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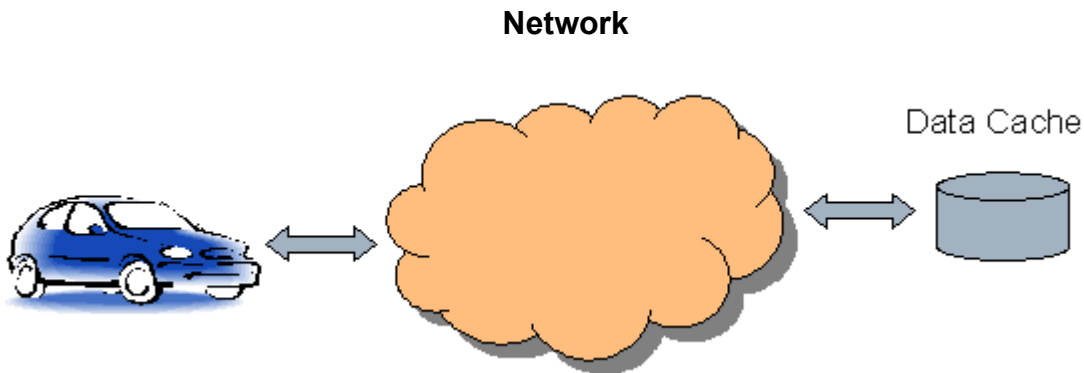
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[Link to Florida's Statewide ITS General Consultant](#)

Vehicle Infrastructure Integration

Surface transportation has continually advanced through enhancements such as seat belts, air bags, recycling of asphalt, and the use of the private sector. The next significant breakthrough may very well be Vehicle Infrastructure Integration (VII). It has the potential to change everything – from how we provide motorists information, to how we collect data for planning purposes.

A working group was formed a year and a half ago comprised of representatives from the USDOT, AASHTO and automakers. The purpose of the group is to move the VII concept forward with possible implementation as early as 2010. Although there are many complex issues that must be fully addressed in order to make this a reality, the concept is actually quite simple. Existing vehicles already know much information, such as when it's raining (wipers on), slippery pavement (antilock brake systems) and its speed. When a global positioning system (GPS) is added to the many existing sensors on the vehicle, it becomes a powerful data collection tool. The ability to read this data from the vehicle through a communication network and provide information (both public and private sector) back to the vehicle through the same network is VII.



We all agree that we need to make our highways safer. Even with all the emphasis that has been given to safety, the number of fatalities and injuries continues to rise. Although currently not quantitatively defined, the ability to provide in-vehicle information regarding stopped traffic, slippery pavements, curves requiring speed reduction, and overall improved informational signing has the potential to make our highways significantly safer. The ability to communicate with a motorist through the vehicle also offers some unique business opportunities. An auto dealership would be able to advise a vehicle owner of needed maintenance or a motorist could download a video for viewing by their backseat passengers. You could even place your order at a restaurant before arriving. Vehicle owner consent and driver distraction are just a few of the issues associated with these applications, which are being addressed.

The network which provides this two way communication is our greatest challenge. Technologies being evaluated are: dedicated short range radio (DSRC) and cellular and conventional wireless fidelity (Wi-Fi). One scenario is a national public sector deployment. A second scenario is the private sector providing this network, possibly through a franchise concept which would utilize the existing right-of-way. A third scenario may be a mixture of the first two depending upon the level of existing deployment by the public sector. One thing that has been obvious in this last year and a half of working group activity has been that Florida is a leader in the nation with the deployment of ITS as we know them today.

VII will change our whole approach to ITS with the ability to collect real time system-wide data from the vehicles. Freeway systems would no longer require in-pavement detectors and the need for variable message signs would eventually go away as more and more fully equipped vehicles would be on the road with each model year. Reliable real-time data for the arterial system, at the same level of the freeway system will allow area-wide management of

our entire highway system. The ability to use the vehicles for real-time mapping could greatly improve the accuracy of maps.

VII is still in the developmental stage. Many issues between the USDOT, states, local governments, and the automakers still need to be resolved, but the benefits to society as a whole are so great that I believe that deployment will occur. We will be looking back, in the not so distant future, and see VII just as we see the cell phone and the internet today.

This article was provided by George Gilhooley, FDOT District 5. For more information, please contact Mr. Gilhooley at (386) 943-5477 or email George.Gilhooley@dot.state.fl.us.

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Florida Receives Grant to Improve Florida Amber Plan

The FDOT received a \$125,000 grant from the Federal Highway Administration (FHWA) for the purpose of improving the Florida Amber Plan. The Florida Amber Plan was developed in August 2000 by the Florida Department of Law Enforcement (FDLE), the Florida Department of Community Affairs, and the Florida Association of Broadcasters, Inc., to provide critical information about child abductions to the public using existing technology, the Emergency Alert System (EAS). In August 2002, the Florida Amber Plan was expanded to include the FDOT, using dynamic message signs (DMSs) and the traveler information systems to help find missing children in Florida. In November 2002, the Florida Department of Lottery offered the use of lottery machines as another mechanism for distributing child abduction information.

The Florida Division of Emergency Management Office is upgrading the EAS to the new EMnet, a satellite-based warning and messaging system designed specifically to meet the needs of the emergency management community. EMnet uses components of the TCP/IP environment as well as satellite technology to deliver the message. Currently, the FDLE uses telephones and facsimiles to notify FDOT of an Amber Alert. The FDLE plans to use the EMnet system to notify the FDOT when Amber Alert activations are required on DMSs and traveler information systems. EMnet will be faster and more reliable with the added ability to have files, such as photos, attached.

The FDOT is using the grant funds to purchase six complete EMnet systems, one for each existing regional transportation management center (RTMC) in the state, which are located in Jacksonville, Orlando, Turkey Lake Service Plaza, Pompano Service Plaza, Ft. Lauderdale, and Miami. The grant will also provide funds to purchase EMnet for FDLE and the Florida Department of Lottery.

This article was provided by Mark Wilson, FDOT Traffic Engineering and Operations Office. For more information, please contact Mr. Wilson at (850) 414-4870 or email Mark.Wilson@dot.state.fl.us.

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The Florida Amber Plan Implementation Assistance Program

We Got Another One!

The FDOT is the recipient of more federal funds to support the Florida Amber Plan. Approximately one year ago, on behalf of the Florida Department of Law Enforcement, Florida Department of Community Affairs, and the Florida Department of Lottery, the FDOT submitted for a \$125,000 federal grant ([See previous article](#)) to improve the process for notifying the FDOT's regional transportation management centers (RTMCs) when an Amber Alert message needs to be posted on dynamic message signs (DMSs). Since receiving the \$125,000 grant, the FDOT has received another federal grant that can be used to deploy DMSs in support of the Florida Amber Plan.

The June 15, 2004, Federal Register provided a notice that \$20 million in total grants is available to implement enhancements to notification and communications systems along highways in order to assist in the recovery of abducted children. Florida received this new grant totaling \$400,000 which was matched by the state with another \$100,000, bringing the total to \$500,000.



How Will the New Money Be Spent?

The grant funds will be utilized to deploy two DMSs on I-10 in the Tallahassee area. I-10 passes through Tallahassee with U.S. 90 running parallel to it. I-10 is intersected by U.S. 90 at locations east and west of Tallahassee. The DMSs will be placed across I-10 to provide information to motorists as they approach both U.S. 90 interchanges.

These federal funds will also be utilized to purchase laptop computers and the associated software used in the notification process and to expand the development of an automated notification process.

Why Tallahassee?

The Florida Panhandle and North Florida, in general, are conspicuously lacking in the deployment of DMSs which are used to provide information regarding the abduction of a child. Tallahassee is centrally located in the Panhandle and North Florida and is the largest metropolitan area between Pensacola and Jacksonville.

Additionally, I-10 will be undergoing a construction project between the U.S. 90 interchanges that will add new lanes, bringing the facility up to a six lane cross section. The construction

effort will be a multiyear project and will disrupt traffic traveling on I-10, thus increasing the potential for congestion and associated incidents. The DMSs will supplement the work zone maintenance plan and provide a better means of distributing information to motorists before they arrive at the construction zone.

An intangible, and possibly more important, reason for selecting Tallahassee is that Tallahassee is the seat of state government and the deployment of DMSs in the Tallahassee area will bring beneficial visibility of the Florida Amber Plan to the state leadership.

Who Will Operate the Signs?

Tallahassee is designated as a site for a RTMC; however, this RTMC is not anticipated to be operational until 2009. During the interim, the City of Tallahassee will provide for the management of the signs out of their traffic management center (TMC) located in City Hall. Although the TMC is not operational on a 24-hour, 7-day-a-week basis, someone is always on call and can operate the signs after hours.

Additionally, a workstation will be placed in the Florida Highway Patrol's (FHP's) Regional Communications Center (RCC) to provide fail-safe capabilities. The FHP's RCC is located in downtown Tallahassee, near City Hall, and is operational on a 24-hour, 7-day-a-week basis.

Enhancements

The FDOT and the City of Tallahassee are exploring the possibilities of adding additional funds to the project to place more DMSs on selected arterials and to possibly install a limited number of CCTV cameras on the interstate. The amount of enhancements will of course be contingent on the amount of additional funds that can be provided.

The primary location for the arterial signs would be on critical roads that feed the interstate. However, other locations in Tallahassee where motorists have the capabilities to make route decisions will be considered as enhancement locations. The CCTV cameras would be placed at locations that command the best views of the interstate to maximize the value of the few cameras that could be provided.

Benefit

The primary benefit of this project will be improved communications to motorists regarding an abduction of a child. The signs, being placed on the same routes an abductor would travel, improve the potential of a motorist spotting and reporting a vehicle utilized in an abduction of a child.

A secondary benefit is that the signs can be utilized to provide information to the motorists regarding problems on the roadway system in Tallahassee. DMSs placed at critical decision points provide the motorists with information necessary to make intelligent route decisions.

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

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We invite you to have some fun and complete the *SunGuideSM Disseminator* Word Challenge!

An answer guide follows the Editorial Corner.

Enjoy and Good Luck!



AASHTO	Franchise	Pensacola
Alert	Freeway	Ranger
Amber	Incident	RTMC
Arterial	Infrastructure	Tallahassee
Automakers	Integration	Turnpike
CCTV	Interstate	Vehicle
Communications	Jacksonville	WiFi
Concept	Laptop	Wireless
FHWA	Motorist	
Fidelity	Panhandle	

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Florida's Turnpike Enterprise's Open Road Tolling Test Site in South Florida

At first glance, it doesn't look like much. A few steel bars and a handful of electronic gadgets. Look a little closer under the bridge over the Florida's Turnpike Mainline at Oakland Park Boulevard and you'll see the future of Florida's Turnpike Enterprise.

In January, technicians working for the Turnpike's SunPass® contractor, TransCore, began installing the equipment that will help study various open road tolling configurations. Open road tolling, or ORT systems, allows motorists to stay at speed while their toll is electronically deducted from a pre-paid account. In an ORT system, there are no toll booths, no toll plazas, no stopping.

This technology is an enhancement to the technology the Turnpike deployed in 2001 on the 42-mile long Suncoast Parkway. At that location, there are six two-lane tolling locations, which toll motorists use at highway speeds. Based on the success of these sites, the Turnpike is allowing its contractor to demonstrate the three or more lane tolling solution (also referred to as "3+") at Oakland Park Boulevard. The contractor, seeing the future of tolling as being ORT, has developed, at their own expense, a multi-million dollar Research & Development effort, now known as the Oakland Park Boulevard ORT test site. The advanced technology at Oakland Park Boulevard presents the work of engineers in San Diego and Dallas, with testing support in Albuquerque, and finally being demonstrated in real-time traffic here in Florida.

The equipment installed over Florida's Turnpike is testing the various cameras, computer equipment, and electronic radio antennas that 'read and write' to the transponders in 16

milliseconds as they travel under the bridge at highway speed. During the test period, no money is deducted from SunPass accounts and no audiovisual feedback is generated by the transponders.

During a recent tour of the site, Turnpike staff members and others from the International Bridge, Tunnel, and Toll Association (IBTTA) were treated to a demonstration of the ORT system by engineers from the TransCore Team.

While true ORT in Florida is years away, the technology under study will go a long way towards the development of SunPass 'Express' lanes that will be built at toll plazas such as Cypress Creek in Broward County. Under this configuration, SunPass customers will remain at highway speeds and bypass the cash-toll lanes where traffic must stop to pay the toll. ORT equipment will be located on an overhead structure spanning the highway lanes.

The test site will continue operation during 2004, in preparation for the first deployment of this technology on the Tampa Hillsborough Expressway Authority's reversible express lanes.

This article was provided by Chad Huff, Florida's Turnpike Enterprise. For more information, please contact Mr. Huff at (954) 975-4855 or email Chad.Huff@dot.state.fl.us.

For more information on ITS Florida™, please check the ITS Florida Web site at www.itsflorida.org or contact Diana Carsey, Executive Director, at (727) 409-5415, or email CarseyD@verizon.net.

If you wish to contribute an article to the *SunGuide*SM *Disseminator* on behalf of ITS Florida, please contact Erika Ridlehoover at (813) 376-0036, or email Erika.Ridlehoover@transcore.com.

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Editorial Corner – Statewide Traffic Incident Management

With Traffic Incident Management Programs gaining momentum around the country, the FDOT has started its own statewide initiative. The FDOT Traffic Engineering and Operations Office has initiated a "Statewide Traffic Incident Management Program" which is directly related to transportation safety improvements.

The Statewide Traffic Incident Management Program actually began in the FDOT Traffic Engineering and Operations Office in the mid-1980s. However, neither management nor local governments seemed to grasp the concept and never fully supported the program. The program lost its stamina even though the FDOT Traffic Engineering and Operations Office tried to maintain the momentum.

Fortunately, after attending a seminar on this issue, then-Secretary Tom Barry saw the need for this program. Through his leadership this program was brought back to the forefront to become a very active and aggressive initiative for the FDOT, managed once again by the FDOT Traffic Engineering and Operations Office.

During the first few months of 2001, an Executive Steering Committee was formed to provide direction and guidance for the development and implementation of the program. The steering committee consists of representatives from various agencies and provides the emphasis and support necessary for the development of the Statewide Traffic Incident Management Program.

After much work compiling a list of attendees, a statewide meeting was held on October 19, 2001, to “kickoff” this new statewide multi-agency and private entity program. The meeting was held to propose a cooperative effort between all parties and began with the formation of teams to work on specific issues that would provide for quick clearance of incidents, including stalled or damaged vehicles and spilled cargo, to open the roadways, while at the same time providing a zone of safety for the responder.

Secretary Tom Barry told the group at the statewide meeting, “This is a new way of doing business, moving from maintaining to managing our systems. Our ultimate goal is to create protocol for before, during and after incidents, so that we can get the roads open faster.”

Elements of the new program include enhanced service patrol programs (Road Rangers), expedited clearance of vehicles, better utilization and building of traffic management centers, multi-agency training, and accountability through performance measures.

Several working teams were formed from information gathered at this statewide meeting to begin developing the program. The teams are cross functional, with members representing a variety of different agencies. The working teams are the:

- Detection, Verification, and Response Team;
- Clearance Team;
- Communications Team; and
- Training Team.

One of the top priorities of these teams is communicating and enforcing Florida’s quick clearance laws (*Florida Statutes 316.061* and *316.071*), both of which state that the driver shall not obstruct traffic and shall make every attempt to move their vehicle so as not to obstruct traffic flow. A uniform quick-clearance philosophy will also address this issue.

The Statewide Traffic Incident Management Program has been established and managed by Mr. Buddy Cloud since January 2002, when the first team meetings were held. The first meetings were designed to set goals and identify potential areas in need of improvement. Each committee, chaired by a non-FDOT person, developed a mission statement and a list of issues that would be the work items for each team. All participants agreed that traffic incident management in Florida could be significantly improved.

The teams meet quarterly to work on and finalize any issues that need to be researched and investigated before approval. There is a lot of effort in-between meetings when various subcommittees work on these issues.

The benefits to Florida from this effort are as follows:

- Alleviate congestion;
 - Over 55 percent of congestion is caused by incidents in urban areas, 100 percent in rural areas.
- Improve responder safety;
 - Close to 60 percent of police casualties nationwide occur during the management of traffic incidents.
- Reduce secondary collisions; and
 - 13 – 33 percent of crashes are secondary to earlier incidents (the Orlando metropolitan area has the highest secondary crash rate in the nation – 33 percent with an average response time of 41 minutes).
- Decrease the economic impact of incidents.
 - According to the FHWA, the average cost for a truck to be delayed is \$100 per hour.



The work products and issues that have surfaced from this team effort are summarized below:

- In collaboration between the FDOT and the Florida Highway Patrol (FHP), a joint agreement between these two agencies was developed, stating their mutual goal to clear and restore traffic movement within 90 minutes of the arrival of the first responding officer. Signed on November 10, 2002, it constitutes a clear measure to judge future performance.
- A document titled *Guidelines for the Mitigation of Accidental Discharges of Motor Vehicle Fluids* (non-cargo), which details steps to be taken during incidents where spilled vehicle fluids are involved, was approved by the entire team on June 24, 2004, after considerable debate.
- A plan has been drafted and a review of sites along I-75 in Broward County has been completed for installation of Location Reference Markers in a pilot program. These markers would be installed at 0.2-mile intervals on selected roads once approved. (Ready for Steering Committee recommendation)
- A plan of action has been drafted for a pilot project in Orlando to provide point to point communications between the FHP, the Road Rangers operators, and FDOT in order to shorten the response and clearance times during an incident. (Ready for Steering Committee recommendation.)
- The teams have assisted the Professional Wreckers of Florida in drafting criteria for new towing regulations including the new Recovery Class. (Currently in legislative review)
- Teams are working with the Federal Highway Administration (FHWA) to develop Baseline Assessments of Traffic Incident Management programs in six major metropolitan areas in Florida (Miami-Dade and Broward counties, West Palm Beach, Sarasota, Jacksonville, and Orlando).
- The Statewide Traffic Incident Management Program is providing training and equipment to FHP investigators on the use of new photogrammetry techniques. This

technology will shorten investigation time in the field. To date, one training course has been completed with 15 FHP troopers trained.

Future Activities

The steering committee has identified and developed recommendations for a Statewide Incident Management Plan. This plan will focus on:

- Professionalizing incident management (i.e., identification of institutional barriers and recommendations on how to overcome them);
- Determining capital and operational costs to maintain an effective Statewide Traffic Incident Management Program;
- Creating standards and guidelines for performance data;
- Developing guidelines for command and procedures for managing resources on-scene at highway incidents;
- Integrating traffic incident management needs into highway planning and design;
- Conducting training for responders;
- Providing guidelines for route diversions; and
- Conducting executive incident management sessions.

Road Rangers

The Road Rangers service patrols are one of the most valuable elements of the Statewide Traffic Incident Management Program. Road Rangers is a stand-alone program and has become vital in Florida's incident management effort.

Funded by the FDOT and partners, the Road Rangers contracts are bid out to private contractors, and renewed every three years. The vehicles are white, and each contractor chooses the type vehicle to be used. The vehicle must not be less than ½ ton in size/capacity. Each vehicle is equipped with basic supplies, from water and gas to cell phones for use by stranded motorists.

The Road Rangers operators can provide minor mechanical assistance, such as changing flat tires, adding a few gallons of gas, jump starting the vehicles, or adding water to the radiator. All Road Rangers operators are uniformed and carry a picture identification card.

The Road Rangers operators hand out comment cards to the stranded motorists so that the program can be monitored. To date, the comments have been very positive.

The hours of service vary from District to District, but most are now 24 hours a day, 7 days a week, 365 days a year.

A Few Road Rangers Facts:

- Road Rangers consist of 88 service vehicles which are white in color with Road Rangers logos affixed to the rear and sides of the vehicle. Road Rangers vehicles are equipped with:
 - Cell phone;
 - First aid kits;
 - Booster cables;
 - Fire extinguishers;



- Flashing arrow board;
- Reflective cones; and
- Other emergency equipment.
- Road Rangers assisted over 300,000 stranded motorists in 2003. Approximately 450 one-way miles are serviced. Duties of the Road Rangers operators include:
 - Assistance to disabled and stranded motorists;
 - Removal of road debris;
 - Reduction of accidents; and
 - Reduction of incident duration by assisting the Florida Highway Patrol.
- All Road Rangers operators wear uniforms consisting of a white shirt with dark blue slacks/shorts.
- Comment cards are given to stranded motorists to be mailed back to the FDOT for feedback. The program has been positively praised by motorists and is considered to be a success.
- Road Rangers is a free service to stranded motorists. The cost to the FDOT is approximately \$16,000,000, as projected for 2004.

Future Plans for Road Rangers

- Increase contributions of Road Rangers for incident response, traffic control, and scene clearance.
- Increase areas of coverage in all Districts.

In the relatively short time we have worked together on this project, the Statewide Traffic Incident Management Program has had significant accomplishments. The teams have identified, evaluated, and prioritized the issues that need to be addressed to improve the delivery of a Statewide Traffic Incident Management Program second to none. While we have not achieved that status as of yet, I can only say that what has been achieved has been done “**RITE.**” We have done it with:

Respect
Integrity
Teamwork
Excellence

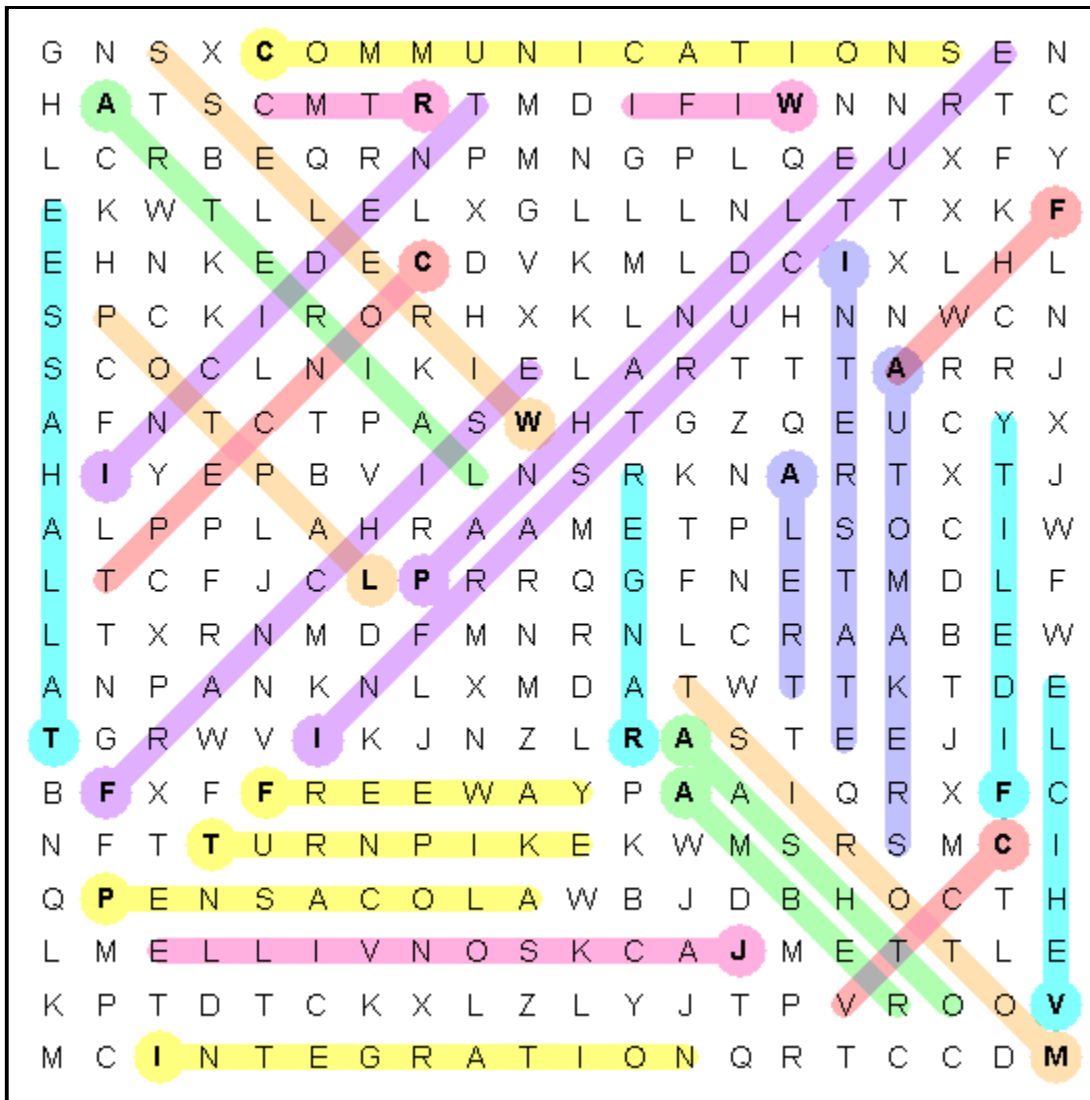
And for this program and our accomplishments, I Thank You All.

This editorial was provided by Buddy Cloud, Statewide Traffic Incident Management Program Manager. For more information, please contact Mr. Cloud at (850) 414-4862 or email at Buddy.Cloud@dot.state.fl.us.

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SunGuideSM Disseminator Word Challenge Answers



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Announcements

Don't Miss NRITS in Duluth



The National Rural ITS (NRITS) Conference will be held in Duluth, Minnesota, on the beautiful shores of Lake Superior. Mark your calendars to attend this event on August 22-25. Conference information and registration can be found at www.itsmn.org/ruralits2004/.

Transpo 2004 — Border Wars: Overcoming Transportation Barriers

Transpo 2004™

Mark December 6-8, 2004,
on your calendars for this
exciting multi-state (Florida
and Georgia), multi-
association
(Florida/Georgia Sections
ITE and ITS

Florida/Georgia, the Florida DOT, Georgia DOT, and FHWA), and multi-about-anything-you-can-think-of transportation event. Conference information can be found on the Transpo 2004 Web site at www.ITSTranspo.org.

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