



SUNGUIDE®

DISSEMINATOR

Florida Department of Transportation's Traffic Engineering and Operations Newsletter

TSM&O—Moving Forward in Florida

By Elizabeth Birriel, *FDOT Traffic Engineering and Operations and Ingrid Birenbaum, Atkins*

Transportation system management and operations (TSM&O) is a systemic approach to manage congestion and maximize operations of transportation networks. It seeks to address urban congestion and improve travel time reliability by looking beyond the traditional approaches which simply increase capacity through addition of lane miles. This wide-ranging program made many forward strides within Florida in 2011.

Initial efforts throughout the state focused on business and strategic planning. The Florida Department of Transportation (FDOT) created the *Tier 2 Business and Strategic Plans* after the Executive Board formally endorsed TSM&O as a program in 2010. The TSM&O Leadership and Task Teams (whose members include executive leadership from throughout FDOT and intelligent transportation systems [ITS] team members, respectively) provided input, after which the *Tier 2 Business Plan* was completed in November. The *Tier 2 Business Plan* identifies activities, performance indicators, targets, progress, and responsibility for a series of objectives. The *Strategic Plan* presents the high-level structure for establishing and maintaining the TSM&O Program. It is in semi-final draft form and will be completed in early 2012. Taken in conjunction with the TSM&O *Tier 2 Business Plan*, the *Strategic Plan* ensures that implementation occurs concurrently through FDOT operations and planning, the project development cycle, and in policy and procedure.

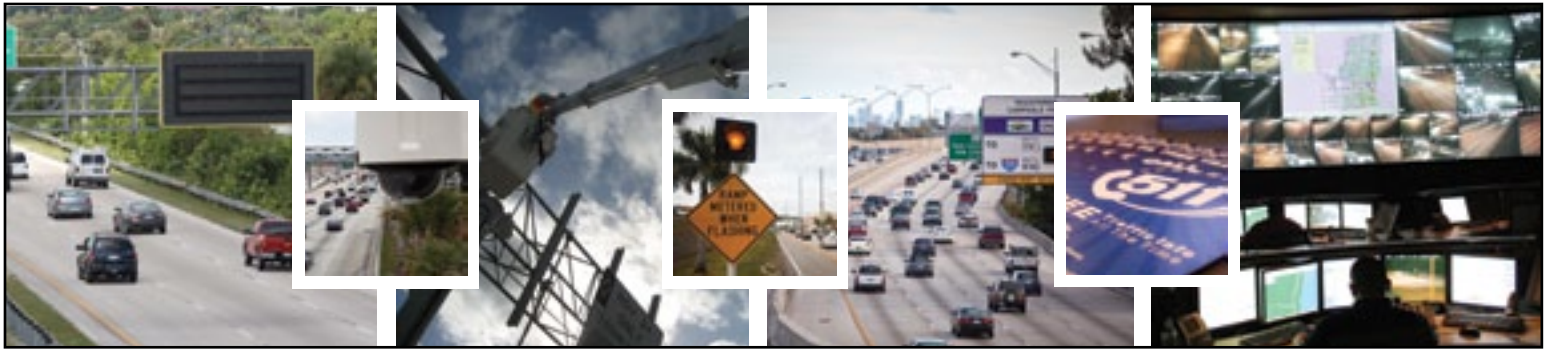
Performance measurement is a critical component of TSM&O. FDOT created a draft dashboard that highlights two performance areas: system and organization. System performance relates to travel time reliability, incident durations, and other metrics used to describe how well the transportation network is performing; these measures are valuable both internally and externally. Organization performance looks at activities, such as outreach efforts, business plan development, policy/procedure amendment, and cost/benefit of operation and maintenance, which are excellent internal indicators of progress. The dashboard is under review and will be completed in 2012.

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The *SunGuide Disseminator* is a publication of:
Florida Department of Transportation
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<http://www.dot.state.fl.us>



Policies, procedures, guidelines, and manuals require revisions to include language for how to accomplish TSM&O integration in all aspects of FDOT. In addition to using the regular review/amendment cycle, a few policies were selected for review ahead of their schedule. Factors, such as influence on TSM&O integration, type of document, number of affected offices, and placement on the review cycle, were all considered in creating a prioritized list. As each item comes up for review, task team members will review the item for inclusion of TSM&O language. Over time, FDOT will review and update all documents.

In November 2011, the FDOT Executive Board viewed a presentation that provided updates on TSM&O actions throughout Florida. In addition to the strategic actions led by Central Office, several Districts have undertaken projects with TSM&O elements. These include ramp signals, advanced traffic management systems, severe incident response vehicles, managed lanes, and arterial management. Future items will include work zone traffic control, active traffic management, and other strategies. In 2012, FDOT has plans for District workshops that provide executive-style briefings, staff-level discussions, and District-specific exercises to assist in beginning or creating TSM&O activities.

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Expanding the SIRV Program in District Four

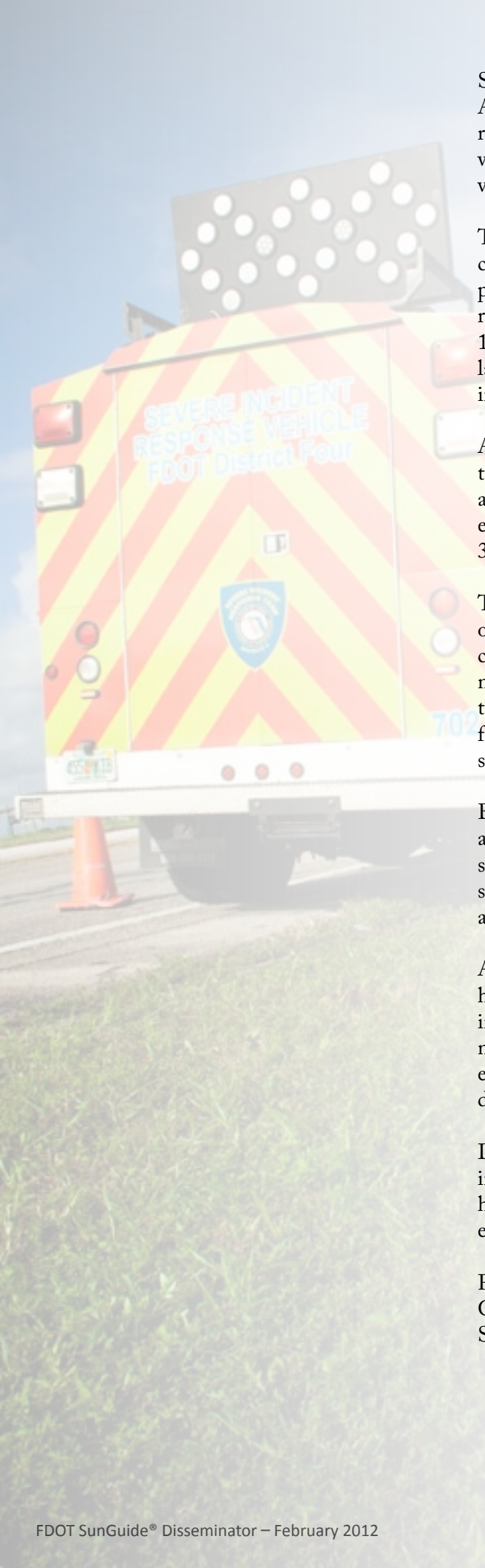
By Chuck McGinness, FDOT District Four

The Florida Department of Transportation (FDOT) District Four started the Severe Incident Response Vehicle (SIRV) Program in 2005 to help reduce motorist delays caused by severe traffic incidents and to increase the safety of emergency responders in Broward County. The primary objective of SIRV is to provide an immediate FDOT incident command presence at severe incidents, coordinate available FDOT resources, and assist responding agencies in reopening roadways as quickly and safely as possible to meet Florida's *Open Roads Policy* of clearing roadways within 90-minutes.

With an outstanding record of success, FDOT approved a new SIRV contract in October 2011 to expand service full-time to Palm Beach County. SIRV operators are expected to be in service in February along the 46-mile section of Interstate 95 in Palm Beach County. "With SIRV in Palm Beach County, motorists on I-95 will experience shorter delays and improved traffic flow after serious crashes and other major incidents," said Gaetano Francesse, FDOT District Four freeway operations manager.



Four new SIRV vehicles – two in Broward County and two in Palm Beach County – are included in the new contract. SIRV vehicles in both counties will have a "new look," with additional safety reflectors and lights.



SIRV adopted standards developed by the National Fire Protection Association for high visibility striping on emergency response vehicles. Fire rescue trucks and SIRV vehicles are often at high risk of being struck while working incidents on major highways and the reflective striping makes the vehicles more visible to motorists.

The expansion into Palm Beach County followed a successful pilot project conducted by FDOT from July 6, 2010, to January 28, 2011. During this period, SIRV responded to 120 incidents and was directly responsible for reducing the duration of 39 incidents, for a total of 945 minutes (more than 15 hours). SIRV also helped relieve congestion by increasing the number of lanes open during incidents, saving 1,839 minutes (more than 30 hours) in individual lane closure time.

Another quantifiable benefit from the pilot project was the amount of time that SIRV saved other agency responders through its on-scene presence. The amount of time saved for Road Rangers, fire rescue, wrecker companies, law enforcement, and other responder agencies totaled 2,225 minutes (more than 37 hours).

The SMART SunGuide® Transportation Management Center dispatch SIRV operators who respond 24/7 to severe traffic incidents, including full highway closures, fatal crashes, overturned commercial trucks, and other events that may last longer than two hours. In addition, SIRV responds to any incident that blocks a highway lane while they are on duty Monday through Friday, from 6 a.m. to 7 p.m. When available, SIRV can assist at incidents on arterial state roads near highway entrance and exit ramps.

Each SIRV truck carries specialized equipment, including a roof-mounted arrow board for maintenance of traffic, spill pads and containment pools, standard flares and electronic flares, roadway repair supplies, emergency scene signs, high-intensity lighting, brooms and shovels, 100 traffic cones, spill absorbent, bottled water, and extra fuel.

All SIRV operators have law enforcement or fire rescue backgrounds. They are highly trained in a number of emergency response procedures, such as incident command, National Incident Management System, hazardous material mitigation, advanced maintenance of traffic, incident quick clearance, emergency vehicle operations, and first responder and incident documentation.

During 2011, SIRV responded to 557 incidents in Broward County, resulting in an incident duration reduction time of 2,788 minutes (more than 46 hours). SIRV also saved 14,567 minutes (more than 242 hours) for other emergency responders.

For information, please contact Mr. Francese at (954) 847-2797 or email to Gaetano.Francese@dot.state.fl.us. For more information on the District Four SIRV Program, visit www.smartsunguide.com/SIRV.aspx.

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SunGuide® Software User's Group: Fitting it all Together

By Arun Krishnamurthy, FDOT Traffic Engineering and Operations, and Clay Packard, Atkins

Bringing the Florida Department of Transportation's (FDOT) SunGuide® software, Florida's advanced traffic management system software, to life requires a diverse set of skills—from information technology to high-level transportation management center (TMC) operations. SunGuide

software administrators have their work cut out for them. Their task is to deliver a working environment for TMC operators to be effective and efficient at their jobs of carrying out their mission of safety and mobility. At the center of this working environment is the SunGuide software; it is hosted by servers, powered by databases, accessed by workstations, fed by field devices, and shared by users accessing Florida's 511 advanced traveler information. Integrating all of these devices, systems, processes, and users requires a wealth of knowledge that must be taught, experienced, and, most importantly, shared. The SunGuide Software User's Group (SSUG) is the technical forum that brings these talented, technical experts together to discuss issues, solutions, and experiences that provide synergy to the community of experts who make SunGuide work.

The SSUG is the subgroup of the Change Management Board (CMB), where intelligent transportation system (ITS) engineers make decisions on changes to the SunGuide software. The CMB provides a forum for technical experts to evaluate, investigate, and discuss issues that help with decisions requiring technical input from system users and administrators. The CMB forum is a formal venue with multiple issues discussed at each meeting, with each issue having a limited discussion time. Depending on the complexity, some issues may need input from multiple parties; some issues also need significant discussion prior to making any decision. The CMB forum does not allow for the comprehensive discussion that is typically needed; the SSUG meetings fill this gap and allow comprehensive discussion on topics. Software users (system administrators, TMC managers, TMC operators, or database experts), who work with SunGuide on a regular basis and understand the software complexity, also attend the SSUG meetings. They are able to brainstorm ideas and offer comprehensive suggestions for change within the software.



The SSUG meetings are conducted via teleconference call on a quarterly basis and are facilitated by an elected chairperson. The chairperson provides coordination between the CMB and SSUG members to include any items in the SSUG discussion in which the CMB is interested. The SSUG then provides

summary of their discussion at the next CMB meeting. This loopback provides transparency into what was discussed at the SSUG meetings. The SSUG can also offer new ideas discussed at their meeting for the CMB to consider.

Another key area of discussion is the current issues members are facing. The SSUG meetings allow members time to discuss and listen to other members who may have already figured out a solution and thus share their solution ideas. The SunGuide software is used by several TMCs, some having significant ITS deployments, and others having fewer. Each TMC may have a unique set of ITS deployments and as a result may have issues that are unique to them. If other members have figured out a solution, they share it; if not, these meetings allow them an opportunity to offer suggestions.

An additional benefit of the issues discussion is the feedback received by the FDOT Central Office on issues that may impact multiple Districts and to what extent the impact may be. This allows the SunGuide support team to address those issues at a higher priority, allowing the Central Office to serve SunGuide users better.

The SSUG should have its work cut out this year as we await a long development cycle for SQL server support, color dynamic message signs, travel time scheduling, and the automated vehicle identification-travel time algorithm (not due until 2013). Without a planned major software release in 2012, there will be a stronger focus on support and the Central Office will depend on the SSUG to provide some good feedback defining the user's support needs.

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

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District Six Publishes Roadway Statistics Reports on SunGuide.org

By Javier Rodriguez, FDOT District Six

The Florida Department of Transportation (FDOT) District Six Intelligent Transportation Systems (ITS) Office is now posting roadway statistics reports on its SunGuide.org web site. The reports feature detailed information, such as speeds, volumes, travel times, and travel time indices for most of the District's major highways in Miami-Dade County.

These new statistics reports are intended to help industry professionals gather information for transportation-related projects and serve as a trip-planning tool for the general public. All the data used for these reports are collected from District Six's traffic detectors and presented in an easy-to-view format for its users. These reports are updated on a monthly basis and are available via SunGuide.org's "TMC Reports" section. District Six also launched a "Roadway Maps" section in support of this new feature. This section provides visitors with a visual overview of the roadways for which the statistics are provided as well as direct links to each roadway's specific reports.

Currently, there are reports available for Interstates 75, 95, and 195 as well as State Road 826. The "Travel Time Indices" report contains indices that can help motorists calculate how much additional time will be needed for their travels depending on the roadway and hour of day. The "Speeds and Volumes" report is a visual representation of the average speeds and average volumes reported for the aforementioned roadways on an hourly basis. Lastly, the "Travel Times Reliability" report is another visual depiction of average travel times on the aforementioned roadways on an hourly basis.

District Six created these reports to support the increasing number of data requests for Miami-Dade County. District Six hopes this new feature will not only expedite the information retrieving process for researchers, but also assist the general public in their trip planning. The Roadway Statistics Reports is only one of several enhancements the District has rolled out via SunGuide.org to enhance its lines of communication with the public. The District plans to expand these efforts to continue serving the public through 2012 and beyond.

For information, please contact Mr. Rodriguez at (305) 407-5341 or e-mail to Javier.Rodriguez2@dot.state.fl.us.

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The SunGuide.org's new Roadway Statistics section provides an overview of the roadways for which District Six currently provides roadway statistics reports.



ITS Florida: President's Message

By Dale W. Cody, ITS Florida President

I would like to begin by thanking the members of ITS Florida for providing me the opportunity to serve as your President for the 2012 calendar year. My involvement (in the roles of Director at Large, Treasurer, and Secretary) over the past six years has been a time of personal and professional growth, and has provided me with invaluable experience throughout the State of Florida in the intelligent transportation systems industry and for that, I am extremely grateful.

Overall, my goals as President will align specifically with ITS Florida's mission of "*delivering leading innovation, information, advocacy and interest in ITS solutions for our members, policy makers, industry leaders and Florida's diverse population, visitors and commercial enterprises.*" Our members' hard work and observance of this mission statement no doubt led to ITS Florida's **Outstanding State Chapter Award** for Division One (the largest state chapter division) in 2011. Congratulations all!

As most of you know, 2011 brought a huge endeavor for ITS Florida and the State of Florida as we had the privilege of hosting the 18th World Congress on Intelligent Transport Systems in Orlando, Florida. It goes without saying that the involvement of many of our members helped make this latest World Congress a huge success! The World Congress offered a stellar lineup of industry speakers, exhibitions, technical sessions, and live demonstrations to nearly 8,000 worldwide representatives. ITS Florida was proud to be a part of the planning and staffing for this massive event.

Another major event is headed our way this year – the biennial TRANSPO2012, which will take place October 28 – 30 at the Hyatt Regency in Bonita Springs, Florida. We will once again ramp-up ITS Florida's involvement and assistance in planning and staffing this event. As always TRANSPO promises to be a great event and we look forward to seeing all of you there! This event will also be a time of "reflection," as this year is *ITS Florida's 20th Anniversary!*

As we all know, tough economic conditions persisted in 2011. Therefore, ITS Florida has and will continue to focus on creating value for our membership that provides avenues for professional growth by offering training and technology forums utilizing low cost webinars and workshops. This will provide our members with the tools they need to continue to grow and thrive in our industry, while always considering travel costs for both our public and private sector members. Over the past year, in addition to the World Congress, we offered training courses that provided speakers and instructors from across our diverse membership base. Therefore, we plan to continue the emphasis on ITS-related specialty training in order to provide the maximum value to our members.

ITS Florida's continued emphasis on value for our members has also resulted in a number of fresh new ideas. One of these ideas is the potential development of an interactive web site for sharing ideas, information, and questions amongst ITS Florida members. The goal of this web site is to provide a forum for questions to be asked and answered by member experts throughout the ITS Florida membership! This consortium of all of our resources will be accessible to members 24/7, and include past and current presentation/training materials, industry information, and other items of interest.

Another key activity this year will be to initiate a focused member survey in 2012, to help us to continue to improve and expand your organization. We look forward to hearing both ideas for improvement or advancement as well as positive experiences from our broad member base as we move onward and upward with our many goals and priorities.

It is truly a privilege for me to serve in this new role, and I look forward to an upcoming year of continued success, growth, and innovation. If you are not currently a member of ITS Florida, I strongly encourage you to consider joining our organization.

Please do not hesitate to share any ideas, thoughts, or comments with me at:

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If you wish to contribute an article to the SunGuide® Disseminator on behalf of ITS Florida, please email Erika Birosak at Erika.Birosak@transcore.com.

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Editorial Corner: Generating Funds

By Gene Glotzbach, FDOT Traffic Engineering and Operations

Revenue generation seems to be the new buzz phrase for public agencies. Public agencies are faced with growing needs and shrinking funding levels. In order to continue popular programs, public agencies have had to devise ways to generate revenues outside the normal tax supported funding. Public agencies have been able to generate revenue with various degrees of success. If not completely successful, the thought process is that if we are at least able to generate some revenue to help defer costs, we can free up funds for use elsewhere.

There is potential to capitalize an agency's assets for the purposes of generating revenue. The Florida Department of Transportation (FDOT) is looking to generate enough revenue to implement and operate a new traveler information system (FL-511). FDOT conducted a study to determine what assets would be available to capitalize and what the potential value of those assets would be. That study looked at a number of ideas, but the assets that seemed to be the most feasible for capitalization were:

- Interactive voice response (511) phone system,
- Web site,
- Mobile applications, and
- 511 roadside signs.

Of this group of assets, the 511 roadside signs have the greatest potential for generating revenue by far.



By providing an opportunity for a company to purchase a short sponsorship message as part of the opening greeting when dialing 511, FDOT could generate some revenue. That opportunity would be limited to the opening greeting. Over the course of a year, the 511 phone number is dialed several million times providing good exposure to a sponsorship message. Likewise, the web site and mobile applications can provide opportunities for sponsorships as well and, because of their format, they could also support advertisements. Sponsorships could run as a banner message at the top of each web page, and the home page has enough real estate to provide space for advertisement. As the web site stands now, it could only support a static advertisement. With a little modification to the site, it could support dynamic advertising where different advertisements are cycled through.

However, the best opportunity to generate revenue is to utilize the 511 roadside signs to provide a sponsorship message at the bottom of the sign. Sponsorship signs placed on roadways with the highest average daily traffic would have the greatest value and command the highest price. Placement of the signs would be dependent on placement criteria as established by the Federal Highway Administration's *Manual of Uniform Traffic Control Devices* and FDOT's *Traffic Engineering Manual*. But to generate significant revenue, FDOT would need to allow somewhere in the neighborhood of about 1,000 signs. These signs would be placed on the limited-access facilities and selected arterials at locations leading to and in the vicinity of limited-access facilities.

The key to generating revenue is exposure. The greater the exposure is for the sponsorship or advertisement message, the greater the value of the sponsorship or advertisement. We have some roadway segments that have some of the highest traffic levels in the country, so placing sponsorship signs on these segments will garner the highest revenue. Although usage of our traveler information system ranks among the best in the country, continuing to improve the usage of its dissemination components will increase its value allowing FDOT to maximize the revenue it can generate off these assets. Bundling the sale of the use of these assets can provide for even greater return as this is a case where the whole is truly greater than the sum of the parts.

Outside of these core revenue-generating ideas, other possible revenue generating ideas have been suggested. One idea is couponing, where a company pays a price to have an electronic coupon displayed on a mobile device. 511 sponsors would have company information displayed in real-time on the 511 mobile application based on the consumers location, making the information relevant to the traveler. Nearby service information is another way to generate revenue. Nearby service information works similar to couponing in that information on services available to the traveler is delivered based on the traveler's location. Companies would pay to have information regarding their services pushed out to the traveler in real-time. Nearby service information would serve a similar benefit to companies as the static signs seen when approaching an interchange. There is tremendous benefit to companies to get on FDOT's static signs, but the available space is limited. Nearby information would fill a gap and be very attractive to companies. The availability of information would not be limited to those traveling the state highways, but could be provided to the public at bus stops, airports, or anywhere else. These two ideas, of those outside of the core ideas, seem to have the most promise for generating the most revenue.

The amount that can be generated is directly dependent on the exposure or impressions that can be generated. The greater the opportunities for viewing a logo or an advertisement, the greater the value the asset will be. The importance of having a reliable and effective (quality) system that is properly marketed can't be overstated. The usefulness of the system is what will bring people back and what will attract more people, which further increases the revenue generating potential of the system.

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

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Announcements

TRANSP02012: Mark Your Calendar Now!

October 28 – 31, 2012
Hyatt Regency Coconut Point
Bonita Springs, FL



Transpo2012 will be here before you know it. ITS Florida would like to invite you to Transpo2012 at the Bonita Springs Hyatt Regency Coconut Point. Program and planning committees are already busy organizing an outstanding lineup of exhibits, demonstrations, and technical sessions that will build on topics driving the ITS industry. Please plan to attend this premier conference October 28 – 31, 2012.

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FDOT Traffic Engineering and Operations Mission and Vision Statements



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