

# MATOC

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Metropolitan Area Transportation  
Operations Coordination

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## MATOC Briefing for MWCOG Winter Weather Conference

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MATOC Facilitator

November 10, 2021



# 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)
- **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

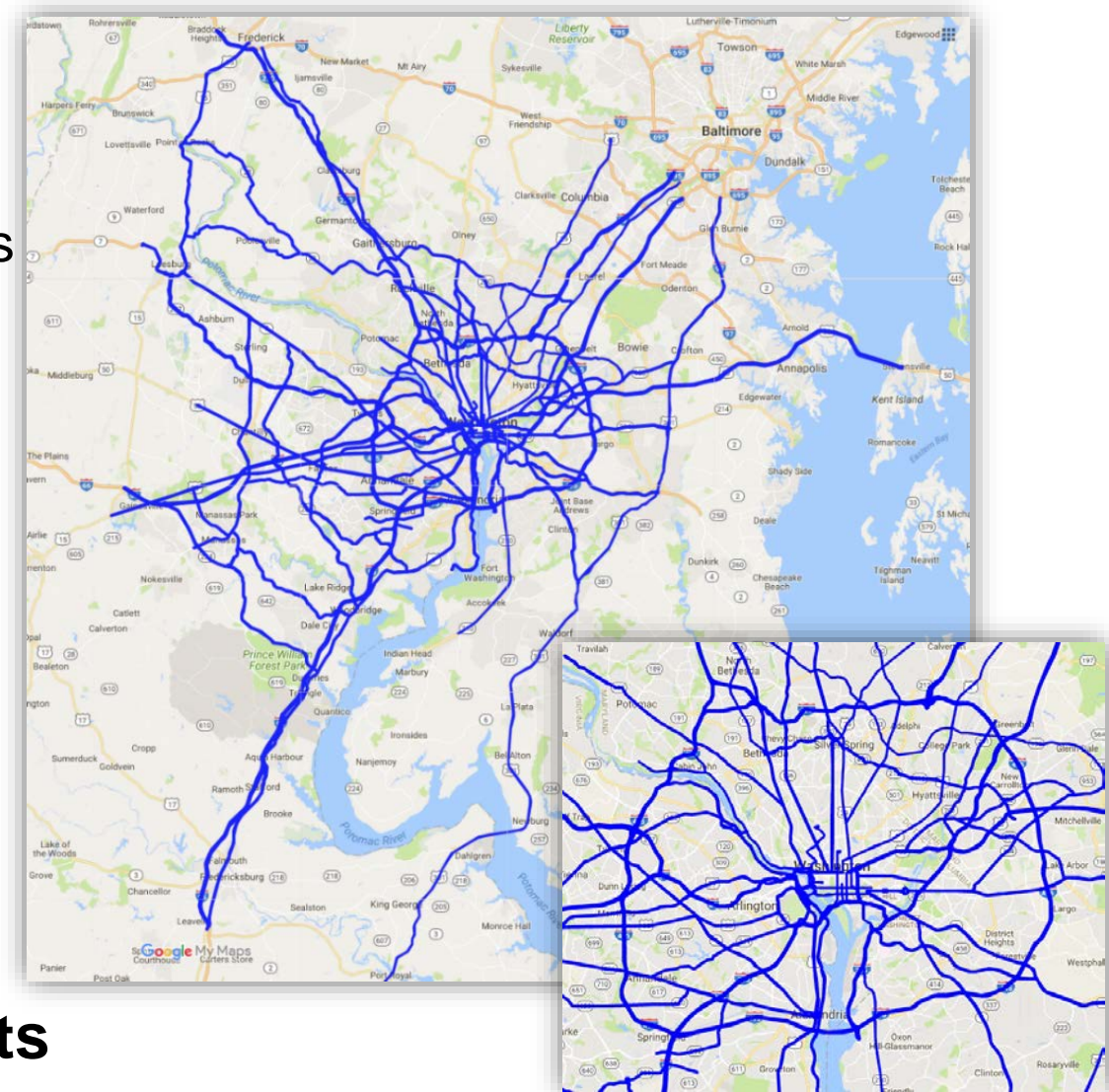
- **Area of Interest**

- 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 evaluate ripple effects**





## 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 4<sup>th</sup>, Inaugurations, etc.
  - Severe Weather – Winter storms, derechos, hurricanes, etc.
- Serves as a **transportation watch desk / information clearing house / resource desk** for its stakeholders
- Transitioned to a virtual environment at the beginning of the COVID-19 pandemic
  - Returned to normal onsite operations at the beginning August 2021



# 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 Operations 2-3 hours prior to the event entering NCR
- Two 2-person teams work in shifts filling Operations & Support roles

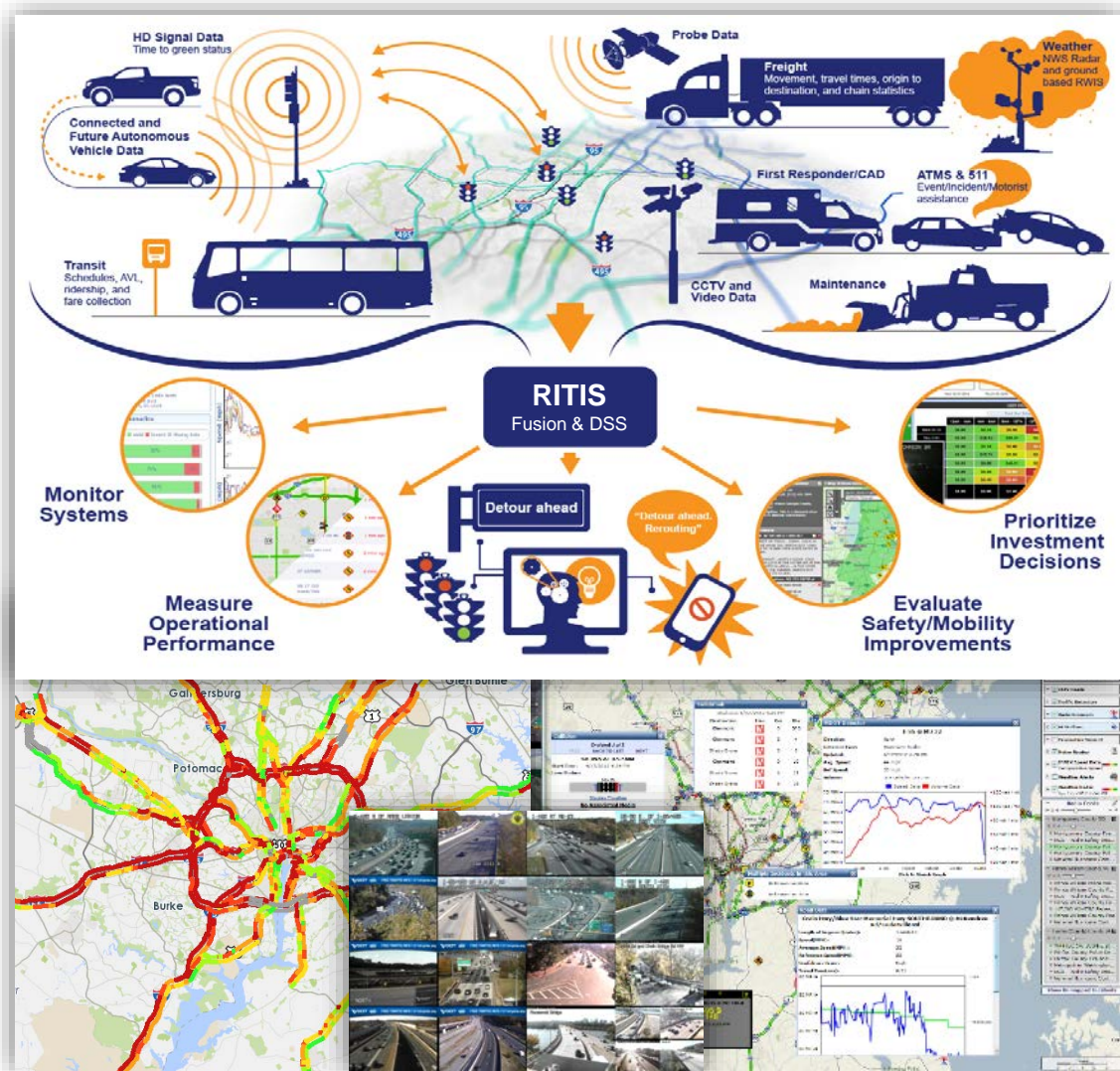
### 2) During Event

- 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

# Regional Integrated Transportation Information System

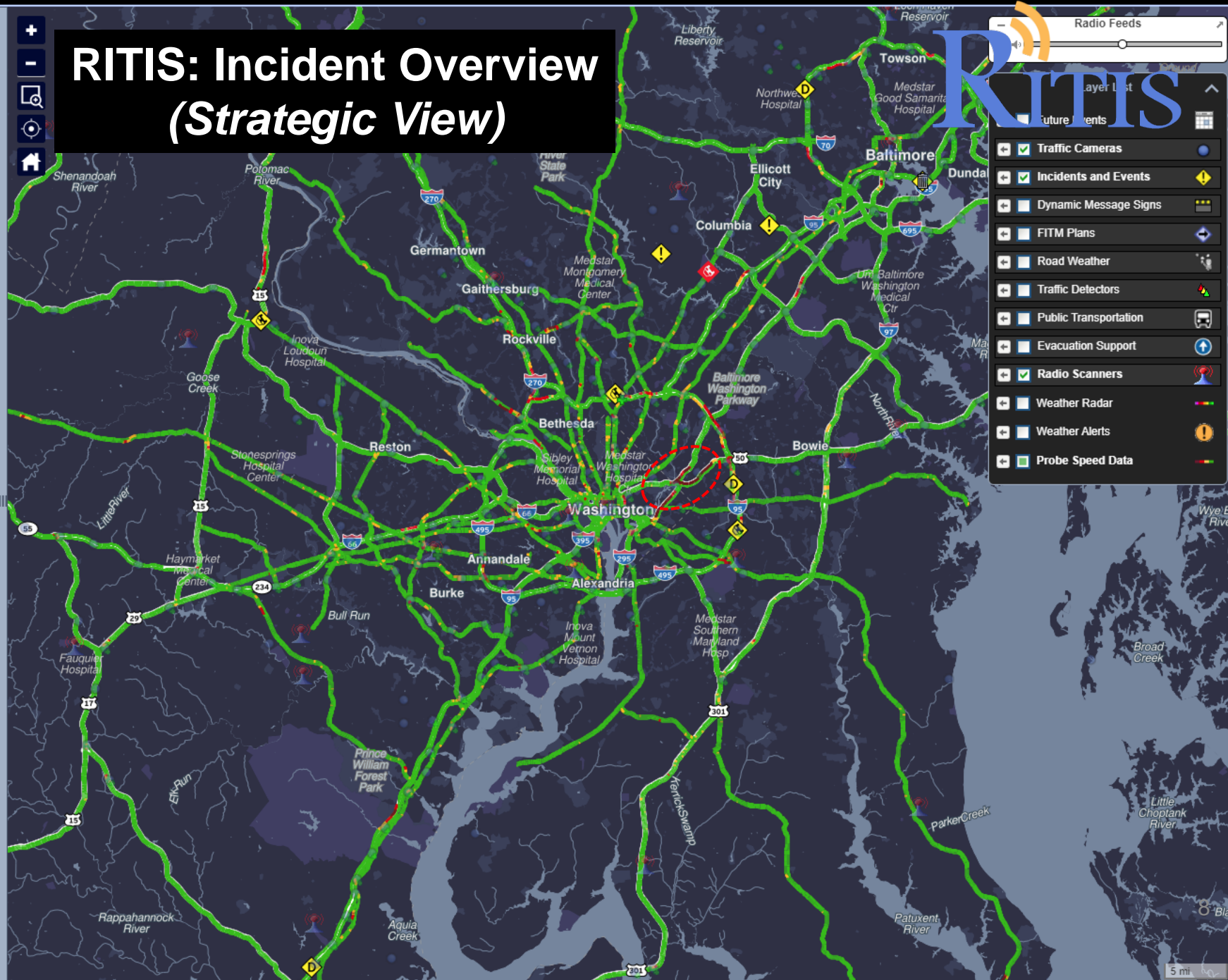


- MATOC's core system to monitor roadway conditions in and around the National Capital Region
- Limited to public sector agencies
- Over 13,500 RITIS users from around the nation representing various disciplines
- Gives users a **common operating picture** of a region's surface transportation network
- **RITIS Training Available**
  - RITIS 101 – For Operations Centers & Staff
  - Webinar: November 12 @ 10:00AM EST
  - [www.matoc.org/training](http://www.matoc.org/training)

Location	Type	Lane Status	Updated
<b>Stafford County, VA</b> I-95 south @ MM 136.100		South:	16 mins ago
<b>Baltimore City, MD</b> I-95 NORTH AT MP 54.8 (FORT MCHENRY TUNNEL) BORE 4		South:	29 mins ago
<b>Montgomery County, MD</b> I-495 OUTER LOOP PRIOR TO EXIT 31 MD 97 GEORGIA AVE (WB)		Inner Loop:	30 mins ago
<b>Howard County, MD</b> I-29 JOHNS HOPKINS RD WEST AT US 29		West:	31 mins ago
<b>Howard County, MD</b> MD 108 EAST AT SCAGGSVILLE RD		West:	32 mins ago
<b>Baltimore County, MD</b> I-695 I-695 INNER LOOP PRIOR TO EXIT 19 I 795 NORTHWEST EXPRESSWAY		—	32 mins ago
<b>Prince George's County, MD</b> I-95 OUTER LOOP PAST EXIT 13 MD 221 RITCHIE MARLBORO RD (NB)		Inner Loop:	34 mins ago
<b>Montgomery County, MD</b> I-29 US 29 NORTH AT SOUTHWOOD AVE		South:	38 mins ago
<b>Prince George's County, MD</b> I-95 INNER LOOP AT EXIT 17A MD 202 LANDOVER RD (SB)		—	38 mins ago
<b>Loudoun County, VA</b> VA-7E east @ MM 38.440		West:	38 mins ago
<b>Howard County, MD</b> MD 100 EAST PRIOR TO SNOWDEN RIVER PKWY		West:	43 mins ago

# RITIS: Incident Overview

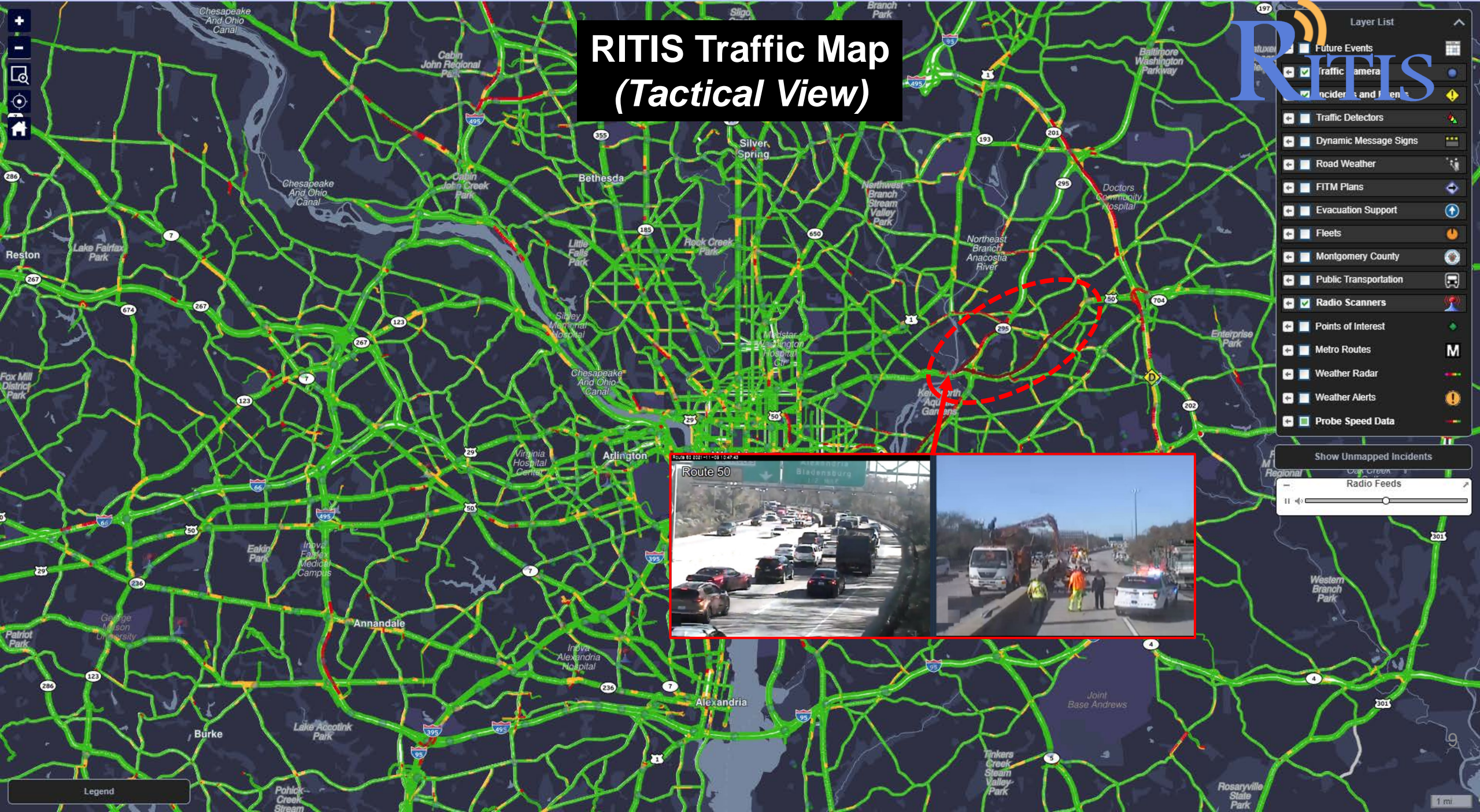
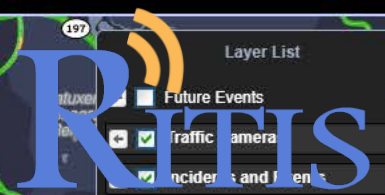
## (Strategic View)



- Radio Feeds
- Traffic Cameras
  - Incidents and Events
  - Dynamic Message Signs
  - FITM Plans
  - Road Weather
  - Traffic Detectors
  - Public Transportation
  - Evacuation Support
  - Radio Scanners
  - Weather Radar
  - Weather Alerts
  - Probe Speed Data



# RITIS Traffic Map (Tactical View)

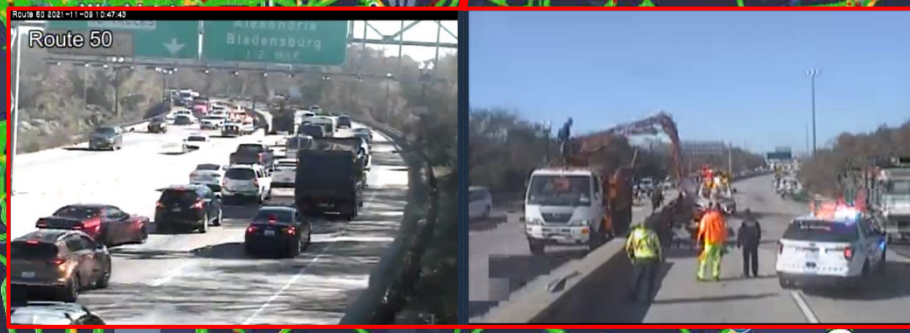


- Layer List
- Future Events
- Traffic Camera
- Incidents and Alerts
- Traffic Detectors
- Dynamic Message Signs
- Road Weather
- FITM Plans
- Evacuation Support
- Fleets
- Montgomery County
- Public Transportation
- Radio Scanners
- Points of Interest
- Metro Routes
- Weather Radar
- Weather Alerts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

Show Unmapped Incidents

Radio Feeds

Volume control slider



Legend

1 mi

**MDOT SHA Mobile CCTV Feeds**



NCR Speed & Travel Times (Segmented)

# Probe Data Analytics Dashboard

## Speed & Travel Time Tables

+ Add widget Select a dashboard...

Maryland: I-270 (MD-121 to I-70)

Corridor	Average Speed			Travel Time		
	Differential	Current	Historic	Differential	Current	Historic
I-270 NB between MD-121 and I-...	↑ 2	65 mph	63 mph	↓ 1	13 m	
I-270 SB between MD-121 and I-...	↑ 13	65 mph	52 mph	↓ 4	13 m	17 m

Using INRIX data Updated Nov 9, 2021 9:38 AM (34s ago)

Maryland: I-270 SB between I-370/Sam Eiq...

Corridor	Differential	Current	Historic	Differential	Current	Historic
I-270 SB between I-370/Sam Eiq...	↑ 1	64 mph	63 mph	0	9 m	9 m

Using INRIX data Updated Nov 9, 2021 9:38 AM (32s ago)

70 (Spur to I-370)

Corridor	Average Speed			Travel Time		
	Differential	Current	Historic	Differential	Current	Historic
between I-270 (SPUR) ...	↓ 3	61 mph	64 mph	↑ 1	8 m	7 m
I-270 SB between I-270 (SPUR) ...	↓ 2	61 mph	63 mph	0	7 m	7 m

Using INRIX data Updated Nov 9, 2021 9:38 AM (33s ago)

Maryland: I-95 (MD-100 to I-695)

Corridor	Average Speed			Travel Time		
	Differential	Current	Historic	Differential	Current	Historic
I-95 NB between MD-100/Exit 43...	↑ 2	67 mph	65 mph	0	7 m	7 m
I-95 SB between MD-100/Exit 43...	↑ 4	69 mph	65 mph	↓ 1	6 m	7 m

Using INRIX data Updated Nov 9, 2021 9:38 AM (33s ago)

Maryland: I-95 (MD-198 to MD-100)

Corridor	Average Speed			Travel Time		
	Differential	Current	Historic	Differential	Current	Historic
I-95 NB between MD-198/Exit 33...	↑ 4	70 mph	66 mph	↓ 1	10 m	11 m
I-95 SB between MD-198/Exit 33...	↓ 5	61 mph	66 mph	↑ 1	13 m	12 m

Using INRIX data Updated Nov 9, 2021 9:38 AM (33s ago)

Maryland: I-95 (Beltway to MD-198)

Corridor	Average Speed			Travel Time		
	Differential	Current	Historic	Differential	Current	Historic
I-95 NB between I-495/EXIT 27-...	↑ 4	69 mph	65 mph	↓ 1	6 m	7 m
I-95 SB between I-495/EXIT 27-...	0	64 mph	64 mph	0	7 m	7 m

Using INRIX data Updated Nov 9, 2021 9:38 AM (32s ago)

Maryland: MD-295 (MD-32 to I-695)

Corridor	Average Speed			Travel Time		
	Differential	Current	Historic	Differential	Current	Historic
MD-295 NB between MD-32 and I-...	↑ 1	65 mph	64 mph	0	11 m	11 m
MD-295 SB between MD-32 and I-...	↓ 8	54 mph	62 mph	↑ 2	13 m	11 m

Using INRIX data Updated Nov 9, 2021 9:38 AM (25s ago)

Maryland: MD-295 (Beltway to MD-32)

Corridor	Average Speed			Travel Time		
	Differential	Current	Historic	Differential	Current	Historic
MD-295 NB between I-95/I-495 ...	0	62 mph	62 mph	0	13 m	13 m
MD-295 SB between I-95/I-495 ...	↓ 2	60 mph	62 mph	0	11 m	11 m

Using INRIX data Updated Nov 9, 2021 9:38 AM (25s ago)

Maryland: MD-295 (DC to Beltway)

Corridor	Average Speed			Travel Time		
	Differential	Current	Historic	Differential	Current	Historic
MD-295 NB between Eastern Ave ...	↑ 1	60 mph	59 mph	↓ 1	6 m	7 m
MD-295 SB between Eastern Ave ...	↓ 29	29 mph	58 mph	↑ 6	13 m	7 m

Using INRIX data Updated Nov 9, 2021 9:38 AM (24s ago)

Northern Virginia: I-66 (VA-28 to US-15)

Corridor	Average Speed			Travel Time		
	Differential	Current	Historic	Differential	Current	Historic
I-66 EB between US-15/Exit 40 a...	↑ 4	63 mph	59 mph	0	13 m	13 m
I-66 WB between US-15/Exit 40 ...	↑ 5	64 mph	59 mph	↓ 1	12 m	13 m

Using INRIX data Updated Nov 9, 2021 9:38 AM (38s ago)

Northern Virginia - I-66 (Beltway to VA-28)

Corridor	Average Speed			Travel Time		
	Differential	Current	Historic	Differential	Current	Historic
I-66 EB between VA-28/Exit 53 a...	↑ 4	50 mph	46 mph	↓ 1	15 m	16 m
I-66 WB between VA-28/Exit 53 ...	↓ 5	51 mph	56 mph	↑ 2	15 m	13 m

Using INRIX data Updated Nov 9, 2021 9:38 AM (37s ago)

Northern Virginia - I-66 (DC to Beltway)

Corridor	Average Speed			Travel Time		
	Differential	Current	Historic	Differential	Current	Historic
I-66 EB between I-495/Exit 64 a...	↑ 2	63 mph	61 mph	0	10 m	10 m
I-66 WB between I-495/Exit 64 ...	↑ 2	62 mph	60 mph	0	10 m	10 m

Using INRIX data Updated Nov 9, 2021 9:38 AM (37s ago)

Northern Virginia: I-95 (VA-610 to VA-3)

Corridor	Average Speed			Travel Time		
	Differential	Current	Historic	Differential	Current	Historic
I-95 NB between VA-3/Exit 130 ...	↑ 4	69 mph	65 mph	↓ 1	15 m	16 m
I-95 SB between VA-3/Exit 130 a...	↑ 1	66 mph	65 mph	0	17 m	17 m

Using INRIX data Updated Nov 9, 2021 9:38 AM (39s ago)

Northern Virginia: I-95 (VA-123 to VA-610)

Corridor	Average Speed			Travel Time		
	Differential	Current	Historic	Differential	Current	Historic
I-95 NB between US-1/VA-610/E...	↑ 6	68 mph	62 mph	↓ 1	16 m	17 m
I-95 SB between US-1/VA-610/E...	↓ 19	46 mph	65 mph	↑ 7	23 m	16 m

Using INRIX data Updated Nov 9, 2021 9:38 AM (38s ago)

Northern Virginia: I-95 (Beltway to VA-123)

Corridor	Average Speed			Travel Time		
	Differential	Current	Historic	Differential	Current	Historic
I-95 NB between VA-123/Exit 16...	↑ 10	64 mph	54 mph	↓ 1	9 m	10 m
I-95 SB between VA-123/Exit 16...	↑ 1	65 mph	64 mph	0	8 m	8 m

Using INRIX data Updated Nov 9, 2021 9:38 AM (38s ago)

Maryland: US-50 (I-97 to Bay Bridge Toll Plaza)

Corridor	Average Speed			Travel Time		
	Differential	Current	Historic	Differential	Current	Historic
US-50 EB between I-97/Exit 21 a...	↑ 4	66 mph	62 mph	↓ 1	10 m	11 m
US-50 WB between I-97/Exit 21 ...	↑ 3	65 mph	62 mph	0	10 m	10 m

Using INRIX data Updated Nov 9, 2021 9:38 AM (27s ago)

Northern Virginia: VA-267 (VA-7 to VA-28)

Corridor	Average Speed			Travel Time		
	Differential	Current	Historic	Differential	Current	Historic
VA-267 EB between VA-28/Exit 9...	↑ 3	66 mph	63 mph	↓ 1	10 m	11 m
VA-267 WB between VA-28/Exit ...	↑ 1	64 mph	63 mph	0	10 m	10 m

Using INRIX data Updated Nov 9, 2021 9:38 AM (25s ago)

Maryland: US-50 (DC to Beltway)

Corridor	Average Speed			Travel Time		
	Differential	Current	Historic	Differential	Current	Historic
US-50 EB between DC--MD STATE...	↑ 4	59 mph	55 mph	0	6 m	6 m
US-50 WB between DC--MD STAT...	↓ 44	11 mph	55 mph	↑ 26	32 m	6 m

Using INRIX data Updated Nov 9, 2021 9:38 AM (21s ago)

Northern Virginia: VA-267 (VA-28 to Leesburg Bypass)

Corridor	Average Speed			Travel Time		
	Differential	Current	Historic	Differential	Current	Historic
VA-267 EB between US-1/VA-7...	↑ 4	68 mph	64 mph	↓ 1	11 m	12 m
VA-267 WB between US-1/VA-7...	↑ 3	65 mph	62 mph	0	12 m	12 m

Using INRIX data Updated Nov 9, 2021 9:38 AM (22s ago)

Maryland: US-50 (Beltway to I-97)

Corridor	Average Speed			Travel Time		
	Differential	Current	Historic	Differential	Current	Historic
US-50 EB between I-95/I-495/B...	↑ 3	68 mph	65 mph	↓ 1	15 m	16 m
US-50 WB between I-95/I-495/B...	↑ 3	69 mph	66 mph	0	15 m	15 m

Using INRIX data Updated Nov 9, 2021 9:38 AM (22s ago)

Northern Virginia: VA-267 (I-66 to VA-7)

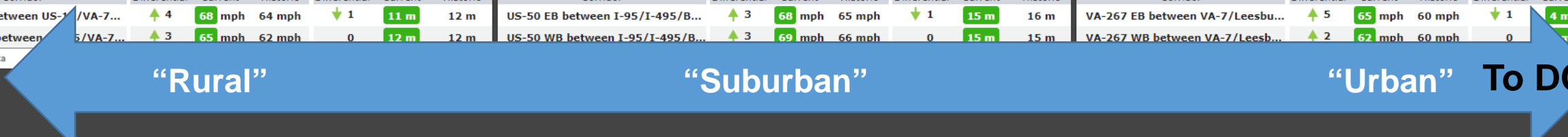
Corridor	Average Speed			Travel Time		
	Differential	Current	Historic	Differential	Current	Historic
VA-267 EB between VA-7/Leesbu...	↑ 5	65 mph	60 mph	↓ 1	4 m	5 m
VA-267 WB between VA-7/Leesbu...	↑ 2	62 mph	60 mph	0	5 m	5 m

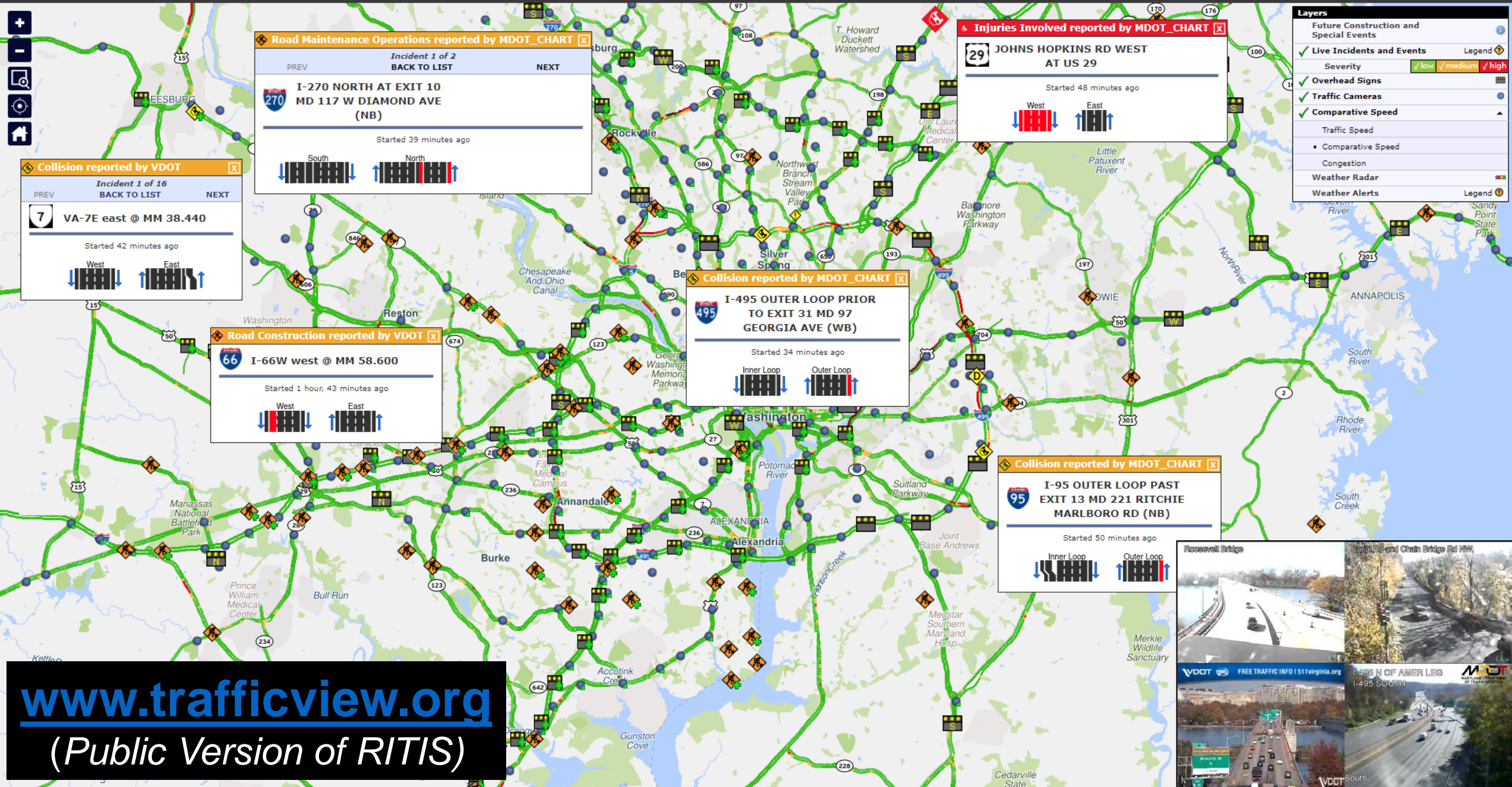
Using INRIX data Updated Nov 9, 2021 9:38 AM (22s ago)

“Rural”

“Suburban”

“Urban” To DC





[www.trafficview.org](http://www.trafficview.org)  
(Public Version of RITIS)



# Questions

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**RITIS Information:** [www.ritis.org/intro](http://www.ritis.org/intro)

**MATOC Website:** [www.matoc.org](http://www.matoc.org)

**Twitter:** @MATOC

**RITIS Training Opportunities:** [www.matoc.org/training](http://www.matoc.org/training)