state of Mississippi” (Ports Facts & Stats, 2012). Governed by the Jackson County Port Authority Board of Commissioners, this port is credited in moving over 35 million tons of cargo per year (Ports Facts & Stats, 2012). Forest products, frozen poultry, and crude oil are just a few types of cargo transiting through the Port of Pascagoula on a regular basis (Ports Facts & Stats, 2012).

The focus of this report compares the Panama Canal expansion with the expansion of Mississippi’s ports of Gulfport and Pascagoula. More specifically, this report will analyze the potential increases in imports and exports on currently established maritime transportation routes. What specific measures are being established to enhance these ports’ current infrastructure and multimodal capabilities? Finally, this report will explore how the Gulf’s current shipping patterns, freight traffic, and intermodal transportation systems will be affected by this expansion.

INFORMATION/DATA COLLECTION APPROACH

Data collection for this report is divided into two distinct parts: internet search and face-to-face interviews in the country of Panama.

Data collection for the internet research portion began with conducting relevant keyword and phrase searches in Google, the one of the most globally recognized and well-used internet search engine. The keywords and phrases used in this research project are presented in Table 1. The databases used to help in this research project were limited to four databases, presented on Table 2.

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Table 1. Keywords

Keywords
Panama Canal Expansion
History of the Panama Canal
Port of Gulfport
Port of Pascagoula

Table 2. Databases

Database's Name	URL	Information
Impact of Panama Canal Expansion on the U.S. Intermodal System	http://www.ams.usda.gov/AMSV1.0/getfile?dDocName=STELPRDC5082003	Panama Canal Expansion / U.S. Intermodal Transportation Systems
The Panama Canal Expansion and SLC State Ports	https://www.slcatlanta.org/Publications/EconDev/ports_web.pdf	Panama Canal Expansion / Southern Ports
Mississippi State Port Authority at Gulfport	http://www.shipmspa.com	The Port of Gulfport
Port of Pascagoula	http://www.portofpascagoula.com	The Port of Pascagoula

The research team was granted the opportunity to conduct a brief face-to-face interview with Mr. Mejia, Senior Policy Advisor for the Gulfport-Biloxi International Airport. Mr. Mejia answered numerous questions associated with the expansion endeavors of the Panama Canal and the economic ramifications such expansion will provide to the country of Panama as a whole. Mr. Mejia also addressed the economic benefits this expansion will extend to the different ports servicing the United States' Gulf Coast region. Presented on Table 3 are the questions that were asked to Mr. Mejia in Panama.

Table 3. Panama Canal Expansion Interview Questions

<p>What type of role will the Panama Canal expansion play in the overall maritime economy of trade?</p> <p>How will the expansion of the Panama Canal accommodate the expected increase in vessel/cargo traffic?</p> <p>What is the expected cost of this project?</p> <p>In what ways are the ports within the Gulf Coast region of the United States being impacted by the expansion of the Panama Canal?</p> <p>Out of the many vessels that travel through the Panama Canal, how many are destined to/from the Port of Gulfport and the Port of Pascagoula?</p> <p>Is there any other information you would like to make known in light of the expansion of the Panama Canal?</p>

CASE STUDY

The Panama Canal's role as the waterway between the Pacific and the Atlantic Oceans is significant. It currently handles nearly 5% of the entire commercial maritime trade with over 14,000 vessels transiting through its waters every year (Case Study, 2008). With its expansion, the Panama Canal will have the capability to effectively meet the overall growth in maritime transportation demand with the increase in size, capacity, and traffic of larger cargo vessels, also known as Post-Panamax ships (Canal Expansion Program, 2007).



Figure 3. Panama Canal – Maritime Route

Source: <http://seeker401.wordpress.com/2009/07/17/panama-canal-expansion-contractor-announced>

Table 4, describes the expected goals and outcomes associated with the current expansion of the Panama Canal:

Table 4. Panama Canal Expansion Expected Goals & Outcomes

- Maintain canal profitability.
- Maintain the competitiveness and value of the route.
- Increase the capacity to meet the growing demand for transits.
- Allow larger ships to travel through the Panama Canal.

As the main economic activity in the country of Panama, the Panama Canal expansion “constitutes a fundamental step for the continuous development of a services conglomerate that makes good use of the country’s geographic location, which has made Panama a connecting hub for world trade, transportation, and logistics” (Canal Expansion Program, 2007).



Figure 4. Projected View of the Panama Canal in 2014

Source: <http://www.mda.gov/2011/04/04/panama-canal-expansion-project-forum>

The benefits associated with the expansion of the Panama Canal include: 1- More transportation of cargo; 2- More revenues for Panama; 3 - Increase in efficiency and productivity and 4-Increase in net profits.

Investments set forth in the expansion project of the Panama Canal is intended to position the country of Panama as a growing and competitive business economy, ensuring the long term sustainability and growth of the country's maritime development (Canal Expansion Program, 2007).

Ports within the United States' Gulf Coast region are also investing millions of dollars in infrastructure developments and expansions in preparation for the 2014 completion of the Panama Canal expansion. Mr. Don Allee, chief executive of the Mississippi State Port Authority at Gulfport, made the following statement during a 2009 interview on the subject: "There are some ports throughout North America that have said, 'Let's wait and see how long-term this economic environment is going to last.' But if a port decides to wait, it could be a costly decision (Panama Canal Expansion, 2009).



Figure 5. Mississippi Ports

Source: <http://www.mscoastalliance.com/ports.html>

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What does this mean to the ports of Gulfport and Pascagoula? How will the expansion of the Panama Canal affect these Mississippi ports? How are these ports “expanding” along with the expansion of the Panama Canal?

As a maritime nation, the United States is highly dependent in its coastal ports and inland waterways to conduct trade in an efficient and effective manner (U.S. Port and Inland Waterways, 2012). In today’s maritime trading environment, Post-Panamax vessels “make up 16% of the world’s container fleet, but account for 45% of the fleet’s capacity”(U.S. Port and Inland Waterways, 2012). It is estimated that by the year 2030, such vessels will “make up 27% of the world’s container fleet, accounting for nearly 62% of its capacity” (U.S. Port and Inland Waterways, 2012).

Proper expansion and modernization of Mississippi’s ports infrastructures visibly presents financial challenges in today’s uncertain economic environment. However, the sustainability of a highly competitive navigation system can efficiently enhance future economic opportunities in such ports, in its surrounding areas, and within the state of Mississippi as a whole.

RESULTS & RESULTS IMPACT

Successfully comparing key elements of the Panama Canal expansion with the expansion of Mississippi’s maritime ports was the ultimate goal to be accomplished through this report. Key similarities addressed in this report are posted on Table 5.

Table 5 – Similarities Between the Panama Expansion and the Mississippi’s Port Expansion

Criteria	Panama	United States
Increased capacity of cargo traffic	4,583,838 TEUs	1,000,000 TEUs
Larger vessels	Post Panamax Vessels	Post Panamax Vessels
Increase in regional economic development	Percentages Unknown	Percentages Unknown

These three (03) results are important because it shows the main similarities of two monumental constructions with one main goal: to expand its current facilities and surroundings for increased cargo traffic and ultimate economic remuneration.

Table 6 addresses the main differences associated with the expansion of the Panama Canal and Mississippi’s maritime ports.

Table 6. Differences Between the Panama Expansion and the Mississippi’s Port Expansion

Criteria	Panama	United States
Cost of expansion	US\$ 5.25 billion	US\$ 570 million
Direct/Indirect job creation levels	40,000	12,773
Annual revenue estimates	US\$ 5 billion	US\$ 10 billion

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These three (03) results are important because it shows that while expanding its current facilities are these industries main goal, factors such as overall cost, job creation levels, and annual revenue generation estimates vary tremendously from each other.

SUMMARY

It is expected that the current work being done in expanding the Panama Canal will significantly impact all current U.S. ports – “from the West Coast to the East Coast to the Gulf Coast (CanagaRetna, 2010).

This paper closely compared the work being done in expanding Mississippi’s ports of Gulfport and Pascagoula in conjunction with the expansion of the Panama Canal. It also explored how such expansion will positively affect Mississippi’s levels of importing and exporting capacities through maritime means.

In addition, this report strived to successfully compare the Panama Canal expansion with the expansion of Mississippi’s ports of Gulfport and Pascagoula. More specifically, it focused in analyzing the potential increases in imports and exports on currently established maritime transportation routes. An in depth analysis of specific measures being established to enhance these ports’ current infrastructure and multimodal capabilities was also reviewed in this report.

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