

# National Capital Region Transportation Planning Board

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## Meeting Notes

### **TRAFFIC SIGNALS SUBCOMMITTEE OF THE MANAGEMENT, OPERATIONS, AND INTELLIGENT TRANSPORTATION SYSTEMS (MOITS) TECHNICAL SUBCOMMITTEE**

**DATE:** Tuesday, March 5, 2013  
**TIME:** 10:00 AM to 12:00 Noon  
**PLACE:** COG, First Floor, Meeting Room 4 and 5  
**CHAIR:** Ling Li, Virginia Department of Transportation

#### **Attendees:**

Shahid Abbas, Arlington County  
Amit Sidhaye, Arlington County  
Harvey Alexander, DDOT  
Edwin Daniel, Montgomery County Police (called in)  
Maha Gilini, City of Alexandria (called in)  
Ling Li, VDOT  
Curt McCullough, City of Fairfax (called in)  
Bob Souza, VDOT  
Steve Kimble, Sensys Networks

COG Staff:  
Andrew Meese  
Daivamani Sivasailam  
Erin Morrow

#### **Actions:**

##### **1. Welcome & Introductions**

###### **a. Review of Notes from the September 11, 2012 Meeting**

Ms. Li began with introductions and welcomed participants. Meeting notes from the September 11, 2012 meeting were reviewed and approved.

##### **2. Discussions of the Recent Surveys on Traffic Signals**

###### **a. Traffic Signal Power Backup Systems Survey**

## **Traffic Signals Subcommittee**

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Mr. Sivasailam briefed the committee on the latest results of the Traffic Signal Power Backup Systems Survey as of December 31, 2012. The survey link was emailed to the members last week, and as of the meeting date six jurisdictions have completed the survey. He thanked the jurisdictions for providing COG/TPB staff with the latest data. The committee reviewed the draft results and made some comments. The total number of signals continues to increase and most of them have battery backups. A final tally of the survey results will be presented at the next MOITS meeting. Mr. Sivasailam noted that the region has been making significant progress in providing traffic signal power backup and this would be conveyed to the IMR Committee when they meet at the end of March. In response to a question as to what is considered to be generator ready, Mr. Meese clarified that for the purpose of the IMR committee, signal systems with battery backup and generator capable will be listed as battery backup and those that are only generator ready with no internal battery backup will be listed as generator ready. He also talked about the impact of the Derecho storm which he will include in his presentation to the IMR Committee. Ms Maha from the Alexandria inquired about the funding that DDOT was able to secure for their battery backup conversion. She also requested other jurisdictions to let her know how they funded their backup systems. Sivasailam mentioned that the next round of urban area security initiative (UASI) funding would be coming up and there is a possibility of applying for those grants. DDOT clarified that generators were procured with UASI funding and the battery backup systems were funded with regular federal funds. It was also noted even if outside funds were obtained for the initial installation of signal battery backup, maintenance costs should be considered and it has to be funded with existing sources.

### **b. Traffic Signal Optimization/Retiming**

Mr. Sivasailam referred to a memo from Ron Kirby to the TPB regarding the status of three items including signal optimization/retiming. He will be sending out a survey on the topic to the subcommittee to obtain data on the programs in place for signal optimization. The last such survey was completed in 2009 and most of the jurisdictions use Synchro program to optimize the signals. Members mentioned it is important to use good traffic counts as input to the model and it should be done periodically. Arlington County updates their system every three years and will share with COG a study on the benefits of such a program which was compiled by their staff. Arlington County also mentioned that they have answers (retiming) for citizens complaints and the aggressiveness of the complaints have gone down. VDOT also optimizes signal systems every 3 years, optimization does reduce delay, however the incremental benefits of reoptimization is less the second time, and you cannot completely eliminate delay and congestion. DDOT has hired consultant to retime/optimize signals in the District and it is a multi year project. Andy Meese mentioned that STWG members recommended the presentation should tell the story of what the jurisdictions are doing in terms of retiming since the process of estimating emissions benefit have changed including the tools used to estimate air quality benefits. It is anticipated that the staff presentation to the TPB would happen during the May TPB meeting. It was clarified that Synchro output provides fuel consumption benefits as well as VOC, NOx and CO2 benefits. Andy

Meese clarified that for air quality conformity purposes we may have to use EPA approved models.

### **3. Sensys Systems**

Steve Kimble thanked the subcommittee for giving him the time and provided an overview on their wireless detector technology. He discussed the life of the battery, range, capabilities and limitations of their system. He also discussed a new radar based sensor they are introducing. The new hardware (detector) is backward compatible, lower power consumption, and testing indicated a battery life greater than 10 years. They are also working on a new sensor for bicycle detection. There are still issues in differentiating between bicycle and automobiles but the initial results are promising. The sensys sensor is capable of knowing when a vehicle is parked at roadside. If you want to use the sensor for both count as well as presence detector one as to use a special sensor. There was discussion about data archiving, online storage and analysis software provided by Sensys but a fee is involved. He showed some examples of DDOT's use of the equipment and the software for analysis. The Sensys detector has been used for speed and travel time detection by spacing the sensors with a match rate of 50 to 70% with a 98% accuracy and the results have been 3<sup>rd</sup> party verified.

### **4. Jurisdiction Roundtable**

Harvey Alexander discussed the Presidential inauguration, which involved detailed planning, and DDOT successfully executing tour bus parking for thousands of buses. Ling Li wanted to know how many attended the inauguration and he replied it was between 800k and 1 million according to news reports. They are continuing with providing UPS (battery backup) for signals throughout their system and FY 2014 funding has been secured. They are testing adaptive signal system along three corridors. The chair wanted to include adaptive signal system as an agenda item in one of the upcoming subcommittee meeting. He also mentioned a meeting planned with WMATA to discuss transit signal preemption. Arlington County also thanked the region for carrying out a successful inauguration and discussed differences with WMATA on TSP technology and they were worried the technologies being considered could interfere with their signal system equipment. City of Alexandria discussed the Duke Street signal system coming online soon, King Street ITS project including CCTV and upgrades to TOC. VDOT discussed their activities during the inauguration, retiming of signal systems to help traffic flow smoothly.

### **5. Other Business**

Mr. Andrew Meese briefed the subcommittee on an upcoming ITS architecture workshop in northern Virginia. The next meeting may be held along with the VDOT NOVA managers meeting.