



# SUNGUIDE® DISSEMINATOR

FLORIDA DEPARTMENT OF TRANSPORTATION'S TRAFFIC ENGINEERING AND OPERATIONS NEWSLETTER



## Editorial Corner: TSM&O Program Update

By Fred Heery, Sr., P.E., FDOT Traffic Engineering and Operations Office

The Transportation Systems Management and Operations (TSM&O) Program General Consultant transition is complete. Building on the success of FDOT's Intelligent Transportation Systems (ITS) and TSM&O programs over the last two decades, we are moving forward with several initiatives. These new initiatives include:

- A major update to the TSM&O Strategic Plan is underway involving all District Offices and many offices in the Central Office. The last volume was revised in 2013. Due to the many technology advances and structural changes in the industry, a revised Strategic Plan is necessary to help FDOT advance as a national leader in TSM&O.
- A Statewide TSM&O Excellence Program (STEP) is planned for development. STEP is a new initiative of the TSM&O Program and is envisioned to develop and deliver training modules for FDOT and our partners in the TSM&O program. ITS Construction Engineering and Inspection (CEI) training modules are currently in development.
- The Traffic Engineering & Operations Office is working with Central Office staff and Districts to update the Traffic Signal Maintenance and Compensation Agreement.
- As part of the State Arterial Management Program (STAMP) efforts, development of traffic signal retiming scope templates and other guidance documents for use by the District Traffic Operations offices are underway.
- In the March issue Russell Allen wrote about Florida's Next Gen FL511 System. The new contract has been awarded with the official kickoff meeting held May 27, 2016. You will hear more about Next Gen FL511 in future Disseminator issues.
- Derek Vollmer has distributed SunGuide® version 6.2. This version supports the second phase of Waze integration and Wrong Way Driving automated responses, if configured, among other updates and features.
- The TSM&O Program staff are actively collaborating with Districts and stakeholders to develop USDOT grant applications on: Fostering Advancements in Shipping and Transportation for the Long-Term Achievement of National Efficiencies (FASTLANE) and Advanced Transportation Congestion Management Technologies Deployment (ATCMTD).
- The TSM&O Program efforts also include connected vehicle research and exploring pilot testing opportunities.

Future issues of the Disseminator will update readers on these and other TSM&O initiatives. Also, be sure to catch the Department's TSM&O and STAMP sessions at the 2016 Design Expo.

For information, please contact Fred Heery at (850) 410-5600 or e-mail to

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## District Four SIRV Launches Pilot Program for SonoBlaster® WorkZone Intrusion Alarms

By Natalie Cortes, Marketing/Public Outreach Coordinator SMART SunGuide RTMC



Two SonoBlaster® alarms attached to safety cones.

Beginning on March 1, District Four's Severe Incident Response Vehicle (SIRV) team, in collaboration with Florida Turnpike Enterprise's Traffic Operations, launched a pilot program to implement SonoBlaster® Work Zone Intrusion alarms.

Created by Transpo® Industries Inc., the SonoBlaster® is an impact and tilt activated safety device that warns roadway workers of any passing vehicles that may potentially enter the work zone. The SonoBlaster® is mounted on typical work zone barricades, cones, drums and delineators. Upon impact, the SonoBlaster®'s built-in carbon dioxide-powered horn blasts a loud signal at 125 dB, for about 15 seconds.

Scheduled to end on September 30, the six-month pilot program will be evaluated on how well it enhances incident responder safety. Each District Four SIRV Operator will have two SonoBlaster® alarms placed on their vehicles, for a total of 16 alarms used throughout Broward and Palm Beach counties. Florida Turnpike's 14 Road Ranger vehicles will also use SonoBlaster® alarms during the pilot program.

"Often only a soft plastic cone separates workers from danger," said one Transpo® Industries Representative. "Over the last five years, the number of workers killed per year in motor vehicle crashes within work zones has risen to an average of 1,020 fatalities with 53,000 annual injuries."

The estimated cost to operate each SonoBlaster® is \$88. District Four hopes this small initiative will improve incident responder safety as well as driver awareness, and eventually become a permanent device used on all SIRV and Road Ranger vehicles.

For more information on District Four's SonoBlaster® pilot program, please contact Mr. Dong Chen at (954) 847-2785 or email to [Dong.Chen@dot.state.fl.us](mailto:Dong.Chen@dot.state.fl.us).

## FDOT Launches Truck Parking Availability System (TPAS)

By Marie Tucker, FDOT Co; Jeff Frost, FDOT CO; Craig Toth, HNTB

The Federal Motor Carrier Safety Administration (FMCSA) regulates Hours of Service (HOS) for truck drivers and mandates their rest periods. FMCSA requires truck drivers rest for at least 10 hours per day after every 14 hour shift or risk fines and disciplinary action. However, the truck drivers face two main issues in their trips:

- Lack of safe and convenient parking options
- Lack of real-time information regarding parking availability and way-finding

Florida experiences truck overflow parking at some rest areas while several others remain underutilized indicating lack of parking information management. Due to this, several truck drivers resort to the unsafe and illegal methods of parking on the interstate mainline, ramp shoulders, or in vacant lots.

The seriousness of the nationwide truck parking situation was addressed in Section 1401 of MAP-21 as "Jason's Law". In 2009, Jason Rivenburg, a commercial truck driver, sought a safe spot to rest before delivering a load of milk early the next morning. Tragically, Jason's unfamiliarity with parking options nearby led him to park at an abandoned gas station, ultimately resulting in his murder. Jason left behind a young son and a wife pregnant with twins. As a result of this incident, Hope Rivenburg, Jason's wife, championed "Jason's Law" which takes solving the truck parking crisis from an industry issue to a national issue, expanding eligibility for states to use federal highway funds for truck parking projects.

To address the need for information related to truck parking, the FDOT completed a two-part research project with Florida International University (FIU) to assess parking lot utilization and technology use (BDK80 977-14). The first part of the study determined the supply and demand characteristics for commercial truck parking in Florida. The second part performed a technology assessment that could be used to improve parking information management and deployed one test location for a Smart Parking System. After reviewing the research by the Federal Motor Carrier Safety Administration (FMCSA) on technology use, the research team chose to utilize wireless in-pavement sensors to determine vehicle presence. A closed-circuit television (CCTV) camera was also installed at each location so manual verification could be done. This test deployment was on I-10 at the Leon County Rest Areas west of Tallahassee.

Another pilot location on I-95 in the Jacksonville area was tested by FDOT utilizing Wavetronix® SmartSensor HD classifiers to count commercial vehicles. The sensors were located such a way that they could count truck traffic entering and exiting the rest areas without mixing with the



car traffic. The truck parking availability information was determined using the difference in ingress and egress traffic and the total available truck parking spaces. CCTV cameras were also installed to periodically manually verify available parking spaces. Also installed at this test location was a static sign with an static/embedded dynamic message sign (DMS) located upstream of the exit prior to the rest area to notify commercial vehicles of the availability of commercial vehicle parking spaces.

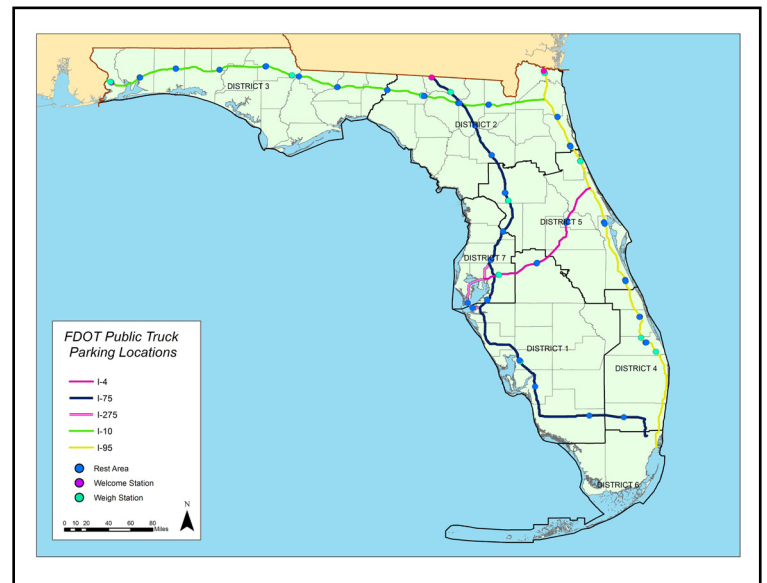
Based on the results of the study, FDOT submitted and was awarded an Accelerated Innovation Deployment (AID) grant to deploy a real-time information system about commercial vehicle parking availability. The Truck Parking Availability System (TPAS) is currently in preliminary design and will be deployed as a series of design-build projects let by each FDOT district encompassing public parking facilities located along I-4, I-10, I-75 and I-95, including Welcome Centers, weigh stations and rest areas. As the commercial vehicles are not typically separated from recreational vehicles at the Welcome Centers and rest areas, in-pavement sensors will be deployed to detect vehicle presence. As the weigh stations are primarily commercial trucks in the parking areas, the use of MVDS to monitor ingress/egress will be deployed.

CCTV cameras will be installed to verify the parking availability information at the Welcome Centers and rest areas. The Regional Traffic Management Centers (RTMC) operators will periodically monitor the system for validation of information based on threshold requirements as defined in the Concept of Operations.

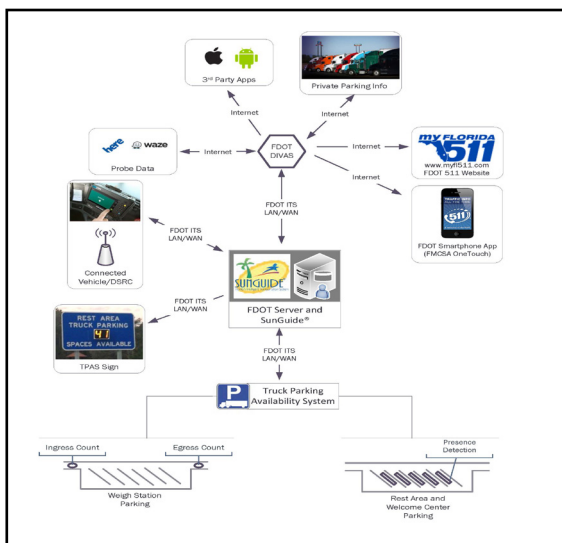
The information from the on-site system will be transmitted through existing ITS LAN/WAN infrastructure and assembled at the District RTMCs through utilizing SunGuide® software. The truck parking availability will be disseminated through DMS located upstream of the parking facility, through in-cab equipment as well as through the FDOT Data Integration and Video Aggregation System (DIVAS) providing information to the FL 511 website and apps as well as third party data feeds.

It is anticipated that the project will be let in phases, with the first phase occurring along I-4 and I-95 in the sites located within District 5. This first phase will be let as an adjusted score design build with an advertisement date in July 2016.

The remaining sites will be let by each of the remaining districts later in FY 17.



For additional information, contact FDOT Project Manager Jeff Frost, [Jeff.Frost@dot.state.fl.us](mailto:Jeff.Frost@dot.state.fl.us).





## Florida's Turnpike Completes Installation of 8 ADMS in Broward and Palm Beach Counties

By Ryan Brown, Senior Traffic Engineer

The Florida's Turnpike Enterprise continues to expand its Intelligent Transportation System, specifically enhancing capabilities to disseminate information to motorists in a timely manner in advance of recurring congestion, incidents or planned events. For the Turnpike to meet this goal, they continue to deploy Dynamic Message Signs (DMS) along arterial roadways in advance of interchanges with their system. The Turnpike completed physical construction in their most recent deployment of eight (8) arterial Dynamic Message Signs (ADMS) in Palm Beach and Broward Counties this April. The contractor team worked with the Turnpike to successfully integrate the ADMS into SunGuide, using a mix of communication technologies due to various site constraints, and is currently under test by the Traffic Management Center. These signs are strategically located on arterials connecting to heavily traveled sections of the Turnpike Mainline and encompass the following roadways and travel directions:

- Sunrise Boulevard EB & WB
- Commercial Boulevard EB & WB
- Sample Road EB & WB
- Atlantic Avenue EB & WB



This deployment will enhance the Turnpike's ability to provide timely and relevant travel information to motorists on arterial approaches to the Turnpike Mainline, allowing motorists to make a better informed travel decision.

## Transpo2016 – Integrating a Transitional Society: From Bicycles to Connected Vehicles

By Sandy Beck, ITS-FL

Wow, it's already May. Soon it will be Summer, then Fall and that can mean only one thing - the Presidential elections. As much fun as that will be, that's not it. Actually, it means it's time for Transpo2016. This great event will begin on Sunday, November 13 and end on Wednesday, November 16.

We're holding it at the Hilton West Palm Beach. This is a beautiful, new hotel that features a spectacular resort-style pool, an excellent restaurant, and a beautiful bar with a firepit to gather around. Interesting facts - the hotel features their own wine from California and their own craft Bourbon from Knob Creek. The hotel is located across the street from CityPlace, an upscale restaurant and shopping center that offers any type of food you desire, should you choose not to eat at the hotel.

Access to the hotel is via car, plane (the hotel features a free airport shuttle), or train (Tri-Rail is a short walk away). Perfect for a transportation conference!

Transpo2016 is being hosted by ITS Florida, the Florida Section of ITE, the Florida Department of Transportation (FDOT), and the Southeast Florida chapter of WTS. The event will begin Sunday with a golf outing at one of the local courses. This will provide a fun kick-off event for those wanting to hit the links. It will be followed by a welcome reception on the patio around the pool where everyone will have a chance to meet and greet.

Monday morning begins the two and a half days of technical sessions and other conference activities. Highlights will include:

- Lots of opportunities for you to present on your latest accomplishment. There will be four technical tracks, covering everything from planning for bicycles and pedestrians to our future with autonomous vehicles. Look for a call for papers to go out soon and get your abstracts in.
- State and national speakers to tell us what's happening elsewhere that will affect our state
- Technical tours
- A banquet that will include both ITS Florida and FSITE activities and awards
- Exhibitors will have the opportunity to display their products in a beautiful Exhibit Hall that will be the focus of non-technical events.

And of course there will be lots of opportunities for sponsors. Every firm wants their name to be seen and Transpo2016 will make sure that occurs. Sponsorship information is being finalized and will be released soon. Stay tuned for more information.



So, if you can only go to one conference this year, make it Transpo2016. This will be your opportunity to meet and talk with national, state, and local leaders in the transportation industry. And to have a great time. Watch the ITS Florida website (<http://www.itsflorida.org/>) for more details and we'll be emailing more information soon.

## FDOT District Six Participates in Transit-Related Incident Management Training

By Javier Rodriguez, P.E.

The Florida Department of Transportation (FDOT) District Six TSM&O Office participated in two incident management training sessions with transit agencies from Broward and Miami-Dade counties to demonstrate the proper procedures for clearing transit-related incidents and towing buses on 95 Express.

The session's goal was to improve upon the incident management strategies that support the cross-county Bus Rapid Transit (BRT) Service line along 95 Express. FDOT participated in its first session with Broward County in February and the second with Miami-Dade in April.



Transit officials provided FDOT's field personnel with hands-on training and shared their best practices when managing these traffic events. They also provided the District with a list of bus types to help TMC staff identify the variances between each bus to promote efficient dispatching and clearance.

The Department will continue to meet with transit agencies to identify trends and promote inter-agency training. Ultimately, the goal is to improve upon current practices to achieve faster clearance times and to ensure rider and motorist safety. BRT is a critical component of 95 Express helping to reduce single-occupancy vehicle travel along the interstate, mitigate rush-hour congestion, and contribute to the continued success of 95 Express.

These training sessions play an important role in 95 Express' multi-modal operations. They help all agencies improve field coordination efforts so that 95 Express is able to meet its mobility goals.

## District Four Recognizes Outstanding Service during 2015 SMART SunGuide Awards

By Natalie Cortes, Marketing/Public Outreach Coordinator SMART SunGuide RTMC

Each year, the Florida Department of Transportation (FDOT) District Four Intelligent Transportation System (ITS) Program recognizes outstanding service from employees and partners at the annual SMART SunGuide Awards. This year, 11 individuals were proudly acknowledged at the 2015 SMART SunGuide Awards held on February 19, 2016.



These individuals were nominated because of their diligent hard-work and fantastic service within six categories:

- Excellence in Incident Management/Motorist Assistance
- Leadership and Participation in Transportation Initiatives
- Commitment to Teamwork
- Commitment to Customer Service
- Leadership in Innovative Advancements
- Commitment to System Availability

The following individuals exemplify District Four's above and beyond work ethic:

- **Deandre Curry:** For excellent service for Broward County Road Rangers
- **Oscar Castellanos:** For excellent service for Palm Beach County Road Rangers
- **Tim Tuning-** For excellent service for Treasure Coast Counties Road Rangers
- **Fire Chief Donald Widing-** For leadership in Broward County Traffic Incident Management
- **Division Chief Shon Broedell:** For leadership in Palm Beach County Traffic Incident Management
- **Assistance Chief Brian Burkeen:** For leadership in Treasure Coast Counties Traffic Incident Management



- **Roy Jorgensen Associates:** For excellent teamwork in Public Partnering
- **Danica Byam:** For excellent customer service in ITS Operations
- **David Gali:** For innovation in ITS Management
- **Patrick Donnelly:** For commitment to Broward County ITS Maintenance
- **Marcello Campo:** For commitment to Palm Beach/ Treasure Coast Counties ITS Maintenance

A special feature of the awards ceremony is the presentation of teddy bears to Florida Highway Patrol (FHP) Troop L for its Care Bear Program. FHP Troopers keep these teddy bears in their patrol cars, ready to give to children who were involved in a traumatic incident. This year, more than 350 teddy bears were given to FHP. Donations were collected on behalf FDOT's District Four central office, Broward County's Traffic Engineering Division, Emerald Transportation Inc., and the District Four's Regional Transportation Management Center.

For more information on District Four's SMART SunGuide Awards ceremony, please contact Mr. Dong Chen at (954) 847-2785 or email to [Dong.Chen@dot.state.fl.us](mailto:Dong.Chen@dot.state.fl.us).



## FDOT TRAFFIC ENGINEERING AND OPERATIONS MISSION AND VISION STATEMENTS

### Mission

Provide leadership and serve as a catalyst in becoming the national leader in mobility.

### Vision

Provide support and expertise in the application of Traffic Engineering principles and practices to improve safety and mobility.

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