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### The "Coming Revolution" in Transportation

My wife, Krista, gave me a wonderful gift for Father's Day this year – an edition of a National Geographic magazine from the month and year I was born (I must now say – September, 1969). The lead article is entitled "The Coming Revolution in Transportation" by Frederic Appel. This 32-page exposition revealed many of the same needs, issues, problems, challenges and visions for all modes of transportation that we are working to solve and implement today. Surprisingly, the promise of "proven" technologies that would solve many of these problems in the "eminent future" can still be found in nearly every transportation journal article we might find in our mailboxes today. Consider the following concept for the future of our industry, long before there was an intelligent vehicle highway system (IVHS) program or an industry called intelligent transportation systems (ITS).

"Detroit designers, already preparing for the day your vehicle will drive itself, are getting practical experience with the automatic devices on today's cars. When more electric devices are added, and the first computer-controlled highways are built, the era of the automated car will be here."

"Automated highways – engineers call them guideways – are technically feasible today," said Dr. Hafstad (then GM's Vice President in Charge of Research Laboratories). "In fact, General Motors successfully demonstrated an electronically controlled guidance system about ten years ago [1959]. A wire was embedded in the road, and two pickup coils were installed at the front of a car to sense its position in relation to that wire. The coils sent electrical signals to the steering system, to keep the vehicle automatically on course. More recently, we tested a system that also controlled spacing and detected obstacles. It could slow down an overtaking vehicle — even stop it, until the road was clear!"

This article went on to discuss the "certainty" of this revolution in transportation:

"Electric cars should be commonplace within a decade [by 1980]. They will be "pure" electrics, if batteries become lighter, more powerful, and longer lasting; otherwise "dual-mode" vehicles – battery-powered in town and gasoline engines on cross-country trips."

"Computer-controlled highways will almost surely become a reality, for when the human element is removed, vehicles can travel safely at faster speeds, closer together. In fact, most experts believe that each lane of automated highway could move the traffic of three or four of today's uncontrolled lanes..."

"Many of the workers of the future will not commute to work," stated Dr. John Pierce, Executive Director of Bell Laboratories. "They will communicate to work. Their homes will be connected to work via an electronic communications. It is entirely within the realm of existing technology."

The <u>certainty</u> of this revolution has not yet become reality, or at least as optimistically as prophesized. This year, the first widely produced and distributed hybrid automobiles were placed in major metropolitan markets. We now know that a lack of consensus on technology, public fear of releasing control of their automobile to a computer for steering and control, and the additional costs required to implement an automated highway have been more serious challenges than originally envisioned. Although many of us rely on our PC, the internet and email, which has resulted in dramatic productivity increases, these technologies have not replaced the need for integrated teams in the work place nor has there been the significant traffic mitigation effect promised from telecommuting.

At the time the article was published, the National Interstate System Program was in full swing. Construction of new "labyrinths of spaghettis," such as four-level directional interchanges, as the author identified the "titanic building program," were widely criticized by urban planners, academia and even the Assistant Secretary of Transportation of that time. Dr. Paul Cherington stated, "In the United States, we have enough car seats on the road for every man, woman and child - with enough seats available to hold the entire population of continental Europe... In New York City, a truck moves at a slower pace today than it did in a horse drawn carriage in 1900... We have been operating on a mistaken principle - that transportation should go where the people are... People go where the transportation is!"

The author went on to quote experts who stated that more and wider roadways would simply result in more cars stuck in the same congestion on wider roadways. Little has changed since these words were written! We are now able to move more people and goods on wider roadways, but congestion costs the State of Florida \$1.4 billion per year in lost wages and productivity. We are not able to keep pace - congestion grows at more than 3.5 percent per year, while roadways construction (lane-miles) increases at less than 1 percent per year on our priority system of roadways, the Florida Intrastate Highway System (FIHS).

The power of comfort, convenience, independence and privacy in our travel behavior is dramatic and considered a fundamental right in American society. Our *Declaration of Independence* includes the right to pursue happiness which implies the freedom of travel. *The Bill of Rights* includes the right to assemble which also implies the freedom of travel. Even when we discipline our children, we take away their right to move freely by "restricting" them to their rooms or homes as punishment. Not only do we want to go where we want, when we want to do it, but we want cheap, even free, travel.

So, what does this mean to our ITS profession today? First, we must continue working to implement a vision of using technology to get the most out of our transportation system, much like our professional predecessors did a generation ago. In many instances we are still working to implement the same vision with the same technologies. Even as self-proclaimed "techno-geeks," our profession needs to be cautious about the promise of dramatic new changes in the market place. Think of the much-proclaimed revolution of business through the internet - few people were more excited and optimistic about the potential of the internet to revolutionize consumer behavior than "internet professionals." The American marketplace moves slowly in many ways.

For ITS to achieve its full potential in the market place, we will need to work within our existing infrastructure and plan for incremental changes in travel behavior and acceptance of new technologies. Of course, there are "pivot points" where people's perceptions and behavior can change, such as with the tragedies of September 11, 2001. In these instances, the public may be more willing to sacrifice some perceptions of privacy for protection, but these are rare and the lasting effects can be short-lived.

In the short-term, we need to continue to instrument our streets and highways through freeway and incident management systems and advanced traveler information systems. Nearly 15 years since the backbones of the Interstate and other limited-access facilities in Florida were completed, we do not have significant operations or management in place. Our current system of streets and highways was designed to last 20 years or more and this investment needs to be protected. In many areas of the State, we are ready to embark on major widenings and reconstructions (the second generation of infrastructure) before the first generation of operations management is in place. The first steps must be to detect, verify and effectively respond to incidents and to provide traveler information to our customers. The more than \$700 million of ITS projects and programs from district, expressway and statewide managed funds that are identified in the Department's Ten-Year ITS Cost-Feasible Plan will result in a comprehensive information and communication system on most of our urbanized limitedaccess highways. However, there is much more to do. Many major rural sections of this system will be incomplete and the communications required for full center-to-center communications will be dependent on wireless technologies that are less reliable. The need to link these centers is most important when inclement weather conditions and high-use of wireless systems make communications less reliable, such as during evacuations and other major incidents.

Beyond this plan, we need to address needs for the system integration of all traffic and transportation systems in Florida. Although limited-access facilities are less than 2 percent of public roads in Florida, they carry nearly 20 percent of all traffic and should be our highest priority. The integration of this backbone with arterial management systems and public transit systems is needed to provide a single-source of traffic and traveler information to the public and a seamless management approach to maximize efficiency.

In the longer-term, we need to continue to look for other technologies that will have a more dramatic effect on travel behavior and congestion. Some of the concepts proposed in the *National Geographic* article are unrealistic today, such as "tubular, air-powered transportation systems" where we would ride around in capsules at 100 MPH propelled by air pressure similar to the systems at banks today for sending your checks to cashiers from the drive-thru line. Yet, other visions, such as placing highways underground like other utilities to provide pedestrian friendly malls and greater land use efficiencies above ground, are becoming reality – the "Big-Dig" in Boston, for example.

Whether our visions become reality or not, we need to continue to <u>dream big</u> and <u>act locally and</u> <u>incrementally</u>. I don't know about you, but I look forward to comparing the vision of today with the reality of 2030 and helping make that reality come to fruition – see you then.

For information, please contact Terrel Shaw, PE, ITS General Consultant Program Manager, PBS&J, the FDOT ITS Office in Tallahassee, (850) 410-5614.

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#### ITS Florida Training and Education

The ITS Florida Board of Directors has formed a Professional Capacity Building Program to coordinate and provide statewide ITS Training. The ITS training information is available at:

http://www.itsflorida.org/html/itstraining.html.

The ITS Florida Professional Capacity Building Program presents ITS training and seminars in Florida, which are offered at a discount, or for free, to ITS Florida members. An ITS training calendar will be posted including all ITS training provided by the FDOT, National Highway Institute (NHI), ITS America, and Institute of Traffic Engineers (ITE).



Additionally, ITS Florida and the Florida Section ITE will be hosting TRANSPO 2002, "Safety Under the Sun: Technology for Safe and Secure Transportation," December 9-11, 2002 in Orlando, Florida. The event will include presentations, discussions, exhibitions and technical tours related to ITS, traffic engineering and transportation planning in the State of Florida. Technical program tracks include Security, Transportation Innovations, and Management and Operations. Pre-conference training sessions are also available.

More information for TRANSPO 2002, together with contacts and registration forms can be found at <u>http://www.itsflorida.org</u>.

Following the guidelines of the Florida Board of Professional Engineers, the FDOT ITS Office has processed the required Professional Development Hours (PDHs) for professional engineers attending ITS training courses provided or co-sponsored by the FDOT ITS Office after September 16, 2001. Professional engineers can apply these PDHs for next spring's license renewal.

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

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#### Statewide Transportation Management Center (TMC) Software Project

Following the recommendations of Southwest Research Institute's *TMC Software Study*, the Florida and Michigan Departments of Transportation have received approval from respective upper managements and endorsement from districts to proceed with the statewide TMC Software Project. The FDOT ITS Office has consulted with the Procurement Office about options for an Invitation to Negotiation (ITN) or Request for Proposal (RFP) and decided to use an ITN to select the best qualified software developer/integrator.



Following is the ITN Schedule:

04/11/2002	ITN Scope Development (Analysis Process and Requirement Specifications)
07/09/2002	Steering Committee Meeting
07/26/2002	Final ITN Scope
07/30/2002	Procurement Office Processes
08/03/2002	Advertisement
09/13/2002	Short-list
09/15/2002 - 10/04/2002	Negotiation
10/25/2002	Final Contract / NTP
10/25/2002 - 03/25/2004	Software Development

The FDOT ITS Office developed a task work order to apply systems engineering processes to analyze the needs and requirements of TMC software. Russell J. Kelly of the Kelly Development Group, Inc. and John Bonds of PBS&J have reviewed available existing in-state and out-of-state TMC software development scopes. To identify the individual needs and requirements, each state, central and district office identified a member for a comprehensive steering committee to guide the entire project. Members of the committee are as follows:

TMC Software Steering Committee				
District / Agency	Member	District / Agency	Member	
District 1	Chris Birosak	ITS Office	Chester Chandler	
District 2	Hubert R. Warden	ITS Office	Liang Hsia	
	Kamal Munawar*		Russell Kelly*	
			John Bonds*	
District 3	Cliff L. Johnson	ITS Office	Gene Glotzbach	
District 4	Tahira Faquir	ITS Office	Nick Adams	
District 5	Anne Brewer	OIS	Wilson Dilmore	
	Larry Rivera*			
District 6	Arturo Espinosa	MDOT	James P. Schultz	
			A. Satraitis*	
District 7	Bill Wilshire	FHWA, Florida	Chung Tran	
	Pete Yauch*	Division		
Florida's Turnpike	Ingrid Birenbaum	FHWA, Michigan	Morris Hoevel	
Enterprise		Division		
State Traffic	Carl Morse			
Operations Office		* Alternate Member		

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

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#### 511 For Florida

A Federal Highway Administration (FHWA) 511 deployment grant received by FDOT has initiated a Statewide 511 Implementation Plan, beginning with deployment of 511 telephone-based traveler information service in Orlando and Southeast Florida.

The FDOT District 5 office launched the Orlando Traveler Information Service on June 24 and the District 6 office launched Southeast Florida SunGuide<sup>SM</sup> Advanced Traveler Information Service (operating under the SmarTraveler® brand name) on July 16.

In Orlando, the 511 service focuses on delivering traveler information along I-4 through the Orlando area. Callers from within Orange, Seminole, Brevard, Volusia, Lake and Osceola Counties have access to the service simply by dialing 511, and the service is free! District 5 has plans to expand the service eastward to the coast, including parts of I-95 near Daytona Beach, I-95 near the Bee Line Expressway and State Road 408 through Orlando.

With over 180,000 drivers along I-4 on a daily basis, call volumes are expected to reach 5,000 calls per day. Peak call volumes will normally be felt during rush hours, while adverse weather or major traffic incidents may cause calls to peak at any time.

Southeast Florida has information available on all major interstates and many state highways throughout Miami-Dade, Broward and Palm Beach Counties, as well as public transportation and airport information. Callers from within these counties, as well as Monroe County through the Florida Keys, have access to the service through the 511 dialing code.

In Orlando, cellular callers using Sprint PCS, Cingular Wireless, Nextel, VoiceStream, and AT&T Wireless have access to the service. By the end of July, BellSouth and Sprint landline telephone users will also have access to the service through the 511 code.

In Southeast Florida, BellSouth landline callers, and Sprint PCS, Cingular Wireless, Nextel, VoiceStream and AT&T Wireless cellular callers all have access to the service simply by dialing 511.

Regrettably, Verizon Wireless customers in Florida do not have access to the service due to a business decision on the part of the carrier.

As noted, the service is free, though cellular callers should expect to be charged airtime for their calls. No premium charges apply as they might for using other abbreviated dialing codes on wireless phones. Since all of the 511 calls are translated to a toll-free number, the call is completely free for users on landline phones.

Traffic Management, Inc. (TMI) working at the Orlando Regional Traffic Management Center near State Road 436 and State Road 50 is responsible for collecting information from road sensors, closed-circuit video cameras and the Florida Highway Patrol's 911 operators for inclusion in the 511 system. TMI announcers then record information for different road segments, with updates being recorded at least every 20 minutes, or sooner should conditions warrant. Information includes accidents, breakdowns and delays, as well as general traffic congestion. However, except for extreme circumstances, such as a full road closure and detour, alternate route information will not be included in the recordings. Instead, the system will try to pinpoint trouble spots thus empowering users to make their own decisions on alternative routing or travel.

Callers then retrieve the information using a voice recognition telephone system that responds to their commands. A caller can state the name of a city/town, county, intersecting roadway or even an area such as "the attractions" and receive information for I-4 through that area.

The 511 calls are "translated" to a toll-free number and routed to a voice recognition system developed and customized for FDOT by TellMe, Inc. of Mountain View, California. Calls are automatically answered at TellMe's call center, and the system responds to user requests for information. TellMe's system provides redundancy and on-site technical oversight in the event of a system problem. The announcer's messages are recorded to the same system and are updated as soon as the announcer finishes the recording. In other words, there is no waiting for the system to update every few minutes.

In Southeast Florida, SmartRoute Systems' operations center is located in Miami where system operators collect traveler information from public sources, as well as sources developed by SmartRoute Systems. Operators gather information from police and emergency services personnel, as well as aircraft and mobile units. Information is entered into a database and announcers record incident and general travel information about traffic, transit and airport travel conditions for the telephone service. Callers use DTMF (touch-tone) codes to select specific route segments and service information within the coverage area.

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

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### FDOT Pursues Federal Grants

The FDOT has developed applications for three grants of which two have been approved. The third is pending selection by the FHWA. The two grants that have been approved are directed to the deployment of 511 and to hurricane evacuation. The grant that is pending is to convert the existing traveler information phone system in Southeast Florida to an Interactive Voice Response (IVR) system.

A fourth grant, which the Department is pursuing, was recently announced in mid-June and will address security, reliability and safety issues of the surface transportation system.

#### **511 Deployment Assistance**

This grant is for \$100,000 to assist in the deployment of 511. The money was split up to provide some assistance to Districts Five, Six, and the ITS Office. District Five will utilize a portion of the funds to cover some of the cost involved with the implementation of their 511 traveler information service that is now operational. District Six will utilize a portion of the funds to help cover the costs of a media campaign to promote the usage of 511 as the traveler information phone number for Southeast Florida. The ITS Office will utilize the remainder of the funds to supplement the development of a statewide deployment plan for 511.

#### **Hurricane Evacuation**

This grant is for \$60,000 to develop a prototype Graphical User Interface (GUI) for the Florida Emergency Transportation Information System/Design Support System (FLDSS) and the abbreviated hurricane evacuation transportation models developed by PBS&J, and to conduct a workshop with the stakeholders that are involved with hurricane evacuations. The output of the existing FLDSS is displayed through the use of tables and spreadsheets. To make the model user-friendly, a GUI will be developed utilizing \$50,000 of the grant to allow system users to more easily and quickly input and interpret evacuation-related data from the FLDSS. The other \$10,000 will be utilized to bring together hurricane evacuation stakeholders to exchange ideas and to discuss lessons learned.

#### Southeast Florida IVR System

District Six has applied for a grant to convert their existing traveler information phone system to an IVR system, which will allow users of the system to navigate through the menus in a hands-free mode. Information can be retrieved utilizing voice commands as opposed to entering a prescribed number. The grant is for \$700,000 and selection of the winning application has not been publicly disclosed. Ten grant applications were received by the FHWA and the selection is waiting approval from Congress.

#### Surface Transportation Security and Reliability Information System Model Deployment

The FHWA is seeking applications for a *Surface Transportation Security and Reliability Information System Model Deployment* grant which, in the past, has been referred to as the "Infostructure" grant. The recipients of this grant will participate in a model deployment to enhance the security, reliability and safety of the surface transportation system through the widespread availability of real-time information. This model deployment will examine how surface transportation security and reliability can be improved under five specific situations or scenarios listed below:

- 1. Major metropolitan areas
- 2. Statewide information systems
- 3. Security of critical infrastructure
- 4. Non-metropolitan evacuation, and
- 5. Weather response.

The US DOT will provide \$10,000,000 in funds over a four-year period for this model deployment. In addition, the selected applicant must provide a matching share of 20%, which translates to \$2,500,000.

State departments of transportation are expected to take the lead role; however, partnerships with other public agencies, as well as the private sector, are encouraged. The FDOT will submit a grant application with District Five taking the lead. Support will be provided through the ITS Office General Consultant. Applications are due by September 13, 2002.

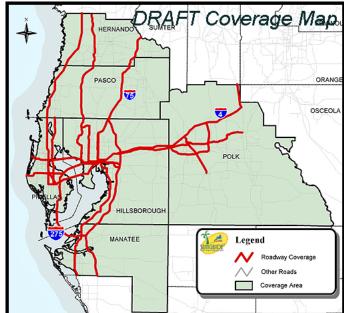
For information, please contact Mr. Gene Glotzbach at the FDOT ITS Office in Tallahassee, (850) 410-5616.

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### Tampa Bay SunGuide<sup>SM</sup> ATIS Invitation to Negotiate

The FDOT and local stakeholders in the Tampa Bay area, including the Pinellas and Hillsborough County MPOs, the Hillsborough and Pinellas County Public Works Departments, the cities of Tampa and Clearwater, HARTline, Bay Area Commuter Services, the Tampa-Hillsborough County Expressway Authority, the Hillsborough County Environmental Protection Commission, and the University of South Florida's Center for Urban Transportation Research, have formed a working group tasked with developing a Scope of Work to be used as the foundation for an Advanced Traveler Information Service (ATIS) Invitation to Negotiate (ITN). Procurement of this ATIS via an ITN should result in a contract with a private firm to design, implement, operate and maintain the system. It is intended that this ATIS system will serve all stakeholders in the six counties in and around the Tampa Bay area (as illustrated by the DRAFT Coverage Map). Deployment of these ATIS services should begin towards the end of 2003, although some elements may come into service prior to that. For background on existing ITS elements and projects planned for the area, documentation is available at www.floridaits.com



As currently envisioned, contractor selection will proceed according to the following timeline:

- ITN advertisement distributed Late August 2002
- Full ITN distributed September 2002
- Proposals due November 2002
- Negotiations begin December 2002
- First Year Program Management Plan due June 2003

The project will be initiated by means of five parallel task orders:

- 1. **Program Management -** the contractor will be responsible for providing the program management (including day-to-day operations management) and administrative support necessary for the successful operation of the Tampa Bay SunGuide<sup>SM</sup> ATIS.
- 2. **Supplemental Data Collection System-** the contractor will be responsible for providing data collection capability, beyond what FDOT or its partners are currently able to provide, necessary to support the implementation of a quality ATIS system.
- 3. **Data Fusion System-** the contractor will be responsible for developing a scaleable data fusion engine that will have the capacity to accumulate available data from a variety of resources (both static and dynamic in nature), subsequently merging this data into a single, standardized database.
- 4. **Data Dissemination System-** the contractor will be responsible for developing data dissemination services utilizing the standardized data made available by the Data Fusion System. These dissemination services will include:
  - a. 511 telephone service;
  - b. Internet web-site/e-mail alerts; and
  - c. Direct data feed for use by public agencies and licensed private firms.
- 5. **Marketing Plan Design** the contractor will be responsible for being the primary provider of marketing and public relations support for the ATIS (focused on increasing awareness and usage of the service), coordinating with FDOT, its partners, and other agency-related programs as appropriate.

For information, please contact Mr. Jerry Karp at the FDOT District 7 Office, (813) 975-6413.

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### Florida CVISN Team Update

#### The Florida CVISN Team Participates in Demonstration of ITS Safety Technology

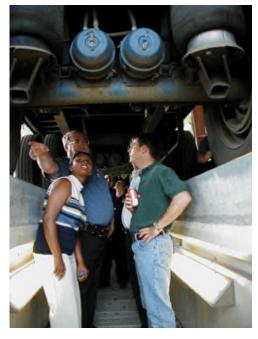


This technology uses infrared video photography, which shows temperature differences to visually identify possible safety problems, thus targeting potential problems with a truck's brakes while the truck drives down the highway or through the inspection station. This gives officers or inspectors an opportunity to

The Florida CVISN Team facilitated a demonstration of the Infra-Red Inspection System (IRIS) brake testing technology at the Sneads Weigh Station located on I-10 in June. IRIS provides officers and inspectors with a method of screening commercial vehicles to identify those trucks that may have problems with their brakes.



perform a more thorough hands-on inspection of trucks with visual indications of bad brakes resulting in more efficient use of the officers' time.



Participants in the demonstration included the FDOT ITS Office, the Federal Motor Carrier Safety Administration, the Florida Motor Carrier Compliance Office (MCCO), Florida Highway Patrol, MacKenzie Tank Lines, and the Florida A&M/Florida State University Civil Engineering Department. Participants were able to get a hands-on demonstration of an ITS technology that has been deployed in several states.

During the demonstration, participants were allowed to observe an inspection of one of the vehicles that had shown a potential problem with its brakes. Visual inspection of the questionable axle verified what the infrared photo had shown, that the brakes on the axle in question were not working.

After the IRIS demonstration and commercial vehicle inspection were completed, participants also viewed a demonstration by MCCO of the weigh in motion (WIM) and electronic clearance (PrePass®) technologies that are installed at the inspection station.

#### Future ITS Technology Demonstration - Gamma Ray Technology

Later this year, the Florida Department of Agriculture and Consumer Services (DACS) will deploy gamma ray technology, another ITS technology designed to help them perform their job more efficiently. This technology uses gamma rays to show the contents of a trailer/container, including false compartments, without opening it. The technology will be deployed in both a fixed and a moveable capacity. The fixed location will be located on I-95. The moveable unit will be assigned to other inspection stations as needed.

DACS will provide a demonstration of this technology for the Florida CVISN Team in early 2003.

#### Florida Adds Electronic Pre-clearance Option to Agriculture Inspection Stations

The Agriculture Electronic Screening Program in Florida is a one-of-a-kind implementation using PrePass® technology. This program allows commercial vehicles which do not typically carry agricultural products to bypass the inspection station, thus allowing DACS officers to focus on agricultural carriers.

In June, DACS completed PrePass® equipment installation and system training for officers at agriculture inspection stations on I-10, I-75, and I-95 in order to implement the Agriculture Electronic Screening Program in Florida. DACS reports that it has received over 200 applications from carriers for admission into the PrePass® program and five carriers have already been approved for participation.

PrePass® is an automatic vehicle identification (AVI) system that allows participating transponderequipped commercial vehicles to bypass designated inspection stations. Electronically-cleared vehicles may proceed at highway speed, eliminating the need to stop, which means greater efficiency for shippers and improved safety for all highway users.

Commercial vehicles must be pre-qualified to participate in the Agriculture Electronic Screening Program. AVI antennas verify the identity and compliance of trucks as they approach the station. As a truck passes the AVI interrogates the PrePass® transponder verifying state requirements. The AVI antenna also communicates the bypass status to the driver. If credentials are satisfactory, a transponder green light and audible signal alerts the driver to bypass the station. Otherwise a red light and audible signal alerts the driver to pull into the station for processing.

To participate in the Agriculture Electronic Screening Program, a trucking company must be one that does not typically transport agriculture products and they must enroll in the electronic bills of lading (BOL) program. Participation in the BOL program requires carriers to electronically submit their BOL to the Department of Revenue (DOR). Before the Agriculture Electronic Screening Program, truckers were required to give their BOL to the DACS officer who would scan it and send the electronic document to DOR.

DACS performs approximately 11.5 million inspections per year within the state. Due to this large volume of commercial traffic, it becomes necessary to close some agriculture inspection sites from time to time and allow vehicles to by-pass rather than back up onto the interstate, which could create a hazard to the traveling public. To address this, DACS has implemented the PrePass® pre-clearance program at the agriculture inspection sites.

Adding electronic screening to the agriculture inspection stations will help limit delays for trucks and help DACS operate as efficiently as possible. Because electronic screening reduces the volume of trucks that pass through the agriculture inspection sites, it allows officers to use time more effectively.

For information, please contact Mr. Mike Akridge at the FDOT ITS Office in Tallahassee, (850) 410-5607.

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#### Florida Fiber Network Status



FDOT has been striving for several years to realize a goal of a fiber optic network spanning the state, with capacity for moving information from Pensacola to Miami. This process has been fraught with difficulty and subject to the ever-changing challenges of the economy and rapid technology advance. The following summarizes the activities over the past two years and provides a current status of the project. Milestone events will be posted as soon as practical to the FDOT ITS website at:

#### http://www11.myflorida.com/Intelligent TransportationSystems/default.htm.

FDOT envisions the Florida Fiber Network (FFN) as a Public/Private Partnership, involving the leasing of the rights to install telecommunications facilities along the FDOT rights of way to telecommunications service providers and telecommunications infrastructure companies. In return, FDOT would receive consideration in the form of telecommunications capacity, or bandwidth, on fiber optic cable facilities installed by these firm(s). This bandwidth would take the form of dark fibers, which FDOT would then light to accommodate future FDOT ITS projects. The FFN would, thus, create the infrastructure for a statewide fiber optic network supporting the FDOT ITS program.

On July 14, 2000, FDOT issued a lease to Florida Fiber Networks, Inc., (FFNI), for the FFN project. FFNI had submitted the first-ranked proposal in response to a Request for Proposal (RFP) issued by FDOT on March 17, 2000. This lease agreement was to cover all of the Interstate mileage and Turnpike mainline within the State, a system length in excess of 2,000 miles. During the next ten months, FFNI tried diligently, but unsuccessfully, to obtain project financing and commitments from a variety of partners. Unfortunately, this very favorable arrangement for FDOT was not ultimately realized. FDOT cancelled the lease agreement with FFNI on May 14, 2001.

FDOT then opened discussions for negotiating a lease for the FFN with Universal Communication Networks, Inc. (UCN), on June 29, 2001. UCN was the second-ranked proposer to the RFP issued on March 17, 2000. FDOT met with UCN on several occasions to discuss rights of way and environmental permitting issues. FDOT, in coordination with the Florida Department of Management Services (DMS), met with UCN on several other occasions to begin negotiations on a lease agreement and resolve further technical details. Unfortunately, UCN notified FDOT on February 6, 2002, that financing was unavailable to fund their proposal. FDOT subsequently completely closed out the RFP from March 17, 2000.

FDOT received an unsolicited proposal from FFNI on October 22, 2001. This proposal was to install a fiber optic network in substantial conformance to the previous requirements of the March 17, 2000 RFP for approximately 1,950 miles of FDOT limited-access rights of way. FDOT performed a preliminary review of the proposal, deemed it worthy of further consideration, issued a public notice of receipt of this proposal and invited other firms to submit proposals in response. One other proposal was received, on January 31, 2002, from APTUS, Inc. (APTUS). FDOT has reviewed these two proposals, which are available for public access at:

#### http://www11.myflorida.com/Intelligent TransportationSystems/FFN/fiber/finalppa.htm.

FDOT performed a detailed review of the proposals from APTUS and FFNI during the months of February and March 2002. During that time, both firms responded to FDOT requests for additional information with further written materials and oral presentations. FDOT completed review of the proposals and issued its *Agency Action on Selecting Proposals and Intent to Issue Leases* on April 22, 2002. The agency action ranked the FFNI proposal first and stated that FDOT would enter into a lease with FFNI upon presentation of a suitable financial commitment to construct the project. The agency action ranked the APTUS proposal second and stated that FDOT would enter into a lease with APTUS upon presentation of a suitable financial commitment to construct the project. The agency action also required APTUS to provide a schedule of critical events for timely construction of the project and to provide fiber optic cable of equivalent or better quality and grade than that offered by FFNI. Also, at FDOT's discretion, APTUS could optionally provide consideration other than dark fibers, shelters, and maintenance of the outside plant.

FDOT has reviewed the financial commitments and capabilities as submitted by FFNI, supplemented by a series of requests for clarifications, and per the previously established deadline, found them to be not compliant with the conditions in the agency action. As detailed in a letter dated June 25, 2002, FDOT has now terminated any further consideration of the FFNI unsolicited proposal.

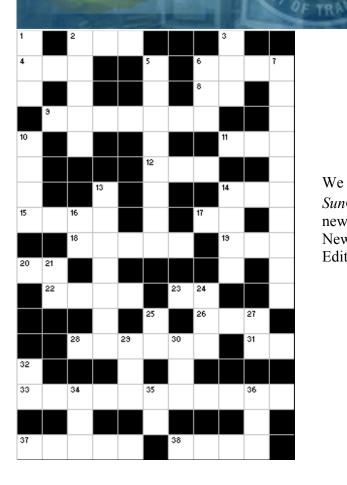
Negotiations remain ongoing with APTUS. Adhering to the previously established deadline, FDOT expects to render a decision on the financial capabilities, clarifications and unresolved technical issues of the APTUS proposal on or about July 22, 2002.

For information, please contact Mr. Nick Adams at the FDOT ITS Office in Tallahassee, (850) 410-5608.

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# SunGuide<sup>SM</sup> Disseminator Crossword Challenge



We invite you to have some fun and complete the *SunGuide<sup>SM</sup> Disseminator* Crossword Challenge, a new addition to your FDOT Monthly ITS Newsletter! The answers can be found after the Editorial Corner.

#### Enjoy and Good Luck!

#### Across

- 2 ITS Florida President \_ \_ McQueen
- 4 If you fly to Tampa, you fly into...
- 6 An "electrifying" standards development organization
- 8 Everything I know, I owe to my Ma and my
- 9 City of first FDOT RTMC operations
- 11 Fifth word of "Star Spangled Banner"
- 12 Pilotless aircraft
- 14 Popular tombstone acronym
- 15 Highly-trained Navy frogman
- 17 Come to our year end ITS conference extravaganza: TRANS\_\_2002!
- 18 ITS America slogan: "ITS saves lives, time, and
- 19 How electronic toll collection works
- 20 26th President of the US
- 22 Acronym for real-time traveler news services
- 23 How you stay cool, or opposite of direct current
- 26 Pampered dignitary
- 28 Bunch of organized roadway officials
- 31 One of the Stooges
- 33 Site of next year's ITS America Annual Meeting
- 37 ITS Florida hosts next year's most important rural gathering \_\_\_\_ 103 at Innisbrook
- 38 FHWA Florida Division ITS expert and golfer extraordinaire

#### Down:

- 1 What we're all about... our subject matter
- 2 FDOT's leader supreme
- 3 Makes for an ice-cold drink, or a Congressional Transportation Act known as IS\_\_\_
- 5 Florida's Intelligent Transportation System
- 6 New business' stock offering
- 7 What Turnpike District is now
- 10 What we were before we became ITS
- 13 Fourth largest state, soon to be third
- 14 "Good thing a \_ \_ \_ Ranger came by to help me when I broke down."
- 16 On your radio, not FM, but \_ \_
- 21 Sun god of ancient Egyptians
- 24 Truck-related ITS acronym
- 25 First word of the "Star Spangled Banner"
- 27 Post Meridiem
- 29 A "driven" standards development organization
- 30 Not bottom, but \_ \_ \_, or an acronym for an obsolete Florida transportation program
- 32 Management methodology used to keep track
- 34 Shakespeare wrote: "to be, or \_ \_ \_ to be; that is the question."
- 35 Fake smarts
- 36 "007" author \_ \_ \_ Fleming

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### **Editorial Corner**

#### Florida ITS Architectures - Where All the ITS Fun and Success Start!



The Florida Statewide ITS Architecture, and the Corridor and District ITS Architectures, are the blueprints for successful ITS deployments in Florida. These architectures display current and future needs for real-time information exchanges among communication, transportation and institution layers. **These ITS architectures are the rules of the game. These rules are where all the ITS fun and success starts.**  ITS Architecture stakeholder workshops have been conducted around the state. Thousands of invitations with brochures were distributed to representatives from FDOT Districts, cities, counties, law enforcement, transit, school board fleet management, emergency operation centers, and commercial vehicle operations. Many stakeholders attended these workshops which developed the blueprints for ITS deployment.

The participants were very excited and enthusiastic about the processes. Success stories include:

- District Four and Broward County representatives sat next to each other for several days to lay out the Southeast Florida Regional ITS Architecture for co-locating their transportation management center.
- From the District Two Stakeholder Workshop, the Gainesville City Traffic Engineer brought back a real-time communications option to Gainesville Transit for bus signal priority to help city and university campus traffic.
- The Brevard County Para-Transit Agency would like to apply Federal funds using the related ITS architecture to acknowledge the inter-agency commitment.
- The Statewide Transportation Management Center Software Scope applied Florida Statewide and Corridor ITS Architectures to identify all requirements.
- The Broward County TMC ITS project consultant identified agencies, projects requirements, real time communications, and associated ITS standards through ITS architectures.
- The University of Florida and the University of Central Florida Central Data Warehouse research teams checked Florida ITS Architectures to identify the current and future data links.

The architectures development and applications processes are excellent opportunities for cooperative decision-making, agencies involvement, statewide consistency and integration.

The success of the ITS architectures has been recognized through Florida ITS deployments. These architectures have also been recognized as model ITS architectures for other states, MPOs and local agencies. The processes used to develop these architectures, and the lessons learned through case studies of Florida ITS architectures, have been published in Federal publications and presented at several ITS America conferences. The broad attention related to many successful Florida ITS architectures' applications is a testament to the contributions and forward thinking leadership of the ITS community in Florida.

The *Florida Statewide ITS Architecture*, completed in February 2000, will be updated to address FHWA Final Rule 940 requirements, *National ITS Architecture* version 4.0, and the updated *Florida ITS Strategic Plan*. Major updates will include:

- Maintenance and Construction Operations User Service, the Florida specific user services and market packages for evacuation coordination,
- Harmonization of the Florida Statewide ITS Architecture, and Districts and Corridor Architectures, and
- Rule 940 requirements.

We are looking forward to refining the ITS blueprints together with all ITS participants.

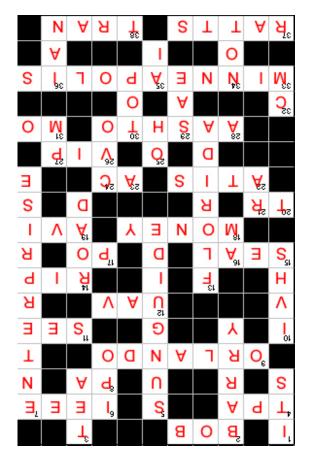
Regards,

Lug, tim

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

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### Crossword Challenge Answers

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### **ITS Progress Reports**

This section provides an update on recently completed or on-going ITS projects along the major intrastate facilities in Florida. Click on the following District links:

District One	District Five
District Two	District Six
District Three	District Seven
<b>District Four</b>	Florida's Turnpike Enterprise

#### •• District One ••

#### Advanced Traffic Management Systems

### Sarasota Signal Retiming Project (197978 1 32 01)

This project is retiming 99 signalized intersections that are currently part of either the City of Sarasota or Sarasota County's existing closed loop system. All of the work is complete. The FDOT is reviewing the final documentation.

Approx. Completion: August 2002 Contact: Chris Birosak/(863) 519-2507

### Manatee Signal Retiming Project (196122 1 32 01)

This project is retiming 88 signalized intersections that are currently part of either the City of Bradenton or Manatee County's existing closed loop system. Timing implementation and signalization fine-tuning is complete. The Final Reports are being submitted for review. Approx. Completion: October 2002 Contact: Chris Birosak/(863) 519-2507

#### City of Winter Haven Signal Retiming Project (197628 1 32 01)

This project is retiming 26 signalized intersections that are currently part of the City of Winter Haven's existing closed loop system. The notice to proceed was issued in January. Data Collection is complete and the analysis work is underway.

Approx. Completion: April 2003 Contact: Chris Birosak/(863) 519-2507

#### Sarasota-Manatee Traffic Signal Systems Alternatives Analysis (202079 1 12 01)

This project provided cost-benefit information associated with upgrading the traffic signal systems in the Sarasota/Manatee area. The Final Report is complete. A presentation to the MPO was made in April. The District will proceed to the next project which is developing an ITS Master Plan and a Concept of Operations for the area. Approx. Completion: June 2002 Contact: Michael Tako-Nicolaisen/(863) 519-2395

## Advanced Traffic Management Systems (contd)

#### City of Punta Gorda/Charlotte County Advanced Transportation Management System, Design Group II, Design (193824 1 32 01)

This project will expand the computerized signal system to an additional 44 intersections and install video at 40 locations for monitoring traffic. This is the second of two projects that were scheduled to construct the ATMS. Design began in December 2001 and is continuing on-schedule. Phase I (30%) Plans are complete.

Approx. Completion: March 2003 Contact: Chris Birosak/(863) 519-2507

## Lakeland Signal Computer System Update (197620 1 32 01)

This project will prepare an ATMS Master Plan for the Lakeland Urban Area and develop a Design-Build Requirements Package to be used by the Department to secure a Design-Build Team, which will complete the design and construct an upgrade to the existing signal system. The ATMS upgrade will include new central hardware and software, new controllers and cabinets, an updated communications plant, and video monitoring at selected locations. This project is just beginning. The notice to proceed was issued in June 2002. Approx. Completion: July 2003 Contact: Chris Birosak/(863) 519-2507

#### Incident Management

**Road Rangers Service Contact, Alligator Alley (Unknown, part of asset management contract)** Service contract for I-75 along Alligator Alley that provides service from the US 27 tollbooth in

Broward County through Collier County to Exit 18 in Lee County.

Approx. Completion: Will remain in effect for the 7-year term of the asset management contract. Contact: Rick Marino/(863) 519-2323

## Road Rangers Service Contract, Lee County (408998 1 72 01)

Service contract for I-75 in Lee County that provides service from Exit 18 to Exit 23.

### Sarasota-Manatee Signal Computer System Update (198127 1)

This project is part one of a two-part study/design that will prepare an ATMS Master Plan, develop a Concept of Operations, and prepare a Design-Build Requirements Package for the Sarasota/Manatee Urban Area. The ATMS upgrade will include phased construction of a new Traffic Management Center, new central hardware and software, new controllers and cabinets, an updated communications plant, and video monitoring at selected locations. This project is just beginning. The notice to proceed was issued in June 2002.

Approx. Completion: March 2003 Contact: Chris Birosak/(863) 519-2507

#### City of Naples/Collier County Advanced Transportation Management System (ATMS), Design Group I, Construction (195403 1 52 01)

This project involves constructing a hybrid traffic control system utilizing fiber optic cable for communications to 77 intersections. This is the first of two projects that are scheduled to construct the ATMS. This project will build the control centers for the city and county and communicate with 77 intersections. Construction began in May 2001 and is ongoing.

Approx. Completion: September 2002 Contact: Chris Birosak/(863) 519-2507

#### City of Punta Gorda/Charlotte County Advanced Transportation Management System, Design Group I, Construction (193821 1 52 01)

This project is the construction of a hybrid traffic control system utilizing fiber optic cable for communications to 53 intersections. This is the first of two projects that are scheduled to construct the ATMS. This project will build the control center for the county and communicate with 53 intersections. Final System Integration Testing is underway and the project should be completed soon.

Approx. Completion: Unknown Contact: Chris Birosak/(863) 519-2507 Approx. Completion: December 2002 Contact: Bill Mendell/(941) 656-7811

### Road Rangers Service Contact, Charlotte

**County/Sarasota County (409000 1 72 01)** Service contract for I-75 in Charlotte County and Sarasota County that provides service from Exit 31 to Exit 37.

Approx. Completion: December 2002 Contact: Bill Mendell/(941) 656-7811

### Road Rangers Service Contract, Polk County (408999 1 72 01)

Service contract for I-4 in Polk County that provides service from the Hillsborough County Line to the Osceola County Line. Approx. Completion: February 2003 Contact: David Barthle/(863) 519-4315

#### Feasibility Study For An Incident Management System For The Edison, Caloosahatchee, Midpoint, and Cape Coral Bridges in Lee County (405462 1 22 01)

The overall objective of this project will be to determine the feasibility and develop a conceptual design for an Incident Management System (IMS) for four bridges over the Caloosahatchee River that connect Lee County and the City of Fort Myers with North Fort Myers and the City of Cape Coral in Lee County, Florida. The study will provide sufficient detail to enable cost and benefit estimates to be obtained, supporting the subsequent development of detailed design plans, specifications and deployment cost estimates. The study will also develop and define an ITS framework for IMS in the study area. Approx. Completion: December 2002 Contact: Michael Tako-Nicolaisen/(863) 519-2395

#### I-75 Incident Management Project Plan for Charlotte, Sarasota and Manatee Counties (202062 1 12 01)

This project involves preparation of an incident management project plan for the I-75 Corridor. An operational concept is developed, identifying the functions of an ITS, the roles and responsibilities of the agencies involved, and the location and jurisdiction issues. Infrastructure requirements are determined and an implementation strategy is prepared. Additionally, preliminary project costs are estimated. The overall goal of the project is to

#### City of Naples/Collier County Advanced Transportation Management System, Design Group II, Design (195403 2 32 01)

This project will expand the computerized signal system to an additional 77 intersections and install video at 50 locations for monitoring traffic. This is the second of two projects that were scheduled to construct the ATMS. Design began in July 2001 and is continuing onschedule. Phase II (60%) Plans are complete. Approx. Completion: March 2003 Contact: Chris Birosak/(863) 519-2507 achieve improved incident management and establish supporting ITS projects in the five-year program. The Draft Final Report was submitted in May 2002. Approx. Completion: July 2002 Contact: Michael Tako-Nicolaisen/(863) 519-2395

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#### •• District Two ••

#### Advanced Traffic Management Systems

#### I-10/I-95 Incident Management System Jacksonville Interstate Surveillance and Control System, Phase 2 (2133261 & 2133061)

The I-10/I-95 Interstate Surveillance System includes the Transportation Management Center (TMC), 11 Closed-Circuit Television Cameras (CCTV), Video Imaging Detection System (VIDS) with 41 Detection Stations, a Classification/Count Station, 8 Dynamic Message Signs (DMS), and 10 Slow Scan Cameras. Communication with each sign is via a dedicated analog telephone circuit. Cameras at seven signs are connected via dial-up analog leased lines. The other three cameras, located on the Buckman Bridge, are also through dialup analog leased lines. Except for the Buckman Bridge and cameras at each VMS, the TMC receives all video images through fiber optic lines. The TMC operates from 6:00 AM to 6:30 PM. After hours, the Florida Highway Patrol (FHP) operates the system through an attendant station located within their headquarters. It was determined that the data retrieved from the VIDS was unreliable due to natural weather conditions. Counts, speed and occupancy information was consistently incorrect due to shadow interference (morning or afternoon sun location), pavement conditions (wet vs. dry weather) and wind loads (movement of support structure). Six VID detection locations are currently in use for software analysis and the

### Emergency Management Systems

## Interstate 10 Reverse Lane Implementation Plan (21511717106)

The Reverse Lane Implementation Plan provides for the implementation of reversing lanes on the I-10 corridor from Jacksonville to Tallahassee. This will be utilized in the event of a catastrophic natural or manmade disaster to expediently evacuate citizens out of the northeast Florida area. I-10 is a multi-lane, limited access roadway that begins at the Alabama/Florida state line and traverses the state in an easterly direction for 364 miles, terminating at I-95 in Jacksonville. This interstate falls in the areas of responsibility of the FHP and Districts Two and Three. A two-lane crossover has been constructed on I-10 just east of the I-295 interchange in Jacksonville at milepost 358 to convert westbound traffic over to the eastbound lane. The order to implement the reversing of lanes will be given by the Governor or his representative. The FDOT and FHP will close all eastbound entrance ramps. No eastbound traffic will be allowed to enter I-10 eastbound from milepost 216.7 (SR 59) in Jefferson County to I-295 in Jacksonville. All westbound traffic will be allowed to exit at their desired exit. It is expected the bleed-out of eastbound traffic will be accomplished in approximately three hours. Approx. Completion: July 2000 Contact: Mitch Stamitoles/(904) 360-5200

#### **Traffic and Travel Management Jacksonville Interstate Surveillance and Control System,**

remaining thirty-five VIDs are utilized for roadway traffic video image retrieval.

The burn-in was completed on June 24 and the project has been completed. The user manual documentation and training have been completed. The FHP is currently being integrated and trained on use of the software. Approx. Completion: July 2002 Contact: Peter Vega/(904) 360-5463

#### Road Rangers Service Patrol (21481727201)

The Road Rangers Service Patrol (RR) is patrolling parts of I-10, I-95, I-295, and J. Turner Butler Boulevard in Duval County from 5:30 AM to 10:00 AM and 3:00 PM to 7:30 PM, Monday through Friday. The RR operators are providing free service to stranded motorists, roadway debris removal and assistance to the FHP. Each RR vehicle is equipped with a trained operator, first-aid kits, cellular phone, auto fluids and tire repair kits to assist in preventing traffic delays, while providing a safer highway for the traveling motorists. The RR contract is with Logistical Transportation Company, Inc. Currently, data from existing routes has been collected and steps are being taken to improve the efficiency of the RR service.

Approx. Completion: August 2003 Contact: Donna Shannahan/(904) 360-5461

#### ITS Maintenance (Jacksonville Interstate Surveillance and Control System, Ph 2) (2133261 & 2133061)

A maintenance contract for operational maintenance, repair, utility relocation, maintenance of traffic, and software function has been operational since April 1, 2001. Currently, the contract is being reviewed for economies of scale, and methods of administrative cost reductions are being analyzed. The contract is for three years, with two renewal options, and provides maintenance 24 hours a day, seven days a week. The maintenance contract is with Traffic Control Devices.

Approx. Completion: April 2003 Contact: Randy Warden/(904) 360-5454

#### Phase 3 (21329613201)

This design-build project, on I-95 south from I-10 to I-295 South, involves construction/installation of a master communication hub, fiber optic cable, communication equipment, CCTV cameras, traffic detection units, dynamic message signs, connection to the Jacksonville Fiber Optic Network and will include software integration/enhancements. Kimley-Horn and Associates has completed the criteria package for the design-build contract and advertisement of the Request for Proposal will be in early July. Approx. Completion: June 2002 (The Design/Build Functional Specifications complete.) January 2003 (The Design/Build Project will be let.)

Contact: Craig Teal/(386) 961-7703

### FDOT Pursuit of "Infostructure" Model Deployment

District Two is currently applying for funds through the Surface Transportation Security and Reliability Information System Model Deployment grant in conjunction with District Five. The goal of this effort is to integrate real time information within the ITS infrastructure that will improve bridge monitoring/security, assist during emergency evacuations and provide data sharing capabilities with law enforcement and local agencies. Projected features include conduit, fiber optic cable (72 strand), CCTV cameras and DMS. Development of this application will focus heavily on monitoring critical security points like the Jacksonville Port, NAS Jacksonville, Talleyrand Depot, St. Johns River bridges, Interstate systems and Expressways.

Approx. Application submittal date: September 2000 Contact: Peter Vega/(904) 360-5463

#### ITS Partnership Agreement - Florida Department of Transportation and Putnam County (2098825201)

This Partnership Agreement is provided through a grant from FHWA for the installation of a closedloop traffic signal system within the City of Palatka in Putnam County. The FHWA and FDOT will provide matching funds on this project and Putnam County has agreed to operate and maintain the system. Earth Tech Global Transportation is developing the package for a closed-loop signal system that requires conduit, fiber optic cable, cabinetry and software integration. Initiation of the project is dependent upon FHWA approval. Approx. Advertisement date: October 2002 Contact: Kamal Munawar/(904) 360-5455

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#### Advanced Traffic Management Systems

Okaloosa County Computerized Traffic Control System - Phase 1 (220239-1-52-01)

Phase 1 of a 3-phase project involving fiber optic backbone communications, approximately 50 2070-lite traffic signal controllers, 1 DMS, and 1 CCTV camera. Contract was let in March 2001. On schedule for completion. Approx. Completion: August 2002 Contact: Cliff Johnson/(850) 638-0250 ext. 694 or SunCom 767-1694

#### Okaloosa County Computerized Traffic Control System - Phase 2 (220239-2-52-01)

Phase 2 of a 3-phase project expanding Phase 1 system boundaries to include signals in the Destin and North Shalimar areas. Includes the installation of approximately eleven additional miles of conduit and fiber optic cable. Approved in the Governor's Economic Stimulus Package: Original letting: July 2005, Project let in June 2002 to Advance Construction: \$3,593,003. (Phase 3 is not currently funded.) Approx. Completion: June 2003

Contact: Cliff Johnson/(850) 638-0250 ext. 694 or SunCom 767-1694

#### Okaloosa County Computerized Traffic Control System - Enhancement (220239-1-52-02)

Enhancement project includes expansion of traffic management system monitoring capabilities. Consists of the addition of approximately 40 CCTV cameras. Approx. Completion: June 2003 Contact: Cliff Johnson/(850) 638-0250 ext. 694 or SunCom 767-1694

## Advanced Traffic Management Systems (contd)

### Pensacola Urban Area ITS Master Plan (223339-1-12-01)

Develop ITS Master Plan for the Pensacola Urban Area including portions of Escambia and Santa Rosa Counties. It will consist of an ITS Conceptual Plan, ITS Implementation Plan, and an ITS Maintenance and Operations Plan. The conceptual plan will Incorporate and build upon the District Three ITS Plan for Interstate System (I-10 & I-110), the District Three Interstates Architecture, the Escambia/Santa Rosa County Regional ITS Architecture and the ITS Corridor Master Plan as applicable. Notice to Proceed issued.

Approx. Completion: January 2003 Contact: Elizabeth McCrary/(850) 638-0250 ext. 210 or SunCom 767-1210

#### Incident Management System

#### Hathaway Bridge IMS / Panama City (406214-1-52-01)

Installation of two new DMSs; replacement of the two existing DMSs on their existing structures; installation of four cameras on the bridge; installation of cameras at Thomas Drive, Solomon Drive, and 23rd Street; and the installation of fiber optic cable in what will be existing conduit from the bridge to the DMS east of the 23rd Street intersection; installation of a weather monitoring station on the bridge; and installation of necessary control system equipment. September 2002 FHP is scheduled to consolidate and Tallahassee will be the Regional Communications Center (RCC) for this area. The new office on Highway 231 will be for administrative purposed only. This issue to be

#### Bay County ITS Integration Project / Congressional Earmark (408412)

ATMS implementation/Panama City Area; Real-time monitoring of signal equipment; Provide flexibility to respond to emergency evacuations, traffic incidents, and special events; integrate Hathaway Bridge IMS with ATMS; and integrate various Emergency Management Systems and other agencies within the county. (This includes integration of the Bay District Schools with emergency services for improved emergency management communication during emergency shelter operation. The Bay District Schools will also be utilizing the fiber optic backbone for their Distance Learning Program). Scope is finalized. **ITS Project Designation Congressional** Earmark FFY02 for Bay County \$500,000. Approx. Completion: September 2004 Contact: Cliff Johnson/(850) 638-0250 ext. 694 or SunCom 767-1694

addressed under Project ID No. 408412, Bay County ITS Integration Project / ITS Earmark. Approx. Completion: June 2003 Contact: Cliff Johnson/(850) 638-0250 ext. 694 or SunCom 767-1694

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#### •• District Four ••

#### Advanced Traffic Management Systems

#### Interim Traffic Management System (ITMS) (411067 1 32 01)

Development of a temporary ITS system for Palm Beach County including 8 years of operations and maintenance for the system. An amendment for the addition of the ADDCO equipment has been sent to the consultant and design is at 90% for device locations. Location of the Traffic Management Office has been identified as the northwest corner of Belvedere Blvd. near Palm Beach County Traffic Engineering). Installation and Operation & Maintenance are still to be negotiated. It is expected that the System will be deployed by October 31, 2002 (schedule has changed due to internal issues). Approx. Completion: August 2002 (Deployment) August 2010 (Completed

Operational Use) Contact: Tahira Faquir/(954)777-4370 or SunCom 436-4370

#### Incident Management

### Advanced Traveler Information Systems (contd)

#### I-75 ITS Corridor Plan (411196-1-22-01/251685-1-22-01)

This project seeks ITS solutions for the following corridor segments:

• I-75 from the Sawgrass Expressway, south to State Road 826 in Miami-Dade County

• I-75 from I-595, west to the Collier County line

• I-595 at Flamingo Road (SR823), south to Miramar Parkway

• US27 from I-75, south to the Palmetto in Miami-Dade County

The ultimate system is to be minimally invasive, affordable, and deployable in the early twenty-first century. Project emphasis shall be agency coordination and regional integration strategies. Final Selection scheduled for: March 11,2002. NTP June 2002. Kick-off meeting July 11, 2002. Project will be 12 months Contact: Teresa Martin/(954) 777-4623 or SunCom 436-4623

#### Advanced Public Transportation Systems

## Freeway Incident Management Team (230357 1 32 03)

Incident Management Team Facilitator Approx. Completion: July 2004 Contact: Gaetano Francese /(954) 777-4366 or SunCom 436-4366

#### Broward County I-95/595/75 Road Rangers Service Patrol (231723 1 72 01)

The Road Rangers patrol the interstates helping stranded motorists and assisting highway patrol with incident management.

Approx. Completion: On-going Contact: Gaetano Francese /(954) 777-4366 or SunCom 436-4366

#### Palm Beach County I-95 Road Rangers Service Patrol (2319241-72-01)

The Road Rangers patrol the interstates helping stranded motorists and assisting highway patrol with incident management.

Approx. Completion: On-going Contact: Gaetano Francese /(954) 777-4366 or SunCom 436-4366

### Advanced Traveler Information Systems

#### Advance Incident Information System (AIIS) (231655-1-32-01)

This project will deploy flashing beacon signs that would incorporate a Highway Advisory Radio (HAR) system along arterials in Broward County at I-95 interchanges. The signs will be placed in advance of I-95 entrance ramps to warn drivers of incidents and delays on I-95 and the HAR would suggest alternate routes. The signs will be placed in the center median of the arterials and will be activated remotely by a wireless pager system. The sign will flash either northbound or southbound depending on where the incident occurred and indicate the radio station to tune to. This project is a Feasibility Study. Component testing starts September 2002.

Approx. Completion: December 2002 Contact: Teresa Martin/(954) 777-4623 or SunCom 436-4623

#### Palm Beach County Dynamic Message Sign System (404827-1-32-01)

This project is a continuation of the I-95 DMS

#### Advanced Public Transportation System Master Plan (411015-1-22-01 & 409047-1-22-01)

Master Plan for ITS in Public Transportation. Includes a Demo project. This will be real time information at major destinations (Downtown Broward Terminal, Tri-rail Station on Broward Boulevard, and Palm Beach connection stop) and will be for 3 routes. Broward County Transit will be responsible for implementation, however Gray Calhoun is doing the design of the project under the Master Plan effort. The needs assessment phase has been completed and the Master Plan is developing the communication system requirements for Palm Beach and Broward Counties with regard to transit ITS. Approx. Completion: May 2003 Contact: Tahira Faquir/(954)777-4370 or SunCom 436-4370

### Traffic Management Centers

## Broward County ITS Operations Facility (231654-1-52-01)

The Operations Facility is a traffic management center and will serve as the nerve center for ITS projects deployed in Broward County. This will be a showcase facility which will house monitoring and control capabilities for the I-595/I-95 Dynamic Message Sign System Project, the Freeway Video Monitoring System, the Advanced Traveler Information System, the Broward County Advanced Traffic Management Signal System, and the Advanced Incident Information System. The construction contract was let on April 24, 2002, and award took place on June 11, 2002. The selected contractor, MCM Inc., was the second low bidder. The CEI consultant is PBS&J. Approx. Completion: May 2004 Contact: Valerie Tofexis/(954) 777-4296 or SunCom 436-4296

#### Palm Beach County ITS Operations Facility Master Plan (231930-1-21-01)

The Master Plan will guide facility site acquisition, design, and operation of the Palm Beach County ITS Operations Facility. The Operations Facility is a traffic management center and will serve as the nerve center for ITS projects deployed in Palm Beach County. It will house monitoring and control capabilities for the I-95 Dynamic Message Sign System Project, the Freeway Video SunCom 436-4296

project in Broward County extending the sign system into Palm Beach County. Sixteen dynamic message signs will be constructed at 8 interchanges that connect to the Turnpike including the future interchange at Southern Boulevard. This project will also include 19 video cameras along I-95 to monitor traffic conditions. This project will be constructed in two phases, following the Palm Beach County I-95 HOV expansion projects. Approx. Completion: December 2009 Contact: Valerie Tofexis/(954) 777-4296 or

#### I-95/595 Broward County Dynamic Message Sign System (231659-1-52-01, 231705-1-52-01)

The I-595 DMS project in Broward County includes 22 dynamic message signs, 3 vehicle detection stations, a PC-based remote control/monitoring system, and a telephone drop/single mode fiber optic communications system. The I-95 DMS project includes 12 dynamic message signs at 6 interchanges that connect to Florida's Turnpike, a PC-based remote control/monitoring system, and a telephone drop/single mode fiber optic communications system. This project will integrate with the I-595 DMS. The signs will display messages to warn motorists of incidents on the freeways and suggest alternate routes. Approx. Completion: August 2002 (I-595), September 2002 (I-95) Does not include 180 day burn-in period Contact: Valerie Tofexis/(954) 777-4296 or SunCom 436-4296

Monitoring System, the Palm Beach County signal system, and the Advanced Traveler Information System. The facility will house the ITS Operations Center and will be built by Palm Beach County with federal funds. All Palm Beach County ITS devices will be controlled from this facility. The anticipated completion date is May 2005. Approx. Completion: May 2002 Contact: Valerie Tofexis/(954) 777-4296 or SunCom 436-4296

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#### •• District Five ••

#### Advanced Traffic Management Systems

#### Regional Traffic Management Center (RTMC) Upgrade / Retrofit (410725-1-52-01)

Upgrade of existing RTMC communications to Gigabit Ethernet with Extreme Switches to support future I-4 SMIS operations and network interfaces with other regional agencies. Includes building modifications. Freeway Management Systems (contd)

## I-4 SMIS Fiber Optic Connection to DASH (410724-2-52-01)

Extension of the I-4 SMIS 72 Fiber Optic Communication Network from SR 44 to DASH Approx. Completion: Construction begins August 2002 Contact: Scott Silva/(386) 943-5317, Anne Brewer/(386) 943-5319 Approx. Completion: Under Construction Contact: Anne Brewer/(386) 943-5319, Rich Jardim/(407) 736-1901

#### City of Orlando Regional Computerized Signal System (23945-1-54-01)

JPA with City of Orlando to upgrade the signal system. Includes: fiber, gigabit Ethernet, Extreme Switches and Naztec NTCIP controllers, etc. Approx. Completion: Under construction

Contact: Tushar Patel/(386) 943-5325

#### Seminole County ATMS (404674-1-54-01)

JPA with Seminole County to upgrade the signal system with Gigabit Ethernet, Extreme Switches and Naztec NTCIP controllers, etc. Approx. Completion: Under construction Contact: Tushar Patel/(386) 943-5325

## Orange County Computerized Signal System (404675-1-54-01)

LAP Agreement with Orange County to upgrade the signal system. Approx. Completion: Feasibility and Implementation Study underway. Contact: Tushar Patel/(386) 943-5325

#### Integrate ITS in Volusia County (240948-2-52-01)

Integration of the City of Daytona Beach, Volusia County and FDOT DASH video systems for shared traffic management systems. Includes fiber on I-4, US 92 and county roads and developing an ITS Architecture for Volusia County. Completes the missing fiber link along I-4 from SR 44 to DASH. Approx. Completion: December 2002; Under

construction Contact: Jennifer Heller/(386) 943-5322

#### **ITS Fiber Optic Deland Maintenance** (Pushbutton Contract)

Fiber connection from I-4 to maintenance facility.

Approx. Completion: Under design Contact: Scott Silva/(386) 943-5317

#### ITS Fiber Optic Orlando/Oviedo Maintenance

Fiber connection from I-4 to maintenance

#### I-4 Auxiliary Lanes from SR 536 to SR 528 (405515-1-52-01)

Relocating and/or replacing the existing I-4 SMIS ITS infrastructure. Includes 72 SM Fiber Optic Communication Network. Creates redundancy in the system.

Approx. Completion: September 2002; Currently under construction Contact: Scott Silva/(386) 943-5317

## I-4 Auxiliary Lanes from SR 528 to SR 482 (4107032-1-52-01)

Relocating and/or replacing the existing I-4 SMIS ITS infrastructure. Includes 72 SM Fiber Optic Communication Network. Creates redundancy in the system.

Approx. Completion: Spring 2003; Project Underway Contact: Scott Silva/(386) 943-5317

## I-4 Auxiliary Lanes from SR 423 to SR 436 (242499-1-52-01)

Relocating and/or replacing the existing I-4 SMIS ITS infrastructure. Includes 72 SM Fiber Optic Communication Network. Creates redundancy in the system.

Approx. Completion: October 2003; Currently under construction Contact: Scott Silva/(386) 943-5317

## I-4 Auxiliary Lanes from SR 435 to Turnpike (242496-1-52-01)

Relocating and/or replacing the existing I-4 SMIS ITS infrastructure. Includes 72 SM Fiber Optic Communication Network. Creates redundancy in the system. Approx. Completion: In Design; Turnpike

Managed Project Contact: Scott Silva/(386) 943-5317

#### I-95 Daytona Smart Area Highway (DASH)

Existing ITS; cameras, detectors, DMS on I-95 and I-4 (Daytona Beach Area) Approx. Completion: Completed Contact: Anne Brewer/(386) 943-5319

#### I-95 Phase 2 I-95/SR 528 Hurricane Evacuation System (22250-1-52-01)

Construct ITS elements along I-95 and SR 528 to assist in the evacuation of East and South Florida. Includes 72 SM Fiber Optic Network, 12 CCTV, 6

facility. Approx. Completion: Unfunded Contact: Anne Brewer/(386) 943-5319

#### **ITS Fiber Optic Cocoa Maintenance**

Fiber connection from I-95 to maintenance facility. Approx. Completion: Unfunded Contact: Anne Brewer/(386) 943-5319

### ITS Fiber Optic Leesburg and Ocala Maintenance

Fiber connection from I-75 to maintenance facility. Approx. Completion: Unfunded Contact: Anne Brewer/(386) 943-5319

#### Freeway Management Systems

#### I-4 SMIS

Existing (39 miles) ITS; CCTV, detector stations, DMS from US 192 to Lake Mary Blvd.

Approx. Completion: Completed Contact: Anne Brewer/(386) 943-5319

#### I-4 SMIS (22 Miles) Phase 3 - St. Johns River Bridge Replacement/Reconstruction (242702-1-52-01)

ITS Work Zone Management Project -Extension of existing I-4 SMIS from Lake Mary Blvd. to SR 472 in Volusia County. Includes: 72SM Fiber Optic Communication Network, 19 CCTV, 6 DMS, 30 Detector Stations, and fiber link to District Office to create a remote EOC in DeLand. Approx. Completion: ITS completed by Jan 2003

Contact: Scott Silva/(386) 943-5317

#### I-4 SMIS (7 Miles) Phase 4 / I-4 6-Lane Reconstruction Project (242523-1-52-01)

Extension of existing I-4 SMIS from World Drive to US 27 in Polk County. Includes: 72 SM Fiber Optic Network, 8 CCTV, 5 DMS, 16 Detector Stations. Approx. Completion: Construction begins 2003 Contact: Scott Silva/(386) 943 5317 Appe

Contact: Scott Silva/(386) 943-5317, Anne Brewer/(386)943-5319 DMS 13 detector stations. Approx. Completion: September 2002; Under Construction Contact: Scott Silva/ (386) 943-5317

### I-95 Six Lanes Volusia County I-95 / I-4 / US 92 (242715-1-52-01)

Upgrade of DASH in Volusia County. Includes relocating and/or replacing the existing DASH ITS infrastructure. Includes 72 SM Fiber Optic Network. Approx. Completion: Contractor has been Selected Contact: Anne Brewer/(386) 943-5319

#### I-95 Phase 3 (410730 -1- 52-01)

Expansion of DASH in Volusia County North to US 1 and South to SR 44 Approx. Completion: Unfunded Contact: Anne Brewer/(386) 943-5319

#### I-95 Phase 4 (410729-1-52-01)

Expansion of DASH in Flagler County, Brevard County, and Volusia County Approx. Completion: Unfunded Contact: Anne Brewer/(386) 943-5319

#### I-4 Road Rangers - Motorist Assistance Program (406358-1-54-01)

Continued and Expanded Program between D-5 and LYNX. Approx. Completion: Underway Contact: Jennifer Heller/(386) 943-5322

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#### •• District Six ••

#### Advanced Traffic Management Systems

#### ATMS - Signal System Upgrade [249908-1 thru 249910-1 (Phase A); 249907-1 (Phase B)]

This is a Miami-Dade Countywide Project. It involves upgrading the Traffic Control System (TCS) to an ATMS capable of handling 4,096 controllers, implementing national ITS standards, transitioning the County from leased phone lines, and replacing aging system. Phase A is Design - Alpha Test 16 site locations. Phase B is Implementation. Phase A started October 1996 & Phase B begins May 2003 Approx. Completion: Phase A in July 2003 and Phase B in December 2009 Contact: Angel Reanos/(305) 499-2483

#### Advanced Traveler Information System

#### **Traveler Information (405663-1)**

Provides uniform, multi-modal, real-time traveler and traffic information in South Florida (Palm Beach, Broward, Miami-Dade, and Monroe) under the SunGuide<sup>SM</sup> program. There is a Traveler Information Center located in the Golden Glades Interchange Area, Interactive Voice Response telephone system, and website (www.smartraveler.com) already operational. Working on providing snapshots of real traffic conditions on the web. 511 Service will launch July 16, 2002 at a news conference. Public outreach campaign will include radio spots, outdoor advertising, printed press releases, media kits, tollbooth cards, videos, mail inserts, and deployment of 511 signs. In addition, SmartRoute Systems is committed to provide long-term marketing opportunities. All carriers with the exception of Verizon will provide the service in South Florida. Consumer Information Network (CIN) to start in the 2nd quarter of 2003. Traveler Information services commenced on November 2000 Approx. Completion: November 2005 Contact: Rene deHuelbes, PE/(305) 470-5341

#### Transportation Management System

#### Transportation Management System (contd)

### I-95 Intelligent Corridor System Package C (2502381-52-01)

Construction of a 32,000-square foot SunGuide<sup>SM</sup> Transportation Management Center (STMC) in the southern end of the existing Florida Highway Patrol Al Lofton Building grounds. Construction time of 471 days. No excuse bonus of \$0.5 million to be awarded if building is finished by 375 days Approx. Completion: March 2003 Contact: Jason Chang/(305) 470-5331

### Package C - ITS Video Wall & Consoles (250238-2)

Installation of specialized state-of-the-art video projection equipment in the future SunGuide<sup>SM</sup> TMC Building. Equipment for the communications hub and migration of existing communication circuits. Furniture to support both SunGuide<sup>SM</sup> and Law Enforcement staff operations. Project to be advertised early 2003. Project to be awarded in July 2003. Construction time of 90 calendar days Approx. Completion: October 2003 Contact: Arturo Espinosa/(305) 499-2448

#### SR 826 (Palmetto Expwy) East/West ITS Deployment (249719-2)

Design Build Project to be constructed concurrently with ITS Deployment in the Upper Florida Keys Project. Installation of 50 detector stations, 9 CCTV, 4 FDMS, 3 field nodes from NW 122nd Street to Golden Glades Interchange (GGI)

Approx. Completion: August 2005 Contact: Omar Meitin/(305) 499-2493

### SR 5 (US 1 Monroe County) ITS Deployment in the Upper Florida Keys [4101741 (Miami-Dade County), 4101743 (Monroe County)]

Design Build Project to be constructed concurrently with SR 826 ITS Deployment. Installation of 4 FDMS, 7 CCTV, & 2 RTMS from Florida City to Abaco Road in Key Largo Approx. Completion: August 2005 Contact: Omar Meitin/(305) 499-2493

### I-95 Intelligent Corridor System Package B (2516821-52-01)

Installation of 8 FDMS, 8 ADMS, 54 detector stations (42 RTMS & 12 loops), 22 dynamic and 5 blank out trailblazers, 14 ESS, and 22 ramp signaling sites along SR 9A (I-95). Notice to Proceed issued on February 4, 2002. Procurement Period of 241 calendar days. Contract start time September 1, 2002. Construction time of 1,350 calendar days Approx. Completion: December 2005 Contact: Jason Chang/(305) 470-5331 SR 5 (US 1 Monroe County) ITS Deployment for the Lower Florida Keys [4101742 (Monroe County)] Feasibility study recommends installation of 19 DMS, 8 HAR, and 4 CCTV from Abaco Road (Key Largo) to City of Key West. Estimated start date December 2003 Approx. Completion: December 2006 Contact: Omar Meitin/(305) 499-2493

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#### •• District Seven ••

#### Advanced Traffic Management Systems

#### US 19 Advance Traffic Management System for Pasco County (405165-1)

Project is the most southerly of three construction projects to be built on the full length of US19 in Pasco County to install an Advance Traffic Management System. It runs from the Pinellas/Pasco county line to Main Street. The adaptive signal system SCATS will be installed to sense traffic flowing through each approach to an intersection so that the signal timing at that intersection may be adapted to the traffic flows not only at that intersection, but also to other intersection in the corridor to optimize traffic flow. The components of the project include 2070N signal controllers, additional vehicle detectors, video monitoring, dynamic message signs, fiber optic trunk line, and a new Pasco County Traffic Management Center (TMC). Construction project is advertised for late July 2002 letting and the purchase order contract has been awarded for procurement of equipment for delivery to the System Manager. Approx. Completion: November 2003 Bijan Behzadi/(813) 975-6733

### Pinellas Countywide ATMS/Clearwater SR 60 ATMS (406255-1 / 408419-1)

Pinellas Countywide ATMS deals with the development of an integrated Advanced Traffic

### Advanced Traffic Management Systems (contd)

#### City of Tampa Traffic Video Monitoring System (405521-1)

Project is for the development of an integrated traffic video monitoring system to be deployed along three corridors within the City of Tampa. The three corridors are SR 60 (Kennedy Blvd), SR 600 (Gandy Blvd.) and SR 597 (Dale Mabry Hwy). A feasibility study will be conducted on the three corridors to determine the limits of the video system and the communications requirements. Based on the feasibility study, plans will be developed to place video cameras along the corridors, establish the communication links from the field to the City's Traffic Management Center (TMC) and modifications to the TMC to integrate the video. A System Manager was selected in May 2002.

Approx. Completion: December 2003 (Est. Contract Letting) Contact: Bijan Behzadi/(813) 975-6733

#### Freeway Management Systems

#### Tampa Bay SunGuide<sup>SM</sup> Freeway Management Center and System (407232-1, 407233-1, 407233-2, 409366-1, 258643-2)

Development of a Regional Traffic Management Center and the deployment of ITS devices for Freeway Management on sections of I-275 and I-4

Management System focusing on four corridors identified by the MPO. One of the four corridors is SR 60 (Gulf to Bay Blvd.) for which the planning was completed under the Clearwater SR 60 ATMS Feasibility Study. The other three corridors for development are the full length of US 19 in Pinellas County, McMullen Booth Road (CR 611), and Ulmerton Road (SR 688). The major ITS components to be deployed are an adaptive signal system using Advance Traffic Controllers (ATC), video cameras at intersections, dynamic message signs, and installation of fiber optic backbone. In addition to the corridor type work, the project will work toward integrated operation of the three separate jurisdictional Traffic Control Centers in the county, i.e. City of Clearwater, City of St. Petersburg, and Pinellas County. The feasibility study was completed in May 2002 and it identified three phases for implementing ATMS on the four corridors. The System Manger is proceeding with the preparation of construction plans and procurement documents for the first phase which is funded for construction. The single design project promotes the targeted systems integration, as well as accounting for the adaptive signal system to be implemented on the four corridors which use a suite of two algorithms which are **OPAC** (Optimized Policies for Adaptive Control) and RHODES (Real-time, Hierarchical, Optimized, Distributed, Effective System). Approx. Completion: August 2003 - Est.

contract letting Contact: Bijan Behzadi/(813) 975-6733

### Hernando Countywide Traffic Signal System (254835-1)

Project develops a closed loop signal system for all the signals in the county to be controlled from a Traffic Operations Center in Brooksville. The system is an Econolite Aries with 64 intersections divided into 11 control sections connected by a combination of fiber optic and leased telephone lines. Project was awarded in February 2002 at \$1.6M. Approx. Completion: March 2003 Contact: Keith Crawford/(813) 975-6255 in Tampa. A System Manager will: design the building, operating equipment for the center, and ITS field devices; procure and integrate the operating equipment for the center and field devices; and perform CEI services for construction projects to build the center and install the devices. The prime System Manager selected in June 2002 is TEI.

Approx. Completion: April 2006 Contact: Bill Wilshire/(813) 975-6612

#### Advanced Traveler Information Systems

#### Skyway Video Monitoring System Modifications (408671-1)

Project adds video cameras to the center span of the bridge, improve the existing video monitoring system, and establishes video links from the bridge to FHP Troop C Dispatch, District 7 Headquarters, and the Crisis Center for Tampa Bay. Images from the cameras will also be made available for the news media and for the FDOT Internet web page for general use by travelers and for evacuation coordination. Design- Build contract for \$0.8M was awarded to TransCore in January 2002.The Design phase is currently underway. Approx. Completion: December 2002 Contact: Bill Wilshire/(813) 975-6612

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#### •• Florida's Turnpike Enterprise ••

#### Advanced Traffic Management Systems

#### Dynamic Message Sign (DMS) System Project (190717-1-52-06)

This project consists of 20 shuttered, fiber-optic DMSs installed on full-span structures along the Turnpike mainline. The DMSs will initially be communicated to from the Pompano Traffic Management Center (TMC) via dedicated low-speed leased lines. The project is under construction with 16 of the DMSs installed and fully operational. System acceptance testing will begin the week of July 8 and last for up to 2 weeks. Upon conditional system acceptance, the 90-day observation period will begin. Approx. Completion: October 2002 Contact: Gummada Murthy/(954) 975-4855, x-1292

#### SunNav<sup>SM</sup> Phase I Fiber Project (190750-1-52-01)

This project consists of the installation of a fiber optic communications infrastructure and 8 cameras from MP 7 to MP 75 along the Turnpike mainline. The project will integrate 5 DMSs within the project limits with the Pompano TMC. The project will also provide communications to the Boca Tolls Data Center and allow for future interfaces to FDOT Districts 4 and 6. The project is designed to accommodate future Vehicle Detector Stations (VDS) and cameras every mile within the project limits. The Low-bid Design-Build procurement method was utilized and a Contractor has been selected. A Construction, Engineering, & Inspection (CEI) Consultant has also been selected. A Notice to Proceed is anticipated to be given to the Contractor in August.

Approx. Completion: April 2003 Contact: Ingrid Birenbaum/(954) 975-4855, x-1293

#### Ocoee Video System Project (190717-1-52-09)

This project consists of the installation of 8 cameras from MP 263 to MP 267 along the

## Advanced Traffic Management Systems (contd)

## SunNav<sup>SM</sup> Software Development and Integration (190766-1-32)

The SunNav<sup>SM</sup> Release 1.1 Functional Requirements document was accepted on June 20. This software release will provide additional functionality in the areas of DMS integration; video viewing, switching, and control; video wall control and security/access control. Software development on Release 1.1 will begin in July. Approx. Completion: July 2003 Contact: Ranzy Whiticker/(407) 532-3999, x-3485

#### Automated Vehicle Location (AVL) System

This project will integrate the existing Turnpike Road Rangers' AVL system with the Pompano and Turkey Lake TMC's. The project has two primary objectives. First, the AVL system will provide location information to the TMC's in order to more efficiently respond to incidents on the Turnpike by dispatching the closest available mobile asset(s). Second, the AVL system will provide the TMC with accurate vehicle speed of Turnpike monitored vehicles to help determine traffic flow. The AVL system will collect vital information and deliver this information to the TMC's in "real time". Approx. Completion: To Be Determined Contact: Gummada Murthy/(954) 975-4855, x-1292

#### **Portable Roadside Readers**

The Turnpike's Portable Roadside Reader (PRR) is a self-contained, trailer-mounted SunPass transponder reader. This equipment was designed to be used for SunPass transponder data collection and extraction at specified geographical locations. In September 2001, four PRRs were provided to the Turnpike. Two of the PRRs are based at the Pompano Beach Maintenance yard, and two are based at the Orlando South Maintenance yard. Turnpike Traffic Operations has made the PRRs available to other agencies that require traffic data. Deployment of the units began in early January 2002. Turnpike mainline. The project will integrate the cameras to the Turkey Lake TMC via the existing fiber optic communications infrastructure. The project will utilize IP video transport over Ethernet. The video transport equipment has been procured, delivered, and accepted; the central equipment has been installed at the TMCs. 90% Plans for the field construction have been submitted for review. One of the 8 cameras is currently operational on the Orlando West Microwave Tower and can be viewed and controlled from the Turkey Lake and Pompano TMCs.

Approx. Completion: January 2003 Contact: Trey Tillander/(407) 532-3999, x-3486

#### Traffic Management Centers (190717-1-52-03/04/05/08)

The Pompano Traffic Management Center (TMC) is operational Monday through Friday from 6:00 AM to 11:00 PM. The Turkey Lake TMC is operational Monday through Friday from 6:30 AM to 7:00 PM. The operations consist of incident management utilizing 9 HAR and 16 DMS along the Turnpike mainline. Through the SunGuide<sup>SM</sup> Advanced Traveler Information System partnership in Miami-Dade, Broward, and Palm Beach Counties, Smart Routes Systems covers the Turnpike's TMC operations during nights, weekends, and holidays. The Pompano TMC renovations are complete and the Turkey Lake TMC renovations are on-going. The renovations will accommodate the video wall, equipment racks and operator consoles. Major equipment delivered, accepted, and installed consists of the operator consoles, work benches, equipment racks, Sun servers, video transport and switching equipment, network printers, portrait monitors, video monitors, work stations, and uninterruptible power supplies. The video walls will be delivered and installed the week of July 8. Approx. Completion: July 2002 Contact: Gummada Murthy/(954) 975-4855, x-1292

Approx. Completion: On-going Contact: Derole Duncan/(954) 975-4855, x-1286

## SunNav<sup>SM</sup> Phase II Fiber Project (406122-1-52-01)

This project consists of the installation of a fiber optic communications infrastructure and a camera approximately every mile from MP 75 to MP 145 along the Turnpike mainline. The project will integrate 5 DMSs within the project limits with the Pompano TMC. The project will also provide communications to the Florida Highway Patrol Lake Worth Regional Dispatch Center. The project is designed to accommodate future Vehicle Detector Stations (VDS) within the project limits. Development of the Project Concept Report will begin in August.

Approx. Completion: December 2004 Contact: Trey Tillander/(407) 532-3999, x-3486

#### Vehicle Detector Station (VDS) System (406123-1-52-01)

This project will provide incident detection capability integrated with the Pompano and Turkey Lake TMCs along the Turnpike mainline. Approx. Completion: 2007 Contact: Trey Tillander/(407) 532-3999, x-3486

#### Video System (406124-1-52-01)

This project will provide video monitoring capability integrated with the Pompano and Turkey Lake TMCs along the Turnpike mainline. Approx. Completion: 2007 Contact: Trey Tillander/(407) 532-3999, x-3486

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#### Announcements

#### And the Winner Is...

We have reached the end of our renaming process and by a resounding margin, *SunGuide<sup>SM</sup> Disseminator* was voted to continue as FDOT's Monthly ITS Newsletter.

We would like to thank all participants for submission of alternate names and for voting!

#### ...And a Hearty Welcome

We are happy to introduce Paul Watson as a new addition to the FDOT ITS Office as the Deputy Program Manager for the FDOT ITS General Consultant Program. Mr. Watson has Bachelors and Masters degrees in Electrical Engineering from Auburn University and has been a Professional Engineer for more than 30 years. Previously, he worked for the Alabama Department of Transportation for 15 years, where he was the State Electrical Engineer and responsible for the coordination of all ITS in Alabama. Before that, he worked as a Professional Engineer and Contractor, and he was also a Master Electrician. He is a member of the Roadway Lighting Committee of the IESNA, and chairman of the subcommittee for the writing of ANSI standards for roadway lighting. Additionally, he is a member of IEEE, ITE (TMC Committee), and IMSA. His background is in the electrical engineering side of ITS and the integration of systems.

#### This is Your Newsletter And We Need Your Help...

We need your input for future articles. If you have an article you would like to share, please submit it to us for future publication. We would like FDOT's Monthly ITS Newsletter to be **THE** source for all ITS happenings in Florida.

Please send your articles to <u>Karen.England@dot.state.fl.us</u>.



#### **FDOT ITS Office Turns Two**

The ITS Office achieves another milestone this month as it turns two years old! There were several noteworthy accomplishments of the ITS Office in our second year. Among them were:

- Completion of the Department's Ten-Year ITS Cost-Feasible Plan,
- Commencement of 511 traveler information services in southeast and central Florida,
- Commencement of critical microwave tower system improvements along Alligator Alley (I-75), and
- Achieved consensus on a systems engineering approach and start-up of our Systems Engineering Management Plan.

As our Department's ITS Program grows, so grows the ITS Office. Our staff has rapidly expanded from 2 to 7 to now 23 full-time professionals. In the year ahead, we look forward to our transition to the design phase of our ITS life cycle.



#### \* \*



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#### District 2

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#### District 4

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#### District 6

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SunGuide<sup>SM</sup> Disseminator 2002

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