



**RITIS User Group
Web meeting
January 18, 2018**

RITIS User Group Agenda:

#	Topic
1	What's New
2	On the Horizon
3	Spotlight Presentation
4	Meeting PM3 Performance Measure Requirements
5	"Pack's Pointers"
6	Spotlight Presentation
7	Agency Input Session
8	Wrap Up

Next User Group Meeting: Thursday, May 10, 2018 from 10:30am – Noon (EDT).

The complete presentation and audio for the webcast meeting are available at – <https://vimeo.com/254411860>

Meeting Highlights:

- **Welcome and User Group Organization:**
 - Denise Markow reviewed the agenda noting the presenters.
- **What's New:**
 - User Interface Enhancements – Michael Pack (UMD CATT Lab) announced a new user interface for RITIS, including better RITIS background info, an index of all RITIS tools, use cases, and information on getting access
 - MAP-21 PM3 enhancements (reviewed in detail later in the presentation)
 - Radio Player Enhancements – includes real-time dispatch from fire, EMS, and air traffic control
- **On the Horizon:**
 - **Origin/Destination (OD) Analytics:**
 - Works with HERE or INRIX OD and trajectory data as well as select ABM data
 - Can stratify by day, date, and time
 - Contains a roadway selection tool that shows OD on vehicles that have traversed that selection
 - **Arterial Signal System Analytics:**
 - Funded by PennDOT
 - Based off XD data
 - Utilizes Purdue Arterial PM tools
 - **John Allen is Retiring from the CATT Lab - Good Luck!**



- **Spotlight Presentation – Analyzing the Impact of the I-85 Bridge Collapse on Regional Travel in Atlanta**
 - Masoud Hamedi (UMD CATT) presented on the bridge collapse on I-85 in Atlanta caused by a fire that closed all five lanes of highway in each direction for 45 days.
 - In June 2017, UMD CATT presented how RITIS could be used for traveler information, real-time coordination, and after-action reviews.
 - In this presentation, they provided a detailed analysis of roadway network performance before the collapse, during reconstruction, and after reopening. They also investigated seasonal travel and collected data from the same time period in the previous years.
 - UMD CATT conducted analysis on local arterials close to the site using the congestion scan and bottleneck ranking tools (including time spirals) and regional analysis by developing python scripts to create performance measures.
 - Looked at the Travel Time Index (TTI) by route as well as weekly TTI for before, during, and after the collapse.
 - Developed comparative congestion index (CCI) which is $TTI_{during} / .5 * (TTI_{before} + TTI_{after})$.
 - Results/Conclusions:
 - GA-13 experienced a bottleneck impact increase of 639% compared to before the bridge collapse. The bottleneck ranking also discovered less conspicuous impacts to the local road network – some drivers avoided GA-13 and took local roads, then continued using them after the impact to GA-13 was over.
 - Found inbound travel has been distributed more evenly both temporally and spatially which indicates a more resilient network.
 - Changes in congestion levels, bottleneck locations, and mobility performance measures are successfully captured and reflected by probe data.
 - PDA suite was able to accurately explain changes before, during, and after the bridge collapse.
 - Large scale travel time reliability analysis is shown to be an effective approach for measuring and quantifying changes in regional mobility patterns.
 - Visualizing the results on GIS and color-coding maps makes policies and decisions easier to explain to decision-makers.
 - TTI, PTI (planning time index), CCI can be used to compare resiliency and adaptability of a network across incidents (because these measures do not have a dimension).

- **Meeting PM3 Performance Measures Requirements:**
 - Michael Pack (UMD CATT Lab) explained that FHWA has finalized PM3 performance measures and agencies will need to submit various targets and performance measures by May. **Agencies who have already purchased RITIS/PDA Suite will have access to these RITIS tools at no further cost.**
 - Provided highlights about new NPMRDS (path processing, inner/outer TMCs, faster data release, data density indicator, more accurate GIS shapefiles with HPMS conflated).
 - Demonstrated how the coverage map and the massive data downloader work for NPMRDS.
 - Demonstrated how MAP-21 widgets work (both graph and map).
 - Working on creating an 'easy button' to submit reports for FHWA. The 'easy button' will generate all files and deliverables for submission to FHWA with one click. Currently development is waiting on final federal guidelines on submission material before releasing the tool.
 - If your agency is not a RITIS/PDA customer, here's how to get access:
 - Basic Service – Map 21 Access – through pooled fund study
 - Option A – Additional NPMRDS Data – can purchase INRIX data from 2016 onward to support homogenous format data for two years



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- Option B/C – Advanced Analytics – deeper analytical capabilities for your NHS or full coverage of your entire TMC network
- Funding Options
 - Pooled Fund Study – contact Matt Hardy at AASHTO
 - Direct with UMD/CATT Lab – contact Michael Pack at CATT Lab
 - Direct with INRIX – contact Rick Shuman at INRIX
 - I-95 CC – contact Patricia Hendren at I-95 Corridor Coalition
- MAP-21 PM3 Analytical Tool Set Demo for MPOs
 - January 23, 2018 at 2:00 PM – contact staff@ampo.org
- Q/A Session:
 - Denise Markow (I-95 CC) asked if there is some way agencies could obtain data where there are gaps in NPMRDS coverage? Michael Pack (UMD CATT Lab) explained that with the FHWA contract they are only allowed to provide NHS data as currently defined by the 2015 HPMS. Third party data providers would be happy to sell data outside NHS, including INRIX.
 - David Heller (SJTPO) asked the difference between NPMRDS and INRIX. Michael Pack (UMD CATT Lab) explained that if you buy probe data from a provider, data generally comes real-time in one-minute intervals. There is never going to be a probe on every single road at every one-minute interval. Third party providers examine speeds just upstream or downstream from a location if there is no probe, then impute speeds on segments without probes. That data is high-quality but NPMRDS requires the data provider only submit directly observed probe data (no imputed data). Thus, there will be gaps in NPMRDS and the data comes in five-minute intervals.
 - Christian Matthews (Rockingham Planning) asked how to update a MPO/MPA boundary in RITIS. Michael Pack (UMD CATT Lab) directed them to send shapefiles to npmrds@ritis.org or support@ritis.org as well as to coordinate with the FHWA.
 - Ram Venkatanarayana (Virginia DOT) asked when is the arterial system analytics going to be released. Michael Pack (UMD CATT Lab) estimated it would take nine months as the tool is still in development.
 - Sudhir Joshi (NJDOT) asked if agencies provided TMCs for gaps in NPMRDS coverage, would data in those segments be incorporated in time for PM3 targets and if speed limits could be conflated with TMCs? Michael Pack (UMD CATT Lab) explained that NPMRDS was contractually required to use the prior year's HPMS as the basis for NHS. He advised to send the missing segments to npmrds@ritis.org and they will make sure the NPMRDS team sees the missing segments. Send speed limit data and TMCs in a format demonstrated in our help file to intake@ritis.org and that data will be added for PM3 calculations.
- **Pack's Pointers:**
 - Michael Pack (UMD CATT Lab) gave a couple reminders:
 - Map & Incident List Filters
 - Can drill down on specific factors on incidents (closed lane numbers, incident attributes, incident types, geographic areas, and roadway characteristics).
 - Map will be updated to only show those incidents
 - Make sure you remember you have filters on!
 - Region of Interest
 - There's often way too many incidents in the feed to manually comb through
 - Using Region of Interest, you can draw a box around a region of the country you are interested in.
 - This tool filters geographically – removes anything that isn't contained in the selected geometry
 - Does not filter out of the map, just incident list
 - RITIS Meeting Access



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- This tool that can be used to coordinate and collaborate – can share images, draw, etc.
 - It's a web meeting tool but it's integrated directly into RITIS and doesn't require a download or plugin – this is helpful for some agencies with restrictive IT policies. Participating agencies need not be RITIS users.
- **Spotlight Presentation: Using RITIS for Extreme Weather "Bomb Cyclone" Nor'easter**
 - Taran "Hutch" Hutchinson, MATOC Facilitator, presented on how MATOC used RITIS for this recent severe weather event.
 - MATOC assists with inter-agency communication and coordination associated with transportation operations in and around the National Capital Region including assisting transportation agencies with coordination issues related to severe weather events as well as planned and construction events. Background on this storm: max of 24" of snowfall, 300,000 power outages
 - This storm was a localized event – it didn't affect everyone; however, there was still a need to sit down with all of the agencies involved and conduct a 'regional snowcall' – trying to pass on information to various decision-makers (federal, state, and local) on a 200-person conference call at 3:00 AM.
 - Forecasts raised some serious concern on the maximum snowfall for the eastern coast of the capital region.
 - There were several issues that needed to be discussed:
 - Timing – when is this storm going to hit? Will it affect peak hours?
 - Temperatures - will it refreeze if roadways are pretreated?
 - Wind - sustained high wind is detrimental. 50 mph wind will affect metrorail, as well as falling trees, blowing snow, etc.
 - MATOC utilized RITIS Meeting to conduct discussion and make decisions. Hutch noted that it was a great collaboration tool which enabled transparent decision-making and the provided post-meeting summaries save time and can be easily distributed.
 - Nor'easter Outcomes
 - Weather: 3" snowfall, high winds, temperatures in the low teens
 - OPM (Office of Personnel Management) – 2-hour delay or telework; schools – 2-hour delay or closed
 - RITIS Tools
 - Compared TTI (through PDA Suite Trend Map) to last year and seasonal average – slowdowns on the east side of the region at 6:00AM – but at 9:00AM there was very little traffic – everyone decided to stay at home. There was also little to no volume during the PM peak.
 - 4 days later there was an icy wintery mix
 - Timing – PM peak
 - Opinions – DOT/Transit – 50/50 early dismissal and stay open; OPM – stay open; schools – 50/50 early dismissal and close.
 - Outcome – Interstates and primaries were wet but not icy, local roads were treated and refreezing, untreated areas had ice glaze.
 - School indecision remained a large problem because it induced parents to leave work and pick up children
 - RITIS tools
 - TTI comparison (through PDA Suite Performance Charts) – Showed lots of traffic compared to normal at 2:00PM, but at the PM Peak there was very little traffic. TTI performance chart showed early peak.
 - Major Takeaway – RITIS/PDA Suite tools are directly impacting decisions.
 - Agencies want to know how effective their strategies are and they want to know it quickly.
 - Archived data can help justify decisions or provide critical feedback and show information gaps.



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- RITIS is a trusted platform that strengthens relationships between agencies and across sectors.
- **Agency Input Session**
 - Ram Venkatanarayana (Virginia DOT) asked how the advanced time selection feature is coming along (the ability to remove weather events and holidays from analysis). Michael Pack (UMD CATT Lab) explained that it is still being worked on and that it requires quite a bit of computation. He estimates completion in the next quarter.
- **Wrap up**
 - Go to 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) or Denise Markow (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.
 - Free video tutorials - Available for some of the tools. The videos can be found here: <https://vimeo.com/user55759816/videos> .
 - Denise mentioned the next meeting is May 10, 2018 – 10:30 AM – 12:00 PM
 - The group had a final thank you for John Allen
 - Denise and Michael thanked all for their participation.



ACTION ITEMS:

#	Action Item	Whom	Status
1	A Quick Reference Guide for the Work Zone Performance Monitoring Tool (WZPMT) is available on the Coalition Website and within RITIS. It can be found here: http://i95coalition.org/projects/work-zone-performance-monitoring/	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 support@ritis.org .	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 (support@ritis.org)	All Agencies	

QUESTIONS:

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

- 301.789.9088
- dmarkow@i95coalition.org

RITIS Technical Support

- support@ritis.org (emails go to developers and Michael Pack)



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Meeting Participants	
Michael Pack, John Allen, Greg Jordan	UMD CATT Lab
Denise Markow, Trish Hendren	I-95 Corridor Coalition
Enock Mtoi	AECOM / FTE
John Borowski	AutoReturn
Eileen Singleton, Ed Stylc	Baltimore Metropolitan Council
Stephanie Rossi	CORE MPO
Dipak Patel	DAD N Associates LLC
Paul Carafides, Tom Edinger, Justin Neff	Delaware Valley Regional Planning Commission
Alana Majdalawi, Jerry Scott	Florida DOT
Amy Lopez	INRIX
Brian Rubin	Maricopa Association of Governments
Taran Hutchinson	MATOC
Azadeh Norouzi, L'Kiesha Markley	MDOT/SHA
Roxane Mukai	MDTA
Nick Voltenburg, Alexander Wassman	Missouri Department of Transportation
James Li, Patrick Zilliacus	MWCOG
Sushant Darji, Neha Galgali, Sudhir Joshi, Ira Levinton, Jonathan Martinez	New Jersey DOT
Edward Mark, Rexella William	New York State DOT
Kelly Wells, David Keilson	North Carolina DOT
Harun Rashid	Northern Virginia Transportation Authority
Bob Davis, Steve Gault, Ted Lucas	Pennsylvania DOT
Christian Matthews	Rockingham Planning Commission
David Heller	SJTPO
David Gray	South Carolina DOT
David Vickers, Lynne Randolph	Southwest Research Institute
Cody Nolen	SPC
Bob Glantzberg	TRANSCOM
Hubert Clay	TTWN
Masoud Hamedi	UMD CATT
Ian Degutis	Vermont AOT
Ed Azimi, Joshua Byrd, Scott Cowherd, Jungwook Jun, Paul Szatkowski, Ram Venkatanarayana	Virginia DOT
Chad Reese	Whitman, Requardt & Associates
Joanna Reagle, Justin Ferri	I-95 CC Support (KMJ Consulting, Inc.)