

Metropolitan Area Transportation Operations Coordination

MATOC & RITIS Update for MWCOG Systems Performance, Operations and Technology Subcommittee

Taran Hutchinson Facilitator

December 5, 2024











Program Overview

- MATOC is a joint operations program between DDOT, MDOT, VDOT, & WMATA to improve inter-agency information sharing and coordination
 - Focuses on DOT Operations and Traffic Incident Management (TIM) topic areas
- MATOC's mission is to provide its stakeholders situational awareness of transportation operations in and around the National Capital Region (NCR)
- MATOC develops and implements the tools and processes needed to facilitate coordinated operating agency responses during incidents
- This is achieved through the development and communication of timely and reliable information that enables operating agencies and the traveling public to make appropriate decisions
- MATOC is not command and control, it is advisory in nature and serves as a decision support function
- Since 2010: MATOC Program has been administered through the University of Maryland Center for Advanced Transportation Technology (CATT)













Organization Overview

- The MATOC Program is governed by a Steering Committee and supported by several committees and working groups covering specific DOT topic areas
 - Operations Subcommittee focuses on roadway operations and traffic incident management topics; provides guidelines on how MATOC Operations and its center is run
 - Information Systems Subcommittee focuses on systems integration and technical issues and advises the Steering Committee on technical aspects of the Regional Integrated Transportation Information System (RITIS)
 - Transit Task Force is a forum for regional/local transit operators to discuss service coordination issues related to unplanned and planned events
 - Severe Weather Coordination Working Group serves as a forum for select DOT maintenance members to share and discuss mobilization and recovery plans before, during and after severe weather events
 - MATOC Operations Center is the operational component of the program.
 - Regional Construction Coordination Working Group serves as a forum for DOT construction/planning representatives to share planned event information including construction activity, work zones, and special events













MATOC Partners & Stakeholders

- DDOT
 - DC MPD, DC HSEMA, DC DPW, USPP, US DOT-FHWA
- MDOT (SHA)
 - MDTA, Montgomery County TMC, Prince George's County TRIP
- VDOT (NoVA)
 - Transurban, 66 Express Mobility Partners, MWAA/DTR, Dulles Greenway, & NOVA localities
- WMATA
 - Alexandria Transit (Dash), Arlington Transit, DC Circulator, DoD/Pentagon Shuttles (WHS), Fairfax County Connector, Fairfax City CUE Bus, Frederick County TransIT, Fredericksburg Regional Transit, Loudoun County Transit, Montgomery County RideOn, MDOT MTA Commuter Bus, MDOT MTA MARC Train, Prince George's County The Bus, PRTC OmniRide, RTA of Central Maryland, Shuttle-UM, Virginia Rail Express (VRE), Virginia DRPT
- MWCOG/TPB & UMD CATT/CATT Lab
 - MWCOG DHSPS, Eastern Transportation Coalition
- Regional Homeland Security Watch Desks
 - NCR Watch Desk (DC HSEMA), FEMA-ONCRC Watch Desk, & local EMAs
- Relationships: National Weather Service, National Park Service, US OPM, WTOP Traffic









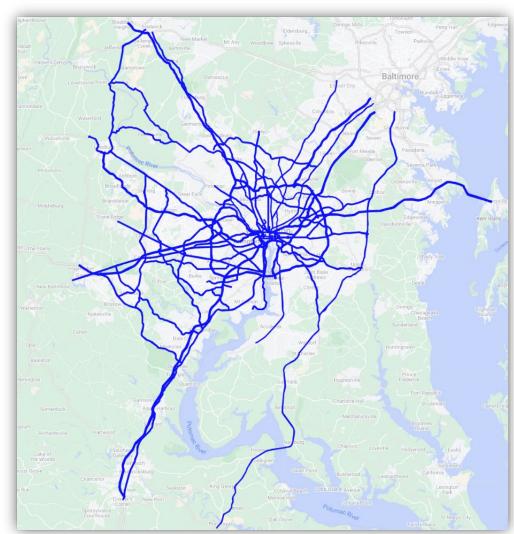


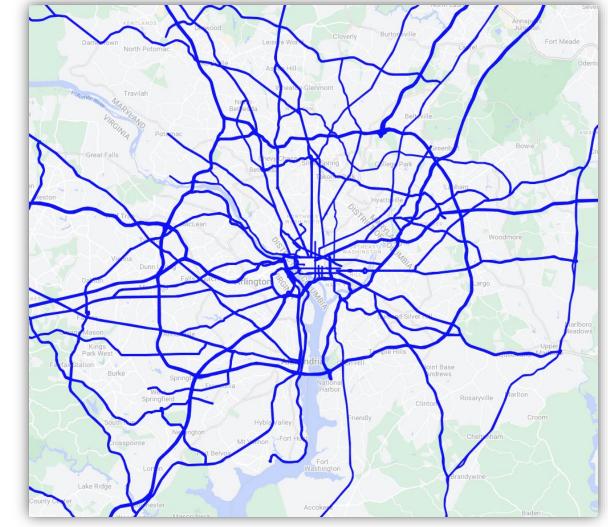




MATOC's Area of Interest

(National Capital Region "+1")

















MATOC's Triggers and Incident Classifications

Triggers

- Capacity: 50% travel lanes blocked
- Incident Duration: >30 minutes
- Queue: >4 miles (freeways)

Institutional knowledge

- Operator experience and intuition
- Probe speed data
- Incident response activity

Incident Classification

- **Minor** (<30min)
- Intermediate (>30min to 2hrs)
- Major (>2hrs)









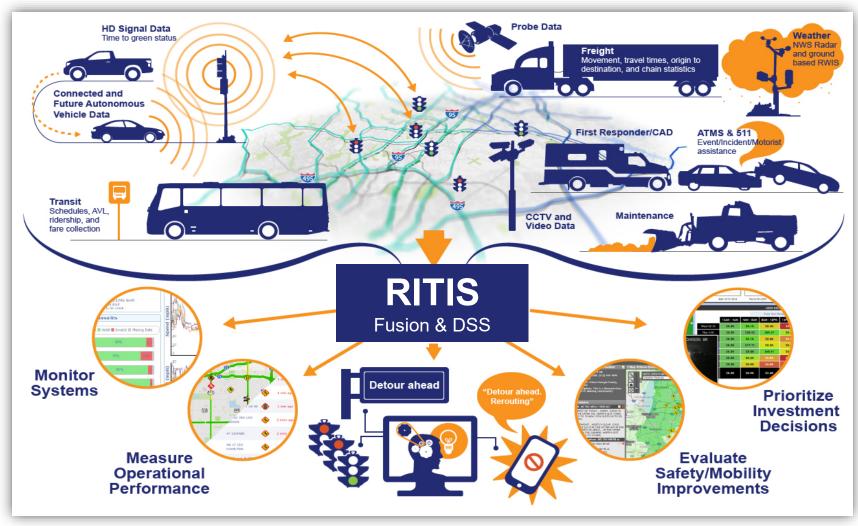






Regional Integrated Transportation Information System











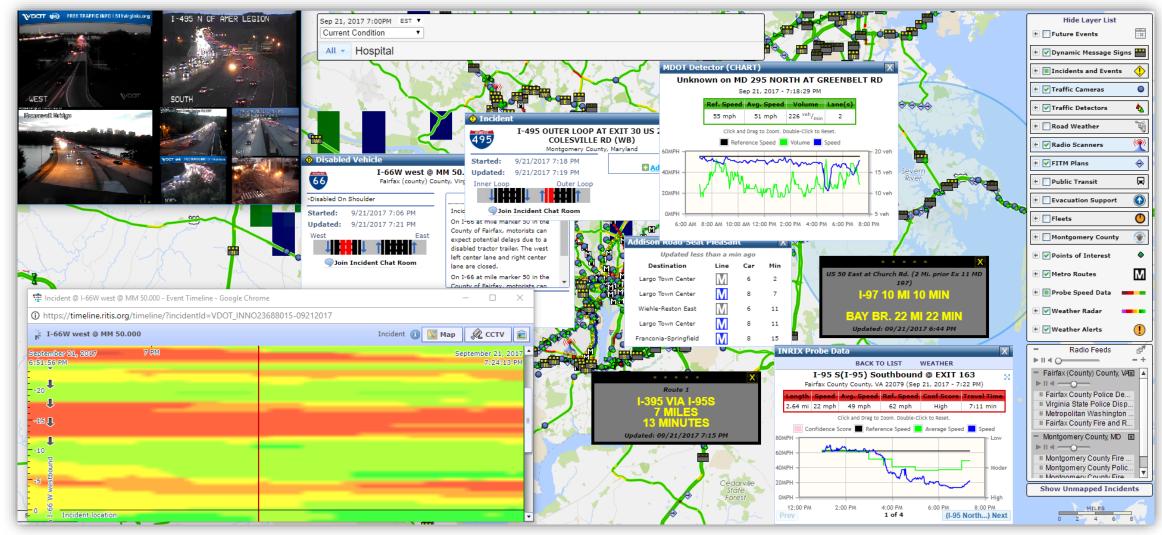






Regional Integrated Transportation Information System





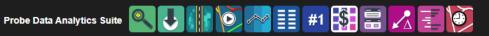












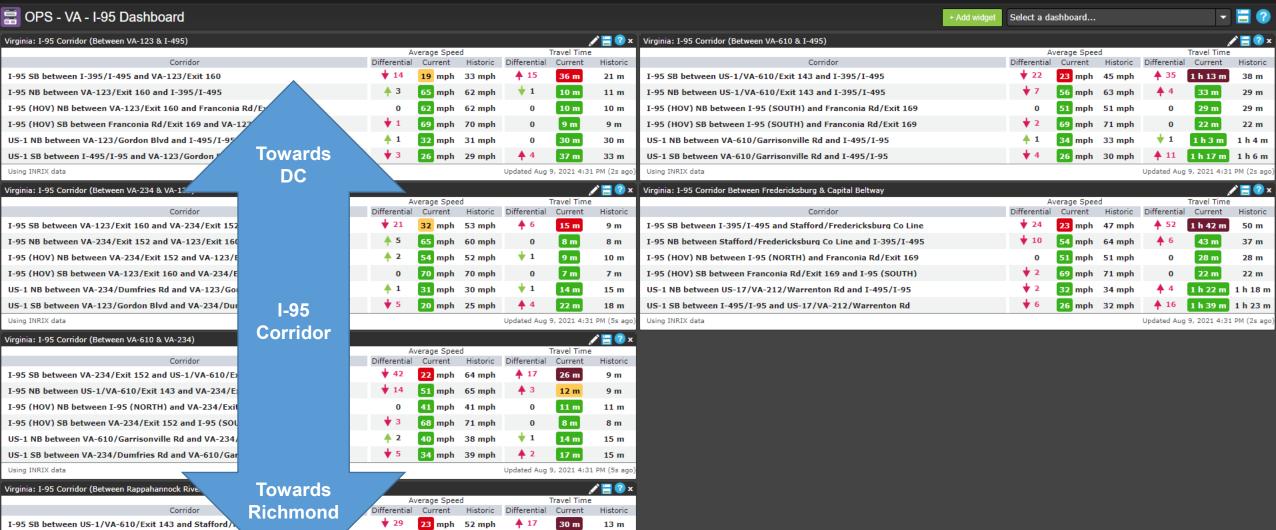
I-95 NB between Stafford/Fredericksburg Co Line and US-

Using INRIX data

US-1 NB between US-17/VA-212/Warrenton Rd and VA-610/G

US-1 SB between VA-610/Garrisonville Rd and US-17/VA-212/Wa

PDA Dashboard: Speed & Travel Time Table for I-95 Corridor (VA) Help | Tutorials | Logout



66 mph

36 mph 39 mph

28 mph 38 mph

n Rd

15 m

18 m

23 m

Updated Aug 9, 2021 4:31 PM (5s ago

10 m

17 m

17 m



☆i

PA PennDOT - Pennsylvania Department of Transportation







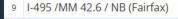










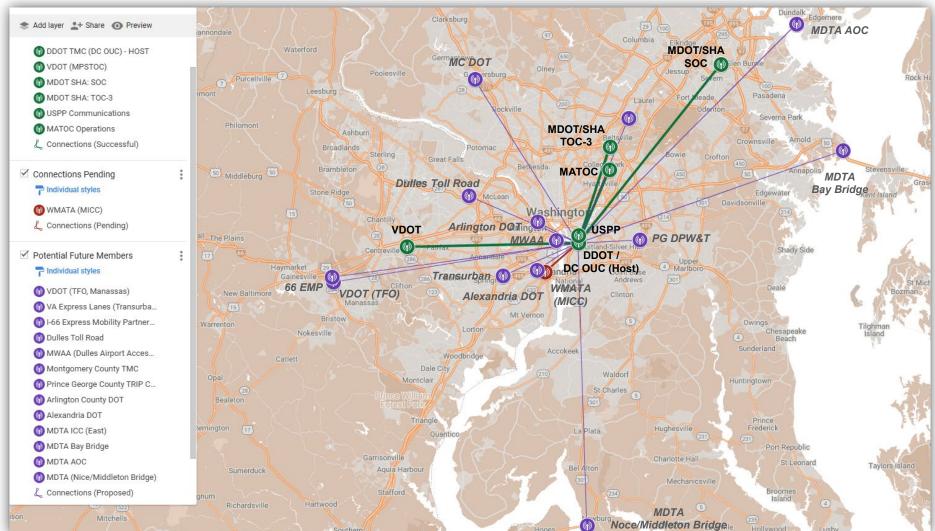








Transportation Mutual Aid Radio System (TMARS) Center-to-Center Radio Communications









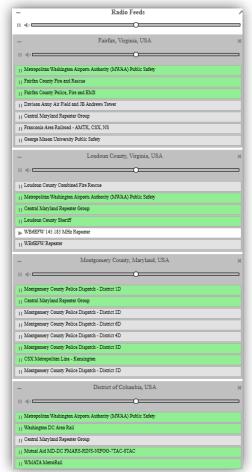


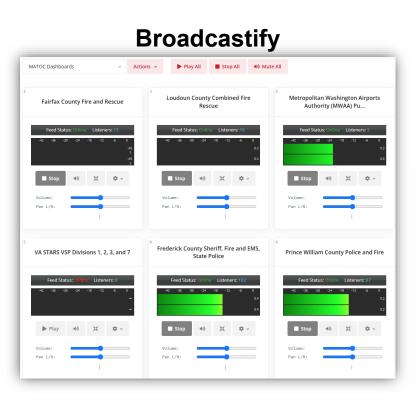




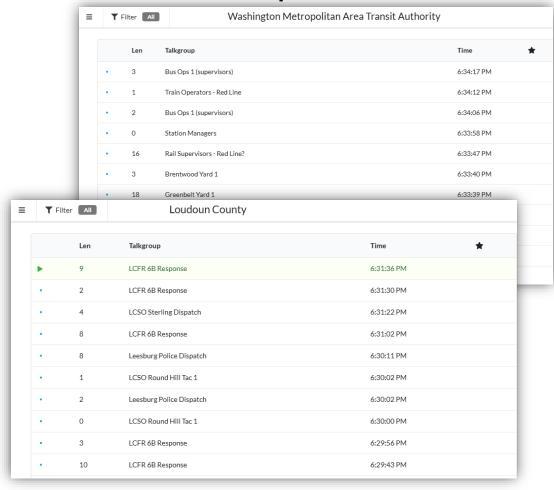
Recent Challenges: Radio Communications

RITIS Radio Scanners





OpenMHZ









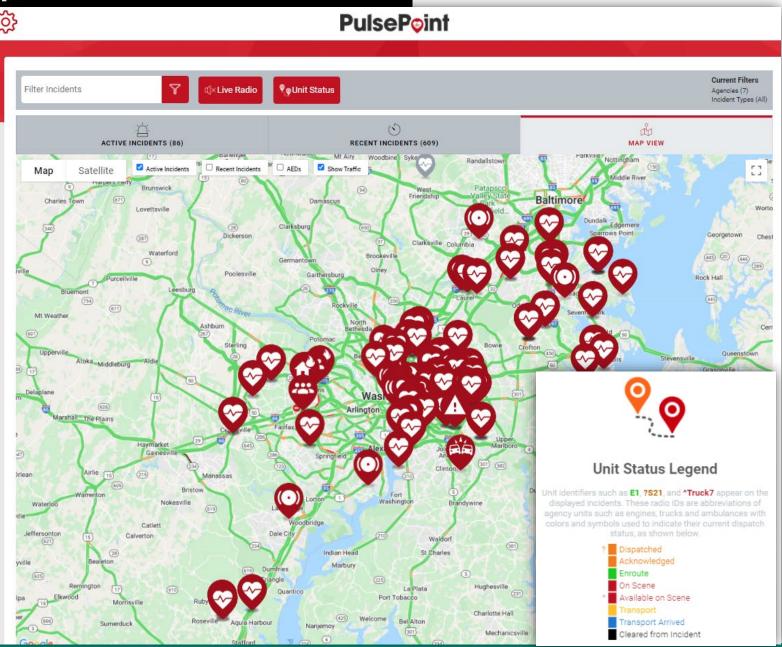




Fire Department CAD Information

		11116
DC Fire and EMS	Medical Emergency WISCONSIN AVE NW, WASHINGTON, DC E20 M05	10:34 AM Today
Anne Arundel CFD	Medical Emergency DORSEY RD, HANOVER, MD E211 MU29	10:32 AM Today
PRINCE WILLIAM COUNTY P.W. County DFR	Fire Alarm 2720 GREEN ASH, WOODBRIDGE, VA E520BM R510	10:31 AM Today
DC Fire and EMS	Fire Alarm 638 MAINE AVE SW, WASHINGTON, DC E07 T04 T10	10:31 AM Today
DC Fire and EMS	Medical Emergency KENILWORTH TER NE, WASHINGTON, DC A27	10:30 AM Today
PG County Fire/EMS	Medical Emergency METZEROTT RD, HYATTSVILLE, MD TGA1	10:30 AM Today
DC Fire and EMS	Fire Alarm 800 16TH ST NW, WASHINGTON, DC (HOTEL - HAY ADAMS - 800 16 ST NW) E16 T02	10:29 AM Today
Anne Arundel CFD	Medical Emergency GLEN MAR RD, GLEN BURNIE, MD E261 MU33 TK26	10:28 AM Today
Fairfax County Fire	Commercial Fire 7940 JONES BRANCH DR, MCLEAN, VA (PENFED CREDIT UNION) BC404 BC405 DC402 E103M E401M E418M E425M E428M EMS404 M413 PE710 R439M	10:28 AM Today

SAF401 SAF402 TL429M TT410M



Click on the blue arrow on the left side of this page for filtering

All dashboard widgets may be expanded by clicking button in upper

Active Calls



4/22/2024, 10:04 AM

Jurisdiction: Prince Georges County

4418 NATAHALA DR

4/22/2024, 10:04 AM

Jurisdiction: Fairfax County

7614 RICHMOND HWY ALEX

EMS LEVEL 1 Remarks:

4/22/2024, 10:03 AM

Jurisdiction: Fairfax County

8519 TUTTLE RD SFLD FIRE ALARM: COMMERCIAL Remarks:

4/22/2024, 10:03 AM

105 N Union St

ANIMAL COMPLAINT

4/22/2024, 10:02 AM

Jurisdiction: Washington DC

4500 40TH ST NW DC

ACCIDENT-INJURIES/UNKNOWN

4/22/2024, 10:02 AM

Jurisdiction: Loudoun County

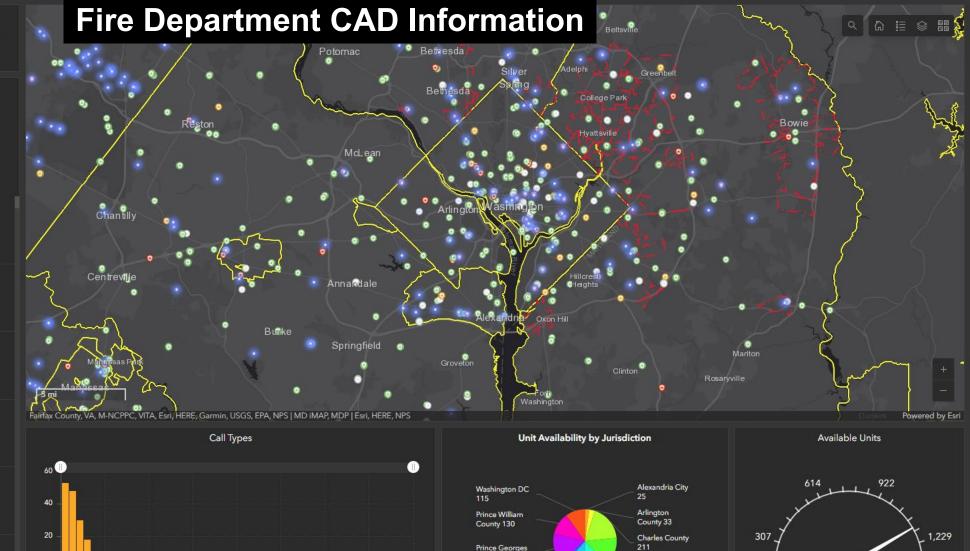
42955 ADAGIO ASHWOOD DR

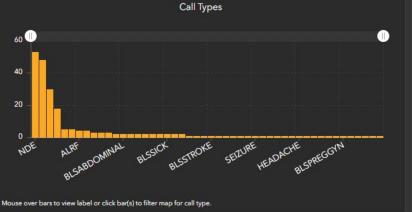
4/22/2024, 10:02 AM

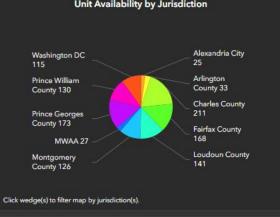
Active Calls

Active Units

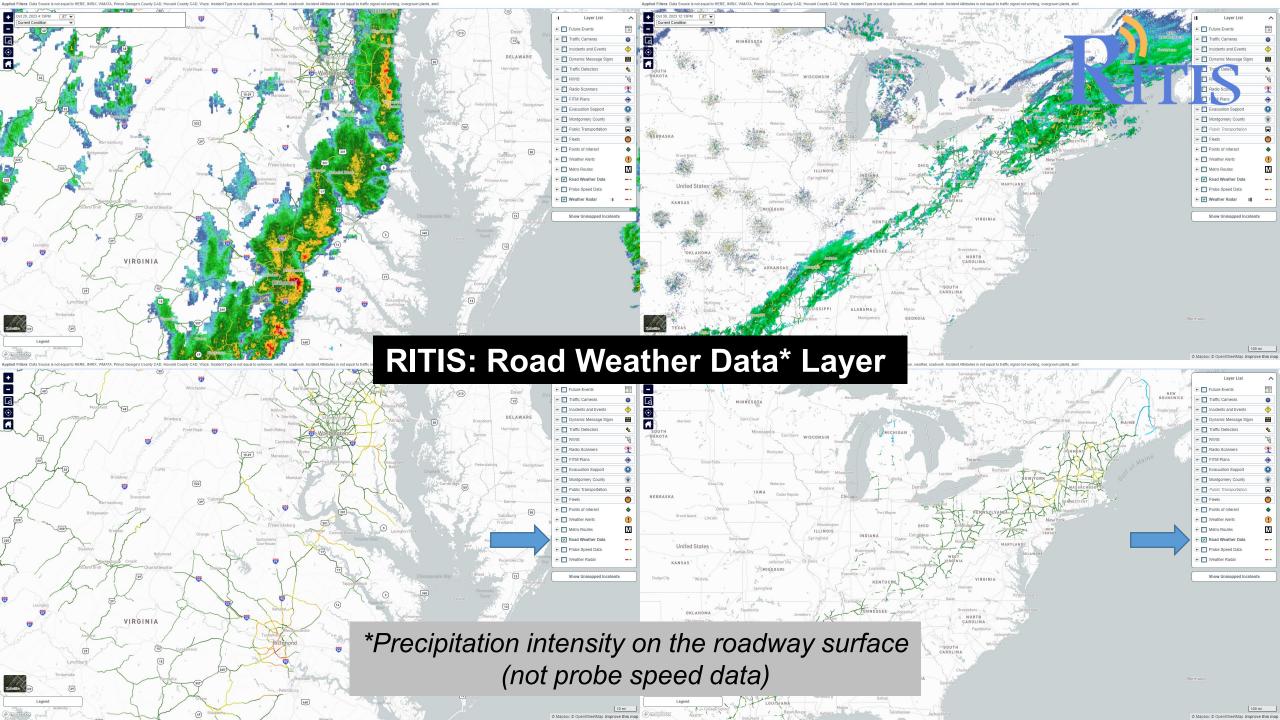
Mutual Aid Incidents











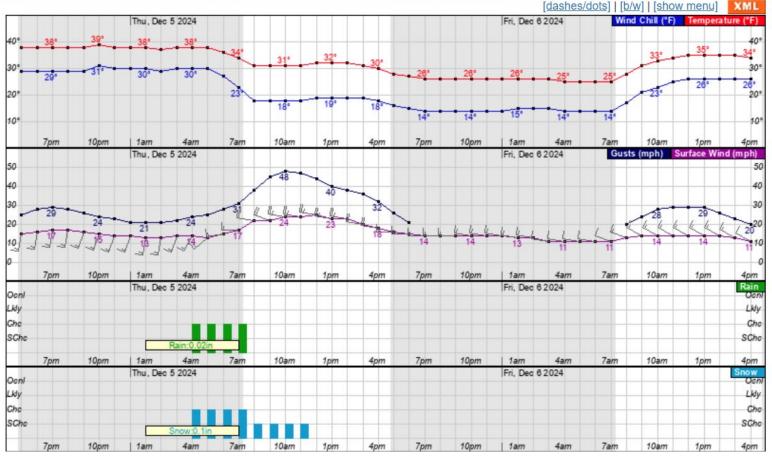


Challenges: Pavement Temperature Forecasts (NWS Weather Graph)

Point Forecast: Adamstown MD 39.29N 77.47W (Elev. 299 ft)

Last Update: 3:30 pm EST Dec 4, 2024

Hourly Weather Forecast Graph







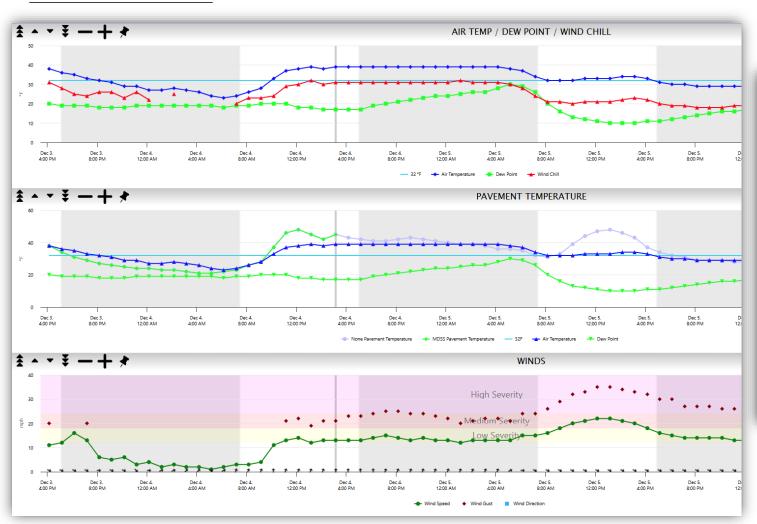








Challenges: Pavement Temperature Forecasts (DTN ClearPath Weather)



Inclement Weather - Roadway Temperature Impact Summary Wed December 4th 2024, 3:00 pm										
	Wed			Thu						
	3p-5p	6p-8p	9p-11p	12a-2a	3a-5a	6a-8a	9a-11a	12p-2p		
Bristol	50/36	42/35	42/33	41/34	40/33	37/25	44/24	50/36		
Culpeper	51/38	41/35	40/36	39/35	41/34	40/30	50/34	53/43		
Fredericksburg	53/43	44/37	41/37	41/37	41/35	41/35	56/41	58/50		
Hampton Roads	55/43	45/35	42/33	44/33	44/33	43/33	57/43	61/53		
Lynchburg	55/41	40/36	39/35	40/35	40/34	40/36	52/39	56/50		
Northern Virginia	50/41	43/38	43/38	41/36	41/34	39/28	47/30	52/44		
Richmond	55/41	44/34	39/34	40/34	38/33	41/34	55/42	58/53		
Salem	51/36	40/32	40/33	40/35	42/35	40/27	49/31	53/38		
Staunton	46/36	40/35	40/30	38/30	39/29	37/19	45/21	48/33		
-40 -35 -30 -25 -20 -15 -10 -5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100 105 110 11:										





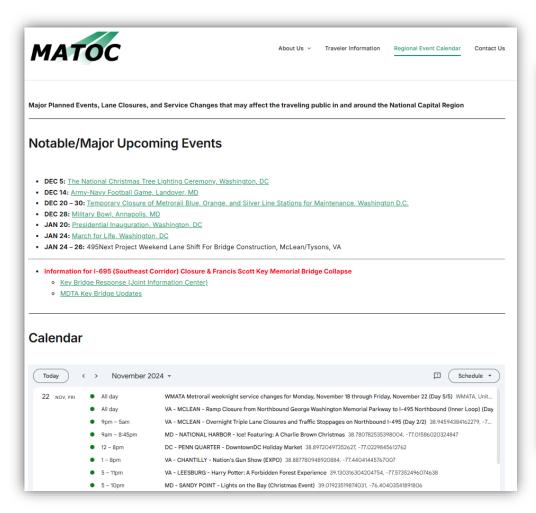


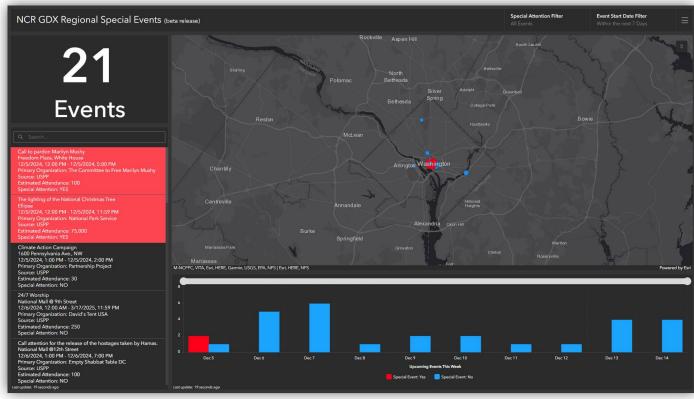






Challenges: Planned Events









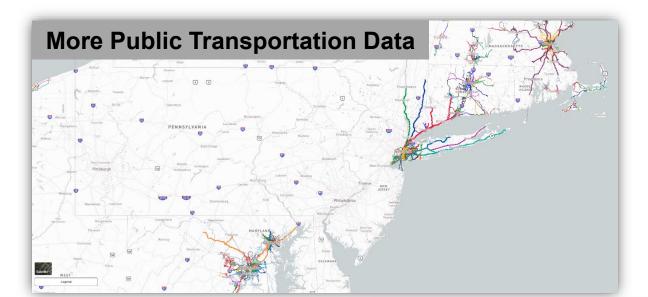




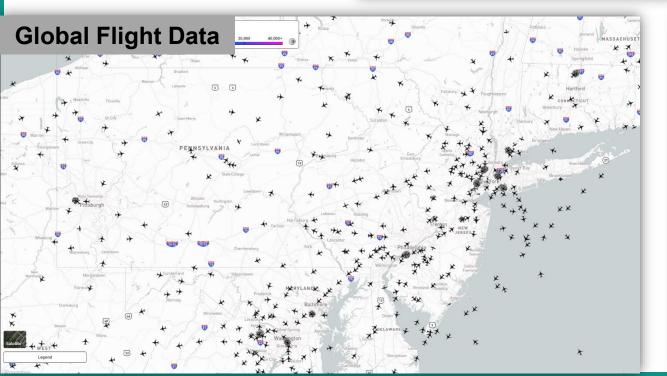


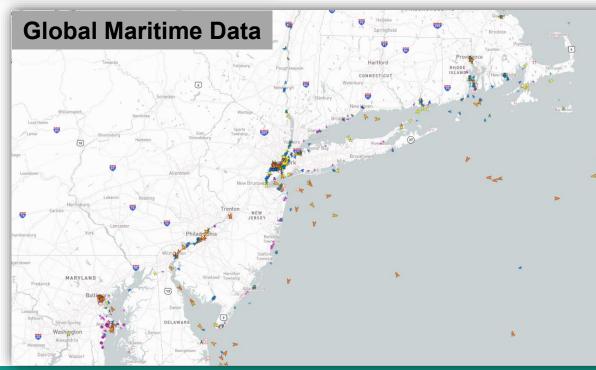
Coming Soon

- New RITIS Map
- New CCTV Section
- More Probe Speed Data





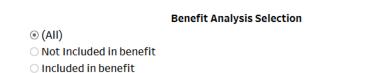




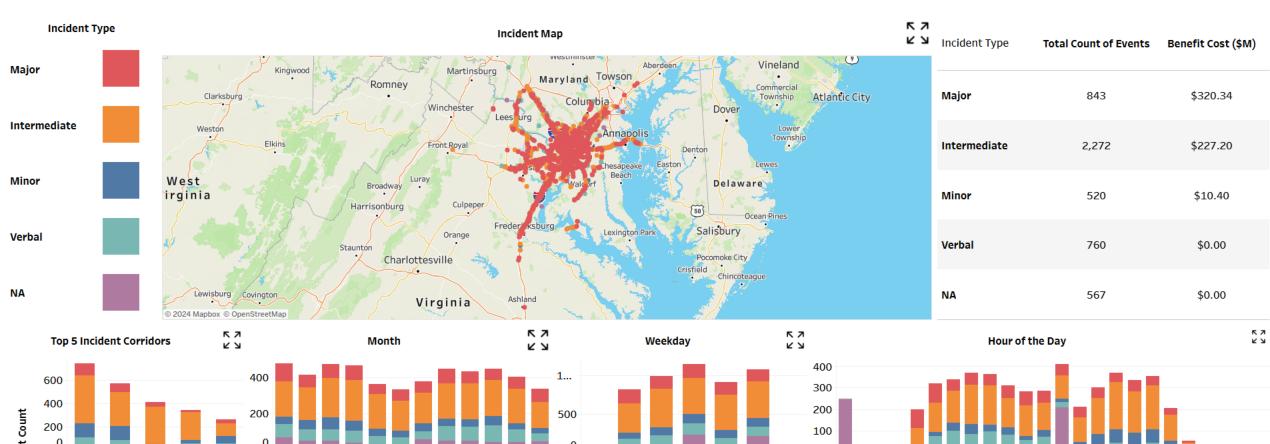


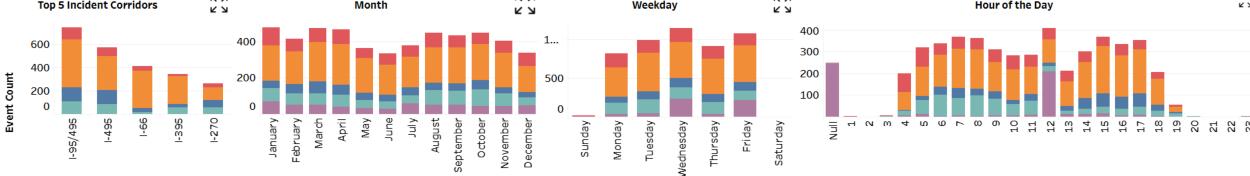












ABORATORY

NEW: RITIS Best Practices Handbook

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Personal Traffic Alerts

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PDA Suite select tool quick reference guides

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RITIS

Probe Data
Analytics Suite

Click the back arrows next to

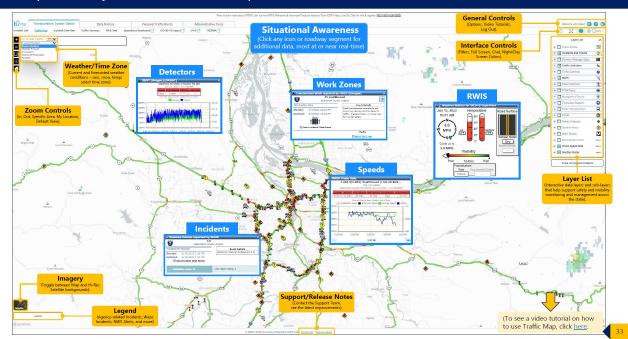
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RITIS Best Practices Handbook

First Edition August 2024

Center for Advanced Transportation Technology Laboratory • University of Maryland

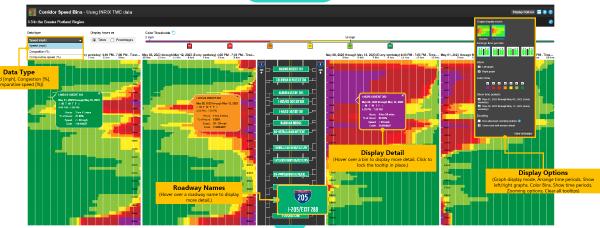
Transportation System Status – Traffic Map



Corridor Speed Bins

Corridor Speed Bins counts the number of probe readings recorded for various congestion measures and displays time-aggregated bins to explore patterns on a stretch of road (video tutorial not available at this time)

RESULTS SCREEN



You can interact with your report using the following:

Data type - the Data type dropdown menu allows you to switch between the different metrics available in tool.

Display hours as - the Display Hours as dropdown lets you choose whether you would like to have the x-axis represent the total amount of time or the percentage of time for your time periods.

Display Options - the **Display Options** menu you can customize the display to fit your needs with the following controls: selecting to show borders (no borders option shown above), arrange the time period charts, selecting which sides of the road to display, choose what color bins to display, show time periods (both shown) and zooming options to allow for more refined selection of the road.

Compare - hover over a speed bin to show tooltips with detailed results at that location. Click to lock the tooltip in place.

Save as/Notes/Help/Title – Save as allows you to export your report as an .xml file (use in Excel); Notes allows you to add notes or edit previous ones; Help takes you to the Corridor Speed Bins Help page; and Title allows you to add or edit a report title.

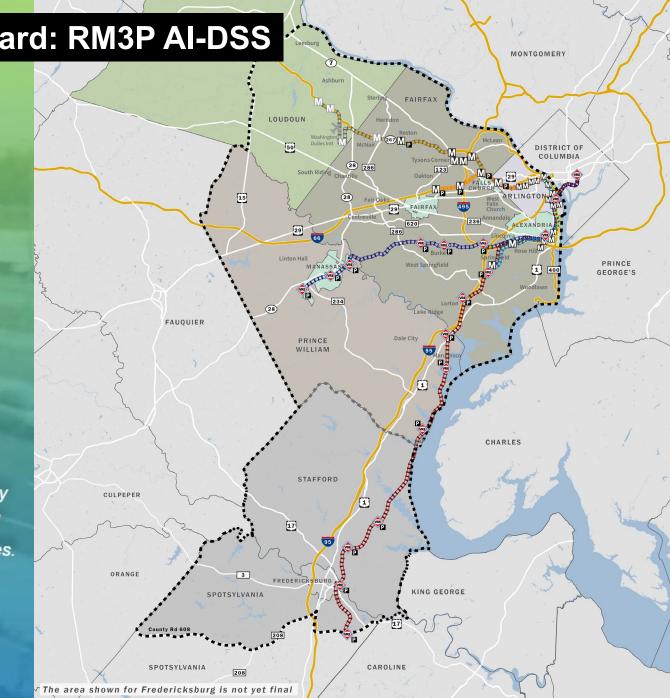




Travel Decisions Powered by Data

Regional Multi-Modal Mobility Program

The RM3P's mission is to leverage the collaborative use of real-time data by Virginia's public and private sectors to improve travel safety, reliability, and mobility, and to give the public the tools to make more informed travel choices.





Questions



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RITIS Training Opportunities: www.matoc.org/training









