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U.S. Maritime Administration

AAPA Environment Committee
November 14, 2017
Norfolk, VA
Mission

To lead the development and expansion and modernization of port infrastructure, including water, road, and rail, for the benefit of every American.

Vision

A modern, efficient system of diverse modern inland and coastal ports that are integrated into the surface transportation system.
Port Planning & Investment Toolkit
A Maritime Industry Joint Venture

• MARAD and AAPA released the PPIT in early 2017

• Feedback from Environment Committee, Ways to enhance the Toolkit?

• New Module(s)
Port Planning and Investment Toolkit

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Planning
Feasibility
Financing
StrongPorts Initiatives - FY2018

ITS-JPO MARAD Initiative

- Seeks to develop foundational research to support Intelligent Transportation Systems (ITS) projects that will improve the performance of ports and terminals and will further integrate ports into the larger transportation system
Phased Approach

• Phase 1: Pre-Deployment Preparation & Analysis (2016-2017)

• Phase 2: Development & Demonstration Planning (2017-2018)

• Phase 3: Demonstration & Assessment (2018-2020)
Phase I - Recent Activities

**Business Case Assessments (4)**

- Queue Detection and Wait Time Systems
- Truck Appointment System
- Advanced Transportation Management Information and Security System (ATMIS) and Freight Advanced Traveler Information Systems (FRATIS)
- Port Community System (PCS)
Business Case Analysis Continued

• The project team reviewed each ITS solution as described in the Technology Scan and Gap Analysis.

• The team assessed the potential ITS solutions using Benefit-Cost Analysis methodologies consistent with best practices and Federal grant program guidelines.

• The team then developed specific Business Cases for the candidate ITS solutions:
  – Port Community System (PCS)
  – Queue Detection and Wait Time Systems (QD)
  – Truck Appointment System (TAS)
  – Advanced Transportation Management Information and Security System (ATMIS) and Freight Advanced Traveler Information Systems (FRATIS)
Truck Staging

• The Program recently began the Truck Port Staging State of Practice and Feasibility Analysis to perform an economic feasibility study of several port & truck queuing solutions.
  • Potential ITS solutions will be identified during this project.
  • Kickoff meeting was held in mid-October with contractors Battelle & Gannett Fleming.
  • Work will be completed by February 2019.

• Project includes Modal Cooperation within USDOT:
  • Maritime Administration (MARAD)
  • Federal Highway Administration (FHWA)
  • Federal Motor Carrier Safety Administration (FMCSA)
Truck Staging Project Approach

1. Clearly define the strategic needs and opportunities.

2. Identify innovative efforts that address technical innovations for port truck staging, focusing on issues that can be addressed in the near term.

3. Establish and strengthen links between truck / port operations, technologies, land area and public policy where truck movement has major implications.

4. Leverage existing practices, innovation, and technologies to develop truck staging/parking solutions.

5. Level 4 low-speed truck platooning/queueing feasibility study
Program Roadmap

**ITS MARAD Program: High-Level Program Map**

<table>
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<tr>
<th>Program Activity Track</th>
<th>FY 2017</th>
<th>FY 2018</th>
<th>FY 2019</th>
<th>FY 2020</th>
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<td>1. Program Management</td>
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<td>3. Policy &amp; Standards</td>
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<td>4. Stakeholder Engagement</td>
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<td>5. Testing &amp; Evaluation</td>
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<td>6. Deployment</td>
<td>Work with Regions for FAST Act Apps</td>
<td>MARAD Truck Staging Development</td>
<td>FAST Act Deployments</td>
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<td>7. KTT &amp; Outreach</td>
<td>Provide Tech. Assistance to Regions</td>
<td>ITS MARAD Demonstration Site KTT</td>
<td>Guidance Documents/Best Practices for Gateway Directors and others</td>
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**PHASE 1: Pre-Deployment Prep & Analysis**
- Program Business Case Analysis / Portfolio
- Truck Port Staging State of Practice & Feasibility

**PHASE 2: Development & Demonstration Planning**
- Update Standards as they apply
- Facilitate Policy Guidance for Continued ITS Use
- Prototype Development & Testing

**PHASE 3: Demonstrations & Assessment**
- ITS MARAD Demo Site Concept Development
- ITS MARAD Demo Site Design, Build Test Phase
- ITS MARAD Demo Site Operate, Maintain & Evaluate

**LEGEND:**
- Solid = Program Funded
- Gray = Outside Funded
- Decision Point
- Stakeholder Meeting / Workshop
- Milestone
- Major Deliverable

10/13/2017

Draft 0.1
Current Activities

Advanced Transportation and Congestion Management Technologies Deployment Program

- **Global Opportunities at the Port of Oakland Freight Intelligent Transportation System** $9,720,000 Alameda County Transportation Commission, CA.

- **Truck Reservation System and Automated Work Flow Data Model** $1,550,000 Virginia Port Authority.
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• Exploring New Module(s) Topics:
  
  • Environmental sustainability: energy savings, use of solar panels, etc.
  • On-dock rail planning and operations
  • Cybersecurity
  • Navigating through Formula Funds
  • Others?
Questions/Comments

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