

GCT Bayonne – Appointment System

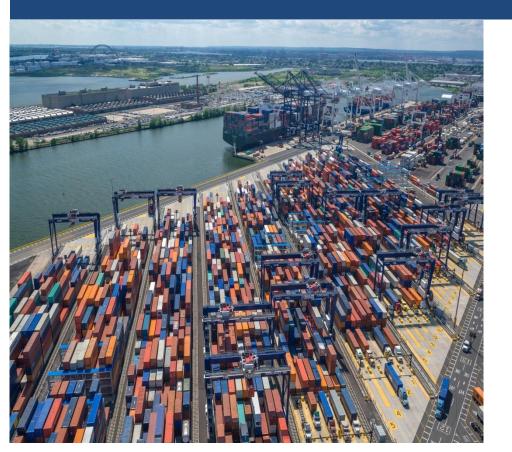
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GCT USA Agenda





- 1. About GCT
- 2. America's East Coast Gateway and GCT USA
- 3. Truck Emissions Reduction
- 4. GCT Bayonne Truck Turn-times
- 5. Summary



Global Container Terminals At a glance







GCT USA America's East Coast Gateway





Port of New York and New Jersey

- Home to most affluent consumer market on the East Coast
 - 30mm people within 2 hours of the port complex
- 6.6mm TEUs handled in 2017
 - 86% or 5.7mm TEUs of total volume moved by truck

GCT USA

- Operates 2 terminals in NY/NJ, with GCT Bayonne:
 - Semi-automated, most advanced container terminal on the East Coast
 - Handled 16% of NY/NJ volume, or over
 1.1mm TEUs of truck moves



GCT USA America's East Coast Gateway





GCT leads N. America in implementing truck reservation systems

Award-winning GCT Bayonne features state-of-the-art equipment and processes

- Reflected in the 96% score for its 2016
 Green Marine verification
- In collaboration with stakeholders, implemented the first true truck appointment system in NA
- Voluntary introduction ahead of all other terminal operators in the port

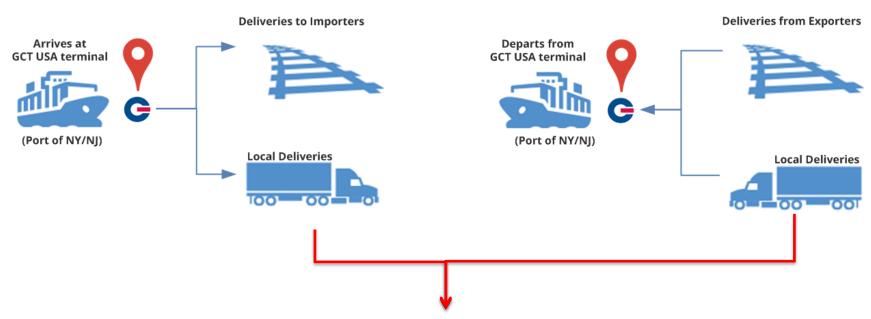


GCT USA Truck Emissions Reduction



IMPORTS TO THE US

EXPORTS FROM THE US



Truck reservations reduce emissions in this mode



GCT USA Truck Emissions Reduction





Problem Definition

- Historically, motor carriers line up for service on an ad-hoc basis
- Truck arrivals unpredictable, causing congestion from idling

Why truck reservations?

- Reduce truck idling
- Introduce discipline into truck queuing at the terminal
- Smooth street traffic during peak hours
- Improve terminal capacity within same footprint
- Eliminate unnecessary equipment

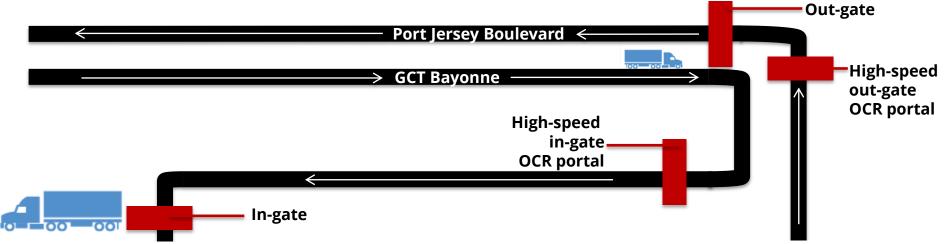


GCT USA GCT Bayonne Truck Turntimes



"Turn time" refers to the amount of time drayage trucks spend at a container terminal in minutes and is impacted by:

- Terminal design
- Resources deployed
- Technology & processes
- Appointment systems





GCT USA Truck Emissions Reduction





How did we do this?

- Multi-year collaboration with the Council for Port Performance
- Funding and support from the Sustainable Terminal Services Group
- 3. Stakeholder enhancements to build versatility and high user-acceptance
- 4. Priority scheduling and traffic metering
- 5. Phased introduction
- 6. Consistent truck turn-times

This in turn:

- Innovated how trucks are processed
- Influenced supply chain behavior



GCT Bayonne Truck Turn Times 2017 Results





Led port of NY/NJ and introduced a staged, truck reservation system

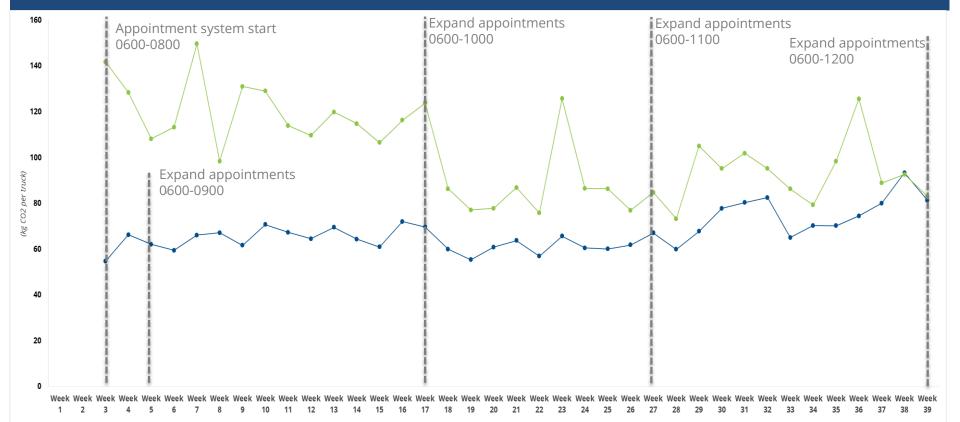
•	Jan 15	Mandatory appointments	0600-0800
•	Jan 25	Expanded mandatory appointments	0600-0900
•	Apr 20		0600-1000
•	Jun 28	:	0600-1100
•	Sep 20	:	0600-1300

RESULT: 40+% reduction in truck turn times vs nonappointment times



GCT USA GCT Bayonne Total Idle Truck CO₂ Emissions/wk

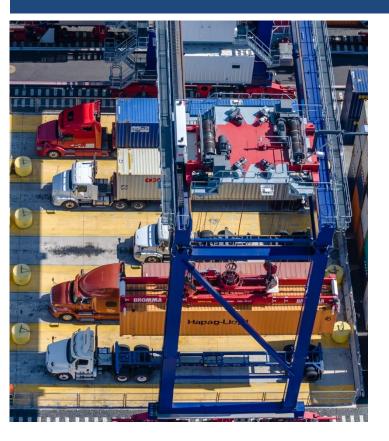






GCT USA Summary





40+% turn time reduction equals:

Truck Reservations	YTD Impact (Week 39)	Annualized Impact 2017
	(Week 33)	2017
CO ₂ Emissions Reduction	12,737 tonnes/year	19,671 tonnes/year
Air Pollutant Reduction	36,488 kg/year	56,351 kg/year
Fuel Cost Savings	USD \$3.2mm/year	USD \$4.95mm/year
Passenger Cars Off the Road	2,710	4,185
5-gallon buckets of Soot Removed	3,637	5,618

Where do we go from here?

- 1. Continued expansion of reservation system.
- 2. Development of ExpressRail Port Jersey.



Thank You!

