



FLORIDA'S TURNPIKE ENTERPRISE TSM&O SUMMARY

TSM&O Workshop
June 11, 2012



FLORIDA'S TURNPIKE ENTERPRISE (FTE)

- FTE has actively pursued a number of projects & initiatives across departments that work to achieve TSM&O Goals and Objectives
- **Improving Safety, Reducing Congestion and Increasing Mobility for Turnpike customers**

ALL ELECTRONIC TOLLING (AET)

- All Electronic Tolling (AET) transition
 - Successfully transitioned 47 miles of the Turnpike in Miami-Dade County in February 2011
 - FTE is proceeding to design and contract for the funded Phases 4A, 4B, 5A, 5B, 6B, 6C and 8 of AET, including portions of Turnpike mainline, the Sawgrass Expressway, and SR 589 (Veterans Expressway and Suncoast Parkway)
 - AET assists FTE towards achieving its goals of improved mobility and safety

ALL ELECTRONIC TOLLING (AET)

SR-821 (HEFT) AET Crash Reduction Analysis (Mainline Plaza areas)

Toll Plaza	Mile Post	Pre-AET				Post-AET 2011	Percent Reduction
		2008	2009	2010	Average		
Homestead	10.424	12	3	13	9	4	57%
Bird Rd	23.000	21	18	20	20	19	3%
Okeechobee	31.728	18	9	7	11	4	65%
Miramar	46.722	20	29	21	23	8	66%

Notes:

Crash data was collected ¼ mile upstream and ¼ mile downstream of the toll plazas.

AET was implemented on February 19, 2011.

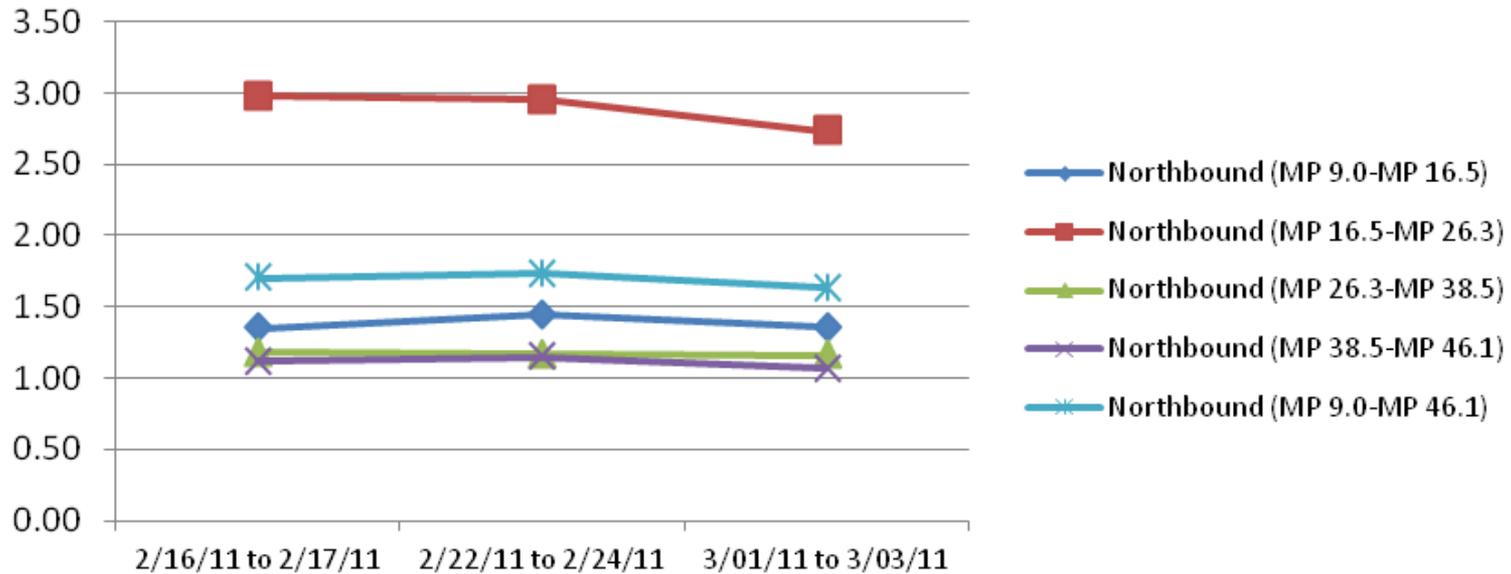
2011 Crash Data has not been finalized by FDOT.

ALL ELECTRONIC TOLLING (AET)

SR-821 (HEFT) AET Travel Time and Reliability

February 16 - 17, 2011

Travel Time Index - Northbound HEFT AM Peak Hour



SR 821 MP 38.5 to MP 46.1	7.6
	70
	6.51
	10%
	7.17
	6.72
	6.77
	6.80
	6.89
	6.98
	6.92
	7.22
	7.46
	7.08
	6.70
	6.73
	6.76

	PM Peak Maximum Travel Time (minutes)					PM Peak Maximum Travel Time (minutes)			
2/16/2011	7.56	9.95	13.01	8.52	3/1/2011	8.01	10.03	12.28	6.86
2/17/2011	7.58	9.93	12.17	7.74	3/2/2011	7.65	9.95	12.58	6.74
					3/3/2011	7.61	9.87	12.40	6.84

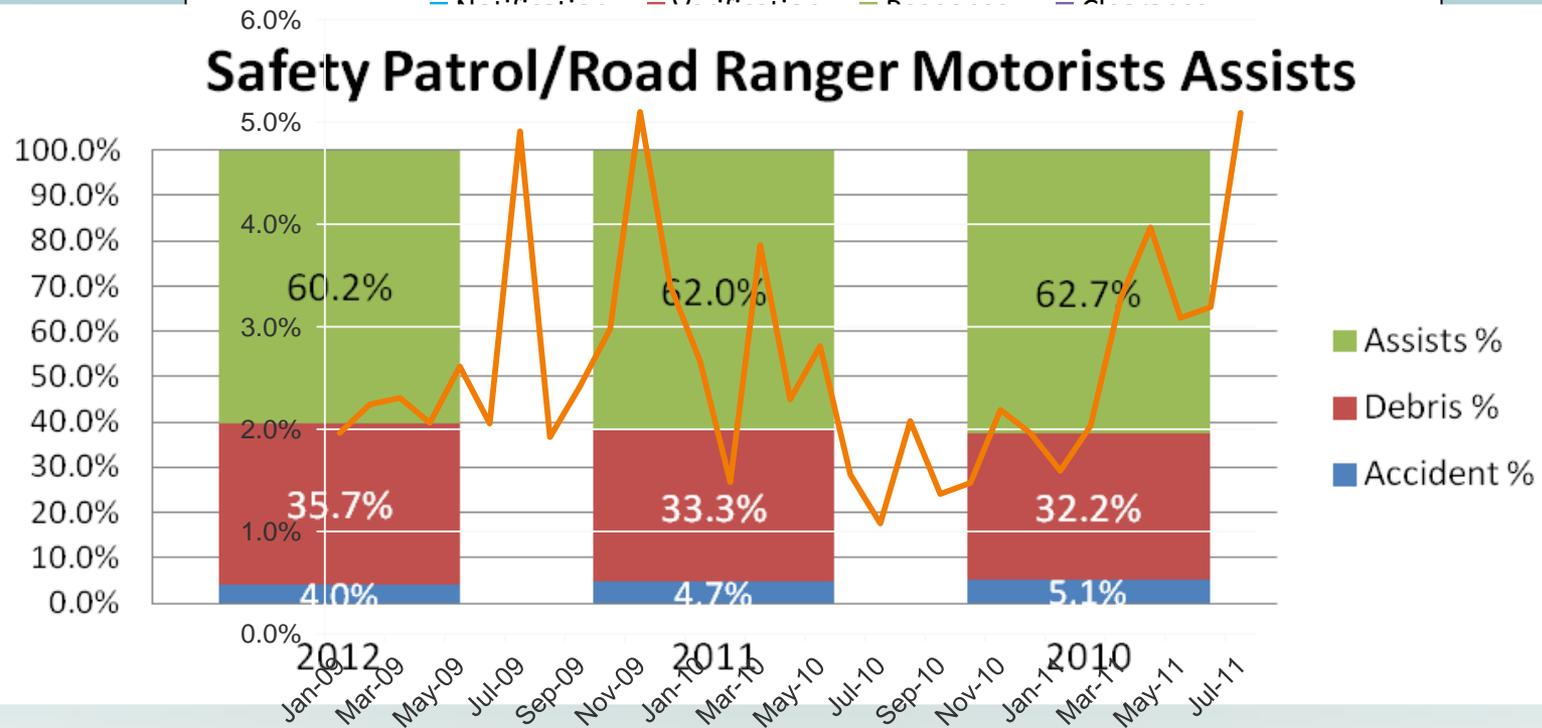
INTELLIGENT TRANSPORTATION SYSTEMS/ INCIDENT MANAGEMENT

- Customer safety is goal number one
- Highway Operations initiatives have contributed to 68% less fatalities, 20% less crashes, 18% reduced incident duration
- Interagency Outreach - TIM
 - Communicating, Coordinating, Cooperating - Responder Agencies
- Key Incident Management programs
 - ITS system-wide full deployment
 - Traffic Management Center (TMC) Operations
 - Road Rangers/Safety Patrol
 - Rapid Incident Scene Clearance (RISC)
 - Specialty Towing and Roadside Repair (STARR)

INTELLIGENT TRANSPORTATION SYSTEMS/ INCIDENT MANAGEMENT

Percent of Secondary Crashes

Safety Patrol/Road Ranger Motorists Assists



EFFICIENCY/HIGH CRASH LOCATION PROJECTS

- FTE identified projects that can be expedited to improve localized, isolated congestion and/or safety conditions
- Projects are fast-tracked:
 - Through Planning or Traffic Operations analysis
 - Work Program budgeting
 - Design/Production concepts, review and plans
 - Operations lettings through Construction or Maintenance

ANDERSON TOLL PLAZA EFFICIENCY JOB

Before



After



AUXILIARY LANES – BIRD ROAD TO SW 8 STREET

- AET Conversion set baseline of improvement
 - NB and SB directions
 - NB Average Peak Hour Travel Time reduction from 29.2 to 24.9 minutes (SW 152 Street to SR 836)
- Opening of Aux Lanes in Feb '12:
 - NB Average Peak Hour Travel Time reduction from 24.9 to 13.7 minutes (SW 152 Street to SR 836)
 - 11.2 minutes of additional average delay reduced for Mainline HEFT customers from 7:15 to 8:15 AM
 - 75% overall reduction of average AM recurring delays

INNOVATIVE AND PERFORMANCE-BASED CONTRACTING

- Safety and Mobility Goals
- Active Payment/Innovative Contracting mechanism to use performance incentives in a Turnpike widening improvement project
- Collect average travel time information pre-construction
- Use travel reliability, incident management and safety measures to assess the impact upon customers
- Create a vested interest for Roadway Contractor:
 - Response to incidents in active way
 - Minimize construction zone impacts to traffic/mobility
 - Review traffic control plan measures

INTEGRATED CONGESTION PRICING PLAN (ICPP)

- Study by Planning and involving input from Design/Production, Toll Operations, Communications/PIO & Traffic Operations
 - Study began in February 2011; A comprehensive evaluation of potential for congestion pricing concepts along the Turnpike System
 - Phase 1 completed in Dec. 2011 and Phase 2 underway
 - Goal is to determine where, when, and how Congestion Pricing can be used on the Turnpike to improve mobility
 - Urban facilities in Southeast Florida, Tampa, and Orlando
 - Among first in the nation to consider a large-scale program of value pricing on an existing toll system



Transportation Systems Management & Operations

Managing and Operating for an Efficient Transportation System

LOOKING FORWARD

- Priorities still to address:
 - Performance Measures/Florida's Turnpike Dashboard
 - Return on Investment/Benefits Analysis
 - High-Yield Project Prioritization
 - How do we recognize and implement quicker?
 - Smart Work Zone Management
 - Minimizing the impacts through active contracting measures
 - Managed Lanes/Express Lanes
 - Commercial Traffic/Freight/Cargo Management
 - Partnerships

LOOKING FORWARD

- Priorities still to address (continued):
 - Future Advanced Traveler Information Mechanisms
 - New Platforms (i.e. social media, in-vehicle)
 - Connected Vehicle Initiatives
 - 5.9GHz SR 528 Demo/Commercial E-screening
 - Tolling and interoperability initiatives
 - Smarter or Connected Infrastructure
 - Active Traffic Management
 - Shoulder-Use
 - Ramp Metering
 - Speed Management

LOOKING FORWARD

- Priorities still to address (continued):
 - Transit and Carpooling
 - Adaptive/Responsive Traffic Signalization
 - Service Plaza information enhancements
 - Service availability (food, fuel, trucking services)
 - Parking availability
 - Enhanced Lane Closure Analysis Tools (real-time)
 - Public-Private Partnerships
 - **Plenty of ideas missing!**



QUESTIONS ?

