



**Probe Data Analytics User Group Web meeting  
(previously VPP Suite User Group)  
November 17, 2016**

**Participants:**

User Group Participants:	
Ed Stylc, Eileen Singleton	Baltimore Metropolitan Council
Jesse Buerk, Zoe Neaderland	DVRPC
Katherine Masetti	FHWA (Sabra, Wang & Associates)
Kim Samson	Florida DOT/Turnpike
Andrew Meese, Daivamani Sivasailam	MWCOG/NCRTPB
Neha Galgali, Sudhir Joshi, Ira Levinton	New Jersey DOT
Kelly Wells, Chris Ricks	North Carolina DOT
Keith Miller	North Jersey TPA
Ted Lucas	Pennsylvania DOT (District 6)
Greta Ryan	Richmond Regional MPO
Andrew Tracy, William Schiavi, David Heller	South Jersey TPO
Scott Cowherd	Virginia DOT
Patricia Hendren, Denise Markow	I-95 Corridor Coalition
Elham Sharifi, Eshragh Sepideh	UMD CATT
John Allen, Drew Lund	UMD CATT Lab
Joanna Reagle	KMJ Consulting (Coalition Support)

**Agenda:**

#	Topic	Speaker
1	Agenda & Meeting Overview Introductions & Coalition Update	Kelly Wells, NCDOT Denise Markow, I-95 Corridor Coalition
2	Spotlight Presentation BMC – Using Congestion Scan & Trend Map for Labor Day Travel Decision-making	Ed Stylc, Baltimore Metropolitan Council
3	Project Update: Volume & Turning Movements from Probe Data	Elham Sharifi, UMD CATT
4	Probe Data Analytics (VPP Suite) Improvements	John Allen, UMD CATT Lab
5	New Bottleneck Tracking & Ranking Algorithm Live Demo	Drew Lund, UMD CATT Lab
6	Agency Input Session	All Agencies
7	Nest Steps and Coalition Updates	Patricia Hendren, I-95 Corridor Coalition

**Important Note:** The VPP Suite has been renamed “Probe Data Analytics.” As such, the VPP Suite User Group will now be known as the “Probe Data Analytics User Group”. Please look for this name change in all future correspondence.



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**Next Meeting:** The next Probe Data Analytics (VPP Suite) User Group web meeting will be held in late February/early March 2017. More information will be provided in the next newsletter.

**Meeting Highlights:**

- **TSMO in the Coalition:** Kelly Wells introduced Denise Markow as the new TSMO Program Coordinator for the I-95 Corridor Coalition. Denise reviewed what TSMO is and that it is already being done in the Coalition's efforts. She noted that the Coalition is bringing together the Travel Information Services and Coordinated Incident Management groups for cross cutting exchanges to capitalize on synergies and joint interests.
- **User Group Member Spotlight: BMC - Using the Suite for Planning Holiday Travel** – Ed Stylc of the Baltimore Metropolitan Council discussed BMC's efforts for providing recommendations for Thanksgiving travel. BMC used the Probe Data Analytics (VPP Suite) tools to validate the travel time recommendations developed by Maryland Transportation Authority. The Trend Map and Congestion Scan tools were used and he noted that the new "multi-road" congestion scan made looking at the Labor Day travel corridor much easier. Ed chose to use the NPMRDS as he typically uses the INRIX data in the Probe Data Analytics (VPP Suite) and wanted to get more familiar with it. He mentioned that from his higher-level review, the NPMRDS provided generally the same results as the INRIX data but INRIX seemed to pick up the congestion earlier and hold it later than the NPMRDS. Ed noted that although the results from the Probe Data Analytics (VPP Suite) validated the MdTA recommendations, actual travel patterns were much different due to Tropical Storm Hermine. He also presented congestion scans illustrating the difference in speeds between 2015 and 2016 for "return trip" conditions. Ed stated, "It's mind-blowing what you can do now with the VPP Suite verses what we had to do in the past."
- Ed noted that the BMC COG Quarterly Report (Fall 2016) included an article highlighting his work with the Probe Data Analytics (VPP Suite) and the Coalition's Traffic View (a corridor-wide interactive map.) He noted that using the Probe Data Analytics (VPP Suite) has made his job so much easier and allowed him to do much more.  
[http://baltometro.org/phocadownload/Publications/COG\\_Quarterly/Fall2016.pdf](http://baltometro.org/phocadownload/Publications/COG_Quarterly/Fall2016.pdf).
- **Project Briefing: Volume & Turning Movements from Probe Data** – Elham Sharifi (UMD CATT) provided an update for this I-95 Corridor Coalition-sponsored research project. She reviewed the topics from Steering Committee meeting #2 (October 13, 2016) and noted that the next meeting is scheduled for January 26, 2017. The Volume and Turning Movement Application survey results are being summarized and will be presented at the next steering committee meeting. They are currently moving forward with a sample analysis / testbed from Maryland and the initial analyses were presented at steering committee meeting #2. Project documents are currently available on the Coalition website (VPP page – "Volume & Turning Mvmt" tab).
- **Probe Data Analytics (VPP Suite) Tool Improvements** – John Allen (CATT Lab) provided an update on each of the following:
  - Review of Action Items from the Previous Meeting



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- MPO geographies be made available for MAP-21 dashboard and widgets pending the final rule. It is currently in the development pipeline.
- The Suite Improvement Prioritization survey was reopened at the members' request from August 4-12, 2016.
- Survey Results were presented and an internal tracking table is being developed. The results are being used by the developers and an improvement deployment schedule will be provided to the users.
- Deployment Status Table for Q3 of 2016 is available on the Coalition website. There have been 12 improvements made during Q3 and 28 so far during 2016.
- What's New?
  - Hadoop computing platform
  - New bottleneck tracking & ranking algorithm
  - MAP-21 widgets and new measures
  - Partial Road Selection in the Congestion Scan tool
- What's on the Horizon?
  - Front-end Modernization (Phase 1) – moving away from Flash and towards Java Script
  - My History – to manage and organize downloads and reports
  - Map Selection – to customize TMC sets by adding or subtracting from the network.
  - Results Pages – to enable user to change fonts, layout and background (light or dark)
  - Advanced Time Selection – to provide full control of analysis times. Will allow user to save customized time/dates to use again.
- **Probe Data Analytics (VPP Suite) Tool Spotlight: New Bottleneck Tracking & Ranking Algorithm** – Drew Lund, Database Manager, UMD CATT Lab, provided a tutorial on this new tool. He discussed why the changes were made, explained the new terminology and provided several examples of bottlenecks (growing and shrinking). Drew also provided a live demonstration of this tool, highlighting changes in the previous output tables, maps and graphs, some new features and visualizations and explaining how to interpret and use the results.

Following the presentation/demo, the following questions were discussed:

- Kim Samson (FTE) noted that the results from the new bottleneck tool are “spot on” based on their use of the new tool and their understanding of their roadways.
- Eshragh Sepideh (UMD) asked about availability. Drew responded that the updated tool is currently available in the Probe Data Analytics (VPP Suite) and calculates the bottlenecks in real-time.
- Drew mentioned the Lab's intention of including volumes in other apps. Kim Samson (FTE) noted that adding the volumes impacted to the ranking criteria will also be very useful to the Florida Turnpike in the future. Kelly Wells (NCDOT) agreed, and asked if the developers are planning to use the same volumes as in the User Delay Cost. Drew said they will use the same data, but is not sure about the timing.
- Kim Samson (FTE) also asked about the ability to download all details for entire set of data in one file. Drew stated this is something the Lab can add, will make note of this and get it prioritized.



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- Ira Levinton (NJDOT) asked about the availability of data from previous years. CATT Lab noted that 2015 and forward is already available. The remainder of the archived data (that is available in the Data Downloader) will be available by the end of 2016.
- Kim Samson (FTE) asked about the inclusion of volume data into the tool. They do not have a good estimate but hope to have it included within a year.
- Ira Levinton (NJDOT) asked about overlap areas. Drew noted that he will submit a feature request that gives users the option for how merging elements are treated in the actual bottleneck algorithm

**NOTES:**

1. **It should be noted that the old bottleneck algorithm will only be available for a limited time as some users still need this option. Users will receive a notice prior to its removal. If you have any questions or concerns, please contact John at [jallen35@umd.edu](mailto:jallen35@umd.edu).**
  2. Please share any comments/questions on the new Bottleneck Tool with the CATT Lab at [vpp-support@ritis.org](mailto:vpp-support@ritis.org)
- **Agency Input Session** – Jesse Buerk led this session, asking participants for any questions or issues.  
Kim Samson (FTE) noted that in Florida they are doubling toll lanes and adding premium lanes and wanted to know how others were handling these lanes when they are in such close proximity to regular use lanes. She asked if the Probe Data Analytics (VPP Suite) can identify express lanes. Michael Pack noted that if the separation is great enough, the data providers should be adding in TMCs for these “new” segments. If they are included by the data providers, then the Probe Data Analytics (VPP Suite) can analyze them. Michael noted that adding segments by the providers takes time but is much quicker than in years past. Kim will contact Michael to schedule a call to further discuss this issue.
  - **Coalition VPP-related Meeting Consolidation Efforts** – Trish Hendren briefly reviewed the changes to the VPP-related meetings. She noted that **there is no change in timing for the Probe Data Analytics (VPP Suite) User Group meetings.**

**ACTION ITEMS:**

#	Action Item	Whom	Status
1	New Bottleneck Tool - Prioritize improvement to provide ability to download all details for entire set of data in one file.	UMD CATT Lab	
2	New Bottleneck Tool – Submit request for a feature to give users the option for how merging elements are treated in the actual bottleneck algorithm.	UMD CATT Lab	