

**TRANSPORTATION PLANNING BOARD**  
Technical Committee Minutes  
*for meeting of*  
December 2, 2011

**TPB TECHNICAL COMMITTEE MEMBERS AND ALTERNATES  
ATTENDANCE - December 2, 2011**

**DISTRICT OF COLUMBIA**

|      |                 |
|------|-----------------|
| DDOT | Mark Rawlings   |
| DCOP | Art Rodgers     |
|      | Will Handsfield |

**MARYLAND**

|                     |               |
|---------------------|---------------|
| Charles County      | Jason Groth   |
| Frederick Co.       | Ronald Burns  |
| City of Frederick   | Tim Davis     |
| Gaithersburg        | -----         |
| Montgomery Co.      | Gary Erenrich |
| Prince George's Co. | Vic Weissberg |
| Rockville           | -----         |
| M-NCPPC             |               |
| Montgomery Co.      | Eric S. Graye |
| Prince George's Co. | -----         |
| MDOT                | Lyn Erickson  |
|                     | Vaughn Lewis  |
| MTA                 | -----         |
| Takoma Park         | -----         |

**VIRGINIA**

|                    |                    |
|--------------------|--------------------|
| Alexandria         | Jim Maslanka       |
| Arlington Co.      | Dan Malouff        |
| City of Fairfax    | Alexis Verzosa     |
| Fairfax Co.        | Mike Lake          |
| Falls Church       | -----              |
| Loudoun Co.        | -----              |
| Manassas           | -----              |
| Prince William Co. | Monica Backmon     |
| NVTC               | Clair Gron         |
| PRTC               | Nick Alexandrow    |
| VRE                | Christine Hoeffner |
| VDOT               | Randy Hodgson      |
|                    | Amr Ibrahim        |
| VDRPT              | Anthony Foster     |
| NVPDC              | -----              |
| VDOA               | -----              |

**WMATA**

|       |              |
|-------|--------------|
| WMATA | Mark Kellogg |
|-------|--------------|

**FEDERAL/OTHER**

|         |              |
|---------|--------------|
| FHWA-DC | -----        |
| FHWA-VA | -----        |
| FTA     | -----        |
| NCPC    | Michael Weil |
| NPS     | -----        |
| MWAQC   | -----        |

**COG Staff**

Ronald Kirby, DTP  
 Gerald Miller, DTP  
 Mark Pfoutz, DTP  
 Erin Morrow, DTP  
 Robert Griffiths, DTP  
 Rich Roisman, DTP  
 Andy Meese, DTP  
 Dusan Vuksan, DTP  
 Mark Moran, DTP  
 Karin Foster, DTP  
 Nicolas Ramfos, DTP  
 Ben Hampton, DTP  
 Daivamani Sivisailam, DTP  
 William Bacon, DTP  
 Huijing Qiang, DTP  
 Wenjing Pu, DTP

**Other Attendees**

Randy Carroll, MDE  
 Carey Roessel, Marquise Management  
 Bill Orleans, HACK  
 Michael Pack, University of Maryland

# TRANSPORTATION PLANNING BOARD

December 2, 2011

## Technical Committee Minutes

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### 1. **Welcome and Approval of Minutes from December 2 TPB Technical Committee Meeting**

Minutes were approved as written.

### 2. **Briefing on 2011 Peak Period Freeway Congestion in the Washington Region, and Changes since 2008 and 2005**

Mr. Sivasailam presented information on 2011 peak period freeway congestion in the Washington region along with the changes since previous surveys. He pointed out the top 10 bottlenecks, the top 10 congested corridors and improvements and degradation to the facilities. He reviewed the major improvements due to the opening of the new Wilson Bridge, the changes to I-66 in Prince William County.

In response to question about the congested corridor, Mr. Sivasailam explained the methodology used in estimating the delays along the corridor. In response to a question regarding I-66 near the Prince William and Fairfax County line, he explained the situation improved in 2008 but has deteriorated and the congestion has shifted downstream. There is also congestion on the parallel HOV facility.

There was discussion about the lane miles of congestion increasing significantly since 2008 and the reason. Mr. Sivasailam answered construction has pushed some LOS E into LOS F conditions, and general increase in population and vehicles in the region probably resulted in the increase lane miles under LOS F condition. There were questions about the survey methodology and time of data collection which was answered by Mr. Sivasailam.

### 3. **Briefing on Proposed Performance Measures for the TPB Regional Transportation Priorities Plan (RTPP)**

Mr. Kirby spoke to a PowerPoint presentation that followed a memorandum that was distributed.

The presentation began with background on the TPB Regional Priorities Plan (RPP) Process. The Citizens Advisory Committee requested a RPP. In May 2010, the TPB hosted the Conversation on Setting Regional Transportation Priorities. In July 2010, the TPB voted to form a task force to determine the scope for a RPP. Between October 2010 and April 2011, the TPB Priorities Plan Scoping Task Force met four times. On July 20, 2011, the TPB approved a schedule and scope for developing a RPP.

Mr. Kirby spoke about the increasing legislative and federal government focus on performance measurement. He noted the Senate Environmental and Public Works Committee unanimously approved their Moving Ahead for Progress in the 21st Century (MAP-21) transportation bill in November 2011 that included numerous references to performance management. The federal government has sponsored several recent

conferences on performance measurement. Federal agencies also have conducted several performance measurement studies.

Mr. Kirby discussed the National Cooperative Highway Research Program Project (NCHRP) 08-36/Task 104 currently underway. The objective of this project is to “move the conversation [on performance-based planning] from that of a conceptual framework to realistic examples relating national-level measures to the state and regional level. The National Capital Region was selected as one of three national pilot sites; this pilot will examine the use of measures to inform decisions regarding bus priority corridors in Maryland.

Mr. Kirby highlighted an International Scan Report. In 2009 the U.S. DOT Federal Highway Administration in cooperation with the American Association of State Highway Operators and the National Cooperative Highway Research Program conducted a scan of four countries to research how these countries link transportation performance and accountability. A summary report of their experience provides guidance in several key areas, such as the need limit the number of performance measures.

Next, Mr. Kirby spoke about TPB goal areas and performance measures with respect to the TPB RPP. The RPP goals are drawn from the *TPB Vision and Region Forward*. Performance measures are assessed based on three criteria: 1) data available; 2) understandable; and 3) actionable. Mr. Kirby explained the three tables included in the Memorandum, Table 1, Table 2, and Table 3.

The RPP process aims to ascertain through public outreach which measures resonate most with citizens of the region. Mr. Kirby outlined the public outreach schedule from December 2011 to June 2012. Listening Sessions with regional stakeholders and citizens as well as a web-based comment form are scheduled for January 2012. A final Interim Report 1, incorporating feedback received is schedule for February 2012. Focus Groups are scheduled for April 2012. And in June 2012, the Technical Committee, TPB, and CAC will be briefed on a Draft Interim Report 2 and a proposed public outreach schedule through June 2013. The Final Interim Report 2 is scheduled for July 2012.

The next steps of the RPP process are the development of an initial set of goals, performance measures, and challenges by the end of 2011. That is followed by the development of examples of near-term strategies by the end of 2011. Public outreach activities will continue through June 2012. Interim Reports will be delivered in January 2012 and July 2012.

Ms. Hoeffner of Virginia Railway Express was concerned that Table 1 contained and said several half-circles representing maybes. Mr. Kirby responded that this was a first pass and said the table needs to be refined. He also clarified that the actionable column represented measures that are actionable to a TPB member agency. A measure needs to have data, be understandable, and be actionable to discuss what strategies can be done.

Mr. Erenrich commented that the first column of Table 1 should be divided into short-term and long-term. Mr. Kirby replied that under strategies, short- term and long-term strategies are identified. Mr. Erenrich also expressed that we can improve some measures with more money, such as escalator and elevator problems.

Chairman Kellogg suggested that for those measures that we have data, we need to make a division between short-term and long-term. Mr. Weisberg continued that one needs to develop strategies for the long-term. Mr. Kirby commented that we need data because for short-term performance measures we will not forecast. For example, we will not forecast traffic fatalities for traffic incident clearance time. For these measures, we have historical data to compare current data against.

Mr. Kirby noted that 15-20 regional priorities will ultimately be developed toward the end of the RPP process. We are at an early stage in the process. A Volpe representative with expertise on performance measurement reviewed the RPP work and part of his feedback was that performance measures are an iterative process, one learns as one follows the process.

Ms. Erickson commented on the *Region Forward* effort recently completed. She questioned to what extent the RPP follows *Region Forward*? Is there consistency between the documents? Are there lessons the RPP can learn from the extensive *Region Forward* public involvement efforts? Mr. Kirby noted that there is nothing at odds in the RPP with the *Region Forward* document. Much of the transportation and cooperative forecast data in the *Region Forward* document were contributed from TPB work. Mr. Kirby commented that the *Region Forward* is broad brush document, whereas the RPP focuses on transportation priorities for the region. Regarding public involvement, Mr. Kirby noted that the TPB has included the CAC and will continue to incorporate feedback from public outreach into the RPP.

Chairman Kellogg concluded the discussion by suggesting that any comments on the memorandum be forwarded to Mr. Randall on TPB staff.

#### **4. Demonstration of Reach-a-Ride Website**

Mr. Ramfos gave background information on the Reach A Ride project which was awarded an FTA JARC grant for a \$584,000 project in 2008 to develop and deploy the project. WMATA provided the majority of the matching funding for the grant and DDOT, MTA and VDRPT also contributed funds for the project. A functional requirements analysis was completed in November 2009 which provided web site specification to ensure the highest level of accessibility for those with visual impairments and database specifications as well as standards for maintaining the data.

Mr. Ramfos explained that the purpose of the web site and call center is to provide access to transportation information for those with disabilities, limited English proficiency, senior citizens, and low-income workers. In June 2010 the COG/TPB Alternative Commute Program team became the business owner of the web site and call center. Data collection efforts for providers' information began in December 2010. The database and web site were designed, tested, and deployed. Mr. Ramfos explained that COG/TPB staff worked with the American Foundation for the Blind (AFB) and earned the AFB's Accessibility Assurance Program which is essentially a seal of approval for the web site meeting high standards of accessibility.

Focus groups were held in May 2011 with individual users from each of the project target markets. Feedback from the focus groups was used to make changes to the web site.

A call center toll-free phone number was set up and those speaking Spanish will have access to a Spanish speaking call center agent. The toll free number is (855)732-2427. Callers can also contact the center through a TDD/TTY number.

Mr. Ramfos stated that the Reach A Ride program would be launching on December 5<sup>th</sup> through a press event and a marketing campaign will begin later in the month. He also distributed a program brochure which was recently designed and printed.

Mr. Ramfos then reviewed each of the sections on the Reach A Ride web site ([www.reacharide.org](http://www.reacharide.org)); including the quick search and advance search features, the About Us section, the FAQ and Contact pages as well as the Provider Login page which will be available in the near future for providers to be able to update their information. Mr. Ramfos explained that the MetroAccess program along with Metro's Ride Guide are prominently featured on each of the search results page in order to alert web site user's that the region's public transit is accessible and that MetroAccess is also an option. A message regarding travel training has also been included on each of the search results pages with an email link to WAMTA to request additional information. Each provider that is listed from a search conducted by a user has a "View Details" section which lists eligibility criteria and contact information that will assist web site users with detailed information and to help them make a decision as to whether or not to use the service. Mr. Ramfos also demonstrated the Spanish version of the web site.

Mr. Erenrich asked why providers from Montgomery County were showing up in the District of Columbia search. Mr. Ramfos responded that although a particular provider is located in a different jurisdiction from the search criteria it more than likely means that the provider offers services in the location of the search.

## **5. Implementation of the Version 2.3 Travel Demand Model**

This item was presented by Mr. Moran, a TPB staff member in the models development unit. Mr. Moran indicated that this was the fifth presentation to the Technical Committee on the subject of the Version 2.3 Travel Model in the last two years. He mentioned that the Version 2.3 Travel Model is now the adopted travel model for the region, as of the Nov. 16 TPB meeting, and he discussed the documentation that is currently available in PDF format on two locations of the COG website. He discussed some of the major enhancements that one can find in the Version 2.3 model, compared to the Version 2.2 model, such as the greater detailed found in the zone system, the highway networks, and the mode choice model. For example, the mode choice model now has 15 choices, including transit by transit sub-mode, compared with five previously. He mentioned that detailed model validation results can be found in both the calibration report and a presentation made to the Travel Forecasting Subcommittee (TFS) on November 18.

A major part of Mr. Moran's presentation was the performance of the model in its first production use at COG: the air quality conformity determination of the 2011 CLRP, conducted with the Round 8.0a land activity forecasts. He noted that the model summaries shown on the next series of slides were for a geographic area corresponding to the 22-jurisdiction modeled area, not the MSA or the TPB member area, both of which are much smaller than the modeled area. In terms of the inputs to the model, he noted that both land activity (measured by households and jobs) and transportation supply (measured by lane miles in the 2011 CLRP) are increasing over time, though the

and activity is increasing at a faster rate than lane miles (i.e., over 50% growth for land activity, from 2002 to 2040, versus 12% growth in lane miles over the same timeframe).

The input land activity data also shows declining household size over time and an increasing share of both zero-vehicle households and one-vehicle households over time.

When comparing the estimated VMT coming out of the Version 2.3 model with that from the Version 2.2 model, both models produce increasing VMT over time, as one would expect. However, for any given year, the Version 2.3 model estimates a higher amount of VMT, ranging from about 2% more in 2002 to 9% more in 2040. This increase is largely due to the fact that the Version 2.3 networks are more detailed than their Version 2.2 counterparts, so some of the travel that had been *intra*-zonal in the Version 2.2 model (and hence, not assigned to the network), is now *inter*-zonal in the Version 2.3 model. Mr. Moran also mentioned that, whereas the Version 2.2 model predicted that VMT per capita would decline slightly over time (a 4.6% drop from 2005 to 2040), the Version 2.3 travel model shows a very small growth in VMT per capita over time (a 0.6% growth over the 35-year period). Mr. Moran then presented some observed VMT per capita data that indicated the historical trends have been upward for about 20 years, followed by a leveling off over the last five years, likely due, in part, to the recent economic recession.

Mr. Moran then discussed the fact that the Version 2.3 Travel Model also shows increases in the number of both non-motorized trips (walk and bike) and transit person trips over time, though an increase in transit trips over time does not necessarily imply increasing mode share over time. Mr. Erenrich had two comments on slide 28 (transit person trips by transit sub-mode). First, he thought that the number of bus only person trips appeared to be too low. Second, he asked why one of the four transit sub-modes, namely the one that represents transit trips that use *both* bus and Metrorail together, appeared to be missing from the graph. On the first point, TPB staff noted that the person trips represented in the figure are *linked* trips, not *unlinked* trips (or boardings), which are more commonly presented by transit agencies. On the second point, Mr. Moran stated that, although the model has separate transit sub-modes for "Metrorail only" and "Metrorail and bus," on the graph, these had been combined into one data series, labeled "Metrorail." Also, the "commuter rail" sub-mode, both on the chart and in the model in general, includes trips that access commuter rail using other transit sub-modes, such as Metrorail and/or bus. Although not shown on slide 28, Mr. Erenrich suggested that TPB staff might want to add the transit mode share to this slide. Mr. Moran stated that the estimated transit mode share coming out of the model is not changing much over time (around 6.5% from 2002 to 2040) and that the home-based-work transit mode share is also very stable (about 21%). Mr. Erenrich indicated that it might be nice to have mode share breakdowns for subsets of the modeled area, such as inner jurisdictions and outer jurisdictions, or within activity centers and outside of activity centers.

Mr. Moran then presented a series of slides indicating the level of delay predicted by the model. On slide 29 (Global average travel time, distance, speed, and delay forecasts, Ver. 2.3.36), Mr. Erenrich indicated that it might be useful to add a line to the table showing the number of lane miles, which would reinforce the point that the number of lane miles is growing much more slowly than other metrics. Mr. Moran then presented some summary results from the transit assignment, which is a new feature of the Version 2.3 Travel Model.

Mr. Moran concluded with some of the issues that have been encountered when running the model, such as long run times, and listed some of the studies in which the Version 2.3 model is being used or is likely to be used. At the conclusion of Mr. Moran's presentation, there were a number of further questions and comments. Mr. Erenrich asked whether the TPB process involved getting Federal Transit Administration (FTA) endorsement of the new travel model. Mr. Kirby said that there is no general endorsement by the FTA, since FTA reviews a regional travel model only at the point that it is used for a specific "New Starts" proposal. Mr. Kirby added that there is the federal certification review that occurs, but that review is more of a process review than a technical model review. In response to a question by Mr. Kirby, Mr. Moran discussed what TPB staff has been doing to reduce the run times of the travel model, including using distributed processing so that some steps run in parallel. He also mentioned that TPB staff has a consultant on retainer to assist with various aspects of developing and applying the travel model, and one of the consultants' task orders for the current fiscal year is to help staff further reduce model run times.

Mr. Orleans asked whether the MetroAccess paratransit service was included in the transit networks that are used by the travel model. Mr. Moran said that the modeled networks do not include paratransit services, such as MetroAccess. Paratransit would be difficult to represent, since it does not follow fixed routes or schedules. MetroAccess provides about seven thousand trips per weekday, which is about 0.6% of the roughly one million linked transit trips each weekday.

## **6. Presentation on the Regional Integrated Transportation Information System (RITIS)**

Mr. Meese briefly described the concept behind the University of Maryland's development of RITIS, and introduced Mr. Pack. He presented a live demonstration of the RITIS website.

RITIS is an information collection and re-dissemination platform. RITIS takes real-time transportation operational data from all agencies willing and able to share such data, fuses and standardizes the format of the data, and then makes the fused data set available to any public agency that wants access. That access can be integrated into the specific control systems that agencies might use, or it can be accessed through a password-protected website through ordinary web browser software.

Mr. Pack demonstrated a number of the specific features of the RITIS website. A list enumerated the incidents (e.g., traffic accidents, construction zones, disabled vehicles) that were currently active in the system, with a number of details available for each incident, such as number of lanes closed. Users can sort or filter the list contents according to their interests (e.g., to only see incidents in one part of the region).

A map similar to other online maps displayed known incidents using interactive icons. Map layers could be switched on or off to show features such as traffic speeds (from the INRIX/I-95 Corridor Coalition data or agency traffic detector data), weather, or Metrorail routes. Speeds (color-coded red, yellow, and green) could be displayed either in absolute terms or in terms relative to "usual" conditions for a particular time and day of week, which can help users spot abnormal traffic conditions. In response to a question



from Mr. Erenrich, Mr. Pack noted that a map update was anticipated soon that would include the new Intercounty Connector, though it was not on the current map.

Traffic camera icons could be clicked on the map to display one or a number of live traffic camera video feeds. To date, only Maryland State Highway Administration cameras were available through the system, though cameras from other agencies and jurisdictions were anticipated in the future. Road weather monitoring stations made available to RITIS could be clicked, and their data such as temperatures and moisture content could be displayed. Icons could be clicked to display the current message shown on a number of the highway variable message signs around the region. Public safety radio (e.g., police radio) feeds were available through the system. The map included Metrorail routes, and clicking icons could bring up the train arrival information as shown on the Public Information Displays (PIDs) at each Metrorail station. A recent addition to the system was information regarding evacuation management, such as staging areas, hospital information, and traffic control points.

Mr. Pack noted that all were welcome to contact him regarding data that could be made available to RITIS, or was desired to be in RITIS.

In response to a question from Mr. Erenrich, Mr. Pack noted that RITIS was receiving real-time bus information from some jurisdictions, and as more of this information became available it could be made accessible through a RITIS application programming interface (API) portion of the website. Mr. Meese noted that the transit agencies would had to have made the data available in the first place; it cannot be generated by RITIS itself. Mr. Erenrich noted the importance of RITIS providing such data from multiple agencies into a standard format. Mr. Malouff noted that Arlington's Mobility Lab had just put out a website called [www.transitnearme.com](http://www.transitnearme.com) which has similar capabilities. In response to a further question from Mr. Erenrich, Mr. Pack noted that bikesharing and carsharing information could potentially be added to RITIS.

Mr. Pack noted that RITIS was now extending beyond the National Capital Region to incorporate information from a number of states, especially along the east coast. Mr. Pack highlighted the RITIS data archives, with analysis tools to explore the data, including data visualizations, time lapse animations of speed maps, and downloading capabilities. One suite of tools displayed roadway bottlenecks, either live data or historical analyses. In response to a question from Mr. Erenrich, Mr. Pack stated the system's definition of a bottleneck as any instance where the speed on a roadway drops below 60% of the posted or "reference" (usual free-flow) speed for more than 10 minutes. The location, length, and duration of the bottlenecks were displayed. In response to a question from Mr. Meese, Mr. Pack noted that the precision of bottleneck lengths was that of the length of predefined roadway segments, whose lengths vary widely but were often one-half-mile to three miles.

The data source for the bottleneck analysis was INRIX data. In response to a comment from Mr. Erenrich, Mr. Pack agreed that INRIX data was available primarily for Interstates, but more arterial data may be available in the future. Mr. Pack also noted that there were numerous other data analysis tools in RITIS that he did not have time to demonstrate today, including on accidents, and that other tools were in development, such as on transit.

In response to a further question from Mr. Erenrich, Mr. Pack noted that RITIS has a wide variety of users, with currently only about 45% from the transportation sector, the others being from sectors such as public safety, personnel, and the military.

In response to a question from Mr. Davis, Mr. Pack noted that on the main RITIS website, [www.ritis.org](http://www.ritis.org), there was a "request an account" button, where representatives from member or other public agencies could request RITIS access IDs and passwords. The password-protected portions of the RITIS site are not available to the general public.

**7. Other Business**

None.

**8. Adjourn**