The Panama Canal

• Gamechanger?
• Shifting International trade routes?

Expanded Panama Canal sparks race to be ready for bigger cargo ships, Washington Post, January 2013

The Panama Canal Expansion Will Be a Supply Chain Game Changer, Inbound Logistics, October 2011

From TPM: Panama Canal Expansion No Game-Changer, Journal of Commerce, March 2014

A Game-Changer for LNG Shippers, Motley Fool, June 2014
## Containership World Fleet (2014-2018)

<table>
<thead>
<tr>
<th>Vessel size</th>
<th>No. of vessels</th>
<th>Capacity (thousands of TEUs)</th>
<th>No. of vessels</th>
<th>Capacity (thousands of TEUs)</th>
<th>No. of vessels</th>
<th>Capacity (thousands of TEUs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feeder and Feedermax</td>
<td>1,044</td>
<td>20.4% 622 3.4%</td>
<td>17</td>
<td>3.7% 8 0.2%</td>
<td>1,061</td>
<td>19.0% 630 2.9%</td>
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<tr>
<td>Handy</td>
<td>1,248</td>
<td>24.4% 1,751 9.6%</td>
<td>92</td>
<td>20.0% 134 4.0%</td>
<td>1,340</td>
<td>24.0% 1,885 8.8%</td>
</tr>
<tr>
<td>Sub-Panamax</td>
<td>665</td>
<td>13.0% 1,689 9.3%</td>
<td>73</td>
<td>15.9% 173 5.2%</td>
<td>738</td>
<td>13.2% 1,862 8.6%</td>
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<tr>
<td>Panamax</td>
<td>867</td>
<td>16.9% 3,654 20.1%</td>
<td>7</td>
<td>1.5% 24 0.7%</td>
<td>874</td>
<td>15.7% 3,678 17.1%</td>
</tr>
<tr>
<td>&lt;600</td>
<td>376</td>
<td>7.3% 1,937 10.6%</td>
<td>34</td>
<td>7.4% 134 4.0%</td>
<td>410</td>
<td>7.3% 2,072 9.6%</td>
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<tr>
<td>&gt;=600 &lt;700</td>
<td>234</td>
<td>4.6% 1,537 8.4%</td>
<td>5</td>
<td>1.1% 34 1.0%</td>
<td>239</td>
<td>4.3% 1,571 7.3%</td>
</tr>
<tr>
<td>&gt;=700 &lt;8,000</td>
<td>44</td>
<td>0.9% 325 1.8%</td>
<td>0</td>
<td>0.0% 0 0.0%</td>
<td>44</td>
<td>0.8% 325 1.5%</td>
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<tr>
<td>&gt;=8,000 &lt;9,000</td>
<td>275</td>
<td>5.4% 2,318 12.7%</td>
<td>30</td>
<td>6.5% 263 7.9%</td>
<td>305</td>
<td>5.5% 2,581 12.0%</td>
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<tr>
<td>&gt;=9,000 &lt;10,000</td>
<td>118</td>
<td>2.3% 1,105 6.1%</td>
<td>67</td>
<td>14.6% 620 18.7%</td>
<td>185</td>
<td>3.3% 1,725 8.0%</td>
</tr>
<tr>
<td>&gt;=10,000 &lt;11,000</td>
<td>44</td>
<td>0.9% 448 2.5%</td>
<td>27</td>
<td>5.9% 272 8.2%</td>
<td>71</td>
<td>1.3% 720 3.3%</td>
</tr>
<tr>
<td>&gt;=11,000 &lt;12,000</td>
<td>18</td>
<td>0.4% 204 1.1%</td>
<td>6</td>
<td>1.3% 66 2.0%</td>
<td>24</td>
<td>0.4% 270 1.3%</td>
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<tr>
<td>&gt;=12,000 &lt;=13,299</td>
<td>95</td>
<td>1.9% 1,240 6.8%</td>
<td>0</td>
<td>0.0% 0 0.0%</td>
<td>95</td>
<td>1.7% 1,240 5.8%</td>
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<tr>
<td>Subtotal Neopanamax</td>
<td>1,204</td>
<td>23.5% 9,114 50.0%</td>
<td>169</td>
<td>36.8% 1,389 41.8%</td>
<td>1,373</td>
<td>24.6% 10,503 48.8%</td>
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<tr>
<td>&gt;=13,300 &lt;15,000</td>
<td>67</td>
<td>1.3% 926 5.1%</td>
<td>59</td>
<td>12.9% 832 25.0%</td>
<td>126</td>
<td>2.3% 1,757 8.2%</td>
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<tr>
<td>&gt;=15,000 &lt;16,000</td>
<td>10</td>
<td>0.2% 156 0.9%</td>
<td>4</td>
<td>0.9% 64 1.9%</td>
<td>14</td>
<td>0.3% 220 1.0%</td>
</tr>
<tr>
<td>&gt;=16,000 &lt;17,000</td>
<td>3</td>
<td>0.1% 48 0.3%</td>
<td>3</td>
<td>0.7% 48 1.4%</td>
<td>6</td>
<td>0.1% 96 0.4%</td>
</tr>
<tr>
<td>&gt;=17,000 &lt;18,000</td>
<td>0</td>
<td>0.0% 0 0.0%</td>
<td>3</td>
<td>0.7% 54 1.6%</td>
<td>3</td>
<td>0.1% 54 0.2%</td>
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<tr>
<td>&gt;=18,000 &lt;19,000</td>
<td>13</td>
<td>0.3% 238 1.3%</td>
<td>19</td>
<td>4.1% 351 10.6%</td>
<td>32</td>
<td>0.6% 588 2.7%</td>
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<tr>
<td>&gt;=19,000 &lt;20,000</td>
<td>1</td>
<td>0.0% 19 0.1%</td>
<td>13</td>
<td>2.8% 248 7.5%</td>
<td>14</td>
<td>0.3% 267 1.2%</td>
</tr>
<tr>
<td>&gt;=20,000</td>
<td>0</td>
<td>0.0% 0 0.0%</td>
<td>0</td>
<td>0.0% 0 0.0%</td>
<td>0</td>
<td>0.0% 0 0.0%</td>
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<tr>
<td>Subtotal Post Panamax*</td>
<td>94</td>
<td>1.8% 1,387 7.6%</td>
<td>101</td>
<td>22.0% 1,596 48.0%</td>
<td>195</td>
<td>3.5% 2,982 13.8%</td>
</tr>
<tr>
<td>Total</td>
<td>5,122</td>
<td>100% 18,217</td>
<td>459</td>
<td>100% 3,322</td>
<td>5,581</td>
<td>100% 21,539</td>
</tr>
</tbody>
</table>

| % Less than Panamax | 57.7% | 22.3% | 39.7% | 9.5% | 56.2% | 20.3% |
| % Panamax | 16.9% | 20.1% | 1.5% | 0.7% | 15.7% | 17.1% |
| % Neopanamax | 23.5% | 50.0% | 36.8% | 41.8% | 24.6% | 48.8% |
| % Post panamax | 1.8% | 7.6% | 22.0% | 48.0% | 3.5% | 13.8% |

*Panamax or Less: 42.4% (2014), 37.4% (2018)
*Neo Panamax: 50.0% (2014), 48.8% (2018)
*Post Panamax: 7.6% (2014), 13.8% (2018)
• Panama Canal’s Growth Prompts U.S. Ports to Expand, New York Times, August 2012

• As Panama Canal Expands, West Coast Ports Scramble to Keep Big Cargo Vessels, New York Times, June 2014

• Port Cities Prep for Wider Panama Canal, Wall Street Journal, July 2014

• Miami is betting big that expansion of Panama Canal will bring in megaships, Miami Herald, September 2014

• Diversions from West Coast expected after Panama Canal expansion, Journal of Commerce, November 2014
“One way to help American businesses grow and hire is to modernize our infrastructure,” said President Obama. “That’s why in March I asked my Administration to identify important projects across the country where Federal review could be expedited. Today’s commitment to move these port projects forward faster will help drive job growth and strengthen the economy.”

July 19, 2012
President Obama’s «We Can’t Wait» Initiative

Will expedite infrastructure projects in 5 major East Coast Ports:

- Port of New York/New Jersey
- Port of Savannah
- Port of Charleston
- Port of Miami
- Port of Jacksonville
Main U.S. East and Gulf Coast Ports with Infrastructure Projects in Preparation for the Expansion

- **Baltimore**: Deepening to 50’
  Completion 2012

- **Norfolk**: Current depth 50’, authorized to dredge to 55’

- **NY/NJ**: Deepening from 45’ to 50’ and elevating the Bayonne bridge from 151’ to 215’
  Estimated Completion 2017

- **Philadelphia**: Deepening of navigational channel in the Delaware River from 40 feet to 45 feet.
  Completion 2017

- **Charleston**: Deepening from 45’ to 52’
  Completion 2019

- **Savannah**: Deepening of inner harbor from 42’ to 47’
  Completion 2017

- **Jacksonville**: Deepening from 40’ to 47’ (TBD)
  Terminal and wharves improvements, and intermodal container transfer facility (2015)

- **Miami**: Deepening from 42’ to 50’/52’, tunnel project, enhanced rail connectivity
  Completion 2015

- **Houston**: Current depth 45’. Bayport Container Terminal in phases

- **Philadelphia**: Deepening of navigational channel in the Delaware River from 40 feet to 45 feet.
  Completion 2017

- **Charleston**: Deepening from 45’ to 52’
  Completion 2019

- **Savannah**: Deepening of inner harbor from 42’ to 47’
  Completion 2017

- **Jacksonville**: Deepening from 40’ to 47’ (TBD)
  Terminal and wharves improvements, and intermodal container transfer facility (2015)

- **Miami**: Deepening from 42’ to 50’/52’, tunnel project, enhanced rail connectivity
  Completion 2015

Courtesy of the Panama Canal Authority (ACP), December 2014
Changes in world trade 2006 - 2014

• Global recession 2008 - 2009
• Drop in U.S. consumption of manufactured products, especially household goods.
• Europe trade primarily affected
• Long term growth prospects slower than expected
# Global Outlook

## Economist Intelligence Unit

*January 2015*

<table>
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<tr>
<th></th>
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<tbody>
<tr>
<td>World</td>
<td>4.1</td>
<td>3.9</td>
<td>1.3</td>
<td>-2.3</td>
<td>4.0</td>
<td>2.6</td>
<td>2.1</td>
<td>2.1</td>
<td>2.3</td>
<td>2.8</td>
<td>2.8</td>
</tr>
<tr>
<td>US</td>
<td>2.7</td>
<td>1.9</td>
<td>-0.3</td>
<td>-2.8</td>
<td>2.5</td>
<td>1.6</td>
<td>2.3</td>
<td>2.2</td>
<td>2.4</td>
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<td>Japan</td>
<td>2.0</td>
<td>2.3</td>
<td>-1.1</td>
<td>-5.5</td>
<td>4.7</td>
<td>-0.4</td>
<td>1.7</td>
<td>1.6</td>
<td>0.1</td>
<td>1.1</td>
<td>2.0</td>
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<tr>
<td>Eurozone</td>
<td>3.2</td>
<td>2.9</td>
<td>0.2</td>
<td>-4.4</td>
<td>2.0</td>
<td>1.7</td>
<td>-0.7</td>
<td>-0.4</td>
<td>0.8</td>
<td>1.1</td>
<td>1.4</td>
</tr>
<tr>
<td>China</td>
<td>12.7</td>
<td>14.2</td>
<td>9.6</td>
<td>9.2</td>
<td>10.4</td>
<td>9.3</td>
<td>7.7</td>
<td>7.7</td>
<td>7.3</td>
<td>7.2</td>
<td>6.7</td>
</tr>
</tbody>
</table>

| World Trade Growth (%) | 9.1  | 7.1  | 2.7  | -11.7 | 14.0 | 6.8  | 2.7  | 2.7  | 3.4  | 5.1  | 5.3  |

## IHS Global Insight

*January 2015*

**United States:**

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer prices (% change)</td>
<td>3.2</td>
<td>2.9</td>
<td>3.8</td>
<td>-0.3</td>
<td>1.6</td>
<td>3.1</td>
<td>2.1</td>
<td>1.5</td>
<td>1.6</td>
<td>0.1</td>
<td>2.3</td>
</tr>
<tr>
<td>Unemployment rate (%)</td>
<td>4.6</td>
<td>4.6</td>
<td>5.8</td>
<td>9.3</td>
<td>9.6</td>
<td>8.9</td>
<td>8.1</td>
<td>7.4</td>
<td>6.2</td>
<td>5.5</td>
<td>5.3</td>
</tr>
<tr>
<td>Total Industrial production (% change)</td>
<td>2.2</td>
<td>2.5</td>
<td>-3.4</td>
<td>-11.3</td>
<td>5.7</td>
<td>3.3</td>
<td>3.8</td>
<td>2.9</td>
<td>4.3</td>
<td>3.4</td>
<td>3.7</td>
</tr>
<tr>
<td>Light vehicle sales (Million units)</td>
<td>16.5</td>
<td>16.1</td>
<td>13.2</td>
<td>10.4</td>
<td>11.6</td>
<td>12.7</td>
<td>14.4</td>
<td>15.5</td>
<td>16.4</td>
<td>16.9</td>
<td>17.2</td>
</tr>
<tr>
<td>Housing starts (Million units)</td>
<td>1.8</td>
<td>1.3</td>
<td>0.9</td>
<td>0.6</td>
<td>0.6</td>
<td>0.6</td>
<td>0.8</td>
<td>0.9</td>
<td>1.0</td>
<td>1.2</td>
<td>1.3</td>
</tr>
<tr>
<td>Total Consumption (% change)</td>
<td>3.8</td>
<td>2.8</td>
<td>-2.5</td>
<td>-3.1</td>
<td>3.5</td>
<td>3.2</td>
<td>2.9</td>
<td>3.5</td>
<td>3.5</td>
<td>4.3</td>
<td>3.9</td>
</tr>
</tbody>
</table>

| World Trade Growth (%) | 12.49 | 10.27 | 2.68 | -12.49 | 16.33 | 6.54 | 2.57 | 1.67 | 4.50 | 4.80 | 4.80 |
Changes in world trade
2006 - 2014

• Price of fuel
• Slow steaming
• Delivery of larger ships
• Excess fleet
Main Routes - FY 2014

Total: 224.9 M (long tons)

Asia – East/Gulf Coast US 86.2M
West Coast South America - East Coast US 33.4M
West Coast South America - Europe 12.6M
West Coast Central America – East Coast US 12.0M
South America Intercoastal 10.9M
The Panama Canal Trade and Main Users

Total Cargo Movement FY 2014

<table>
<thead>
<tr>
<th>USERS</th>
<th>FY 2013*</th>
<th>FY 2014*</th>
<th>2014 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>136.5</td>
<td>154.1</td>
<td>68.5</td>
</tr>
<tr>
<td>China</td>
<td>46.4</td>
<td>51.5</td>
<td>22.8</td>
</tr>
<tr>
<td>Chile</td>
<td>29.0</td>
<td>29.5</td>
<td>13.1</td>
</tr>
<tr>
<td>Japan</td>
<td>20.0</td>
<td>21.7</td>
<td>9.5</td>
</tr>
<tr>
<td>Colombia</td>
<td>17.5</td>
<td>19.2</td>
<td>9.6</td>
</tr>
<tr>
<td>South Korea</td>
<td>16.8</td>
<td>19.1</td>
<td>8.5</td>
</tr>
</tbody>
</table>

Total Cargo Movements 224.9 Million Long Tons

69% of Canal cargo traffic originates in or is destined to the United States

* Measured in Million of Long Tons
Panama Canal Expansion Update
The Panama Canal
Adding a third lane of traffic
Expansion Program Components

Atlantic Ocean

- Atlantic Post Panamax Locks
- Deepening & widening of the Atlantic entrance
- Atlantic Post Panamax Locks

- Increase the Maximum Operating Level of Gatún Lake
- Pacific Post Panamax Locks
- Pacific Post Panamax Locks

- Deepening & widening of the Gatun lake & Culebra Cut navigational channels
- Post Panamax Pacific Locks Access Channel
- Deepening & widening of the Pacific entrance

Atlantic Ocean

- 15.8 Mm³
- 9.1 Mm³
- 48 Mm³

Pacific Ocean
Deepening and widening of the Pacific entrance (8.7 M m³)

- Scope of Contract: 8.6 M m³
- Award: April 1, 2008
- Amount: B/. 177,500,676.78
- Company: Dredging International
- Amendment No. 12: February 10, 2012
  - Expansion Program deliveryable: Dec 31, 2012
  - Termination of Contract: June 30, 2013

8.6 M m³ dredged

Actual

0% 50% 100%
**Locks Design and Construction**

- Scope of Contract: Design and Construction of Locks
- Award: July 15, 2009
- Order to Proceed: August 25, 2009
- Initial Amount + options: B/. 3,158,600,059
- Consortium: Grupo Unidos por el Canal S.A.
  - Sacyr Vallehermoso – Impregilo –
  - Jan De Nul - CUSA
- Conclusion of the contract: October 21, 2014

**Volume excavated and dredged:**

42.1 M m³ / 48.7 M m³

Actual: 81%
Locks Design and Construction
With the water saving basins, the new locks will use 7% less water than the existing locks.
Locks – Atlantic Site
Gates Transport and Installation
Atlantic Site
• PAC : last award contract 7-Jan-10
• Company: Consortium ICA-FCC-MECO
• Amount of award: B/. 267,798,795.99
• Order to proceed: 22-Ene-10
• Start date: 27-Apr-10
• Estimated completion date: 31-Oct-13

43.9 M m³ excavated / 49 M m³

Actual: 83.3%
Gatun Lake and Gaillard Cut Dredging Areas

Actual

Volumen: 2,552K m³ / 2,596K m³

98%

Progress rate:

Volume: 2,835 Km³ / 3,521K m³

81%

Mamey

24.9 M m³ dredged / 26.5 M m³

Gatún

Lago Gatún

Gamboa

Peña Blanca

Barro Colorado

Bohío

Buena Vista

Tabernilla

San Pablo

Chagres Bar Obs

Gatún

Actual

89%
Dredging Areas in Gatun Lake and the Culebra Cut

R.H. Christensen Dredger

Cornelius Dredger

Mindi Dredger

Quibian I Dredger

Alberto Aleman Zubiesta
Atlantic Entrance Deepening & Widening

17.38 M m³ dredged and excavated / 17.66 M m³

Award: September 25, 2009
Amount: B/. 144,236,596.44
Company: Jan De Nul NV
Conclusion of contract: April 25, 2013
Raising the Maximum Operating Level of Gatun Lake

Extension of Gatun Spillway gates

12 modified and installed gates
2 fabricated gates installed
2 modified gates in spare

Prototype testing of hydraulic cylinders for gates

Bid for the acquisition of 32 hydraulic cylinders.

Actual 94%
Volumes of Excavation and Dredging

1886

1909

Original

Current Expansion

In million of cubic meters

78%

2007

2008
Volume of concrete for the construction of the locks

- **Existing Locks**
- **New Locks**

<table>
<thead>
<tr>
<th>Type</th>
<th>Volume (in million cubic meters)</th>
<th>Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original Construction</td>
<td>3.4</td>
<td></td>
</tr>
<tr>
<td>Current Panama Canal Expansion</td>
<td>4.4</td>
<td>129%</td>
</tr>
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</table>
Social and Environmental Aspects
Environmental Impact Assessment

Ecological Compensation paid to ANAM

Wildlife Rescue Plan

Archeological Rescue

Paleontological Resources Studies

Reforestation

Monitoring Air and Water Quality

Monitoring Noise and Vibrations

Meetings with communities according to project advance

Report and inspection by independent consultant

Inspections by ANAM
Archeological

- Archeological surveys
- Archaeological rescue
- Requirement contract in place

- Dagger from the colonial era:
  - Found in the PAC-3 project area
  - Commonly-used weapon during the years 1590 through 1610
  - The restoration process took 3 months
  - Actually part of the Interoceanic Canal Museum’s exhibition
### Expansion Program Communication
(January 2008 – December 2014)

<table>
<thead>
<tr>
<th>COMMUNICATION CAMPAIGN</th>
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<tbody>
<tr>
<td>Number of visitors - PAC 0</td>
<td>33</td>
</tr>
<tr>
<td>Number of visitors - PAC 1</td>
<td>81</td>
</tr>
<tr>
<td>Number of visitors - PAC 2</td>
<td>96</td>
</tr>
<tr>
<td>Number of visitors - PAC 3</td>
<td>163</td>
</tr>
<tr>
<td>Number of visitors - PAC 4</td>
<td>281</td>
</tr>
<tr>
<td>Number of visitors - Atlantic (Locks and Dredging)</td>
<td>226</td>
</tr>
<tr>
<td>Number of visitors - Cerro Cocolí Lookout Point</td>
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</tr>
<tr>
<td>Speeches and Presentations</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>MEDIA CARE</th>
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<tbody>
<tr>
<td>International Media Care</td>
<td>1715</td>
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<tr>
<td>Local Media Care</td>
<td>198</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>PUBLIC CARE</th>
<th></th>
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<tbody>
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<td>Calls: 800-0714</td>
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<td>Emails: <a href="mailto:ampliacion@pancanal.com">ampliacion@pancanal.com</a></td>
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</table>

Expansion Program Observation Center– Atlantic
Visitors (since September 3, 2012) | 171,605
Expansion Program Progress Communication

Autoridad del Canal de Panamá
Informe Trimestral XXIV
Avance de los Contratos del Programa de Ampliación

30 de septiembre de 2012

Canal de Panamá: La maravilla en tu

Expansion del Atlántico

En DVD

Videos
La Última
Canal de Fotos

Tu Canal
AL DÍA
<table>
<thead>
<tr>
<th>Project</th>
<th>Site/protected area</th>
<th>Has</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1   LAKE DREDGING</td>
<td>Volcan Baru NP</td>
<td>30</td>
<td>UNDER EXECUTION</td>
</tr>
<tr>
<td>2   LOCKS</td>
<td>Mangrove - Chiriqui Viejo</td>
<td>50</td>
<td>UNDER EXECUTION</td>
</tr>
<tr>
<td>3   PAC 3 AND PAC 4</td>
<td>Forestry Research Center</td>
<td>100</td>
<td>UNDER EXECUTION</td>
</tr>
<tr>
<td>4   PAC 4</td>
<td>Montuoso F.R.</td>
<td>50</td>
<td>UNDER EXECUTION</td>
</tr>
<tr>
<td>5   PAC 2 AND PAC 3</td>
<td>Omar Torrijos NP</td>
<td>150</td>
<td>UNDER EXECUTION</td>
</tr>
<tr>
<td>6   PAC 2</td>
<td>Campana NP</td>
<td>30</td>
<td>CONCLUDED</td>
</tr>
<tr>
<td>7   PAC 1</td>
<td>Camino De Cruces NP</td>
<td>115</td>
<td>CONCLUDED</td>
</tr>
<tr>
<td>8   PAC 3</td>
<td>Chagres NP</td>
<td>40</td>
<td>UNDER EXECUTION</td>
</tr>
<tr>
<td>9   LOCKS</td>
<td>Tapagra H.P.Z.</td>
<td>61</td>
<td>UNDER EXECUTION</td>
</tr>
<tr>
<td>10  PAC 4</td>
<td>Chame</td>
<td>59</td>
<td>UNDER EXECUTION</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>685</strong></td>
<td></td>
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</tbody>
</table>
Panama Canal Expansion Impact
**Dimensions of Locks and Vessels**

**Existing Locks Max Vessel:**
- **4,400 TEU's**
- **294.1 m (965')**
- **32.3 m (106')**
- **33.5 m (110')**
- **Beam 49 m (160')**
- **12.8 m (42')**
- **12.04 m (39.5')**

**New Locks Max Vessel Size:**
- **13,000 – 14,000 TEU's**
- **304.8 m (1,000')**
- **366 m (1,200')**
- **Beam 49 m (160')**
- **18.3 m (60')**
- **15.2 m (50')**
- **427 m (1,400')**

**Panamax:**
- **55 m (180')**
- **13,000 – 14,000 TEU's**
BENEFITS FROM TRANSPORTATION COST SAVINGS

EXPORTERS

SHIPPING LINES

IMPORTERS

CONSUMERS

Economies of scale; efficiencies in the supply chain; connectivity
Neopanamax Vessels for New Markets at the Expanded Canal

**Container Vessels**
13,000 to 14,000 TEU
New volumes from:
- Latin America
Market Recovery from:
- West Coast United States
- Suez Canal

**Dry Bulk**
Up to 170,000 DWT
- Coal from Colombia
- Metalurgical coal from Vancouver
- Iron Ore from Brazil in Minicapesize (85,000-120,000 DWT)

**Liquid Bulk**
Up to 150,000 DWT
- Tankers
- Petroleum Products

**LNG/LPG**
- LNG Up to 177,000m³ and VLGC
### PANAMA AT A GLANCE

<table>
<thead>
<tr>
<th>Economic Indicator</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP growth rate – last 10 years</td>
<td>7.5%</td>
</tr>
<tr>
<td>GDP (P) 2013 (billions of dollars)</td>
<td>$42.6</td>
</tr>
<tr>
<td>GDP per capita - 2013 (P)(in US$)</td>
<td>$10,032</td>
</tr>
<tr>
<td>Population (million)</td>
<td>3.8</td>
</tr>
<tr>
<td>Unemployment Rate (%)</td>
<td>4.0</td>
</tr>
<tr>
<td>Inflation Rate 2013 (%)</td>
<td>4.1</td>
</tr>
</tbody>
</table>

Source: ACP/INEC (Contraloria General de la Republica) 2014.
Panama Canal Diversification Strategy

There is a close relationship between the Canal and other maritime and logistic activities that have proven to add value to the users of Panama as a Trade Route.

Our diversification strategy focuses on related activities that are profitable and enhance the Canal's core business.
The Panama Canal: It’s all about connectivity and value added services

ASIA

Approximately 18 to 20 days at 18 knots

PANAMA

Charleston, Savannah, Norfolk (USEC) 3-4 days

Lazaro Cardenas (Mexico) 3-4 days

Caucedo (Dominican Rep.)
Kingston (Jamaica) 1-2 days

Cartagena (Colombia)
Less than 1 day

Callao (Peru) 3-4 Days

San Antonio (Chile) 5-6 Days

Santos (Brazil) 10-11 Days

Cartagena
Less than 1 day

Lazaro Cardenas
3-4 days

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CARIBBEAN SEA

Manzanillo Logistic Park
Total: 16.9Has
898,787ft² warehouses
(83,500m²)

ACP Master Plan for Logistics Park Development
Total: 257.76Has
16,647,469ft² warehouses
(1,546,602m²)

Colon Free Zone
Total: 1,064.58Has
63,507,071ft² warehouses
(5,900,000m²)

Panama Pacific Special Economic Zone
Total: 88Has
3,982,647ft² warehouses
(370,000m²)

PANAMA: 50 MILES OCEAN TO OCEAN

PACIFIC OCEAN
The Panama Canal Service Promise

- Reliability
- Sustainability
- Connectivity
- Economies of Scale

100 years