AAPA Smart Ports

Business Intelligence

March 7th, 2018
Oakland, CA

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Business Development Manager
#1 Seaport in Florida by Revenue
- $161.7 million (FY2017)

#1 Container Port in Florida
- 1,987 ship calls
- 1.076 million TEUs (FY2017)

#1 Seaport for Exports in Florida
- $11.7 billion (CY2016)

#1 Refrigerated Cargo Port in Florida
- 146,494 TEUs (FY2017)

#2 Petroleum Port in Florida
- 594 ship calls
- 122 million barrels (FY2017)

#3 Foreign-Trade Zone in the U.S.
- $5.1 billion total activity (CY 2016)

#3 Cruise Port in the World
- 876 ship calls
- 3.8 million passengers (FY2017)
Jurisdictional Area

Located in the cities of:

- Hollywood
- Fort Lauderdale
- Dania Beach

Direct access to:

- I-95  
- I-595  
- I-75  
- Florida Turnpike
Enterprise Fund of Broward County Government

- Operations are supported 100% by user fees; no local taxpayer dollars
- $161.7 million operating revenue in FY 2017

Landlord Port

- We DO develop and lease land + facilities
- We DO NOT operate terminals or handle cargo
The Big 3

- Cargo
- Cruise
- Petroleum
Containerized Cargo by Trade Lane
FY2017

- Caribbean: 31.8%
- Central America: 39.3%
- West Coast South America: 11.2%
- Mediterranean: 6.7%
- Northeast Asia: >0.1%
- Northern Europe: 2.6%
- Southeast Asia: >0.1%
- Other: 0.2%
- Indian Sub-Continent/Middle East: 0.1%
- East Coast South America: 8.1%
<table>
<thead>
<tr>
<th>Trade Partner</th>
<th>TEUs</th>
<th>Short Tons</th>
<th>$ Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Honduras</td>
<td>221,405</td>
<td>1,750,067</td>
<td>$10,640,377,186</td>
</tr>
<tr>
<td>2 Guatemala</td>
<td>206,639</td>
<td>1,622,285</td>
<td>$4,796,797,440</td>
</tr>
<tr>
<td>3 Dominican Republic</td>
<td>144,458</td>
<td>1,130,865</td>
<td>$7,254,904,151</td>
</tr>
<tr>
<td>4 Brazil</td>
<td>81,268</td>
<td>954,212</td>
<td>$3,041,824,788</td>
</tr>
<tr>
<td>5 Bahamas</td>
<td>80,367</td>
<td>815,547</td>
<td>$1,772,882,489</td>
</tr>
<tr>
<td>6 Colombia</td>
<td>71,393</td>
<td>656,619</td>
<td>$2,136,339,684</td>
</tr>
<tr>
<td>7 Panama</td>
<td>55,526</td>
<td>595,527</td>
<td>$1,665,130,920</td>
</tr>
<tr>
<td>8 Italy</td>
<td>49,623</td>
<td>650,677</td>
<td>$960,022,757</td>
</tr>
<tr>
<td>9 Netherlands Antilles</td>
<td>48,958</td>
<td>535,108</td>
<td>$1,615,898,769</td>
</tr>
<tr>
<td>10 Costa Rica</td>
<td>47,527</td>
<td>377,202</td>
<td>$1,309,623,446</td>
</tr>
</tbody>
</table>

Top 10 Trade Partners FY2017

Port Everglades
Florida’s Powerhouse Port

Florida’s Powerhouse Port
Florida’s Powerhouse Port
<table>
<thead>
<tr>
<th>Commodity</th>
<th>TEUs</th>
<th>Short Tons</th>
<th>$ Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apparel</td>
<td>57,680</td>
<td>391,744</td>
<td>$ 6,228,554,662</td>
</tr>
<tr>
<td>Machinery</td>
<td>57,391</td>
<td>633,511</td>
<td>$ 3,650,252,101</td>
</tr>
<tr>
<td>Other Food Products</td>
<td>54,585</td>
<td>504,176</td>
<td>$ 1,040,891,791</td>
</tr>
<tr>
<td>Motor Vehicles</td>
<td>43,532</td>
<td>121,304</td>
<td>$ 758,004,838</td>
</tr>
<tr>
<td>Beverages</td>
<td>33,706</td>
<td>430,225</td>
<td>$ 402,327,804</td>
</tr>
<tr>
<td>Paper</td>
<td>25,931</td>
<td>266,348</td>
<td>$ 364,174,410</td>
</tr>
<tr>
<td>Steel Products</td>
<td>25,425</td>
<td>261,052</td>
<td>$ 652,854,477</td>
</tr>
<tr>
<td>Textiles</td>
<td>21,124</td>
<td>180,154</td>
<td>$ 1,061,276,132</td>
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<tr>
<td>Lumber</td>
<td>20,817</td>
<td>254,866</td>
<td>$ 210,454,276</td>
</tr>
<tr>
<td>Furniture</td>
<td>17,349</td>
<td>85,807</td>
<td>$ 286,711,937</td>
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</tbody>
</table>

Top 10 Commodities FY2017
<table>
<thead>
<tr>
<th>Port Name</th>
<th>TEUs Moved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Port Everglades</td>
<td>146,608</td>
</tr>
<tr>
<td>Jacksonville</td>
<td>93,025</td>
</tr>
<tr>
<td>Miami</td>
<td>60,335</td>
</tr>
<tr>
<td>West Palm Beach</td>
<td>39,198</td>
</tr>
<tr>
<td>Manatee</td>
<td>23,250</td>
</tr>
<tr>
<td>Canaveral</td>
<td>5,650</td>
</tr>
<tr>
<td>Panama City</td>
<td>4,824</td>
</tr>
<tr>
<td>Tampa</td>
<td>2,665</td>
</tr>
</tbody>
</table>
- Deepen Outer Entrance from 45 ft. to 55 ft. and Widen from 500 ft. to 800 ft.
- Deepen Inner Channel from 42 ft. to 48 ft., Plus 1-ft. Required and 1-ft. Allowable Overdepth for a Total of 50 ft.
- Widen Southport Access Channel by 250 ft.

Changes to O&M: Volume increase ~20%: from existing ~21,000 cy to ~27,000 cy
Future of Southport

- FTZ Relocation/Logistics Center Development
- New Container Yards
- Additional Berths
- New Cranes
- Wharf & Existing Cranes Upgrades
Future of Southport

Southport Turning Notch Extension

- Lengthen by 1,500 feet
- Add up to 5 new berths

NOW 2021
Looking Into the Future

Renovation of Cruise Terminals 25
Future of Northport

Convention Center Expansion & New Convention Hotel

- Demo Terminal 1 and Portion of the Northport Garage
- Build New Cruise Garage
- Connecting Hotel and Public Areas
- Convention Center Expansion

Cruise Parking Garage
Marketing/BD Uses of Business Intelligence

• Targeted Sales Queries
  • Challenges in sources
  • Example: Crowley Sea/Air Program

• Trends in Business Analysis
  • Geopolitical Issues -> Steel Tariff
  • Monthly/Quarterly analysis of market state
  • Lost-Gained business reports
  • Real time service impacts

• Interactive Dashboards on KPIs
Marketing/BD Uses of Business Intelligence

- Tenant Contract Analysis
  - Contract Negotiation KPIs
  - Easily available costs/move of Terminal Operators
  - Efficiency of each Terminal Operator
  - Capital Investment forecasts by volume

- Real-Time Dashboards on Tenants using AIS/GIS
  - Port Community System, Interactive
Marketing/BD Uses of Business Intelligence

- Social Media/Apps
  - YouTube/Facebook/SnapChat
  - Port Everglades iPhone App
- Interactive Shipline Services Guide (Dashboard)
  - Customer can use dashboard to find optimal routing
- Website Statistics
  - Easy to find, transparent information
  - Millennials want easy access
Operational Challenges of Business Intelligence

• **Challenge: Transparency as a LandLord Port**
  - Must have buy in from all stakeholders at the Port
  - One link can block the whole information flow
  - Multiple Terminal Operating Systems

• **Challenge: Every Port is Different**
  - Landlord vs. Operational
  - Business Lines
  - Volume
Operational Uses of Business Intelligence

- **Strategic KPIs**
  - Crane/Berth Efficiency, Turn Times, etc.
  - Example: Port Everglades Dwell Time
    - Which link in supply chain caused disruption?
  - Crane/Berth Requests
  - Dashboard for Key KPIs accessible for management
  - Drives real-time decision making

- **KPIs must be flexible**
  - Constraints -> Benchmarking
Operational Uses of Business Intelligence

- **Operational Planning**
  - Analyze historical monthly/quarterly/yearly KPIs
    - Trends in business lines, upcoming disruptions
  - Must be Proactive, not Reactive
    - Additional security/gates on historically busy Cruise Days

- **Refrigerated Cargo Planning**
  - Pilot Program for Perishables
  - Customs Clearance before vessel arrives
  - Time to Market/Visibility
Operational Uses of Business Intelligence

• Capital Infrastructure Investment
  • Track economic impact of major investments
  • Ports role to Modernize Infrastructure
  • Working with Universities to create simulation models that show additional volume impacts and bottlenecks

• Channel Operation
  • Cruise/Cargo/Private Vessels
  • Channel Depth/Width
  • Berth Utilization -> Turn Berths
Operational Uses of Business Intelligence

• Traffic Analysis
  • Busy Cruise Days can be disruption to Cargo Operations
  • One Terminal Operator can cause Port-Wide Delays
  • Staff Traffic Officers on strategic days (gates/lights)

• Safety/Emergencies
  • Active Shooters
  • Natural Disasters -> Hurricanes
    • Impact from Puerto Rico
New for 2018

- Terminal 2 renovation
- Integration of Carnival’s Ocean Medallion Service
Download App | Setup Your Passport | Answer a Few Questions | Submit to CBP | Get Your Receipt

Mobile Passport Control

Port Everglades
Florida's Powerhouse Port®
What’s Next?

Pedestrian Biometric Field Test - Entry

- Outdoor Land Environment
- Kiosk Stations
What’s Next?

Pedestrian Biometric Field Test - Exit

- Outdoor Land Environment
- Data Matching
- Additional Security
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Stay Connected With Port Everglades