FDOT's Monthly ITS Newsletter

SunGuide℠ DISSEMINATOR

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Link to Florida's Statewide ITS General Consultant

FDOT Partners With Public and Private Sectors to Pursue "Infostructure" Model Deployment

In September, with the assistance of several public agencies, universities and private companies, FDOT submitted an application to participate in a highly innovative model deployment with the Federal Highway Administration (FHWA). This project is commonly called the *"infostructure"* because it will provide an information infrastructure. The formal name of the program is the ***Surface Transportation Security and Reliability Information System Model Deployment***. The objective of the model deployment is to demonstrate the wide variety of operational functions that are enabled or enhanced by a surface transportation security and reliability information system. The model deployment will:

- Expand and integrate existing data collection and monitoring systems;
- Collect and share data;
- Use the data operationally to improve transportation system security, safety, reliability and performance; and
- Distribute the data to the traveling public, where appropriate.

The model deployment will demonstrate today's best practices and innovative approaches for the collection, processing, use, dissemination, sharing, and archiving of transportation information. As part of this model deployment, existing surveillance and monitoring will be augmented to fill gaps, and coverage will be enhanced with new sensor types, increased data rates, or increased coverage density. Existing institutional arrangements will be expanded to provide additional operational functionality and integration.

"We've made a major commitment to deploy ITS to enhance safety, mobility, economic growth, quality of life, and to manage our transportation assets."

Florida's Governor Jeb Bush

Additional information is available on-line at Surface Transportation Security and Reliability Information System Model Deployment, Solicitation 01 (http://www.eps.gov/spg/DOT/FHWA/OAM/DTFH61-02-X-00089/listing.html).

To meet the model deployment's objective, Florida's application proposed an aggressive program, called "***i*Florida**," that defines 24 integrated projects that build upon Florida's institutional, operational and technical foundations, and leverage the collective experience, commitment, and resources of the participating organizations.

The model deployment solicitation specifies nine component areas, all of which are addressed by ***i*Florida**:

- Metropolitan Area Data and Information Systems - ten projects focused on the Orlando area;
- Statewide Reporting Systems - four data collection and fusion projects for statewide data and information;
- Security of Critical Infrastructure - four projects, focused on Central Florida and Jacksonville;
- Non-Metropolitan Evacuation - two projects focused on the SR 528 evacuation corridor between Brevard County and the Orlando area;
- Weather Response - one project focused on Central Florida;
- Multi-Modal Traveler Information - two projects, one focused on the Orlando area and the other statewide;
- Data Availability - data from all but the security projects will be made available to public agencies and private firms;
- Locally-Defined Components - a project focused on developing recommended practices associated with the evacuation of attractions and special event venues; and
- Cooperation With National Evaluation - assistance will be provided to national evaluators examining the benefits and costs associated with ***i*Florida**.

Tying ***i*Florida** together is a strong management team and plan. Its project components build upon and are consistent with the plans of the Central Florida Regional Transportation Operations Consortium, in Central Florida, and FDOT's *Ten-Year ITS Cost Feasible Plan*, statewide.

In its solicitation, FHWA indicated that the selected state should be prepared to begin its efforts in January 2003. So, it is anticipated that an announcement regarding selection will occur prior to the end of 2002.

For further information on the ***i*Florida** application, please contact Ms. Anne Brewer, Assistant Traffic Operations Engineer, FDOT District 5 at anne.brewer@dot.state.fl.us or (386) 943-5319.

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ITS America Reorganizes

Due to the overall size of ITS America's (ITSA's) Coordinating Council, and in order to re-energize the organization, last year a committee was formed to address reorganization with the basic objective of becoming more responsive to members.

Background

On March 19, 2002 the Coordinating Council unanimously approved a motion to revise the organization and procedures of the Council and Technical Committees. The action was the result of a five-month effort by a special task force created to evaluate current procedures and make recommendations. This motion was presented to the Board of Directors and received final approval on May 2, 2002.

The new organization consists of three elements that have replaced the 21 committees:

- Four Program Sections;
- Six Stakeholder Forums; and
- Coordinating Council.

The recommended changes are designed to enhance the effectiveness of the Council in serving the needs of ITS America members. The changes will enhance members' influence in directing the activities of the Council and improve the flow of information to members. It strengthens the management and coordination of projects by the Council and enhances the connectivity between the Council and the Board of Directors and the US DOT.

Objectives of the Re-Organization

The Council was re-organized to meet the following objectives:

- Improve management and coordination of Council projects and activities. This includes efforts to increase the level of resources made available to support projects and activities;
- Provide a more effective way for ITSA members to help shape the Council's activities and projects; and to obtain the information they need from the overall organization;
- Improve coordination with the ITSA Board, the USDOT and ITSA's strategic objectives;
- Continue and enhance the Coordinating Council role as a Utilized Federal Advisory Committee; and
- Preserve what is working well within current organization.

Program Sections

The Program Sections, each representing a defined subject area, will organize and manage individual

projects. They will ensure that each project has adequate resources, includes all relevant interests (to reduce the stove-piping and encourage integration), meets its objectives, and keeps pace with agreed upon milestones. The Program Sections will also be responsible for reporting the project statuses to the Forums and the Coordinating Council.

The four Program Sections are:

- Information;
- Infrastructure;
- Vehicles; and
- Policy, Evaluation & Advocacy.

Each Program's Steering Committee will have 15-18 individuals, including: four officers, six liaisons - one from each Stakeholder Forum, representatives of special interest groups, at-large members, project team leaders, a DOT representative, and ITS America staff.

Stakeholder Forums

Stakeholder Forums, each representing a segment of the ITS community, will set program goals, identify projects, and ensure that relevant information and project results are readily available to the membership. Smaller special interest groups, or sub-forums, may also be formed to provide desired networking and/or oversight opportunities for members with related concerns and interests.

The six Stakeholder Forums are:

- Public Transportation;
- Commercial Vehicle & Intermodal Freight;
- Public Safety;
- Transportation Systems Operations & Planning;
- Research & Academia; and
- Automotive, Telecommunications & Consumer Electronics.

Each Stakeholder Forum's Steering Committee will have 12-15 individuals including four officers, four liaisons - one from each Program Section, representatives of the special interest groups, national associations, a DOT representative, and ITS America staff.

Coordinating Council

The Coordinating Council will provide direction for the Program Sections and Stakeholder Forums, and work to coordinate all activities. It will conduct periodic project reviews, provide the link to the ITSA Board and the US DOT, and ensure that activities of the Council are consistent with overall objectives of ITSA.

The Coordinating Council will have 14 individuals including: two officers, the ITSA President (ex-officio), the official US DOT representative (ex-officio), and the ten chairs from the Program Sections and Stakeholder Forums.

Leadership:

The new leadership of the Coordianting Council consists of:

Person	Position	Company
Robert Denaro	Chair	ITS America
James Wright	Vice-Chair	Minnesota DOT

Neil Schuster	President & CEO	ITS America
Jeff Paniati	US DOT Representative	ITS JPO
Pierre Petorious	Information Program Chair	Kimley-Horn
Les Jacobson	Infrastructure Program Chair	PB Farradyne
Greg Larson	Vehicles Program Chair	CALTRANS
Dick Mudge	Policy, Evaluation & Advocacy Program Chair	Delcan
Greg Cook	Public Transportation Forum Chair	Ann Arbor Transportation Authority
Mike Akridge	Commercial Vehicle & Intermodal Freight Forum Chair	Florida DOT
Stephen Meer	Public Safety Forum Chair	Intrado
Joe Stapleton	Transportation Systems Operations & Planning Forum Chair	URS
John Collura	Research & Academia Forum Chair	Virginia Tech
Mike Noblett	Automotive, Telecommunications & Consumer Electronics Forum Chair	General Motors

Frequently Asked Questions

A list of frequently asked questions related to the re-organization can be found at the ITS America website.

Additional questions can be answered by contacting Steve Kuciemba, 202-484-2897, Skuciemba@itsa.org, or Larry Schulman, 202-484-4133, Lschulman@itsa.org

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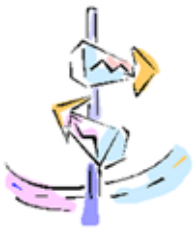


Phase I SEMP Nearing Completion

Phase I of the FDOT *Systems Engineering Management Plan (SEMP)* is very near completion. This first phase of the project is intended to provide a "roadmap" for the development of a comprehensive *SEMP*, which will be completed in Phase II of the overall project.

Systems engineering (SE) is a tool for engineers and planners that provides a structured process for guiding project development from its conception through design, implementation, operations, and beyond. The steps of the process allow each project phase to be controlled and documented so that the probability of a successful outcome is maximized, while minimizing the project budget and schedule.

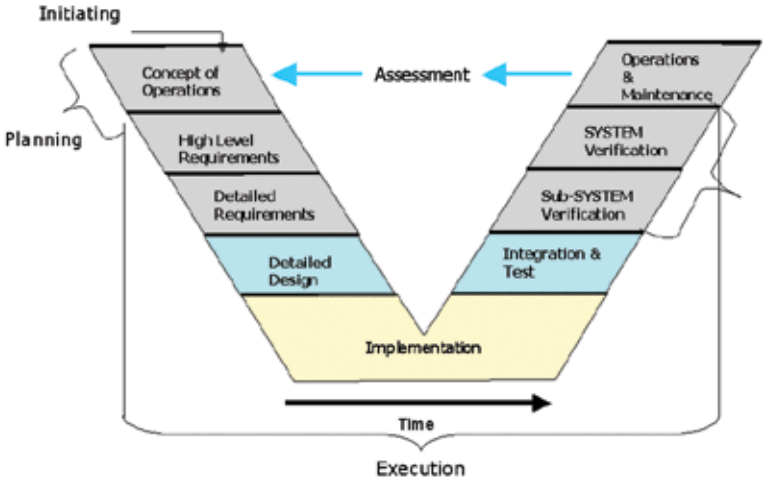
An important part of the *SEMP* development is the appraisal process. This process provides a means for assessing the systems engineering capability of an agency by administering a series of questions based on a standard model. The model used for the FDOT appraisal is the *Electronic Industries Alliance Interim Standard (EIA/IS) 731-2, Systems Engineering Capability Model Appraisal Method*. A questionnaire based on this model was developed and distributed to each District and Florida's Turnpike Enterprise's ITS Office. Once the questionnaires were completed, the answers were compared to the "listen for" response

guidelines of the model; and, using the ratings process from the model, the current systems engineering capability of the FDOT ITS Program was determined.

Another component of this project is the process reviews wherein other government agencies, private industry, and academia were researched for accepted standards and "best practices" for implementing systems engineering. This work was divided into three areas: systems engineering models, ITS architectures, and ITS field elements. These reports provide recommendations for utilizing systems engineering principles for the implementation of the above ITS elements. Although the research on accepted standards did not turn up much information, because most other agencies have not formally adopted systems engineering principles, the reports do provide useful guidelines for FDOT to do so.

The final Phase I element of the *SEMP* is a plan for developing the comprehensive *SEMP* in Phase II of the project. This plan utilizes the appraisal results, the process reviews, and the standard models to provide guidelines for establishing systems engineering processes for all FDOT ITS projects. For the most part, the plan recommends using the "Vee" process model introduced in the FHWA's National Highway Institute (NHI) course, *An Overview of Systems Engineering*, given in St. Petersburg in July 2002.

Systems Engineering Vee Process Model



In addition, recommendations are made for integrating the ITS systems engineering processes into existing FDOT project manuals, such as the *Project Development & Environmental Manual (*being replaced by the *Efficient Transportation Decision Making Manual)*, the *Plans Preparation Manual*, and the *Traffic Engineering Manual*. Any processes that do not "fit" into existing manuals will be, at least temporarily, placed into an ITS handbook until the determination can be made as to how they should be formalized.

The *SEMP* Phase I report is currently being formatted and quality checked, and will be entering the comments phase soon. The finalized report will be published on the ITS website, when completed.

For further information, please contact Mr. Gene Glotzbach at the FDOT ITS Office in Tallahassee, (850) 410-5616.

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The Benefits and Value of ITS

Welcome to the ITS Florida news and opinion section of the *SunGuide℠ Disseminator*. ITS Florida is delighted to be able to cooperate with the ITS Office by sharing part of this wonderful publication and gaining access to its circulation as a channel for our news and information. Over the coming months, we hope to feature a series of articles in this section, providing you with the latest news from ITS Florida and offering some thoughts and opinions on the wonderful world of ITS. In this first article we explore the fundamental question - **"Why are we putting so much time and effort into the development and deployment of ITS?"** Obviously, we hope to come up with some great answers to this question in the course of this article, as this goes straight to the heart of the purpose and activities of ITS Florida. We also hope that this article, and others to come, will provoke thought and inspire ideas; so, we encourage you to send us your reactions and opinions.

ITS is the application of information and telecommunications technologies to transportation network management and operations. This is quite a mouthful, but represents a concise, useful, and meaningful working definition of what we want to achieve. Information technologies allow us to collect a wide range of data on current travel conditions on our transportation networks. They enable us to process and combine data from different sources and deliver decision-quality information to transportation network operators and end-users (travelers), using dynamic message signs, highway advisory radio, interactive voice response (dial-in information services) and the Internet, to name just a few technologies.

Telecommunications technologies facilitate transmission of data around our systems and support data and information sharing, as well as the delivery of information to remote locations. Telecommunications technologies are the "glue" that holds our various components and elements together as a single coherent system, while supporting network-wide data collection and distributed processing and management. Combine the hardware, software, and data that represent information and telecommunications technologies with appropriately qualified and experienced people, and you have the essential ingredients for an effective and efficient transportation operation.

There is a wide spectrum of information and telecommunications technologies available to us, most of which have been developed for other applications beyond transportation. Taking the whole suite of Internet technologies as an example, these have been developed in support of a very wide range of business, commercial, academic, government, and leisure activities that have very little relationship to transportation, and yet have considerable relevance and value to the transportation community. Internet telecommunications protocols can support our device communications and data transmission needs; while web browsers, and the various forms of HTML available today, can support the delivery of information and an effective dialogue with our users and customers. Although our transportation market place is not large enough to support the development of a wide array of new technologies just for us, we have some terrific opportunities to adapt and adopt technologies from the wider world. We've had some great experience at doing this across the country; think of the number of ITS web sites that are up and running, harnessing these technologies to collect data and deliver information.

Here in Florida, we are currently making use of information and telecommunications technologies to manage limited-access highways, toll roads, and arterials. We're using them to manage bus fleets; make payment for the use of toll roads, buses, and parking facilities easier; and deliver traveler and passenger information. We're helping to make trucking more efficient by automating permitting, inspection, and reporting; and improving our already sophisticated emergency evacuation systems and procedures with data collection, prediction, and information delivery capabilities. This wide range of applications is focused on the attainment of three simple goals - saving lives, time and money.

We are saving lives through improvements in safety brought about by better traffic management and higher quality traveler information. We are reducing the time taken to detect and respond to a variety of incidents on our roads and on our transit systems, resulting in a higher probability for surviving a crash and reducing the probability of consequential crashes caused by queue build-up and related congestion.

Using traveler information systems to deliver the right information, at the right time and the right place, we can provide drivers with advance warning of queues and delays, suggest alternative routes, and, maybe even persuade them to delay the start of their trip or take an alternative mode of transport or different route to avoid the congestion zone. We're saving money by helping to reduce and manage both recurring and non-recurring congestion, saving fuel, reducing emissions, and making the very best use of our current infrastructure. These savings accrue to travelers and also to non-travelers as more efficient and effective management of our transportation network helps to contain the cost of transporting goods and, hence, the prices of items in stores.

In addition to our early experiences around this wonderful state of ours, there is a growing national awareness concerning the benefits of ITS and how to successfully harness the technologies for the common good. From California in the west, to Texas in the central part of the country, to the densely populated eastern seaboard metropolises of New York and Washington, traffic and transportation professionals are hard at work harnessing the technologies, taking the opportunities, and realizing the benefits of ITS.

Although a wide range of technologies and applications are in use, when you review all this activity, a couple of central themes emerge - improving management and operations, and raising the quality of information available to transportation network users. Both themes share a common platform of data collection, information processing, and delivery. In the case of management and operations, the data collection and ensuing information stream is aimed at providing the raw material that our traffic and transportation professionals need to be able to manage our roads and transit systems. One way to think of this is to imagine that you have just purchased a new car; it's a beautiful vehicle with plenty of space and lots of features to support the manner in which you prefer to travel. But some key items are missing - there is no steering wheel, no brake pedal, just an accelerator pedal, and you can hardly see through the front windshield because it is so heavily tinted. I think you would agree that, apart from being illegal, it would be a very difficult car to drive. Once you started on your trip, you would have limited ability to see where you are going, when to turn, and or how to avoid obstacles. Even if you are able to see, it doesn't help, as you have no means to slow down, or re-direct the vehicle. Would you buy one of these cars? I don't think so!

Now, imagine a highway with no ITS. There is no data collection and no surveillance, so as a highway operator you can't see what is happening; there are no dynamic message signs, so you can't re-direct, or slow traffic down. You may have limited abilities to know what's happening on the road as travelers call in on their cell phones, or your own operations staff in the field, provide anecdotal information. Imagine a bus fleet with similar aspects. As the transit operator, you have no data collection, or bus tracking, so you don't know where your buses are, unless an operator happens to call in with some information; and you have no means to tell your passengers where to get off the bus, or how many minutes they will have to wait for the next bus. I think you'll see what we're getting at. If you compare the car with the highway and the bus fleet, the similarities are obvious. None of them has all the essential features required for successful and effective operation. Would you buy that car? Should you be building and operating highways and transit systems without ITS? We leave you to draw your own conclusions.

Moving on to the second theme relating to the quality of information available to transportation network users, let's use the car analogy again. This time the car you have purchased is complete with steering wheel, brake pedal, and a crystal clear windshield, but there is no operating manual. At first, you think that this is all right; everybody that has a driver's license knows how to drive right? You just get in and do what you have always done throughout your driving career, making use of your knowledge and experience, with no need for additional information input. In fact you probably wouldn't have read an operating manual if it had been provided anyway; you think you know it all. Then it starts to rain and you realize that the windshield wiper control is not where you expected it to be; you can't find it and you can't see where you're going. Even worse, it gets dark and you discover that you can't find the switch for the

headlights either. You crawl along at a snail's pace until you get to the automobile dealership that sold you the car and seek help and information. There you experience another revelation; you've been driving around in second gear with the parking brake on because you didn't know any better!

We don't need to belabor the point. In the absence of an operating manual, you were operating the car in a sub-optimal way; not getting the best from your purchase and sometimes being unsafe, too. Now think of an end-user of a transportation network - usually referred to as a traveler, driver, or passenger. Sure, you can get along without the "operating manual" as you don't really need information on how to use the network, its current status, and your use-options as you've done it before. Don't you have a nagging doubt in your mind now that maybe you are "driving in second gear with the parking brake on" since you don't really have complete and accurate information on what your options for route, mode and timing of travel are and you don't have an understanding of all the features of the system? We regard traveler information as the essential "operating manual" for the user of the transportation network. The delivery of the right information, in the right place, at the right time, and at the right cost, empowers the user to make smart travel decisions that maximize comfort, convenience, and usability, while minimizing cost, uncertainty, and inconvenience.

To summarize, we hope that we have provided you with some food-for-thought with respect to the benefits and value of intelligent transportation systems. There are many current applications and lots of experience in the state, and around the country; all delivering the savings in lives, time, and money, that is so important to us. We're totally convinced that the transportation network of the future must incorporate ITS as a fundamental support for increased efficiency and effectiveness; and we hope that we have gone some way towards convincing you of this, too.

If you have some thoughts, comments, or opinions related to this article, or if you would like to suggest a topic that you would like ITS Florida to address in the coming months, then please share them with us by e-mailing them to bobmcqueen@pbsj.com.

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FHWA's Regional ITS Architecture and Rule 940 Workshop

FHWA's Regional ITS Architecture and Rule 940 Workshop was held in Tampa on October 7, 2002. Forty-six participants from across the state gathered to discuss regional ITS architecture maintenance and the impacts of Federal Rule 940 on the transportation planning and ITS deployment processes. The participants included ITS professionals from transit agencies, MPOs, regional planning councils, local municipalities, FDOT districts, FDOT central office, and private sector consultants. The workshop was sponsored by FHWA and hosted by the FDOT ITS Office and Rule 940 Working Group.

During the morning session, Liang Hsia, from the FDOT ITS Office, presented an overview of the Statewide ITS Architecture (SITSA) development process, and Rob Jaffe, of ConSysTec, described the purpose and content of a regional architecture, and the impacts of Rule 940 on the ITS architecture

development process. Diane Quigley, of PBS&J, reviewed the Federal Rule 940 requirements, and presented the recommendations made by the Working Group as identified in FDOT's *Rule 940 Statewide Implementation Strategy*.

For the afternoon session, participants were separated into three working groups based on geographic regions. Group exercises were conducted to familiarize participants with their regional ITS architecture and to illustrate the process for ITS project conformance with the architecture. The day concluded with a presentation of the proposed update of the SITSA to begin in the spring of 2003. Mr. Chester Chandler, of the ITS Office, announced the upcoming TRANSPO 2002 Conference and ITS training courses, and distributed certificates for the Rule 940 Workshop.

The participants expressed great interest and appreciation in using the regional ITS architecture to deploy ITS projects and to meet Rule 940 requirements.

For more information, please contact Mr. Liang Hsia at the FDOT ITS Office in Tallahassee, (850) 410-5615.

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Florida's Amber Plan

By now everyone is probably familiar with the *Amber Alert Program*; but, for those who are not, it is a program through which emergency alerts are issued to notify the public about child abductions.

The program refers to both Amber Hagerman, a 9-year old, Arlington, Texas child who was abducted and murdered in 1996, and the name of the broadcast system, an acronym for *America's Missing: Broadcast Emergency Response*. A chilling statistic is that 74 percent of abduction homicides happen within three hours of the abduction. **A key to saving lives is spreading information quickly.**

Two years ago, the Florida Department of Law Enforcement (FDLE), partnering with the Florida Association of Broadcasters, the Department of Community Affairs (Division of Emergency Management), and the Federal Communications Commission, developed *Florida's Amber Alert Program* to provide emergency alerts regarding missing children. This program, also known as the *Florida Amber Plan*, provides an immediate alert to the public when reports of a child's abduction have been confirmed by law enforcement. As of August 2002, the *Florida Amber Plan* was one of 43 *Amber Alert Programs* that have sprung up across the United States since 1997.

Initially, the *Amber Alert Program* was designed to provide critical information about predatory abductions to the general public. This was done through radio and television stations who send an Emergency System Alert across airwaves, regionally and statewide, signifying the release of important information about a child's abduction. California has taken the *Amber Alert Program* a step further by providing information over their dynamic message signs (DMSs). In a recent Amber Alert in California, broadcasting the message on the DMSs was instrumental in recovering two children.

In part, based on California's success, FDLE and FDOT came together to expand the *Florida Amber Plan* to incorporate the use of DMSs to notify the public of a missing child. "*The first few hours of an abduction are the most critical. We want information on a missing child to be released to the public as soon as possible to further the chances of a successful recovery,*" stated Governor Jeb Bush. FDOT Secretary Barry added, *"I am proud of this new partnership and look forward to working with FDLE to get vital messages on missing children out to the public as soon as possible.*"

The Traffic Operations Office in Tallahassee, under the leadership of Mark Wilson, provided changes to the *Florida Amber Plan* which would allow the use of both permanent-mounted and portable DMSs, as well as other dissemination methods, such as 511, to get Amber Alert messages out to the public. Initial coordination has concentrated on setting up internal processes to get Amber Alert messages placed on the permanent mounted DMSs. This has been completed and FDOT is prepared to post Amber Alert messages on permanent mounted DMSs should a message be appropriate. Follow-on efforts by the Traffic Operations Office will concentrate on setting up processes to utilize portable DMSs and to get Amber Alert messages delivered to those motorists calling 511 for traveler information. The *Florida Amber Plan* is flexible enough to include dissemination through other media, as opportunities develop.

Recognizing the value of the *Amber Alert Program*, the FHWA fully supports state and local governments' choice to implement Amber Alert messages utilizing DMSs, along with other transportation-related dissemination methods.

For more information, please contact Mr. Gene Glotzbach at the FDOT ITS Office in Tallahassee, (850) 410-5616.

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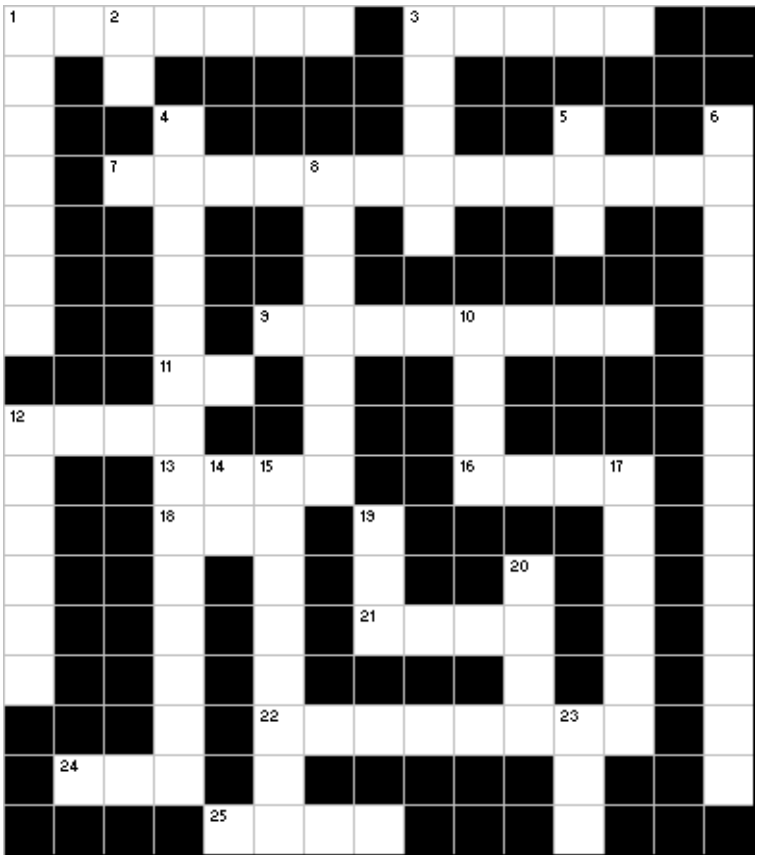
We invite you to have some fun and complete the *SunGuide*^{SM} *Disseminator* Word Challenge!

The answers can be found after the Editorial Corner.

Enjoy and Good Luck!



Across

1 Birth place of Freddie Simmons, State Highway Engineer
3 Activates an urgent bulletin in child-abduction cases - First of 2 words. (See 3 Down for second word)
7 Common name for *Surface Transportation Security and Reliability Information System Model Deployment*
9 Florida's grant application program
11 Systems engineering
12 Florida Department of Transportation
13 _____ 940
16 Dynamic message signs
18 *i*Florida will _____ data to improve transportation system security . . .
21 Florida's governor
22 ITSA Program Section - Policy, Evaluation & _____
24 Process model used in FHWA's NHI course
25 Systems Engineering Management Plan

Down:

1 ITSA Coordinating _____
2 Interim Standards
3 Activates an urgent bulletin in child-abduction cases - Second of 2 words. (See 3 Across for first word)
4 The infostructure will provide an information _____
5 Intelligent Transportation Systems
6 Activity of ITSA to become more responsive to members
8 _____ Transportation Security and Reliability Information System Model Deployment
10 Phase I of the SEMP project will provide this type map for the development of a comprehensive SEMP
12 Data collection and _____ projects
14 The Coordinating Council will provide a link to the ITSA Board and the _____DOT
15 Build upon collective experience, commitment, and resources
17 ITS improves _____ conditions
19 _____ Bush
20 Federal Highway Administration
23 Automobile

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Editorial Corner

ITS-"Return Home"

After attending a meeting last week, one of the participants said he wanted to show me something in his truck. He opened the door, pushed a button or two, and a small screen, 5"x 7" or so, came out of the truck dashboard. On the screen was a map of his present location with a small red arrow actually showing his truck's location on the map and the direction his truck was heading in the parking lot. He turned to the screen and said, "Return home." A voice responded, "Return home." The map then plotted his trip home together with the mileage. He told me that as he makes the trip, it will tell him every turn or exit necessary, and ends the trip with, "You have arrived at your destination." It stores every trip he makes for later use. **That was a five-minute demo of his truck's GPS system.** I'm sure it has lots of other features, but I saw enough for my mind to wonder about the future. I want to just get in the car and say, "Return home," and be awakened when I arrive (of course, I can do that now if my wife drives). In comparison to this, many things of much greater technology have already happened during my lifetime.

Having been born in 1950 in Chipley, I entered a world of black-and-white TVs with rabbit-ear antennaes, usually with aluminum foil wrapped around the ends for better reception of the two channels we got; and the only movies we saw were at the Vance Theater downtown until my courtin' days when we went to the local drive-in theater. We had black rotary telephones with party lines where you had your own ring, but your neighbors listened-in on your conversations. Our radios had tubes, not transistor components, and they often didn't work. We listened to Elvis sing *Jailhouse Rock* on turntable record players, playing at 45- or 78-RPM. **Records - not stereo.** Car turn signals were made with your arm out the window (straight arm out, left-turn; arm bent upward, right-turn; and arm bent downward, stop); and, basically, the only ITS component in Chipley, at that time, was the one traffic signal at the intersection of Highways 90 and 77. We weren't any different than any other town in the country, except they just had more traffic signals, and probably got better reception on their TVs and radios.

Turning 16, I just couldn't wait to drive; and, in Chipley, it wasn't a difficult experience. There was no congestion, so folks didn't spend wasted production time stalled in traffic; there were no pollution issues; gas was around 30 cents per gallon; road-rage was unheard of, except maybe when we had the annual homecoming day parade; most incidents needing to be managed involved flat tires; and Highway 90 was the only four-lane road through town (and still is). If someone came through needing directions, all they had to do was stop and ask anyone on the street, a sort of personal touch-form of ITS.

But, that was then, and this is now. Having lived in Tallahassee for the past nine years, and having traveled round the country to various national meetings, I have experienced first-hand, as all of you have, the need for improved transportation systems. Every large city has congestion problems, wasting productive time stalled in traffic. We have major pollution issues; gas hovers around $1.50 per gallon; road-rage is rampant; we have traffic incidents delaying thousands of vehicles, often for many hours; and now we have many six- to eight-lane facilities. Also, stopping to ask someone along the street how to get somewhere is not a great option; they are in a hurry too; and I may be in the car behind you.

So What Do We Do?

Here in Tallahassee, I live nine miles from work, so I can't walk to work. I don't bike, and I surely don't roller blade or want a motorized scooter. I refuse to depend on public transit because I am no longer in control of my mobility, which is also a concern when you carpool. So, like everyone else in town, I sit in traffic and patiently wait for the next light to turn red. ***Yes, red so some of us can move.*** Maybe if someone were watching our movement on cameras in a traffic control facility, they could move us to our destination much more efficiently; **giving green time where needed most.**

Then, when we do travel out of town, even though AAA is an excellent source of trip information, it is not real-time information. We get on the Interstate and run into a delay caused by an accident **10 miles ahead**; and we wait two hours before reaching the accident location. Finally, we realize why we had been stopped so long! If we had only known why, it would not have been so bad. We might have gotten off at a Steak & Shake and waited. A message board located prior to interchanges with a message such as, "Accident 10 Miles Ahead, Expect 1-2 Hours Delay" (or similar) would have been great. Or perhaps another message stating, "Tune to 1640AM for Delay Information."

Actually, Florida has made a lot of progress in the application of ITS; but, unless you travel a lot, you may not realize it. From automated toll collection, to closed-circuit television cameras, changeable message boards, traffic monitoring and control centers, red-light running surveillance camera systems, weigh-in-motion systems for our large truck traffic, advanced traveler information systems giving weather and traffic conditions, incident management detection systems, work zone traffic information systems, and a variety of other ITS applications, we are making great strides in related system improvements. For an overview of ITS projects in Florida go to http://www11.myflorida.com/intelligenttransportationsystems/default.htm.

Why ITS?

The justification of need can be clearly seen by looking at some data for Florida. I have always enjoyed messing with numbers, so here are a few.

- Approximately 16.5 million people live in Florida;
- 85% of the population live in urban areas;
- About 152 billion miles are traveled each year;
- Roadway lane-miles total 253,000;
- Florida is the fourth most populous state, fourth in total personal income, and fifth largest state economy in the US;
- 35% of our population is over age 50, with 20% over age 60 (so some of us don' t see or hear as well as we did a few years back);
- Florida's fatality rate is 30% higher than the national average per 100 million miles traveled;
- 1/8 of the national bicycle fatalities occur in Florida; and
- The pedestrian fatality rate in Florida is the highest in the country.

Additionally, we have:

- 760 aviation facilities;
- 23 fixed-route transit systems;
- 14 seaports;
- 2,888 miles of railway;
- 7.4 million cars (1/2 car per capita), 4.4 million trucks, and 250,000 motorcycles;
- 45,000 buses; and
- 71.5 million annual visitors.

Our needs are multiplying daily. We can't keep adding lanes and hanging signals. If we had an endless budget source, that still would not be the answer, as our communities and environment would suffer. ITS offers many solutions to our traffic system needs. We have to make better utilization of the available ITS technologies to deal with many transportation system issues, such as: increasing system capacity; better incident management; improving safety conditions for motorists-cyclists-and pedestrians; reducing delays; addressing those less experienced drivers, as well as our elder user needs; reducing fuel consumption; reducing driver stress and fatigue; and other areas of concern.

We have an excellent ITS program underway in Florida; and we must continue to support implementation of ITS, not only as transportation professionals, but also as daily users.

Chipley was, and still is, a great place to grow-up and learn to drive. It was an experience I will never forget. They have seven or eight signals now, but you can still pull over and ask for directions. If you ask a local, that is still the best Intelligent Transportation System component around.

For information, please contact Mr. Freddie Simmons, State Highway Engineer, FDOT in Tallahassee, (850) 414-5240.

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SunGuide℠ Disseminator Word Challenge Answers

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Announcements

Statewide Transportation Management Center Software Library System Invitation to Negotiate

Services are required by FDOT to acquire, develop, update, and maintain a Statewide Transportation Management Center Software Library System (STMCSLS) and to make it available throughout the State of Florida. The STMCSLS must be flexible and expandable to match the individual needs of FDOT's 11 (ultimate) Regional Transportation Management Centers (RTMCs). Each RTMC shall collect, assess, and manage real-time traffic data and video, and disseminate meaningful and accurate transportation management information to both the motoring public and commercial vehicle operators. The STMCSLS's primary goal is to reduce congestion and delays while responding to traffic incidents in a rapid, accurate, and effective manner. The STMCSLS must include baseline software and modules that provide: (1) Operations management and control for ITS field elements such as inductive loops, microwave radar traffic monitoring systems, video image detection systems, closed-circuit television cameras, dynamic message signs, highway advisory radios, and road weather information systems; (2) expert systems and databases with the algorithms to support automated incident detection and response; (3) data archiving of incident and traffic that can be used for advanced traveler information systems(ATIS) and stored in a statewide data warehouse; and (4) configuration management of the STMCSLS and electronic documentation of the software.

The official Invitation to Negotiation (ITN) can be viewed on-line at::

http://fcn.state.fl.us/owa_vbs/owa/vbs_www.ad.view_ad?advertisement_key_num=30402

For more information, please contact Mr. Liang Hsia at the FDOT ITS Office in Tallahassee, (850) 410-5615.

. . . And a Hearty Welcome

PB Farradyne has hired Ms. Jenifer (Jenny) Mixon as an Administrative Assistant and Project Administrator. Jenny will be assigned full time to our Telecommunications General Consultant (TGC) project with the FDOT ITS Office. She will be located in the front office at the reception desk.

Jenny will work as an Administrative Assistant to Nick Adams and the TGC staff in the ITS Office. Jenny will also handle the project administration tasks associated with the various microwave and mobile radio projects that the ITS Telecommunications Section has under contract at this time. This include's maintaining project files, reviewing and logging invoices for approval, and preparation and tracking of invoice approval paperwork. Finally, Jenny will be involved in tracking project costs for the various projects in the ITS Telecommunications Section.

Congratulations Roger!

Congratulations to PB Farradyne's Roger D. Madden for his election to the Institute of Electrical and Electronics Engineers - Vehicular Technology Society (IEEE-VTS) Board of Governors on July 15, 2002. Roger will serve a three-year term beginning January 1, 2003.

The IEEE-VTS is the technical subgroup most closely associated with ITS; and is the organization within IEEE that organized and put into service the IEEE Standards work on ITS.

Please join us in extending a hearty congratulations!

End of the Year District Progress Reports Are Due Soon

In an effort to minimize production time needed for the end of the year *District Progress Reports*, the ITS Office is trying a new format. We recently emailed copies of the *District Progress Reports* as they appeared in the July edition of the *SunGuide℠ Disseminator*. **We are asking that updates to the reports be made with the *Tracking Tool* turned on.** This will allow us to view any changes made to the reports, rather than reviewing the reports in full.

Thanks for your cooperation and patience in this ever-growing production! If you have any questions, or need assistance, please contact Karen England in the FDOT ITS Office, (850) 410-5613 or karen.england@dot.state.fl.us.

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