

National Capital Region Transportation Planning Board

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Meeting Notes

MANAGEMENT, OPERATIONS, AND INTELLIGENT TRANSPORTATION SYSTEMS (MOITS) TECHNICAL SUBCOMMITTEE

DATE: Tuesday, February 12, 2013
TIME: 12:30 PM
PLACE: COG, First Floor, Meeting Room 1
CHAIR: Jean Yves Point-du-Jour, Maryland State Highway Administration

Attendance:

James Austrich, Parsons Brinkerhoff
James Cheeks, DDOT
Enrique Gonzalez, Sam Schwartz Engineering
Warren Henry, Jacobs Engineering/MSHA
Taran Hutchinson, MATOC
Greg Jones, Frederick County
Steve Kimble, Sensys Networks
Mena Lockwood, VDOT (phone)
Eric Marx, PRTC/Omniride (phone)
Amy Tang McElwain, VDOT (phone)
Jean Yves Point-du-Jour, MD SHA
Richard Retting, Sam Schwartz Engineering
Tom Sherer, Arlington County DES
Dwight Wright, Telvent, Inc.

COG Staff Attendance:

Andrew Meese
Erin Morrow
Wenjing Pu
Eric Randall
Daivamani Sivasailam

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Actions:

Item 1: Welcome and Review of Notes from the September 11, 2012 MOITS Meeting and January 10, 2013 Conference Call

Participants introduced themselves. Notes from the September MOITS meeting and the January conference call were distributed. It was noted that the conference call was only for the public sector. There were no comments on the meeting notes. Any comments after the meeting can be sent to Mr. Meese.

Item 2: Coordination Updates

a. Regional Emergency Support Function #1 (RESF-1) Emergency Transportation Committee Update

At the last RESF-1 meeting, the then upcoming Presidential Inauguration was discussed. RESF-1 is currently between UASI cycles. The next meeting of RESF-1 is scheduled for February 14th at 1 pm. There was a question about whether there would be an after-action report for the Inauguration. There are resources available to produce a report, but at this time, it is not known how such a report would be structured.

b. Updates on Traffic Signals and ITS Architecture Activities

At the January 23rd TPB meeting, Mr. Mendelson requested a status report of traffic signal optimization in the region. Staff is at the beginning stage of gathering that information. The initial feedback has come from TPB-level DOT participants. The goal is to prepare a more detailed report on all agencies and programs. Last week, Mr. Meese and Mr. Sivasailam attended the Northern Virginia Signals Operation Meeting. A Traffic Signals Subcommittee meeting will be scheduled soon so discuss how to best respond to Mr. Mendelson's request.

There was a question as to whether it is possible for COG to look at the available traffic signal power back-up technologies and list advantages and disadvantages. Mr. Meese responded that at the last IMR meeting there was an extensive discussion on this topic. There is support for focusing efforts on locating and prioritizing intersections, but large agencies do not expect to achieve 100% coverage due to costs, especially maintenance costs. He will take that information back to the IMR committee.

The IMR is scheduled to meet twice more this calendar year with the next meeting scheduled for March 21st.

Mr. Sivasailam briefed the group about ITS Architecture activities. States have their own memos that lay out the need for ITS architecture. MPOs are federally required to have ITS Architecture. The most recent document for the region was created in 2007 and staff is in the process of updating it.

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c. Metropolitan Area Transportation Operations Coordination (MATOC) Program Activities

Mr. Hutchinson reported that there are now over 2000 RITIS users, which is double the number from last year. There are plans to conduct webinars for RITIS training beginning in March. In-person training sessions will still be offered. The next release of RITIS will be later this spring. UMD is working to develop video tutorials for RITIS. The discussion of RITIS resiliency and back-up continues. Real-time national INRIX data and national weather coverage are now offered. Training participants will be shown how to use RITIS for road closures.

The Presidential Inauguration went well for MATOC which was imbedded with DC TOC. MATOC treated the day like July 4th and there were no real surprises.

The severe weather group is still meeting.

The MATOC Steering Committee approved a construction coordination study. This fulfills one item in the MOITS Strategic Plan. Possible MATOC-related presentation topics for future MOITS meetings include a presentation from the MATOC Information Systems Subcommittee, a RITIS demonstration, and a briefing on operations activities.

There was a question on whether the construction study is focused on activity in the short-term or long-term. The study will focus on a little bit of both. For example, if VDOT is repaving a lane of I-66, WMATA shuts down a portion of the Orange Line, and Maryland has construction planned on the Beltway, what is the process for deconflicting the work zones? Mr. Hutchinson noted that he is familiar with the VDOT process that requires work zones to be deconflicted by the end of the week for the construction scheduled the following week. Mr. Cheeks added that DDOT's process should be very similar. It was noted that there is currently no single resource for work zones in the region and it would be beneficial to have a meeting of the minds to look at both conflicts and synergies.

Item 3: Briefing on the District DOT Wireless Vehicle Detection Project

Mr. Kimble presented an overview of the Sensys Networks Wireless Detection System technology that is DDOT is installing. The sensors are an improvement over inductive loop detectors. The units are wireless, provide real-time information, have a 10-year battery life, and are easily installed in the pavement in less than 15 minutes. The sensors can provide counts per lane and, if installed in pairs, speed. If the wireless connection fails, the data are stored with a timestamp and sent when the connection is restored. Third party testing has shown a 98% count accuracy. The units are not affected by weather conditions such as rain, fog, or snowpack.

Mr. Cheeks discussed how the new wireless vehicle detection project fits into DDOT's traffic management system and findings from the project thus far. The DDOT wireless detection project is replacing antiquated loop detection with wireless technology. The wireless technology in this project will collect data at 142 arterial locations. Data will be shared with partner agencies and can

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be integrated with CapTOP. DDOT is in the middle of its ITS Master Plan update. They looked at the technologies being used and whether they are old or new. There is a new DMS sign project providing travel times on signs along freeways. Last year all of the loops were repaired and the traffic signals were optimized. Data from the wireless vehicle detection project will be used for both long-range planning and day-to-day operations.

He showed an example of the system dashboard and examples of the data available from the wireless vehicle detection system - volume, density/occupancy, and median speed per lane. He also displayed an example of a congestion map. Every vehicle event is stored and can be reported in increments of 15 minutes, 60 minutes, etc., as needed. Next steps are to look at phase-based timing plans, coordinate with other agencies, and study the potential use for bicycle actuation and counts and parking spot detection.

Mr. Cheeks continued by discussing some of the benefits of the project. He noted that from a maintenance perspective, the sensors are an improvement over the loops that can be broken and require a lane closure to replace, but there is the risk of utility contractors damaging the sensors. (DDOT is now using orange epoxy when installing the detectors to draw attention to them.) The data collected by the sensors are real-time. The sensors send automated alerts on failures and battery life, and consume approximately 1/12th of the power of the loops. Some of the lessons learned include better assessing the status of communications ahead of time (found to be the most critical part of the project), include any required communications as part of the project, and manage milling operations.

It was asked if there was any change in reception with asphalt shift. The epoxy protects the units; shifting may affect the wireless connection, but it is not likely. The units should not pull out of the asphalt due to a snowplow. It was noted that in the accompanying software, the available battery life can be monitored and the units have a 5-year warranty. Since the burden of maintenance rests with DDOT, Mr. Cheeks noted that this system needs a strong testing program before accepting the units. He was asked if DDOT has done any validation of the data. He responded that yes they have as part of the CapTOP systems to compare to available data such as INRIX and RITIS. Mr. Kimble noted that a contractor did a video count at each site as part of the contract with DDOT. Mr. Pu asked how long partner agencies have to wait to access the data. Mr. Cheeks responded that the project is still in the testing phase. Communication between the devices has been an issue. Once DDOT has confirmed communication to all devices and the data look good, DDOT will release it.

Item 4: Update on the TPB Task Force on Bus On Shoulder Feasibility in the Washington Metropolitan Region

Mr. Randall provided an update on the activities of the Bus On Shoulder (BOS) Task Force. The second of three meetings was held on January 23rd. Ms. Carol Krimm and Mr. Chris Zimmerman are the co-chairs. The task force is expected to wrap-up in April with a final set of meetings and a final report. Mr. Randall reviewed the membership list and the workplan for the task force. He reviewed the key findings from the Task 1 memorandum including implementation considerations, design elements, operational considerations, and regulatory and funding considerations. Task 2,

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assessment of feasibility of BOS, is currently underway. Three corridors (MD5/US301, I-270, and I-66 inside the Beltway) will be screened for highway congestion, current bus service ridership, and highway shoulder conditions. A draft version of these findings will be released in February. The website for the task force is www.mwcog.org/BOSTF.

Mr. Point-du-Jour noted that he worked on the original bus on shoulder study for SHA and noted that key questions included how to respond if a car is stuck on the shoulder and whether to let buses use the shoulders without an analysis of the pavement based on political decisions. A question was asked whether there was any discussion of operational enforcement. The Maryland State Police (MSP) liaison to CHART has stated the MSP enforcement and incident response concerns to BOS. Additionally, the buses would not be allowed to exceed a speed differential of 20 mph with the adjacent lane. Mr. Randall was asked whether any other regions with BOS have published benefit-cost analyses. Mr. Randall responded that the TCRP report on BOS systems did not have any examples of BCA.

Item 5: MOITS-Related Tasks in the Draft FY2014 COG/TPB Unified Planning Work Program (UPWP)

Mr. Meese gave an overview of MOITS-related programs in the FY2014 UPWP, focusing on what is new or changed from the FY2013 UPWP. The MOITS-related programs include: congestion management process; management, operations and ITS planning; emergency preparedness planning, transportation safety planning; freight planning; MATOC program planning support; and congestion monitoring and analysis. He noted that due to the passage of MAP-21, there is a focus on performance-based planning. MAP-21 has a strong focus on freight planning with economic vitality as a performance measure. With federal funding being complicated, the FY2014 UPWP assumes a flat-line budget. The TPB is scheduled to approve the FY2014 UPWP in March.

Item 6: MOITS-Related Highlights from the 2013 Transportation Research Board (TRB) Annual Meeting

Mr. Meese reported on MOITS-related items of interest from the 2013 TRB Annual Meeting that took place in January. TRB has a committee called Regional Transportation Systems Management and Operations which has similar overlap to MOITS. The activities of the committee are largely driven by the feds and regional coordination and operations are the focus. There is a move towards outcome, scenario-based planning, although scenario planning is rare for operations. Also noted at the annual meeting is that probe data is really changing the field. Also, staff has been asked if the Washington region could host a workshop on active travel demand management and the related chapter of the new highway capacity manual. There was interest from the subcommittee in this request. Mr. Pu and Ms. Morrow presented of papers by staff that were presented at the annual meeting.

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Item 7: Other Business

There was no other business. If anyone has presentation topic ideas for future meetings, please contact Mr. Meese.

Item 8: Adjourn

The next meeting is scheduled on Tuesday, March 12 at 12:30 pm in COG Meeting Room 1 [later changed to Tuesday, May 14].