SUNGUIDE®
DISSEMINATOR
Florida Department of Transportation's Traffic Engineering and Operations Newsletter

Florida's 511 Traveler Information System During Emergency Management

By Gene Glotzbach, FDOT Traffic Engineering and Operations

Hurricane Charlie, 2004.

When you think of emergency operations in Florida, hurricanes immediately come to mind. In 2004, three hurricanes passed within miles of one point in a six-week period in Central Florida. Those who were unfortunate to live near the crossing point of these hurricanes will remember the names of Charlie, Frances, and Jeanne for many years to come. A fourth hurricane, Ivan, hit the Pensacola area. As unlucky as Florida was in 2004, Florida has been lucky since, as no major hurricanes have threatened our shores in eight years.

Hurricanes are not the only problems that elicit emergency operations. As weather patterns change, Florida has been more susceptible to droughts that have fostered numerous fires, destroying many thousands of acres of forest. With the fires, comes smoke that can adversely affect travel, causing people to detour many miles out of their way to get to their destination.

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Getting good information on road closures—either due to flooding caused by storms, such as hurricanes, or to smoke—is the key when emergency conditions exist. There are traditional ways to get information, such as television, radio, or newspapers. However, these means may not always be viable or timely. Since newspapers are published daily, 24 hours usually elapses before the next edition comes out. A lot can happen in a 24-hour period during an emergency. Televisions and radios are not always readily available. Additionally, with a radio you have to be within reception range if you are on the road to get any kind of information. Television and radio also have a lot of non-essential programming you have to endure before hearing a report on road conditions. Although the information you get through these traditional sources may be accurate, it may not be timely.

Hurricane evacuation.

Florida's 511 (FL511) traveler information system is a tool that can assist people in getting around the state during emergency situations. Information is pulled from a number of sources, including situation reports from the state's emergency operations center, District emergency operations personnel, Florida Highway Patrol, crowd sourcing, local emergency operations staff, and private information providers.

The Florida Department of Transportation disseminates information on traffic conditions, including road closures, through FL511 in a number of different ways. For limited-access facilities and a few major arterial roadways, information on closures is posted at the roadway level where a person can ask for the roadway to hear the information. If calling the 511 phone number, the caller can ask for a covered facility and hear all the traffic condition reports for that facility. The FL511.com web site provides the same information in a graphical format using icons placed on the roadway. Selecting an icon brings up information regarding the problem.

For major problems on limited-access roadways or for closures off the covered system, the floodgate message offers a way to provide notifications quickly. A floodgate message is an alert message provided up front when you dial 511, or is seen as a scrolling banner at the top of the FL511.com web site. All alert messages being provided by FL511, may also be viewed by selecting the "View All Alerts" text located at the right of the banner message.

The FL511.com web site also has an "Emergency Info" tab, which provides detailed information about road closures, evacuation routes, and shelter locations, either directly or by enabling links to established sites that provide this information. Typically, detour route information with maps are posted here.

FL511 is a flexible tool and can provide great benefit to the public for disseminating any emergency information that will affect the public's ability to travel into and out of areas that are undergoing extreme events. FL511 is operated 24 hours-a-day and information is put into this traveler information system as it is received by operators at nine transportation management centers around the state.

Before you go check FL511, and you don't have to wait for an emergency to do so.

For information, please contact Mr. Glotzbach at (850) 410-5616 or e-mail to Gene.Glotzbach@dot.state.fl.us.

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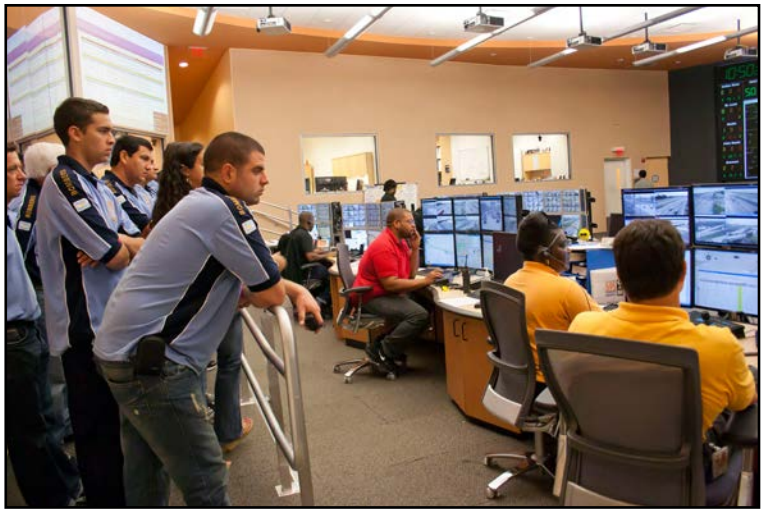
District Four Hosts Visitors From Argentina

By Daniel Smith, FDOT District Four

A group of fire fighters from Argentina had the opportunity to tour the Florida Department of Transportation's (FDOT) District Four SMART SunGuide® Regional Transportation Management Center (TMC) on August 24, 2012. They came away extremely impressed with the level of service provided to South Florida motorists.

Twenty-two representatives of the Federacion de Asociaciones de Bomberos Voluntarios de la Provincia de Buenos Aires visited South Florida for two weeks as part of a Greater Fort Lauderdale Sister Cities International public safety exchange program. The program, designed to promote cultural understanding and humanitarian programming and stimulate economic development, started in 2010 with a delegation of lifeguards and fire fighters from Fort Lauderdale visiting its Argentinean sister city, Mar del Plata.



The Federacion de Asociaciones de Bomberos Voluntarios de la Provincia de Buenos Aires sent 22 representatives to District Four in South Florida.

Like Fort Lauderdale, Mar del Plata is a popular beach resort, but that is where the similarities end. The fire fighters are all volunteers and do not have innovative traffic incident management programs like FDOT District Four employs to detect and clear highway incidents. They work in seven cities in the state of Buenos Aires.

"They learn from us and we learn from them," said Gabriel Zahora, a Fort Lauderdale fire rescue driver/engineer and the sister cities' country chair for Argentina. "Obviously, they have different equipment, but at least they can learn different ideas that they can take back with them."

Coincidentally, a rapid incident scene clearance activation took place during the tour and the fire fighters watched the event unfold on the TMC's closed-circuit television network. The incident involved a dump truck that caught fire after swerving to avoid stopped traffic on Interstate 595. While at the TMC, they received a presentation on the Road Ranger and Severe Incident Response Vehicle Programs.

Walter Cuesta, the Federacion's director of operations, said he was most impressed with the level of professionalism and customer service provided by the District Four Intelligent Transportation Systems (ITS) Unit. In his homeland, Cuesta said the highways are privately operated and motorists have to pay tolls, but receive far less in the way of incident management and motorist assistance services.

Oscar Belmonte, fire chief for the city of Ayacucho, said the technology involved in the ITS program really caught his eye. Belmonte said he found the SMART SunGuide traffic information web site to be very beneficial for motorists. When he returned home, Belmonte said he was going to meet with government leaders and suggest using cameras already in place for speed enforcement to also monitor traffic conditions.

Besides the TMC tour, the fire fighters trained with Fort Lauderdale fire rescue's urban search and rescue team and visited the local fire academy, hospital emergency rooms, emergency dispatch centers, and the fire department's incident command center for hurricane season during their time in South Florida.

For information, please contact Mr. Smith at (954) 847-2785, or email to Daniel.Smith@dot.state.fl.us.

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District Six Launches Software to Improve Maintenance Support

By Javier Rodriguez, FDOT District Six

The Florida Department of Transportation (FDOT) District Six Intelligent Transportation Systems (ITS) Office recently implemented the ITS maintenance software module to improve its network reliability and improve the overall quality of the public service it provides.

The automated feature alerts operators when failures occur and prompts them to open a trouble ticket and alert maintenance staff about the failures faster than before.

District Six created the software module to help reduce device failure repair times and increase staff productivity. The ITS maintenace software module is a web-based application that automates daily labor-intensive device checks to reduce ticket response and repair times. As the District became fully instrumented with more than 300 roadway detectors, 200 closed-circuit television (CCTV) cameras, and 70 dynamic message signs (DMS), device maintenance efforts grew more time consuming, especially for a staff whose set of responsibilities continued to grow each year. To alleviate the situation, the District developed the ITS maintenance software module to improve the process of detecting device failures by converting the task from being a manual, operator-centric activity to an automated function directly performed at set intervals by the software itself. The automated feature alerts operators when failures occur and prompts them to open a trouble ticket and alert maintenance staff about the failures faster than before. It also tracks and time-stamps the time taken to identify, alert, and respond to each ticket with the goal of enhancing the efficiency of overall repair times. This improvement has been beneficial to the operators because it is allowing them to focus on their primary mission of managing traffic, while still allowing them to support maintenance efforts. This is especially critical since undetected device failures or prolonged failure times may leave a roadway vulnerable to negative traffic conditions.

In addition to its automation improvements, the module is also assisting program management with tracking the performance of the ITS maintenance contractor to ensure contract compliance. The software calculates penalties associated with non-complying performance measures, generates reports, and tracks response and repair times. By tracking and reporting performance, both FDOT management and consultant staff can identify potential trouble spots as well as areas of improvement to enhance overall operations and increase the availability of ITS devices for traffic management purposes

The ITS maintenance software module has been a great addition to the District Six ITS Program because it focuses on a critical area of its operations. A reliable device network is the backbone of any ITS program because it allows staff to effectively perform their daily functions.

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SunGuide® Software and Ramp Signaling

By Arun Krishnamurthy, FDOT Traffic Engineering and Operations

Ramp signaling is an advanced traffic control strategy used on urban limited-access facility corridors to limit the rate of traffic entering the facility, thus reducing congestion on the facilities. Several parts of the country have deployed ramp signaling, which has proven to be successful. Traffic entering the limited-access facility is regulated, thus preventing the facility from "breaking-down" or coming to a halt. This strategy ensures smoother, more reliable flow of traffic on limited-access facilities that carry significant traffic and ensures a higher level of service and more efficient through-put in the system. The ramp signaling strategies strike a balance by metering a few vehicles on the ramp rather than allowing over saturation on the facility mainline to impact many vehicles.

There are several ramp signaling strategies that have been deployed throughout the country with each strategy trying to meet a defined objective. The strategies can be divided into local and system wide strategies. They can also be classified as pre-timed and traffic responsive strategies. Each combination of strategies has benefits and consequences. As the strategies grow more involved, they are typically more complex and labor-intensive to implement. So the more complex strategies may not necessarily meet the needs of agencies depending on the systems network and traffic conditions.

Ramp signaling in FDOT District Six.

The Florida Department of Transportation (FDOT) District Six, in the Miami-Dade County area, has deployed over 12 miles of ramp signaling on I-95 on both sides of the interstate. This includes approximately 22 ramp meters. Since deployment of ramp signaling, FDOT has seen an increase in limited-access facility speeds by up to six miles per hour, and a reduction in crashes. For ramp signaling, FDOT uses a fuzzy logic algorithm that was developed by the University of Washington. The fuzzy logic algorithm has several benefits over similar traffic responsive local metering algorithms that made it the right choice for FDOT. The fuzzy logic algorithm compensates for the inherent inaccuracies in the loop detector information. It is easy to fine-tune to ensure the most effective metering for the ramps and the limited-access facilities. Also, the algorithm uses both speed and occupancy information when determine the metering rate.

FDOT District Six uses SunGuide® software, the state's advanced traffic management system software, to manage the ramp meters and the traffic within their region. SunGuide software has extensive controls to allow the transportation management center (TMC) to monitor ramp meters and fine-tune, as necessary. The software allows TMC operators to view the device on the map and also allows the operators to view the current operational status of the ramp meter controllers. For ramp signaling, FDOT normally uses fuzzy logic, but SunGuide software also allows the option for pre-scheduled metering rates if the equipment providing input to the fuzzy logic malfunctions. For ramp signaling device management, TMC operators have the ability to reset loops, controllers, or communication to the controller. SunGuide software also allows for the configuration of ramp meters with several parameters to assist with fuzzy logic implementation. All of these parameters are editable by the TMC operator.

Ramp signaling has proven to be an effective traffic management strategy that significantly reduces congestion in the urban area of Miami-Dade County. SunGuide software assists the District with configuring, managing, and operating the ramp signaling system. The software allows management of a wide range of intelligent transportation systems devices in addition to ramp meters, including dynamic message signs, vehicle detection devices, closed-circuit television cameras, and others to provide a single comprehensive platform to manage the traffic system.

For information, please contact Mr. Krishnamurthy at (850) 410-5615 or email to Arun.Krishnamurthy@dot.state.fl.us.

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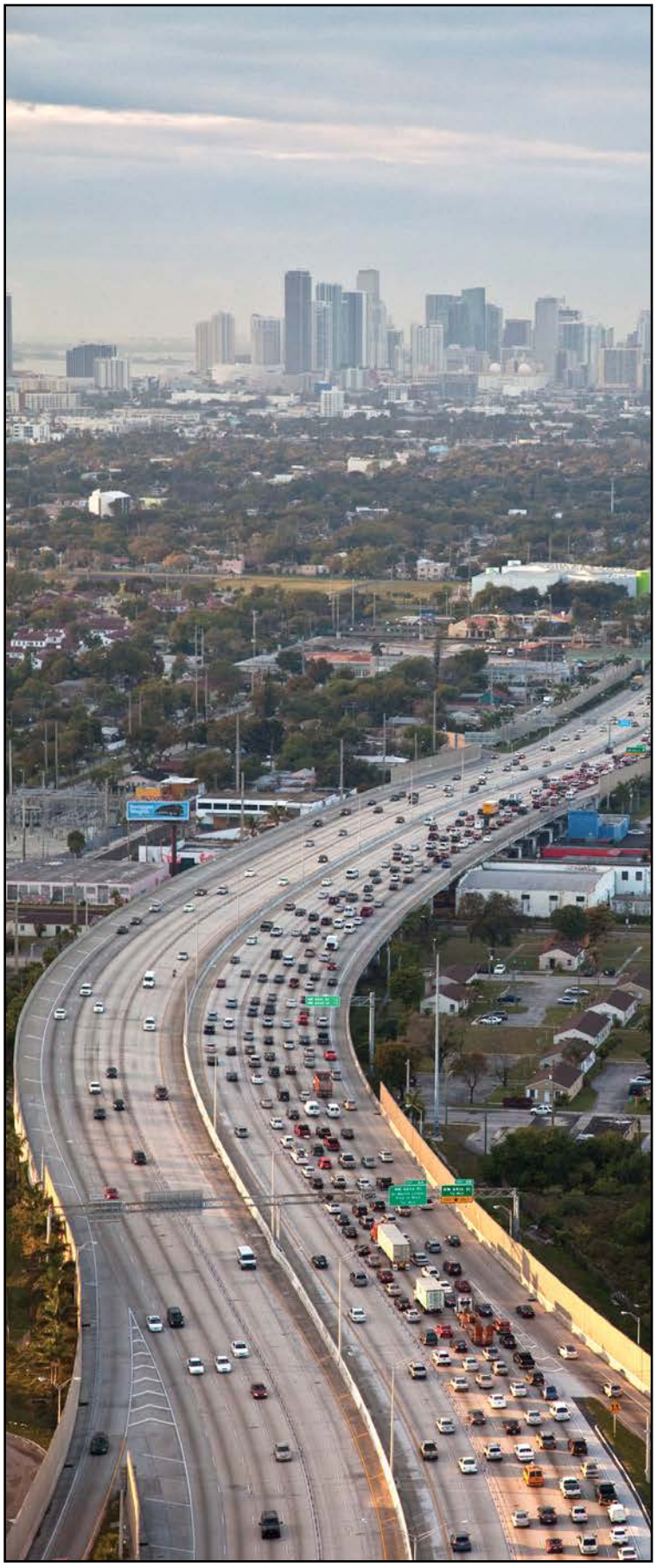

I-95 in Miami-Dade County.

ITS Florida: Time is Running Out!

By Sandra Beck, ITS Florida

Time is running out to get registered for Transpo 2012! Please visit **http://www.cvent.com/events/2012-transpo-conference/event-summary-b3c993ae4b134b52a71b48a4a5cab87b.aspx** today to register for the conference and make your hotel registrations. **ITS Florida is still accepting sponsors for Transpo—information can also be found at the same web site address.**

CONFERENCE AGENDA

Sunday, October 28th

12:00pm - 5:00pm	**Golf Tournament**- Vasari Country Club	
6:00pm - 7:00pm	**Welcome Reception**	

Monday, October 29th

7:30am - 8:30am	**Breakfast in the Exhibit Hall**	
8:30am - 10:00am	**Opening Session** Moderator- Jay Calhoun Welcome Address- Dale Cody, President ITS Florida and Rob Fulp, President FSITE Keynote Speakers- Scott Belcher, President ITS America, Rock Miller, President ITE and Billy Hattaway, D1 FDOT Secretary	
10:00am - 10:30am	**Morning Break in the Exhibit Hall**	
10:30am - 12:00pm	**Track 1: Technical Session 1**- Complete Streets	**Track 2: Technical Session 1**- ITS Standards
	Track 3: Technical Session 1- Transit, Freight and Ports	**Track 4: Technical Session 1**- Connected Vehicles
12:00pm - 1:30pm	**Lunch in the Exhibit Hall**	
1:30pm - 3:00pm	**Track 1: Technical Session 2**- Distracted Driving	**Track 2: Technical Session 2**- ITS Communications
	Track 3: Technical Session 2- University Sessions	**Track 4: Technical Session 2**- Adaptive Control
3:00pm - 3:30pm	**Afternoon Break in the Exhibit Hall**	
3:30pm - 5:00pm	**Track 1: Technical Session 3**- Automated Enforcement	**Track 2: Technical Session 3**- Lessons Learned
	Track 3: Technical Session 3- TSM&O	**Track 4: Technical Session 3**- Data and the Cloud
5:00pm – 6:00pm	**Reception in the Exhibit Hall**	
6:00pm	**Dinner on Own**	

Tuesday, October 30th

7:30am - 8:30am	**Breakfast in the Exhibit Hall**
8:30am - 10:00am	**Track 1: Technical Session 4**- Public Private Partnerships **Tracks 2, 3 and 4: Incident Management/Emergency Management Part 1**- Incident Management is for Everyone Incident Management Tools The Future of Traffic Incident Management Incident Management Strategies Utilized for Different Types of Roadway Facilities Future of Communications at Incident Scenes and Between Responding Agencies New Training to be Available to Various TIM Responders Such As FHP, Fire/Rescue and Members of the Towing and Recovery Industry
10:00am - 10:30am	**Morning Break in the Exhibit Hall**
10:30am - 12:00pm	**Track 1: Technical Session 5**- Pedestrians and Bicycles **Tracks 2, 3 and 4: Incident Management/Emergency Management Part 2**
12:00pm - 1:00pm	**Lunch on Own**
1:00pm - 5:00pm	**FDOT SWIFT Sunguide Center Tour**
2:30pm - 4:00pm	**FLUTEC Meeting** **FLPLAN Meeting**
6:30pm - 9:30pm	**Awards Banquet**

Wednesday, October 31st

7:00am - 8:00am	**Breakfast**
8:00am - 9:00am	**FSITE Business Meeting**
9:00am - 10:30am	**Plenary Session**- Financing Transportation Moderator- Mark Reichert Speakers: Doug Callaway, Executive Director Georgia Transportation Alliance, Bob Poole, Searle Freedom Trust Transportation Fellow and Director of Transportation Policy at the Reason Foundation and Jack Basso, Chief Operating Officer at AASHTO
10:30am - 10:45am	**Morning Break**
10:45am - 11:45am	**Closing Session**

Editorial Corner: Behind the Scenes

By Patrick Odom, FDOT Traffic Engineering and Operations

One of the most visible components of the Florida Department of Transportation's (FDOT) Traffic Incident Management Program is the Road Ranger service patrols. Daily, motorists see them patrolling Florida's limited-access roadways in our major urban areas. They assist emergency responders with traffic control at crashes, remove debris from travel lanes, and assist motorists with disabled vehicles. Many times, feedback received by FDOT mentions that the Road Ranger just drove up to their location. Road Ranger service patrols have assigned patrol areas, so this does happen, but often, an operator at one of FDOT's regional transportation management centers (RTMC) dispatches the service patrol to the scene.

Traffic incident management. Courtesy of District Seven.

RTMCs are a vital part of FDOT's Intelligent Transportation Systems (ITS) Program. Currently, FDOT operates RTMCs in Pensacola, Jacksonville, Orlando, Tampa Bay, Fort Myers, West Palm Beach, Fort Lauderdale, and Miami; Florida's Turnpike Enterprise operates RTMCs in Orlando and Pompano Beach. These centers manage FDOT's ITS deployments, including dynamic message signs (DMS), traffic counters, closed-circuit television (CCTV) cameras and other devices that aid in traffic management.

The team that makes it all work together is the RTMC staff. Among the RTMC staff are the operators and supervisors, who are always watchful for the slightest indication that something has occurred on one of the monitored limit-access roadway segments. These indicators could be something as visible as emergency lights or heavy rain on the highway or something less perceptible, such as a decrease in traffic volumes or speeds or maybe no traffic at all. Each of these could be an indicator of a traffic incident that requires a response. In addition to monitoring CCTV cameras, RTMC operators also receive calls from motorists who are requesting assistance or calls from other responders with information on an incident. The operators can dispatch a Road Ranger, place the incident on FL511, Florida's traveler information system, to alert other drivers and, if available, they can also display a message a nearby DMS to notify drivers of a hazard ahead.

RTMCs are an excellent resource for FDOT, emergency responders, and the traveling public. From each of these locations, multiple roadway segments are monitored and when incidents are discovered, resources such as a Road Ranger service patrol can be dispatched. FDOT continues its effort to enhance traveler services with an additional RTMC planned for the Tallahassee area and a satellite RTMC planned for the Bradenton area.

For information, please contact Mr. Odom at (850) 410-5631 or e-mail to Patrick.Odom@dot.state.fl.us.

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Announcements

Congratulations Gene Glotzbach


Florida Department of Transportation
Quality Recognition Award
is hereby presented to:
Gene Glotzbach
for special quality achievement resulting in benefit to DOT and our customers
Awarded: August 22, 2012
Brian Blanchard, Assistant Secretary

Please join us in congratulating Gene for receiving FDOT's Quality Recognition Award. Gene has contributed significantly over the past 12 years to the Intelligent Transportation Systems Program within the Traffic Engineering and Operations Office. He has spearheaded the new direction for the state's 511 system. With this new 511 system, FDOT will save millions of dollars without impact to the quality of service. He has also undertaken initiatives to provide tools for transportation management centers so they can make informed traffic operations decisions in remote areas. Gene has significant knowledge of FDOT's financial system and he is the go-to person in the office regarding the program's financial information. Gene has gone above and beyond his specified duties as he is vested in the tasks he undertakes and tries to identify innovative ways to produce solutions for complex transportation problems faced by FDOT and his projects.

Announcements

Good Luck Chad Williams!

Please join us in wishing Chad Williams good luck at his new position as the Assistant District Maintenance Engineer in the District Three Maintenance Office in Chipley.

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Make Your Plans to Attend Transpo2012 NOW!

Register today at **http://www.cvent.com/events/2012-transpo-conference/event-summary-b3c993ae4b134b52a71b48a4a5cab87b.aspx.**

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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.

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