Connecting the Panama Canal with Missouri

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Panama Canal Expansion

Is it needed?

Does it fundamentally change North American flows?

Will it create new opportunities for Missouri businesses?
History of Panama Canal Expansion

1914 - Opened

1930’s - First consideration for expanding third locks considered

1977 - Signing of the Torrijos-Carter Treaty

1999 - All canal properties transferred to the Republic of Panama

2006 - Panamanian Voters approved Referendum authorizing expansion of Canal

2016 - Target Date for 3rd Locks
Why Expand the Canal?

Overall strong growth over past few years
Seem as critical bottleneck
Coastal Competition
West Coast Uncertainties
Vessel Economics
Is it Needed?
Comparison between Panamax and Post-Panamax Container Vessels

<table>
<thead>
<tr>
<th></th>
<th>Panamax</th>
<th>Post-Panamax</th>
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<tbody>
<tr>
<td><strong>Capacity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Containers (TEUs)</td>
<td>4,500</td>
<td>12,000</td>
</tr>
<tr>
<td><strong>Dimensions</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beam</td>
<td>32m (106')</td>
<td>49m (160')</td>
</tr>
<tr>
<td>Length</td>
<td>294m (965')</td>
<td>366m (1,200')</td>
</tr>
<tr>
<td>Draft</td>
<td>12m (39.5')</td>
<td>15m (50')</td>
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What Is Going On In Panama?
What Everyone Seems To Forget – The Canal is Still Open for Business

Existing locks will still be in service

Panama Canal handles more than just container vessels (although a big part of traffic and revenue stream)

Stepwise increase in all traffic capacity

Not just a US Trade link
China and U.S. Gateways-By Value

California – Southern Tier
PNW (US and Canada) – Northern Tier
Gulf Coast Ports through Panama Canal
South Atlantic Ports through Suez Canal/Panama Canal
Airport Gateways

Imports

- West Coast 51%
- Gulf Coast 11%
- East Coast 16%
- Other 6%
- Airports 31%

Exports

- West Coast 33%
- Gulf Coast 11%
- East Coast 19%
- Other 4%
- Airports 28%
## The Canal “Question” Today

<table>
<thead>
<tr>
<th>THE KNOWN</th>
<th>THE UNKNOWN</th>
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<tbody>
<tr>
<td>The Canal is expanding</td>
<td>Will ports push trade away?</td>
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<tr>
<td>Trade already shifted from West Coast</td>
<td>Will Eastern U.S. ports receive dredging?</td>
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<tr>
<td>Inbound logistics driving system</td>
<td>How much more cargo is divertible?</td>
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<tr>
<td>Firms are already responding to global macro economic conditions</td>
<td>How (when) will vessels be deployed?</td>
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<tr>
<td></td>
<td>Balance between Canal tolls and Railroad costs?</td>
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</table>
Freight Access and Mobility May Create Transformative Opportunities
Changing Hinterlands?

Faster Transit
Economies of Scale

Anything else?
- Bulk
- Exports
- Equipment availability
Missouri Exports as Share of Total State GDP 1997 - 2013
Missouri Shipments of Origin, Top Five Destinations, 2003-2013 (All modes - $12.9 Billion)
Missouri Shipments of Origin, Top Five Destinations, 2003-2013 (Vessel Shipments - $4.7 Billion)
Mississippi River and Its Relationship to State Exports (2011)

Shading Indicates Ranking of MS River Traffic based on Share of Export Tonnage

% represents share of Total State exports through the Miss River Corridor (maritime tonnage)
Where do we go from here...
Benefits of discussing the Panama Canal’s Future

Connecting ports and hinterlands

Connecting exports to trade markets

Discussion of regional transportation needs

Finding partners
- Railroads, public, private sector

But who is listening?
- Shippers
- Public
- Decision Makers
Panama Canal Expansion

Is it needed? YES

Does it fundamentally change Missouri flows?
- Bulks – Yes - more volume
- Containers – Yes, Some growth

Panama Canal remains an option for Missouri Shippers today

But the expanded canal will only benefit Missouri firms able to integrate larger vessels in the current supply chains
Go See the Canal

PANAMA CANAL TRANSIT

Saturday, September 19, 2009

Let it be known to all

Ditch Diggers,

Mosquito Swatters

and Adventure

Lovers, that I have

transited the Panama

Canal on board the

good ship Pacific

Queen

North-Bound Full Transit

Been There.....

Done That!
Thank you

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Other items of note
➢ Freight in the Southeast Conference
➢ ITTS newsletter