



**VPP Suite User Group Webcast  
October 13, 2015**

**Participants:**

| <b>VPPII Webcast Attendees:</b>                                     |                                    |
|---|------------------------------------|
| Ed Stylc  | Baltimore Metropolitan Council     |
| Jesse Buerk, Zoe Neaderland, Laurie Matkowski, Paul Carafides       | DVRPC                              |
| Kim Samson (AECOM), Ryan Brown (Jacobs)                             | Florida Turnpike                   |
| Andrew Meese, Wenjing Pu  | MWCOG/NCRTPB                       |
| Sudhir Joshi, Simon Nwachukwu, Neha Galgali                         | New Jersey DOT                     |
| Keith Miller  | North Jersey TPA                   |
| Kelly Wells, Thomas Chase (NC State)                                | North Carolina DOT                 |
| Scott Benedict  | Pennsylvania DOT                   |
| Tiffany Dubinsky, Greta Ryan  | Richmond Regional MPO              |
| David Heller, Andrew Tracy  | South Jersey TPO                   |
| Sanhita Lahiri, Mena Lockwood, Paul Szatkowski, Ram Venkatanarayana | Virginia DOT                       |
| Michael Pack, John Allen  | UMD CATT Lab                       |
| Kaveh Sadabadi, Karen Swick   | UMD CATT                           |
| Karen Jehanian, Joanna Reagle                                       | KMJ Consulting (Coalition Support) |

**Agenda:**

| <b>#</b> | <b>Topic</b>   | <b>Speaker</b>   |
|----------|--|--|
| 1        | Welcome & Introductions  | Karen Jehanian, KMJ Consulting, Inc.<br>For the I-95 Corridor Coalition                                  |
| 2        | Purpose of this Meeting  | Jesse Buerk (DVRPC),<br>VPP Suite User Group co-chair  |
| 3        | VPP Suite Probe Data Analytics Forum   | Michael Pack, UMD CATT Lab   |
| 4        | VPP Suite Features – New & Upcoming  | Michael Pack, UMD CATT Lab   |
| 5        | Use of the VPP Suite by User Group members<br>MdSHA Annual Mobility Report             | Kaveh Farokhi Sadabadi,<br>UMD CATT  |
| 6        | User Focus Group effort to develop consistent & useful<br>report formats for the Suite | Michael Pack, UMD CATT Lab   |
| 7        | Agency Input Session to learn about what is working &<br>what needs some attention     | All<br>Discussion Facilitated by Michael Pack<br>& Kelly Wells (NCDOT),<br>VPP Suite User Group co-chair |
| 8        | Meeting Wrap Up  | Karen Jehanian, KMJ Consulting, Inc.<br>For the I-95 Corridor Coalition                                  |



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**Next Meeting:**

The next VPPII Agency Project Team webcast is scheduled for **January 20, 2016 (from 10:30am – noon)**.

**Important Notes:**

- New co-chair was announced – Kim Samson, Florida Turnpike (consultant). She will work with Jesse Buerk (DVRPC) and Kelly Wells (NCDOT) to provide input regarding tool use for traffic operations.
- Kaveh Sadabadi discussed the use of the VPP Suite in preparing the Maryland Mobility Reports. Maryland Mobility Reports are available using the following links:
  - 2014: <http://roads.maryland.gov/Index.aspx?PagelId=711>
  - 2013: [http://sha.maryland.gov/OPPEN/2013\\_Maryland\\_Mobility.pdf](http://sha.maryland.gov/OPPEN/2013_Maryland_Mobility.pdf)
  - 2012: [http://roads.maryland.gov/oots/2012\\_maryland\\_state\\_highway\\_mobility\\_report.pdf](http://roads.maryland.gov/oots/2012_maryland_state_highway_mobility_report.pdf)
- The VPP Suite User Group Forum (Probe Data Analytics Forum) is currently operational through the Coalition website. John has uploaded recent presentations.
- VPP Suite has developed tools to address the anticipated MAP-21 congestion and systems performance measures. They are currently being reviewed by FHWA and the developers hope to make some version of them available prior to the NPRM (anticipated for early 2016).
- **Looking for Volunteers** for the following:
  1. **User Focus Group to develop Performance Summary Report Templates.**
  2. **User Focus Group for New Bottleneck Algorithm Visualizations.**  
Please contact John Allen ([jallen35@umd.edu](mailto:jallen35@umd.edu)) for more information on either.

**New/Upcoming VPP Suite Features**

| Feature   | Status/ Anticipated Deployment         |
|---|--|
| Download by Quality   | To be deployed/<br>End of October 2015 |
| MAP-21 widgets  | (see note above)                       |
| Selection of Multiple Roads in Congestion Scan tool                                 | To be deployed/<br>Mid-November 2015   |
| Enhanced feedback   | In development                         |
| Advanced Time Selection – Date Range Summary  | In development                         |
| Delay by TMC – Display Options  | In development                         |
| New Bottleneck Algorithm  | In development                         |
| New backend framework to address speed, larger date ranges, and larger geographies. | In development                         |



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### Questions:

1. Kim Samson, FL Turnpike: For delay by TMC, will there be a way to save color settings?
  - a. Developers will work on it.
2. Mena Lockwood, VDOT: Will the User delay tool be able to analyze recurring and non-recurring delay together?
  - a. It can be done now but it is cumbersome. The update will make it much easier.

### Requests/Issues:

1. Sharing Feedback Surveys
  - a. Ram Venkatanarayana, VDOT: Requested that feedback from surveys including submitting agency be shared with all users. He also requested that they be part of data download as these details are part of the metadata for that data.
  - b. UMD CATT Lab: Will work on it.
2. Integrate Forum into VPP Suite
  - a. Ram Venkatanarayana, VDOT: Requested that access to the User Forum be integrated into the VPP Suite. As it is currently provided, it does not come across as seamless/user-friendly.
  - b. UMD CATT Lab: Will work on it.
3. Time estimates for the Massive Raw Data Downloader
  - a. Andrew Meese, MWCOG: Could the Massive Data Downloader give an estimate of how long it will take to fulfill the request?
  - b. UMD CATT Lab: That is very difficult to do as it is dependent on other requests being made at that time. However, it will be much faster once the new backend framework is deployed (in the first quarter of 2016). This may largely negate the need for such an estimate.
4. Filter by Quality
  - a. Jesse Buerk, DVRPC: Can the ability to filter by quality be added to other tools, similar to the Congestion Scan and Trend Map?
  - b. UMD CATT Lab: It is relatively easy to do for the Congestion Scan but it cannot be done for the Performance Measures as values are needed. However, could summarize the quality % and where they are. This maybe a third focus group.
5. Increase the number of TMCs for Trend Maps (and other tools)
  - a. Wenjing Pu, MWCOG: Requested that the number of TMCs for Trend Maps be increased.
  - b. UMD CATT Lab: The backend framework update will also allow users to increase the number of TMCs.

### Bottleneck Discussion:

- Kelly Wells (NCDOT) introduced the topic of bottleneck overlap (slide 63). She explained how she reviews and presents “top” bottleneck information and asked for agencies to provide their input.
  - UMD CATT Lab: Noted that if the bottlenecks can start at different locations but merge over time (if merge after 5 minutes), probably should not be considered two separate bottlenecks in the first place. Look at the amount of time for each location, and what was the length profile – if they merge quickly, can combine, but if long, keep separate.



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- Wenjing Pu, MWCOG: Uses a post-process similar to Kelly. They combine them.
- Kim Samson, FL Turnpike: Performs a similar process. Trying to filter out non-recurring congestion. They look at each location individually to get a true picture. She asked if you can you filter out something that is non-recurring? Visually – time spiral – but she has 100+. Turn on the incident data in the table, and the graphs. Can get detail from time spiral. Michael will talk to Kim off line. Kelly just looks at time spiral for incident locations.
- Wenjing – looking for one year summaries of bottlenecks. Michael noted that the new backend framework will take care of that restriction.
- Kaveh explained how he estimates the annual impact factor. Given the quarterly numbers he performs the following calculations which results in annual impact factors that are slightly different from just adding the quarterly impact factors, but produce a reasonable estimate of the main components at the annual level.
  - Annual frequency = Sum of the quarterly frequencies
  - Annual average max length of queue = Weighted average of the quarterly average max length of queues =  $\frac{\text{Sum (quarterly frequencies X quarterly average max length of queue)}}{\text{Sum (quarterly frequencies)}}$
  - Annual average duration = Weighted average of the quarterly average durations =  $\frac{\text{Sum (quarterly frequencies X quarterly average durations)}}{\text{Sum (quarterly frequencies)}}$
  - Annual impact factor = Annual frequency X Annual average max length of queue X Annual average duration

**Bottleneck Poll:** Following the discussion a poll was taken –

| <b>Are you actively using the Bottleneck Ranking tool in the VPP Suite?</b>     |                  |  |
|---|------------------|--|
|   | <b>Responses</b> | <b>Agencies</b>  |
| <b>Yes</b> , I use the Bottleneck Ranking tool                                  | 9                | MWCOG, MdSHA (UMD CATT), SJTPO, BMC, VDOT, NJDOT (2), FL Turnpike, VTRC/VDOT |
| <b>Sort of</b> , others in my agency use the tool but I do not use it regularly | 6                | RRTPO, NCSU, MWCOG, DVRPC, FL Turnpike, NJTPA                                |
| <b>No</b>   | 0                |  |

- **Next Steps in Bottleneck Discussion:** Identify persons interested and set up call for this group to discuss in more detail.