DISSENINATOR

TRANSPORTATION SYSTEMS MANAGEMENT & OPERATIONS

March - April 2020





Florida Uses Creative Safety Messaging to Enhance Motorist Reminders





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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.

Looking to be a Contributor for the Next Issue of the TSM&O Disseminator?

Email Jennifer Langford (Jennifer.Langord@dot.state.fl.us) with your story subject and title.

We would love to have your contribution be a part of the next edition.

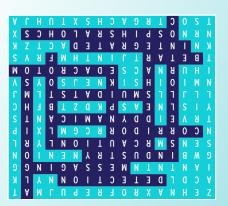
Photo credits: FDOT

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District Six Provides Transportation Management Support to Super Bowl LIV

By Javier Rodriguez, District Six TSM&O Program Engineer, FDOT

The Florida Department of Transportation, District Six, provided on-site transportation management support for Super Bowl LIV (54) at Hard Rock Stadium in Miami Gardens in February.

Due to its high profile, Miami-Dade County estimated that 150,000 visitors converged on South Florida during the Super Bowl weekend including 80,000 non-game ticket holders who came just to be a part of the special event festivities. The stadium has a seating capacity of 65,000 and can accommodate approximately 27,000 vehicles.



District Six joined the National Football League's (NFL) transportation team, Florida's Turnpike Enterprise, the Hard Rock Stadium Parking and Access Team, and representatives of a rideshare company in assisting the Super Bowl LIV transportation effort.

As part of the coordination effort, District Six's SunGuide Transportation Management Center relayed real-time traffic conditions to the Super Bowl's transportation, parking, and security teams. This included information about major incidents with travel lane blockage, opening and closing of ramps, and pending arrivals of over 400 buses and police-escorted motorcades, including those of the participating football teams.

Providing transportation support to these types of regional events ensures motorists attending and gathering around the event are moving safely and efficiently and strengthens the relationships between the FDOT and other local partners.

For more information, please contact Javier Rodriguez at (305) 640-7307 or by email at Javier.Rodriguez2@dot.state.fl.us.



Creative DMS Message related to speed awareness that ran on Turnpike system roadways over the weekend of March 27 - 29, 2020.

Florida Uses Creative Safety Messaging to Enhance Motorist Reminders

By Mary Lou Veroline, TSM&O Technical Writer, Florida's Turnpike Enterprise

The use of creative safety messages on dynamic message signs are being developed with the intent to modify driver behavior. However, there is limited evidence to support the effectiveness that creative messages have on changing behavior. With this in mind, FDOT's State Traffic Engineering and Operations Office has submitted a research topic, "Human Factors Study on the Use and Effectiveness of Innovative Safety Messages on Dynamic Message Signs" for FY20/21 research funding. The results of this proposed research can be used by the FDOT, as well as other state and local agencies to develop guidelines on the appropriate use of creative safety messages.

If you have traveled around the country by car or truck over the last couple of years, you have undoubtedly seen creative safety messages being utilized on overhead dynamic message signs (DMS). Many state departments of transportation have gone that route in an effort to reach motorists with safety information in a new and engaging way.

As safety professionals, we know that anything we can do to promote people talking about safety can be a good thing. Managers within the Traffic Operations unit at the Florida Turnpike Enterprise (FTE) began working with FDOT's State Traffic Engineering and Operations Office to review other states' creative messages and devise a plan to display some of these

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on Turnpike DMS. FTE staffers were given the opportunity to submit suggestions for messages to be used for specific holidays, special events such as the Super Bowl, and general safety messages to address speed, seat belt usage, or distracted driving.

A committee of Turnpike Traffic Operations and Public Information personnel was assembled to review the ideas submitted by staff and narrowed the list down to be presented to Central Office for approval. Authorization was given for a test run of messages covering a broad spectrum of safety concerns. The first creative message was posted on Turnpike DMS on Valentine's Day of 2020. As of this writing, the Turnpike has utilized two additional themed messages, one for St. Patrick's Day in support of seat belt usage (photo below). The other is shown in this article's lead



The Turnpike's first creative DMS message that ran on Valentine's Day 2020.

photo message ("Don't Hurry Be Happy") to address speed increases seen during the COVID-19 "safer at home" mandate where traffic volumes were reduced by at least 30 percent across system roadways.

Along with use on DMS across the Turnpike system, the FTE has also promoted the messages on social media garnering strong support for the campaigns through direct responses, "likes", and "retweets". Turnpike safety outreach staff members also planned to promote the use of creative messages and ask for feedback about the practice, during safety events at FTE Service Plazas. Those efforts are now on hold until after the social distancing necessary during the state's pandemic response.

Future holiday-themed messages are being developed for Mother's Day, Father's Day, the Fourth of July, Halloween and the holiday period between Thanksgiving and New Year's Day. Graphics have also been created to go along with general safety messages in support of campaigns aimed at impaired driving, distracted driving, use of turn signals, work zones, and a "caution" icon for crash and congestion gueue warnings.

For more information, please contact John Easterling at (954) 934-1620 or by email at John. Easterling @dot.state.fl.us.



Creative DMS Message utilized on St. Patrick's Day 2020.

Welcome Aboard!

District Four is pleased to announce the appointment of Alexandra Lopez, P.E., to the position of TSM&O Program Engineer.

Alexandra Lopez holds Bachelor and Master of Science degrees in Civil Engineering from Florida International University (FIU). She is a professional engineer (P.E.) as well as a professional traffic operations engineer (PTOE).

Ms. Lopez began her professional career with the Florida Department of Transportation (FDOT) District Six in 2012. During her time at District Six, Ms. Lopez successfully managed a variety of projects. These include the SunGuide Transportation Management Center (TMC) Control Room Retrofit Project and the SR 924/NW 119th Street Adaptive Signal Control Pilot Design-Build Project.

After spending nearly five years with FDOT District Six, Ms. Lopez entered private consulting as an ITS/Traffic Engineer, serving as Deputy Project Manager on five different intelligent transportation systems (ITS) and connected and automated vehicle (CAV) contracts for multiple states and the Federal Highway Administration (FHWA). During her spare time, she enjoys traveling, spending time with her family, and visiting new restaurants.

Please welcome Alexandra Lopez back to the FDOT in her new role!

Save The Date! TRANSPO 2020

By Russell Allen, ITS Florida

OCTOBER 11-14, 2020 **Hyatt Regency Coconut Point** in Bonita Springs, FL

In October of 2020, the Intelligent Transportation Society of Florida (ITSFL) and the Florida Section of the Institute of Transportation Engineers (FSITE) will come together for a joint annual meeting.



The four-day event will be filled with many opportunities for participants to learn and share their knowledge about all things ITS, as well as to network with fellow conference attendees. A series of sessions will be offered featuring informative presentations and insightful discussions.

Industry experts will share best practices, lessons learned, and new strategies to ensure further success of ITS and TSM&O for the Southeast. In addition, training and professional tours will be available to provide participants with the knowledge and tools necessary to effectively plan and deploy ITS technologies in their own jurisdictions.

For more information on ITS Florida, please check the ITS Florida website at www.ITSFlorida.org or contact Ms. Sandra Beck, Chapter Administrator, at ITSFlorida@ITSFlorida.org.

ITS Florida Scholarships

Deadline August 21, 2020

By Sandra Beck, ITS Florida

ITS Florida has two scholarship programs that are now accepting applications for award in 2020 at our annual meeting.

These cash scholarships are awarded to deserving applicants, enabling them to take advantage of the opportunities that can be achieved through education, training, and certification programs.

The ITS Florida Anne Brewer Academic Scholarships are available to two groups: one to a full time undergraduate or masters' student and two to Ph.D. students (at the time of the scholarship awards). Students from any accredited Florida university or college are eligible. Principal coursework shall include a major in a field directly related to transportation, ITS systems, transportation engineering, or a related field subject to the approval of the Awards Committee. The scholarship amounts are one \$2,500 award and one \$1,500 award for Ph.D. students and \$2,000 awards for bachelor's or master's degree students. The number of scholarships awarded, and the amount of each scholarship may fluctuate depending on available funding and the number of qualifying students.

For the requirements, and the documentation needed, visit: https://fs16.formsite.com/ITSFlorida/Scholarship Academic com/index.html

The Erika Birosak Training and Certification Scholarship is available to public and private sector nominees belonging to organizations that are members of ITS Florida. The scholarship assists those seeking to advance their skill set through additional training and certification courses, to better serve their organizations and the ITS industry in Florida. This scholarship amount is up to \$1,000 reimbursement for successfully completing approved coursework within one

For the documentation needed, visit: https://fs16.formsite. com/ITSFlorida/Train_Cert_Scholarship/index.html

Anyone interested in information about the ITS Florida scholarship program and sponsorship opportunities may contact Sandy Beck at ITSFlorida@ITSFlorida.org. Sponsorships are also available at https://www.itsflorida.org/ the-anne-brewer-scholarship-program.

Break Time



"WHY IS IT CALLED RUSH HOUR WHEN NO ONE RUSHES ANYWHERE?"

NOSPIHSR

TURNPIKE MOTORCADE FOOTBALL STADIUM **INDUSTRY RIDESHARE** CORRIDOR CAUTION

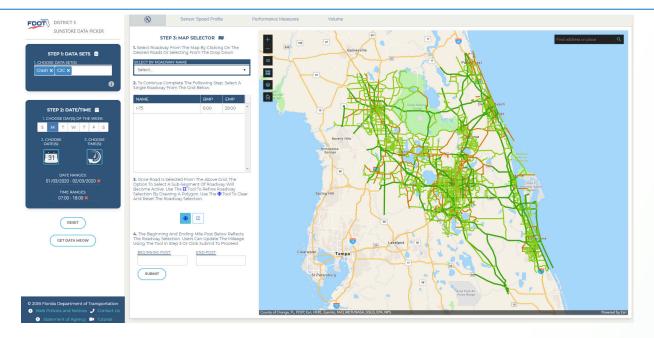
CONTROLLERS **BETA INTEGRATED** DETECTION **ALGORITHMS SCHOLARSHIP MESSAGING DYNAMIC**



Regional Integrated Corridor Management Continues to Roll Out

By Jeremy Dilmore, District Five TSM&O Program Engineer, FDOT Tushar Patel, District Five TSM&O Production Manager, FDOT Claudia Paskauskas, CEO, InNovo Partners

FDOT District Five continues the march toward Integrated Corridor Management (ICM) by partnering with local maintaining agencies to draft access and business rules while developing the Regional Integrated Corridor Management Software (RICMS) package. The RICMS will provide informed decision-making by utilizing Sunguide software command and control functionality to leverage traffic signals as data collection devices. Whereas the software is still months out, several new traffic signal milestones have already been reached.

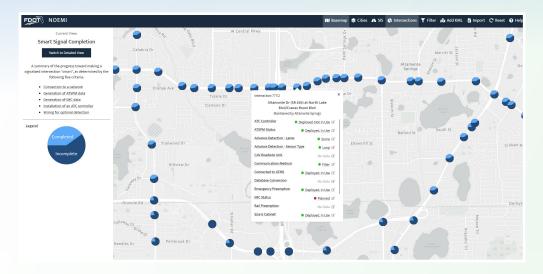


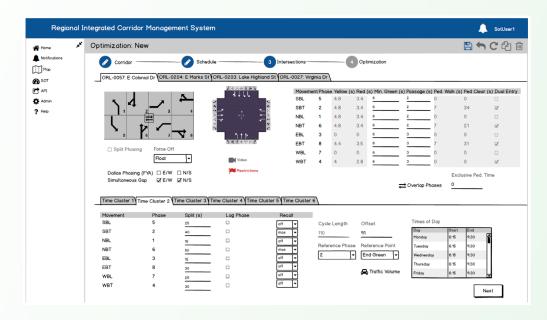
The District and local agencies reached agreements on which advanced transportation controllers (ATC) work best within each local agency area, agreeing on design guidance for detection and implementation spaces within statewide internet protocol (IP) ranges. A boilerplate memorandum of understanding (MOU) has been developed that can be tailored to specific areas for data and communication access. A boilerplate MOU for ICM operations is under development, working first with Orange County staff.

Two software applications have been reconfigured to enable traffic signal hardware to function as data sensors for the

RICMS. The first, the Signalized Intersection Inventory Application (SIIA), has moved from beta testing into production. The application builds on efforts from District Two operation database, adds in automated traffic signal performance measures (ATSPM) requirements, and adds in Highway Capacity Software (HCS) movement restrictions with various other fields. The software gives enough metadata to associate signal phasing with approaches, to link detection with respective lane calls, and to calculate optimized splits and offsets in near real time.

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The second, the Intelligent Transportation System Information Quality **Analysis** (ITSIQA) application, has been field tested and has moved from beta to production phase. The ITSIQA application fuses travel time data across arterials and freeways in near real time and generates an associated quality metric. It is also anticipated that ITSIQA will provide turn movements and freeway volume, pending research results.

Data collection for signalized intersections is turning out to be very demanding and has required new staffing on the maintenance contract. seeking specialists with backgrounds as signal technicians. This effort underlines the specialized nature of signal work as the system evolves. In response, the District is working with local agencies on developing a training program to inject new workers into the field. After failed attempts to work with technical schools, the effort will become its own program with the first pilot project in late spring of this year.

The District's pilot program of cloud-hosted ATSPM visualization continues to be successful. For public record requests, the District

is maintaining its own UDOT software instance. Conversely, vendor products are being used in the performance of ATSPM visualization for operation purposes, allowing severability and better operational performance. The tool tracks the following features:

- Connection to a network
- Installation of an ATC
- Metadata collected via SIIA
- Wiring for optimal detection every lane, all approaches, both advance and stop bar detection
- Intersection movement counts (IMC) detection

The data warehouse, SunStore, continues to build its history of data for future training with algorithms. The new contract for SunStore maintenance and enhancements should be in place in July to support continued development.

For more information, please contact Jeremy Dilmore at (386) 943-5360 or by email at Jeremy. Dilmore @dot.state.fl.us.

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