Meeting Notes

Change Management Board

July 7, 2009 – 1:00 pm to 4:30 pm

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Prepared for:
Florida Department of Transportation
Traffic Engineering and Operations Office
Intelligent Transportation Systems Section
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List of Acronyms

CAD ..... Computer-Aided Dispatch
CMB ..... Change Management Board
CO ..... Central Office
ConOps ..... Concept of Operations
DMS ..... Dynamic Message Sign
FDLE ..... Florida Department of Law Enforcement
FDOT ..... Florida Department of Transportation
FHP ..... Florida Highway Patrol
GUI ..... Graphical User Interface
ITS ..... Intelligent Transportation Systems
MDX ..... Miami-Dade Expressway Authority
OIS ..... Office of Information Systems
RPG ..... Response Plan Generator
RTMC ..... Regional Transportation Management Center
SITSA ..... Statewide ITS Architecture
SSUG ..... SunGuide® Software Users Group
SUM ..... SunGuide Users Manual
SwRI ..... Southwest Research Institute
TERL ..... Traffic Engineering Research Laboratory
TIM ..... Traffic Incident Management
TMC ..... Transportation Management Center
TSS ..... Traffic Sensor Subsystem
TvT ..... Travel Time

Florida Department of Transportation
CHANGE MANAGEMENT BOARD MEETING NOTES
Tuesday, July 7, 2009
1:00 P.M. to 4:30 pm
Rhyne Building, Room 330Tallahassee, Florida

Attendees:

Chris Birosak, FDOT D1	Pete Vega, FDOT D2	Mark Nallick, FDOT D3
Cliff Johnson, FDOT D3	Jennifer Heller, FDOT D5	Michael W. Smith, FDOT D5
Manuel Fontan, FDOT D6	Javier Rodriguez, FDOT D6	Bill Wilshire, FDOT D7
Terry Hensley, FDOT D7	John Easterling, FTE	Arun Krishnamurthy, FDOT CO
Trey Tillander, FDOT CO	Wayne Bryan, City-Tallahassee	Mark Laird, AECOM
Dee McTague, AECOM	Adam Clauss, SwRI	Marc Alban, SwRI
Steve Dellenback, SwRI	Roger Strain, SwRI	Robert Heller, SwRI
Clay Packard, PBS&J	Khue Ngo, PBS&J	TJ Hapney, PBS&J
Charlie Creel, PBS&J	David Chang, PBS&J	John Hope, PBS&J
P. Watson, PBS&J	Ashis. Sanyal, PBS&J	Erik Gaarder, PBS&J
Derrick Odom, SmartRoute	Ryan Crist, SmartRoute	Jason Summerfield, SmartRoute
Kenneth Voorhies, CamSys		

Purpose: The purpose of this meeting was to review and vote for statewide issues and requirements, and review footprints issues.

Welcome and Call for Quorum: Change Management Board (CMB) Chairman Pete Vega opened the meeting at 1:10 p.m. A quorum was established. He briefly introduced the objectives of the meeting then recapped the previous meeting's action items.

Action Items Recap: The CMB went over the previous meeting's action items and updated the list.

D5 Architecture Update – Mike Smith

District 5 would like to add Ocala / Marion County intelligent transportation systems (ITS) Architecture to the Statewide ITS Architecture (SITSA).

Vote to add to SITSA: (Vote)

D1 – Yes
D2 – Yes
D3 – Yes
D4 – Yes
D5 – Yes
D6 – Yes
D7 – Yes
FTE – Yes
CoT – Yes
MDX – Not present
CO – Yes
OOCEA – Not present

Pre-recording Floodgate Messages – R. Heller

Previously District 4 suggested that Florida's Advanced Traveler Information System (FL-ATIS) could be reused regarding wildfires, and in the interest of reducing workload proposed that it would be nice if you could prerecord a message and then re-post it for 511 FLATIS system. SwRI drafted some requirements and decided what was needed was the ability to store pre-recorded messages for archival. Messages would be managed in a drop-down list where they could be deleted from FLATIS, while still maintaining referential purposes in the database.

Possible GUI – (Roger Strain – SwRI)
Slide 12 shows current floodgate screen, slide 13 shows drop-down for pre-recorded messages. If a message was used on FLATIS that you'd like to use again, it could be recorded and saved for later. A new interface with a list of messages for storage / editing would be incorporated.

M. Fontan inquired as to how difficult it would be to implement a tree structure. R. Strain replied that SwRI had discussed it internally, but that it was more difficult due to the naming structure. He added that it was possible, but it's more difficult and added that he was not sure what the cost would be. M. Fontan added that every time we have a list, it becomes really hard to navigate through and find what you want. R. Strain replied that if you had 100 or 200 messages that more navigation would be needed. P. Vega stated that with Center-to-Center (C2C) and other Districts helping out that a tree structure would probably be needed. R. Strain replied that the message storage capability would be local as designed and would not be C2C enabled. He added that SwRI would have to reconsider some options if it was to be C2C. P. Vega asked that if there was a hurricane, whether District 4 could email a message to District 2 for posting. Roger replied that a way would be needed to load a WAV file and put it into storage. P. Vega added that if everyone set up their tree, the Districts could download them into the statewide system. Roger replied that as long as the District was watching it and able to download at that time, it could be done. R. Heller noted that the cost estimate that was provided for the requirements on slide 15 (DF031A, DF031A1, DF031B, DF031B1, DF031B2, DF031C) was based on a linear design and that it would change if the FDOT decided on a tree structure

J. Heller asked how to delete messages when they were no longer needed. Roger pointed out where the messages could be selected and deleted on slide 14.

Dee McTague stated that depending on the cost that District 4's dynamic message sign (DMS) storage had thousands of messages in a list format and that they could be managed if named appropriately. C. Birosak asked about the character limitation for naming the files and stated that if a list was used that a lot longer description would be useful. Roger replied that if over 64 characters were used that it was more difficult to use a drop-down list. P. Vega inquired about the time frame. Roger replied that it would take approximately a week to add the tree structure. He added that there was no native HTML tree object and if one could not be found that SwRI thought would work, it would have to be designed. M. Laird pointed out that there was a tree structure in the RPG ConOps and inquired about using that structure for this application. Roger replied that if it were already complete, then it could be easily integrated. He added that the question was whether it would be done when needed. P. Vega asked if the Central Office (CO) wanted to take a vote regarding Option 1 (linear) or Option 2 (tree), or if the matter should be tabled until a cost estimate could be provided. A. Krishnamurthy responded that a vote could be taken if there was interest in the tree structure.

Tree Structure Vote - Unanimous
D1 – Option 2
D2 – Option 2
D3 – Option 2
D4 – Option 2
D5 – Option 2
D6 – Option 2
D7 – Option 2
FTE – Option 2
CO – Option 2
COT – Option 2

SunGuide Releases 4.2, 4.2.1 and 4.2.2 Update – A. Krishnamurthy
Release 4.2 was approved by CMB. Florida Highway Patrol (FHP) Computer-Aided Dispatch (CAD), VisioPad, Road Rangers (RR), travel time (TvT), and 44 Footprints (FP) issues. Factory Acceptance Test (FAT) enhancements received a 100 percent passing rate. Enhancements to FHP CAD Interface were requested. Arun added that he felt it would be crucial to record all information and not delete any of them, with FHP updating info.

Release 4.2.1
Enhancements from FAT included:
R4.1.3 Patch 1, 2, 3 Hotfix
R4.2.1 – 87 percent passing rate, with 42 issues

Release 4.2.2
R4.2.1 identified issues were fixed.
New feature for I-95 Express Lanes data integrity

- Persist toll requests through PS subsystem restarts;
- Quality control (QC) system for toll;
- Toll viewer usability updates; and,
- Logging of previous day's activity.

Deployment and Training
Installation CD provided to Districts / Agencies and training materials are complete. The CO will work with the Districts and Agencies individually to provide on-site training after deployment.

FHP CAD Interface – Who would be responsible for taking care of managing and coordinating connections to FHP CAD Interface was brought up by J. Summerfield. Arun stated that it had not yet been completely talked through and added that they would coordinate with the CO Telecommunications General Consultant on this issue. J. Summerfield stated that if Release 4.2.2 was going to have this CAD system that the FDOT would need to have someone coordinating the effort statewide. Mark Laird inquired about the Release 4.2.2 update and it's relation to ODS data. SwRI stated that the ODS tables had been taken out and put into a different schema so that configuration data could be imported separately from the archive data to facilitate that and make the upgrade process run smoother. Because SwRI has no experience with DataGuard, R. Heller stated that they had no comment regarding the software.

P. Vega asked if CAD data was going to be overwritten. Arun stated that updated would not be overwritten, but stored in a database. R. Heller added that an alert from FHP CAD could be put on-screen. If an update came in, it was overwritten with the update in its place and the historic

record of the alert that came into your operations center was lost if not immediately acknowledged. The preference is to keep the historical record of the alert. P. Vega asked if the Districts would need to enhance hard drive capabilities to store the proposed data. R. Heller replied that updates were small and he did not see a need for it. P. Vega stated that they were continual and it was something to keep in mind. How long the information would be stored was discussed. R. Heller stated that the system would not be storing all information, just little pieces. Trey Tillander said it would probably good to follow up, but that the information was for public dissemination. P. Vega added that FHP did not mind providing the information but might have a problem with storing information due to lawsuits, etc. It was decided that verification would be sought from FHP.

95 Express Lanes Data Integrity - D. Chang
D. Chang went over information regarding the 95 Express Lanes data integrity problem and proposed solutions. He stated that 33 requirements had been reviewed and were included in Release 4.2.2. P. Vega inquired as to the cost. Arun replied that it would be about $54,000.

95 Express Lanes Vote:
D1 – Yes
D2 – Yes
D3 – Yes
D4 – Yes
D5 – Yes
D6 - Yes
D7 - Yes
FTE – Yes
COT – Yes
CO – Yes
OOCEA – not present
MDX – not present

P. Vega asked if this meant that if MDX or OOCEA used feature, they would have to live with what we FDOT had right now. Arun replied that they would and that they would need to ask for an enhancement. K. Voorhies joined the videoconference.

I-95 Express Lanes Enhancements Proposal – M. Laird

FDOT has had one meeting with SwRI regarding this issue to-date. Slides 34 – 35 showed the process and overview. Concerns about availability were discussed, and after discussing implementation with SwRI it was determined that it had been underestimated. Ongoing discussions are continuing regarding alternate solutions.

Ease of Use – Express Lanes required rate change, lane and facility closures; communications / software failures.

M. Laird gave presentation regarding Express Lanes Enhancements (See slides 34 – 39) and pointed out the additional enhancements shown on Slide 39.

M. Laird proposed having the Windows Logon ID be used by SunGuide, which would allow external tools in SunGuide to operate without additional ID and might allow permissions to be updated by groups. Discussion took place regarding the proposed ID changes. J. Summerfield

was interested in whether that would cause additional overhead for District 2. Dee McTague mentioned that she would like to discuss the proposal with her information technology (IT) people regarding security level, etc.

A scenario was given by P. Vega, as follows: Jason is logged in. He logs out of SunGuide. Pete has to run to his station and get into SunGuide. He inquired how that would work with the Windows ID. M. Laird replied that multiple users would be allowed on system, but a user would have to log-on to Windows if not already logged into Windows and would have to use a SunGuide ID.

SunGuide RPG ConOps – Manuel Fontan

M. Fontan gave an update on RPG ConOps. SwRI provided Roger Strain to help with RPG ConOps. Manny went over main graphical user interfaces (GUI) and discussed other changes. He added that you could get a pretty good approximation of distance from an accident and added that no determination had been made regarding how distance should be shown. P. Vega stated that most District Traffic Operations Engineers (DTOE) preferred one-mile increments. Dee McTague requested a copy of the document.

SunGuide Map Update – Robert Heller

R. Heller introduced Roger Strain and Adam Clauss for presentation. Roger gave the first part of the presentation, covering slides 56 – 64 regarding Tile Map generation, which would consist of basing information off of raw shape files and cleaning it up. He stated that the operator coloring preferences would be limited with this version and added that all that SwRI would be pre-rendering was the background. Icons and other data will be rendered separately. SunGuide currently using scalable vector graphics (SVG), but are looking at moving to the XNA toolkit. Smooth scrolling is planned.

Performance Measures Report – Incident Duration – Arun Krishnamurthy
Arun introduced consistency issues and showed how the team dug into it. He added that they were able to get the database dump from Districts 2, 4 and 5. This data was used for comparison. Most of the formulas were correct. Reporting had shown quite a few negative numbers and added that some timestamps were missing on information. P. Vega asked if Arun was saying that any event that did not involve a Road Ranger was being thrown out. Arun replied that it was and that the current Performance Measures (PM) reporting only showed Road Ranger assisted events. So, if FHP had to attend an event, this PM Report would not include that information. He added that whether to include FHP in the initial report or a separate report was being investigated. He continued by saying that there was a need to keep the quality of data used in the reports at a good level and that FHP CAD information is timely; however, once you reach the level of fire / rescue or a local sheriff's office that the data was not as good.

P. Vega stated that this tool was developed for District Traffic Incident Management (TIM) teams. He added that due to the fact that the Districts had been shorthanded with Road Rangers over the past year and had to use their partners was leading to skewed information if the results were only associated with Road Ranger information.

M. Smith added that an incident can have a good timestamp even if there were no Road Rangers there. Dee added that District 4 relied on operators and cameras for timestamps.

Discussion took place regarding shaping the report for Road Ranger Performance Measures, not all response types. Dee inquired about a tool where we Performance Measures could be shown during and outside of the times Road Rangers were involved. J. Heller stated that District 5 did not rely on a Road Rangers inform the District when a lane was re-opened.

Arun replied that the current reports in SunGuide were specifically for Road Ranger reporting and that he understood it was a statewide report. He suggested that the CMB could look into developing a customized report for non-Road Ranger related incidents.

K. Voorhies stated that it was Cambridge Systematics' thoughts that this was for FDOT activities and stated that a second report was needed that would cover other responding agencies. J. Easterling stated that he had a similar perspective and that too much emphasis was being put on this to get the *Open Roads Policy* duration, rather than the road clearance duration, which included all of the components from FDOT notification of an event to clearance. In order to get the value, he suggested that each incident should be reviewed individually. He stated that scenarios 1 through 3 were what normally happened on Florida's roadways.

Arun asked about responders other than Road Rangers, to which the Districts replied with the following:

District 1 – Road Rangers on all of I-75 and I-275, and on I-4 in Poke County. The Asset Maintenance Contractor relieves the Road Rangers on I-75 and I-275 when they arrive. On I-4 District 1 does not have an Asset Maintenance Contractor. FDOT Bartow Operations provides incident response on I-4 and relieves the Road Ranger. When Road Rangers are not on duty or are unavailable, the Asset Maintenance Contractor responds for I-75 and I-275, and Bartow Operations responds for I-4.

District 2 – Four maintenance yards, two asset maintenance contractors that respond and police to provide information.

District 3 – No asset maintenance contracts for response to incidents.

District 4 – The only time asset maintenance or FDOT maintenance would respond would be during a very severe event.

District 5 – I-95 asset management contractors, I-4 primarily has Road Rangers. If it is an incident of longer duration, FDOT maintenance responds, and I-75 has asset maintenance.

District 6 – Asset maintenance and FDOT maintenance on roadways when Road Rangers are not available.

District 7 – Asset management contractors handle interstates, if closure is going to be longer than 15 minutes. Only keep Road Rangers there for incidents 15 minutes or less in duration.

Florida's Turnpike Enterprise – Asset management and in-house maintenance response. Only have Road Rangers between 8 and 18 hours a day. Those contacts are called faster than normal when Road Rangers are not available. FTE has towing companies responding to all events, which are called by FHP. Road Rangers responding to most events. Road Ranger response time is not as quick as FHP, FDOT or towing contracts.

P. Vega added that District 2 used Road Rangers to supplement incident response, but pulled them after 15 minutes.

Trey thanked the Districts for their input. Arun stated that he thought the criteria applied were good ones for negative number reports. As far as adjusting the timelines, he pointed out that if it was between zero and two minutes, discussion takes place regarding changes. He added that SunGuide would continue to report with flagged or suspect events and indicated that the top portion of the report was for flagged events and that the last section was for non-flagged events.

M. Laird – some were erroneous data entry. Operator capability mentioned to indicate that an event needs to be audited. We would have other things we would like to flag, but being able to flag it as in need of an audit would be helpful.

Dee stated that District 4 had added a "roadway damage" comment and created a report in Crystal for a quick fix that works wonderfully. SunGuide Software Users Group (SSUG) to follow up on issue at its next meeting. Arun pointed out that it stayed with what the Districts already had, but some of the quirks were being taken off and that it would be provided to the Districts in the following week. He added that the CO would appreciate the Districts re-running the previous three quarters and providing the data back to the CO, as soon as possible.

BREAK

SunGuide Polling Failed (District 6) – R. Heller
R. Heller presented the issue and solution.

SunGuide Slow Poll Requirements - Vote

D1 – Yes
D2 - Yes
D3 – Yes
D4 – Yes
D5 – Yes
D6 – Yes
D7 – Yes
FTE – Yes
CO – Yes
CoT – Yes
MDX – Not present
OOCEA – Not present

Excessive TSS Alerts (District 5) – R. Heller

Alerts are generated when no traffic is present and multiple alerts are produced for the same congestion incidents. There is a need for a control window that can stop the alerts until an incident is cleared. Currently, every time the speed would cross the set threshold, it sets off an alarm. District 5 proposes that traffic would have to cross back to 45 mph before generating another alarm. Enhancement alarms would remain on-screen until traffic has improved past the recovery threshold or is handled explicitly by an operator. No alarms are to be generated when speed and occupancy are zero.

District 6 submitted a Footprints issue that requested that speed and occupancy must both be met to generate an alarm. Better alarms can be set when both occupancy and speed are met. There were also other examples than the 0 speed, 0 volume and 0 occupancy. If other Districts prefer the *"or"*, District 5 would like it to be configurable to be an *"or"* or *"and"* statement. If both thresholds are met then you get an alert. P. Vega agreed that having the *"and"* statement would be very useful for District 2 as well. He added that the *"and"* statement would really help District 6 out with the FIU developed software being used and inquired as to the difficulty level with regards to cost. R. Heller stated that it could be done for $3,200. When the *"and"* condition is combined with the recovery threshold to where when both conditions are met the system returns to a recovered state. Probably want to wait for both until it is restored. Marc (SwRI) – don't know that it'll make a big difference.

P. Vega – District Poll (yes for configurable *"and"*, no for *"or"*)
D1 – Yes
D2 - Yes
D3 – Yes
D4 – Yes
D5 – Yes
D6 – Yes
D7 – Yes
FTE – Yes
CO – yes
CoT – yes
MDX – Not present
OOCEA – Not present

TSS Alarm Threshold Requirements - Vote
D1 – Yes
D2 – Yes
D3 – Yes
D4 – Yes
D5 – Yes
D6 – Yes
D7 – Yes
FTE – Yes
CO – Yes
CoT - Yes

FTE SunGuide Migration – J. Easterling

FTE spent last six months reviewing SunNav and reviewing in comparison and contrast with SunGuide. The migration was a decision made to take advantage of the requirements and enhancements put into SunGuide in the past couple years. FTE made the decision in the calendar year 2009 and worked with the CO to identify the tasks needed to migrate. FTE drafted a ConOps and an inventory of its devices. FTE is expecting an implementation document from SwRI in the near future. Two transportation management centers (TMC) are going to operate as one SunGuide installation and a majority of the equipment will be located at Turkey Lake, but will move more to Pompano in the future. FTE also has part-time collocation with FHP and its dispatch center, which will allow FHP to have access to SunGuide from the collocated location. He added that FTE did not need the tolls portion of SunGuide. FTE has worked with the CO to

come up with schedule and phasing plan. FTE will begin with the southern connector extension of 417, small installation, 6 CCTVs, and 14 Wavetronix; Phase2 – western beltway SR 429, two DMS 14 CCTV, and 14 Wavetronix devices. FTE is currently looking at a tentative timeline for setting that up toward the end of July; however must still work with TransCore and SwRI regarding travel time software. FTE is looking at 115 DMS, 570 CCTV, 802 Wavetronix, 16 highway advisory radios (HAR) and 18 road weather information systems (RWIS).

SunGuide "Right-click Menu" – Change Proposal – M. Laird
Looked at right-click menu on the map and began discussing labels and organization that was more familiar to the users. Got some follow up comments, in particular from Clay Packard. A couple of the subsystems were not available to show; however, the idea was to get terminology operators were more familiar with and group similar functions together.

P. Vega inquired how an operator would know where to find in the new menu. M. Laird stated he was open to suggestions on how to do it more easily. P. Vega suggested tossing around how the right-click menu should work with the SSUG and added that if he were to see the new right-click menu that he would not know where to find things.

R. Heller added that with the new maps all of the current menus would need to be rewritten and that it would be a good time to make changes. When the menus are rebuilt with the new map, this would all basically become free to FDOT if done at that time. He added that rearranging features and renaming features is easy, but that adding features would be additional, but that it could be done with that map change as long as SwRI received changes before the start of recoding.

INRIX Data for FL-511 – A. Sanyal (Slides 99 – 104)
I-10 data from Tallahassee to Pensacola - Purpose was to determine if INRIX data could be used for incident management or travel time purposes and for Districts that are not very well instrumented. Accuracy includes I-10 and arterials for overall. Accuracy on limited access was acceptable. Arterials were not that good. It works on limited access highway, but on arterials the information is not that good. Data is good above 40 mph, but is not as accurate below 40 mph.

C. Birosak inquired about testing other companies, such as AirSage. A. Sanyal replied that AirSage would be making a presentation to the CO and pointed out that the CO wanted to try AirSage before agreeing to anything long-time term with INRIX.

P. Vega asked if the subject had been discussed this with the Statistics Office. A. Sanyal replied that the Statistics Office had shown no interest and that the data does not provide volume and occupancy levels. P. Vega asked if there was any data with incidents. A. Sanyal said it could not be determined if the data included incidents or just congestion. P. Vega added that there was a need to look at things other than free flow. A. Sanyal pointed out that the data comes with map and that the operator can look into reasons for red data.

Action Items

- Central Office to coordinate with FHP and CO-Telecommunication section (Randy Pierce) for FHP CAD connectivity to Districts.
- Central Office to find out the statewide policy on how long the FHP CAD alerts should be stored.
- CO to find out the policy from FHP whether it is allowed to store the FHP CAD data
- District 4 (Dee) to send "Roadway Damage" report to Districts for reference. Complete.
- City of Tallahassee (Wayne Bryan) to provide VPN access to District 2 (Pete Vega) as a result of the meeting with C. Williams. Details of level of access will be discussed in the meeting.
- SwRI to come up with a new requirement for TSS generating an alarm every time the speed AND/OR (configurable in Admin Editor) occupancy of a link crosses a specified threshold (slides 89, 90, 91)
- Districts to review "Right click menu" proposal and provide feedback to Central Office.
- CO to coordinate with Districts on SunGuide training.
- Develop requirements for SunGuide Software Release 4.3 – Response Plans Enhancement.
- Develop requirements for SunGuide Software Release 4.3 – Express Lanes Enhancement.