**The Eastern Transportation Coalition:**

The Changing World of Optimal Traffic Monitoring Web Meeting

December 10, 2020

***Question and Answer Summary***

## *Optimal Traffic Monitoring Strategies*

**Documents**

Optimal Traffic Monitoring Page (Report & One-pager)

**Q:** **Harun Rashid (Northern Virginia Transportation Authority):** For Commercial Probe Data, or "Big Data", sample size can be an issue. Should there be an industry-standard to reveal sample sizes?

A: Stan Young (NREL): Sample sizes used to be protected from vendor to vendor because it was critical, but they're growing these days. It seems that they're more freely shared now. There's no industry standard of what sample size is, so you have to fully acknowledge that and read the fine print with each vendor or test it yourself. In evaluating a new data set, NREL typically asks for a data sample and verifies sample size in a known location.

A: Michael Pack (University of Maryland CATT Lab): We've also noticed that with newer location-based providers, you have to be careful with interpreting the fine print. If someone says they cover 50% of the travelers in the US, what does that mean? It rarely means that the provider has access to 50% of every driver on the road at any minute. More frequently it means that during any given month, a mobile device from an individual provided at least one data point during that month. In reality, that's a whole lot less than 50% of all drivers at any point in time. The vendors sometimes show their numbers in a way to look impressive. This is more relevant to the emerging location-based services providers, not the ones we work with.

## *New Traffic Monitoring (and decision-making) Opportunities*

**Documents**

USDOT - FHWA Traffic Monitoring Guide - 2016 Edition

NCHRP Research Report (920) on Mgmt. and Use of Data for TPM

USDOT - Bureau of Transportation Statistics: Travel Stats Data page

USDOT - FHWA Considerations of Current and Emerging Transportation Management Center Data report - July 2019

NCHRP Synthesis 20-05, Topic 51-06: Not yet published.

**Q:** **Harun Rashid (Northern Virginia Transportation Authority):** Is the Energy Use Emissions tool available to all current RITIS subscribers?

A: Michael Pack (University of Maryland CATT Lab): Yes and no. When it is deployed, anyone with RITIS and probe data analytics access can see it, but it requires vehicle

registration data. For this Department of Energy (DOE) pilot, we only received the data for MORPC (in Ohio and MWCOG (in Washington, DC). So, the tools currently only work in those two geographies.

C: Stan Young - The Coalition and NREL are looking for opportunities to move this forward from a demo/proof of concept to an operational tool. As the current project is finishing up, we welcome opportunities from interested Coalition members on broader use and implementation.

**Q:** **Harun Rashid (Northern Virginia Transportation Authority):** Is the OD analytics tool based on INRIX trajectory data?

A: Michael Pack (University of Maryland CATT Lab): Our RITIS Trips Analytics tools are designed to be data provided agnostic. However, the states/agencies that are using the tool today are all currently using INRIX Trips data. The demos shown today were all showing INRIX Trips data.

**Q:** **Eric Hill (MetroPlan Orlando):** What about non-vehicular trips i.e., pedestrians and bikes?

A: Michael Pack (University of Maryland CATT Lab): For the COVID-19 platform, we are looking at slow and short trips, which include both bike and ped. It is hard for us to separate the bike and pedestrian independently. So right now, they are combined into a single category that's separate from vehicular trips. We are working on algorithms to further break them down later, but this is a work in progress.

**Q:** **Nadereh Moini (New Jersey Sports & Exposition Authority):** Is there any documentation with a nice dashboard-like schematic for RITIS to demonstrate the capability of this tool for not only monitoring and operation but also planning? This can be presented to decision-makers in public agencies to justify the merit of the Coalition membership.

A: Michael Pack (University of Maryland CATT Lab): I have tons of presentations and examples that we could send to you. Send me an email at PackML@umd.edu, and we'll see if we can get you what you need.

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## *Monitoring COVID-19 Mobility Impacts*

**Q:** **Harun Rashid (Northern Virginia Transportation Authority):** Are the Trips Trends Portal available to everyone? And the lowest geographic unit is MPO boundaries?

A: Stan Young (NREL): The trip trends portal is available to Federal Government agencies (there are still seats available), ALSO, the Coalition has purchased seats for its members. Please contact Denise Markow for information on who in VDOT has access to the portal.

**Q:** **Mena Lockwood (Virginia DOT):** What is the adjusted INRIX in Stan's graph?

A: Stan Young (NREL): The portal has two ways to measure traffic volume. One is an absolute value, comparing the number of trips observed to pre-COVID numbers. The other is taking into account an exception for seasonal adjustments– understanding that traffic volume is typically much higher in the summer months than in January and February. The 'adj' accounts for seasonal trends.

**Q:** **Victor Chung (PANYNJ):** What does it mean when the dynamic population numbers go below zero?

A: Stan Young (NREL): When we look at a place that attracts trips like a business center or a school, the population goes up during the day and then returns to zero. The negative places, like residences, are where the trips generally start at the beginning of the day and people return to at the end of the day.

**Q:** **Ira Levinton (New Jersey DOT):** Are recreation trips more or less during COVID? The graph didn't seem to be logical.

A: Stan Young (NREL): What we observed in the Colorado example means recreational trips (such as to parks) were much greater during COVID. Anecdotally, when I go for a hike, I see a much greater volume of people than I would have in the past. That's reflected in the data as well. By tracking trips, we were able to isolate the census block groups that represent recreation (mainly park areas). It showed the incredible increase in activity that these areas have seen – but also note that there are also seasonal trends that are reflected as well – many more outdoor activities over the warmer months than the colder months.

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**Q:** **Harun Rashid (Northern Virginia Transportation Authority):** The census block group level data analyses; is that available from any analytics platform?

A: Stan Young (NREL): The spatial resolution is specific to the data source. Much of the material I showed is what can be supported by the INRIX data set, which works well at the Block Group Level. We shared the population dynamics research results with INRIX and are now discussing how to do this more systematically. We'd like to do this with the Coalition as well.

**C**: **Matthew Glasser (Georgia DOT)**: For anyone in Georgia - feel free to reach out to me for RITIS help - mglasser@dot.ga.gov

**C:** **Russell Holt (Rhode Island DOT):** If partners from Rhode Island are on here who are not already talking with Rhode Island's MPO and/or RIDOT, let us know if you have interest in getting access. Please contact Pamela.Cotter@dot.ri.gov.