Rebuilding the Panama Canal – Engineering Works [1]

Panama Canal Expansion

Team 1 - The Wrecking Crew
Michael Carroll
Kaylan Martin
Michael Mitchell
Dustin Smith
Thomas Vest
Brenna Welch

Professor: Dr. Luis A. San Andrés
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Overview

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Introduction [2]

- Originally started by U.S. in 1939, but suspended in 1942
- Restarted by Panama Canal Authority (ACP)
- Composed of Three Components
  - Construction of two lock facilities
  - Excavation of new access channels and widening of existing channels
  - Deepening of navigation channels and raise elevation of Gatun Lake
- 7 to 8 years to Complete
  - Set to open in 2014 or 2015
Introduction (Continued) [2]

- Built to compete with other trade routes
  - Suez Canal
  - U.S. Intermodal System

- Efficiency of reliability
History of the Panama Canal [3,4]

- 1500’s
  - Europe realizes importance
- 1800’s
  - US realizes importance and French company begins construction
- 1900’s
  - US finishes construction
Orders for the Construction of Container Vessels Until 2011 (Thousands of TEUs)

- 50% of 2,067 TEUs** (262 Vessels)
- 23% of 940 TEUs** (674 Vessels)
- 27% of 1,091 TEUs** (258 Vessels)

*Panamax of 4,000 - 4,999 TEUs
**Total capacity of new orders

Source: Prepared by the ACP from the Shipping Intelligence Network of Clarkson Research Services, February 1, 2006
“This is the biggest change for the global shipping industry since containers replaced breakbulk as the main means of transporting goods in the 1970s.” – FTC
How it works
Costs [2]

• Panama Canal Authority Estimates:
  • Estimated $20 – $25 billion cost
  • Annual revenue in 2025 = $6.2 billion
  • 12% rate of return
  • Payback period – 10 years
Critics [6]

• Payback period
  – Interest on borrowed money not factored in
  – Projections based on expectations of increased canal usage and higher toll acceptance
  – Competitiveness of alternate routes unpredictable

• Cost is too uncertain
  – Involvement of Parsons Brinckerhoffs
Employment [2]

- Panama Canal Authority
  - 35,000 – 40,000 jobs created

- Medium and long term gains will be most important

- Critics
  - Impossible to create that many jobs at once
  - Many positions will be foreign skilled labor
Environmental [2]

- 1 Primary concern
  - Salt water flow into Gatun Lake
    - Source of $\frac{1}{2}$ of Panama's fresh water supply

- National Association for Nature Conservation
  - “Risk is minimal”

- No new land will be bought or altered
  - All is within original jurisdiction of Panama Canal Authority
Summary

• Need for additional lock due to growing demands
• Environmental Factors
• Employment Generation and Economic Benefits
• Controversy of construction
Going Forward

• Emphasis on limiting costs and safety issues throughout project
• Expected completion 2014 – 2015
• Canal will hopefully bring economic prosperity to Panama
References


Questions or Comments