Metropolitan Washington Council of Governments

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

June 8, 2016
1:00 – 3:00 P.M.
COG Room 1

ATTENDEES

Curt McCullough, City of Fairfax (phone)
Amy Tang McElwain, VDOT
Jean Yves Point-du-Jour, SHA
Jason Tao, DDOT
Robert Winick, Motion Maps, LLC (phone)

COG Staff
Michael Farrell, COG/TPB
Andrew Meese, COG/TPB
Erin Morrow, COG/TPB
Wenjing Pu, COG/TPB
Daivamani Sivasailam, COG/TPB
Marco Trigueros, COG/TPB
Patrick Zilliacus, COG/TPB

ITEM 1. WELCOME AND INTRODUCTIONS, AND NOTE ON THE JULY 2016 TRANSITION FROM MOITS TO SPOTS

Participants introduced themselves. Mr. Meese noted that this was the last meeting of MOITS under that name. Under the FY 2017 UPWP, the new name of the committee will be the Systems Performance, Operations, and Technology Subcommittee (SPOTS), which more accurately represents the interests and duties of the committee moving forward. Mr. Meese thanked Mr. Point-du-Jour for serving at the chair for MOITS and announced that he will continue as the chair for SPOTS. Mr. Meese also noted that COG is transitioning to a new website and new means for interfacing with committee members. Individual committee members will be able to manage their own profiles. The meeting summary from the May 13th joint meeting with the Vehicle Probe Data Users Group (VPDUG) was distributed. Any comments should be sent to Mr. Meese.

ITEM 2. DDOT/WAZE INFORMATION EXCHANGE

Mr. Tao briefed the committee on DDOT's social media analysis for traffic operations and incident management. One year ago, DDOT developed an application to retrieve tweets related to incident detection and it has been a useful supplemental tool for its TMCs. This year, DDOT is looking at the WAZE data for congestion and incident reporting. He feels that WAZE data is more useful than information from Twitter because it is more location specific.

The WAZE app uses polylines to represent roadway segments, provides information on delay relative to free-flow speeds, and provides real-time average speeds every five minutes. He was asked how DDOT receives the data. Mr. Tao responded that the data are free and DDOT wrote a script to retrieve the data from WAZE's website. The WAZE data contain location, report time, incident type, and reliability of report on a scale of one to ten. He was asked if DDOT downloads the pictures that users upload. Mr. Tao responded that DDOT just downloads the data.

He showed examples of WAZE data on selected corridors. He was asked whether having data from WAZE means that DDOT will no longer need to populate the corridor with sensor data. Mr. Tao responded that the corridors in WAZE are predefined by WAZE and DDOT needs to have data to cover all major corridors. Mr. Meese noted that WAZE uses an amalgamation of sources including public sector data so some of the data WAZE provides in the District likely comes from DDOT.

Mr. Tao showed how DDOT is working to develop traffic profiles, including average speed and congestion measures, for all available corridors by segment using the WAZE data. Mr. Sivasailam noted that COG/TPB uses TMCs and the FAST legislation will use slightly different segments and asked why DDOT selected the segments that it did. Mr. Tao responded that WAZE segments are different, but they can be converted to DDOT corridors. For future work, DDOT is working to improve the algorithm that calculates average travel time and other roadway performance measures and compare incident report times from WAZE and TMC data.

This presentation generated questions and extensive discussion. Mr. Pu asked whether DDOT has compared the WAZE data to other sources like INRIX. He responded that they have not yet. Mr. Sivasailam noted that Skycomp has done some comparisons between WAZE data and INRIX data on freeways and the data are fairly close. Mr. Pu noted that arterials are different, and the WAZE data could potentially be better, but we do not know yet. Mr. Tao noted that INRIX is not always reliable on arterials and Mr. Pu noted that in his opinion, INRIX is more reliable than some of the other data sources.

Mr. Pu asked if the same algorithm could be used to retrieve Google traffic data. Mr. Tao responded that he thinks so. He was asked about the bias in reporting congestion and incidents in WAZE and how transparent WAZE is with how the data are compiled. He responded that most people only enter congestion and incidents, not free-flow speeds, and DDOT is currently working with what is available. He noted that the WAZE data are supplemental.

He was asked if delays that are attributable to construction are reflected in the free-flow travel time. Mr. Sivasailam noted that WAZE allows users to note construction. Mr. Meese asked about a Washington Post article that stated that DDOT was collaborating with WAZE and it would shorten the incident detection time. Mr. Tao responded that is not entirely accurate. The WAZE data are available to TMCs and they receive alerts, but DDOT does not yet know how much shorter the incident detection time may be. Mr. Point-du-Jour asked is Mr. Tao would be willing to give a presentation on DDOT's work to SHA. Mr. Meese added that MOITS/SPOTS would like to have an update on DDOT's work in the future.

ITEM 3. UPDATE ON MOITS-RELATED ACTIVITIES CONCERNING METRORAIL'S SAFETRACK PROGRAM

Mr. Meese provided a briefing on the actions being taken by various COG and TPB committees to address the travel disruptions caused by Metrorail's SafeTrack program. He handed out a memo that was jointly from COG's Deputy Executive Director Stuart Freudberg and TPB's Staff Director Kanti Srikanth. TPB's main effort will be transportation demand management through the

Commuter Connections program. In addition, there is a desire to have information on the agencies own management and reaction, which is not limited to traffic, but also bicycle and pedestrian and public transportation services.

COG and TPB staff are trying to stay informed about and document what the various agencies are doing in response to SafeTrack, such as parking restrictions, expanded rush hour restrictions, and moratoriums on construction, and be able to share that information with agencies that are impacted later in the SafeTrack schedule. The TPB will be briefed every month. Staff will also be looking at vehicle probe data and other data sources to see if there is anything that can be concluded that is helpful to share with member agencies.

Mr. Pu said that during the first two days of SafeTrack, freeway congestion throughout the region was up approximately 20% and the morning peak was higher than the evening peak, which is not typical for the region. He said that TPB staff have not yet met internally to discuss these findings so he does not know if the data will be released. Ms. McElwain said that she spent a great deal of time on various website researching alternatives to Metro for her husband and wondered how much time members of the general public would spend doing the same or if they would give up quickly and elect to drive.

Mr. Meese noted that because data from any of the SafeTrack surges will represent a relatively short period of time, TPB staff should be strictly focused on what the data are saying rather than anecdotes and speculation, and share the data in a way that informs the TPB and member agencies. He also asked the committee if there was anything else that TPB staff should be looking at in regards to the SafeTrack impact analysis. Mr. Sivasailam suggested requesting volume data from the DOT's permanent count stations. Ms. McElwain suggested requesting transit ridership data including the supplemental bus service.

ITEM 4. REVIEW OF THE FIRST DRAFT 2016 CONGESTION MANAGEMENT PROCESS (CMP) TECHNICAL REPORT

Mr. Pu and Ms. Morrow presented the first draft of the biannual Congestion Management Process Technical Report. Mr. Pu began the presentation by noting that the FAST Act and the new metropolitan planning rule that was released on May 27th retained, and in some ways strengthened the CMP. In the future, in addition to travel demand management and operational strategies, the report will also address job access strategies. Additionally, there is an option for the development of a congestion management plan. These new guidelines do not impact the 2016 Technical Report. The draft report is posted on the website. The report compiles information from numerous agencies as well as TPB data collection and analysis.

Mr. Pu discussed the State of Congestion including regional travel trends, peak period congestion, travel time reliability, monthly variation of congestion, day of the week variation of congestion, top ten bottlenecks, and average travel time and reliability on major freeway commute routes. There was discussion about unexpected results on the top ten bottlenecks with a section on the eastern side of the Beltway on the list and the 14th Street Bridge not on the list. Mr. Pu noted that the top ten bottleneck calculation used 24/7/365 data.

Ms. Morrow gave an overview of the documentation of congestion management strategies in the report. She noted that there were not significant changes from the 2014 report, but there were some themes in the 2016 report including advances in technology and data, strategies to better utilize the existing network, traveler choices, and coordination and collaboration.

Ms. McElwain wondered if it would be possible to collect data on some of the carsharing and ridehailing service usage during SafeTrack. She also asked if signal timing optimization was still getting the same level of attention from elected officials as it was a few years ago. She noted that she was noticing some funding drops and more justification for signal optimization projects is required. Mr. Meese said that the topic has not been brought up at the TPB or directly to staff lately. Staff still collects information on optimization in the region and is due for the next survey.

Ms. Morrow discussed the integration of the CMP with the CLRP and reviewed the recommendations that are in the report. Comments on the report are requested by June 22nd. The initial presentation to the TPB Technical Committee is expected at its July meeting and the finalization of the report is expected at its September meeting.

Mr. Point-du-Jour asked if the safety performance of transportation system would be documented. Mr. Pu responded that in Chapter 2 there is a section on the relationship between mobility and safety and that section will be updated in the future based on the MAP-21 safety performance measure rule. Mr. Meese added that this report does not have data analysis on safety and there is room for an expanded look at the interaction between safety and congestion. Mr. Meese asked Ms. McElwain if she had any suggestions for the report like "sufficient investment in traffic signal optimization." She responded that her general sense in reviewing the recommendations is that many of them called for continuing the status quo and she will give some thought towards a recommendation. Mr. Point-du-Jour said in his observations, the general movement is towards adaptive signal technologies. Ms. McElwain noted that some corridors are not good candidates for adaptive signal control and combination of technologies is needed. Mr. Pu asked members of the committee what their opinions were on the optional congestion management plan that is in the FAST act and whether they thought that having such a plan would help with getting funding for CMP strategies. Ms. McElwain responded that it might, but there would need to be buy-in or a mandate. Mr. Pu said that one of the purposes of the plan is to increase the integration of the CMP and the region's Transportation Improvement Plan (TIP).

ITEM 5. UPDATE ON SYSTEM PERFORMANCE NPRM ROUNDTABLE DISCUSSIONS

Mr. Pu provided an update to the Notice of Proposed Rulemaking (NPRM) discussion that took place at the May 13th meeting. There are eight performance measures and the rules are very perspective on calculations, placing a lot of burden on the state DOTs to prepare the data. TPB staff are participating in the Association of Metropolitan Planning Organizations (AMPO) review of the rule and will be drafting some comments. TPB staff will have a conference call with all three DOTs on June 23rd to discuss those comments and the DOTs preparation for the rule. Mr. Pu expects that there will be comments on the calculation of average travel speed and the threshold between uncongested and congested travel speeds. There may be a comment on equivalent travel time data sets. Final comments on the rule are due Saturday, August 20th.

ITEM 6. REVIEW OF 2015 WASHINGTON-BALTIMORE REGIONAL AIRPORT GROUND ACCESS TRAVEL TIME STUDY DRAFT REPORT

Mr. Zilliacus gave a briefing on the draft report. This report is under Continuous Air Systems Planning, which is distinct from the UPWP, and has been done many times in the past. This report is the first which was completed using vehicle probe data from the VPP suite rather than floating car data. Data were analyzed for the periods of September 2011 to August 2012 and September 2014 to August 2015. Routes from previous versions of the report were largely maintained and the availability of probe data allowed staff to expand origin locations to relatively distant places as well

as to look at travel routes between airports. This draft report was presented to the Aviation Technical Subcommittee in March 2016.

Mr. Zilliacus reviewed the three major findings from the report. First, travel times to the airports have not changed very much from the 2011-2012 period to the 2014-2015 period. Second, travel to BWI experiences the highest travel time index (TTI) in the PM while IAD and DCA have the highest TTI in the AM. Finally, there are some points in the highway network that are severely congested (TTI greater than 2).

Mr. Zilliacus went on to detail the methodology, demographics, additions to the transportation system, data availability, TTI and planning time index (PTI) findings, managed lanes, and transit to airports that are detailed in the draft report which is online (http://www.mwcog.org/uploads/committee-documents/ZlxeV1ha20160401084328.pdf). He noted that the Maryland Aviation Administration had made a comment that transit time calculations in Baltimore probably should not start at Penn Station because that is not really downtown Baltimore City. He said that in the report, a line would be added to start from Baltimore Metropolitan Council's Zone 0 to get closer to downtown Baltimore which may give slightly different results. He asked that any comments from MOITS be submitted within 30 days.

He was asked whether the TTI and PTI were calculated for individual routes. He said that what he was showing in the presentation was an aggregate for all routes to each airport, but the appendix has the TTI and PTI for each route.

He was asked about transit from DC to BWI. There are two options, one is to take the MARC Penn Line and the other is to take the Metrorail Green Line to Greenbelt and take WMATA's B30 to BWI. Another alternative for those along Metrorail's Red Line is to take that to Shady Grove and catch MTA's Route 201.

ITEM 7. OTHER BUSINESS

Mr. Meese announced that the first meeting of SPOTS is scheduled for Wednesday, July 13. Mr. Point-du-Jour announced that the I-95 Corridor Collation is hosting a Connected Vehicle Workshop on June 21st.