
National Capital Region Transportation Planning Board

Metropolitan Washington Council of Governments
777 North Capitol Street, N.E., Suite 300, Washington, D.C. 20002-4290

Highlights of the January 24, 2014 meeting of the Travel Forecasting Subcommittee

Held at the Metropolitan Washington Council of Governments, from 9:30 AM to 12:00 PM

Status of highlights: Approved on 3/21/14

Meeting attendees

- Charles M. Freeman (Sabra, Wang & Assoc.)
- Eric Jenkins (M-NCPPC, Prince George's Co.)
- Wendy Jia (WMATA)
- Dial J. Keju (Frederick Co.)
- David Kline (Fairfax County DOT)
- Yuanjun Li (M-NCPPC, Montgomery Co.)
- Xuemei Liu (Cambridge Systematics)
- David Roden (AECOM Consult, Inc.)
- Valerie Pardo (Virginia DOT)
- Krishna Patnam (AECOM Consult, Inc.)
- Corey Pitts (VHB)

COG/TPB staff in attendance

- William Bacon
- Anant Choudhary
- Joe Davis
- Wanda Hamlin
- Charlene Howard
- Hamid Humeida
- Ron Milone
- Mark Moran
- Jinchul (JC) Park
- Jane Posey
- Wenjing Pu
- Clara Reschovsky
- Rich Roisman
- Dusan Vuksan
- Feng Xie
- Jim Yin
- C. Patrick Zilliacus

The meeting was chaired by Dial Keju of Frederick County, Maryland.

1. Introduction of new chair for 2014

Mark Moran, of COG/TPB staff, explained that, by tradition, the chair of the Travel Forecasting Subcommittee (TFS) rotates on a calendar-year basis between Maryland, the District of Columbia, Virginia, and WMATA. Since the 2013 chair worked for WMATA, the chair for 2014 should work for a Maryland agency. The new chair is normally announced at the November TFS meeting, but the November meeting was cancelled due to the sudden and unexpected passing of Ron Kirby. Due to the meeting cancellation, the announcement about the new chair was made by e-mail. Mr. Moran sent an e-mail to the TFS on 11/14/13 announcing that the new chair would be Dial Keju, of Frederick Co. Before formally introducing the new chair to the TFS, Mr. Moran thanked the outgoing chair, Wendy Jia of WMATA, and presented her with a framed certificate, signed by the 2013 chair of the Transportation Planning Board (TPB), Scott York.

2. Introductions and approval of meeting highlights from the September 20 meeting

The highlights from the September 20, 2013 meeting of the TFS were approved without change.

3. COG/TPB transportation network documentation: Presentation of draft report

COG/TPB staff member Ron Milone presented this item. He distributed a handout of his presentation to the subcommittee. Mr. Milone informed the committee that, while staff has made progress on the network report, he felt that additional review was necessary before releasing it. He added that staff will work to complete it by the end of January. The subcommittee will be notified of its completion via e-mail and the report will be available to the group on the Web. He invited the subcommittee to review and comment on the draft report when it is released.

Mr. Milone provided some background on the network report focus and content. The last such report was published in June 2010, and was written during the time when the Version 2.2 model was adopted. This report will focus on the networks that supported the most recent Air Quality Conformity study (involving the 2013 CLRP and 2013-18 TIP) and the currently adopted Version 2.3.52 model. Mr. Milone provided the subcommittee with an overview of the report structure. He added that TPB staff looks forward to completing this report and to providing the modeling community with a valuable resource document. No questions were asked of Mr. Milone.

4. Consultant-assisted project for development of the TPB travel model: Status report

This item was presented by David Roden of AECOM, who distributed a copy of his presentation. There are currently four open task orders:

- Task Order 10: Attend relevant meetings and respond to ad-hoc requests by COG/TPB staff
- Task Order 11: Develop a Cube-based method to generate transit walksheds and calculate zonal percent-walk-to-transit values
- Task Order 12: Traffic assignment improvements (a continuation of FY 13 Task Order 8).
- Task Order 13: Mode choice and transit modeling (a continuation of FY 13 Task Order 9)

Mr. Roden briefly described work done in support of Task Orders 11 and 12, but the majority of his presentation focused on Task Order 13, specifically the work to transition to a new transit path building program, from Cube TRNBUILD to Cube Voyager Public Transport (PT).

Regarding tracing transit paths on screen (as shown on slide 24), Mr. Milone asked whether Cube shows the node-by-node access/egress path or simply shows the access/egress “legs,” which are abstractions of the node-to-node access/egress paths. Mr. Roden said that the display tool in Cube Base shows only the separate access/egress legs, but added that the *generate* command in PT, and its text-based report, does allow you to see the actual node-to-node components of the non-transit access/egress leg. Thus, one could use the display tool in Cube Base along with the report file from the *generate* statement to get the detailed trajectory information. Regarding slide 19 (mode codes for “MWCOG Non-Transit Legs

in PT”), Dusan Vuksan mentioned that it appeared that there might be a typo in two of the values in the last row of the first table, since, with these values, the table of mode codes was not symmetric about the diagonal axis. Mr. Roden was not sure if this was a typo and agreed to investigate the question further. Mr. Vuksan also asked whether PT would have the capability, which is available in the current model, to specify maximum drive distances for park-and-ride access to transit. Mr. Roden said that it would. Regarding slide 26 (“Sample PT PNR Trace”), Ms. Jia asked whether the probabilities shown for two transit lines on the trace report (in this case 66.7% for REDA and 33.3% for REDB) were based on the service levels. Mr. Roden said that that was correct. Ms. Jia thought that the service levels on the two Red Line variants should be the same, resulting in equal probabilities. Mr. Roden said that he was unsure about the underlying assumptions that were used to code the two Red Line variants [Editor’s note: Ms. Jia had identified a coding error, which had previously been identified by COG/TPB staff and will be corrected in future releases of the Ver. 2.3.52 Travel Model networks]. Regarding the transit path trace on slide 27, Rich Roisman asked whether the column marked “perceived time” incorporated the travel time weights found in the mode choice model and the path-building scripts. Mr. Roden said that that was correct, and added that paths are built based on the perceived time, not the actual time.

Mr. Vuksan asked about the mode choice calibration process. Mr. Roden indicated that the mode choice model would be re-calibrated for two reasons: First, because of changing path-building software (from TRNBUILD to PT), and second, because of changing the mode choice application software (from AEMS to ModeChoice). Mr. Moran added that the new, automated calibration routine that comes with the new application software (ModeChoice) has the ability to limit the size of nesting constants, which should help make the model more FTA compliant. Wenjing Pu asked whether AECOM has considered travel time reliability in its efforts to update COG’s HOT-lane modeling methodology. Mr. Roden said that this had not been done directly, since we do not really have a way to deal with travel time reliability per se, but added that there will be a value-of-time concept that will vary by traveler type. Ms. Jia asked how much of the PT path-builder conversion work is already incorporated in the WMATA Regional Transit System Plan (RTSP) work that has been done. Mr. Roden responded that none of it is included in the RTSP work, since that was all done in TRNBUILD.

5. VDOT’s Project Prioritization Process in Northern Virginia: Use of TRANSIMS and the COG/TPB Travel Model

This item was also presented by Mr. Roden, who distributed a copy of his presentation. Mr. Roden said that AECOM is under contract with VDOT to help with an evaluation of transportation projects in Northern Virginia (what VDOT calls the Northern Virginia Transportation District). Mr. Roden said that the current study was the result of Virginia state legislation (2012 Virginia General Assembly: § 33.1-13.03:1, code chapter 768/825). The legislation requires the evaluation and rating of at least 25 significant transportation projects in Northern Virginia to determine which projects will have the greatest impact on reducing congestion and improving mobility during emergency evacuation events. Information from the study would then be given to Virginia’s Commonwealth Transportation Board (CTB) to aid in prioritizing the funding of transportation projects. Legislation also requires that the Northern Virginia Transportation Authority (NVTA) consider these project ratings when making funding decisions about any highway-related projects that add capacity (i.e., transit projects are excluded).

AECOM has chosen to use a process that makes use of both the regional travel demand model (Ver. 2.3.52) and a dynamic traffic assignment process (i.e., the TRANSIMS router and traffic simulator).

Mr. Moran asked whether the TRANSIMS traffic assignments would be done using an “all streets” network, or the more limited road network that is used by the regional travel demand model. Mr. Roden responded that the TRANSIMS assignment will use the MWCOG network for the entire region, with the exception of three jurisdictions (Fairfax Co., Prince William Co., and Loudoun Co.), which have a more detailed road network that is being used. Mr. Milone asked whether the zone system is being updated in the three counties with more detailed highway networks. Mr. Roden said yes, the three counties have subzones that are being used. Furthermore, TRANSIMS expects activity locations to be represented as points along the road segments in the network, so all the activity locations are allocated to points along the links of the highway network. Ms. Jia indicated that the VDOT process just described seems to be focused on only major transportation links. She suggested that more modest projects could still have a significant impact and therefore should be included for evaluation. One example might be the benefits of enhancing the pedestrian networks at each of the Silver Line Metrorail stations. Mr. Roden noted that there has already been a lot of debate about such issues. Since a “significant project” can be defined to include a number of elements, one can package pedestrian- and bike-related improvements with other items. Thus, the project could be a new transit line with the related pedestrian and bike improvements needed to make the project a success. Feng Xie asked whether projects will be evaluated on an individual basis or on a basis that considers the synergistic effects of multiple projects together. Mr. Roden said that, initially, each project will be analyzed independently, but, at a later stage, there will be an option to look at synergistic effects. Mr. Pu asked how AECOM plans to measure congestion severity. Mr. Roden responded that proposed performance measures, were mentioned on the next slide (slide 11).

Mr. Roisman mentioned that this analysis has been a huge undertaking, from both a policy standpoint and a technical standpoint, adding that, to date, AECOM and VDOT have gone to multiple weekly meetings with the local jurisdictions. Mr. Roisman then asked who came up with the idea of removing any projects that are already in the CLRP, in order to determine their congestion-reduction impact. Mr. Roden said that this was an AECOM recommendation, adding that this seemed like the only practical way to estimate the impact, and no stakeholders had objected to this proposal.

Mr. Moran asked whether the project rating process could include any metrics other than congestion reduction and increased mobility for emergency events (such as improvements in accessibility). Mr. Roden said that there was a two-step process: rating projects and then selecting projects. In the rating process, the legislation allows for only the two metrics (congestion reduction and increased mobility for emergency events). In the project selection process, however, other metrics could be considered. Mr. Milone asked whether there is a public participation element to the project. Ms. Pardo indicated that there will be a public outreach process. Mr. Roisman added that there is also a regular public comment process that is part of the normal NVTA process.

6. 2013 Central Employment Core Cordon Count of Vehicular and Passenger Volumes: Presentation of draft report

This item was presented by Patrick Zilliacus of COG/TPB staff, who distributed copies of his presentation. After discussing the major items and findings of the draft report, Mr. Zilliacus asked the TFS members to review the report and submit their comments within thirty days. The report will be posted on the TFS web site. In response to questions about the coverage of the cordon count, Mr. Zilliacus explained that while new count stations were added, the locations of the old ones have not been changed. He added that, because of limited resources, the count was conducted from 5:00 A.M to 10:00 A.M for the inbound traffic only and that no effort was made to estimate through trips. There were questions about the drop in transit ridership and carpooling during the count period. Mr. Zilliacus speculated that these were likely caused by the 2013 federal budget sequestration, which affected both the economy and traffic. Mr. Zilliacus added that the exemption of hybrid vehicles (to use HOV/HOT lanes) might have contributed to the drop in carpooling.

7. 2013 Washington-Baltimore Regional Air Passenger Survey: Status Update

This item was presented by Rich Roisman of COG/TPB staff, who distributed a handout of his presentation. Mr. Roisman provided a brief status update on the 2013 Washington-Baltimore Regional Air Passenger Survey, for which field work was completed in November 2013. He indicated that this was an information item, i.e., no action is being requested of the TFS. A TFS member asked if time-of-day information is available from the survey. Mr. Roisman informed him that the survey includes information about the time of the flight departure and the time of departure from home for the access trip. There was a question about classification of access trips by origin. Mr. Roisman noted that the process of geocoding by origin TAZ could be aggregated by regions e.g. MWCOG expanded region, BMC region, or external regions such as south Pennsylvania. A staff member asked for more clarification of the newly added question about money spent during visit to the region. Mr. Roisman stated that money spent refers to ancillary or out-of-pocket money spent - which does not include expenditures on air fare, hotel or car rental.

8. Status report on CTPP data and the WMATA bus survey

These two information items were presented by Clara Reschovsky of COG/TPB staff, who distributed copies of her presentation. The two items are status reports about the release of the Census 2006-2010 Transportation Planning Products (CTPP) data and the status of the WMATA bus survey. Several TFS members asked for more clarification regarding the difference between the CTPP and the Round 8.2 Cooperative forecast numbers and the difference between the CTPP numbers at the county and TAZ levels. Upcoming documentation will address these questions.

Ms. Reschovsky informed the committee that TPB staff is administering a bus on-board survey for WMATA which will be conducted in two “waves”, during the spring and fall of 2014. All WMATA bus routes will be surveyed in this effort. WBA Research has been recently selected to conduct the first survey wave. After 2014, WMATA is planning to collect bus on-board data using an alternate survey approach that will involve surveying a limited number of bus routes each year. This ongoing (or

“rolling”) technique will facilitate data collection both logistically and administratively. The TFS will be apprised of the 2014 survey effort and results as it progresses.

9. Next meeting date and other business

The next scheduled meeting of the TFS is Friday, March 21, 2014 from 9:30 AM to 12:00 noon. There was no other business.

*** The meeting highlights were prepared by Ron Milone, Mark Moran, and Hamid Humeida ***