The Eastern Transportation
TDM Validation Technical Advisory Committee (TAC): 1st Meeting – April 12, 2022
Question and Answer Summary

Agenda:

	Topic	Speaker
1	Welcome and Overview of the TETC TDM Validation TAC	Stan Young, The Eastern Transportation Coalition (TETC)
2	TAC Business - Priorities and Emphasis for FY 2022-23	Mike Fontaine, Virginia Transportation Research Council, Virginia DOT
3	Presentation of VPPII Validation Results	Zach Vander Laan, UMD CATT
4	Wrap Up and Next Steps	Mike Fontaine, Virginia Transportation Research Council, Virginia DOT

Agencies Represented during Meeting

Maine DOT	Tennessee DOT
Massachusetts DOT	University of Kentucky (Kentucky Transportation Center)
North Carolina DOT	Vermont AOT
Pennsylvania DOT	Virginia DOT
State of Rhode Island - Division Planning	

Welcome and Overview of the TETC TDM Validation TAC

Stan Young provided an overview of the Transportation Data Marketplace (formerly the Vehicle Probe Project), including the validation program that has been running continuously since 2008. With six data sets, the validation is shifting from a formal prescribed method to a more flexible format, directed by the Technical Advisory Committee (TAC). The TAC is anticipated to meet quarterly with updates on validation activities, similar to the VPP, but the type, frequency and emphasis of the validation activities will be updated by the TAC to reflect coalition concerns. Mike Fontaine agreed to chair the TAC for the initial year.

TAC Business - Priorities and Emphasis for FY 2022-23

With six datasets to evaluate and validate, the TAC needs to prioritize limited resources to the areas of most interest to coalition members. Stan Young (TETC) and Mike Fontaine (Virginia DOT) noted that volume and O-D datasets would be the initial focus based on informal feedback received from coalition members to date. Participants were asked if they concurred with this plan. There was no dissent and the following additional preferences were noted:

- **Stated Concurrence**: MassDOT (Bob Frey), PennDOT (Scott Benedict), NCDOT (Kent Taylor), Vermont AOT (Zoe Neaderland)
- **Stated Preference for Volume**: VDOT (Simona Babiceanu)
- **Stated Preference for Freight O-D**: Rhode Island MPO (Josh O'Neill)

Q: **Simona Babiceanu (Virginia DOT):** Where is truck data in your list of priorities?

A: Mike Fontaine (Virginia DOT): Freight data is very important to us. We want to develop a method for overall volume and O-D and that can be adapted to freight.

A: Stan Young: Marygrace Parker (TETC) is highly attuned to freight issues and she proposed the idea of a freight-specific data group.

C: Josh O'Neill (Rhode Island MPO): We had a truck parking working group meeting quarterly and we're looking to start up a freight data group to look at issues with new vendors and how others are approaching utilization of freight data. In RI, we're already analyzing INRIX O-D for heavy vehicles. We're looking to get more data to refine the analysis.

Q: **Zoe Neaderland (Vermont AOT):** Can you separate O-D data into separate classes like NPMRDS (vehicle and truck or both) or does it come combined?

A: Stan Young (TETC): There are some vendors that claim they can stratify O-D by class but the accuracy is still unclear from our perspective. One of the first tests will be to compare class values between vendors to see if they're close in value.

Q: **Daniel Hulker (University of Kentucky (Kentucky Transportation Center):** I am not worried about speed data. My worry with the other products is the consistency of coverage. Also, with something like volume, are the vendors calculating their results from scratch or using existing volume data to calibrate their results?

A: Simona Babiceanu (Virginia DOT): Streetlight is using VDOT continuous count stations (CCS) for validation.

A: Michael Fontaine (Virginia DOT): Yes, this is how they calibrate the models. For validation, we'd like to find states/locations that have good CCS but also temporary

counts that wouldn't be used in the model calibration and validation by the vendor. We'd also like to see locations with seasonal or even daily variation in volume that may be harder for a model to predict. As mentioned, we'd also like to break that out by functional class.

Presentation of VPPII Validation Results: Georgia & Pennsylvania

Q: **Josh O'Neill (Rhode Island MPO):** Is your analysis that Vendor C captured all the slowdowns accurately and fully because they were more conservative than Vendors A and B? Conversely, did Vendor C ever show a slowdown that didn't exist in the ground truth data?

A: Zach Vander Laan (University of Maryland CATT)**:** Vendors A and B could be considered more conservative because in a real-time system, when there's an onset of a slowdown event, sometimes the reference data is noisy. Vendor C immediately responded to drops in speed while Vendors A and B take longer to report lower speeds when there's a variety of probe speeds, which we'd consider the more conservative approach. We did not see Vendor C show a slowdown that didn't exist in the ground truth data in this validation.

Q: **Simona Babiceanu (Virginia DOT):** What is the approximate delay in getting data from Vendors B and C? Is it minutes, hours, days? And if it was not retrieved by API, how was the data retrieved? Scheduled database updates? Data dumps?

A: Zach Vander Laan (University of Maryland CATT)**:** They're delivering the data after the two weeks data collection is complete – so we're taking them for their word that it is the real-time data feed that was not post-processed after the fact. We don't have any reason to doubt data integrity but there's no audit trail like there is with Vendor A. As part of the RFP there were some proposed lightweight location-referencing protocols so that there would be less effort for us in setting up a system to validate a location in a map-agnostic way yet provide a more equal evaluation for each vendor.