FDOT's Monthly ITS News

SUNGUIDE®

DISSEMINATOR

Severe Incident Response Vehicle Palm Beach County Pilot Project

In June 2010, the Florida Department of Transportation (FDOT) District Four coordinated a plan to promote a Severe Incident Response Vehicle (SIRV) Pilot Project in Palm Beach County. The plan was to provide SIRV coverage on the busiest areas of I-95 during the morning and evening rush hours and was based on the Palm Beach SunGuide® crash statistics.

The pilot project covered I-95 from the Broward County line north to Southern Boulevard and included Southern Boulevard from Dixie Highway west to Military Trail. It operated Monday through Friday having one truck assigned during the morning rush hours (6 a.m. to 9 a.m.) and one truck during the afternoon rush hours (4 p.m. to 7 p.m.). The truck was stationed at Boynton Beach Fire Station #5, located just west of I-95 on Gateway Boulevard. A Memorandum of Understanding was entered into with Boynton Beach Fire Rescue, which allowed parking for the SIRV truck and desk space for the SIRV operators. The project was approved to begin on July 6, 2010, and conclude January 28, 2011. Prior to the start of the project and during the first several weeks of the project the SIRV manager made presentations to a majority of the law enforcement and fire rescue agencies having responsibility within the project boundaries.

The primary responsibility of the SIRV Palm Beach County Pilot Project was to respond to lane blocking events within the boundaries of the project. While on scene, SIRV staff coordinated FDOT resources, improved on-scene safety, and worked with other responding agencies to open lanes safely and quickly.

During the course of the pilot project, SIRV responded to 120 incidents and was directly responsible for reducing the incident duration of 39 incidents

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for a total of 945 minutes (over 15 hrs). In addition, SIRV helped relieve congestion by reducing the number of lanes closed during incidents saving another 1,839 minutes (over 30 hours) in individual lane closure time.

The reduced incident durations and individual lane closure reductions are based on the time SIRV staff provided a service or equipment, thus saving the time it would have taken to dispatch additional resources. On-scene SIRV activities that reduced incident durations include:

- Spill mitigation
- Debris clean up
- Directing Road Rangers
- Coordinating maintenance of traffic to open lanes quicker
- Roadway repair
- Negotiation with other responders to open lanes
- Bio hazard mitigation
- Explaining "Move It" law to crash victims to expedite opening lanes

Another quantifiable benefit the pilot project yielded is "freeing up" of other agencies responders. The presence of SIRV personnel reduced the need to keep other agency resources on scenes and saved cumulative staff minutes as follows:

Road Rangers	973
Wrecker companies	390
Fire rescue	349
Environmental	270
Law enforcement	140
Maintenance	103
Total	2,225

This article was provided by Gaetano Francese, FDOT District Four. For information, please contact Mr. Francese at (954) 847-2785 or email to Gaetano.Francese@dot.state.fl.us.

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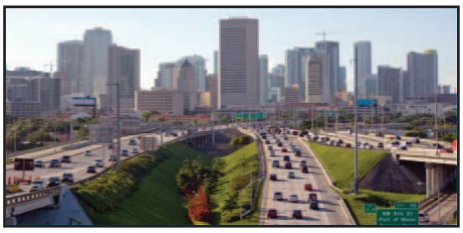
District Six Installs Additional Roadway Sensors on I-95

The Florida Department of Transportation (FDOT) District Six Intelligent Transportation Systems (ITS) Program is installing the latest generation of remote traffic microwave sensors (RTMS) technology to improve operations on Miami-Dade County's Interstate 95.



The new RTMS will improve traffic operations along I-95 near downtown Miami.

These RTMS units feature built-in cameras for traffic operators' supplemental use in incident management and verification efforts. Upon completion in June 2011, the project will also serve to finalize the District's ITS instrumentation of I-95 and connect US-1, a highly-traveled arterial road, to the southernmost portion of the highway near downtown Miami.

A total of 31 roadway sensors are being installed at approximately every one-third of a mile. The sensors will allow District Six to collect traffic data, such as travel speeds and volumes, on a per lane basis throughout a 4.5 mile stretch of I-95. The sensors will increase operator's ability to detect congestion and events that may affect regular traffic flow and reduce mobility. The sensors will also be used to provide the necessary data to post travel time messages on this important stretch of the highway and assist in route-planning efforts.

Traffic operators monitor traffic conditions from inside the SunGuide Transportation Management Center.

Additionally, sensors are being installed along the on-ramps of the highway's interchange points to other major highways, such as State Road 836 and Interstate 395. The installation of sensors on these ramps will assist traffic engineers in future planning and designing efforts.

Upon project completion, the District will be testing speed and occupancy thresholds of current highway speeds in its SunGuide® software and set up a notification system that will help decrease operators' event detection times and improve overall efficiency.

This article was provided by Javier Rodriguez, FDOT District Six. For information, please contact Mr. Rodriguez at (305) 470-5341 or email to Javier.Rodriguez2@dot.state.fl.us.

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FDOT's New Approach to Ensure SunGuide Compatibility

SunGuide® software is mature in the breadth of devices it supports—in part due to intelligent transportation systems (ITS) standards; in whole due to the set of software drivers developed to communicate between SunGuide and the devices. As vendors compete and produce new products, the need for additional software drivers increases. In an ideal world, ITS standards would provide enforcement of SunGuide software compatibility without the need to write additional drivers. However, the underlying technology—the dataset or even subtle differences, such as data transmission patterns—can warrant the need for development of a new driver in order to support a particular device.

Growing acceptance of the SunGuide software within Florida provides a strong desire for vendors to market SunGuide-compatible products to Florida agencies. With this comes an increased burden of driver development—both an opportunity and a business problem. Moving forward, particularly in the case of device types that already exist in SunGuide, the Florida Department of Transportation (FDOT) Change Management Board requires vendors to provide SunGuide drivers for their products.

There are several benefits to this approach. FDOT has a limited budget to address software modifications on an annual basis. Requiring vendors to provide drivers for their products will reduce the burden on FDOT to develop these new drivers. Also, vendors will not have to wait on FDOT to develop drivers for their products. By agreement with vendors, once the driver is accepted, FDOT will take ownership and maintenance responsibility of the driver. FDOT benefits from this arrangement in that they will have the flexibility to distribute the driver while saving the cost of the driver development. Also, due to the limited budget, when FDOT tries to handle these requests, other core software functionalities may not get addressed or may get deferred to a later date. This allows FDOT to focus on the core software functionalities. The vendor also benefits since being SunGuide-compatible makes them marketable in Florida; also, this arrangement only requires them to develop the driver and alleviates the burden of perpetual support for the driver. Finally, the vendor has the flexibility of developing the driver internally or by hiring an outside contractor so they can utilize their own resources, if desired.

FDOT ensures that the same systems engineering process is followed with vendor driver development as with any development undertaken by FDOT. Testing is a critical part of the software development lifecycle, and FDOT conducts independent verification and validation at their Traffic Engineering Research Laboratory (TERL) in Tallahassee. The software is checked for coding standards and compliance with the SunGuide software architecture. Each function in the driver is also tested to ensure that the driver will work and not have any issues.

The video wall controller provides two recent examples of how this arrangement is beneficial. Jupiter contracted separately with a software contractor to produce a driver for their controller, while Activu internally developed their own driver. Both products are in the process of testing at the TERL and are expected to perform well. Wavetronix is in the process of contracting to have a driver developed to incorporate their newer protocol and vehicle classification capability into the SunGuide software. FDOT expects completion of these efforts this year.

As discussed and illustrated, FDOT is constantly looking for innovative approaches to enhance the SunGuide software in a cost-effective manner. The ability for vendors to participate in their own product driver development is one such innovative approach. This arrangement has helped FDOT to reduce the burden of software driver development by allowing the vendor to undertake this effort, while still meeting FDOT standards.

This article was provided by Arun Krishnamurthy and Clay Packard, FDOT Traffic Engineering and Operations. For information, please contact Mr. Krishnamurthy at (850) 410-5615 or email to Arun.Krishnamurthy@dot.state.fl.us.

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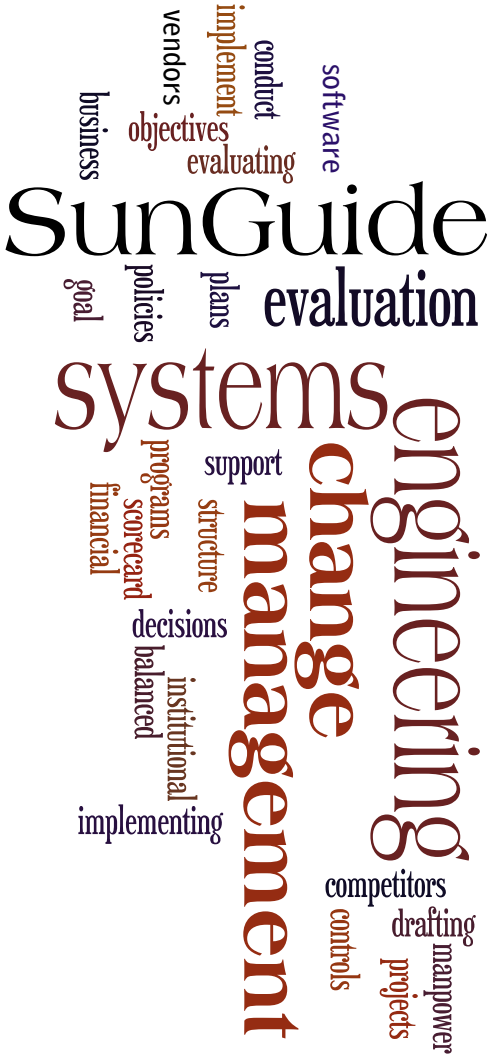

Ten Questions—More or Less: Tampa Bay SunGuide® Maintenance Manager

Here is the final installment of our Ten Questions – More or Less interview articles. In this series, we highlighted the critical contributions that our operations personnel make every day to ensure the successful operation of the Florida Department of Transportation (FDOT) District Seven's Tampa Bay SunGuide® Intelligent Transportation Systems (ITS) Program.

In April and May, we gave a behind-the-scenes look at the specialized work of Bill Powell, an Transportation Management Center Lead Operator, and Mark McBride, a Road Ranger.

Our concluding interview article is an insightful discussion with Drew Young. Mr. Young is TransCore's Project Manager for the District Seven ITS maintenance contract. Drew methodically tells us about the extensive preparation, safety, education, and motivation it takes to keep our ITS equipment up and operating through all types of weather, day and night.

Clearly, Bill, Mark, and Drew are District Seven's "tip of the spear" – leading our assault on daily traffic congestion. District Seven thanks them and their many colleagues who make the Tampa Bay SunGuide ITS Program the best that it can be!

Ten Questions—More or Less

1. Q: Mr. Young, here are a few get-acquainted-get-to-know-you questions: How long have you been involved in ITS maintenance work? What is your scope or charge for District Seven's Tampa Bay SunGuide® ITS Program? Finally, how many and what types of ITS field devices do you take care of?

   A: I have been involved in ITS and the telecom industry for over seven years now. I am currently the project manager for TransCore on the District Seven ITS Maintenance Contract. We are responsible for the maintenance and repair for all the field devices and communications infrastructure of the ITS once it leaves the Tampa Bay SunGuide Center. Currently, my team and I monitor roughly 150 miles of backbone fiber optic cable, 164 closed-circuit television (CCTV) cameras, 64 dynamic message signs (DMS), 395 detectors, 290 device cabinets, 10 communications hubs, and a power distribution network of roughly 150 miles with voltages ranging from $120V_{AC}$ to $5{,}000V_{AC}$.

2. Q: As you know, the highway work environment is among the most dangerous work environments in America – how do you instill a "safety first" attitude in your work crew?

   A: An attitude of "safety first" is instilled in our employees starting on day one. Besides the normal risks involved with working in the highway environment, our team is exposed to several other hazards, including electrical and aerial work. Due to these hazards, we have several online safety courses that are required as part of the on-boarding process for new hires. We have also found that holding a weekly "tool box topics" safety meeting helps to continually reinforce the importance of safety. TransCore has also adopted a regional equipment operator training program under which every region has a designated individual responsible for training all field personnel on the safe operation of any and all equipment that is used in the field. "Safety first" is our objective and the importance of instilling this in our work force on a daily basis is our number one goal.

3. Q: What training or classroom work is required before your ITS technicians hit the field?

   A: Along with the safety courses we previously discussed, the typical technician will be exposed to a broad range of classes including, fiber optic trouble shooting and repair, National Electrical Code requirements, maintenance of traffic, bucket truck training, Internation Municipal Signal Association signal technician training, and vendor-specific training for the devices that are deployed in the District. This training is then followed up with "ride alongs" to assess the technician's capabilities and ensure they are performing to the best of their abilities. We also have cross-training programs in which our technicians spend time on other projects around the state, and sometimes the nation, to expose them to a variety of hands-on training experiences to improve their knowledge and skills.

4. Q: What kinds of people make the best ITS technicians?

   A: Motivated and hard working individuals that have a true interest in a career, rather than just a job. Since ITS is a relatively small specialized field, the best ITS technicians always have a willingness to learn, coupled with a good attitude. In addition, the ability to work at great heights and in the outdoor environment is also imperative.

5. Q: Which ITS field device gives you the most challenge and why?

   A: Currently, in District Seven region there are several DMSs with an older technology and communications platform. I have found that these signs can often present a more challenging repair effort. This challenge is due, in part, to the age of these signs, and the manufacturer no longer being in business. TransCore has been

required to diagnose and repair the signs on several occasions with no documentation or schematics.

Besides ITS field devices, I would say that the largest sub-system component posing a challenge is the overall surge suppression and grounding systems. With Tampa notoriously known as the lightning capital of the world, we have been dedicated to training our technicians in the proper surge suppression and grounding techniques. We make an active effort to apply our grounding and surge suppression training to every project that we work on, including a successful ITS project completed last year in Florida, which has performed with record uptimes or system availability. Since the completion of this project, no devices have been damaged due to acts of God, resulting in reduced maintenance costs.

6. Q: ITS technology is ever changing – how do you keep up with all the changes?

   A: With ITS technology changing as rapidly as it does, I take a multipronged approach to stay current with the industry. It includes continued active field work, communicating with vendors, cross-training the staff on other ITS deployment projects, attending ITS industry events, and continuing education and training in the ITS, networking, and electrical fields.

7. Q: According to meteorologists, the Tampa Bay area has the second-longest thunderstorm season in the U.S. – how does all the thunder and lightning out there affect your work schedule?

   A: Thunderstorms play a huge part in our day-to-day work from both a safety stand-point and maintenance perspective. Keeping in mind that the average bolt of lightning contains between 10,000 to 20,000 amperes of current, combined with the fact that our technicians routinely work on 80 to 100 foot CCTV towers, we have adopted several safety procedures to avoid issues. The first and most important is that safety is our top priority. Therefore, no matter what deadlines or work schedule, technicians are advised to take cover whenever storms are near.

   This particular season also brings added damage to sensitive electronics in the field. In an effort to minimize these impacts, our technicians are constantly monitoring our surge suppression system and checking grounding resistance to ensure as much as possible is done to mitigate damage.

8. Q: You occasionally have to schedule a night shift to perform ITS maintenance – how does night work differ from day work?

   A: Typically, night work is predicated on a lane closure in order for us to perform our work. This is most often encountered when we are working on DMSs or the Skyway Bridge ITS devices. If work is required within two feet of a travel lane, a lane closure is scheduled to ensure that the traveling public is protected from possible debris and our maintenance technicians are protected from traffic in the area of operation.

   While there are several differences working at night vs. the day, one of the largest and most problematic would be the obvious —it's dark, making visibility difficult to work on sensitive electronics and to access certain devices.

   A few of the positives that people often overlook about night work are the temperature and noise. Given a choice, many technicians would prefer to work off-peak hours during the summer months. Unfortunately, we have also noticed that during these night shifts the technicians are exposed to a higher risk of being struck or harmed by vehicle accidents. All possible safety precautions are taken to avoid incidents and maintain the highest level of safety possible.

9. Q: You do a lot of preventive maintenance for the Tampa Bay SunGuide ITS Program – what is involved when you do a preventative maintenance for a DMS?

   A: The preventive maintenance process for a DMS typically begins with the scheduling of a lane closure. During the night of the lane closure, a "tailgate meeting" is held at the office to ensure all needed materials and proper equipment are obtained and all safety precautions are reviewed. Once a proper onsite work zone is established, the first step in the process consists of connecting to the sign controller to perform a diagnostic test. Secondly, the sign is accessed to replace the many air filters and any pixel panels that are not operating properly. Next, a visual inspection of the sign mounted surge suppression is completed, along with cleaning and re-organizing the interior of the sign housing and ground cabinet. Once the interior work has been completed, a visual inspection of the structure is completed along with a reading of the grounding for the structure. The final step in the DMS preventative maintenance process is testing the sign for any errors and for operation with SunGuide before continuing to the next DMS location.

10. Q: What was your latest "Oh wow!" moment in the field?

    A: Every day there is at least one "Oh wow" moment. One of the most interesting situations we encounter in the field is the ability of insects to gain access to device cabinets. Although preventative maintenance is completed on a regular basis, we have found ant nests almost completely encompassing a cabinet with all devices still functioning. 10,000 ants in a device cabinet would be an "Oh wow" moment for just about anyone!

11. Q: What motivates you to provide outstanding service?

    A: My motivation to provide outstanding service is a product of the personal pride I have for every task. My team concentrates on providing the highest level of work to our client and this motto is instilled in our maintenance staff.

This article was provided by Chester Chandler, FDOT District Seven. For information, please contact Mr. Chandler at (816) 615-8610 or email to Chester.Chandler@dot.state.fl.us.

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New iPhone Application for FL-511 System

FL-511 — Now There's an App for That!

The Florida Department of Transportation (FDOT) has launched an Apple© iPhone application (app) as part of its 511 advanced traveler information system (FL-511). The new app provides the same real-time traffic information as the 511-dial number without drivers having to make a call. The Florida 511 app was developed by LogicTree Corporation, which also built the Florida 511 phone system. An Android app is expected later this year.

The 511 app uses the iPhone's global positioning system (GPS) to provide users with information within their location. Users can set the app to provide information for a range of up to 200 miles from their location, or can enter their My Florida 511 primary phone number and get traffic information on their customized routes. The iPhone app provides traffic information in three ways: an audible alert, an on-screen list, and a map. Users can also manually search for 511 traffic information.

The Front-end Application Menus allow users to choose to view traffic information, travel times, leave feedback, or modify system settings.

Traffic

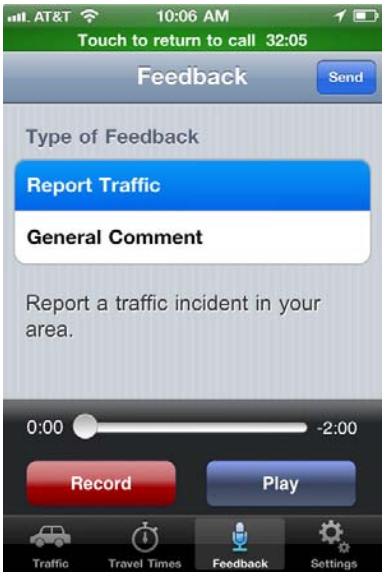
The Traffic window allows users to see local or personalized traffic reports. The "Traffic Near You" screen automatically lists all events within the user's selected range. My Florida 511 users will see traffic events on their customized routes. Users can also enter a city or metro area to find events in that location. The "play all" button plays an audio recording of the incident — the same recording a caller would hear on the 511 phone call. Touching a single event plays that event's recording, and touching the arrow button by the event takes the user to a detailed view of the event.

The map icon at the top of screen switches to a graphic view of the user's events. Color-coded push pin icons show the location of events: red for incidents, purple for construction. Touching an icon brings up a summary of the event, and touching the "I" (information) in the summary window zooms in to the event and shows full details. The "view all" button zooms the map out to the user's range again, and the list button takes users back to the list view.

Travel Times

The Travel Times screen allows users to view available travel times with their selected range, or along their My Florida 511 customized routes. The app provides the travel time segment name, average travel time, and the average travel speed on each available segment.

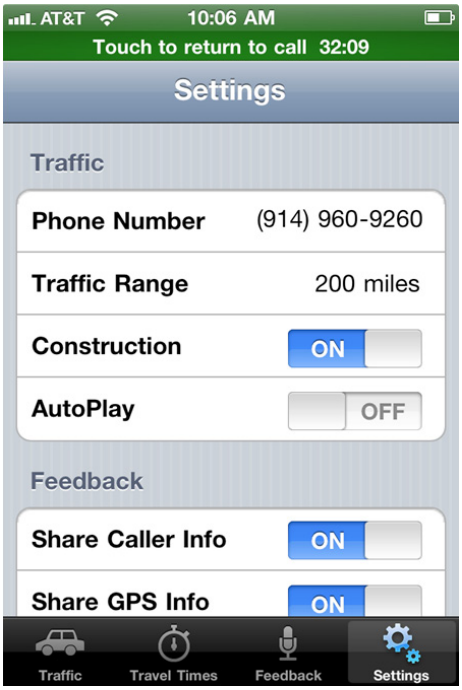
The app knows the user's direction of travel and provides travel times in that direction. A compass icon allows users to change the direction of travel, which is useful for users checking conditions while stopped. A list of roadways on the right of the screen allows the user to jump to travel times on that roadway.



Feedback

The Feedback screen allows users to Report Traffic or leave a General Comment on the 511 system. Users select which kind of feedback they want to leave, then select Record. They can record a message up to two minutes long, then play it back, or simply hit Send. If the feedback is about how well the system is functioning or a possible system problem, the information will be sent to a central email address to be

reviewed and analyzed by engineers. If the feedback is to report traffic, the application will utilize the caller's GPS location to determine to which District to send the traffic report.



Settings

The Settings menu allows the user to customize the app. The user can enter their My Florida 511 primary phone number and link to their account. This allows them to receive information based on their profile and customized routes.

The user can modify the range in which the application will report traffic events, whether to receive construction information, and whether to have the events that are around their location play automatically. They can also choose whether to share their GPS location when providing feedback.

The iPhone app provides a safer way to access traffic information utilizing a mobile device. The technology pushes the information out to the user based on the user's predefined settings. There is no need to dial 511. The system can speak to the user when they near an event.

The new 511 app is another example of how the FDOT ITS Program is succeeding in providing a "safe transportation system that ensures the mobility of people and goods" throughout Florida. It expands our nation-leading system, which includes the interactive voice response, web site, and personalized services, and gives Floridians one more tool to help "Know Before You Go."

This article was provided by Gene Glotzbach, FDOT Traffic Engineering and Operations. For information, please contact Mr. Glotzbach at (850) 410-5616 or email to Gene.Glotzbach@dot.state.fl.us.

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High-Tech Camera Technology On-Board the WiFi® Pilot Project

The Florida Department of Transportation (FDOT) WiFi Pilot Project got a very special new addition last month. A short-wave infra-red (SWIR) imaging camera was installed on the mobile communications trailer in preparation for its deployment to the Plant City weigh station on the westbound side of I-4. The camera is on loan from Sensors Unlimited, Inc., a division of the Goodrich Corporation. This type of state-of-the-art camera uses recently developed small-scale semiconductor technology to receive infrared light at wavelengths that behave more like visible light than other parts of the infrared spectrum previously used for imaging. The result is a higher resolution imaging technique that can see details older infrared technologies cannot. This increase in resolution, coupled with the principle benefit of infra-red cameras, being able to see at night, and also see through smoke and haze, make these cameras ideal for use by agencies such as FDOT.

Comparison images courtesy of Goodrich Corpration, showing how well these cameras work in low visibility conditions.

This SWIR technology has already been embraced by federal agencies and Goodrich is a supplier to the intelligence, surveillance, and reconnaissance community. It is the recent improvements in small-scale form factors that have permitted a version of the SWIR camera to come to the commercial market. Although priced at over $20,000, with appropriate optical lenses, these cameras are almost two orders-of-

magnitude cheaper than previous generation military versions. In addition, the camera can now easily fit in a standard-size outdoor video camera housing.

The SWIR camera, on loan to the FDOT, is currently deployed on a pan-tilt motor platform attached to the mobile communications trailer tower. The trailer was deployed in May at the Plant City weigh station and is positioned directly next to the headquarters building. At least two on-board cameras, including the SWIR camera, monitor truck traffic on the scales, most of the time.

The mobile communications trailer was deployed to the Plant City weigh station with the original intention of investigating the usefulness of providing WiFi at these types of locations. Such services might, for instance, help to attract truck drivers away from nearby rest areas that have only a few parking spots left. Now, however, the weigh station deployment has provided the additional opportunity to test this new SWIR camera technology from Goodrich.

Image of the weigh station scales taken by the SWIR camera has the same level of detail as the image taken by the mobile communications trailer's standard camera.

The camera housing is adjacent to the weather station on the trailer tower-top.

This article was provided by Randy Pierce, FDOT Traffic Engineering and Operations, and Brian Kopp, The Semaphore Group. For information, please contact Mr. Pierce at (850) 410-5608 or email to Randy.Pierce@dot.state.fl.us.

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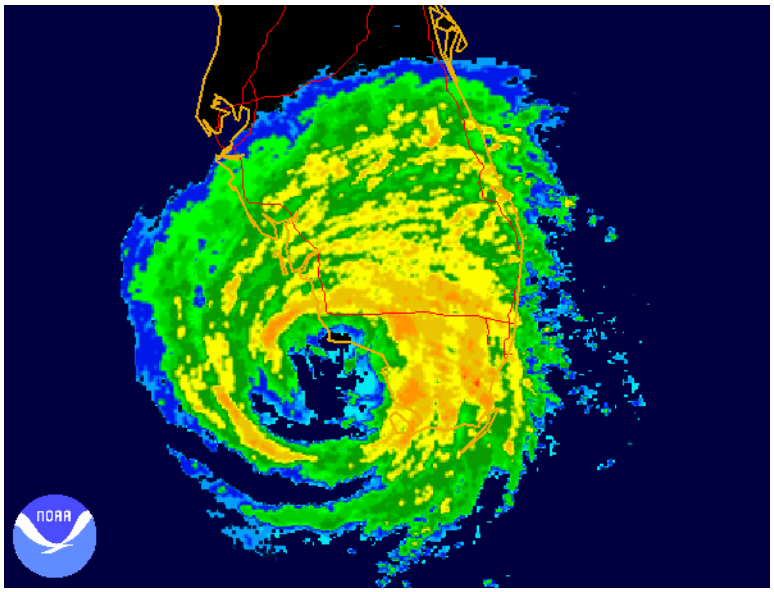
2011 Florida Governor's Hurricane Conference

Annually, from around the state and the country, elected officials, emergency managers, first responders, and private vendors travel to Florida for the Governors' Hurricane Conference. This year's conference was conducted from May 15 to 20 in Fort Lauderdale and provided training and professional development-related workshops to enhance the readiness of those in attendance. This annual conference provides an excellent opportunity for responders of all backgrounds to expand their knowledge in disaster preparedness, response, recovery, and mitigation.



The Forida Department of Transportation Traffic Engineering and Operations Office hosted a workshop at this year's conference entitled: "Responder Safety: Don't be a Victim Too." The responder safety workshop focused on providing basic traffic safety information to emergency responders and disaster volunteers. Many of these individuals have not had formal maintenance of traffic training or other traffic safety courses that keep us safe as we work in or near traffic. The workshop highlighted the hazards associated with working along or adjacent to the highway and discussed methods to mitigate these hazards, such as safe parking techniques, the use of personal reflective safety vests, and maintaining a constant awareness of the traffic flow.

As with past conferences, the number of excellent workshops and classes exceeds one's ability to attend and this year was no exception. The workshops of most interest this year to the Traffic Engineering and Operations Office were the ones relating to the recently completed statewide update of Florida's 11 Regional Evacuation Studies, which were managed by the Florida Division of Emergency Management. This update was completed through a joint effort of the Regional Planning Councils, state, local, and federal partners. The statewide evacuation study update incorporated new elevation data gathered from a concurrent statewide light detection and ranging project, which scanned nearly 28,000 square miles of Florida's shoreline and adjacent areas. The new elevation data was then incorporated into new Sea, Lake and Overland Surges from Hurricane models, which were prepared by the National Hurricane Center.

The regional evacuation studies are a key tool in local and state evacuation planning for not only hurricanes, but other hazards as well. These workshops focused on panel discussions regarding the regional implementation of the evacuation studies. Many counties are in the process of reviewing the data as it applies to decision making for the upcoming hurricane season.

Evacuations are difficult. We have to remember that as storms approach or wildfires grow, local officials often face the difficult task of ordering an evacuation of sometimes thousands of residents from areas in their communities that are at risk. Each time an evacuation order is issued communities lose tourism revenue; students loose valuable classroom time; employees lose wages as businesses close; and these are just a few examples.

Evacuations are not a vacations where there is something to look forward to at the end of the journey. Families have no peace of mind in knowing that all the things they have worked for will be there when they return. When someone evacuates, they are often making quick decisions about what to take and what to leave behind, because there isn't room for everything or there just isn't time. As we are working during these incidents, we should remember that these are not just vehicles on the highway, but rather our friends and neighbors.

Florida has been fortunate in recent years, but many still remember the last storm to impact our state: Hurricane Wilma in 2005. This storm made landfall near Naples and exited the state over Palm Beach County, but those were not the only counties impacted by this late October storm. Now that hurricane season is upon us, we should all take a few minutes and check our emergency supplies and replace those items that are out of date, check the first aid kits and review our family emergency plans and update them if needed.

This article was provided by Patrick Odom, FDOT Traffic Engineering and Operations. For information, please contact Mr. Odom at (850) 410-5631 or email to Patrick.Odom@dot.state.fl.us.

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ITS Florida—Your Chance to Participate in World Congress is Here!

The 18th World Congress on Intelligent Transport Systems and ITS America Annual Meeting will be held in Orlando at the Orange County Convention Center (OOCC) on October 16-20, 2011. The event promises to bring thousands of industry leaders together and showcase the latest in ITS technologies, programs, and developments.

This internationally-renown event will include more than 170 extraordinary educational sessions, exciting technical tours, a grand-scale exhibition hall, dozens of innovative mobility solutions, and limitless opportunities to connect with international audiences of distinguished experts and leaders.

As at all large conventions, volunteers are needed to help make the World Congress a resounding success. The host organizations, ITS America and ITS Florida, working closely with partner associations, like the Institute of Transportation Engineers, will assemble, train, and manage a corps of 300-400 volunteers. While the World Congress will benefit tremendously from the help volunteers provide, volunteers will receive the remarkable benefits of participating in this once-in-a lifetime opportunity to learn and network at the industry's top event. For each half or full day, all volunteers will receive a complimentary one-day pass into the World Congress Exhibit Hall and a free distinctive polo shirt, along with complimentary refreshments and lunch on the day(s) on which they volunteer. They will also be invited to visit the Technology Showcases on those same day(s).

All volunteers will be pre-registered. There will be a special registration station for volunteers, which each volunteer should report to at least an hour prior to their first scheduled volunteer duty to receive their badge, pass(s), and polo shirt. If a volunteer desires to use their complementary pass prior to their scheduled duty, they may check in prior to entering the Exhibition Hall or Technology Showcases. There will be a volunteer office for team members to gather, leave personal items, and receive last minute instructions and guidance.

Types of assignments the volunteers will be given include:

- **Pre-Registered Attendees, Badge Holder Pick-up** – In order to track everyone who actually attends the conference, volunteers will have a scan reader to scan the bar code of each attendee when they pick up their badge holder and registration credentials.
- **Pre-Registered Exhibit Booth Personnel and Expo Only, Badge Holder Pick-up** – Volunteers will have a scan reader to scan each badge before providing the badge holder.
- **ITS America Wordl Congress Press Office** – These volunteers will provide administrative support for the Press Office and public relations director, such as answering phones, registering press for the conference, serving as liaison between the Press Office, press manager, logistics manager, etc.

- **Facility Site Tour Monitor** – Each facility site tour monitor will check to make sure that everyone who boards the bus has a ticket for that particular tour and make sure that the bus leaves at the designated time.

- **Accompanied Persons Tours** – Most accompanied person activities are 'on your own'; however, it is anticipated that at least one (to the Kennedy Space Center) will be offered. Volunteers might be asked to assist in these.

- **Technical and Scientific Session Monitor** – Session monitor volunteers will assist with access to and coordination and monitoring of the session, and help with such things as counting the number of attendees, setting out name tents, distributing and later collecting evaluation forms, and act as liaison between conference management and the audio visual technician.

- **Plenary Sessions** – Session monitor volunteers assigned to large sessions (Executive, Special Interest, etc.) are primarily responsible for checking that attendees are properly badged or have appropriate passes.

- **Technology Showcase Demonstrations** – Volunteers will be asked to assist with set-up of the Demos in the OCCC parking lot. Duties include setting up traffic cones, answering attendee questions, pedestrian flow, and other non-technical activities. Volunteers will be asked to assist in directing human traffic to the respective demonstrations, help secure the exhibit hall as demo attendees pass through the hall when the exhibits are not open. Additional volunteers will be needed in case of inclement weather during the demonstrations.

- **VIP Cars** – Volunteers will be needed to help direct VIP participants to designated areas for pick up and drop off. Some volunteers may be assigned to escort VIPs to the VIP lounge and/or assist with registration in the lounge.

This is your opportunity to participate and be a part of the 18th World Congress. Register today to help ITS America make this meeting a resounding success and receive benefits that will last you a lifetime!

This article was provided by Charles Wallace, Telvent, and Alicia Torrez, Media Relations Group. For information, please contact Mr. Wallace at (352) 374-6635 or email to Charlie.Wallace@cox.net, or contact Ms. Torrez at (786) 205-0644 or email to ATorrez@mrgmiami.com.

For more information on ITS Florida, please check the ITS Florida Web site at www.itsflorida.org or contact Sandy Beck, Chapter Administrator, at itsflorida@itsflorida.org. If you wish to contribute an article to the SunGuide Disseminator on behalf of ITS Florida, please email Mary Hamill at MaryKHamill@global-5.com.

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Editorial Corner: Cost Savings in the FDOT's ITS Program

The Florida Department of Transportation's (FDOT) Intelligent Transportation Systems (ITS) Program is an ambitious program and has strived to be the best in the nation. The driving force for the program is to save lives, time, and money. To achieve these objectives, FDOT has spearheaded several projects over the past ten years. The FL-511 advanced travel information system, an automated, multi-lingual, and comprehensive information source informs travelers of traffic incidents so they can plan their trip; and the statewide transportation management center (TMC) software, SunGuide® software, which helps collect, analyze, and disseminate information in a prompt manner, are a couple examples. FDOT also has innovative contracting processes that have revolutionized how FDOT does business. These are only some of the many innovative solutions that have been implemented to drive our ITS Program.

As the state faces the budget crisis, each agency is trying to be more prudent with their expenditures. FDOT's ITS Program is no different. The ITS Program depends on state-of-the-art technologies and contractual stewardship to reduce cost. Here are some examples:

Example #1: A few years ago, FDOT developed the SunGuide software, a statewide transportation management software. The SunGuide software is used statewide. Since each FDOT District does not have to procure and maintain an individual software product for its TMC, the state saves significant money. Based on some estimates, the statewide savings from this project is in the area of $80 million. FDOT has continued to look further for ways to cut cost in the development and maintenance of the software. Inspired by the Texas Department of Transportation, FDOT allows the vendor to develop interfaces between their devices and the SunGuide software. As vendors introduce new devices in the market, this approach has reduced the burden on FDOT and allowed the vendor to share the responsibility. This has also allowed FDOT to focus its energy on the core functionalities within the software rather than building interfaces with vendor products.

Also, FDOT is looking at the back-end database used by SunGuide software. Currently, SunGuide software uses Oracle, which is a reliable solution, but expensive. The alternative that FDOT believes meets its needs is Microsoft SQL server. FDOT believes that Microsoft SQL server may be significantly less expensive than Oracle and could provide projects savings of about $1 million over the next five years.

Example #2: Since the launch of FDOT's next generation traveler information system (FL-511) that is presently in operation, a number of states have implemented systems that are "free" to their respective departments of transportation. Cost of the systems are offset by the ability to generate revenue. FDOT has taken note of these "free" systems and has opted to go to a new solicitation in order to procure a "free" system for Florida. The key to having a "free" system is the ability to raise funding through revenue generation.

FDOT anticipates that revenue could be generated through sponsorships on the phone system, web site, mobile applications, and through sponsorships on roadside signs. A free system could save FDOT in excess of $5 million in operation expenses over a five year period.

Example #3: FDOT has developed a unique procurement method for ITS field devices. Previously, each deployment project would have to procure devices and with the possibility that small projects might have to pay a higher price for the ITS devices while large projects would get devices at a discounted rate. FDOT executed a statewide contract with many ITS device vendors approved to conduct business in Florida. FDOT has a single price for any ITS device, whether it's for a small or large project. This allows small projects to obtain competitive rates for ITS devices. At the same time, it does not restrict a large project from getting an even better price for ITS devices, if offered by the vendor. Also, in some cases, it significantly reduces the contractual effort required to purchase these devices.

As discussed above, these are some examples of how FDOT has pushed boundaries and self-imposed limits to improve the statewide ITS Program. Florida's ITS Program continues to be among the best in the nation. These examples are not a comprehensive list, but they help us understand how FDOT has kept an open mind to unique solutions that help reduce cost without impacting quality.

This article was provided by Arun Krishnamurthy and Gene Glotzbach, FDOT Traffic Engineering and Operations. For information, please contact Mr. Krishnamurthy at (850) 410-5615 or email to Arun.Krishnamurthy@dot.state.fl.us; or contact Mt. Glotzbach at (850) 420-5616 or email to Gene.Glotzbach@dot.state.fl.us.

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Announcements

Clarus Connection Incentive Program

The Federal Highway Administration recently awarded the Florida Department of Transportation (FDOT) Traffic Engineering and Operations Office a grant to participate in the Clarus Connection Incentive Program (CIP). Under the guidance of Randy Pierce, the FDOT will provide observations and associated metadata from the road weather information system (RWIS) environmental sensor stations (ESS) to Clarus. These data are collected by public transportation agencies nationwide, checked by Clarus and then become part of the national data management infrastructure consisting of surface transportation-based meteorological observations.

The new FDOT Clarus server is located at the Traffic Engineering Research Laboratory and currently collects RWIS/ESS metadata from the statewide microwave system field data network. The FDOT Clarus server is also configured to connect to the intelligent transportation systems wide area network in order to collect RWIS/ESS data from the Districts and provides these observations and metadata to Clarus as well.

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Congratulations to Davis Productivity Award Winners!

The Florida Department of Transportation (FDOT) had the highest number of winning nominations compared to all other state agencies and universities. FDOT employees won cash awards totaling $9700, with individual teams winning between $300 and $700.

This year's competition attracted 584 total nominations for innovations and productivity improvements worth $473 million in cost savings, cost avoidances, and increased revenue for state government. Over the past 23 years, award winners have posted a total of $7.1 billion in added value for Florida taxpayers and businesses. Individual and team winners are recognized in four ways: cash awards, commemorative plaques, certificates of commendation and honorable mention.

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Make Plans to Attend the 18th World Congress!

Now is the time to make preparations to participate in this exciting conference. Registration is open for the 18th World Congress on Intelligent Transportation Systems in Orlando and ITS America's Annual Meeting & Exposition.

Top reasons to attend?

- Valuable networking events
- Exciting technical tours
- Interactive technology showcases
- Internationally acclaimed awards
- More than 250 sessions

We hope you will get involved; help us showcase the best of ITS here in Florida.

To learn more please visit www.itsworldcongress.org.

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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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