



*Maritime Logistics
Innovation Center*

Emission Reduction via Technology and Process at Georgia's Ports



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Presented by:

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Maritime Logistics Innovation Center

Enabling Secure, Efficient Supply Chains

“Centers of Innovation bring together research and local assets in midsized Georgia cities to attract company interest and technology-based economic development.”

Governor Sonny Perdue



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Enabling Secure, Efficient Supply Chains

The Maritime Logistics Innovation Center (MLIC) is a unique partnership of private industry, academia, Federal and state authorities.



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Enabling Secure, Efficient Supply Chains

This partnership works together to develop, apply and promote new technologies, identify unique applications for existing technology, and create best practices for safe, efficient and secure supply chains.



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Enabling Secure, Efficient Supply Chains

PORT OF SAVANNAH: Garden City Terminal



**1,200 Acre Total
450 improved for
Container Storage**

PORT OF SAVANNAH: Garden City Terminal



Garden City Terminal Key

- | | | | |
|--|--|--------------------------------|---|
| 1 Gate 1 General Purpose Gate | 11 Gate 4 Trucker's Assistance Kiosk (TAK) | 21 Domestic Trailer Facility | 31 Maintenance, Port Police, Health Services & Crane Operations |
| 2 Gate 2 VoPak Corporation Entrance | 12 Internal Kiosk, Driver Assistance Area | 22 Retail Import DC | 32 Future Development |
| 3 Gate 3 Interchange (No POV's) | 13 U.S. Department of Agriculture (USDA) | 23 Retail Import DC | 33 Garden City Terminal On-terminal ICTF |
| 4 Gate 4 Interchange (No POV's) | 14 Fumigation Area | 24 Warehouse 24 | 34 ICTF Operations Office |
| 5 Gate 5 Gen. Purpose & Oversized Cargo Gate | 15 PCS | 25 Warehouse 83A | 35 Int'l Seaman's House Annex |
| 6 Gate 6 RDF Interchange (No POV's) | 16 VoPak Corporation | 26 Warehouse 83B | 36 FTZ 104 / Entire Terminal |
| 7 Rapid Dispatch Facility (RDF) | 17 Military Command Center | 27 Warehouse 27 / U.S. Customs | 37 Helicopter Pad |
| 8 CB-8 Future Development | 18 RailLink Operations Office | 28 GPA Annex No. 1 | 38 Fire Station |
| 9 GPA Administration Building | 19 Savannah Portside Refrigeration | 29 GPA Credentialing Center | |
| 10 Container Operations Office | 20 Parking Area | 30 Raes-Hall Office Building | |

PORT OF SAVANNAH: Garden City Terminal Gates

Gate Infrastructure...Conventional Two Stage Gate

Gate 4

13 pedestals
15 inspection lanes
Trouble kiosk

Gate 3

10 pedestals
13 inspection lanes
Trouble kiosk

FY03 Gate Volume

1,019,048 total transactions

Internal Driver Assistance Kiosk

Located within container field

Gate 6 (Rapid Dispatch)

2 pedestals
6 inspection lanes

Centralized Pre-gate Operation

13 consoles

FY04 Gate Volume

1,103,993 total transactions

PORT OF SAVANNAH: Container Handling Equipment

Field Equipment and Ops

13 Quay Cranes

23 RTGs

65 Top Loaders

GPA Hourly Employees operating CHEs (1-per)

RF with work instructions in cab

4 – 3rd Party Stevedores all on TOS via LAN

Managing the Growth

"At the close of the year (July '02-June '03), 1,505,278 TEUs were shipped through GPA; representing an incredible 31.5 percent growth over last year." 9/3/2003

"Based on state of the art economic modeling, we anticipate that the Port of Savannah will handle at least 4 million TEU's, or experience 150 percent growth in less than 15 years" 9/23/2004

Managing the Growth

"GPA's October results show a 22.4 percent increase in TEU's over October of last year and another all-time record for the Authority. At the Mayor's Point terminal in Brunswick, 55,336 tons of breakbulk were handled, a 195 percent increase over October of last year. 12/6/2004

The results from the first six months of our fiscal year are now in and it is clear that we have surpassed all previous records set by the Authority for tonnage, containers and autos in a single six-month period" 1/25/2005

Managing the Growth

"GPA's monthly results show 79,171 Twenty-foot Equivalent container Units (TEUs) were exported from GPA's facilities during January '05, a 19.70 percent increase over January 2004.

Records show for TEU's handled during January 2005, a 20.5 percent increase over January 2004; and 1,625,518 total tons were handled, a 24.7 percent increase." 3/1/2005

AUTOMATED GATE SYSTEM

Went live on October 9, 2000

Pre-system: 2,500 moves daily



AUTOMATED GATE SYSTEM

Day One: 300 gate moves

Day Five: 2,070 moves

GA25Hwy307 Thu Feb 13 08:11:47 2003



GA25Hwy307 Thu Feb 13 12:02:14 2003



February 13, 2003

SYSTEM IMPROVEMENTS

Truckers Assistance Kiosk

For paperwork issues and booking-related errors

Pay phones, house phones, fax machine and printer



SYSTEM IMPROVEMENTS

Hired 100 additional personnel

Established a Client Relations Center

Reorganized container yard

Real-time cargo info through WebAccess



AUTOMATED GATE SYSTEM

SYSTEM SUCCESS:

Averaging 5,500 gate moves daily

30% reduction in idling time at gate

Saves approximately:

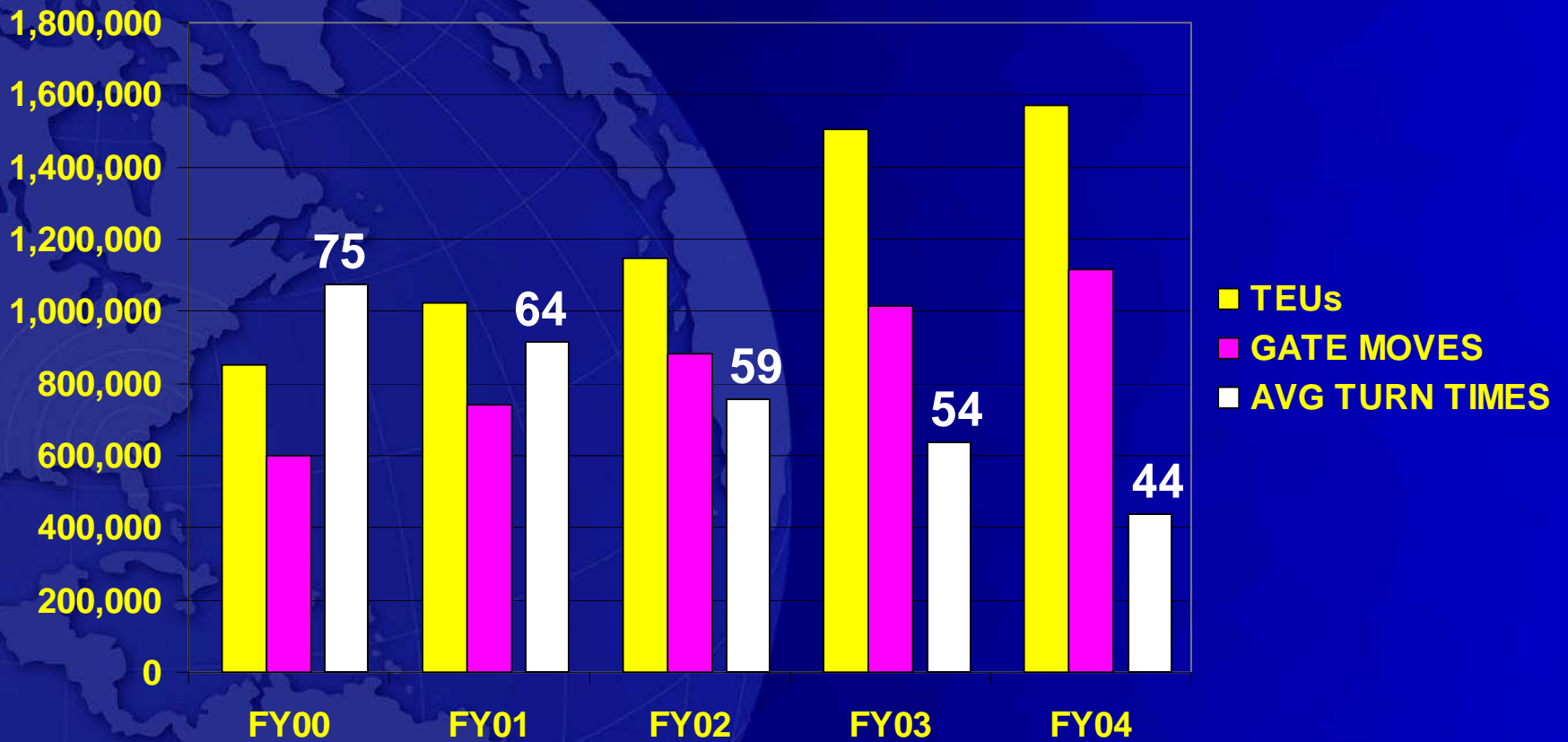
3,020 gallons fuel

½ ton of Nox

33 tons of CO2 on peak day



Turn times have decreased while volumes have increased...



PORT OF SAVANNAH: Technology Initiatives

What's Next?

- ▲ **Pre-lodging Information**
 - via Web Site or EDI
- ▲ **OCR Portals**
 - Truck Gates
 - Rail Interchanges
 - Quay Cranes
- ▲ **Automated Inspections**
 - All Interchanges
- ▲ **RFID for Trucks**
 - Pedestals
 - Inspection Canopy
 - CHE
 - Quay Cranes
- ▲ **Automated Location Update System**

Thank You!



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