AAPA Marine Terminal Management Training
October 1-5, 2018
Eric Napralla – Port of Oakland
Port of Oakland by the Numbers

- 4 marine terminals in operation
- 3 terminal operators – SSA, Everport & TraPac
- 33 Cranes of which 23 are Port-owned
- 2.42 million TEU handled in 2017
- 20 ocean carriers with service to/from Oakland
- 1,600 vessel calls in 2017
- 2nd busiest container terminal in the United States, in number of daily gate moves
Mega-Ship Era
### Comparing 1999 to 2017 in Marine Terminal Operations

<table>
<thead>
<tr>
<th>Category</th>
<th>1999 Details</th>
<th>2017 Details</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Largest Containership</td>
<td>8,000 TEUs</td>
<td>21,000 TEUs</td>
<td>+163%</td>
</tr>
<tr>
<td>Number of Marine Terminals</td>
<td>11 terminals</td>
<td>6 terminals</td>
<td>-45%</td>
</tr>
<tr>
<td>TEUs Handled</td>
<td>1.69 million</td>
<td>2.37 million</td>
<td>+40%</td>
</tr>
<tr>
<td>Number of Ocean Carriers</td>
<td>44</td>
<td>25</td>
<td>-43%</td>
</tr>
<tr>
<td>Average Terminal Size</td>
<td>49 acres</td>
<td>153 acres</td>
<td>+212%</td>
</tr>
<tr>
<td>Largest Marine Terminal</td>
<td>81 acres</td>
<td>271 acres</td>
<td>+248%</td>
</tr>
</tbody>
</table>
Marine Terminal Consolidation
January 2008
October 2017 – Densified

[Image of a port with densely packed containers and ships]

(PORT OF OAKLAND SEAPORT)
Operational Impacts
Port Efficiency Task Force

- Port convened multi-stakeholder work group in 2015 to develop/implement operations and technology-based efficiency measures:
  - Extended Marine Terminal Truck Gate Hours
  - Appointment Systems
  - Chassis
  - Truck Wait/Turn Time Metrics
  - ILWU Workforce Growth
  - Central Valley Depot
  - Oakland Community Portal
  - Freight Intelligent Transportation Systems (FITS) Initiative
All Port of Oakland marine terminals use various features of eModal for their customer interface.

Current features include:

- Terminal information
- Appointments and Pre-Advise
- Online fee collection from shippers/truckers
- Container status and availability information
- Vessel schedules
- Drayage truck registry and RFID tag management
- Mobile application
- Trucker and shipper communications via broadcast message function
Oakland Community Portal

- Port working with Advent to **create one system of record for the Port of Oakland**: 
  - Expand eModal utility for utilization by **ALL** supply chain stakeholders
  - Ensure data consistency, accuracy for OAK MTO’s
  - Launch new Oakland-specific URL/website
  - Digitize and streamline landside operations
  - Transparency will drive ops efficiency and cargo velocity
Oakland Community Portal

- Phase 1 – Q1 2018

- Port level information, latest updates, maps
- Marine terminal pages, with location, hours, maps
- CCTV feeds from Port and terminals
- Vessels in port by facility
- Empty container return information by facility/line
- No password required
Oakland Community Portal

• Phase 2 – Q3/4 2018
  • New Design Framework
    • Multi-platform w/ eModal user validation
    • Mobile friendly
  • Integrated container watchlist (now, for shippers too)
  • Dashboards
    • KPIs unique to shippers and truckers
  • Post login landing page
Oakland Community Portal

- Phase 3 – Q4 2018

- Truck turn times
  - Integrate RFID tag reads collected by Port at entry/exit gates
  - Add new dashboard to showing average turn time by facility
  - 15 minute update interval
Phase 3 – Q4 2018

• Truck Turn Time Reporting
• Integration and calculation of RFID tag reads collected at entry/exit gates
• New dashboard to Portal home page showing average turn time by facility

Oakland Community Portal
Oakland Community Portal

• Dashboard Concept
  • User can customize – unique to shipper and trucker watchlists to start
    • Containers on terminal by status
    • Containers on terminal by equipment type
    • By motor carrier
    • Vessels in Port
Freight Intelligent Transportation Systems (FITS) Initiative

• Make streets that support Port “smart”
• Collect, analyze, disseminate traffic information to increase efficiency
• Integrate local, regional, state traffic information

• Project Sponsor

• Project Partners
FITS Project List

• Communications (Fiber)
• CCTV Upgrade to HD
• RFID Readers
• Joint TMS/EOC
• Changeable Message Sign Boards
• Truck Queue Detection
• Traffic Signal Upgrades
• Basic GoPort Web/Mobile Application
FITS Project List

- Communications (Wi-Fi)
- Supplemental Vehicle Detection (speed)
- C2C Communications
- Advanced Train Detection System
- Weigh-In-Motion Technology
- Basic Smart Parking
FITS Implementation

• Current Schedule
  • 35% Design - Q2 2018
  • 100% Design – Q1/2 2019
  • Start Construction – Q4 2019

• Current Finance Plan
  • Design
    • Measure BB (County)
  • Construction
    • Advanced Transportation & Congestion Management Technologies Deployment (Federal)
    • Port Security (Federal)
    • Trade Corridor Enhancement Program (State)
    • Measure BB (County)
Closing Thoughts

- No shortage of data in/around supply chain
- Stakeholders are demanding data transparency (access to advance, additional/organized information, KPIs, camera feeds, traffic information, etc.) to more effectively manage their business
- Data needs to be shared responsibly
- All stakeholders will need to participate!!!!!!
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