

FDOT CHANGE MANAGEMENT BOARD (CMB)

TradeWinds Sandpiper Resort
St. Petersburg Beach, Florida

Wednesday, July 20, 2005

8:00 – 10:00 A.M.

Purpose: SunGuideSM Software System Engineering Change Proposal No. 2.0

Attendees:

Chris Birozak – FDOT District 1*	Tahira Faquir – PBS&J
Peter Vega – FDOT District 2*	Gene Glotzbach – FDOT ITS Section
Chad Williams – FDOT District 3*	Robert Heller – SwRI
Steve Corbin – FDOT District 4*	Terry Hensley – FDOT District 7
Larry Rivera – FDOT District 5*	Stephanie Kolb – Transcore
Jesus Martinez – FDOT District 6*	Elizabeth McCrary – FDOT District 7
Bill Wilshire – FDOT District 7*	Tony Mendoza – FDOT District 4
John Easterling – FDOT TPK*	Ron Meyer – PBS&J
Liang Hsia – FDOT ITS Section*	Rick Morrow – FDOT District 5
Mike Akridge – FDOT IM Section	Bob Murphy – PB Farradyne
Paul Clark – FDOT IM Section	Steve Novosad – SwRI
Dan Baxter – DKS	Bronoris Pye – FDOT District 7
Bijan Behzadi – FDOT District 7	Erica Riddlehoover – Transcore
John Bonds – PBS&J	Javier Rodriguez – FDOT District 6
Elizabeth Birriel – FDOT ITS Section	Bret Sadler – SwRI
James Bitting – GCA	Rory Santana – FDOT District 6
David Chang – PBS&J	K.K. Saxena – Kimley Horn
Dong Chen – FDOT District 4	Charles Wallace – PB Farradyne
Steve Dellenback – SwRI	Paul Watson – PBS&J
Felix Delgado – FDOT District 4	Ranzy Whiticker – Transcore

* Voting Member

Welcome and Introduction

Gene Glotzbach called the meeting to order and asked attendees to introduce themselves. Gene had identified the names of CMB voting members. Once a quorum was determined, Gene discussed how voting would be conducted during the meeting. He asked Liang Hsia to give a background summary and explanation regarding Engineering Change Proposal (ECP) No. 2.0. John Bonds then introduced the agenda items, including:

- Background Summary of the SunGuideSM Software System project
- SunGuideSM Software System ECP No. 2.0

The items with cost information included in ECP No. 2.0 that required a vote were:

- **Support and Maintenance:** The scope of support and maintenance includes 24-hour/7-day per week coverage, identification of specific response times, one full-time Southwest Research Institute (SwRI) staff member (developer) located in San Antonio, one part-time SwRI staff member to provide project management, and the development activities that would be at the SwRI lab. The SunGuide development contract has allocated funds for limited support and maintenance (which is not 24/7). The new scope of support and maintenance will need extra funds of \$1,585,413 from FY06 to FY12.
- **Travel Time:** Draft Department DMS Policy and Committee members require displaying travel time on DMS devices as default message. Since the SunGuide software already computes travel times, a software application that generates messages (based on travel time data) for display on DMS devices needs to be developed. Two algorithms and associated cost have been provided for Committee members to vote on. Travel time Option A is based on a TxDOT TransGuide algorithm and will cost \$80,942. Travel time Option B is based on a GDOT NAVIGATOR algorithm and will cost \$175,777.
- **Highway Advisory Radio (HAR):** Committee members had asked whether SunGuide can provide Spanish wave files from the text conversion in addition to the English wave files. Due to the quality of the Spanish conversion files, a module that would enable the operator to create wave files by using a microphone was suggested; the language format would not be limited to Spanish or English. The cost for the driver is \$48,730.

The items which were still at high-level concept and needed to be discussed concerning the needs and feasibility for future releases included:

- **Incident Management through Center to Center (C2C) Communications**
- **Road Ranger Subsystem**
- **Performance Measures**
- **Tag Reader**
- **Enhancements during Factory Acceptance Test (FAT) 1.1**

Item #1 – SunGuideSM Software System Project Update (Hsia)

Liang Hsia gave a background summary regarding the requirements for ECP No. 2.0 for the SunGuideSM Software System.

A copy of *Engineering Change Proposal No. 2.0* was provided for discussion and voting before and in the meeting. General discussion regarding the SunGuideSM Software System included:

- Need for ECP No. 2.0 – The document is needed to meet the Districts’ operational requirements, including deleted scopes, modified scopes, added scopes, and new requirements after the Release 1.1 FAT on June 1 at the SwRI Lab.
- ECP No. 2.0 is a summary of all the requirement changes, based on discussions and conclusions from previous SunGuideSM Software project meetings, Incident Management Coordination meetings, C2C coordination meetings, and teleconferences.
- CMB decision – The items in the document were suggested by the SunGuideSM Software project Committee to the CMB.

Following the general discussion, Gene asked that the voting begin.

Item #2 – CMB Vote on ECP No. 2.0

John Bonds led the introduction and interpretation of each new requirement and Gene conducted the voting, after John’s remarks and CMB discussion. The votes are presented in the following table.

FDOT Change Management Board Meeting Notes of July 20, 2005

Item	Category	Original Request	Associated Detail Requirements	Cost	Source	Notes	CMB Vote (Yes/No/Future)
IM Through C2C Communications	IM	Provide an algorithm to determine the operations concept when an incident occurs at the jurisdictional boundary.	Req. ID TBD - if an incident ever occurs exactly on a boundary between TMCs, the TMC to the south or east of the incident has ownership. If an incident occurs at a corner boundary between three or four TMCs, the southeastern-most TMC will have responsibility.	This is not a SunGuide software issue. It depends on which operator (on which SunGuide) enters the incident.	<i>Concept of Operations for Incident Management through C2C Communications</i>	The <i>Concept of Operations for Incident Management through C2C Communications</i> final version was distributed June 21.	Future: Requirements to be finalized for CMB within 30 days.
Road Ranger Subsystem	IM	PDA or tablet with wireless capability communicate with TMC	IM and Road Ranger performance measures data		<ul style="list-style-type: none"> Statewide ITS Architecture Meeting Road Ranger and Traffic Incident Management Program Manager 		Future: More information needed from Paul Clark, Statewide Road Ranger Manager, and districts.
Support and Maintenance	Support	<ul style="list-style-type: none"> 24/7 support for TMC On-site Support Continuous Development 	<ul style="list-style-type: none"> 24/7 coverage (answering service would be the initial contact point – the service would contact the appropriate SwRI representative). Specific response times identified. 1 full-time SwRI staff member (developer) located in San Antonio. 1 part-time SwRI staff member to provide project management. Florida-based SwRI staff member as approved by FDOT. Development activities would be at the SwRI development labs. Add Frequently Asked Question (FAQ) to support Web site. 	<p>\$1,585,413 from FY06 to FY12 *</p> <p>(Renewable annually)</p>	<ul style="list-style-type: none"> <i>SunGuide General and Onsite Support Agreement</i> <i>Support Summary Sheet</i> 	The <i>SunGuide General and Onsite Support Agreement</i> and <i>Support Summary Sheet</i> were distributed July 1.	Yes: Voting members approved the cost of \$237,192.32 for FY06. Cost from FY07 to FY12 will be voted in the future.

Item	Category	Original Request	Associated Detail Requirements	Cost	Source	Notes	CMB Vote (Yes/No/Future)
Travel Time	TvT	<ul style="list-style-type: none"> • Develop a "Travel Time Message Template" that is editable by a SunGuide Administrator. • Create a graphical editor to specify travel time links. • Create a "DMS TvT Subsystem" to display travel times. • Message will be queued through MAS (i.e., priority based). 	<ul style="list-style-type: none"> • Req. ID TBD: SunGuide shall compose and be able to send messages to DMS that inform travelers of the average travel time between two points on the instrumented and monitored roadway system defined by each District. • Req. ID TBDsub1: An automatically generated travel time message shall conform to the statewide format. • Req. ID TBDsub2: SunGuide shall include a "Travel Time Message Template" that is editable by operators with SunGuide Administrator privileges. • Req. ID TBD: SunGuide shall provide a graphical way for each District to specify which links in their instrumented roadways will be used for travel time calculations. • Req. ID TBD: Travel time messages shall have a priority of 100 that can be modified by operators with appropriate SunGuide privileges. 	<p>Two cost options have been provided (the CMB should pick one of them):</p> <p>DMS messages with current TransGuide TxDOT Travel Time Algorithm: \$80,942</p> <p>DMS Messages with a Navigator Travel Time Algorithm (requires a lookup table be manually populated): \$175,777</p> <p>Note: the requirements to the left are NOT consistent with Navigator.</p>		<p>The <i>Travel Time Message Analysis for Florida's SunGuide Software</i> was distributed July 6.</p> <p>Committee member suggests using GDOT travel time algorithm.</p> <p>Refer to <i>July 19 SunGuide Status Meeting Slides</i>.</p>	<p>Yes: Use TxDOT TransGuide algorithm. This needs to be included in Release 2.0</p>

FDOT Change Management Board Meeting Notes of July 20, 2005

Item	Category	Original Request	Associated Detail Requirements	Cost	Source	Notes	CMB Vote (Yes/No/Future)
Performance Measures	New		<ul style="list-style-type: none"> • Req. ID TBD: SunGuide shall collect and compile measures of performance. • Req. ID TBDsub1: Performance measures shall include but not be limited to: <ul style="list-style-type: none"> – Incident Detection Time – Incident Verification Time – Incident Response Time – Incident Clearance Time – Traffic Queue – Clearance time • Req. ID TBD sub2: SunGuide shall support the creation of reports summarizing the performance measurements over a variable length of time from 1 day to 1 year in increments of days or calendar months. 		Statewide Performance Meeting		<p>Future: SwRI will provide available SunGuide software incident management data. D6 suggested including the Road Ranger subsystem data requirement in the performance measures.</p>
Tag Readers	New	MDX travel time will apply tag reader instead of detectors.				DCP project for OOCEA may meet the requirements.	<p>Future: Requirements and cost need to be identified. District 6 requires this application from Miami to Key West. .</p>

FDOT Change Management Board Meeting Notes of July 20, 2005

Item	Category	Original Request	Associated Detail Requirements	Cost	Source	Notes	CMB Vote (Yes/No/Future)
Enhancements during FAT 1.1	New	<ul style="list-style-type: none"> • “Find on Map” button should have a flashing indicator or notification for assigned operator (D6). • Limit DMS message to two phases and a specific character count (D6). • “Date Picker” rather than dropdown lists for date fields (D6). • Use “mile marker” rather than “cross street” in recommended response plans (D6). • Add “close” button to windows rather than the Window’s “x” (MDX). • Highlight an individual sign from a response plan on the map (MDX). • Restrict field lengths in the editor (MDX). 					<p>Future: Requirements and cost need to be identified.</p>
HAR wave file	HAR	<ul style="list-style-type: none"> • Provide Spanish wave file • Operator creation of WAV file based on operator privileges 	Req. ID TBD: SunGuide shall provide the ability to use externally generated WAV files in the broadcast of messages to HAR devices.	\$48,730		Refer to <i>July 19 SunGuide Status Meeting Slides</i>	No

FDOT Change Management Board Meeting Notes of July 20, 2005

Item	Category	Original Request	Associated Detail Requirements	Cost	Source	Notes	CMB Vote (Yes/No/Future)
DynaMap Update	GUI/Map	Using DynaMap V7.0					Yes: CO will distribute the CD sets to Districts for SunGuide deployment.

* SunGuide support budget allocation by fiscal year

	FY06	FY07	FY08	FY09	FY10	FY11	FY12	Total
Proposed Amount	\$303,437.32	\$319,366.32	\$336,252.12	\$354,010.40	\$372,753.92	\$392,577.48	\$413,375.48	\$2,491,773.04
<i>SunGuide Contract</i>	\$66,245.00	\$72,572.00	\$140,203.00	\$122,420.00	\$152,526.00	\$162,426.00	\$189,968.00	\$906,360.00
Under Funding	\$237,192.32	\$246,794.32	\$196,049.12	\$231,590.40	\$220,227.92	\$230,151.48	\$223,407.48	\$1,585,413.04

Item #3 – Review of Vote

Gene reviewed all the votes and revisions made to ECP No. 2.0. Committee members agreed that comments would be provided by the next SunGuide Project Status Meeting.

Item #4 – Adjourn

The CMB meeting adjourned at 10:00 A.M.

ACTION ITEMS

ACTION ITEM #1 – PBS&J (John Bonds) will revise the document *Concept of Operations for Incident Management through C2C Communications* and further address the requirements discussed in the meeting.

ACTION ITEM #2 – SwRI will provide information regarding what the current SunGuide version can do to support performance measures.

ACTION ITEM #3 – FDOT CO IM Section (Paul Cark) will provide inputs from the Statewide Incident Management Team to support Road Ranger subsystem requirements.

ACTION ITEM #4 – SwRI will provide further information and cost for a Tag Reader subsystem.

ACTION ITEM #5 – SwRI will provide further information and cost for enhancements during FAT 1.1.

ACTION ITEM #6 - FDOT CO ITS Section will distribute the DynaMap CD sets for SunGuide deployment.

ACTION ITEM #7 – SwRI will provide a flowchart support log form to identify the formal process and address the support priorities response plan in the support contract.

ACTION ITEM #8 – SwRI will provide a tool on the Web site to track the support request and status.

ACTION ITEM #9 – SwRI will develop a knowledge base (e.g. FAQ) for past problems and post it on the Web site.