SUNGUIDE® DISSEMINATOR

Florida Department of Transportation's Traffic Engineering and Operations Newsletter

Detecting High Winds on Bridges

By Peter Vega, FDOT District Two

The Florida Department of Transportation (FDOT) District Two Intelligent Transportation Systems (ITS) office and traffic incident management (TIM) partners have been very fortunate to have such a strong supporter in the North Florida Transportation Planning Organization (NFTPO). They have provided the funding that's led to the exponential growth of ITS and traffic management on arterial roadways in the northeast Florida region. NFTPO has provided several million dollars to upgrade signal cabinets, improve fiber communication, and deploy ITS devices, such as Bluetooth, closed-circuit television (CCTV) cameras, and dynamic message signs along arterial corridors. In a sense, they have assisted in solidifying our partnerships with local TIM members through their vision on how traffic and incident management should be executed in a metropolitan area.

One group of partners involved in law enforcement and emergency operations felt the need to improve our region's approach to opening and closing area bridges during high wind conditions. They had their share of issues that led to continuous second-guessing by the media and local politicians. The key element was to develop some type of consistency and reliability when determining the moment that area bridges should be opened or closed. Since the region has over 18 bridges over the Intracoastal and St. Johns River, it can be tough to maintain consistency over a nearly 100-mile area. That's where the NFTPO stepped up to the plate to assist our partners.

NFTPO's first task was to bring these partners together to determine their needs and then develop a decision making

Dames Point Bridge, one of several bridges in the Jacksonville area.

View of wind detection equipment on Vilano Bridge in Jacksonville

process that would be agreeable to all. NFTPO's consultant researched studies involving bridge closures and utilized best practices to develop a plan. Once the partners reached a consensus, the next task was to execute, so NFTPO provided $200,000 in funds to purchase and deploy wind sensor devices on ten area bridges. NFTPO based this amount on historical information gained during the iFlorida deployment of road weather information systems several years ago. District Two was assigned the task of meeting with partners, prioritizing bridge locations, purchasing the equipment, and overseeing deployment. The biggest challenge was to determine area bridges that already had fiber communications in place since this would be the most expensive portion of the deployment.

FDOT's Central Office ITS Program also assisted through work they were doing with the National Oceanic and Atmospheric Administration (NOAA) on gaining access to their satellites over the Gulf of Mexico. There are three satellites over the Gulf of Mexico used by NOAA to receive/transmit data throughout the southeast region of the United States. This made everything much easier since it provided greater flexibility in deploying devices for the top ten selected bridge locations. The Central Office ITS Program was also attempting to acquire funds to install a satellite dish at two locations that would tie into the ITS wide area network. With this, FDOT could transmit the NOAA data directly to District transportation management centers (TMC). This project is currently in progress and should be ready for use in 2013.

In the meantime, District Two worked with procurement on the contract and was pleasantly surprised to see the drop in prices for this equipment. Microcom Design won this low-bid contract and District Two was able to purchase over 26 wind sensors and data loggers for this project. This meant that deployment on all bridges in the priority list could be completed, along with

District Two roof-top callibration site.

lower profile bridges that could benefit from this information. NFTPO provided funding for installation, which began in January and should be complete this month.

The current method of acquiring data is to log into NOAA's secure web site to gather wind speed information. This data is available on an hourly basis unless the wind sensor surpasses certain "thresholds" programmed into the device. When this occurs, the data is transmitted automatically, thus alerting us when it's time to dispatch officers and time to close the bridge. We are currently working with Microcom Design on a specialized software package that will make it easier to read the data. The NOAA site contains a lot of information from the sensor, so we felt it would be best to simplify the readouts for our partners. This is a temporary fix sincethe Central Office ITS Program will develop a module for the SunGuide® software that will directly feed information to the TMC operator map.

District Two typically checks the data on a daily basis and is pleased with the results so far. Our tallest bridge (Dames Point on I-295 East) normally averages 25 miles per hour (mph) each day. On several occasions, there have been consistent wind gusts in the 42 to 45 mph range that requires us to reevaluate the current bridge closure procedure. In late April, a very strong cold front passed through Jacksonville and some taller overpasses were encountering consistent wind gusts over 40 mph. This is important to know since several of these locations have geometry sharp enough to cause a truck rollover.

District Two still in the learning stages, but we feel that this deployment will be very beneficial to our region in the future. Hundreds of thousands of citizens in northeast Florida are cut off from the mainland due to area bridges, so the last thing needed is to be stuck on the "wrong" side of the bridge when major storm events occur. We have learned our lesson and partnered with the media to get the word out early on this project since they will be a key component in getting the word out to motorists. So far, the response has been very positive. Let's hope that the same feelings remain when officers say start to announce that a bridge is closed!

For information, please contact Mr. Vega at (904) 360-5463 or e-mail to Peter.Vega@dot.state.fl.us.

✳ ✳ ✳ ✳

Dealing with Fog/Smoke in District Four

By Daniel Smith, FDOT District Four

Fog and smoke can create extremely hazardous driving conditions on South Florida highways, leading to severe crashes and full road closures. This was the case during the 2010-11 winter season, when motorists had to endure multiple shutdowns along portions of US 27 (State Road 25) and Interstate 75 (Alligator Alley) in Broward, Palm Beach, and Collier Counties.

The incidents highlighted agency coordination issues that, left unchecked, threaten the safety of both the public and emergency responders. Realizing the need for quicker notification and action, the Florida Department of Transportation (FDOT) District Four and Florida Highway Patrol (FHP) Troop L formed the US 27/I-75 Task Force to develop an operations plan to improve communications, cooperation, and coordination among all agencies during future incidents. The fog and smoke plan will ensure that "everyone is on the same page" whenever FHP makes the call to close one or both of the highways because of poor visibility.

Smoke on roadway in District Four.

This operations plan provides for pre-defined standard operating procedures that clearly define the roles and responsibilities of incident management and traveler information agencies. This includes having readily available resources (personnel, signs, cones, and barricades) to deploy to safely close major highways and ramps. The intent is to reduce fatalities, injuries, and crashes during weather events and fires in this region.

Besides FHP and FDOT, other task force members include county and local law enforcement and fire rescue agencies; Florida's Turnpike Enterprise; Florida Forestry Service; FDOT transportation management centers (TMC) in Fort Myers and Fort Lauderdale; and DBI Services, the FDOT asset maintenance manager for US 27 and I-75.

Severe incident response vehicle.

The operations plan details specific actions to be taken for short-term (under 24 hours) and long-term (more than 24 hours) closures in three different scenarios:

- The closure of I-75 in both directions from US 27 in Broward County to County Route 951/State Road 29 in Collier County. FHP Fort Myers Communication Center is the lead communication agency.
- The closure of US 27 from I-75 in Broward County to State Road 80 in Palm Beach County. FHP Lake Worth Communication Center is the lead communication agency.
- The closure of both I-75 and US 27. The eastern/southern closure points on both highways can be extended if conditions warrant.

While both smoke and fog affect visibility, each presents unique dangers and hazards. Smoke can quickly spread in changing weather conditions and the actual fires can endanger lives and property. Fog can be difficult to detect at night and in remote areas. Fog also can be extremely heavy on a portion of highway and relatively light a short distance away causing frustration and confusion for motorists when the road has to be closed.

One of the task force's main safety concerns during a closure is what to do with the commercial vehicles that stop in the travel lanes or along the shoulders waiting for the highway to reopen. Signs will direct trucks to a parking area off US 27, south of I-75.

To prevent vehicles from stacking along northbound I-75, a paved turnaround area will be improved near the toll plaza at Mile Marker 25. Flip-down signs will be installed at strategic locations to direct motorists to seek alternate routes, which include US 41/Tamiami Trail to the south and SR 80 to the north.

The plan includes protocols for TMCs to follow in messaging for fog and smoke events. If needed, FDOT District Six, Florida's Turnpike Enterprise, and I-595 Express will activate message signs to give motorists ample advance warning. Emergency responders are expected to utilize traffic incident management and safety procedures outlined in the FHP Policy Manual, the National Unified Goal (NUG) for Traffic Incident Management, unified command procedures, and the Federal Highway Administration's Manual on Uniform Traffic Control Devices (MUTCD).

With a pre-defined activation plan in place, emergency response agencies will benefit mainly from improved safety and the expected reduction or elimination of primary and secondary crashes due to poor visibility. Motorists will receive more timely notifications about road closures to avoid long delays. Traffic should flow smoother on connecting corridors.

The task force meets quarterly to review and update procedures and conduct tabletop training exercises. Post incident analysis debriefings will be conducted as needed to identify any concerns or problems and improve the process.

In developing this plan, the task force relied on lessons learned from other smoke and fog incidents including the 70-vehicle pileup in zero-visibility conditions on Interstate 4 between Tampa and Orlando in January 2008.

For information, contact Mr. Smith at (954) 847-2785 or email to Daniel.Smith@dot.state.fl.us.

* * * *

District Six's Ramp Signals Assist Congestion Management Efforts

By Javier Rodriguez, FDOT District Six

The Florida Department of Transportation (FDOT) District Six Transportation Management Center (TMC) recently began using the ramp signaling system as an additional tool in its incident management efforts for traffic crashes and special events.

FDOT launched this system as part of the District's Intelligent Transportation Systems (ITS) Program to regulate the rate of ramp traffic entering the highway, particularly during the weekday rush hours, Monday through Friday from 6 a.m. to 9 a.m. and from 4 p.m. to 7 p.m., southbound and northbound, respectively. However, the signals are also available for use during non-peak times if District Six detects significant performance degradation on the highway.

One of 22 ramp signals installed on I-95 turns green, signaling the vehicle to enter the highway.

Monday, April 2, 2012, was one example of using the signals to mitigate a congestion event, which was likely caused by a special event at a new Miami-Dade County baseball stadium. TMC operators noticed a decline in operating speeds on I-95 southbound near NW 119 Street at about 6:00 p.m. After observing the congestion and noticing conditions worsening, TMC operators, with the approval of TMC

management, turned on eight ramp signals along southbound I-95 at 6:15 p.m. Within ten minutes, the congestion dissipated and the general purpose lane speeds throughout the previously affected area returned to an average of 45 miles per hour (mph) or above. This was after the speeds had reached as low as 30 mph before activating the ramp signaling system.

District Six TMC staff manage I-95 with several congestion management tools, such as ramp signaling.

A crash with major injuries on I-95 also prompted the need for signal activation. On Wednesday, February 8, 2012, an incident was reported at about 6:30 p.m. on I-95 northbound and Ives Dairy Road. Two right lanes were blocked for about one hour and caused major backups from Ives Dairy Road south to NW 135 Street in the general purpose lanes. The two blocked lanes were cleared at about 7:30 p.m. when the incident was moved to the right shoulder. To mitigate the congestion caused by this event, TMC operators turned on two ramp signals near the incident's location as emergency responders managed the scene. Because of this, incoming vehicles entered the highway in a regulated manner and thus allowed average speeds to steadily increase to approximately 45 mph just before the lanes cleared at 7:30 p.m.

As evidenced by these two instances, activating ramp signals during high levels of congestion has helped the highway recover faster. Regulating this flow has proven to be a crucial aide because it reduces additional breakdowns in operational efficiency. FDOT will continue using all its incident management resources, including the ramp signaling system, to help reduce the impacts of major events to improve driving conditions in our community.

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

* * * *

Justifying Road Rangers

By Paul Clark, FDOT Traffic Engineering and Operations

The Road Ranger program is one of the most effective elements of the Florida Department of Transportation's (FDOT) Traffic Incident Management (TIM) Program, providing direct assistance to motorists by quickly responding, assisting, and clearing primary incidents from the travel lanes in close coordination with the Florida Highway Patrol (FHP) and other law enforcement agencies. Road Rangers also assist disabled motorists with basic services, such as furnishing limited amounts of fuel, assisting with tire changes, and helping with other types of minor vehicle repairs.

The major benefits of the Road Ranger program include reduced incident duration and consequent reduction of secondary incidents delays, reduced fuel consumption and emissions, and improved traffic flow. FDOT recently completed a study of the benefit-cost analysis of the Road Ranger program in Florida through:

- Selecting a widely recognized methodology for the evaluation of freeway service patrols,
- Obtaining and processing the required traffic volume and incident data, and
- Performing a benefit-cost analysis of the program using the selected methodology.

FDOT used the Freeway Service Patrol Evaluation (FSPE) model to quantify the amount of savings due to reductions in traffic delay, fuel, and emissions; the contract costs of the Road Ranger program were used in this model. The FSPE model calculates the benefits by considering average daily traffic volume and distributing incidents on the selected segment proportionally to vehicle miles traveled. The main input parameters for the FSPE model include service description, roadway design characteristics, traffic characteristics, and incident data. Only those incidents that caused lane blockage, right shoulder blockage, or left shoulder blockage, were included in the FSPE model. Incidents were grouped into nine categories under three incident types (accident, breakdown, and debris) and three types of lane-blockage (one lane blockage, left shoulder, and right shoulder). SunGuide® software was used as the data resource to collect the Road Ranger operations data, mean time spent per incident

type, mean response time without Road Ranger service, traffic profile (weekday, Saturday, and Sunday), geometric profile, and field speed. Road Ranger service coverage data were compiled for FDOT Districts 1, 2, 4, 5, 6, and 7 and the Florida's Turnpike Enterprise. The service was divided into zones, and each zone was assigned a Road Ranger truck with a service schedule by weekends and weekdays, respectively. Road Rangers cover 1,321 centerline miles of the interstates and toll roads in Florida. To effectively generate the models, the research team developed the FSPE model generator, scenario generator, and model runner software, which can systematically, automatically, and effectively run the FSPE model. A total of 200 scenarios were completed in the final database.

The benefits (delay and fuel saving) for the Road Ranger program were about $134 million in total and the costs (contract) were about $20 million. Overall, the statewide combined Road Ranger program achieved a benefit-to-cost ratio of 6.68 in 2010.

While the primary goal of this research is to identify the benefit-to-cost ratio of Florida's Road Ranger program, it cannot be ignored that some benefits have not yet been quantified. Often, Road Rangers are the first to arrive at an incident and provide assistance before law enforcement or other responders are able to reach the location. Their prompt arrival to the incident scene provides reassurance to the traveler, emergency assistance when needed, and allows for placement of advance warning devices to notify approaching drivers of the hazard ahead. Due to their quick response and life-saving actions, it is difficult to quantify their total benefit to emergency responders and the traveling public. Among other recommendations, the research team suggested that similar reviews should be conducted annually to effectively manage the program based on the up-to-date benefit-cost ratios.

FDOT carried out an evaluation using the calibrated FSPE in this study. We developed several spreadsheets and custom VBA codes in Microsoft® Excel to facilitate model building and data handling. A total of 200 models, with each one corresponding to an Excel workbook, were developed. FDOT extracted 2010 data from the Districts and processed this data using the SunGuide software system.Compared with the previous benefit-cost ratio analysis, more data were collected, including more detailed incident data, response time without Road Ranger service, zone information for each District, hourly traffic volume for each zone, average speed, and incident locations.

The mean time spent was defined as the difference between the departure time and the arrival time of a responder during a particular incident. Overall statistics for Florida showed an average of 45 to 52 minutes for mean time spent on accidents, 18 to 33 minutes for breakdowns, and 11 to 18 minutes for debris. The total emissions savings were estimated at 7,818 Kg for carbon monoxide (CO) and 90,371 Kg for volatile organic compound (VOC). For nitrogen oxide (NOx), the emissions increased in 59,829 Kg. In most cases, CO and VOC were reduced with increased speeds. NOx emissions increased at high speeds, therefore the emissions for NOx are increased.

The total percentage or probability of lane blockages per zone is taken as a measure of the severity of the disruption due to the incident. Zones with increased probability of lane blockages tend to have higher benefit-cost ratios. This is consistent with the assumptions and the data used to build the FSPE methodology used in this study. In Florida, a significant proportion of the freeways have wide shoulders, facilitating relocation of some of the incidents away from the travel lanes. Delay estimation models, with specific data from Florida, can be developed using data from the SunGuide software.

The study indicated that the state had a 6.68:1 benefit-cost ratio, indicating an overall positive effect of the Road Ranger program in alleviating delays caused by accidents, vehicle breakdowns, and debris. Additionally, the benefits of the Road Ranger program for each District also exceeded the overall cost.

For information, contact Mr. Clark at (850) 410-5607 or email to Paul.Clark@dot.state.fl.us.

* * * *

SunGuide® Software: Ability to Interact with Other TMCs

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

This is the third of the four part SunGuide® software series. If you missed any of the previous articles in the series, you can look at the March and April *SunGuide® Disseminator* publications. In the previous articles, we explored how SunGuide helps with incident identification and managing incidents. In this part of the series, we will dive into the need for interconnectivity between transportation management centers (TMC) and see how SunGuide software offers this capability using center-to-center (C2C).

Why do we need it?

Florida Department of Transportation (FDOT) is a decentralized agency and is comprised of seven Districts and the Florida's Turnpike Enterprise (also considered as the eighth District). Each of these Districts maintains the roadways in their jurisdiction and has regional TMCs to monitor traffic flow and manage incidents. In 2002, FDOT realized the need for a system that could connect TMCs. The primary reason FDOT needed the system was to ensure that there is a backup for every TMC in case of hurricane evacuations and emergencies. FDOT also realized that C2C could greatly enhance collaboration between TMCs and would drive interoperability between TMCs.

SERIES OVERVIEW:

I - Managing Traffic Flow (Mar. 2012)

II - Managing Incidents (Apr. 2012)

▶ *III - Ability to Interact with Other TMCs*

IV - Performance Reporting

In the past, all District TMCs used different advanced traffic management software systems. FDOT wanted the ability to interconnect these software systems using national standards independent of the software system used. FDOT also realized that each TMC was different; their systems were different; and thus, the software needed to be flexible to allow for these differences. FDOT recognized the need for collaboration, especially for the urbanized areas in south and central Florida.

How did we do it?

Within the SunGuide software system, C2C is based on nationally recognized traffic management data dictionary standards. TMCs don't need to have the same TMC software to communicate, as long as they use the national standards for C2C. C2C components are built on web services that use extensible markup language to pass messages back and forth. The software is built to be flexible and allows for many forms of communication: one-to-one, one-to-many, many-to-one, and many-to-many. Also, the software is security-based and only allows authorized personnel to access data or control devices from different TMCs.

Currently, the C2C-enabled features in SunGuide software that support remote management of intelligent transportation systems (ITS) devices include: dynamic message signs, closed-circuit television cameras, detectors, highway advisory radios, road weather information systems, and connected vehicle. The C2C system sends data through either the status channel or the command and control channel. If a TMC is only interested in viewing the data from the device, but not interested in controlling the devices, the status channel is used. To control devices, the system would use the command and control channel. These two channels are used to create, edit, and transmit event related information as well. For video, the software offers a channel for viewing snapshots, but streaming video is handled directly by the network. Independent of the means
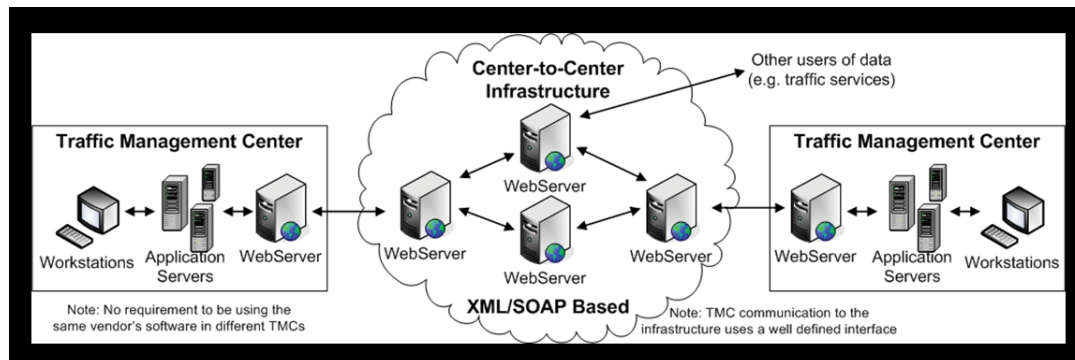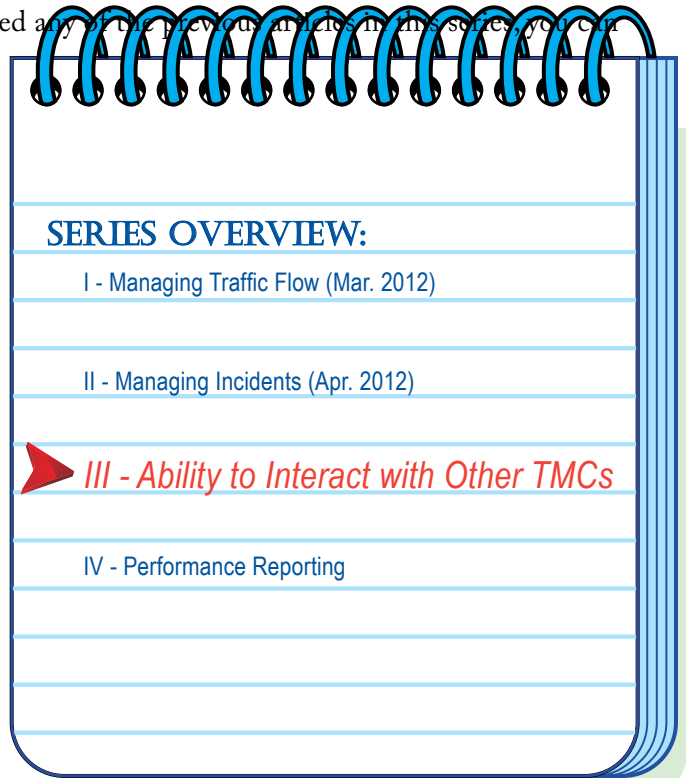
Center–to–Center infrastructure concept as implemented in SunGuide software

used to transmit information, C2C helps break the geographic barriers and allows personnel and agencies to collaborate even if they are thousands of miles away.

In this article, we are focusing on the software aspect of C2C communications; however, the infrastructure that allows the data to be transmitted from one TMC to another is a significant part of the puzzle, and needs to be considered to provide robust and reliable service with redundancies built in the system.

SunGuide C2C links all TMCs at the state and local level

Benefits realized...

The use of C2C system allows SunGuide software to share real-time camera images, traffic data, and incident data from one TMC or all TMCs in the state at the same time. Also, this allows the capability to share roadside ITS devices so a remote TMC can manage the device including posting messages on dynamic message signs and the pan-tilt-zoom feature of the camera. One of the key benefits of the C2C system is that it offers backup control for the primary TMC. District Five and the Orlando-Orange County Expressway Authority (OOCEA) already use this feature with District Five controlling and managing the OOCEA's roadway system using OOCEA's ITS devices.

Another example of use in Florida is for travel times and traffic events. FDOT realizes that the information provided to motorists should not be jurisdictionally limited. Using traffic data from C2C, most Districts provide travel times on dynamic message signs for a logical destination, which may be outside their jurisdiction. They also alert motorists of traffic events that they may encounter in the next few miles independent of the jurisdiction in which the incident happened. As a result, FDOT has realized significant benefits in using C2C for improved incident and congestion management.

In SunGuide software, we use C2C to not only connect TMCs, but also connect to other software systems. Our FL-511 advanced traveler information system receives traffic and event information from all Districts via the C2C system. Also, FDOT receives third-party commercial traffic data for certain roadways using the C2C system. The commercial traffic data received by FDOT is for rural limited-access facilities that are not equipped with ITS devices. In the near future, the use of C2C will be extended to send statewide traffic data in real-time to a central data repository or warehouse, which will archive the traffic data for extended periods and make the data available to FDOT over the Internet.

Summary

The C2C system is a critical part of Florida's advance traffic management system. This is a powerful tool, which allows FDOT to collaborate between different Districts and agencies. It allows agencies to manage and control roadway systems independent of the jurisdiction they are in, breaking any geographic barriers that separate the agencies or the personnel managing the systems. C2C has substantially benefitted FDOT in better managing traffic, while allowing FDOT to connect to other complex transportation systems, such as FL-511 and central data warehouse.

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

❋ ❋ ❋ ❋
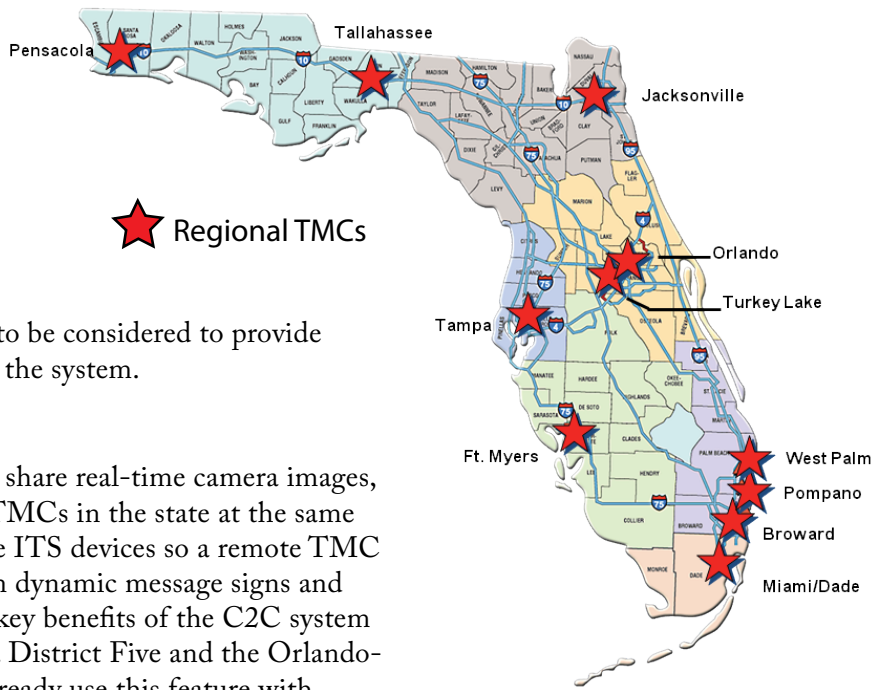
ITS Florida: The Tri-fecta of Technical Transportation Training

By Ken Jacobs, Pinellas County

ITS Florida is offering several opportunities for members to obtain additional training and knowledge, and to network with others in the intelligent transportation systems (ITS) profession. ITS Florida will host a multi-day Technical Training event on Tuesday June 26 and Wednesday June 27, 2012, in Orlando, Florida at the Wyndham Lake Buena Vista Resort. The three events will include the ITS Florida Board Meeting, ITS Florida Technical Forum, and an ITS America sponsored workshop on "Introduction to Integrated Corridor Management (ICM)."

The Technical Training event is scheduled to start with the June / July ITS Florida Board Meeting. Everyone is welcome to attend the meeting. If you have never been to a ITS Florida Board meeting come see how the organization works and volunteer to become more involved. The more involved in the organization you become the more you learn and the more you get out of your membership.

Following the Board Meeting, the ITS Florida Technical Forum will begin. The forum is scheduled for Tuesday afternoon and Wednesday morning. This forum offers speakers from throughout the state presenting information on topics covering the newest ITS technology being installed statewide. Topics already scheduled include adaptive control software in Florida, ongoing efforts in implementing transportation system management and operations (TMS&O), and arterial travel time methods. Other topics are being added and a final agenda and registration form will be sent out soon.

Wyndham Lake Buena Vista Resort in Orlando

Wyndham Lake Buena Vista Resort lobby in Orlando

Our Technical Forum also provides the opportunity for member companies that market ITS equipment to do a short presentation and explain the benefits of their technology, and answer any questions that may arise. The presentation is not intended to be a sales pitch, but it provides the opportunity for the attendees to see the new equipment, software, and technology that may be driving future ITS projects.

Several speaker slots are still available, so if you have a topic you would like to present, or are a vendor that would like to discuss your latest product, please feel free to contact Sandy Beck at itsflorida@itsflorda.org. Only ITS Florida members are eligible to present products. If you are not currently a member, but would like to participate, please contact Sandy at the above email address to find out how to join. Once all slots are filled, we cannot add any additional speakers, so please hurry.

The final training activity in our tri-fecta is an instructor-led class offered by ITS America Professional Capacity Building in conjunction with the National Highway Institute. This course is aimed at introducing the concepts of integrated corridor management—the next step in improving safety and mobility in urbanized areas. The target audience for this course includes planners, managers, and engineers involved in ITS. Additional details on this course, including cost and registration, will be distributed in the next few weeks.

Take this opportunity to learn more about the current state of the art in ITS, earn professional development hours, and interact with some of the most knowledgeable ITS professionals in Florida. Come for one training event or come for all three. ITS Florida has reserved a block of rooms at the Wyndham Lake Buena Vista Resort for only $89 per night, which includes free parking and free Internet in the guest room. The hotel is within walking distance of Downtown Disney located in the Walt Disney World Resort and just completed a $10 million dollar renovation. Mark your calendars and look for more detailed information about our Technical Training event to be sent out soon.

The registration form will be mailed to all ITS Florida members. Make sure to invite your friends.

For information, please contact Mr. Jacobs at kjacobs@pinellascounty.org. For more information on this event, please contact ITS Florida at itsflorida@itsflorida.org.

* * * *

Editorial Corner: SHRP2 and You — What's Coming Down the Pipeline from TRB's $232.5 Million Program

Kris Milster, FHWA

It may seem to most that 2005 occurred eons away, but a number of important events occurred—Hurricane Katrina hit the Gulf Coast, a new pope was elected, and the last prequel Star Wars film was released in theatres (whether or not it was a justice to the original trilogy is an entirely different story). 2005 also marked the beginning of a landmark legislation that transportation officials are still working under— the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). One of the programs authorized through SAFETEA-LU was the Strategic Highway Research Program (SHRP 2). The purpose of this program is to address the challenges of the nation's highway system by keeping a customer-orientated view of highway needs. SHRP 2 accomplishes this by targeting the areas of safety, renewal, reliability, and capacity.

Initial Research	Extension of Research	Implementation Support Activities	Early Implementation	Long-Term Activities
Most of what SHRP 2 is doing.	Moving research outcome to point where it is a usable product.	Activities that directly support use of the products.	Actual use of the product in the field.	Ongoing support and enhancement of products.

SHRP 2 diagram

Intelligent transportation systems (ITS) and traffic operations-related projects fall under the third category of reliability. This area's description is "[to] reduce congestion through incident reduction, management, response, and mitigation." The Transportation Research Board (TRB) has taken this broad depiction and developed 23 projects to carry out this mission. The scopes of these projects range from incident management to geometric design; however, there are a number of products that are or have been progressing through the implementation process. A few of these include:

- SHRP 2 L06 – Institutional Architectures to Advance Operational Strategies (Active)
- SHRP 2 L08 – Incorporation of Travel Time Reliability into the Highway Capacity Manual (Active)
- SHRP 2 L12 – Improving Traffic Incident Scene Management (Complete)

SHRP 2 L06 deals with a self-assessment tool that can be used by various agencies to see where they rank. This self-assessment tool has a one-minute component as well as an in-depth review. Furthermore, this is the same tool that was presented to the Florida Department of Transportation's Districts Four and Six this past February. To access this tool, visit http://www.aashtosomguidance.org/.

SHRP 2 L08 will provide methodologies for predicting probability of nonrecurring congestion, impacts on speed and delay, and effectiveness of design and management strategies for reducing nonrecurring congestion. Currently, there are no deliverables, but research will be completed early next year, followed by pilot testing.

SHRP 2 L12 will give traffic incident management first responders a wide array of learning opportunities. These opportunities range from e-learning courses for the boots-on-the-ground to "train the trainer" workshops that will allow agencies to cultivate this vast material. This SHRP 2 project has Florida-specific help from Florida Highway Patrol's Chief Grady Carrick.

Overall, SHRP 2 focuses on alleviating some of our nation's most pressing highway needs, namely: reducing the high number of highway deaths and injuries, rehabilitating our aging infrastructure with minimum disruption to users, and reducing congestion from inadequate physical capacity and from events that reduce the effective capacity of a highway facility.

For more information, please contact Mr. Milster at (850) 553-2246 or e-mail to Kris.Milster@dot.gov, or visit the TRB's SHRP 2 web site at http://www.trb.org/StrategicHighwayResearchProgram2SHRP2/Blank2.aspx.

* * * *

Announcements

Best Wishes TJ (Jackson)!

We would like to take this opportunity to announce the departure of Louis Thomas Jackson (aka TJ). TJ worked for the Florida Department of Transportation for 30 years, most recently at the Traffic Engineering Research Lab. We wish TJ good luck in all his future endeavors.

* * * *

Good Luck TJ (Hapney)!

We would also like to announce the departure of TJ Hapney. TJ worked with on the Florida Department of Transportation's Intelligent Transportation System general consultant contract for ten years, most recently providing advanced traveler information systems support in retrieving 511 feedback and meeting coordination. We wish her good luck in all her future endeavors.

* * * *

Mark Your Calendars for These Upcoming Conferences

ITS Americal 22nd Annual Meeting and Exposition

It's not too late to register for and attend ITS America's 22nd Annual Meeting & Exposition being held in National Harbor, Maryland on May 21-23, 2013.

More information is available at http://www.itsa.org/annualmeeting.

* * * *

2012 National Rural ITS Conference

NRITS provides opportunities for participants to network and share their experiences. This year, NRITS will bring together traditional and non-traditional intelligent transportation systems users to address such issues as rural safety, multi-agency coordination, and workforce development as well as emergency medical services and transit issues.

More infomation is available at http://www.nritsconference.org/.

* * * *

Transpo2012: Mark Your Calendar Now!
October 28 – 31, 2012
Hyatt Regency Coconut Point
Bonita Springs, FL

2012 Transpo™

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

* * * *

FDOT Traffic Engineering and Operations Mission and Vision Statements

Mission:
Provide leadership and serve as a catalyst in becoming the national leader in mobility.

Vision:
Provide support and expertise in the application of Traffic Engineering principles and practices to improve safety and mobility.

FDOT Contacts

District 1
L.K. Nandam, DTOE
Chris Birosak, ITS
FDOT District 1 Traffic Operations
PO Box 1249
Bartow, FL   33831
(863) 519-2490

District 2
Jerry Ausher, DTOE
Peter Vega, ITS
FDOT District 2 Traffic Operations
2198 Edison Avenue
Jacksonville, FL   32204
(904) 360-5630

District 3
Jared Perdue, DTOE
Chad Williams, ITS
FDOT District 3 Traffic Operations
1074 Highway 90 East
Chipley, FL   32428-0607
(850) 638-0250

District 4
Mark Plass, DTOE
Dong Chen, ITS
FDOT District 4 Traffic Operations
2300 W. Commercial Blvd.
Ft. Lauderdale, FL   33309
(954) 777-4350

District 5
Richard Morrow, DTOE
Michael Smith, ITS
FDOT District 5 Traffic Operations
719 S. Woodland Blvd., MS 3-562
DeLand, FL   32720-6834
(386) 943-5310

District 6
Omar Meitin, DTOE
Rory Santana, ITS
FDOT District 6
1000 NW 111th Avenue, MS 6203
Miami, FL   33172
(305) 470-5312

District 7
Gary Thompson, DTOE
Chester Chandler, ITS
FDOT District 7 Traffic Operations
11201 N. McKinley Dr.
Tampa, FL   33612
(813) 615-8600

Florida's Turnpike Enterprise
John Easterling, DTOE
Eric Gordin, ADTOE
Florida's Turnpike Enterprise
PO Box 9828
Ft. Lauderdale, FL   33310-9828
(954) 975-4855

Mark Wilson
State Traffic Engineer
(850) 410-5600

Elizabeth Birriel
Deputy State Traffic Engineer - ITS
(850) 410-5606

Trey Tillander
Deputy State Traffic Engineer - Systems
(850) 410-5617

Paul Clark
Deputy State Traffic Engineer - Incident Management and Commercial Vehicle Operations
(850) 410-5607

Fred Heery
Deputy State Traffic Engineer - Operations
(850) 410-5419

Physical Address:
Rhyne Building
2740 Centerview Drive
Suite 3-B
Tallahassee, FL 32301

Mailing Address:
Burns Building
605 Suwannee Street
MS 36
Tallahassee, FL 32399

* * * *   *** * * ***