

SMART MOVES

FDOT District Four ITS Quarterly Newsletter

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Palm Beach Ramp ID



Palm Beach County Fire Rescue had a serious dilemma. Whenever dispatchers received a call about a crash or other incident on the southbound side of the Interstate 95 interchange at Indiantown Road in Jupiter, they were left to ask, "Which ramp is it on?" The configuration of the Indiantown interchange is much different than most other interchanges along the I-95 corridor. If emergency medical responders from Station 19 picked the wrong ramp, they could miss the crash entirely. Turning around on I-95 was not an option because of the on-going construction to widen the interstate. So an Emergency Medical Services (EMS) crew from another station had to be sent to the scene, tying up more manpower and vehicles than necessary. Fire rescue officials tried "splitting" their response. The rescue truck went one way and the fire engine the other way. But if there was an accident with multiple injuries, one of the vehicles had to travel four miles south to turn around and come back.

In February, Battalion Chief Mike Wells approached the Palm Beach

Traffic Incident Management Team for assistance. Wells asked if there were any kind of signs that could be placed on the ramps to help motorists relay their location to dispatchers. FDOT District Four Traffic Operations and Maintenance quickly sprung into action. A plan was developed to place five ramp ID signs on the two ramps. The westbound ramp would be identified as "Ramp 706C" and the eastbound ramp as "Ramp 706D." A few weeks later, the signs were installed. Freeway Operations Manager Gaetano "Guy" Francese said the ramp ID signs are just one tool that can be used to help reduce incident response times. FDOT District Four is seeking funding to install location reference markers along I-95 as well.

Location reference markers are similar to mile markers, but convey more information, including the direction of travel and exact location, down to the tenth of a mile. They would be installed every two-tenths of a mile on I-95. Dispatchers could ask motorists to read the closest sign when they call in for help or to report a crash. Emergency responders would immediately recognize the location marker, instead of driving around trying to find the incident.

BSO Effort Recognized by FDOT.....	2
TreasureCoastTIMTeamAnniversary.....	2
Davis Productivity Awards.....	3
Dori Slosberg Driver Education Conference.....	3
New Power Distribution System.....	4
SunGuide Testing.....	4
District Four Deployment Updates.....	5
Open Communications Across the State.....	5
Statewide Road Ranger Survey.....	6
Treasure Coast Road Ranger Program.....	6

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BSO Effort Recognized by FDOT

On April 26, a fatal traffic crash occurred in the northbound lanes of I-75 before the Indian Trace exit. In addition to the fatality, a damaged tractor trailer had spilled oil, covering the five northbound lanes of I-75 for approximately 100 yards. The road had to be closed. Broward Sheriff Fire Rescue's Weston Station 81 and Regional Hazardous Materials Team responded to the incident. The crews worked tirelessly alongside the Severe Incident Response Vehicle (SIRV) Team to mitigate the oil spill. Thanks to the Broward Sheriff Fire

Rescue teams under the direction of Weston Battalion Chief Michael Clougherty, the SIRV Team estimates the road opened at least one hour sooner.

FDOT formally recognized the team with a letter of appreciation. A presentation was made on May 5 at the FDOT's Broward Traffic Incident Management (TIM) Team meeting. BSO was commended for excellence in upholding TIM principles: communication, cooperation and coordination.



Pictured, left to right: Driver/Engineer Kevin "Casey" Boylan, Firefighter/Paramedic Juan Sopena, Batt. Chief Michael Clougherty, FDOT Severe Incident Response Vehicle Team Manager Tom Dickson, Lt. John Orlando

Treasure Coast TIM Team Anniversary

The Treasure Coast TIM Team marked its second anniversary in May. The inaugural meeting was held May 22, 2008, with approximately 37 representatives of first responder agencies in Martin, St. Lucie and Indian River counties in attendance. During the next year, two other organizational meetings were held to familiarize Treasure Coast agencies with the different components of the TIM program. In May 2009, the team began holding bi-monthly meetings with the hiring of a full-time TIM Coordinator. Presentations at meetings during the past year include: proper response to ruptures in the natural gas pipelines along Florida's Turnpike; Rapid Incident Scene Clearance; St. Lucie

County Fire District's Special Operations Team; Florida's Turnpike One-Way Evacuation Plan; and the traffic control plan for emergency evacuations at the St. Lucie Nuclear Power Plant. To improve regional coordination and cooperation, the Team welcomed the Okeechobee County Sheriff's Office as a member in November 2009. In January 2010, the team visited Indian River State College's Public Safety Training Complex, a 50-acre, eight-building facility that provides virtual and realistic training scenarios for more than 500 professional first responders and students each day.

District Four Earns Davis Productivity Awards

Since 1989, the Davis Productivity Award program has publicly recognized and rewarded state employees and work units whose work significantly and measurably increases productivity and promotes innovation to improve the delivery of state services and save money for Florida taxpayers and businesses. This year, Davis Productivity Awards were given to the following teams in the Intelligent Transportation Systems (ITS) program.

Intelligent Transportation Systems Freeway Operations Team Increased Freeway Service Patrol Coverage through Private Financing	Saved \$11,719,000
Intelligent Transportation Systems Maintenance Team Fixed Critical Fiber Backbone Cut Under 20 Hours	Saved \$18,500,000
Intelligent Transportation Systems Deployment Team Value-Engineered Video Monitoring for Arterial Resurfacing Project	Saved \$46,100
Intelligent Transportation Systems Project Management Team Created Critical Project Extension without Additional Funding Request	Saved \$217,529,000
Intelligent Transportation Systems Operations Team Provided Free Streaming Video to Emergency Response Partners	Saved \$4,865,000
Intelligent Transportation Systems Contract Manager Created Process Improvement for Intelligent Transportation Systems Contracts	Saved \$3,625
Intelligent Transportation Systems Deployment Team Deployed Traffic Information Signs on Existing Freeway Infrastructure	Saved \$32,500
Intelligent Transportation Systems Deployment Team Coordinated Communications Connection for Weigh in Motion Station	Saved \$10,500

Dori Slosberg Driver Education Conference

District Four and Global-5 participated in the Dori Slosberg Driver Education Conference on April 23 in Boca Raton. A 50-minute presentation was offered to driver education teachers and district coordinators about 511 and how to incorporate 511 into their curriculum. Space was donated to FDOT for a 511 booth. Attendees included driver education teachers, district driver education coordinators, private driver education coordinators, school safety coordinators, corporate safety partners, law enforcement officers and others. Many attendees registered to receive additional 511 information and several took materials home to make a presentation to their schools' staff.



Jane Odowd of Global-5 informed attendees regarding 511 traffic information over the phone and website.

New Power Distribution System

The hurricane season is here again and along with it comes an increased chance of power loss due to storms. The Florida Department of Transportation (FDOT) District Four Intelligent Transportation Systems (ITS) closed-circuit television (CCTV) cameras and other devices are dependent on power. To eliminate downtime due to power outages, the FDOT ITS Unit took preventive actions by installing back-up generators and a power distribution system throughout Broward County.

Previously, each device location required a power drop from Florida Power & Light (FPL). A power distribution system was installed approximately every six miles along the I-95 corridor in Broward County. Each location has a large generator (30-35 kW) to provide power when FPL cannot. The generator will run while FPL addresses the power outage in the area, keeping ITS operations running with no disruption.

With systems up and running, the SMART SunGuide Regional Transportation Management Center (RTMC) can share information with motorists as they return to the area after a hurricane evacuation. Even under a regional power outage, motorists would see signs displaying information about what roads may be closed. Road Rangers would be available for incident management and assistance as well. None of this would be possible without the use of the CCTV cameras, dynamic message signs, and other devices.

The power distribution system's main benefit is to maximize and continue device uptime during a power loss. The I-95 corridor in Broward County was recently completed and this concept has been built into deployments for the Palm Beach County and the Treasure Coast.

For additional information, please contact Jason Trujillo at Jason.Trujillo@dot.state.fl.us

SunGuide 4.3 Testing Forum

SunGuide software is used by all the TMCs in the state to manage ITS devices. The latest version, SunGuide 4.3, was reviewed in April at the SunGuide Independent Verification and Validation (IV&V) testing meeting. The District Four TMC hosted the meeting and put the ITS lab to work. It is important to test every feature in an environment that won't impact live equipment deployed in the field, but still provide insight to how the software is working.

Having the following devices in the District Four ITS Lab helped achieve this: a Vicon pan/tilt/zoom camera; a Vbrick encoder; a Wavetronics vehicle detector; two DLP flat screen monitors with Vbrick decoders; two

full matrix and six line matrix Dynamic Message Signs (DMS); three SunGuide workstations and a dedicated Cisco switch that can be attached to or removed from the rest of the network as needed.

Specifically for this SunGuide release, having eight offline DMS was favorable for testing the new Express Lane sign features. Working at District Four also allowed for a high speed network connection to the District Six servers where the SunGuide software was hosted. The full IV&V test took three full days to complete, including two overnight tests. SunGuide 5.0 (which includes release 4.3) is scheduled to be deployed in summer 2010.



The SunGuide 4.3 testing meeting was hosted at the District Four Regional TMC in April.

District Four Deployment Updates

The ITS program currently has deployment projects in all of the five counties covered in District Four.

In Broward, construction activities for a design/build project to provide an ITS power distribution system within the county have recently been completed. The design/build team of Miller Electric and Metric Engineering has entered the burn-in period, which is a 90-day period of testing during which the equipment is operated under normal conditions. This will simplify the power distribution system as well as reduce the amount of FPL service points, thus reducing maintenance costs. Generators will be deployed to serve as backup power during any power outage.

The Alligator Alley (I-75) ITS Safety (AAITSS) Design/Build Project was awarded to the InfraSource/PBS&J team. The contract has been executed and Notice to Proceed (NTP) was given in early May. The design/build team is currently working on the design plans and will commence construction activities

by August 2010. This project aims to improve safety on the Alligator Alley segment of the I-75 corridor, specifically to keep drivers alert and driving within the speed limit. Deployment will include installation of DMS, environmental sensors, CCTV cameras, and vehicle detectors.

The Palm Beach County ITS deployment is currently under construction and the first phase is planned for completion in 2011. This design/build project includes



deploying multiple DMS (both arterial and highway), Road Weather Information System (RWIS), Highway Advisory Roadway System (HARS), CCTV cameras, vehicle detectors and communications infrastructure to gather highway conditions and provide information to the motoring public about road conditions (i.e. weather, congestion, incidents, and travel times).

On the Treasure Coast (Martin, St. Lucie, and Indian River Counties) an ITS deployment project is also currently under construction. It includes deploying highway DMS, RWIS, HARS, CCTV cameras, vehicle detectors, and communications infrastructure to gather highway conditions and provide information to the motoring public about road conditions. This project is expected to be complete by early 2011.

Upon completion of these projects, 100% of FDOT District Four's freeway (over 140 centerline miles) will be served by a fully integrated Intelligent Transportation System.

Open Communications Across the State

The Broward SMART SunGuide District Four RTMC and the SWIFT SunGuide TMC in Fort Myers share responsibility for managing the traffic on the I-75 Alligator Alley corridor between Broward and Collier Counties. Open communications have been established between the TMC control rooms in order to assist one another when necessary during Incident Management activities. Since the full closure of either direction of this limited access roadway may lead to severe disruptions of normal traffic flow, effective and efficient interagency coordination between the SWIFT and SMART SunGuide RTMC's can greatly benefit the traveling public by providing commuters timely updates of current roadway conditions.

The Southeast Florida Regional TMC Operations

Committee (SEFRTOC) was created to facilitate regional mobility in Southeast Florida through coordinated TMC operations. Members include managers and supervisors from Miami-Dade SunGuide TMC in District Six, Broward SMART SunGuide RTMC, Palm Beach SMART SunGuide TMC, I-595 Express, LLC, Florida's Turnpike TMC and the SWIFT SunGuide TMC in District One.

The value of communication between TMCs was demonstrated on April 5 during a Rapid Incident Scene Clearance (RISC) call involving a tractor trailer fire on SB I-75 at Mile Marker 47. For more information on SEFRTOC, please visit www.SMARTSunGuide.com/SEFRTOC.aspx

Statewide Road Ranger Survey

FDOT Central Office recently completed a Statewide Road Ranger Survey for Incident Responders with a goal of identifying areas of improvement in the program. The idea came from District Four, suggesting that feedback from responders is generally limited. Other Districts agreed and the survey was set into motion. The purpose of the survey was determining incident responders' opinion of the program, establishing a baseline for customer satisfaction for future years, and soliciting comments to improve the program. Questions were geared to collect data regarding the Road Rangers' support of incident responders. Central Office collected all the feedback and coordinated it into a report. Individual districts can now take the steps needed to improve their respective programs. Results affecting District Four were shared at the Broward, Palm Beach and Treasure Coast Traffic Incident Management Team meetings.

Based on the survey results, FDOT is making the following recommendations for the District Four Road Ranger program:

- Emphasize need for using interoperable communications
- Research and identify ways to improve communication of arrival times to responders requesting assistance
- Conduct outreach to educate responders on Road Ranger responsibilities and capabilities
- Gauge level of competency in basic tow operations and lane clearance techniques.
- Research and identify level of additional incident clearance training needed
- Research and identify opportunities for integrated training with FHP, fire rescue and other responders
- Review requirements for Road Ranger vehicle types and equipment

Treasure Coast Road Ranger Program

The Road Rangers are scheduled to begin patrolling I-95 in the Treasure Coast this summer. Coverage includes Martin, St. Lucie and Indian River Counties. Service will be available Monday through Friday, 6 a.m. – 10 p.m. Road Rangers will provide emergency responders with incident management assistance as well as help motorists with flat tire changes, minor repairs, and removing debris from the road. Motorists should dial *FHP (*347) to request assistance or use call boxes placed every mile along the interstate.

Eight Road Rangers will be assigned to patrol specific beats and one Road Ranger will be charged with supervising the entire region. The addition of this team creates continuous Road Ranger coverage from Fellsmere to Miami - over a 150 mile segment of I-95. To the north, coverage breaks but resumes in Jacksonville.

The contract has been awarded to Anchor Towing of Miami, after a five-month delay due to a contract award challenge.

