AAPA/NAWE/MARAD Marine Terminal Management Training Program

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Presentation Outline

- Port Charleston Overview
- Why Automate?
- Port Authorities / Marine Terminals
- Marine Terminal Technologies
Five terminals in operation with a sixth terminal in the planning stage.
Union Pier Terminal

Cargo at UPT

Breakbulk/heavy lift charter ships, and passenger cruise vessels.
Columbus Street Terminal

Cargo at CST

Container and breakbulk / heavy lift.

2 container berths with on-terminal rail yard. 4 breakbulk berths; 3875 feet total.

78 acres of open storage.
North Charleston Terminal

Cargo at NCT

Container cargo.

3 berths with on-terminal rail yard; 2500 feet.

123 acres of open storage.
Wando Welch Terminal

Cargo at WWT

Container cargo.

4 container berths, 10 container cranes; 3800 feet of berth.

194 acres of open storage.
Veterans Terminal

Cargo at VT

- Breakbulk, project, RoRo cargo.
- 4 finger piers.
- 110 acres
Volume Statistics FY05

- Port of Charleston handled 1.97 million TEUs
- Total SCSPA breakbulk tonnage nearly two million tons
- Operating revenues totaled $138 million
Yard Management System

Real-time inventory, yard configuration management, cargo handling intelligence

Five applications
manage gate operations, yard work, yard configuration, vessel operations, business reporting
Why Automate?

- Increase Productivity
- Improve Customer Service
- Decrease Costs
- Improve Efficiency
- Regulatory Compliance
- Maximize Capacity
- Enhance Business Intelligence
Technology in Marine Terminals

- Global Positioning System (GPS)
- Satellite and cellular communications
- Radio Frequency Identification (RFID)
- Wi-Fi
- Optical Character Recognition (OCR)
Technology in Marine Terminals: One solution does not fit all

Terminal Constraints and Differences

• Land
• Number of berths
• Sources of labor
• Landlord vs. tenant
• Private vs. public facility
• Ingress/egress
• Number of shipping lines, services
• Cargo: Container, breakbulk, bulk, passenger
Technology in Marine Terminals: One solution does not fit all

Regional differences

• Labor contracts
• Physical equipment inspections
• Regulatory pressures (emissions, environmental)
• Chassis pools
Automation Opportunities

- Vessel tracking: AIS-Automatic Identification System
- Vessel scheduling
- Cranes
- Yard Equipment: Automated Guided Vehicles, Automated Stacking Cranes, Rail Mounted Gantries
- Automated inventory via OCR, GPS, RFID in conjunction with Terminal Operating System
- Network systems: wireless, high bandwidth
- Web portals: Inttra, eModal, NEXUS, PortNet
Thank You

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