Note: Results from polling questions asked during this workshop are at the bottom of the document.

Operations

Q: **Santosh Miraskar (AECOM):** Can we get the Travel Time at the segment level within points A to B?

A: Rick Ayers (University of Maryland CATT Lab): RITIS Probe Data Analytics would be an appropriate solution to support road segment by segment, or groupings of segments, to determine travel time. Because today's workshop is using connected vehicle waypoint data, Greg's geofences serve as the bounding box for determining travel times.

Q: **Ghulam Ashar (Maryland DOT-SHA):** Is it possible to conduct a detour analysis using lane reductions along a work zone or wind restrictions for certain vehicle classes across a bridge as a parameter?

A: Rick Ayers (University of Maryland CATT Lab): Yes, the underlying data and tools that Greg is using in this workshop have been used to support those use cases for agencies.

Q: **Santosh Miraskar (AECOM):** Can the before and after data be broken by Time of Day for multiple days analyses? We would have different timing plans based on predominant travel direction, etc.

A: Greg Jordan (University of Maryland CATT Lab): The time menu allows you to pick a period - a start date and an end date - and then within it, days of the week and times. That filter will help consolidate your analysis, but the menus won't give you perfect flexibility. That is a future improvement we're working on.

A: Rick Ayers (University of Maryland CATT Lab): Temporal filters allow for specifying days of the week and times of the day and it will perform the analysis.

Q: **Guy Rousseau (Atlanta Regional Commission):** With the NextGen Trip Analytics origin-destination trajectories featuring speed and travel times metrics, can we create a speed profile specific for each O-D pathway?

A: Greg Jordan (University of Maryland CATT Lab): Yes. The table has consolidated identical pathways, then it gives you the travel time metrics for all the trips. The trip count is on the left side of the table. That does give you the ability to get speed profiles by a specific route.

Planners

Q: **Michael Golembiewski (Berks County Planning Commission):** Are the TAZs shown inside Allegheny County determined by CATT Lab or the local MPO?

A: Rick Ayers (the University of Maryland CATT Lab): The TAZ boundaries are sources from the US Census Bureau. If your MPO has its own updated version of TAZ boundaries, we are happy to integrate that into Trip Analytics instead.

Q: **David Souleyrette (Kentucky Transportation Cabinet):** What is the sub-county study area based on? Census tracts? Blocks?

A: Rick Ayers (University of Maryland CATT Lab): Correct. Sub-county geographies are sourced from the US Census Bureau.

Q: David Souleyrette (Kentucky Transportation Cabinet): Tracts, but not block groups or blocks?

A: Rick Ayers (University of Maryland CATT Lab): Block groups are the smallest level of geographies that are out of the box with Trip Analytics. We can use custom geographies for reporting if you would like.

Q: David Souleyrette (Kentucky Transportation Cabinet): I noticed that there were a lot more gates generated than major roads. How are those extra gates generated? Do they align with driveways?

A: Greg Jordan (University of Maryland CATT Lab): They are generated where trips in the database cross. So, yes, they will have gates generated if that's where the line crosses. They're auto-generated and a lot of them aren't used if they don't have any trips that go there but it protects you from biasing your data set. There might be a route that you wouldn't think to survey and if enough trips are going down there, you're going to see it and it's going to show up.

A: Rick Ayers (University of Maryland CATT Lab): The gates are generated based on where trips take place, whether a road or the entrance to a mall, etc.

Q: **James Li (MWCOG):** Along with David's question on extra gates, I was wondering if you clean data before using them since some mysterious gates were found within the Maryland freight data.

A: Greg Jordan (University of Maryland CATT Lab): The tool allows you to look at the data set that the data provider gives you. It lets you look under the hood to see how they have cleaned it. There are a few filters that we can set (e.g. remove short truck trips) to filter out things that they give us. There is no data set you're going to get that is a perfect data set - the question is are the imperfections going to be material in trying to find the percentages of movements from places? My general answer is that no, that's not the case. Different vendors are going to do different efforts to clean their data sets. As time goes on, we're going to discover new ways to clean it. You control which data sets we put in this tool. Currently, it's the INRIX trip data set because that's what the agencies have been telling us to use. There's also the national household travel survey. Our goal is to allow agencies that are already sponsoring trip analytics to be able to get the NHTS without additional costs.

Q: **Steve Cote (RS&H):** How do you assess transit stops?

A: Rick Ayers (University of Maryland CATT Lab): CATT Lab is exploring how to leverage trip data from transit authorities and how that data could be leveraged within the framework of Trip Analytics.

A: Greg Jordan (University of Maryland CATT Lab): I was talking to New Jersey Transit about providing a data set for us; they currently have data about how they scan tickets. It all depends on what is in the database that has been licensed by the DOT for us to use. INRIX was the first to do this, especially with Pathways, but other vendors are joining and there may be more choices coming forward. If somebody has a Transit database, we can use it. INRIX has a vehicle-focused data set. There are a few more filterable attributes than we're using right now and we're looking at ways that we can make further changes. By INRIX's definition, their product says that if a vehicle does not move either 100 or 200 meters in 10 minutes, then that trip ends, and then a new trip begins. That can be both good and bad depending on how trips are strung together. If someone's going to drive to a park and ride and jump on a transit trip all you're going to see is the automobile part of the trip due to limitations in the tool right now. The sky is the limit as to what modal data can be loaded – the tool is vehicle and mode agnostic - what matters is the quality of the data set that vendors are making available. What we envision is if your agency is buying data, you'll be able to compare different vendors by defining and polygon and asking for all available data within that constraint, which you can then compare against your travel demand model.

Q: **Michael Golembiewski (Berks County Planning Commission):** To tie into transit and bicycle trips - if this is tied into cell pings, are bicycle and transit trips considered within the universe of vehicle' trips? Are these multimodal trips still counted in the total data set even though they are not broken out separately?

A: Rick Ayers (University of Maryland CATT Lab): The answer is no. The underlying data set is waypoint-based data and comprised only of connected vehicles and freight data. You can license both passenger vehicles and freight vehicle CV data together or separately. If you have a separate third-party data source that's waypoint-based then we're happy to bring that into trip analytics as the platform is constructed to support any waypoint-based data set or OD data set.

Poll 1: Do you represent a TETC member state that has current access to Trip Analytics? (TN, GA, MA, PA, RI, NC, NJ and MD (Freight))

Answer	Count
Yes	44
No	34
I'm not sure	4

Poll 2: Have you used Trip Analytics in the past?

Answer	Count
Yes	27
No	48
I'm not sure	4

Poll 3: Have you used the new beta version of Trip Analytics?

Answer	Count
Yes	9
No	63
I'm not sure	8