# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive Summary</td>
<td>4</td>
</tr>
<tr>
<td>Introduction</td>
<td>9</td>
</tr>
<tr>
<td>Background</td>
<td>10</td>
</tr>
<tr>
<td>Recommendations</td>
<td>12</td>
</tr>
<tr>
<td>Tier One Recommendations</td>
<td>13</td>
</tr>
<tr>
<td>Tier Two Recommendations</td>
<td>18</td>
</tr>
<tr>
<td>Tier Three Recommendations</td>
<td>22</td>
</tr>
<tr>
<td>Labor Hiring</td>
<td>27</td>
</tr>
<tr>
<td>Implementation Plan</td>
<td>28</td>
</tr>
<tr>
<td>Conclusion</td>
<td>29</td>
</tr>
<tr>
<td>Appendices</td>
<td>30</td>
</tr>
<tr>
<td>Appendix A</td>
<td>31</td>
</tr>
<tr>
<td>Appendix B</td>
<td>37</td>
</tr>
<tr>
<td>Appendix C</td>
<td>38</td>
</tr>
<tr>
<td>Appendix D</td>
<td>40</td>
</tr>
<tr>
<td>Appendix E</td>
<td>41</td>
</tr>
<tr>
<td>Port Performance Task Force Participants</td>
<td>42</td>
</tr>
</tbody>
</table>
EXECUTIVE SUMMARY

The Port of New York and New Jersey (PONYNJ) is the largest port on the East Coast serving a local population of over 21 million people. Over the past thirteen years, the port has seen steady growth in cargo volumes. With the exception of 2009 and the direct effects of the recession, 2013 was the first year out of the past fifteen years when cargo volumes did not grow, with total volume just 1.0% below 2012 volumes. All indications suggest that 2014 will be more productive for the port as year to date volumes (through April) are 3.1% above 2013 volumes, with rail lifts up an impressive 5.4% year to date.

Economies of scale and the associated savings has driven the shipping industry to invest in larger vessels. As a port, we welcome the opportunity to serve larger vessels. For the past ten years, terminal operators have invested over $2 billion on new cargo handling equipment, new gates, new operating systems and a variety of projects to improve capacity of their terminals. The Port Authority of New York and New Jersey has also invested over $2.7 billion to deepen the channels, increase the roadway capacity around our terminals and build intermodal rail facilities with another $1.3 billion committed to increasing the air draft of the Bayonne Bridge. However, this shift toward larger container ships will challenge the port’s ability to handle large volumes of concentrated cargo. During the summer of 2013, the port experienced severe congestion because of a variety of problems. These included labor shortages, operating system failures, a shortage of chassis construction, and other related issues. The port also experienced a severe winter with record snow and ice and sub-freezing temperatures. Many of the problems experienced were system problems involving multiple stakeholders. It was recognized that no one entity in the port could fix these issues alone and that everyone needed to work collaboratively for collective change.

In late 2013, the Port Authority convened the Port Performance Task Force (PPTF) comprised of executive-level port constituents. The goal of the Task Force was to identify challenges to port efficiency and provide a forum wherein everyone could discuss their common interests; identify challenges to port efficiency and service reliability, and recommend potential solutions and Key Performance Indicators (KPIs), all aimed at maintaining the port’s position as a preeminent port in the United States.

The Task Force, led by the Director of Port Commerce for The Port Authority of NY & NJ and the President of the New York Shipping Association (NYSNA), brought together representatives from all of the port stakeholder groups. Five Working Groups were established - Intermodal Equipment, Drayage Operations, Terminal Optimization, ExpressRail, and Government and Community Outreach to address a diverse set of concerns related to port productivity and performance. Senior staff members from the Port Authority facilitated each Working Group consisting of 10 to 15 industry experts from the port community.

Invitations to serve on this panel were extended to representatives from ocean carriers, marine terminal operators, railroads, the motor carrier community, equipment providers, shippers and beneficial cargo owners, as well as labor and management organizations. In total, nearly 100 individuals, representing 60 different companies and organizations, took part in the PPTF’s effort.

After extensive collaboration, the five Working Groups produced 23 recommendations, which the PPTF prioritized according to impact on long-term efficiency and service reliability as well as feasibility of implementation. These recommendations, based on input from the port community, indicate a need for increased efficiency, measurement, communication of data in a timely and meaningful manner, and transparency.

Following the votes, the recommendations were divided into three tiers:

- **Tier One** — Large-scale management and infrastructure projects that would have the most resounding impact on the overall PONYNJ business;
• **Tier Two** — Projects that aren’t as large in scale but enhance both the efficiency and effectiveness of day-to-day operations; and

• **Tier Three** — Long- and short-term initiatives that will incrementally contribute to the overall health of the port at both the administrative and operational level.

By design, there is overlap and connection among several recommendations. None of the recommendations in this report should be viewed independent of the others; the connections between all recommendations must be examined together and a logical sequence for implementation must be developed. The recommendations are not in priority order within the tiers.

**TIER ONE RECOMMENDATIONS**

1. **Chassis Management Improvement System:** Efficient chassis provisioning is critical to the overall competitiveness of the PONYNJ, and it is essential that a system to improve chassis management be implemented. In the past several years, the vast majority of Ocean Carriers have decided to distance themselves from the costs and accountabilities associated with the ownership and management of such equipment. Today the PONYNJ is supported by three independent pool fleets as well as trucker owned chassis and independent fleets.

   The Intermodal Equipment Work Group (IEWG) conducted an analysis of the port’s existing complex chassis environment, and identified two essential components as keys to improved efficiency: interoperability of chassis in the market, and gate integration. The IEWG examined six pool models. A “Subject Matter Expert Panel” is recommended to help transition the work, analytical framework and conceptual modeling to the next phase of concept development as deemed appropriate. The services of a consultant with expertise in analyzing and monetizing costs and perceived benefits may be retained to evaluate any changes to the current chassis model and or the movement of chassis to off dock.

2. **Truck Management System Implementation:** One of the critical elements that contribute to container terminal congestion and poor productivity is the unpredictability of truck arrivals, which leads to situations where demand greatly exceeds supply or vice versa. A Truck Management System would effectively meter truck arrival rates while keeping resources for all stakeholders operating at maximum levels. The initial program should be structured as a pre-advice system where the truck driver advises the terminal through an automated system of their intention to pick up or deliver a container. This system would reduce congestion, allow for more efficient allocation of resources, decrease truck turn times, improve productivity and terminal capacity, reduce the number of trouble tickets/transactions, and decrease emissions.

3. **Integrated Port Community System (PCS) Utilization:** An integrated Port Community System to optimize logistics planning and information sharing is needed to ensure key information is communicated in real-time to the port community.

4. **Coordination of Terminals and Alignment of Gate Hours:** Aligning different terminals’ gate hours and increasing coordination on days when multiple terminals have extended gate hours will allow for more effective planning and a more efficient use of resources.

5. **Use Radio Frequency Identification (RFID) Technology to Measure and Report on Truck Movements:** RFID technology can be used to measure and report on various truck movement times, including turn times within the terminal, queue times at terminal entrance gates, and traffic on the port roadways leading to terminals. The availability of near real-time information on actual conditions will facilitate informed decision making which could lead to better productivity. RFID can be the key to more accurate planning and information that is more reliable.
TIER TWO RECOMMENDATIONS

6. **Availability of Customer Service:** Just as in other ports, trying to pick up or drop off a container in the PONYNJ can require the trucker to interact with customer service representatives. This sometimes becomes difficult during extended gate hours when customer service offices are not always fully staffed. A sufficient number of customer service representatives should be available from the time the gate is opened until the last truck has exited the out gate. This will decrease turn times and increase container transactions.

7. **Guideline Development for Extension of Free Time in Extremis Situations:** The Task Force recommends creating guidelines extending authorized free time, the specified time that cargo can remain on the terminal following discharge from a vessel or prior to loading on a vessel, for those who are in extreme situations, especially those beyond the cargo interests’ control.

8. **Construction of ExpressRail Support Track:** The Task Force recommends implementing the recommendations set forth by the 2013 Port Authority study titled “The Systematic Improvement of the Port Authority ExpressRail,” which highlighted the benefits of constructing additional ExpressRail support track. This would reduce present rail congestion, improve throughput and efficiency, and provide intermodal container surge capacity, as well as provide additional capacity and flexibility for expected future growth in intermodal rail traffic in the port.

9. **Development of a Street Turn System for Empty Containers and Chassis:** The port should develop a street turn system for both empty containers and chassis. The implementation of a dedicated online tool would allow for easier communication between stakeholders and ocean carriers to arrange for the transfer of containers and/or chassis at off-dock service locations to reduce both congestion as well as empty vehicle miles traveled to and from the port.

10. **Availability of a Dashboard of Current Conditions:** Technology that monitors current conditions should be leveraged to provide stakeholders with real-time information regarding conditions. Images and data from the Intelligent Transportation System travel time reader should be posted in a consolidated location, via a Smart Phone Application and online, to help dispatchers and truck drivers to make informed decisions and optimize their routing and scheduling.

11. **Compilation of Key Performance Indicators (KPIs):** KPIs, a set of measurements that indicate how an entity is performing in relation to its strategic or operational goals, should be available for reporting and distribution to the port community through a dashboard. Consolidating this information into a regularly updated dashboard would improve real-time decision-making, promote transparency, and establish credibility and trust among the port community. Certain KPIs would be used for internal management only.

TIER THREE RECOMMENDATIONS

12. **Establishment of a Mechanism to Ensure Continuity of the PPTF Beyond the Report’s Publication:** The Port Authority should work with all stakeholders to create a governance structure, considerate of regulatory requirements and commercial practices to monitor implementation of the Task Force recommendations and to ensure accountability and ownership of the process and recommendations. The new governance structure would also continue to monitor and report on the port’s vitals, as well as assess, adjust, and mitigate future potential issues.
13. Development of a “Guide Book”: An informational database available online and via a Smart Phone Application needs to be maintained and updated regularly to help educate stakeholders on each container terminal, container and/or chassis depot and rail terminal. Data would include traffic flow maps, process maps, contact phone numbers and email addresses, hours of operation, rules and requirements with penalties for non-compliance, “Dos and Don’ts” for each location, and regulatory requirements.

14. Publication of a Snapshot of the Next Day’s Activity: The publication of a “planning guide” each afternoon as a preview of the next day’s activity would highlight information such as vessel cut-offs, rolled vessels, changes in empty returns, and unavailable slots.

15. Exploration of Opportunities for Establishment of Inland Ports: The port should consider sites for inland ports to facilitate the movement of international cargo between the inland port region and the associated marine terminal.

16. Development of a Container Transfer Fee (CTF) Program: In accordance with the Port Authority Marine Terminal Tariff, effective January 1, 2017, no Container Terminal Facility shall permit access into any Port Authority Terminal by any drayage truck that is not equipped with a 2007 or newer engine. The creation of a CTF program could help provide the funds necessary to replace several thousand trucks that do not comply with this regulation.

17. Report of the Quantity of Labor Needed in Comparison to Labor Ordered: Data should be shared regarding available and needed labor to help predict potential impacts on turn times at terminals. This will help the port plan for disruptions and communicate expected impacts and outcomes with the port community in a timely manner.

18. Development of a Unified Customer Service Center: Customer Service Centers are a key component to many ports’ successful customer satisfaction strategies. These centers are designed to respond to customer needs through a single, reliable point of contact that is readily accessible in person, by phone or by email. The creation of a unified customer service/411 center with extended hours at the existing Truck Service Center (TSC) would assure truckers that the port is committed to providing them with excellent service.

19. Incorporation of Performance Standards for Empty Container and Chassis Depot Transactions in Tariffs: Federal Maritime Commission (FMC) tariffs, which govern activity at the container terminals, should be updated to include performance standards and penalties for all components and locations of the container delivery and receipt transaction.

20. Encouragement to Ocean Carriers to Use Block Stowage of Rail Cargo: Using block-stowing of import containers by ocean carriers for cargo that is destined to intermodal rail can significantly expedite the discharge of rail containers from vessels, greatly assist marine terminal operators in the yard segregation of rail containers, and ultimately streamline the ship-to-rail movement of import rail containers. Segregating import rail containers on vessels and by Marine Terminal Operators (MTOs) on their terminals would assist in achieving the targeted ship-to-rail standard of less than two days.

21. Utilization of Touch Pads at Gate Pedestals: A large percentage of the trouble tickets issued to motor carriers are due to a language barrier between the driver and the clerk. Providing touch pads as a backup method for drivers and clerks to communicate would help reduce the number of trouble tickets and have a dramatic impact on turnaround times at all container terminals. On an immediate basis, all parties should use the phonetic alphabet to help improve communication.
22. **Movement of Rail Cargo on Weekends:** All related partners, such as MTOs, Railroads, ExpressRail Operators, and U.S. Customs and Border Protection (CBP), should work rail cargo on weekends as necessary to optimize rail operations. It is essential that CBP coverage is available at a minimum at all rail terminals between the hours of 8 am and 5 pm Monday through Friday. Such coverage would help expedite the movement of import cargo to and from rail.

23. **Development of a Crisis Communications Plan:** The plan would provide policies and procedures for the coordination of internal and external communications in the event of a crisis. In addition, plans should be developed for regular communication with stakeholders.

The ultimate goal of the Port Performance Task Force, to maintain the port’s position as a preeminent port in the United States, remains of the highest importance, and moving forward a new group will be formed to help ensure that goal is met. This new group, the Council on Port Performance (CPP) will build upon the efforts of the PPTF and its Working Groups. In addition, there will be regular communications and periodic Town Hall meetings to inform the entire port community about the progress toward implementation and to continue soliciting feedback.

Where opportunities exist to immediately implement solutions to current congestion and productivity issues those initiatives will proceed expeditiously. Similarly, where additional research is needed to further refine recommendations or select a specific model to implement, those efforts should also proceed expeditiously. The development of a logical order of implementation, or sequencing of recommendations, will ensure that both simple and complex recommendations can be pursued in parallel with resolution provided in the timeliest manner.

The port community is committed to continuing the Task Force’s highly collaborative and inclusive process to collectively improving efficiency and reliability at the PONYNJ. By working together to identify specific solutions to maximize the port’s efficiency, the PPTF and the port community have paved the way for the continued economic success for the port as well as the region it serves.
INTRODUCTION

Over the past 13 years, the Port of New York and New Jersey (PONYNJ) has seen steady growth in cargo volumes, with the exception of 2009. That growth has resulted in nearly doubling the amount of cargo coming to our port. In addition, the size of ships has steadily grown because of the economies of scale achieved and the savings that result. As a function of Gross Domestic Product (GDP), trade generally grew at about two times that of GDP. As a port, the challenge was straightforward. Its capacity needed to increase to handle the cargo growth and it needed to be ready for larger ships. The Marine Terminal Operators (MTOs) invested over $2 billion on new cargo cranes, new cargo handling equipment, improvements to the infrastructure of the container terminals, and new operating systems. During this same period, the Port Authority of New York and New Jersey (PANYNJ or Port Authority) spent over $2.7 billion to deepen the channels in cooperation with the U.S. Army Corps of Engineers (ACOE), increase the roadway capacity around the terminals, and build intermodal rail facilities in order to efficiently service the local market and accommodate the growing discretionary market. Once the Panama Canal Authority started constructing new locks that could handle much larger vessels, a decision was made to mitigate the last big obstacle in New York Harbor, the air draft of the Bayonne Bridge. With a commitment of $1.3 billion from the Port Authority, that project is now under way. During this period, the entire marine transportation system took note of two growing issues. After 9/11, port security became a number one priority. New laws were enacted and millions were spent to harden the ports, secure the supply chain, and develop ways of dealing with the threat of terrorism. There was also a growing awareness of the environmental aspects of port operations. Most of the power used to move cargo was generated by internal combustion engines. Unwanted pollution became a major focal point, not only from governmental regulators but also from a growing number of non-governmental entities including community groups that demanded reductions in the port’s environmental footprint. Addressing both issues has taken significant resources and time on the part of many organizations.

Other recent events have also had a profound effect on the port’s ability to remain efficient. Prolonged labor negotiations and the need to improve efficiencies in the labor practices in the port caused shippers to seek alternatives. Superstorm Sandy inflicted significant damage to the port’s infrastructure and caused it to close for nearly a week. Finally, the port experienced severe congestion in the summer of 2013. This revealed a cascading series of problems that need to be addressed.

Importers and exporters quickly became aware of the situation and became very vocal about the port’s performance. Many looked at altering their supply chains and diverting cargo to other ports. With the exception of 2009 and the direct effects of the recession, 2013 was the first year out of the past fifteen years when cargo volumes did not grow, with total volume 1.0% below 2012 volumes. All indications suggest that 2014 will be more productive for the PONYNJ. Year to date (YTD) volumes (through April) are 3.1% above 2013 volumes, with rail lifts up 5.4% YTD.

Despite the outlook for 2014, cargo volume growth is moderating. No longer do we consider growth to follow the old rule of escalation at twice that of GDP. Other ports are making significant investments in port infrastructure and competition for discretionary cargo is heating up as it did in the 1990’s. The PONYNJ has an advantage for local cargo, but cargo destined for the Midwest and Eastern Canada, which make up approximately 15% of our total throughput, is the real battleground.

Globally, shipping lines looking to take advantage of economies of scale, have brought on and will continue to deploy larger vessels resulting in fewer sailings and excess capacity. This excess capacity has contributed to plummeting rates, resulting in profit losses for ocean carriers drawn to fill these larger vessels. In 2004,
there were only 100 ships in the world that were larger than 8,000 TEUs. Today, over 300 ships are 12,000 to 18,000 TEUs. Ocean carriers will continue to deploy larger vessels in as many trade lanes as possible. However, the simple strategy for making money in the shipping industry today, is to cut costs wherever possible. That means carriers are going to those they do business with, such as the MTO, demanding lower rates. In a port like NY/NJ, competition between terminals has become fierce, and as a result, rates have been driven down along with profits.

While investments in our port were driven by the need to keep up with the growth in volume, it is now competition with other ports that will be the driver. Over the course of the past year or so, the port has seen a loss of nearly 4% of its market share to other North Atlantic ports due to factors such as concessions, incentives, and deeper water sooner.

Larger ships may mean fewer ship calls, but each vessel will discharge more cargo in a single call. This will bring about more challenges for terminal operators. Productivity is now the new focus. Like airplanes, commercial vessels only make money when they are moving. That means that terminal operators will have to find ways to load and off-load vessels more efficiently. It also means that improvements must be made in transferring cargo to and from trucks or rail. Eighty-five percent of containerized cargo is moved by truck in this port. Improvements throughout the local marine transportation system are required to reduce both congestion and delay.

The recently concluded labor negotiations between the ILA and USMX on the Coastwise Contract, and the ILA and NYSA on local contracts, provides six years of labor stability and harmony and the framework to begin to address efficiency. Significant effort will be needed by all involved port stakeholders to realize these improvements.

Despite some of the issues raised above, there is a strong belief that the future holds great promise for the port and the economic benefits it brings to the region. Completion of the “Raise the Roadway” project on the Bayonne Bridge will clear the way for larger ships to call on the port. These ships will not necessarily bring more cargo but will make our port more efficient, and make the Port of NY/NJ more competitive. Completing the intermodal rail facility at Global Terminal in Jersey City, NJ will give the port full rail service from all of its container terminals. This will make the port more attractive for the larger vessels because more cargo can then be moved by rail. Thus, the large, affluent consumer market that the port serves will continue to be a draw for cargo owners who will establish additional warehousing and distribution centers in this region. In return, there will be greater utilization of the port as part of their supply chain.

II. BACKGROUND

Many of the problems experienced last summer and this past winter, were system problems involving multiple stakeholders. For example, delays at terminal gates were compounded by the unavailability of chassis. As a result, no one entity could fix the problem. A collective effort was required to address these issues. All stakeholders clearly recognized that we had real problems.

Through a series of meetings with MTOs, trucking interests, the ILA, and cargo owners the Port Authority began to
focus on the root causes of the congestion and productivity issues. It was believed that the only way to fix
many of these problems was to bring the right interests together and find solutions that would work for all
stakeholders. The first step in this process was to establish a framework and set of guidelines for how we
were to tackle each issue. Under the Shipping Act, competitors are prohibited from discussing issues such as
rates to avoid any conflict with the Act’s antitrust provisions.

After several discussions with port stakeholders, there was consensus to develop a two-tiered framework to
organize collective efforts. On December 20, 2013, the Port Performance Task Force (PPTF) was formed.

The Task Force was comprised of executive/senior staff from various industry constituencies including Labor,
Terminal Operators, Ocean Carriers, Railroads, Truckers, Intermodal Equipment Providers, Maintenance
Contractors, Beneficial Cargo Owners (BCOs), 3PLs, New York Shipping Association (NYSA) and the Port
Authority. Federal authorities were consulted with as appropriate.

The Task Force was chaired by Richard M. Larrabee, Director, Port Commerce for The Port Authority of NY &
NJ; John Nardi, President of the NYSA served as Vice Chair. The Task Force established five Working Groups to
address a diverse set of concerns related to port productivity and performance including Drayage Operations,
Intermodal Equipment, ExpressRail, Government and Community Outreach and Terminal Optimization.
Senior staff members from the Port Authority facilitated each Working Group that were made up of 10 to 15
industry experts from a diverse group of stakeholders. The structure of the PPTF is shown below. A full list of
Task Force and Work Group members is contained in Appendix A. The goal for each Working Group can be
found in Appendix B.

While nearly 100 individuals were involved in the Task Force and Working Group deliberations,
communications guidelines and parameters were immediately established to institute an open door for
stakeholder input. A PPTF webpage was set up via the Port Authority’s website, and many PPTF members set
up links from their organizations’ websites to broaden dissemination of the PPTF’s activities and progress.
A PPTF suggestion box was created, communications surveys were conducted, use of social media channels
increased, and best practices in other U.S. ports were benchmarked. Focused round table discussions
were held with the ocean carrier, independent owner/operator, and shipper communities. In addition,
Port Authority facilitators regularly attended the Port Users Group (PUG), Bi-State Harbor Carriers, and JFK
Forwarders and Brokers meetings to solicit feedback and recommendations on port-wide improvements. This was a collaborative process with the entire port community working together.

Following the release of this report, a Town Hall meeting is scheduled for mid-July at which port stakeholders will have an opportunity to provide feedback on the report and suggestions for implementation.

III. RECOMMENDATIONS

Twenty-three (23) recommendations emerged from the five (5) Working Groups. Each recommendation was presented to the Task Force members and discussed in detail. Following a review of the recommendations, the Task Force members were asked to prioritize the recommendations, that, based on their professional opinion, they believed would have the most impact on long-term efficiency and service reliability for the PONYNJ. Consideration was also given to the feasibility of implementing each recommendation and its acceptability among the port’s diverse stakeholders. Following the initial prioritization process, Task Force members were given an additional opportunity to discuss specific recommendations and to revise the order if they felt that a particular recommendation should be reconsidered. A final prioritization list of all the recommendations then was created.

Following the prioritization process, the recommendations were broken into three tiers. Tier One recommendations are defined as those large-scale management and infrastructure projects that would have the most resounding impact on the overall PONYNJ business. Tier Two recommendations will require modest effort but enhance effectiveness and efficiency of day to day operations. Tier Three recommendations are both long and short term and will incrementally contribute to the overall health of the port at both the administrative and operational level. The placement of recommendations within the Tiers is random and not in priority order.

It is expected that in the short term Tier One recommendations will be pursued immediately, while the Task Force will pursue Tier Two and Three recommendations opportunistically unless they are “quick fixes.” None of the recommendations should be viewed as independent of the others as there are overlaps and links among several of them. The Task Force will examine the connections between some recommendations and develop a logical sequence for suggested implementation. The cost and time frame for implementation as well as identification of the responsible party(ies) is yet to be developed.

Members of the Task Force and its Working Groups were selected for their expertise and experience in the industry. During all discussions, they represented their sector of the industry, not their employers. Therefore, participation in the discussion is not a de-facto commitment to implement the recommendations contained herein. They are only recommendations. Commercial interests will have the ability to consider the Task Force recommendations in accordance with their own needs and in accordance with commercial practices and regulatory requirements. The CPP will continue to monitor progress toward implementation.
TIER ONE RECOMMENDATIONS

Implement a System to Improve Chassis Management

Throughout the history of containerization in North America, ocean carriers have owned and maintained chassis equipment. In the past several years, at an accelerated pace, the vast majority of ocean carriers have decided to distance themselves from the costs and accountabilities associated with the ownership and management of such equipment. Market participants such as leasing companies are developing new chassis provisioning models while the user base transitions from the ocean carriers to the motor carriers and other entities. The transition period between the old and new models has complicated this element of the supply chain, especially for truckers. Efficient chassis provisioning is critical to the overall competitiveness of the PONYNJ, and it is essential that a system to improve chassis management be implemented.

An in-depth analysis of current fleet size, off dock requirements and provisioning model options was conducted by the Intermodal Equipment Work Group. The analysis was fact based and statistics used for various calculations were based on actual container volumes (2012-2013).

A ‘formula’ was established to calculate the chassis requirements for the port. The formula provided for sensitivity analysis on key variables such as fleet size, utilization (and idle fleet), roadworthiness, location, seasonal peaking, on terminal usage, out of service (OOS) ratios, and order cycle times (days on the street). The model suggested that the port is adequately supplied with chassis for averaged annual throughput, however when adjusting for seasonality it points out the chassis supply challenges inherent in peaking such as when ships or trains bunch, or during pre-shipping around the Lunar New Year. The model supported further calculations to derive acreage requirements should off terminal chassis yards to support key marine and rail facilities be considered. Sensitivity analysis was performed on required yard acreage with variables such as peak demand, on terminal usage, and fleet utilization. Ideal locations were identified as well as facility acquisition and running costs.

Off dock solutions are dependent upon structural changes to port operations including 1) all facilities becoming live lift operations; 2) all chassis being moved off dock; and 3) off dock facility gate integration with multiple adjacent marine terminals. These operational requirements and costs would need to be validated as would the associated benefits of such a move to off dock models. Land parcel availability in ideal locations is also a challenge. Moving the chassis maintenance and storage off terminal is not a pre-requisite for the implementation of a new chassis supply model, however as part of the long term solution, off dock options should be investigated further.

Model Review

An analysis of the port’s existing complex chassis environment including chassis locations and current fleeting, steamship line (SSL) requirements, merchant haulage/carrier haulage ratios, authorization limits, labor availability and pace of repair, Intermodal Equipment Provider (IEP) interoperability limitations, on dock and off dock location, wheeled and non-wheeled facilities and live lift versus non-live lift facilities was conducted. Two essential components were identified early as keys to unlocking improved efficiency 1) interoperability of chassis in the market, and, 2) gate integration such that a chassis booked at one facility is able to have streamlined paperwork as it enters another facility to complete its container transaction.

Five pool models (in addition to today’s multiple neutral pools and trucker wheels) were identified as ways to provide the most efficient supply of chassis in the Port of New York and New Jersey that also consider environmental impacts. The six (6) potential pool models include:
1. Today’s three independent Neutral Pools;
2. One Neutral Pool;
3. Market Pool;
4. A Pool of Pools;
5. The Rental Car Model; and
6. The Hampton Roads Chassis Pool Model (HRCP).

An analytical review was conducted of each of the six chassis models. Eight key pool components were identified and then each pool was scored against these components in a Six Sigma Cause and Effect (C&E) Matrix with highest score going to the pool model that best achieved these efficiency components. The components were 1) Operational efficiency; 2) Supply efficiency; 3) Cost efficiency; 4) Competition; 5) Governance accountability; 6) Fleet management; 7) Labor relations; and, 8) Ease of implementation. Application of the Six Sigma formula weighted the components.

Based on the detailed analysis that was completed by the IEWG, the PPTF members were asked to vote on the top three options for further consideration. Members selected the Market Pool, the Pool of Pools and HRCP as the leading model considerations to help improve chassis equipment efficiency in the port.

Because of the many factors that influence the efficient use of chassis in the port, the suggested calculating model employed to reach these preliminary conclusions will require more vetting and detailed refinement to adequately define the ideal fleet size and location.

Members of the IEWG recommend the formation of a “Subject Matter Expert Panel” to help transition the work, analytical framework and conceptual modeling to the next phase of concept development as deemed appropriate. Further, the team recommends that the services of a consultant with expertise in analyzing and monetizing costs and perceived benefits be retained to evaluate any changes to the current chassis model and or the movement of chassis to off dock. The Task Force noted that the effort and analysis of the IEWG provides an excellent foundation and database for further analysis. However, there may also be additional pool models or at least variations of the pool models that were reviewed by the IEWG. The “Subject Matter Expert Panel” can further analyze these options. Task Force members and other stakeholders will be eligible to participate in the “Subject Matter Expert Panel.” A detailed description of the six chassis pool models and challenges to implementation can be found in Appendix C.

Implement a Truck Management System

Despite significant investment in supporting infrastructure and cargo handling equipment in the past decade, the steady growth in cargo volumes and size of ships has placed a significant burden on landside operations causing serious congestion both at the gates and in the yards. The arrival of larger ships making fewer port calls but discharging more cargo in a single call likely will exacerbate the problem and lead to even longer truck wait times, increased air pollution and lower terminal efficiency if not managed in an optimal manner. The challenge therefore is to make the existing terminals more productive.

One of the critical elements that contribute to container terminal congestion and poor productivity is the unpredictability of truck arrivals, which leads to situations where demand greatly exceeds supply or vice versa. Today, the timing of truck arrivals at the container terminals is completely random. Each morning there is a rush by motor carriers to get on line early in hope of making multiple moves a day or make an appointment at their customer’s location. This creates extreme spikes and lows in traffic in terminals throughout the day, which can at times contribute to long turn times for the truckers, multiple container
re-handles, a decrease in equipment utilization, inefficiencies for all parties involved, and can even cause congestion on the local roadway network.

The chart below represents actual gate volume at one terminal in early June. The teal line represents the capacity of the gate that day given the amount of labor that was ordered and container handing equipment deployed.

One solution is the implementation of a Truck Management System to effectively meter the truck arrival rates while keeping resources for all stakeholders operating at the maximum level throughout the day. The benefits would include ensuring timely service to the trucks and reducing emissions. The initial program should be structured as a pre-advice system where the trucker advises the terminal through an automated system of his/her intention (date and time) of picking up a container. In turn, the terminals can advise the port community of the potential traffic expected in the next day or two.

Truck Management Systems are currently in use in several North American ports including Norfolk, Savannah, Los Angeles, Long Beach, Oakland, and Vancouver. Existing systems should be carefully reviewed to identify best practices. In order for a Truck Management System to work effectively, the marine terminal operators will also need to adapt their operations (i.e. equipment, labor) in order to turn trucks within a specified time and provide more consistent and reliable service.

The development of a Truck Management System is contingent on other PPTF recommendations being in place first and must be done under the auspices of a Federal Maritime (FMC) Discussion Agreement. However, in order to be successful, input from diverse stakeholders on the design and concept of operations for the system is essential. At a minimum, the system should allow for:

- Each terminal to develop its own set of rules (i.e. length of appointment, number of appointments per hour, etc);
- Reciprocal service level agreements; and
- Penalties associated with missed service levels.

The service level agreements and associated penalties would be common across the terminals.

The benefits of implementing a Truck Management System are significant and include reduced congestion; more efficient allocation of resources (personnel, equipment, time); improved truck turn times; improved productivity and terminal capacity; and a reduction in the number of trouble tickets/transactions and emissions.
Utilize an integrated Port Community System to optimize logistics planning and information sharing.

Information management plays a key role in the intermodal transportation system and the shipping industry. Today, the compelling need to effectively manage supply chains has made the need for real-time information a key component of port logistics. Therefore, the development and implementation of an integrated management system such as a Port Community System (PCS) to optimize logistics planning and information sharing is recommended. A PCS is becoming an essential part of doing business in ports and have had a significant impact on the efficient movement of cargo. In its simplest form, a PCS is an integrated one-stop website where various port-related entities can obtain information and plan their services. These systems vary in both technical and functional design as well as the operations that can be performed within it.

Today, many ports utilize a PCS for various functions including truck and driver registries, RFID tag management, cargo availability, appointment scheduling, and more.

Today, PONYNJ uses a system known as Port Truck Pass (PTP) to issue and manage Radio Frequency Identification (RFID) tags for drayage trucks. PTP has been developed by Sustainable Terminal Services, INC (STS); a nonprofit corporation composed of the five major container terminal operators at the port. This system can be readily modified and expanded to include additional services in a single website.

It is envisioned that the Port Truck Pass system would be modified to provide more enhanced services to the port community.

- Real time information on container availability and bookings;
- Real time information on highway and port traffic congestion;
- Visibility of inbound and outbound movements at terminal gates;
- Notices and alerts (i.e. vessel cut offs, extended gates, etc.);
- Equipment availability;
- Information on CBP exams; and
- Accessible via an Internet enabled computer or a Smart Phone Application.

As other PPTF recommendations are implemented, the PCS could be used to:

- Report on Key Performance Indicators (KPI);
- House the “Port Guide”;
- Implement the Truck Management System;
- Distribute the daily planning guide as the look ahead for the next day’s activity; and
- Make street turns (e.g. off terminal exchange of empty containers).
A PCS can generate value to the entire port community (shown below) through improvements in productivity, quality, reliability, and predictability.

While vessel and yard operations work around the clock, truck gates at container terminals in the PONYNJ are open an average of 10 hours a day, five days a week. Four out of six terminals open at 6 AM and provide anywhere between 10 and 13 hours of operation. Just two of the six terminals are open past 4:00 PM. The variability across the terminals is difficult for the drayage community to operate in and is believed to contribute to extreme peaks and valleys in demand throughout the work day.

In addition to their normal hours of operation, several factors can influence a terminal’s decision to extend its gate hours on a day-to-day basis including holiday or weather related closings or surges in volume associated with vessel bunching. A decision by a single terminal to extend its gates often results in an influx of gate activity at that terminal which contributes to longer queues and turn times and limited productivity for all parties; all while the other terminals see lighter gate volumes toward the end of the day. In order to increase efficiency throughout the port, terminals should work to align their gate hours and coordinate to the fullest extent possible the days on which multiple terminals can have extended gate hours. This should lead to greater efficiencies for all parties.

Any thought given to modifying or extending gate hours must consider:

- **Labor costs**;
- **Demand to ensure sufficient utilization**;
- **Alignment with the hours of operation at chassis and empty depots**;
Distribution centers ability to receive cargo outside of normal work hours; and
Advanced notification so the drayage community can manage their Hour of Service requirements.

An immediate benefit to the collaboration resulting from the PPTF was joint decision making this past winter on the part of the Port Authority, terminal operators, labor and management, the trucking associations, and US Customs and Border Protection on whether or not terminals should close or delay opening for an impending snow storm. In addition to the safety considerations, this led to better planning and more efficient utilization of resources. This joint decision making was effective and should continue to take place.

Utilize RFID technology to measure and report on various truck movement times

Reliable and accurate information about conditions throughout the supply chain enables informed decision making, resulting in greater efficiency and productivity. Today, information about terminal conditions is reported one to two times a day by some terminals in what is often referred to as a “burst fax.” These reports simply state qualitatively that the gates are, for example, “light and running free” or “heavy traffic expect delays.” Similarly, the truck drivers have taken to reporting conditions on their own through the Port Driver Facebook page with comments that are not helpful and often inaccurate the moment they are posted.

A Radio Frequency Identification (RFID) system was recently introduced in the port to identify all trucks seeking access to the secure area of the container terminals. Through a series of readers installed at each container terminal gate, small RFID tags mounted on nearly 16,000 trucks that service the port will be automatically read, allowing the terminal operator to determine if the truck meets the requirements for entry. RFID technology is a cost effective and reliable method to seamlessly monitor activity. The current RFID system may have the ability to be expanded to quantitatively measure and report on various truck movement times including turn times within the terminal, queue times at terminal entrance gates, and traffic on the port roadways leading to the terminals. However, since the RFID system is privately owned and operated, discussions are needed to explore the viability of expanding the existing system, attendant related costs and who should bare such costs.

The information that may be generated by a RFID system should be available to the trucker and/or beneficial cargo owners on a transactional basis and also be made publicly available on an aggregated basis. It is recommended that at a minimum RFID readers be installed at both the out gates (or closest approximation) as well as the entrance to all terminal queues. The queue area would need to be defined and agreed to by multiple stakeholders including terminal operators, truckers, and the Port Authority.

The availability of near real-time information on actual conditions will facilitate informed decision making which could lead to better productivity. RFID can be the key to more accurate planning and information that is more reliable.

**TIER TWO RECOMMENDATIONS**

Customer service needs to be available from gate opening to out gate closure.

Just as in other ports, trying to pick up or drop off a container in the PONYNJ is at times difficult and can require the trucker to interact with customer service representatives for both the terminal operators and ocean carriers. This can be a challenging interaction during normal operating hours, but it becomes even
more difficult during extended gate hours when customer service personnel are not always on duty. Not having access to the critical assistance provided by customer service personnel results in longer turn times and more often, the trucker being voided out and the container transaction not completed as planned.

Any time a trucker is inside the terminal gates, having a qualified customer service staff (both ILA and Management) to contact is critical when problems getting a container arise. Therefore, a sufficient number of customer service representatives need to be available from the time the gate is opened until the last truck has exited the out gate. Since extending customer service representatives hours would increase cost to the terminals and ocean carriers, consideration should be given to staggering hours of work for customer service representatives to cover the full spectrum of time a terminal is servicing trucks.

A review of Trouble Ticket transactions for the first quarter of 2014 reveals that nearly 10% of all gate transactions result in a trip to the Trouble Window or Customer Service. While the availability of customer service personnel for longer hours would certainly be beneficial, it is equally, if not more important, that truckers confirm the details of their transaction before appearing at the gate. A large percentage of trouble tickets can be completely avoided as they are associated with things like demurrage not being paid, the container not being released (i.e. line, terminal or CBP holds); receiving being off for the vessel, the booking not being on file, or the expiration of steamship line agreements. Before heading to a terminal the truck driver should ensure that he/she has:

- A valid Transportation Worker’s Identification Credential (TWIC) and SeaLink in their possession and a RFID tag mounted on the driver’s side view mirror;
- Verified the receiving window for exports and the location for empty returns;
- Ensured that there are no holds on your container (i.e. demurrage due, exams required etc);
- A valid interchange agreement with the steamship line; and
- A valid booking or bill of lading number.

Develop guidelines to extend free time (waive demurrage and detention) in extremis situations.

Free time is the specified time measured in days that cargo can remain on the terminal following discharge from the vessel or prior to loading on a vessel. Cargo that exceeds authorized free time is assessed demurrage for each day of additional storage at the rates published in the applicable tariff as filed with the FMC. From time to time, there are conditions beyond the cargo owners’ control that inhibit their ability to pick up their cargo. Guidelines should be developed and enumerated in the tariffs to deal with extremis situations. These provisions would allow for the extension of free time or the flat rating of demurrage for containers that are already in demurrage for certain situations beyond the cargo interests’ control (i.e. extreme weather, equipment shortages, etc). This new provision would be similar to that which already exists for export cargo wherein “if cargo is on demurrage, first period demurrage charges shall be assessed against such cargo.” (New York Terminal Conference, Section III, 4, I).

The new guidelines should also identify the minimum number of hours that a terminal needs to be open to be considered a “day.” For example, if the terminals are only open for four hours due to extreme weather, it may not count as a day. Similarly, provisions should be established by the ocean carriers to provide for the extension of free time or waiving of detention charges if equipment remains in the customers care for reasons beyond their control.
Implement 2013 Port Authority study recommendations to construct additional ExpressRail support track

A Port Authority commissioned study on the ExpressRail system issued in February 2013, was conducted in response to stakeholder and railroad concerns that the system was operating at levels below capacity. The study looked at both operating and capital concerns. Although designed in accordance with theoretical capacity factors, the ExpressRail system suffers from multiple operational variations. For example, the rail yard in Corbin Street was designed with a standard 1.75 to 2 linear feet of support track for each linear foot of working track but did not factor in multiple stakeholder operating variables such as work hours, vessel bunching and multi-destination containers. The study identified these factors as creating a strain on existing track infrastructure resulting in insufficient support track capacity (primarily storage track). In order to address these shortages and improve productivity of the ExpressRail system, three specific recommendations identified in the 2013 Port Authority study “The Systematic Improvement of the Port Authority ExpressRail System” should be implemented to construct additional ExpressRail support track.

The specific recommendations are as follows:

- **Identify a location and create 2,000 linear feet of locomotive refueling track south of Bound Creek in Portside Yard (Corbin Street Support Yard); Note: It has already been confirmed by PA staff that no more than approximately 1,000 linear feet can be accommodated;**

- **Identify a location and construct an additional 33,000 linear feet of additional off-site storage track — possibly in Conrail’s Raff property; and**

- **Identify locations for and construct an additional 8,000 — 10,000 linear feet of additional storage track, in 3,000’ to 5,000’ increments, preferably along the Chemical Coast or along the former Central New Jersey Railroad (CNJ) main line at the entrance to the Elizabethport Yard.**

The costs for the above infrastructure improvement are significant. Rough, order-of-magnitude estimates indicate that the cost for the additional trackage would be approximately $30 million, not factoring in other unknown additional costs. Project elements would include realignment of existing tracks or appurtenances; relocation/protection of existing utilities and communications lines; railroad flagging or engineering support; property acquisitions or preparation of agreements; work to adjacent structures or properties; and environmental remediation or unsuitable soil disposal.

Pursuing these projects will reduce present rail congestion, improve throughput and efficiency, and provide intermodal container surge capacity. It will also provide additional capacity and flexibility for expected future growth in intermodal rail traffic in the port.

Develop a street turn system for both empty containers and chassis

The return of empty containers and bare chassis to depots contributes to uncompensated truck trips and congestion and has an impact on air quality. In order to mitigate these impacts, the Port of New York and New Jersey should develop a street turn system for both empty containers and chassis. With a dedicated online tool (website), the transfer of containers and/or chassis at off-dock service locations would reduce both congestion at the port and empty vehicle miles traveled to and from the Port. Participating parties would be able to post information on container or chassis availability, communicate with the ocean carriers...
or intermodal equipment providers who own the equipment, exchange equipment at off-dock locations, and optimize decision-making regarding equipment utilization.

With the support of funding from the New Jersey Department of Transportation, the Port Authority managed a street turn pilot project known as “Virtual Container Yard” or VCY about 7 years ago. VCY is an industry term to describe a computer assisted container use brokerage system that would facilitate the efficient transfer of containers for reuse outside the port terminal gates. The effort was arguably premature as there was not enough demand at the time for such a capability. Renewed efforts to develop a street turn system should build on the lessons learned from the Virtual Container Yard project (i.e. rules of engagement, maintenance, liability etc) and other ocean carrier managed street turn programs.

![Diagram of Normal Local Container Moves Without “Street Turns”](normal-local-container-moves-diagram)

Create a daily bulletin board/dashboard of current near real time conditions to display congestion, roadway traffic, webcam views etc.

The modern logistics system is complex and dynamic so the availability of real time information to support effective decision-making is critical. Available technology that is currently utilized to monitor conditions should be leveraged to provide information in near real time to decision makers. The posting of web cam images and Intelligent Transportation System travel time reader information in a consolidated location would allow dispatchers and truck drivers to make informed decisions and optimize their routing and scheduling. This information should be available on the Internet and a Smart Phone Application.
Core to the PPTF’s mission was the identification of Key Performance Indicators (KPIs) for reporting and distribution to the port community via an integrated consolidated dashboard. KPIs are a set of quantifiable measures that a company or industry uses to gauge or compare performance in terms of meeting their strategic and operational goals.

Early on, the Task Force worked with terminal operators, carriers, equipment providers, and trucking interests to develop a set of metrics for gate moves, inventory levels, dwell times, and chassis availability. These preliminary KPIs were part of a collaborative effort that allowed port stakeholders to measure improvements as operations began to normalize after this past winter’s extreme weather severely impacted port productivity and congestion.

Discussions with and feedback from all stakeholders throughout this process underscored the supply chain’s dependency on access to accurate, timely, relevant and actionable information to support effective decision-making.

Agreeing on a set of KPIs and managing performance to meet those goals are critical to the port’s long term efficiency and service reliability. As the old adage says, “you can’t manage what you can’t measure.” The Journal of Commerce’s Port Productivity initiative rightfully started with benchmarking productivity measures at the berth; but the need to focus on other aspects of port operations is equally important. A comprehensive set of suggested KPIs is contained in Appendix D. This list is likely to be amended as additional metrics are identified as being valuable for fine-tuning the system.

The actual use of the KPIs will be discussed during the implementation phase. Consolidating certain KPIs for all aspects of the supply chain into an integrated, regularly updated dashboard could give port users the ability to make real-time informed decisions that guide positive change and promote customer satisfaction. Dashboards provide the intelligence necessary to respond to emerging challenges and changes in ways that improve operating effectiveness and efficiency. Additionally, the creation of an integrated dashboard made publicly available via the Web for certain KPIs could establish credibility, maintain transparency and build trust among stakeholders. Other KPIs would be used for internal measurement and management only.

**TIER THREE RECOMMENDATIONS**

Establish a mechanism to ensure continuity of the PPTF mission beyond publication of the final report

Restoring port pride in the Port of New York and New Jersey through clear, consistent information sharing and continued collaboration among numerous disparate stakeholder communities is critical to the port’s future. The depth and breadth of coordination that has taken place under the PPTF is extraordinary. Continuity of the PPTF mission beyond the publication of this report must be still established. It is clear however, that everyone, from the longshoreman and the trucker to the operations staff and executive management, must take on a new level of responsibility and commitment to collective change.

The Port Authority should work with all stakeholders to create a governance structure, considerate of regulatory requirements and commercial practices to monitor implementation of the Task Force recommendations and to ensure accountability and ownership of the process and recommendations. The new governance structure would also continue to monitor and report on the port’s vitals, as well as assess, adjust, and mitigate future potential issues.
In addition to continuity of the PPTF missions, shared branding for joint stakeholders should be developed. The following points should be considered and incorporated into the new brand:

- A clear definition of “port community” that includes local residents as well as our federal, state and local partners;
- The strategic development of a brand tag line that is designed to meet the specific objective of restoring pride, trust and a positive outlook for the port’s future;
- A positive, unified message that the port is listening and open to change; and
- Transparent delivery of information.

### Develop a “Guide Book”

A consolidated list of static information should be published in a “Guide Book” that contains valuable user-friendly information about each container terminal, container and/or chassis depot and rail terminal. The technology exists for this information to be made available on a “one stop” website that would be updated as necessary by each terminal/depot. If for some reason it is too difficult to create a single website, then the creation of a “Guide Book” that would be maintained and updated regularly would be a good second option. Information available should include but not be limited to:

- Traffic flow maps;
- Process maps;
- Contact phone numbers and email addresses;
- Hours of operation;
- Rules and requirements with penalties for non-compliance;
- List of Do’s & Don’ts for each location; and
- Regulatory requirements.

As with other recommendations, this information should be available on the Internet and through a Smart Phone Application. The “Guide Book” should also be available in multiple languages. A video might also be created that can be shown at the Truck Service Center while drivers are waiting for their transaction to be completed.

### Publish a daily “Planning Guide” as a “look ahead” for the next day’s activity.

Publication of a daily “planning guide” that would be issued each afternoon as a “look ahead” for the next day’s activity. The information in the daily burst fax or email message would include vessel cut offs, rolled vessels, changes in empty returns, slots not available etc. Advanced notice (minimum 48 hours) should be provided of planned weekend gates so motor carriers can manage their Hour of Service requirements, which would increase utilization for all the terminals.
Explore opportunities for establishing inland ports associated with PONYNJ.

An inland port is a site located away from the traditional marine terminals created for the purpose of facilitating the movement of international cargo between the inland port region and the associated marine terminal. These facilities serve as an extension of a deep-water port and can be located at a landlocked area (served by rail or truck) or at another smaller seaport (served by barge). The ports of Virginia, Los Angeles/Long Beach (LA/LB), Charleston, and Savannah all currently have viable inland ports. These inland locations are generally at least 200 miles from the seaport.

Among the attributes normally associated with an inland port are adequate real estate and infrastructure; public sector/political support; public/private capital; connectivity to major highways; a reliable, efficient route; access to large population centers; and, a reliable, cost effective labor force.

In 2002, the Port Authority launched a barge service to Albany in a collaborative effort to create a sustainable inland port location. While this effort failed for many reasons, the introduction of bigger ships and “bunching” of cargo could create an environment that is more favorable to barge feeder services and stimulate increased use of existing and new inland rail facilities. The Port Authority should continue to explore all opportunities for leveraging public-private partnerships to either develop new or enhance existing intermodal facilities. There are a number of locations seemingly poised for such opportunities, and they should be evaluated. Across the northern tier of New York State, for instance, Buffalo, Oswego, and Syracuse hold promise, as do locations in other states such as Bethlehem and Harrisburg, PA, and possibly certain New Jersey and Maryland locations. All these locations, either have existing facilities that can be leveraged by current or predicted changes in logistics patterns or have development underway which could create opportunity.

Develop a Container Transfer Fee (CTF) program.

In accordance with the Port Authority Marine Terminal Tariff, effective January 1, 2017 no Container Transfer Fee (CTF) shall permit access into any Port Authority Terminal by any drayage truck that is not equipped with a 2007 or newer engine. The ban on these trucks is part of an overall clean air strategy for the PONYNJ to reduce emissions from all port related sources, including ocean vessels and harbor craft, container handling equipment and trucks and rail that serve the port. Based on a drayage truck survey completed in December 2012 approximately 4,900 trucks are impacted by this requirement. The loss of these trucks would have a considerable impact on port productivity and the ability to move cargo in and out of the port in a timely manner. Therefore, a viable replacement program is needed. Certain assumptions are associated with this recommendation as the Port Authority currently intends to move forward with the program as originally proposed.

Just as it did to replace trucks with engines built before 1993, the Port Authority has applied for additional grant monies to replace more aging trucks. Using a cost of $50,000 for a replacement truck with a 2007 engine and assuming the grant would provide 50% of the replacement cost, the total amount of grant funds needed is estimated at $122.5 million. Grant money will not cover this amount and so there is a need for a program to bridge the gap between grant money and the amount required to replace all 4,900 trucks.

To bridge the truck replacement cost gap a CTF program should be implemented and administered by the Port Authority. The PA would use a Pier Pass type system to collect the CTF from BCOs for each container moving to or from the port via truck. The fee would be put into an account and disseminated by the PA to trucks that meet certain criteria, such as trucks having 2006 or older engines and a documented history of serving the port. The CTF would be part of the Port Authority tariff and thereby be mandatory. This
The CTF program is similar to a Coalition for Responsible Transportation (CRT) program used successfully to replace 5,000 trucks in LA/LB in which shippers paid more to drayage carriers for each trip with funds going into an account for a trucker to purchase a newer vehicle. The CRT program was voluntary with no outside management entity; shippers worked directly with individual drayage carriers. The program for the PONYNJ would be mandatory, with a fee and governing rules to be established by an implementation group represented by all stakeholders in the port. The CTF program would be in conjunction with any grant money awarded to the Port Authority.

**Report on the quantity of labor needed versus ordered versus available.**

Sharing information concerning the amount of labor available versus labor ordered could be a great tool to predict possible impacts on turn times at terminals. Whenever there are labor shortages in the past it has contributed to terminal and/or roadway congestion. NYSA should be able to quantify and report on the amount of labor that is required in the port on a daily basis as compared with how much is ordered and how many workers are actually available. By tracking this information over time, port employers should be able to better plan for potential disruptions (i.e. vacation schedule, retirements, etc.) and communicate to the port community expected impacts and outcomes. This could be turned into a valuable measurement tool that can be shared with and easily understood by port customers.

**Develop a unified customer service/411 center.**

The Government and Community Outreach Working Group canvassed best practices within the industry and identified Customer Service Centers as a key component to many ports’ successful customer satisfaction strategies. These Customer Service Centers were designed to respond to customer needs through a single, reliable point of contact that is readily accessible in person, by phone or email. Though the concept is for all port users to utilize Customer Service Centers, the trucking community typically relies on these facilities most. At these centers, truck drivers can receive assistance with cargo coordination and problem resolution matters, and are provided with such amenities as bathroom facilities and refreshments. The creation of a unified customer service/411 center with extended hours at the existing Truck Service Center (TSC) would assure truckers that the port is committed to providing them with excellent service and is working to alleviate some of their concerns.

Continued development of the Truck Service Center at the Port of New York and New Jersey is one of the most proactive steps the Port Performance Task Force can take to ensure that the trucking community and other port users receive fast, real-time, dependable assistance to help meet the information demands necessary to keep cargo moving seamlessly through the port.

**Performance standards for empty container and chassis depot transactions included in tariffs.**

The FMC filed tariffs that govern activity at the container terminals provide for the payment of detention to motor carriers if by no fault of their own or due to prescribed exclusions, they are delayed at the container terminals beyond predetermined amounts of time. In recent years however, container terminal operations have evolved and now include off terminal container and chassis depots. Motor carriers are now required to pick up and deliver chassis and/or empty containers at off terminal depots that are managed by the container terminal operators or their agents. The tariffs however are silent on performance standards and penalties.
for failure to meet those standards at off terminal support locations. The relevant tariffs should be updated to include performance standards and penalties for all components and locations of the container delivery/receipt transaction.

Encourage use of block stowage of rail cargo by ocean carriers.

The use of block-stowing of import containers by ocean carriers for cargo that is destined to intermodal rail offers the potential to: significantly expedite the discharge of rail containers from vessels; greatly assist marine terminal operators in the yard segregation of rail containers; and ultimately, streamline the ship-to-rail movement of import rail containers.

On the West Coast, 30% - 90% of import discharge lifts may be intermodal rail movements depending on the port location. The general standard targeted for import rail movements from the West Coast following vessel discharge, inclusive of cargo release, and CBP clearance, is 24-48 hours with the average transfer time being 43 hours (for containers not requiring rebilling with a new manifest). Critical to the expedited movement of these import rail loads is the use of block-stowage by ocean carriers, in some cases by cell, and inland rail destination. On average, 85% of rail boxes are block stowed correctly and the performance of each ocean carrier’s block stowing practices is critiqued with the carriers on a weekly or vessel-by-vessel basis.

It is estimated that MTOs in the PONYNJ currently require anywhere from 48-96 hours to transfer import rail containers to the respective rail operators. The ExpressRail Working Group has determined that less than two days (48 hours) should be the standard to strive for and attainment of this target could be greatly facilitated by ocean carriers increasing their use of block stowing. It is recognized, however, that with only approximately 14% of import containers moving via intermodal on-dock rail, block-stowing may be considered to be both operationally difficult and cost-prohibitive from an ocean carrier and, perhaps, even a terminal operator’s perspective. Nonetheless, block-stowing of import rail containers on vessels and MTO segregation of these same containers on-terminal would assist in achieving the targeted ship-to-rail standard of less than two days.

Utilize touch pad at gate pedestals.

Reducing the number of trouble tickets could have a dramatic impact on turnaround times at all container terminals. A large percentage of the trouble tickets issued to motor carriers are due to a language barrier between the driver and the clerk. The language barrier often results in the mis-entry of the Standard Carrier Alpha Code (SCAC), container number or booking number. If the container terminals provided for touch pads at all or some gates, it would eliminate some of these language barrier issues. It is recommended that the container terminals investigate the installation of touch/key pads at the in-gate pedestals where the driver can enter the required information as an alternative. Of course, voice communication would remain the primary means for most transactions and there would be no anticipated change to current manning levels. Instead, the touchpads would act as a backup method for drivers and clerks to communicate with the goal of reducing the number of trouble window transactions. As an immediate step, truck drivers should be encouraged to use the phonetic alphabet for communications at the gate pedestals.
All related partners (MTOs, Railroads, ExpressRail Operators, and US Customs and Border Protection) should work rail cargo on weekends as necessary to optimize rail operations and achieve KPIs.

The ability to cost effectively utilize container and rail terminal labor on weekends to expedite the movement of import cargo to/from the rail is currently limited. In addition, CBP budget constraints have at times limited their staff availability on weekends. This creates situations where containers are often subject to multiple re-handles to facilitate container inspections and ultimate staging for loading onto the train. While this phenomenon also exists at other ports throughout the country (although CBP coverage is typically provided 24x7 on the West Coast), it is believed to be more pronounced within the PONYNJ.

In an effort to keep costs in check, many service contracts between the terminal operators and ocean carriers reportedly exclude weekends within their standards for movement of import rail loads - from time of vessel discharge to the delivery to the rail. This exclusion, in effect, adds 2-3 days to the overall rail routing for boxes discharged on Fridays. All related partners (MTOs, Railroads, ExpressRail Operators, and US Customs and Border Protection) should work rail cargo on weekends as necessary to optimize rail operations if achievement of the proposed standard is to become the norm rather than the exception. CBP coverage is also essential, at all rail terminals a minimum of 8 am to 5 pm Monday through Friday.

Develop and implement a pre-defined crisis communications plan.

A crisis communication plan for the Port of NY & NJ would provide policies and procedures for the coordination of internal and external communications in the event of a crisis. However, each crisis or emergency will require a unique case-by-case public information response. Key port service providers would immediately implement this plan after they identify and determine that an emergency or crisis exists.

There should be plans developed specifically for “normal” and “crisis” communications. It is important to take a proactive approach by using past indicators effectively in order to establish a communications plan to solve a potential problem before it starts or prevent the situation from getting worse.

It is also necessary to clearly define in the plan who, what, and how communications are sent and shared. This will avoid the circulation of inaccurate information and potential security breaches. Results from communications surveys undertaken by the Government and Community Outreach Working Group revealed that over 90% of port users prefer to receive real time information about the PONYNJ via email. Additionally, over 95% of port users said the most important type of information they want to receive is about port operations. Periodic assessments of this plan must be performed.

The intent of the plan would be to factually define and acknowledge the incident or emergency immediately; communicate information with accuracy, professionalism, and in an empathetic way; identify what is being done to resolve the situation and ensure accuracy and consistency across all communication channels. The Government and Community Outreach Working Group further recommends that every effort is made to communicate with candor and transparency.

IV. LABOR HIRING

It is important to acknowledge that the issue of a right sized work force is a significant issue and one that has previously had an impact on port operations. Early on in the Task Force discussions it was agreed that “labor shortages” would not be an “excuse” when analyzing port processes and performance. Labor was not
included in the charter or in the discussions undertaken within the PPTF as it is clearly in the responsible hands of the NYSA and although there were short term challenges, it was a logical assumption that these challenges will be overcome. That said, achieving the goals set out in the Collective Bargaining Agreement between the NYSA and the International Longshoremen’s Association is critical to the overall success of implementation of the PPTF recommendations and of long term port productivity.

Significant milestones have been achieved already, and as of June 17, 2014, 274 individuals have been added to the workforce. Though their training on heavy equipment and vessel gangs continues, these individuals immediately became available as car drivers and baggage handlers. Mechanics and checkers are also being added to the register with more expected before long. New employees are not entitled to vacation until next year. In addition, the tenure for 100 workers slated to retire by April 2014 has been extended through October. These workers are not entitled to summer vacation and will be on duty to handle the summer’s busy pace.

Nearly 100 people have been trained to drive straddle carriers and cross training among the terminals continues. Employee vacations are always actively managed, and this year only 90% of a typical vacation allowance is permitted at one time. Hiring priorities have changed to ensure that critical equipment vacancies are filled prior to other less-skilled positions.

NYSA and the ILA are acutely aware of the need to continue their efforts to recruit, train and hire the right candidates to do the best job possible to continue enhancing productivity in the port and remain committed to their common goals.

V. IMPLEMENTATION PLAN

Over the past six months the PPTF has invested over 3,000 man-hours in the investigation and analysis of efficiency and service reliability challenges facing the port. The efforts of the five Working Groups have resulted in a list of 23 recommendations, some of which can provide immediate relief to current issues while others are long term solutions designed to improve overall operating conditions and procedures.

The PPTF was designed as a six-month deep dive into the issues affecting productivity at the port with the final objective of drafting a list of possible solutions or recommendations, developed and debated by all of the port’s stakeholders. Now, with recommendations in hand, we must prepare for the next steps in this process. All recommendations will be considered and decisions made regarding their implementation.

With the release of this report, the PPTF satisfied its initial goal of creating a collaborative environment for the port’s constituents to discuss common issues and develop recommendations. The ultimate goal of the Task Force, to maintain the port’s position as a preeminent port in the United States, remains of the highest importance. A new group will be formed to help ensure that goal is met. This new group, the Council on Port Performance (CPP) will build upon the efforts of the PPTF and its Working Groups. The Port Authority’s Port Commerce Department and the New York Shipping Association will continue to serve in a leadership capacity with volunteers from the port community serving as council members. With the exception of the Government and Community Outreach Working Group, the existing Working Groups will be disbanded and a new governance structure established (i.e. Bylaws, terms of service, etc.). The emphasis must now shift towards implementation and new teams will be formed to evaluate the feasibility of specific recommendations and design a roadmap for implementation. This Implementation Plan will examine the linkages between recommendations as well as the sequence in which certain recommendations will be implemented (see
Appendix E for a preliminary matrix of the interdependence of the PPTF recommendations). Individuals who have served as Working Group members will have the opportunity to participate in these new teams with invitations also being extended to other port stakeholders. It was recognized from the beginning of the process that the Task Force would not have the ability to implement recommendations. That responsibility lies with each of the organizations that are best able to make the necessary changes. It is also recognized that we will need to insure that laws dealing with antitrust and other such concerns are strictly complied with. In some cases, additional resources will be required to advance the more complex recommendations. The new CPP will work to identify those recommendations which require third party expertise and when prudent, commission work to support the implementation of these high priority initiatives.

The CPP will work without delay to develop a logical order in which the recommendations should be implemented. Recommendations have been categorized as Tier 1, 2, or 3 based on an assessment of the potential impact each could have on port productivity. While this categorization considers impact, it does not consider the difficulty or timelines associated with implementation. Where opportunities exist to immediately implement some recommendations, those initiatives must proceed expeditiously. Similarly, where additional research is needed to further refine some recommendations or select a specific alternative to implement, those efforts should also proceed expeditiously. The development of a logical order of implementation, or sequencing of recommendations, will ensure that both simple and complex recommendations can be pursued in parallel with resolutions provided in the timeliest manner.

Regular communications and periodic Town Hall meetings will keep the entire port community informed and engaged in working collaboratively to improve efficiency and service reliability in the Port of New York and New Jersey.

**VI. CONCLUSION**

Bringing members of this diverse port community together to work on areas of common concern has been a valuable function of the Task Force. The future holds great promise for the Port of New York and New Jersey when each stakeholder takes personal responsibility for changes that are before us, and continues to communicate and work together. Port performance and productivity will be improved through enhanced communication, planning, and implementation of these recommendations.

The Task Force and all the companies and individuals represented are honored to help shape the port’s future and contribute to continued business success for the entire port community, as well as the ultimate consumers and the region. For the past six months, Task Force members have worked collaboratively with the port community to set forth recommendations that will lead to a successful future. As part of the group’s commitment to continuing this collaborative approach, the new Council on Port Performance will work with the port community to ensure their input is received on implementing the recommendations.

This has been and will continue to be a collaborative effort that will require the participation, support and commitment from all members of the port community. Ultimately, the Task Force’s hard work will ensure that goods moving through the port get onto shelves and into showrooms more efficiently, while maintaining quality and sustaining direct and indirect jobs.
VII APPENDICES

A. Task Force Membership
B. Work Group Goals
C. Chassis Pool Model Descriptions
D. Suggested KPIs
E. Interdependence of PPTF Recommendations
PORT PERFORMANCE TASK FORCE


R.M. Larrabee  Port Authority of NY & NJ
John Nardi  NY Shipping Association
Tom Adamski  New Jersey Motor Truck Association
John Atkins  Global Terminal
Jeff Bader  Association of Bi-State Motor Carriers
Randy Brown  Metropolitan Marine Maintenance Contractors Association (MMMCA)
David Cicalese  ILA - Atlantic Coast Dist
Phil Connors  Flexi-Van Leasing
Gary Cross  Maher Terminals
Dennis Daggett  ILA - Atlantic Coast Dist
Jon Donnelly  Empire Merchants
Ed Elkins  Norfolk Southern
Patrick Hackett  Bed Bath & Beyond
Thorkild Hove  SHIPCO International Cargo Terminals
Keith Lovetro  TRAC Intermodal
Mike Radak  Hanjin Shipping
Steve Schulein  National Retail Transportation
Bill Shea  Direct Chassis Link Inc (DCLI)
Dean Tracy  Lowe’s Home Improvement
Wilby Whitt  CSX Transportation
Mike Wilson  HSUD

Bethann Rooney, Port Authority NY & NJ (Coordinator)
Richard Laraway, Port Authority NY & NJ (Secretariat)
Robin Bramwell-Stewart, Port Authority NY & NJ (Prioritization Facilitator)
APPENDIX A: TASK FORCE & WORK GROUP MEMBERSHIP

GOVERNMENT AND COMMUNITY OUTREACH

CO-CHAIR
Beverly Fedorko
New York Shipping Association

CO-CHAIR
Andrew Genn
New York Economic Development Corporation

Kathy Abbott
KMA Advertising

Paul H Bea Jr.
PHB Public Affairs

Linda Coles-Kaufman
New Jersey Economic Development Corporation

John Gold
National Retail Federation

John Liantonio
Port Authority of New York and New Jersey

Jamie Shelton
APM Terminals

Hilary McCarron
Port Authority of New York and New Jersey

Nick Raspanti
Port Authority of New York and New Jersey

Amanda Valdes
Port Authority of New York and New Jersey
APPENDIX A: TASK FORCE & WORK GROUP MEMBERSHIP

INTERMODAL EQUIPMENT

CHAIRMAN
Adam Bridges
Trac Lease, Inc.

Ronnie Capri
International Longshoreman’s Association

Chuck Darrell
New York Shipping Association

Neil Desmond
Hanjin

John Farrell
Flexi-Van Leasing, Inc.

Rich Hanson
Direct Chassis Link, Inc.

Jason Kirin
Columbia Coastal

Edward McDevitt
American Maritime Services

Ivo Oliveira
Maher Terminal

Gregg Scott
BBT Logistics

Robert LaMura
Port Authority of New York and New Jersey

Ikponmwosa Allie
Port Authority of New York and New Jersey
APPENDIX A: TASK FORCE & WORK GROUP MEMBERSHIP

DRAYAGE OPERATIONS

CHAIRMAN
Jason Pollard
GSE Dedicated

Anthony Berrito
Salson

Frank Borland
Ironbound Intermodal

Gerard Coyle
Evans Delivery

Mark Ficarra
Port Newark Container Terminal

Marc Lebovitz
Romark Logistics

Juan Rolon
Port Drivers Federation 18

Lori Smith
Johnson & Johnson Sales and Logistics Company, LLC.

Dan Pastore
Port Authority of New York and New Jersey

Lou Testa
Hamburg-Sud

William Nurthen
Port Authority of New York and New Jersey
Drayage Operations

Improve turn times and reduce delays at all waypoints so drayage tuck operators can make multiple turns a day. Ensure that timely and accurate information is available to facilitate routing decisions and stage arrivals and provide an adequate work force and fleet to meet both the demand and local requirements.

ExpressRail

To maximize efficiency, capability, and capacity of intermodal and non-intermodal rail operations at the Port of NY/NJ for customers and key operational stakeholders (e.g. marine and ExpressRail terminal operators, and rail operators).

Government and Community Outreach

Gain support of Government Agencies, Community Leaders and decision makers to develop a communication plan and branding to deliver a common, positive message on the port’s commitment to excellence and progress of the Port Performance Task Force and the importance of the Port of New York and New Jersey. Work to reinforce the importance of the port and align regulatory objectives with operational and commercial realities. Target port customers, government and community stakeholders.

Intermodal Equipment

Examine the changing state of ownership and use of intermodal equipment and propose a more efficient operating model for chassis, container and genset supply, storage and repair within the Port of New York and New Jersey that is consideration of environmental impacts.

Terminal Optimization

Through collaboration with various industry stakeholders, formulate process improvements that attempt to limit the number of transactions that need to be made by/on behalf of BCO’s and will expedite cargo movement through the port. These enhancements should enable the port to efficiently handle surges in volume and expedites the flow of Drayage operators to/from Marine Terminals.
The following is a preliminary description of the six (6) pool models and the challenges associated with implementing an alternative chassis management system in the PONYNJ. This would be further refined by the Subject Matter Expert Panel and concurred with by the pool contributors during the implementation phase.

1. **Existing PONYNJ Model:**
   Today the PONYNJ is supported by three independent pool fleets (METRO, NERP & DCLI) as well as trucker owned chassis and an independent MSC (Mediterranean Shipping Company) fleet based at Port Newark Container Terminal (PNCT). These fleets compete for users and have different Use Terms & Conditions. The equipment is separately marked and is not commercially or operationally interoperable. Each fleet is run as a separate business from its competitors and has bilateral agreements with customers (i.e. one fleet’s customer terms apply only to the use of that fleet). Further, each fleet does not reside on all terminals, meaning that some marine terminals do not offer all fleets to their users. Pool management companies compete on a variety of service and physical dimensions to secure access to facilities and win customer usage. Metro, NERP and DCLI offer many locations and services outside of the PONYNJ in order to enhance their individual pool product offerings, attract customers, improve efficiency, and manage costs.

2. **Neutral Model:**
   Under this model, all chassis in the port complex are owned, contributed and managed by one supplier. All chassis bear the same marking and brand. The Neutral Pool is privately owned, managed, and governed by one for-profit company. All chassis have access to all facilities. All customers have access to all chassis, at bilateral independently negotiated terms between customer and the one pool company.

3. **Market Pool Model:**
   All fleets in the PONYNJ are contributed to one Market Pool. All chassis have the same mark. The Market Pool is managed at arm’s length by a third party under contract to the Pool Board. The Pool Board is made up of representatives from each of the contributors and others representing key supply chain stakeholders in the port. Users would have contracts with the Contributors. The pool manager takes direction from the Board. The term of the contract for the pool manager will be determined but three years is thought to be the minimum. Contributors may offer unique products and services at non common locations in NYNJ region. This allows for Contributors to compete for users on a variety of service dimensions while offering the operators at common locations operational efficiencies with full interoperability and streamlined vendor selection for maintenance and repair (M&R), parts, inspections etc.

4. **Rental Car Model:**
   This model assumes all chassis are moved off dock to neutral shared facilities. Like a shared remote rental car facility offered at many major airports, this model takes advantage of shared infrastructure, but allows each fleet its own “yard within a yard” where suppliers can offer custom products much like Hertz vs. National. Chassis retain their unique mark and are not interoperable. This environment would encourage competition in services and in assets as suppliers might add specialized assets (tri axles etc.) to their fleets to support specialized cargoes with daily rental agreements and/or offer services such as expedited gates, express lanes, pre-tripped units etc. It is possible to envision a hybrid model where certain Run of Feet (ROF) chassis (standard 20’ and 40’ chassis versus Tri Axle or TITAN chassis) could be made interoperable at the shared facility should one supplier run short and another have surplus. This sort of interline relationship for ROF is not unheard of in transportation and could be a variety of this model.
5. **Pool of Pools Model:**
   This model assumes that the existing Pools at the PONYNJ remain independently operated, and the chassis keep their independent “marks”. Individual Pools will enter into Tri-Party User Agreements with the other Pools which enables operational efficiency and chassis interoperability for terminal operators, ocean carriers, motor carriers and shippers at all PONYNJ marine and rail terminals. Contributors will compete for users on a variety of additional service dimensions. At common facilities, labor works on all chassis and bills individual pools for repairs on its chassis. An independent third party service provider would ensure coordination among pool contributors and perform functions such as shared expense apportionment, fleet sizing, forecasting and migration management. This independent entity would also develop a system to track and bill for inter-pool chassis usage and implement the inter-pool rules and procedures dictated by the Tri-Party Use Agreements. The governance structure remains with the individual pools. The terms and conditions however for use of chassis at the common locations would be developed and collectively agreed upon by all contributors in the Interchange Agreements among the pools.

6. **Hampton Roads Cooperative Pool Model (HRCP):**
The model is a “Port” owned and operated pool. The “Port” could be the Port Authority as is the case in Hampton Roads or another stakeholder group. This model has many of the same characteristics as the Neutral Pool. Traditionally, it is a utility monopoly offered at and by an Operating Port Authority. The chassis ownership, chassis supply and pool operations are all integrated with the marine and rail operations and all are controlled centrally by one operating authority. HRCP3 is unique to the Virginia Port Authority (VPA). Chassis are owed or leased by the “Port”. All chassis have the same mark. Systems to manage vendors, migration, M&R, road service, customer relations, user pricing, billing and collections are all owned by the “Port”. System upgrades and development are the responsibility of the “Port”. There is no competition for users between contributors along a variety of service dimensions.

### Challenges associated with implementing an alternative chassis management system:

1. Ensuring the right chassis are in the right place at the right time.
2. Developing a governance structure that recognizes the “in place” investment made by equipment providers.
3. Ensuring all equipment providers have a voice.
4. Sufficient land at host facilities to accommodate the pools.
5. Identifying a pool manager
6. Deploying information technology (IT) support systems.
7. Gate integration
8. Management of expenses, supply, M&R, road service etc
9. Establishing rules to encourage continued reinvestment in the fleet to supply current and future growth.
The following Key Performance Indicators (KPIs) were identified by the Working Groups as those that would be beneficial in gauging the port’s performance in terms of meeting our goal of efficiency and service reliability. The use of each of these suggested KPIs is still to be determined; some may be publicly reported while others would be for internal management only.

<table>
<thead>
<tr>
<th>Key Performance Indicators (KPIs)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ship-to-Rail Transfer Time</td>
<td>Truck Turn Time at Empty Depot</td>
</tr>
<tr>
<td>On-time arrivals to rail support yards</td>
<td>Truck Queue Time at Marine Terminal</td>
</tr>
<tr>
<td>On-time departures from rail support yards</td>
<td>Truck Queue Time at Chassis Depot</td>
</tr>
<tr>
<td>Block stowage of rail cargo by ocean carriers</td>
<td>Truck Queue Time at Empty Depot</td>
</tr>
<tr>
<td>Crane Moves per Hour</td>
<td>Port Market Share vs. East Coast</td>
</tr>
<tr>
<td>Berth Utilization</td>
<td>Port Market Share vs. North America</td>
</tr>
<tr>
<td>Percentage of downtime for Container Handling Equipment</td>
<td>Dwell Time</td>
</tr>
<tr>
<td>Rail Equipment moves per Hour</td>
<td>Certified Usable Chassis Available</td>
</tr>
<tr>
<td>Percentage of Trouble Tickets</td>
<td>Container Inventory Import &amp; Export</td>
</tr>
<tr>
<td>Truck Turn Time at Marine Terminal</td>
<td>Vessel Arrival On-Time Performance</td>
</tr>
<tr>
<td>Truck Turn Time at Chassis Depot</td>
<td>Vessel Departure On-Time Performance</td>
</tr>
</tbody>
</table>

In selecting an alternative Chassis Management System the following parameters or Key Performance Indicators should be considered by the Subject Matter Expert Panel:

<table>
<thead>
<tr>
<th>Chassis Management Key Performance Indicators (KPIs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chassis out of service on terminal</td>
</tr>
<tr>
<td>Chassis out of service at depots</td>
</tr>
<tr>
<td>Chassis out of service as Percentage of Fleet</td>
</tr>
<tr>
<td>Chassis out of service as Percentage of Idle Fleet</td>
</tr>
<tr>
<td>Cycle open to cycle close days per chassis</td>
</tr>
<tr>
<td>Chassis repaired per man per day</td>
</tr>
<tr>
<td>Overtime hours per chassis</td>
</tr>
<tr>
<td>CBP failed to move due to lack of chassis</td>
</tr>
<tr>
<td>Wheeled facility unable to mount container due to lack of chassis</td>
</tr>
<tr>
<td>Containers to stack due to lack of chassis</td>
</tr>
<tr>
<td>Chassis breakdowns on road (Percentage of street fleet)</td>
</tr>
<tr>
<td>Chassis breakdowns on road due to owners repairs</td>
</tr>
<tr>
<td>Chassis breakdowns on road due to users repairs</td>
</tr>
</tbody>
</table>
## Interdependence of PPTF Recommendations

<table>
<thead>
<tr>
<th>Recommendation</th>
<th>Expand RFID</th>
<th>Extended gate hours</th>
<th>Chassis Management</th>
<th>Truck Management System</th>
<th>Consolidated website</th>
<th>Availability of customer service</th>
<th>Storage track capacity</th>
<th>Utilize KPI’s</th>
<th>Street Turn System</th>
<th>Daily bulletin board</th>
<th>Free time &amp; demurrage guidelines</th>
<th>Container Transfer Fee</th>
<th>Inland Ports</th>
<th>Extended hours for rail cargo</th>
<th>Block stowage</th>
<th>Customer service/411 center</th>
<th>Crisis communication plan</th>
<th>Continuity of PPTF</th>
<th>Guide Book</th>
<th>Labor reporting</th>
<th>Daily planning guide</th>
<th>Empty and chassis performance standards</th>
<th>Touch pad at gate pedestals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expand RFID</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extended gate hours</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chassis Management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Truck Management System</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consolidated website</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Availability of customer service</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Storage track capacity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Utilize KPI’s</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Street Turn System</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daily bulletin board</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Free time &amp; demurrage guidelines</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Container Transfer Fee</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inland Ports</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Extended hours for rail cargo</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Block stowage</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer service/411 center</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crisis communication plan</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Continuity of PPTF</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Guide Book</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Labor reporting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daily planning guide</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Empty and chassis performance standards</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Touch pad at gate pedestals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: The matrix indicates how the row recommendation will interact with all other recommendations (columns). As example, extended gate hours will interact with the consolidated website.
The following companies participated and were all instrumental in the Port Performance Task Force:

American Maritime Services  
APM Terminals  
Association of Bi-State Motor Carriers  
BBT Logistics  
Bed Bath & Beyond  
Best Transportation  
Bridge Terminal Transport  
CMA-CGM (America) Inc  
Columbia Coastal  
Conrail  
Container Port Group  
CSX Transportation  
Direct Chassis Link Inc (DCLI)  
Empire Merchants, LLC  
Evans Delivery  
Expeditors International  
Flexi-Van Leasing Inc.  
Global Terminal & Container Services  
GSE Dedicated  
Hamburg-Sud  
Hanjin  
Hapag Lloyd  
International Longshoremen’s Association  
International Cargo Terminals  
Ironbound Intermodal  
John Johnson Sales and Logistics Company, LLC.  
KMA Advertising  
Lanca Sales, Inc  
Lowe’s Home Improvements  
Maher Terminals  
Millenium Rail  
Metropolitan Marine Maintenance Contractors Association (MMMCA)  
National Retail Federation  
National Retail Systems  
National Retail Transportation  
New Jersey Business Action Center, Department of State  
New Jersey Motor Truck Association  
Norfolk Southern  
New York Container Terminal  
NYC Economic Development Corporation  
NY/NJ Foreign Freight Forwarders & Brokers Association  
New York Shipping Association  
The Port Authority of New York and New Jersey  
PHB Public Affairs  
Port Drivers Federation 18  
Port Newark Container Terminal  
Romark Logistics  
Salson  
SHIPCO International Cargo Terminals  
TRAC Intermodal  
William B Skinner