

MATOC

Metropolitan Area Transportation
Operations Coordination

MATOC Briefing for MWCOG Winter Weather Conference

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MATOC Facilitator

November 1, 2022



MATOC Mission and Operations

- 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
- MATOC's mission is to provide **situational awareness** of day-to-day transportation operations in and around the National Capital Region (NCR)
 - Specifically during the **weekday morning and afternoon rush hour** periods
- **Develop tools and processes** that enables operating agencies and the traveling public to make better decisions
- The MATOC Program is governed by a Steering Committee and supported by several committees and working groups covering specific DOT topic areas;
 - Roadway Operations, Transit Operations, Information Systems
 - **Maintenance / Severe Weather**
 - Construction / Planned Events
- MATOC is **not command and control**, it is **advisory in nature** and serves as a decision support function

MATOC's Area of Interest

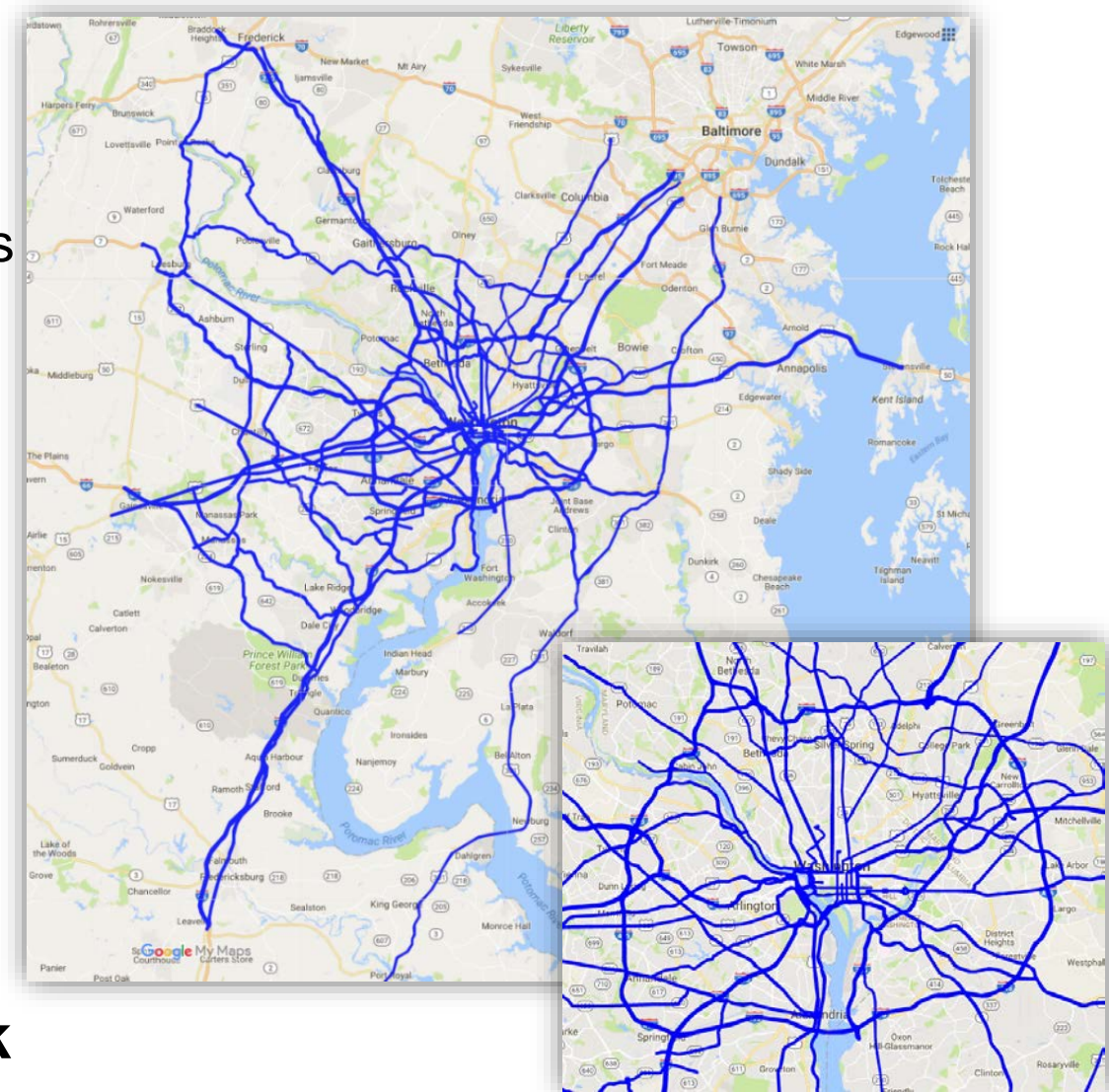
- **Area of Interest**

- National Capital Region "+1"
- Roadway network defined by MATOC Operations Subcommittee
- Expands and contracts based on travel patterns

- **Focus Areas**

- Interstates and major arterials
- Jurisdictional borders and river crossings
- Incidents or events that may impact multiple jurisdictions or transportation modes
- Special events and seasonal hotspots and bottlenecks

- **MATOC has tools to monitor this network**



MATOC Operations Center

- **Normal Operations**

- Monday-Friday, 4:30am-8:00pm
- On-Call after hours and weekends; rotating schedule
- Able to ramp up to 24/7 coverage
- Five staff; two frontline operators and three in support roles

- **Operational Posture**

- **Normal Operations:** Focus on weekday AM/PM rush
- **Enhanced Operations:**
 - Planned/Special Events – July 4th, Inaugurations, etc.
 - Severe Weather – Winter storms, derechos, hurricanes, etc.

- Serves as a **transportation watch desk / information clearing house / resource desk** for its stakeholders

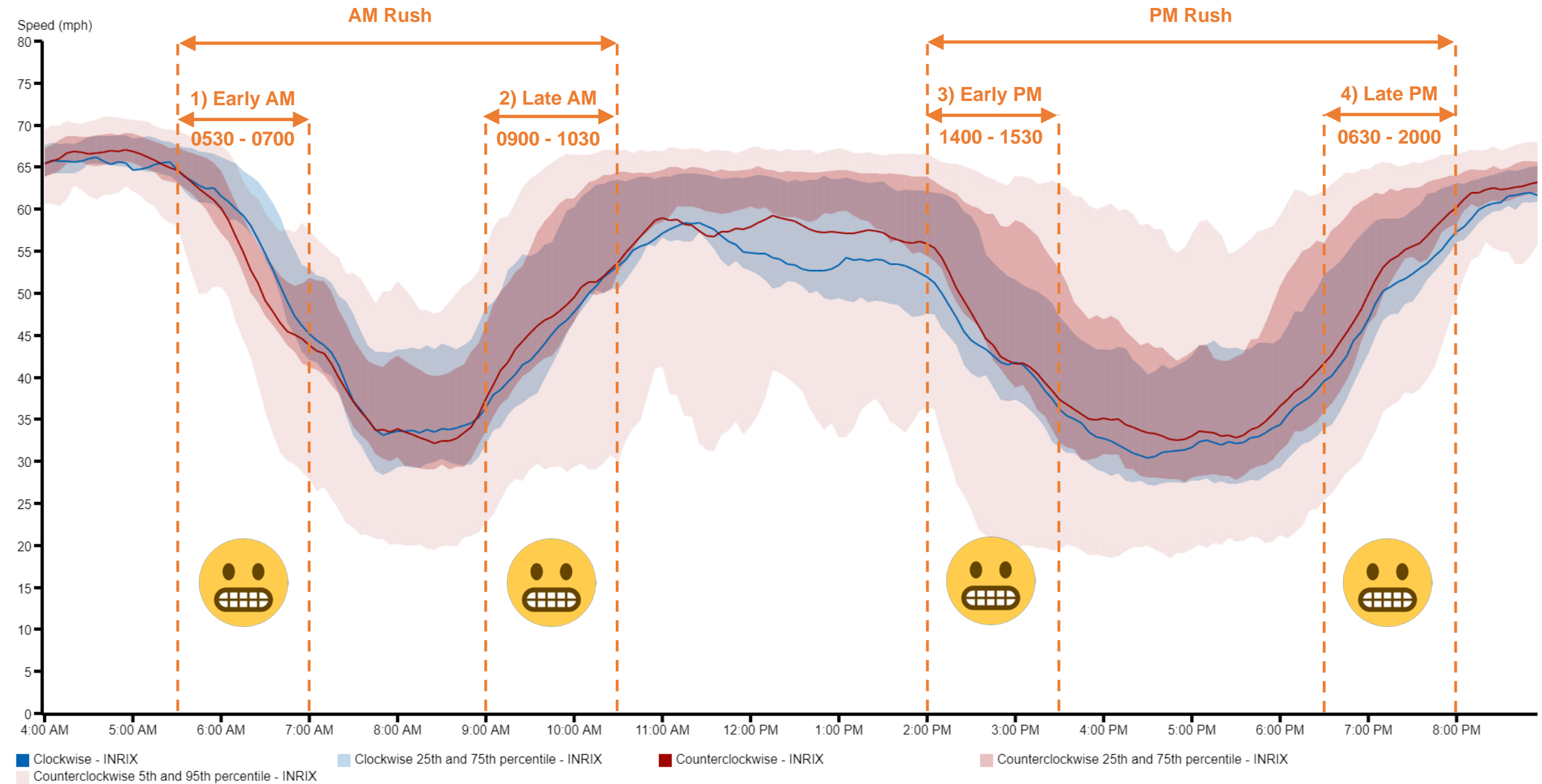
- “Detect, Verify, Evaluate, Elevate/Notify, Re-evaluate” (Goal: 15 minutes or less)



Performance Chart: AM & PM Rush

Speed for I-495 (Capital Beltway)

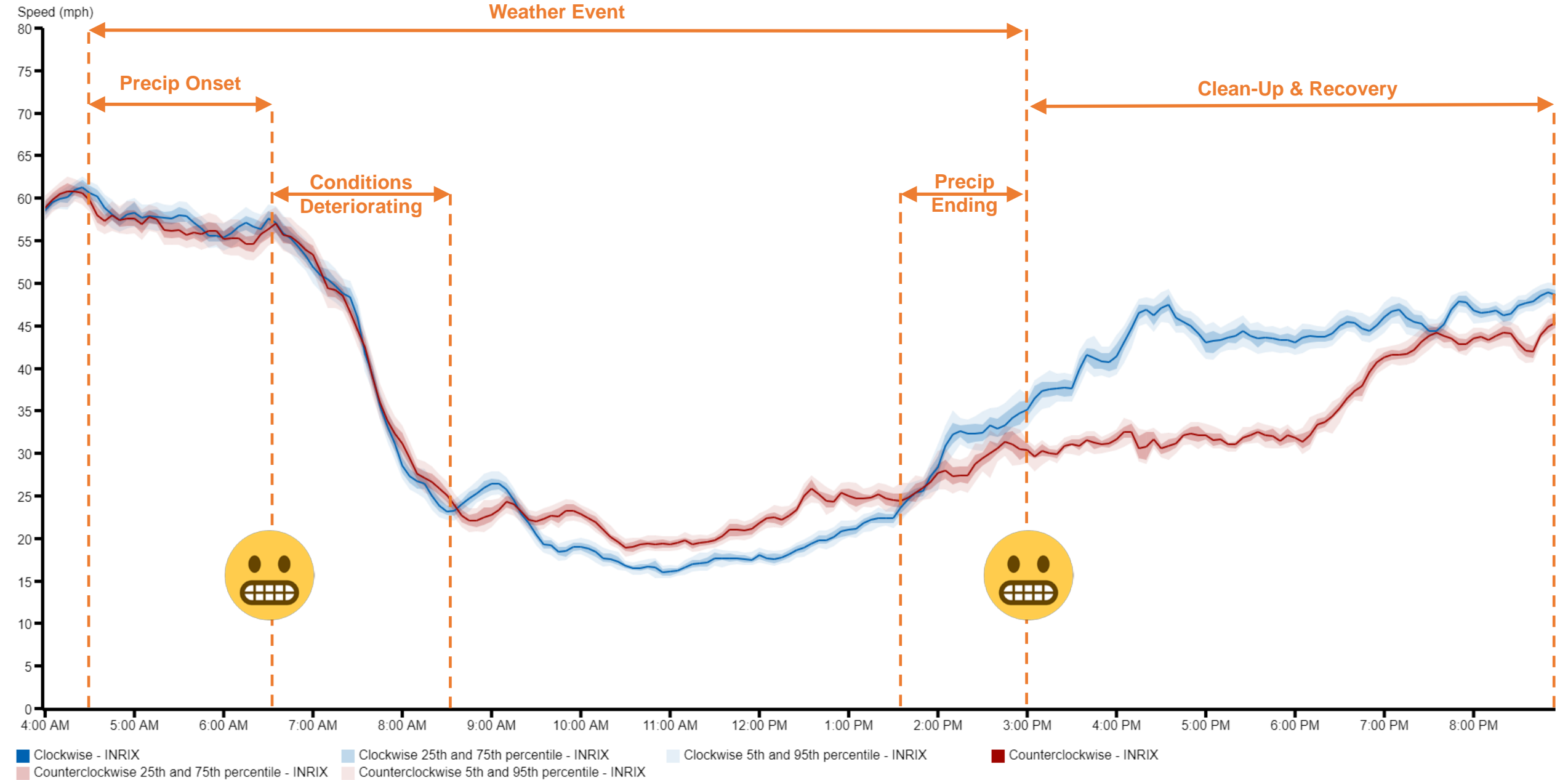
Averaged per five minutes for Sep 22 - Oct 13, 2022 (Every Tue, Wed, Thu)



Performance Chart: Weather Event

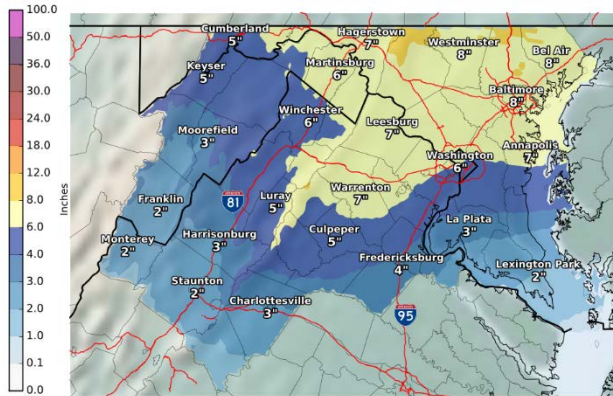
Speed for I-495 (Capital Beltway)

Averaged per five minutes for Jan 3, 2022

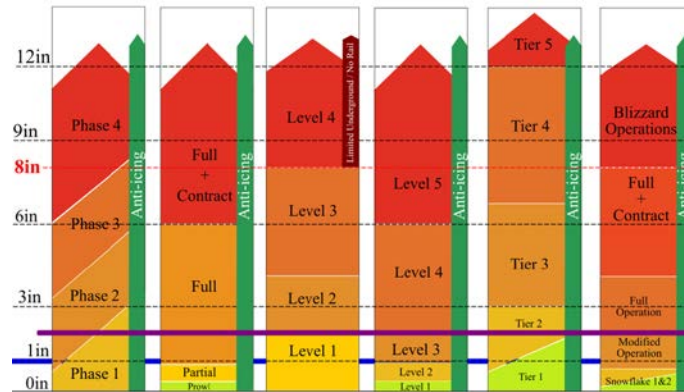


Focus Area: Winter Operations

- **MATOC Severe Weather Coordination Working Group (SWCWG)** serves as a forum for select DOT maintenance representatives to share/discuss mobilization and recovery plans before, during and after widespread severe weather events
- **MATOC Transit Task Force (TTF)** is a forum for regional/local transit operators to discuss service coordination issues related to unplanned and planned events



Weather Forecast








Agency Mobilization Plans

Transportation System Status Levels		Suggested terminology and any terminology
<p>Road Condition 5: IMPASSABLE/ DANGEROUS/ TREACHEROUS</p> <p>Some roads could be temporarily impassable. This may be the result of severe weather (low visibility, etc.) or road conditions (drifting, excessive unplowed snow, glare, ice, accidents, stranded vehicles, etc.) Skeletal transit services. Limited above-ground rail service if more than 8" of accumulation. Lane drops in certain sections.</p>		" impassable", "impassable", "dangerous" Be where you need to be by 4:00pm. Get where you need to be before the weather gets bad. Stay where you are.
<p>Road Condition 4: ICY/SNOW PACKED</p> <p>The pavement surface is covered with packed snow and/or ice. There may be loose snow on top of the icy or packed snow surface. Transit timeline services only with significant delays for rail and bus. Refreeze possible. Lane drops in certain sections.</p>		"unsafe", "impassable" major delays" Be where you need to be by 4:00pm. Stay off the roads. Stop at the office as early as you can, or leave early, to avoid travel during a winter storm.
<p>Road Condition 3: SNOW AND/OR SLUSH COVERED</p> <p>The pavement surface has continuous stretches of packed snow with or without loose snow on top of the packed snow or ice. Core bus services only, delays in rail services. Lane drops on certain sections of roadways.</p>		"caution", "passable" Avoid being stranded if bus stops. Avoid or postpone travel for next 24 hours. Stay off the roads. Stop at the office as early as you can, or leave early, to avoid travel during a winter storm.
<p>Road Condition 2: SNOW / SLUSH COVERED W/ WHEEL TRACKS EXPOSED</p> <p>Accumulations of loose snow or slush up to 2 inches are found on the pavement surface. Packed and bonded snow and ice are not present. Regular transit services with some minor exceptions and delays for buses. Drifting snow.</p>		"passable" Avoid discretionary travel. Road crews engaged in clearing activities. Curbside "waitlist" travel. Avoid emergency travel.
<p>Road Condition 1: CLEAR WET/DRY</p> <p>Clear and wet/dry pavement surface is the general condition. There are occasional areas having snow or ice accumulations resulting in drifting, sheltering, cold spots, frozen melt-water, etc. Transit operations per schedules.</p>		"passable"

Road Conditions Anticipated/Observed

Road Conditions Table

Transportation System Status Levels		Suggested terminology and <i>PIO templates</i>
<p>Road Condition 5: IMPASSABLE/ DANGEROUS/ TREACHEROUS</p> <p>Some roads could be temporarily impassable. This may be the result of severe weather (low visibility, etc.) or road conditions (drifting, excessive unplowed snow, glare, ice, accidents, stranded vehicles, etc.) Skeletal transit services. Limited above-ground rail service if more than 8" of accumulation. Lane drops in certain sections.</p>		<p>"treacherous", "impassable", "dangerous" <i>Be where you need to be by <time>.</i> <i>Get where you need to be before the weather gets bad.</i> <i>Stay where you are.</i></p>
<p>Road Condition 4: ICY/SNOW PACKED</p> <p>The pavement surface is covered with packed snow and/or ice. There may be loose snow on top of the icy or packed snow surface. Transit lifeline services only with significant delays for rail and bus. Refreeze possible. Lane drops in certain sections.</p>		<p>"unsafe", "impassable" "major delays" <i>Be where you need to be by <time>. Avoid or postpone travel for next <hours>.</i> <i>Stay at the office an extra <hour>, or leave early, to avoid travel during a winter storm.</i></p>
<p>Road Condition 3: SNOW AND/OR SLUSH COVERED</p> <p>The pavement surface has continuous stretches of packed snow with or without loose snow on top of the packed snow or ice. Core bus services only, delays in rail services. Lane drops on certain sections of roadways.</p>		<p>"caution", "passable" <i>Avoid being stranded at bus stops</i> <i>Avoid or postpone travel for next <hours>.</i> <i>Stay off the roads.</i> <i>Stay at the office an extra <hour>, or leave early, to avoid travel during a winter storm.</i></p>
<p>Road Condition 2: SNOW / SLUSH COVERED W/ WHEEL TRACKS EXPOSED</p> <p>Accumulations of loose snow or slush up to 2 inches are found on the pavement surface. Packed and bonded snow and ice are not present. Regular transit services with some minor exceptions and detours for buses. Drifting snow.</p>		<p>"passable" <i>Avoid discretionary travel. Road crews engaged in clearing activities.</i> <i>Curtail "elective" travel. Avoid unnecessary travel.</i></p>
<p>Road Condition 1: CLEAR WET/DRY</p> <p>Clear and wet/dry pavement surface is the general condition. There are occasional areas having snow or ice accumulations resulting in drifting, sheltering, cold spots, frozen melt-water, etc. Transit operations per schedules.</p>		<p>"passable"</p>

Typical brief out

- “Currently our interstates are at Condition 2, closer to Condition 3 in our western region. Our primaries are at Condition 3. We have started on our secondary roads and subdivision but they are both at Condition 4”*
- “If the forecast holds, we should be able to get our interstates and primaries to Condition 1 by 8am. Secondary roads should be at Condition 2 by noon. We expect subdivisions to remain at a Condition 3 until mid afternoon.”*

MATOC Operations

Severe Weather/Special/Short or No Notice Events

1) Pre-Event

- Monitor weather forecasts and **DOT mobilization plans**
- Consult with the **MATOC Severe Weather Coordination Working Group (SWCWG)**
- Participate in and monitor regional communications:
 - MATOC SWCWG Calls/Listserv
 - MATOC Transit Task Force Calls/Listserv
 - MWCOG Severe Weather Calls
- Ramp up to Enhanced/Severe Weather Operations 2-3 hours prior to the event entering NCR
- Two 2-person teams work in shifts filling Operations & Support roles

2) During Event

- Monitor core systems as well as other storm related resources
- Provide hourly reporting of major transportation incidents, road closures, and changes in transit (bus & rail) service levels
- Consult with the DOT Operations, RITIS Support team, MATOC SWCWG, MATOC Transit Task Force as needed

3) Post-Event

- Return to Normal Operations & Reporting as recovery operations begin to wind down

Tools for your Toolbox

- **Regional Integrated Transportation Information System (RITIS)** – Automated data integration and dissemination system that provides real-time and archived information on the status of the transportation network. Limited to public sector access

- **TrafficView** – Public version of RITIS



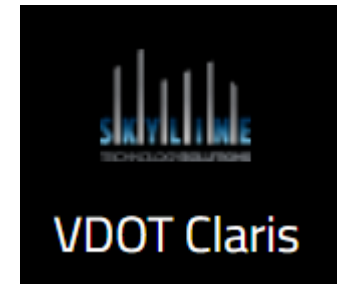
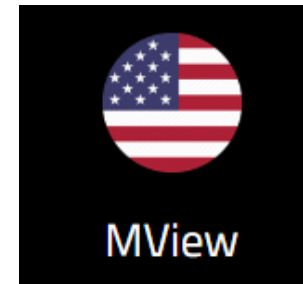
- Video Sharing Systems

- **MVIEW** – MCAC’s Regional CCTV sharing platform for public safety partners and first responders (DC, DE, MD, PA, VA)

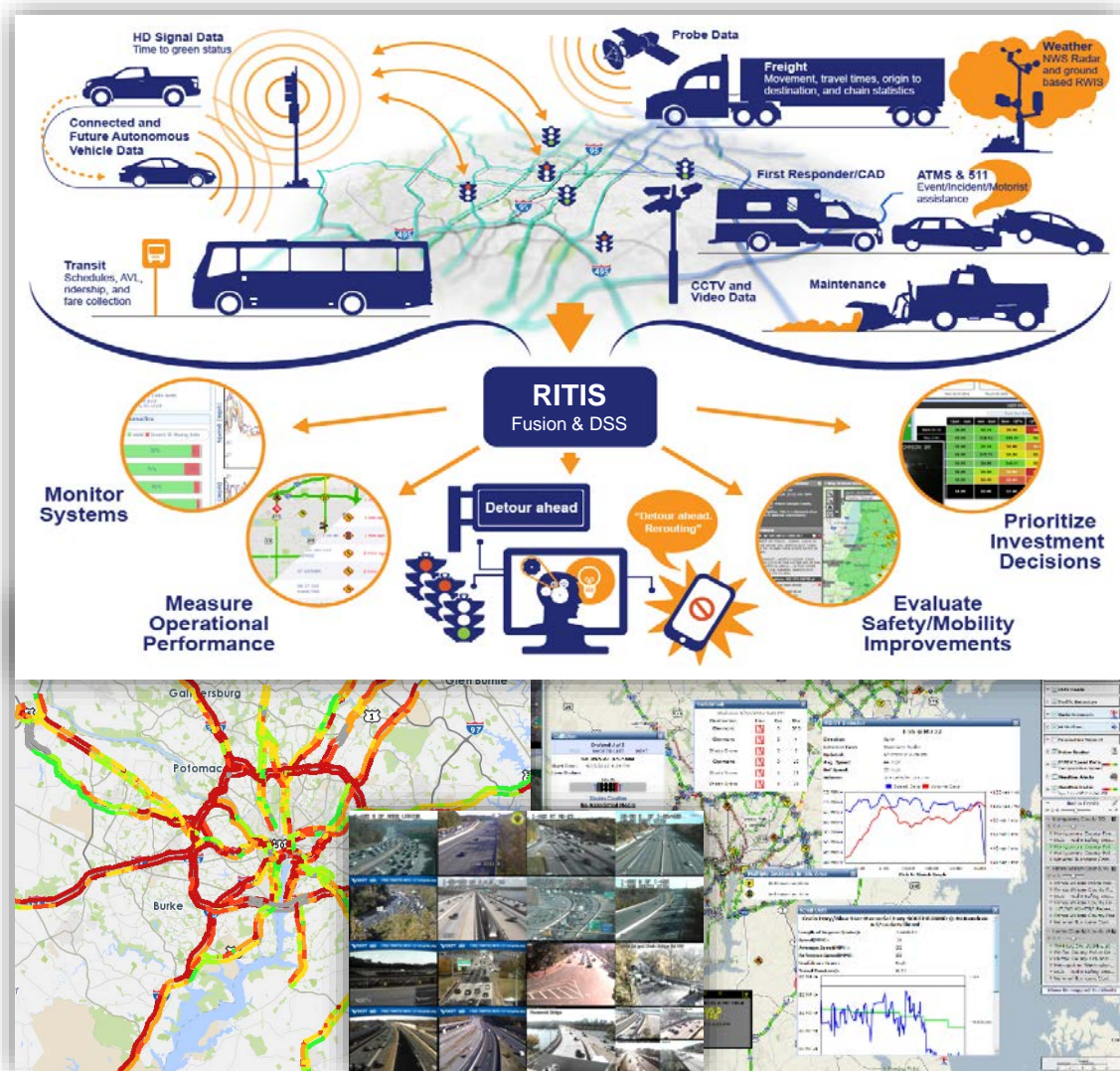
- **VDOT Claris** - VDOT’s Traffic CCTV sharing platform for public sector partners

- **NCR Watch Desk HSIN Operations Connect Room**

- Situational Awareness Chat Room for the NCR

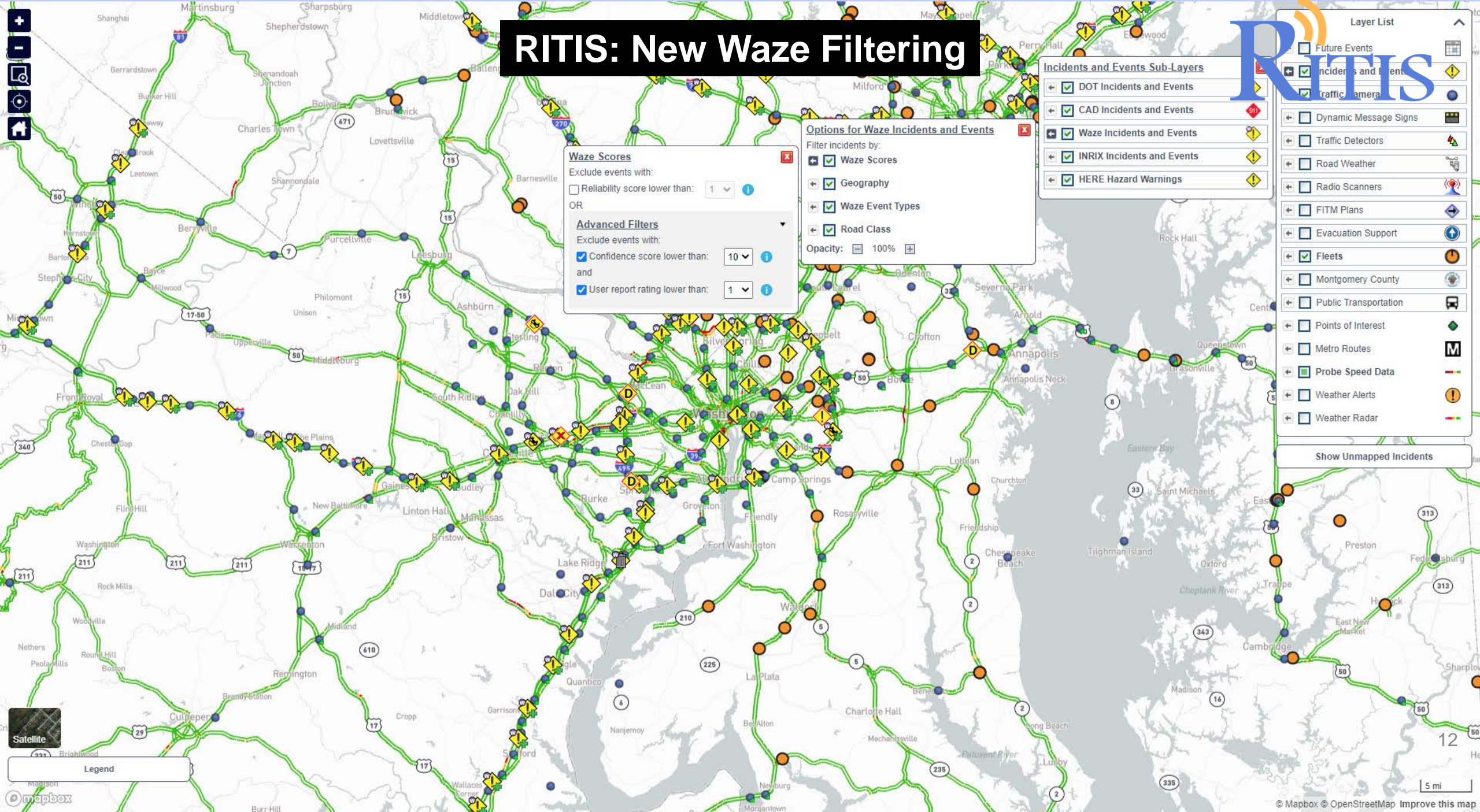
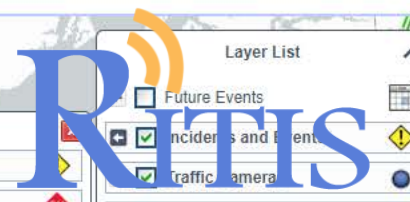


Regional Integrated Transportation Information System



- Serves as MATOC’s **common operating picture** to monitor the transportation network in and around the National Capital Region
- **Limited to public sector agencies**
- Approximately **15,000 RITIS users** from around the nation representing various disciplines
- Gives users a **common operating picture** of a region’s surface transportation network
- **RITIS Training Available**
 - RITIS 101 – For Operations Centers & Staff
 - Webinar: November 18 @10:00AM EST
 - www.matoc.org/training
 - Training requests: training@matoc.org

RITIS: New Waze Filtering



Waze Scores

Exclude events with:

Reliability score lower than: 1

OR

Advanced Filters

Exclude events with:

Confidence score lower than: 10

and

User report rating lower than: 1

Options for Waze Incidents and Events

Filter incidents by:

- Waze Scores
- Geography
- Waze Event Types
- Road Class

Opacity: 100%

Incidents and Events Sub-Layers

- DOT Incidents and Events
- CAD Incidents and Events
- Waze Incidents and Events
- INRIX Incidents and Events
- HERE Hazard Warnings

Layer List

- Future Events
- Incidents and Events
- Traffic Camera
- Dynamic Message Signs
- Traffic Detectors
- Road Weather
- Radio Scanners
- FITM Plans
- Evacuation Support
- Fleets
- Montgomery County
- Public Transportation
- Points of Interest
- Metro Routes
- Probe Speed Data
- Weather Alerts
- Weather Radar

Show Unmapped Incidents

Legend

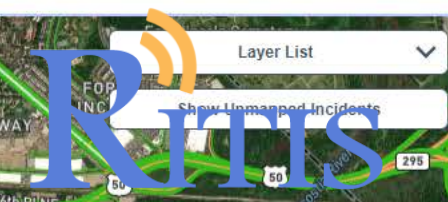
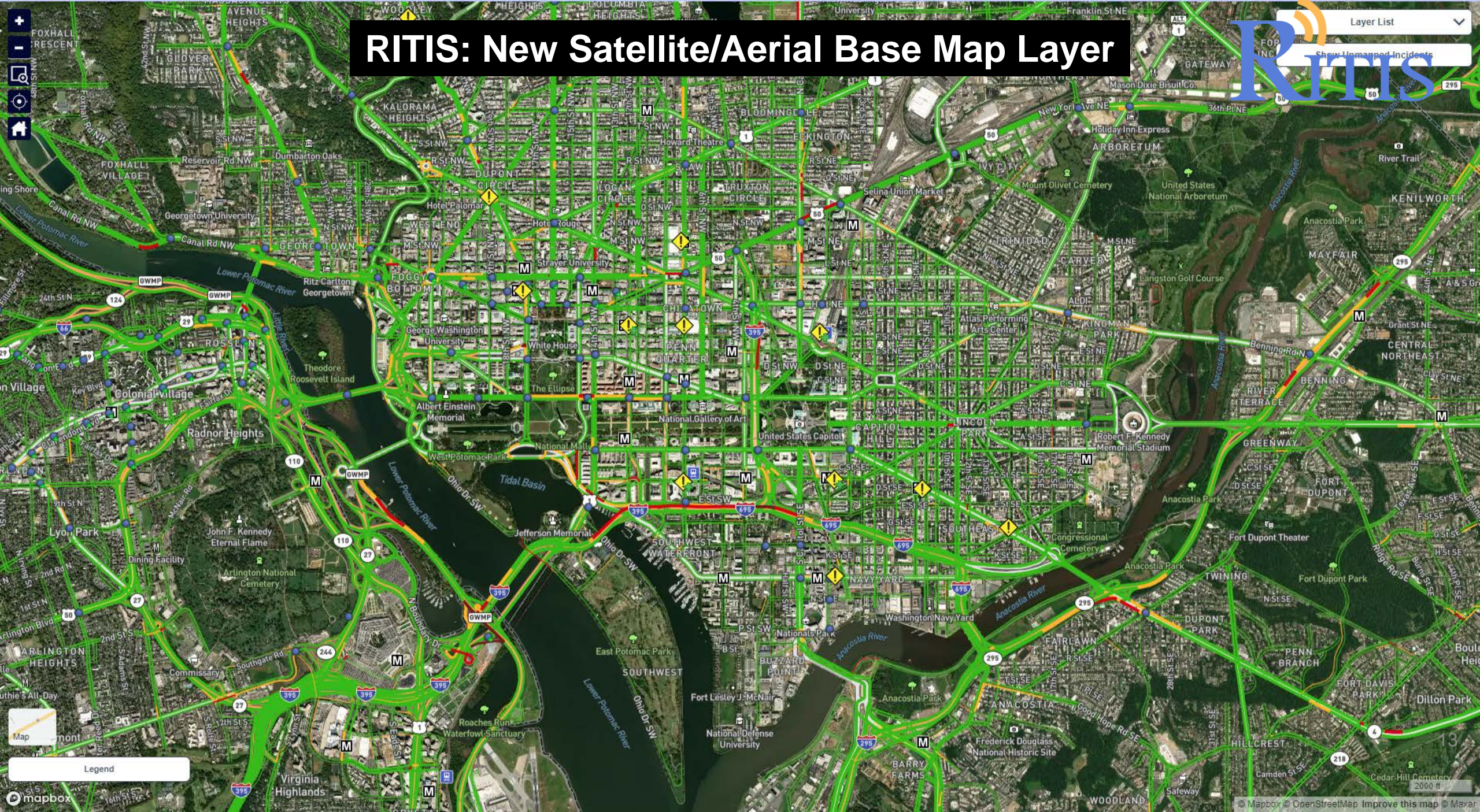
Satellite

mapbox

RITIS: New Satellite/Aerial Base Map Layer

Layer List ▼

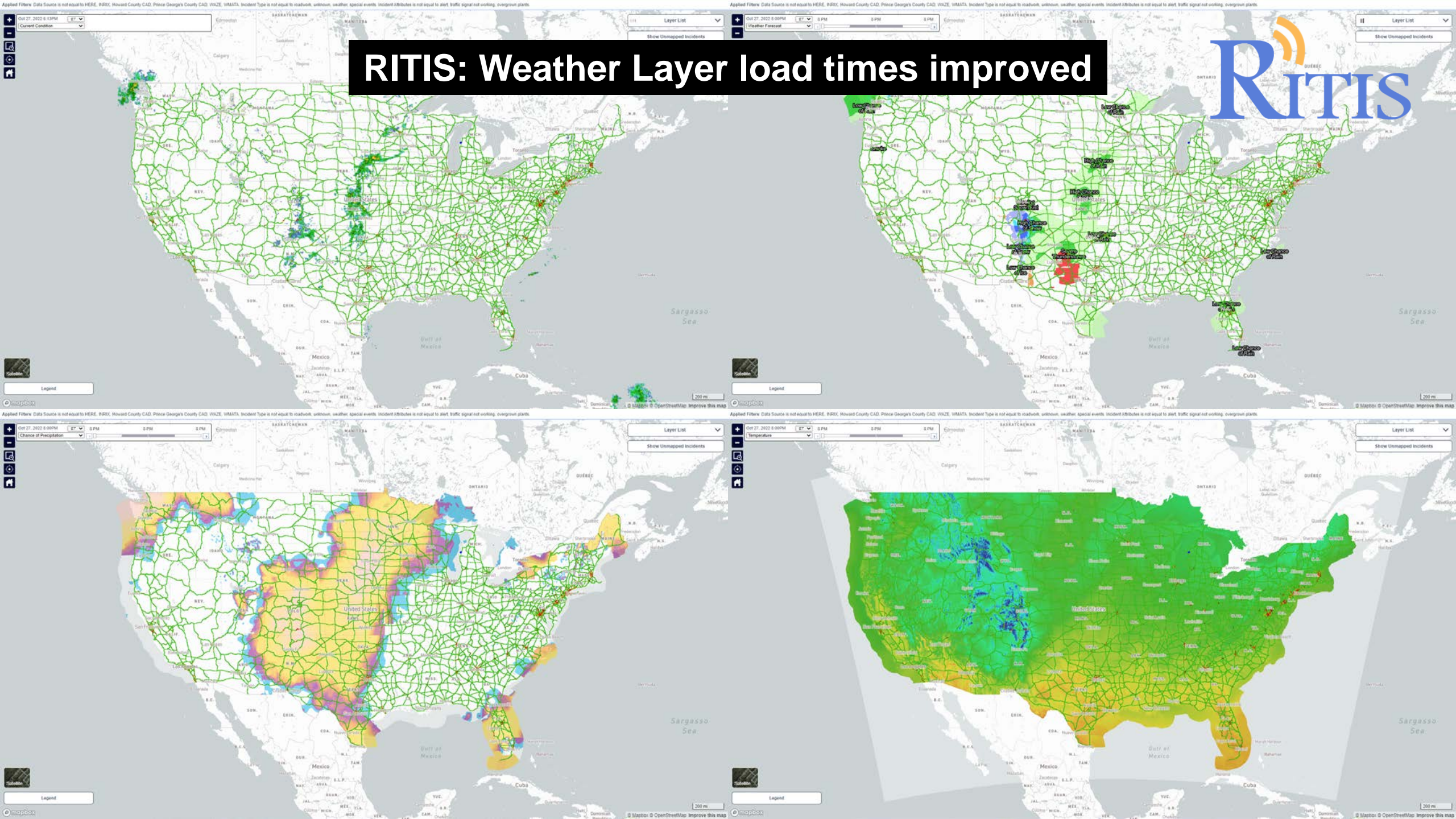
Show Homeport Incidents

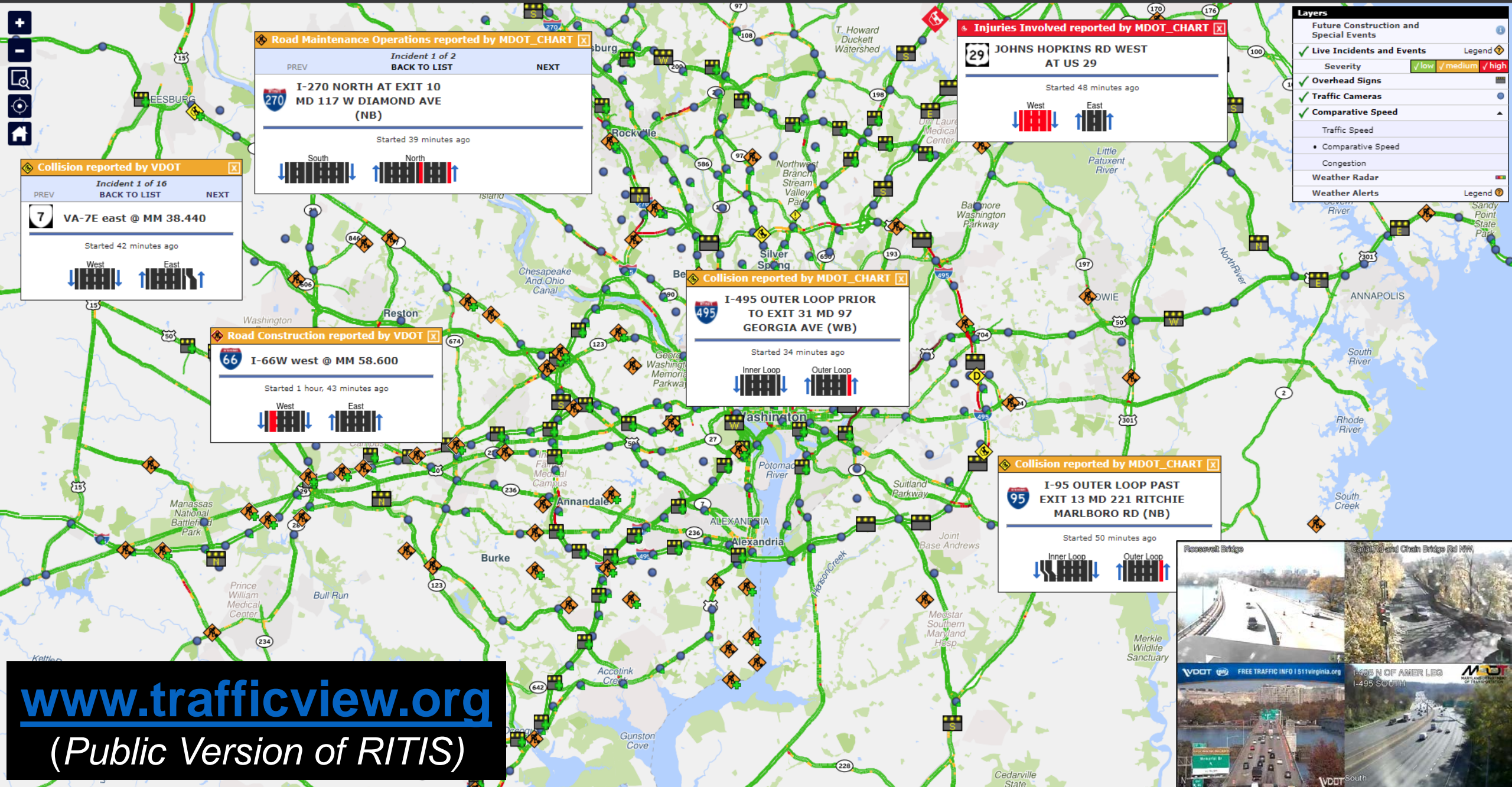



Map navigation controls: Home, Previous View, Next View, Full Screen, and other standard map interface icons.

Legend

RITIS: Weather Layer load times improved



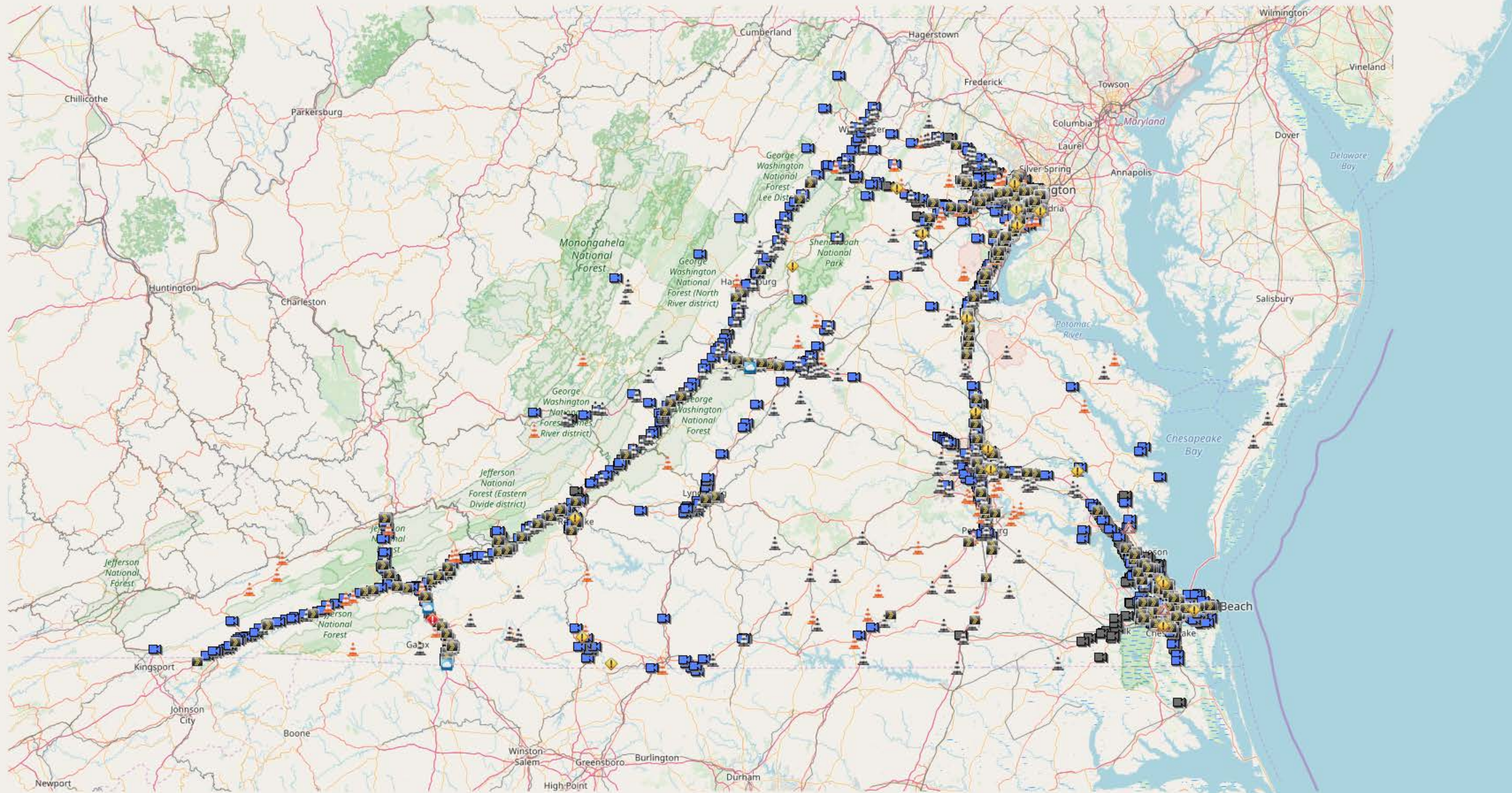


www.trafficview.org
(Public Version of RITIS)

VDOT Claris Traffic CCTV Sharing Platform

- MAP
- WALL
- INCIDENTS
- ALERTS
- PROFILE
- HELP

Map navigation controls: zoom in (+), zoom out (-), and center map (target icon).



Map navigation controls: home, full screen, and close (X) buttons.

VDOT Claris Traffic CCTV Sharing Platform

- MAP
- WALL
- INCIDENTS
- ALERTS
- PROFILE
- HELP

Filter on title...

I-495N at the ramp from Rt. 123S (Dolley Madison Boulevard)

Description
On I-495 at mile marker 46 in the County of Fairfax, motorists can expect delays due to a disabled vehicle. The north right shoulder is closed.

Last Updated
10/27/2022 @ 12:36 PM

Coordinates
38.923568° N, -77.215032° W

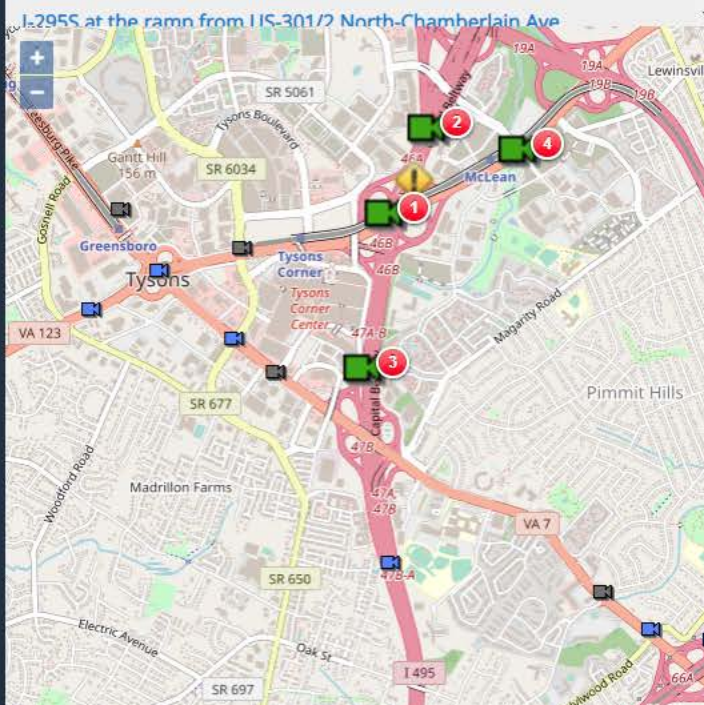
Type
Disabled Vehicle

County
Fairfax (County)

Region
Northern

I-95N at I-95N Ramp 177A; Ramp Intersection:TO RT 1

11 mins ago



3 NRO-CCTV-I495-N-00472

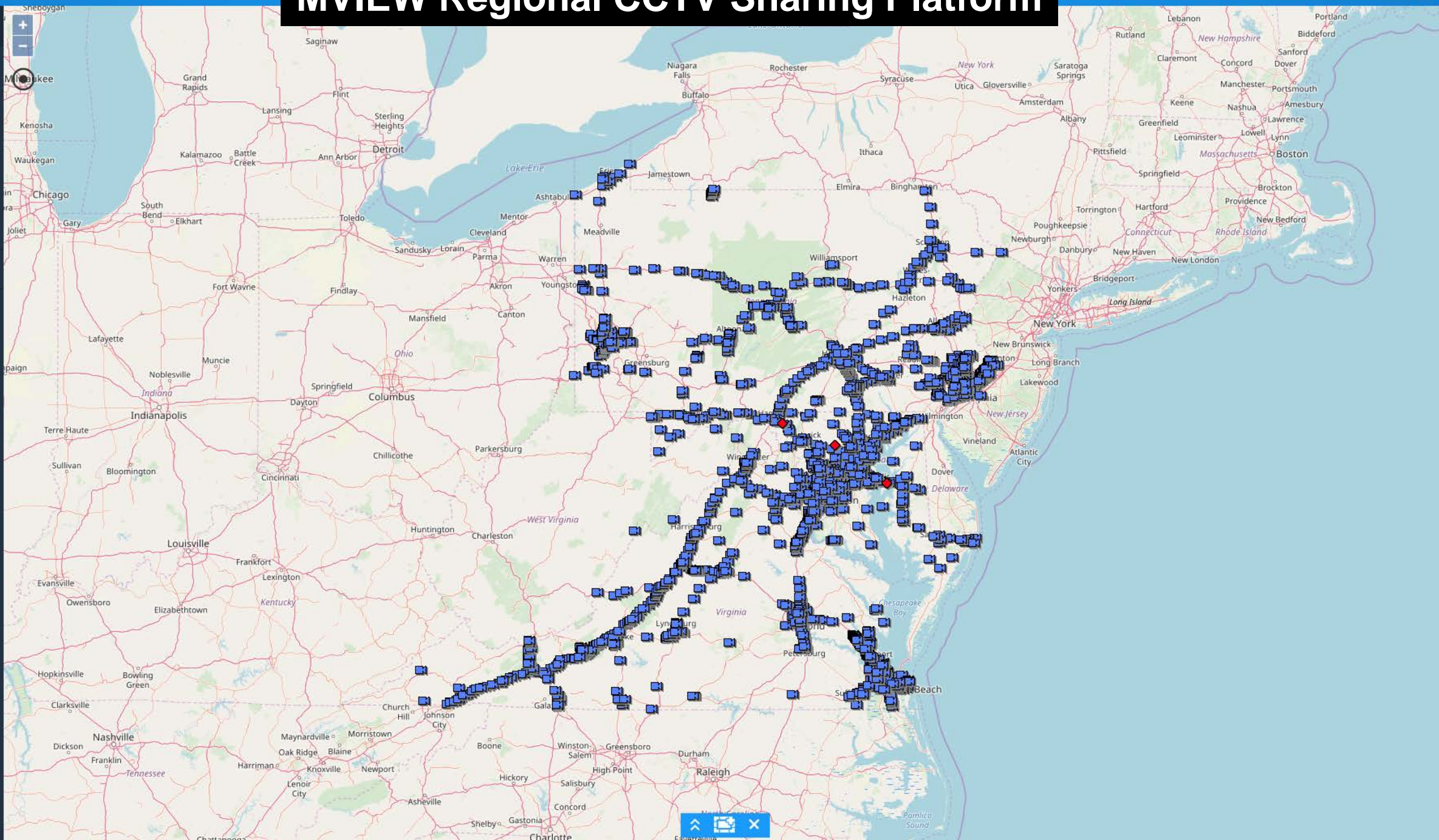


4 VA-123 / NB / Colshire Dr



MVIEW Regional CCTV Sharing Platform

- MAP
- WALL
- INCIDENTS
- ALERTS
- PROFILE
- HELP





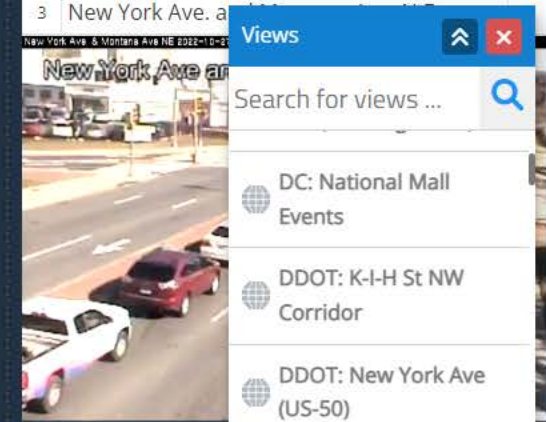
MView: MDOT SHA Mobile CCTV Feeds



Search for markers/devgroups/orgs...

REGIONS

- Global
- MD Anne Arundel - County DPWT
- MD Baltimore City DOT
- MD Harford County DPWT, Sheriff, EM/911/Public Safety
- MD MDTA - Maryland Transportation Authority
- MD Montgomery County DOT
- MD Prince George's County DPWT
- MD SHA - State Highway Administration
- MD Town of Ocean City - PD
- MView Stream Verification
- PA PennDOT - Pennsylvania Department of Transportation
- PRIVATE Golden Triangle BID (D.C.)
- US COC - Chamber of Commerce
- VA Alexandria City Traffic
- VA Arlington County, PD, Fire/EMS, DOT, OEM
- VA Chesapeake City
- VA Elizabeth River Crossings
- VA Fairfax City, PD, EM, FD
- VA Hampton City
- VA Newport News City
- VA Portsmouth City



Views

Search for views ...

- DC: National Mall Events
- DDOT: K-I-H St NW Corridor
- DDOT: New York Ave (US-50)
- MD: Chesapeake Bay

Add New Edit



Questions

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RITIS Information: www.ritis.org/intro

MATOC Website: www.matoc.org

Twitter: @MATOC

RITIS Training Opportunities: www.matoc.org/training