



JOINT SYSTEMS PERFORMANCE, OPERATIONS, AND TECHNOLOGY SUBCOMMITTEE (SPOTS) AND TRAFFIC SIGNALS SUBCOMMITTEE MEETING

December 14, 2016
10:00 A.M. – 12:00 P.M.
Room 3

ATTENDANCE:

Melissa Chow – WMATA
Matt Ginsberg – Connected Signals (on the phone)
Mike Kinney – Montgomery County (on the phone)
Bob LeSueur – Sensys Networks
Ling Li – VDOT
Mena Lockwood – VDOT (on the phone)
Bailey Lozner – Kittelson (on the phone)
Andrew Meese – COG/TPB
Liz Parrish – Montgomery County (on the phone)
Sree Nampoothiri – NVTA (on the phone)
Jean Yves Point-du-Jour – MDSHA
Piotr Rachtan – MDSHA (on the phone)
Stephanie Rogers – Falls Church (on the phone)
Tom Scherer – Arlington County (on the phone)
Jon Schermann – COG/TPB
Amit Sidhaye – Arlington County
Daivamani Sivasailam – COG/TPB
Theodore Smith – Parsons Brinckerhoff
Marco Trigueros – COG/TPB
Jennifer Wong – Falls Church (on the phone)

MEETING NOTES

1. INTRODUCTIONS

Participants introduced themselves.

2. UPDATE ON FOLLOW-UP ACTIVITIES TO THE “CHAMPIONING TRAFFIC INCIDENT MANAGEMENT IN THE NATIONAL CAPITAL REGION” CONFERENCE

Mr. Meese briefed the committee on the follow-up activities coming out of the TIM Conference held in November. COG/TPB will be strengthening its TIM activities in future years. There has been some ongoing discussion on the establishment of safety service patrols on the George Washington Parkway. Funding for this service would have to be explored.

3. UPCOMING TRAFFIC SIGNALS SURVEYS

Mr. Trigueros highlighted the changes in the regular traffic signal survey schedule. The signal optimization and power backup surveys will be combined and sent out in January.

4. CONNECTED SIGNALS PRESENTATION ON V21

Mr. Ginsberg briefed the committee on Connected Signal's hardware and software that gives drivers real-time information on traffic signal timing. Connected signals will provide interested agencies a device to plug into their central signal system that will allow the sharing of traffic signal data to provide drivers with information on traffic light timing. Drivers are able to set their speeds to arrive at an intersection on the green light, allowing them to slow down and relax instead of speeding and stopping abruptly along coordinated corridors. There is a study underway in San Jose to evaluate the behavioral changes of drivers using the software. The device the company is providing for free allows the flow of data one way from the traffic signal system to Connected Signals. The standard agreement with the agency states that the agency maintains control of the data shared and can be terminated at any time. Furthermore, Connected Signals will share the data with any additional partners that the agency wants to share with.

In response to a question regarding the software visualization of turns, Mr. Ginsberg noted that the software shows a split screen when a signal has a protected left turn phase.

In response to a question regarding driver distraction, Mr. Ginsberg noted that the app stops countdowns 5 seconds before a signal changes so that drivers pay attention to the actual traffic signal to ensure compliance. Furthermore, the app will only show a green signal after it is confirmed that the signal is displaying green. The experience with the app is that drivers pay attention to it the same way they would glance at the dashboard, adding no additional distractions.

In response to a question regarding the traffic signal system requirements, Mr. Ginsberg noted the communications can be over modem, fiber, copper, or broadband as long as they follow protocol. Signals that are not connected are displayed as blue. Mr. Ginsberg also pointed out that there is about 1 second of latency between actual and software display, and the impact has not been critical as the information is sent to the phone way in advance and depends on local time.

In response to a question regarding actuated signals, Mr. Ginsberg noted that a "+" appears at intersections where the phase may be extended due to actuation. There is some machine learning that will help the software make better predictions with this type of signal.

In response to a question regarding applications for transit, Mr. Ginsberg noted that there are considerations for transit and emergency signal preemption, but there are no transit applications yet.

5. UPDATE ON ONGOING DATA COMPILATION AND ANALYSIS OF TRANSPORTATION IMPACTS OF WMATA'S SAFETRACK PROGRAM ACTIVITIES

Mr. Sivasailam briefed the group on the ongoing analysis of impacts resulting from WMATA's SafeTrack program. COG staff are looking at the impacts on congestion, transit, biking, and have reached out to regional partners to compile the relevant data. Mr. Sidhaye offered to redirect any requests for data in Arlington County. Preliminary results show that there have been significant local impacts but not as much change at the regional level.

6. ARLINGTON COUNTY SAFETRACK IMPACTS AND MITIGATION STRATEGIES

Mr. Sidhaye briefed the group on Arlington County's efforts to accommodate the SafeTrack work schedule. Around the Ballston Metro Station, they increased the amount of curb space provided for transit service and taxi drop off. They worked with Capital Bikeshare to install a few additional stations at key locations. The focus was on the Rosslyn-Ballston corridor as well as Crystal City. At the East Falls Church station along North Sycamore Street, they made some changes to signal timing to accommodate the increased flow of buses to and from the station. Around the Ballston area, there were turn restrictions on VMS to ease bus access to the station. Additional messaging was deployed on VMS during the initial surge to alert drivers of the upcoming work. The traffic management center (TMC) was manned during the 1st week and provided real-time monitoring and active management. In response to a question regarding travel time displays (based on Bluetooth data), Mr. Sidhaye noted that the data is archived but has not been analyzed.

7. VDOT SAFETRACK IMPACTS AND MITIGATION STRATEGIES

Ms. Li briefed the group on VDOT's efforts to mitigate impacts from SafeTrack activities. VDOT met with partner agencies to prepare for the upcoming track work and develop an operations plan. They have looked to minimize lane closures and work zones that could further exacerbate congestion in affected areas. Some additional cameras have been deployed to assess affected areas that are not covered by the permanent camera network. Staff is monitoring conditions on both freeways and arterials in real time and adjusting operations as needed. For traffic signals, the AM peak period has been extended as this is where most of the impacts have been observed. After each surge, staff have conducted some analysis to measure the changes in congestion and travel times on major roadways. They have found impacts on the region's freeways – I-66, Dulles Toll Road, and I-395. However, impacts on arterials has not been significant. The impacts have been most marked during the peak periods, but most of all during the AM peak. Additionally, the impacts seem to have become less severe with each passing surge, possibly as commuters learn more of the work program and adjust their travel.

8. JURISDICTIONAL ROUNDTABLE AND UPDATES

No further updates.

9. OTHER BUSINESS

No other business to discuss.

10. ADJOURN

The January SPOTS meeting will be canceled. The next meeting is scheduled for February 8, 2017 at 1:00 P.M.

The TPB is staffed by the Department of Transportation Planning of the Metropolitan Washington Council of Governments.

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