



**RITIS User Group Agenda:**

#	Topic
1	What's New
2	On the Horizon
3	"Pack's Pointers"
4	RITIS Roadmap Update
5	Spotlight Presentation
6	Agency Input Session
7	Wrap Up

**Next User Group Meeting: Thursday, January 18, 2018 from 10:30am – Noon (EST).**

**The complete presentation and audio for the webcast meeting are available at – <https://vimeo.com/237604400>**

**Meeting Highlights:**

- **Welcome and User Group Organization:**
  - Denise Markow reviewed the agenda noting the presenters.
  
- **What's New - Work Zone Performance Monitoring Application (WZPMA):**
  - Michael Pack (UMD CATT Lab) announced the Work Zone Performance Monitoring Application (WZPMA) is now live and provided a brief overview of the features of this tool.
  - It is a real-time performance monitoring tool for work zones – it provides a quick and easy way to look at speed, queues, safety, and user delay costs in certain areas. It currently works with INRIX and HERE data (Since no agency is purchasing TomTom data today through the Coalition, it hasn't yet officially been integrated.)
  - The **Work Zone Dashboard** is available on the RITIS home page through the WZPMA link on the upper left corner below the Transportation Systems Status tab. It contains the following four sections:
    - *Current Work Zone List* – provides all of the work zones by county within the participating states. Information on road maintenance operations and emergency roadwork including work zone identifiers/location, number of nearby incidents (one mile upstream/downstream), queue length indicators (increasing/decreasing), and user delay cost are shown.
    - *Critical Work Zone List* – provides lane status, queue length, and user delay cost for specific locations. Agencies can customize criteria/thresholds that are important to them.
    - *Location Map* – Real time map that includes details on work maintenance operations, speeds, and DMS locations/messages.
    - *User Delay Cost by Corridor and Day of Week* - see a full weeks' worth of delay and cost summaries for a customizable list of corridors in one or more states. Additional display options are available for user delay cost including: hours of delay, delay per VMT, and more.



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- The **Individual Work Zone Profile** contains information on a specific work zone including:
  - *Settings (display)* – can be adjusted by user/agency to control data for the road visual
  - *Map* – zooms to selected work zone
  - *Road* – gives information including WZ TMC segment bounds (when available), segment speeds, variable message sign locations, lane closures, queues, CCTV camera locations, posted speed limits and nearby events (when available). Indicates whether the current speed is an expected speed for the day of week and time, and then displays the delta.
  - *Performance Charts* – provides current queue lengths, travels times and speeds. Data for traffic on the opposite direction of the work zone is also available. Interactive graphs for the prior seven days are also provided for comparison.
  - *User Delay* – shows user delay cost and other select measures for the last seven days.
- **Personalized Alerts** can be configured so that users can be notified for event conditions, such as speed and incidents – the user sets the conditions/thresholds, time to be notified and type of notification to be sent (txt message or email).
- A **Quick Reference Guide** will be made available on the Coalition Website and within RITIS. **Post Meeting Note: The Quick Reference Guide is currently available on the Coalition website – on the RITIS Page, within the “Work Zone PM App” tab**
- Users should contact the CATT Lab developers at (support@ritis.org) with any comments or suggestions.
- **What’s New - RITIS Chat**
  - It is possible to see other agencies currently logged on and chat with them. The chat login times have been *significantly* improved.
- **On the Horizon – Transit Integration**
  - Vehicle icons will display on a map to show the location and route that a transit vehicle is traveling and the type of vehicle based on the icon. Transit vehicles that will be included are: bus, metro/subway, train, trolley, and ferry.
  - **Transit** - Clicking on an individual icon will provide a pop-up window that includes information about the vehicle’s next stop, the route it is traveling, direction of travel, speed, and driver/passenger information (if available).
  - **Transit Stops** - Clicking on a stop icon will provide a pop-up window that includes information about the next arrival, routes served, nearby parking, and nearby incidents (as applicable).
  - **Transit Hovering** – Zooming out on the map allows the user to view data they want such as various vehicles, stops, and routes. Hovering over icons will provide minimal information.
  - **Transit in Incident** – Clicking on an individual incident will provide a pop-up window that includes information about the incident and the routes it affects.
  - Transit Integration feature is anticipated to be released in the next few months.,
  - Following this portion of the presentation, the following questions were discussed:
    - **Katie McCann (VDOT)** asked how the work zone application can be accessed. Michael Pack (CATT Lab) showed that after the user is logged into RITIS, there is a “WZPMA” link below the Transportation System Status tab at the top of the webpage.
    - **Daivamani Sivasailam (MWCOCG)** asked how the volume to estimate user delay cost is determined. Michael noted that the volume is the same volume used for all of the other user delay cost tools. In most cases, it comes from a volume profile created by the Texas Transportation Institute (TTI) as part of the data purchase users make from INRIX and HERE. These volumes come from static profiles. Some agencies, such as VDOT and Michigan, provide them with their own volume files which has replaced the data from TTI. Other agencies are able to provide their own data.



- **Ramkumar Venkatanarayana and Katie McCann (VDOT)** asked if there are plans to add similar information for historical work zones. Michael noted it is better to access historic work zone data through the Probe Data Analytics Suite directly. This will provide much more holistic information about what happened in the work zone. The PDA Suite requires the date of the work zone which can be found through the data archive tab on RITIS, as well as the exact location of the work zone. They are looking for ways to do searches on historic work zones that automatically bring up performance measures in a slightly easier way.
- **Ramkumar Venkatanarayana and Katie McCann (VDOT)** offered to work with the CATT Lab to define the parameters of the historic work zones for performance measures.
- **Andrew Meese (MWCOCG)** asked if the Texas A&M sourced volumes are still available even if the state has provided alternative volume data and if this is an issue of comparability across state lines. Michael noted that in the PDA Suite, preferences can be set as to which data set is used. The real-time work zone monitoring application does not yet give users a choice, it defaults to the Texas A&M data, however, other options could be added in the future.
- **Justin Neff (DVRPC)** asked what transit agencies are updated into RITIS and if it includes SEPTA in the Philly area. Michael did not have the list on hand, but stated that it includes any transit agency that has their GTFS feeds publicly available.
- **On the Horizon – Waze Integration & Analytics Tasks**
  - Michael mentioned the I-95 Corridor Coalition held a Crowdsourcing Summit at DVRPC on September 14, 2017, during which agencies discussed how they are using Waze data and the CATT Lab explained what they are doing to make Waze data integration easier. Michael noted the CATT Lab is working on a project for the Coalition – Closing Real-time Data Gaps – in which they are studying and synthesizing Waze data's effects on operations and planning. Some of the other tasks include:
    - Facilitating the archiving of Waze data for a variety of purposes including operations, planning, and research,
    - Exploring solutions to Waze data challenges including: integration with agency ATMS and 511 platforms, handling duplicates, long-term storage;
    - Building analytics to explore the Waze data; and,
    - Documenting recommended best practices for negotiating and sharing agreements.
  - Michael provided various slides and graphics that summarize their recent analysis of Waze data for 12 states between March 2017 and May 2017. The CATT Lab filtered out jam events from the Waze data in their analysis.
    - The first graphic showed vehicle miles traveled, and the average number of Waze events per day by each of the 12 states.
    - The second graphic provided an overview of Waze events by type and also showed Waze events by day of week. It was found that Thursdays and Fridays tend to have more events than the other days of the week.
    - The third and fourth graphic compared average Waze events by day of week to the average DOT events by day of week. It was found that Waze reported 10 times as many events as the DOTs. This was expected because Waze data covers more roads than a DOT typically covers.
    - It was found that Waze reported many events that were also reported by a DOT, but most of the events Waze reported were not duplicative with DOT events.
    - Within the Waze feed, approximately 4% of disabled vehicle events were duplicates (duplicates within the Waze feed—not duplicates with DOT events) over the 3-month period. Removing duplicative reports increases usability of Waze data. They are currently exploring this to determine the effect on operations.
    - Over the 3-month period, Waze disabled vehicle events were reported sooner than through DOT ATMS which can improve response times.



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- The CATT Lab is working to build visual analytics that will allow users to explore data after the fact. The CATT Lab is archiving the Waze data so agencies may contact them for access to this data.
- Next steps include analyzing other event types, evaluating other states, exploring other duplicate-reduction algorithms that consider various factors, synthesizing other benefits and technical approaches from state partners, documenting technical approaches, and documenting recommended practices for negotiating to keep from repeating past mistakes.
- Following this portion of the presentation, the following questions were discussed:
  - **Harun Rashid (Northern Virginia Transportation Authority)** asked if there are plans to analysis O-D patterns from Waze data, rather than just events. Michael noted that the Waze data the CATT Lab receives does not have origin/destination data associated with it. Companies such as INRIX and HERE, are beginning to sell origin/destination and trajectory data, and the CATT Lab is building another suite of tools that will make it easy to do origin/destination analytics. The additional data would need to be purchased from a vendor.
  - **Simona Babiceanu (University of Virginia)** asked if Waze covers the express lane in Virginia. Michael noted that he has not studied this location in particular, however, if it is a divided lane, generally there would be data.
  - **Bill Benson (PennDOT STMC)** asked if Waze data will be added to the VPP tool/PDA Suite. Michael noted this will happen once they determine how to best resolve duplicates.
- **On the Horizon – Flash Migration & Modernization**
  - Work is being completed to migrate features from relying on Flash to a more modern web standard. This includes CCTV Player, Radio Player, Security Patching, and many more features.
- **On the Horizon – RITIS Modernization**
  - RITIS is being modernized to be even more user-friendly. It will have a new look, new layout, new features, better integration – it will target user needs more easily.
  - A “My Account” page will be added to allow users to better manage their accounts. It will show them tools they have access to, and tools they could have access to if their agency had a different agreement.
  - Video tutorials are being updated. A list of current videos is provided in the slide presentation - [RITIS User Group presentation - 9/21/2017](#).
  - There is now a free online course available about archived data for planning, operations, and safety. It is a blended course, where some classes are online but there are also classes where users can call in and meet with the instructor/classmates, as well as workshops. Some of these classes discuss RITIS tools. Information about this course can be found here:  
<http://www.citeconsortium.org/course/archived-data-planning-operations-safety-2/>
- **On the Horizon – Other tools**
  - Software is being developed now for O-D/Trajectory analytic tools and will be available by the end of the year or early 2018, for agencies that are purchasing the O-D data.
  - They are working on a signalized arterial timing plan optimization tool to make retiming signals easier.
  - Transit analytics packages are being explored for the RITIS website.



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- **Pack's Pointers**

- Michael Pack reviewed features within the tools that agencies may not be aware of but may find beneficial regarding weather.
  - Live weather data is provided from the National Weather Service, and shows all types of extreme weather as well as rate of precipitation. This tool can show current conditions, as well as a weather forecast, chance of precipitation, temperature, and more. This can be accessed by turning on “weather radar” and “weather alerts” on the list provided with the traffic map on RITIS. It provides weather forecast, chance of precipitation, snowfall and temperature as well as current weather.
  - Evacuation Support information is also available through RITIS including information such as staging areas, comfort station/travel services, public shelters, hospitals, traffic control points, government vehicle fueling stations, and evacuation routes. Users can choose specific scenarios and intersections to see what is necessary for evacuation. Currently, six states are participating in this tool: Maryland, Washington D.C., Virginia, West Virginia, Pennsylvania, and Delaware.
  - RITIS Meeting can be used to share maps, files, etc. and can be useful during extreme weather situations to enable collaboration among multiple agencies.

- **RITIS Roadmap:**

- Michael Pack presented the RITIS Roadmap and noted that currently they are in the third quarter. He stated that most tasks have been accomplished so far. Some items have taken longer than they originally thought, and some items such as flash migration are simply an ongoing effort.
- They are currently working on Waze Analytics, and CCTV enhancements, and they just finished updating evacuation documents.

- **Spotlight Presentation – Eclipse (CATT Lab)**

- **Michael Pack (CATT Lab)** gave a presentation about the effects of the solar eclipse (on August 21, 2017) on traffic patterns. They created a video from screen captures from RITIS looking at speed and travel time data throughout the country. Paths were created through the locations where totality occurred to view travel patterns. Focusing on the east coast, there was heavy traffic during the partial eclipse, then the traffic settled during totality, but once again picked up once totality passed through the state and was greater than typical traffic during the same day of week.

- **Agency Input Session: Michael Pack (CATT Lab)** led this session, answering questions from meeting participants. The following is a summary.

- **Diane Lackey (SCDOT)** asked if transit agency evacuation support information can be uploaded during an event. Michael noted that information can be uploaded if it is provided to them weeks ahead of time. He also noted that during an event the best course of action is to use RITIS meeting because it is easy to share documents in real-time.
- **Daivamani Sivasailam (MWCOCG)** requested an email address for whoever handles bug fixes at the CATT lab. Michael explained that they have 35 full-time software developers at the CATT Lab. Part of the team is dedicated to customer support and can be contacted at [support@ritis.org](mailto:support@ritis.org). If they are unable to fix the problem, it is escalated to Tier 2 tech support if they are not able to resolve the issue they contact the developers who can address the issue. They also have on-call support so someone is always monitoring requests that come in regardless of the time of day or day of week. Holidays are covered, too.
- **Harun Rashid (Northern Virginia Transportation Authority)** asked if it is possible to have a tool that exports the top-ranked location heads and queues as shapefiles in the VPP bottleneck ranking tool. Michael noted that it is technically possible to export as a shapefile, the issue is they do not own the license to all of the shapefiles. However, the CATT Lab licenses them from other mapping companies, and the license currently prohibits them from sharing the shapefiles. They are looking for ways to change the licensing or move away from the map providers.



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- **Kenneth Withrow (Campo-NC)** asked who their contact is at the North Carolina DOT for developing future analytics. Michael answered they have several contacts, but the most active is Kelly Wells.

- **Wrap Up:**

- Michael gave a couple reminders:
  - Sign up - Go to [www.ritis.org](http://www.ritis.org) then “request an account” and complete the pop-up form using your agency email address. (Verification of your information may take 1 – 2 days and then the CATT Lab will get back to you with your credentials to log into RITIS.) Note that RITIS access is intended for public agencies and is not provided to the private sector unless they are directly supporting an agency who gives permission for access to be granted.
  - **Share your experience** – regarding using RITIS tools. Please contact Michael Pack ([PackML@umd.edu](mailto:PackML@umd.edu)) or Denise Markow ([dmarkow@i95coalition.org](mailto:dmarkow@i95coalition.org)) if you are interested in making a spotlight presentation. The CATT Lab and Coalition staff will help you with your slides.
  - Please provide your input – regarding how meetings and/or the RITIS tools can be improved. Contact Denise or Michael with any suggestions.
  - Free training – Available and given by the MATOC staff. If you are interested, please contact [training@matoc.org](mailto:training@matoc.org).
  - Free video tutorials - Available for some of the tools. The videos can be found here: <https://vimeo.com/user55759816/videos> .
  - Denise mentioned if users would like to receive information about Probe Data Analytics User Group meetings, to send her an email.
  - Denise mentioned that there is a webinar on October 12 where John McClellan (Minnesota DOT) and a few others will discuss how they have integrated CAD into their ATMS.
  - Denise and Michael thanked all for their participation.



**ACTION ITEMS:**

#	Action Item	Whom	Status
1	A <b>Quick Reference Guide</b> for the Work Zone Performance Monitoring Tool (WZPMT) will be made available on the Coalition Website and within RITIS.	CATT Lab	Uploaded to the Coalition website
2	For the Work Zone Performance Monitoring Tool (WZPMT) - Users should contact the CATT Lab developers with any comments or suggestions at <a href="mailto:support@ritis.org">support@ritis.org</a> .	RITIS Users	
3	Work with the User Group to prioritize new feature request: Add the ability to use either alternative volume data (if provided) or the INRIX TTI volume data in the real-time work zone monitoring application.	CATT Lab	
4	Provide information on O-D Data Analytics being developed by the CATT Lab to Harun Rashid (Northern Virginia Transportation Authority)	Michael Pack	
5	Contact Denise Markow if you are interested in having Michael/CATT Lab visit your agency for a deeper analysis of Waze data as part of the Closing Real-time Data Gap project.	All Agencies	
6	Send CATT Lab links to GTFS feeds for transit agencies, and they will add it to RITIS.	All Agencies	
7	Send information to CATT Lab about what types of information would be useful in transit analytic tools.	All agencies	
8	Send CATT Lab electronic files of evacuation support documents to be integrated into RITIS if interested in using this feature.	All Agencies	
9	Send feature requests for RITIS improvements to the CAT Lab ( <a href="mailto:support@ritis.org">support@ritis.org</a> )	All Agencies	

**QUESTIONS:**

RITIS General Questions - Denise Markow, I-95 Corridor Coalition TSMO

- 301.789.9088
- [dmarkow@i95coalition.org](mailto:dmarkow@i95coalition.org)

RITIS Technical Support

- [support@ritis.org](mailto:support@ritis.org) (emails go to developers and Michael Pack)



<b>Meeting Participants</b>	
Michael Pack, John Allen	UMD CATT Lab
Denise Markow	I-95 Corridor Coalition
John Borowski	AutoReturn
Rafael Almario	Cambridge Systematics Inc.
Kenneth Withrow	Campo-NC
James Li	COG
Stephanie Rossi	CORE MPO
Dipak Patel	Dad n Associates LLC
Mike Bruff	DCHC MPO
Jason Tao	District DOT
Justin Neff	Delaware Valley Regional Planning Commission
Jerry Scott	Florida DOT
Lilian Wu	Florida's Turnpike
Mark Metil	Gannett Fleming
Rick Schuman, Amy Lopez	INRIX
Christine Springer	Jacobs
Ana Elias	Jacobs Engineering Group/ FDOT D6
Richard Horstmann	KSE Engineers
Patrick Rooney, Josette Brown, Shelley Kellam, L'Kiesha Markley	Maryland DOT SHA
R Mukai	Maryland Transportation Authority
Crystal Mercedes	MetroPlan Orlando
Andrew Meese, Daivamani Sivasailam	MWCOG
Kitae Kim	New Jersey Institute of Technology
Neha Galgali, Pete McCloskey, Wayne Patterson	New Jersey DOT
Harun Rashid	Northern Virginia Transportation Authority
Rich Deen, Patrick Knight, Ryan McNary, Nipul Patel, Scott Benedict, Matt DePaoli	Pennsylvania DOT
William Benson	PennDOT STMC
Ted Lucas	PennDOT (KMJ Consulting)
Christian Matthews	Rockingham Planning Commission
Diane Lackey	South Carolina DOT
Cody Nolen	Southwestern Pennsylvania Commission
Lynne Randolph	SwRI
Bob Glantzberg	TRANSCOM
Greg Jordan	UMD CATT Lab
Simona Babiceanu	University of Virginia
Perry Comeaux	USDA
Ed Azimi, Ramkumar Venkatanarayana, Katie McCann, Scott Cowherd	Virginia DOT
Jeffrey Moore	WRA
Joanna Reagle, Enam Fares	I-95 CC Support (KMJ Consulting, Inc.)