Technology Takes a Toll:
Advances in Georgia Tolling Operations

2014 SASHTO Annual Conference
New Orleans, LA

Christopher Tomlinson
Executive Director
I-85 Express Lanes Overview

- 15.5 miles
- 1 lane in each direction
- Painted buffer; no physical barriers
- 67 toll points, ½ mile apart
- Dynamically priced
- Lanes operate 24/7
- Registered lane, even for toll-exempt vehicles
- 2 axles; no more than 6 wheels
I-85 Express Lanes Facts

Part of $110 million Congestion Reduction Demonstration (CRD) Program grant awarded in Nov. 2008

Ground broken September 2010; lanes opened Oct. 2011

86% of customers paying toll; 14% non-tolled

More than 279,000 Peach Passes assigned

Approximately 500 new Peach Passes assigned each week

2/3 of users access the lanes less than 4 times per week

More than 225,000 different customers using roadway

Express Lanes providing reliable travel times
I-85 Performance Data

I-85 Express Lanes: By the Numbers
July 1, 2013 - June 30, 2014

**PEAK-of-PEAK**

**AVERAGE SPEEDS**

- **44 MPH**
  - MORNING
- **56 MPH**
  - EVENING

*7:00-8:00 AM SOUTHBOUND; 5:00-6:00 PM NORTHBOUND*

**PEAK-of-PEAK**

**AVERAGE TRAVEL TIMES**

- **23 MIN**
  - MORNING
- **17 MIN**
  - EVENING

*7:00-8:00 AM SOUTHBOUND; 5:00-6:00 PM NORTHBOUND*

**20,466**

AVERAGE TRIPS EVERY DAY

**NEARLY 14 MILLION TRIPS**

**558,076**

TRIPS IN MAY 2014
(HIGHEST ONE-MONTH TOTAL)

**25,862**

TRIPS ON THURSDAY, MARCH 27, 2014
(HIGHEST ONE-DAY TOTAL)
Tolling Operations Center (TOC)

Primary Goals
1. Manage toll rates
2. Monitor tolling equipment
3. Monitor for traffic incidents and coordinate with GDOT TMC

Roadway Monitoring Tools
- 12 Stationary Cams - fixed viewing Rate signs
- 15 CCTV PTZ distributed along corridor
- ETCC RITE system - toll rate and system
- GDOT’s TMC NaviGAtor - ITS System
- Web-based Video Feed for redundant monitoring

Onsite Operations Hours
Weekdays: 5:30 AM to 8:30 PM
Weekends: 12:00 PM to 8:00 PM

Full Remote Ops Capability
Remote Monitoring by staff outside TOC hours & during emergencies

Transparency
- Live feeds of the toll rate signs are available to the public online at www.PeachPass.com.
- Media and public can access toll rate signs to report on current rates.
Innovative Mobile App-based Declaration

Toll Mode/HOV Policy:
Registered Toll-paying and Registered non-toll-paying (HOV3+) users both allowed to use lane.

<table>
<thead>
<tr>
<th>Mode</th>
<th>Occupants</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOLL</td>
<td>Less than 3</td>
</tr>
<tr>
<td>NON-TOLL</td>
<td>3 or more</td>
</tr>
</tbody>
</table>

- Change toll modes by phone, online, in person or mobile app
- Changes must be made 15 minutes in advance
- Toll mode Duration (4 options)
  - 4 hours
  - 1 day
  - Weekdays
  - Indefinite
Innovative Enforcement

All users must have a Peach Pass and adjust toll mode (toll vs. non-toll) accordingly. Toll modes must be changed at least 15 minutes before using the roadway to allow for system processing.

Unregistered Vehicle:
Use of Express Lane without a Peach Pass

Tolling video technologies detect unregistered vehicles and automatically send out violation notices.

Occupancy:
Vehicle does not meet minimum occupancy requirements for toll-free use

Occupyance is enforced by law enforcement aided by Automatic License Plate Recognition (ALPR).

DWL Improper Crossing:

Physical roadway constraints prevented barrier separation of ELs from GPs.

Solid, double white lines are used instead to act as a barrier with dashed, double white lines denoting a “weave zone,” or legal access area.

Gantry Controlled Access (GCA) deters improper crossing of solid, double white lines using entry/exit logic.

Source: Atlanta Journal Constitution

US Patent # 8,044,824
Vehicle Occupancy Enforcement

• SRTA transmits list of registered vehicles in the 3+ non-toll mode
  ➢ Full list downloaded daily
  ➢ Incremental updates every 5-10 minutes throughout the day

• Automatic License Plate Reader (ALPR) scans license plate and notifies officer to check occupancy for vehicles registered with SRTA in the 3+ non-toll mode

• Officer’s on board computer system will send “stop/citation” information back to SRTA
Occupancy Alert - Example

• Unique tone alert
• Unique text

LPR - Mobile Plate Hunter 900

Vehicle: Vostro-IT

Pending Alerts 0

Operations

Readers

Management - Diagnostics

Hot list last update
7/17/2012 07:58

#9 NON-TOLL MODE(01/09/2012 07:37)
MLPR – Elsag MPH-900
“Invisible Barrier” solution

- Overhead tolling system detects vehicle entry/exit
- Gantry spacing deters dodging into the HOT lane
- Gantry to gantry monitoring detects entry/exit violations
- Tolling system logic will issue toll violation notices, based on number of missed gantries
- Enforces double white line weaving
GCA Benefits

- Automated Violations for Unregistered Vehicles
- Automated Violations for DWL Violations
- Toll payment and entry/exit point violators receive violation notice by mail
- 24/7 automated enforcement, allowing police to focus on other violations
- Mailed citations = less need to stop violators, disrupt traffic flow, or risk officer safety
- Less right-of-way required, less traffic disruptions, reduced design, engineering & construction costs
- Provides flexible options to create & expand toll facilities in congested, constrained urban corridors
- No Credit or Debit Card needed to purchase & access Express Lanes.
- Similar to a prepaid gift card and includes convenience fees ($2.50 Starter Kit and $1.50 each reload)
- Available in local Walgreens and CVS stores
- Public Launch – June 2, 2014
- **Pay n Go Starter Kit** - includes a Peach Pass Transponder & Reload Card
- **Pay n Go Reload Card** - standalone card customers can use to add funds to their existing Peach Pass accounts or pay existing violations
Customers Retail Experience – Starter Kit

1. Customer purchases Pay n Go Peach Pass Starter Kit at a participating retail location.

2. Cashier adds the requested value *(between $20 and $500)* to the card by scanning the card.
   - Customer properly affixes the fully activated transponder to vehicle (windshield or bumper mount)
   - Eligible to use SRTA’s AVI toll lanes until funds are exhausted

3. *No online or other account registration needed – An industry first!*
Customers Retail Experience – Reload Card

1. Customer purchases Reload Card at a participating retail location.
2. Cashier adds the requested value *(between $20 and $500)* to the card by scanning the card.

**Prepaid Toll Account Replenishment**

a. Initial Transaction – Existing Account
   - After purchase, customer must associate reload card to the existing Personal Toll or Pay n Go Peach Pass account, via the InComm IVR.
   - Once the card is associated, all funds are transferred to the existing customer account. The card does not retain any value.
## Pay n GO! Features Checklist

<table>
<thead>
<tr>
<th>Features</th>
<th>Pay n GO! Peach Pass</th>
<th>Standard Peach Pass</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to I-85 Express Lanes (and future Peach Pass tolling facilities)</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Convenience fee to set up or reload account</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>No contact or vehicle information required</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Purchase and reload with cash at participating CVS and Walgreens stores</td>
<td>✓</td>
<td></td>
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<tr>
<td>Free trips ($5) for converting Pay n Go Peach Pass to a standard Peach Pass account</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Funds never expire</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Online Peach Pass account access</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Automatically reloads with credit or debit card tied to account</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Link multiple transponders to one account</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Switch to toll-free mode with 3+ occupants</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Email alerts for low balance, violations, expired credit/debit cards</td>
<td>✓</td>
<td></td>
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<tr>
<td><em>Peach Pass Press</em> e-newsletter</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Use on FL and NC toll roads (2015)</td>
<td>✓</td>
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Georgia (Peach Pass) to be interoperable with Florida (Sun Pass) and North Carolina (Quick Pass) by the end of 2014

Interoperability Steering Committee working on national interoperability (MAP 21 unfunded mandate)

Florida and North Carolina currently Interoperable
SRTA At-A-Glance

2011
- New Statewide CSC Opened June 2011

2012
- I-85 Express Lanes Opens

2013
- GA 400 Toll Ends

2014
- Public Launch – Pay n Go Peach Pass

2015
- GA/FL/NC Interoperability

2016
- I-75 Metro Express Lanes Open

2017
- NW Corridor Express Lanes Open

2018
- I-85 Express Lanes Extension Open

4 Years, 4 Toll Roads, 1 Statewide CSC
Thank You!

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GeorgiaTolls.com • PeachPass.com