AAPA Planning for Shifting Trade Perspectives on Infrastructure Investment

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Manager, Strategic Relations
February 2017
The Expanded Panama Canal
First drybulk transit: Carouge
177,000 DWT
Beam 45.01 m

Aegean Unity
First transit of Suezmax Oil Tanker Vessel
**Neopanamax Locks**

**Vessels Transits and Booking Reservations**

**Transits**
(from 26-Jun-2016 to 31-Jan-2017)

- Container vessel: 397; 44.4%
- LPG: 224; 25.0%
- LNG: 76; 8.5%
- Drybulk: 25; 2.8%
- RoRo: 19; 2.1%
- Tanker/Oil: 5; 0.6%
- Barge, Not self prop.: 1; 0.1%
- Panamax: 148; 16.5%

**Reservations for FY2017**
(from 01-Feb-2017 to 30-Sep-2017)

- Container vessel: 110; 67.9%
- LPG: 32; 19.8%
- LNG: 18; 11.1%
- Drybulk: 1; 0.6%
- Passengers: 1; 0.6%

**Reservations for FY2018**
(from 1-Oct-2017 to 30-Sep-2018)

- Passengers: 18; 100.0%
- Container vessel: 0; 0.0%
- LPG: 0; 0.0%
- LNG: 0; 0.0%
- Drybulk: 0; 0.0%

Updated as of 31-Ene-2017 (inclusive)

**NPx 747**

**Px 148**

**Total 895**
Liner Services Connectivity of Panama

<table>
<thead>
<tr>
<th>Commercial Route</th>
<th>No. of Services</th>
<th>Annual Capacity in one direction</th>
<th>No. of Vessels</th>
<th>Average Vessel Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feeder Services Atlántico</td>
<td>25</td>
<td>2,508,995</td>
<td>76</td>
<td>2,469</td>
</tr>
<tr>
<td>Feeder Services Pacífico</td>
<td>14</td>
<td>3,031,557</td>
<td>86</td>
<td>6,489</td>
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<tr>
<td>Total</td>
<td>39</td>
<td>5,540,552</td>
<td>162</td>
<td></td>
</tr>
</tbody>
</table>

Neopanamax

<table>
<thead>
<tr>
<th>Commercial Route</th>
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<th>Annual Capacity in one direction</th>
<th>No. of Vessels</th>
<th>Average Vessel Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia - USEC</td>
<td>7</td>
<td>3,096,301</td>
<td>71</td>
<td>8,496</td>
</tr>
<tr>
<td>WCSA - Europe</td>
<td>1</td>
<td>470,798</td>
<td>10</td>
<td>9,054</td>
</tr>
<tr>
<td>Asia – Caribbean</td>
<td>1</td>
<td>464,009</td>
<td>11</td>
<td>8,899</td>
</tr>
<tr>
<td>WCUS – Europe</td>
<td>1</td>
<td>469,286</td>
<td>10</td>
<td>9,000</td>
</tr>
<tr>
<td>Sub-Total</td>
<td>10</td>
<td>4,500,394</td>
<td>102</td>
<td>8,645</td>
</tr>
</tbody>
</table>

Panamax

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<tr>
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<th>No. of Vessels</th>
<th>Average Vessel Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia – USEC / Gulf</td>
<td>5</td>
<td>1,227,015</td>
<td>51</td>
<td>4,733</td>
</tr>
<tr>
<td>WCSA – Europe</td>
<td>7</td>
<td>1,085,789</td>
<td>57</td>
<td>3,115</td>
</tr>
<tr>
<td>WCUS – Europe</td>
<td>2</td>
<td>396,891</td>
<td>19</td>
<td>3,816</td>
</tr>
<tr>
<td>Pendulum</td>
<td>1</td>
<td>255,601</td>
<td>15</td>
<td>4,915</td>
</tr>
<tr>
<td>WCSA – USEC</td>
<td>2</td>
<td>229,194</td>
<td>8</td>
<td>2,336</td>
</tr>
<tr>
<td>Australia – USEC</td>
<td>1</td>
<td>177,736</td>
<td>10</td>
<td>3,418</td>
</tr>
<tr>
<td>Australia – Europe</td>
<td>1</td>
<td>73,446</td>
<td>7</td>
<td>2,825</td>
</tr>
<tr>
<td>Sub-Total</td>
<td>19</td>
<td>3,445,672</td>
<td>167</td>
<td>3,878</td>
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<tr>
<td>Total</td>
<td>29</td>
<td>7,946,066</td>
<td>269</td>
<td>3,685</td>
</tr>
</tbody>
</table>

Source: ACP MEMN, Compair Data, October 2016
Liner Services Deployed Capacity
Local Port Calls and Panama Canal Transits

April 2016

- Transit: 31%
- Transit and transshipment: 69%

<table>
<thead>
<tr>
<th>Description</th>
<th>Annual Capacity in TEUs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transit and transshipment</td>
<td>8,389,757</td>
</tr>
<tr>
<td>Transit and no transshipment</td>
<td>3,778,751</td>
</tr>
<tr>
<td>Total</td>
<td>12,168,508</td>
</tr>
</tbody>
</table>

October 2016

- Transit: 23%
- Transit and transshipment: 77%

<table>
<thead>
<tr>
<th>Description</th>
<th>Annual Capacity in TEUs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transit and transshipment</td>
<td>10,336,538</td>
</tr>
<tr>
<td>Transit and no transshipment</td>
<td>3,061,842</td>
</tr>
<tr>
<td>Total</td>
<td>13,398,380</td>
</tr>
</tbody>
</table>

Source: Compairdata/MEMN, October, 2016
The Panama Canal
It’s all about Reliability, Connectivity, and Value Added Services

Approximately 18 to 20 days at 18 knots

Lazaro Cardenas (Mexico)
3-4 days

Savannah, Charleston, Norfolk, Houston
3-4 days

Caucedo (Dominican Rep.)

Callao (Peru)
3-4 Days

Cartagena (Colombia)
Less than 1 day

San Antonio (Chile)
5-6 Days

Santos (Brazil)
10-11 Days

80% of container vessels that transit the Panama Canal call at a local port
Impact of the Panama Canal Expansion

1. Panama Canal
   Strengthens its service offer by improving route competitiveness

2. Liners
   Increases flexibility and productivity of their Neopanamax vessel services

3. Local and Regional Ports
   Development and investment plans of port terminals to service the Neopanamax market

4. Supply Chain
   Savings in transport costs, new logistics centers, road, rail and air transport investments

5. Panama Logistics Hub
   Panama Canal Diversification Strategy
**Corozal Container Terminal**
- New container terminal to serve more than 5MM TEU.

**Logistics Park**
- Offers a strategic location for distribution and value-added activities.

**Bunkering**
- Opportunities to obtain a larger market share in vessel bunkering.

**Power Generation**
- Cost-competitive through the use of LNG as alternate fuel source.

**Roll-on Roll-off Terminal**
- Potential for a dedicated terminal for vehicle transshipment in Panama.

**LNG Terminal**
- Capitalizes on global LNG flows by offering LNG bunkering to vessels.
- Competitive LNG traffic toll system will support U.S. to Asia market.

**Pipelines**
- Opportunities related to the flow of petrochemicals and refined products from one ocean to the other.

**Vessel Repairs Services**
- Facilities to provide major scheduled ship repairs, routine maintenance or emergency repairs.

**Top-Off Operations**
- Potential for developing a ship-to-ship top-off operation in Panama.

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NEW CONTAINER TERMINAL IN COROZAL

PHASE 1
67 hectares
3.2 million TEUs
20 cranes
49 E-RTGs

PHASE 2
52 hectares
2.1 million TEUs
12 cranes
25 E-RTGs

• $1 Billion
• Construction:
  - Phase I: 1,300 jobs
  - Phase II: 800 jobs
• Operation:
  - Phase I: 2,600
  - Phase II: 1,200
• Contribution: $25 - $100 (2018 – 2038)
• Added-value to the Route: $60 – 70 M/annually
Pre-qualified Port Operators

- APM Terminals
- PSA
- Terminal Investment Limited SA
- Terminal Link
Connectivity of 1,200 Hectares

- Howard airport
- Two world class ports
- Interoceanic waterway (13,000 vessels a year)
- Two existing bridges (a third is under construction)
Commercial development of approximately 1,200 hectares of recovered area located on the West Bank of the Panama Canal.
Potential creation of a special economic zone for logistics/industrial parks space.
Activity: Logistic Parks

Centennial Bridge

Distribution / Warehousing

Port
Activity: Food/Perishable Goods
Activity: Vehicles and Heavy Equipment
Ro Ro Terminal in Two Phases

- Focus on vehicles and heavy equipment
- Mainly a transshipment facility
- May include accesorization
- Performing additional geotechnical studies
Five Development Areas

- Centenario: 180 ha
- Valley: 164 ha
- Cocolí: 24 ha
- The Strip: 66 ha
- Fotovoltaic Island: 70 ha
- Rousseau: 125 ha
Rendering of Rousseau Area

New waterfront area for RoRo terminals, multipurpose terminals
Rendering - Cocolí Area

Artificial lake and Business Park
Rendering – Valley Area

Logistics & industrial area: warehouses, light industries, etc.
Rendering Centennial Area/ barge terminal

Business park and barge terminal area
Analyze the potential market demand for LNG:

- Supply vessels transiting the Canal and/or arriving Panamanian ports
- Supply ACP power generation facilities
- Regional redistribution

First LNG vessel transit
Maran Gas Apollonia
July 25, 2016
• Promote the development of commercial activities that complement Canal operations, with the participation of the private sector.

• Strengthen Panama’s maritime and logistics cluster through commercial activities that add value to the Panama canal route.