RITIS User Group

Web Meeting ◦ January 18, 2018

Webcast and audio information

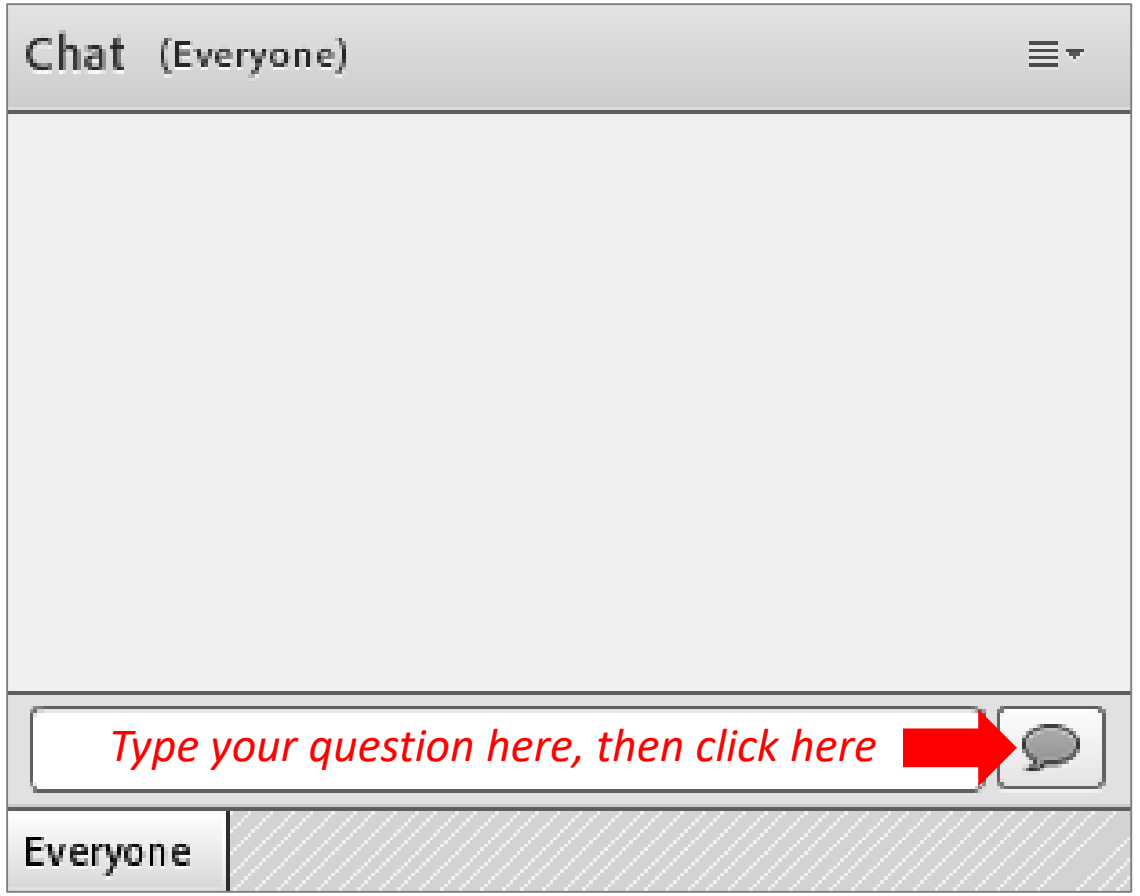
- The call-in phone number is:

  1-415-655-0002 & enter 735 226 663 # at the prompt

- **Your phone line will be muted throughout the webcast**
- Please press *0 to speak to an operator for questions regarding audio
- This web meeting is being recorded
- All materials will be available to participants after the web meeting

Asking questions

- Please pose your questions using the chat box
- Questions will be monitored, then answered by the speakers during their presentation or at the end of the webcast



Plan Ahead

- Next meeting is currently scheduled for **Thursday, May 10, 2017 from 10:30am – Noon (EDT)**
- Look for more information following this meeting!

Welcome & introductions

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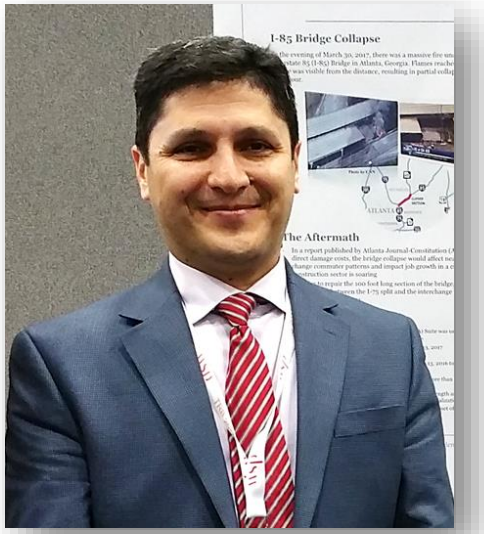

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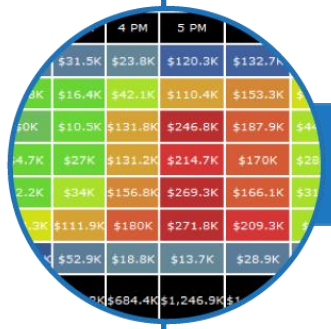
Our agenda for today

- What's new
- On the horizon…
- Analyzing the Impact of the I-85 Bridge Collapse on Regional Travel in Atlanta
- Meeting PM3 Performance Measure Requirements
- "Pack's Pointers"
- RITIS Roadmap Update
- Using RITIS for Extreme Weather: "Bomb Cyclone" Nor'easter
- Agency Input Session
- Wrap up



Performance Measures

Planning

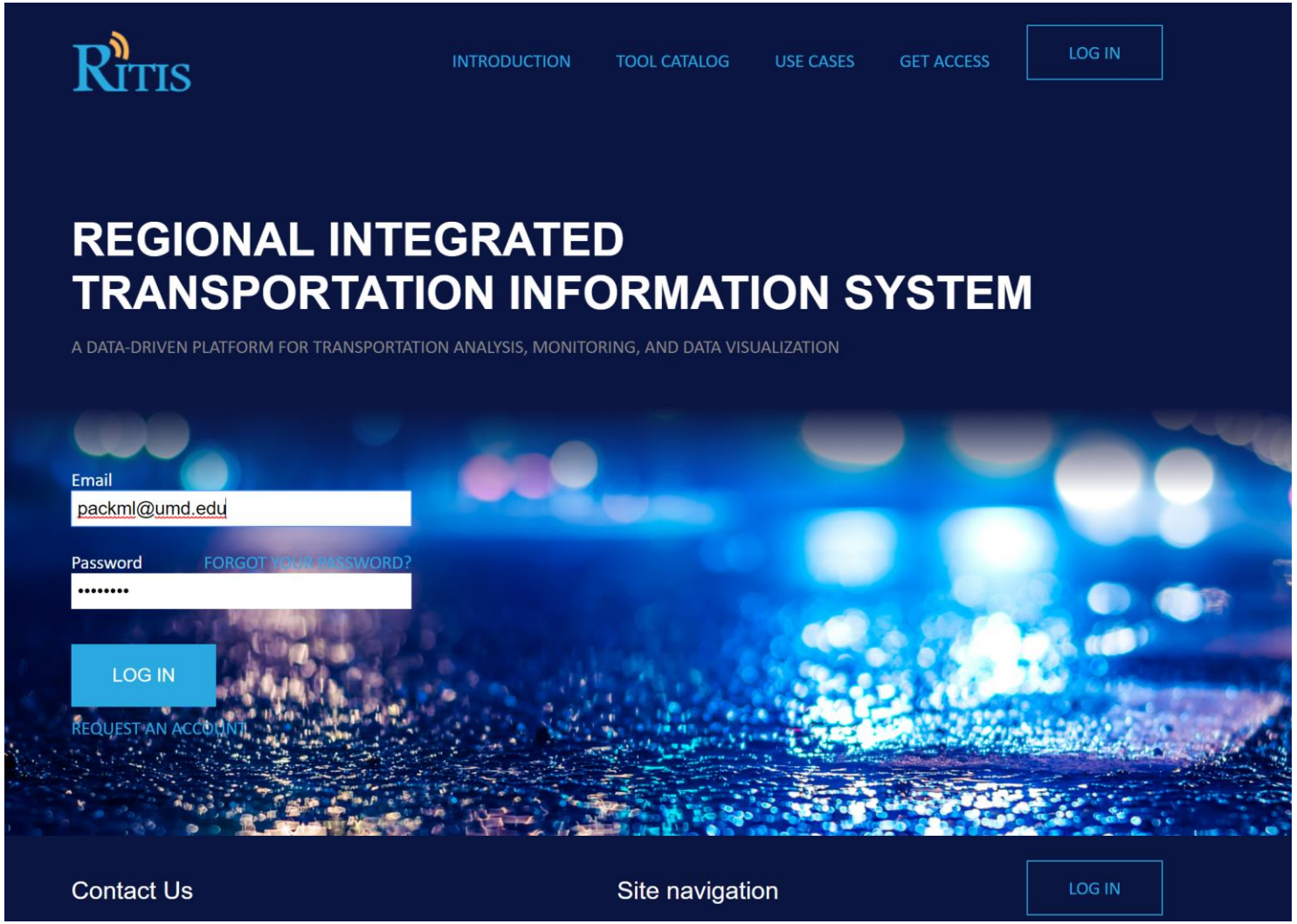
Operations

Communication

What’s new…

User Interface Enhancements

- Better RITIS background info
- Index and description of all RITIS
- Growing list of user cases
- Info on getting access

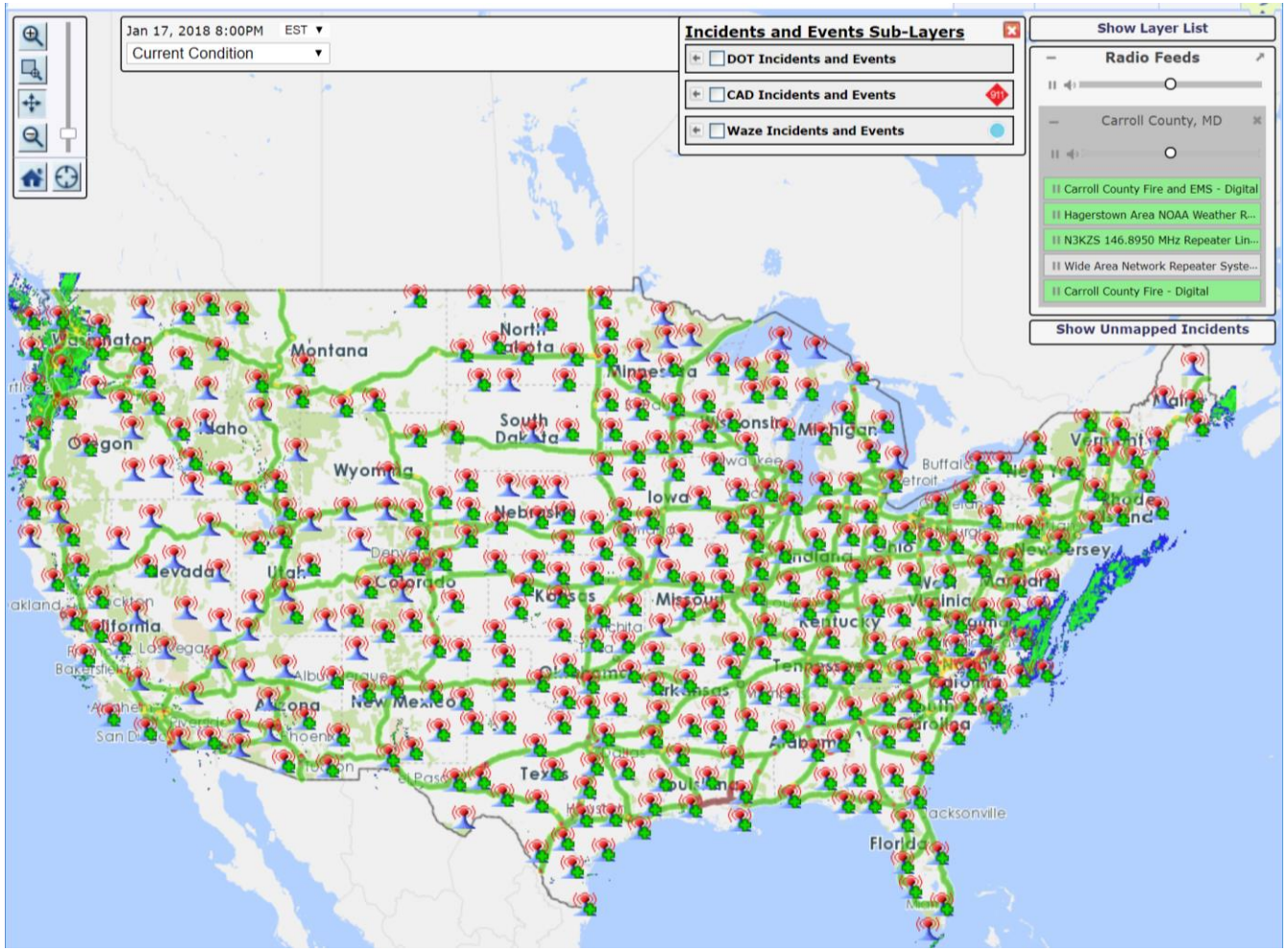


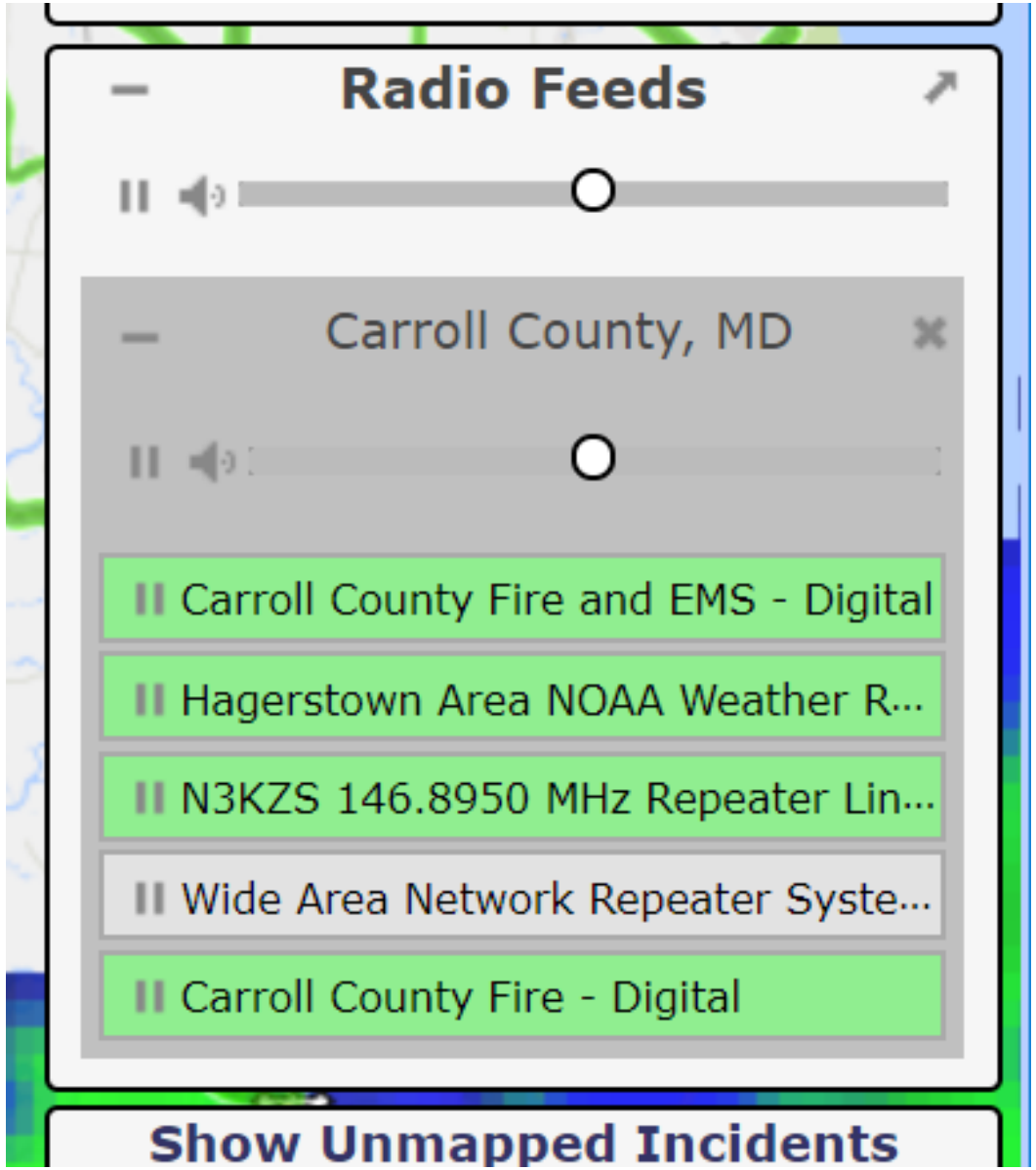
MAP-21 PM3 Enhancements

- More on this later!

Radio Player Enhancements

- Enhanced & non-Flash

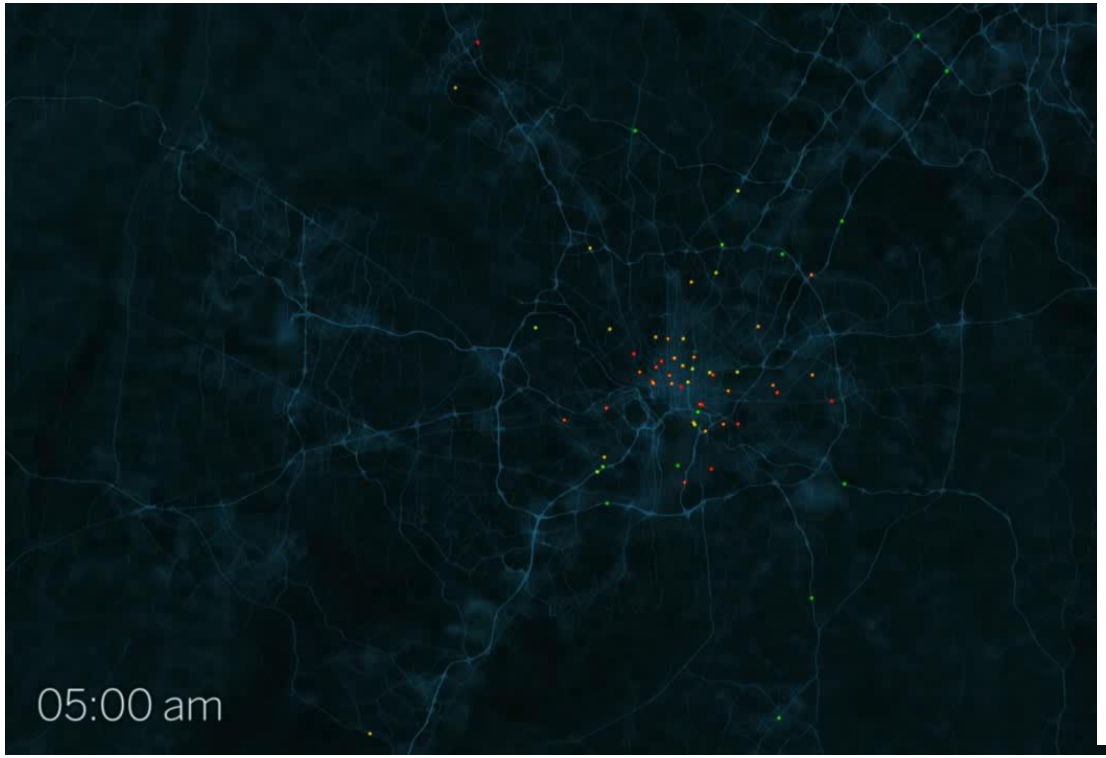


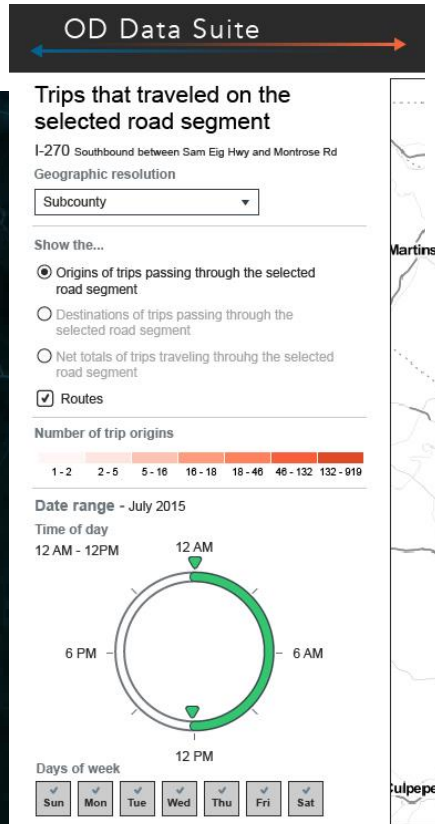


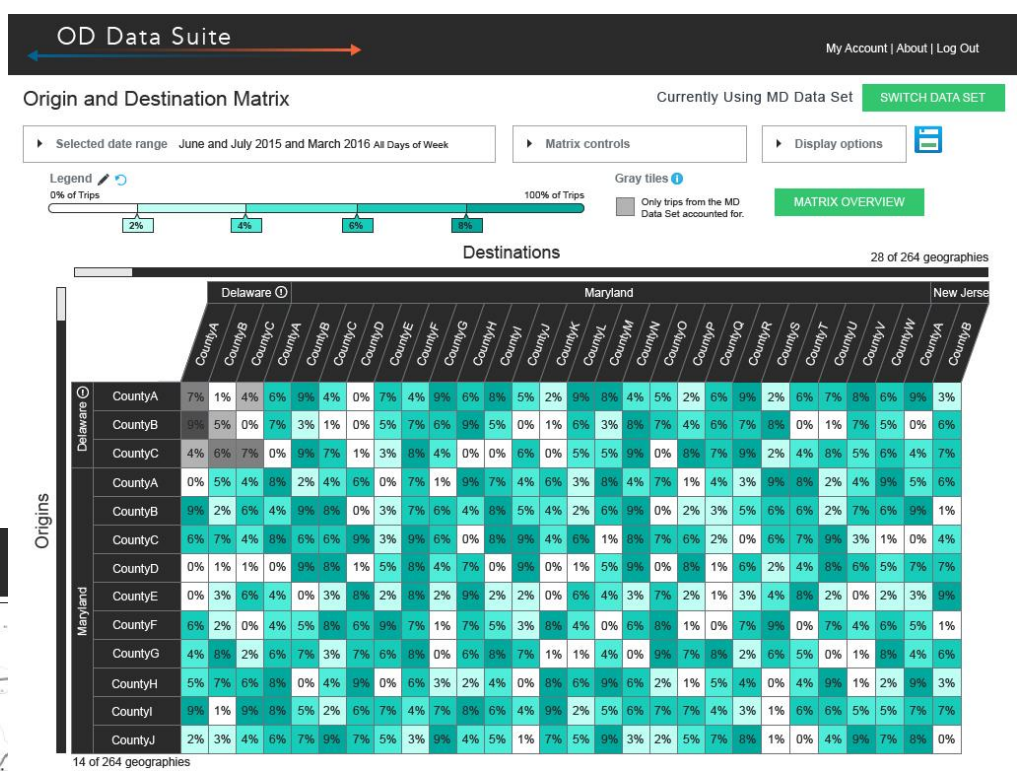
On the horizon…

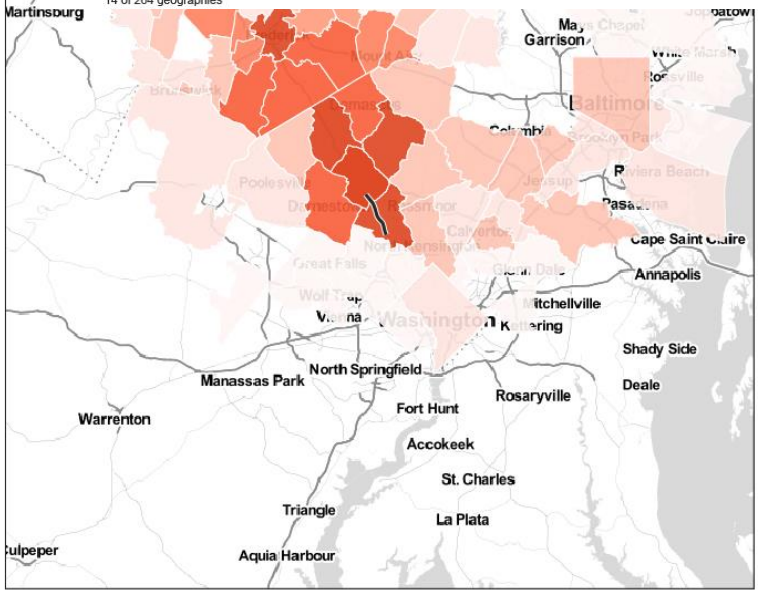
Origin-Destination Analytics

- Works with HERE or INRIX OD and Trajectory Data
- Works with select ABM data



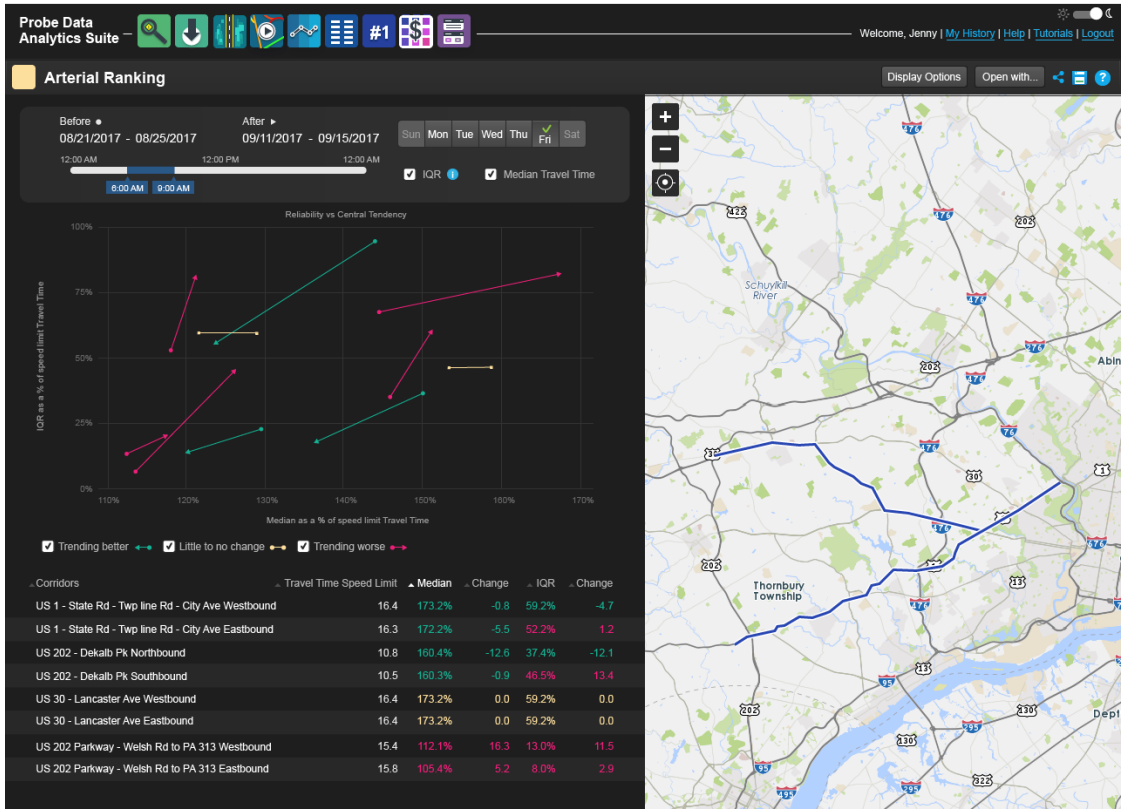


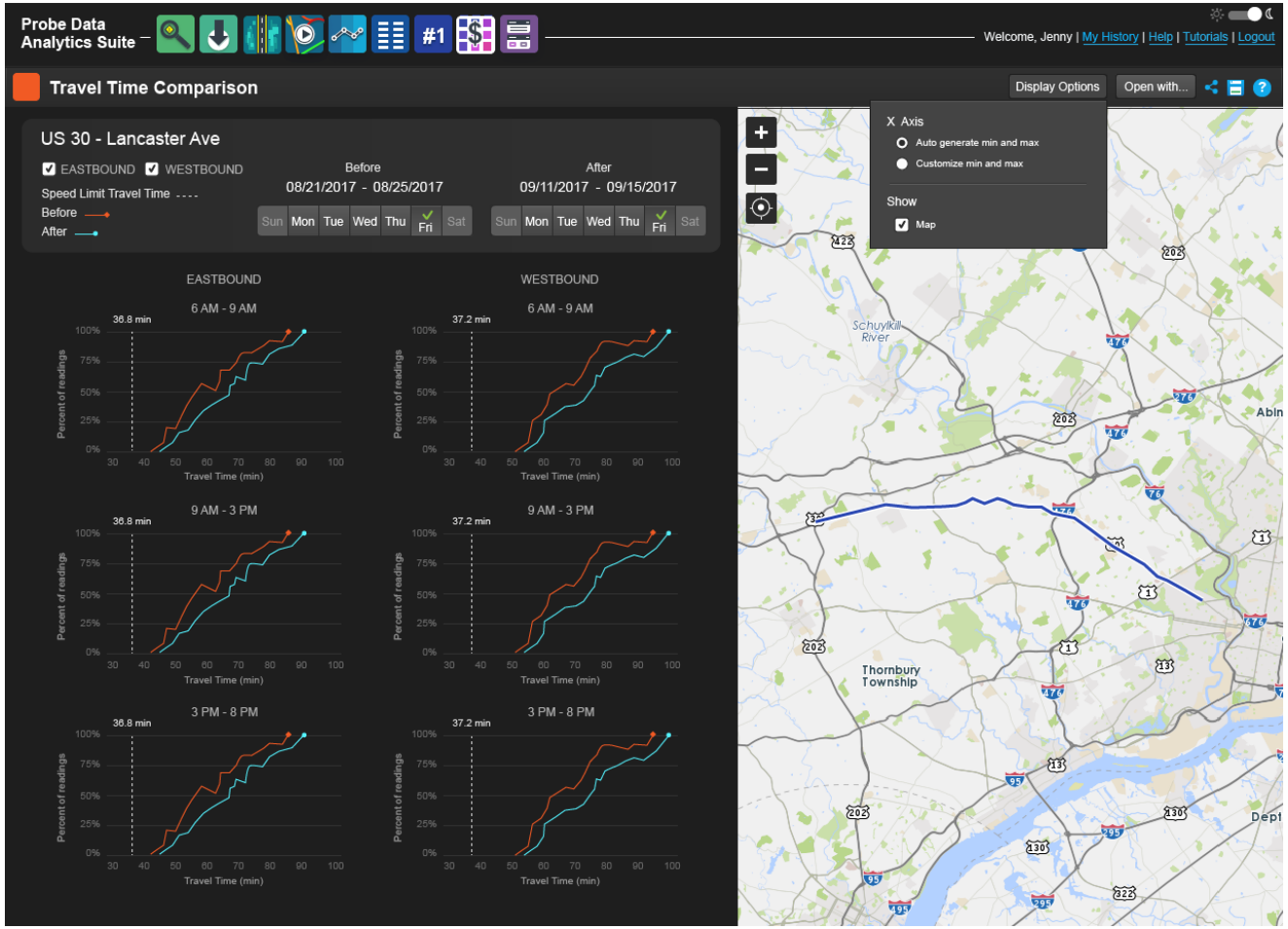




Arterial Signal System Analytics

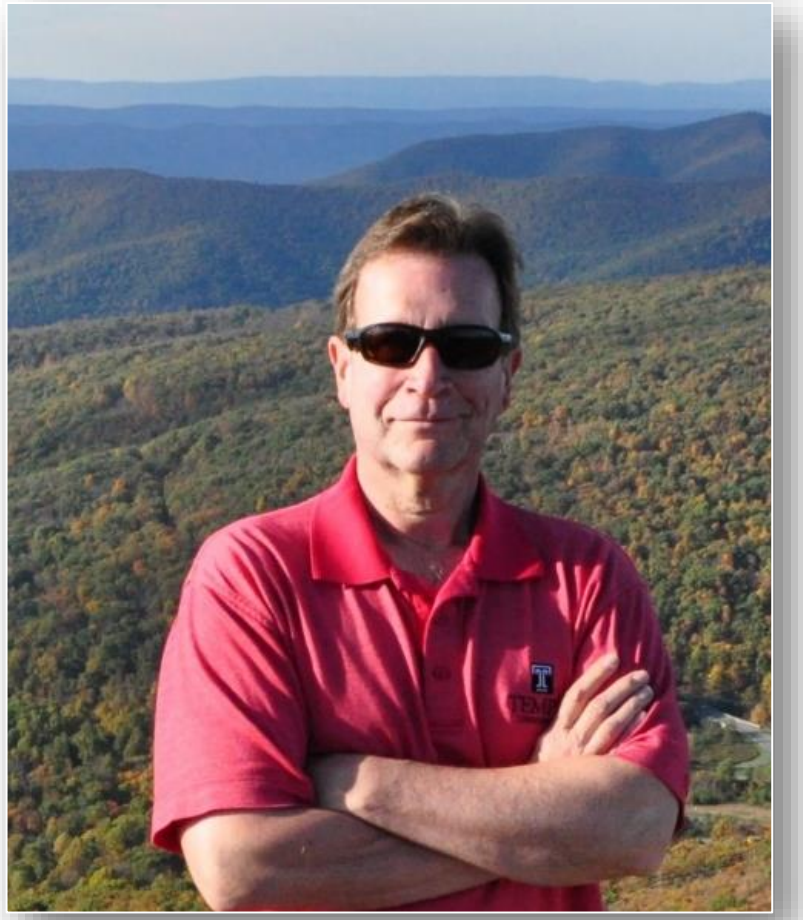
- Funded by PennDOT
- Based off of Purdue Arterial PM tools
- Integrated into the PDA Suite





Deprecated Feature

- John Allen



In the spotlight…

Analyzing the Impact of the I-85 Bridge Collapse on Regional Travel in Atlanta

Masoud Hamedi, Sepideh Eshragh, Mark Franz, Przemyslaw Sekula

Some background

- On March 30, 2017 a bridge on I-85 north of Atlanta collapsed from an intense fire, closing all five lanes of highway in each direction for 45 days

- **<u>At the June 8th, 2017 RITIS User Group meeting</u>, the CATT Lab presented some examples of how to use RITIS for:**
  - Traveler information
  - Real-time coordination
  - After Action Reviews

(To access the presentation, go to http://i95coalition.org/forum and click on **Agency Use Cases**)

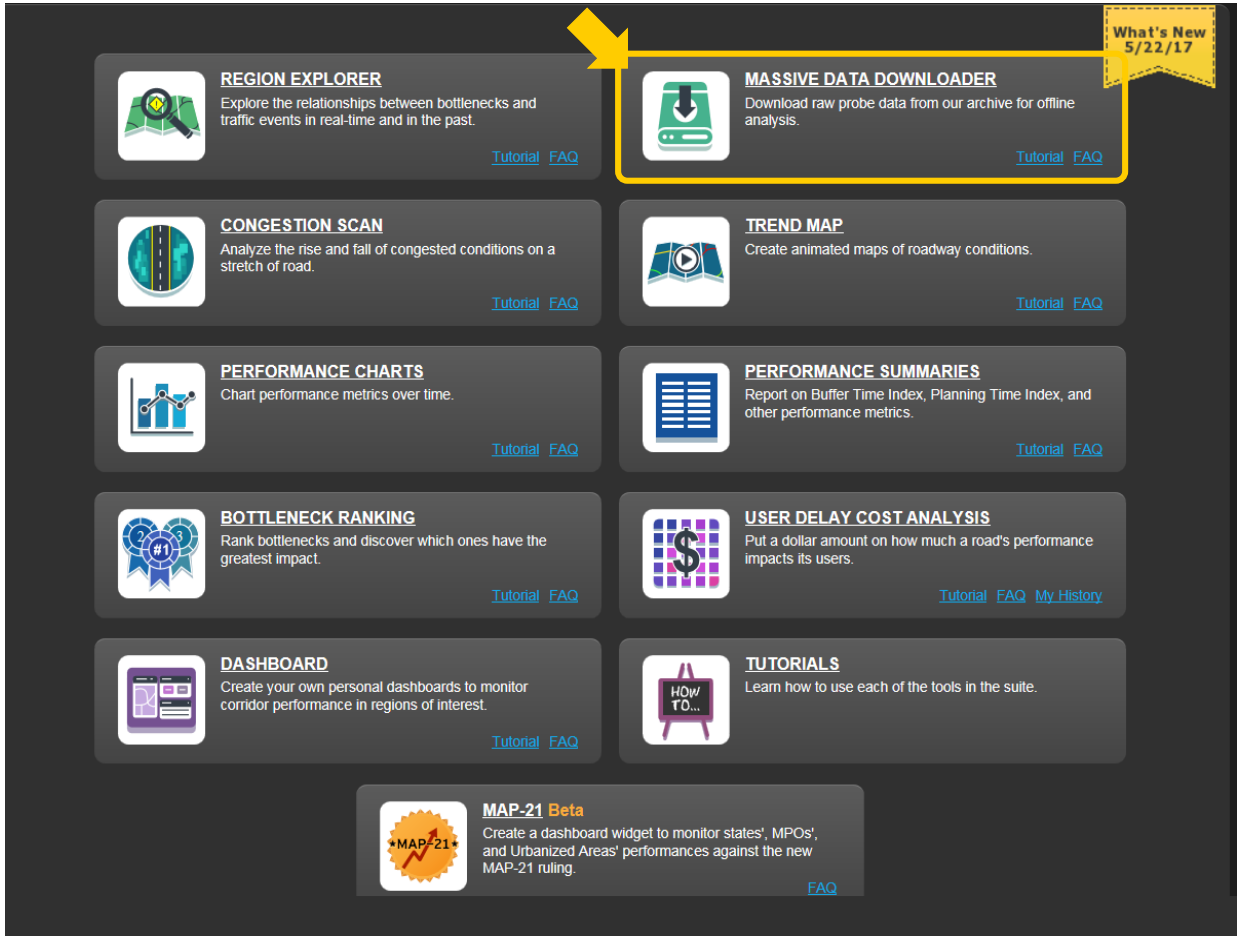
- **<u>This presentation</u> goes into a deep-dive of how to analyze roadway network performance** before, during and after the collapse

Data retrieval for deep-dive analyses

- Using the Massive Data Downloader, gathered data for:
  - **Before collapse**
    (Feb 13, 2017 to March 29, 2017)
  - **During reconstruction**
    (March 30, 2017 to May 13, 2017)
  - **After reopening**
    (May 14, 2017 to June 27, 2017)

- And to investigate seasonal travel effects:
  - Corresponding time period in previous year
    (Feb 13, 2016 to June 27, 2016)

- Data size:
  - Approximately 14 GB; more than 228 million records.
  - Detours and main routes were constructed by merging TMC codes.



Local and regional analysis

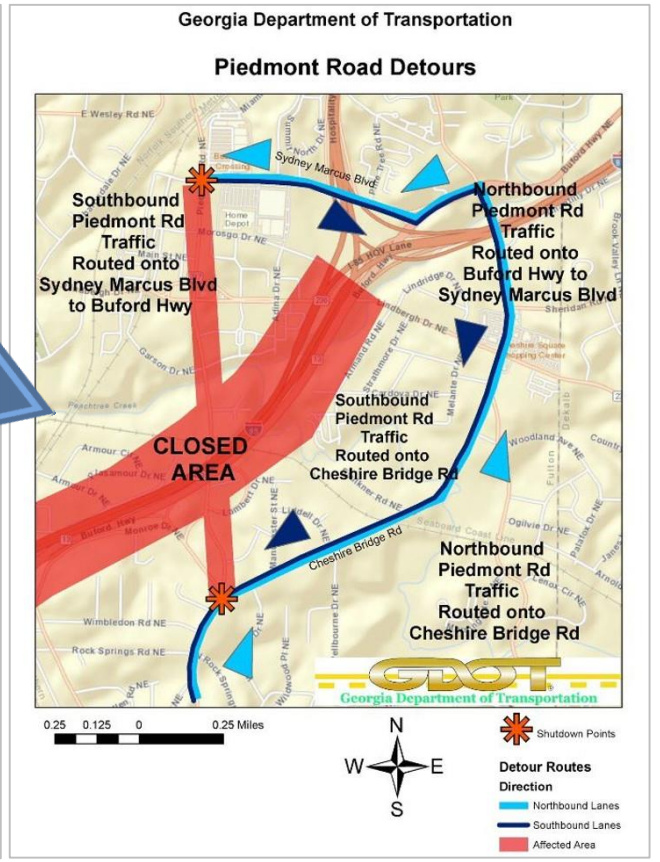
- The impact of road closure on the local travel corridor near the collapse site, as well as changes in the regional traffic patterns were studied.

- **Local analysis:**
  - used congestion scan and bottleneck ranking tools in RITIS

- **Regional analysis:**
  - developed PYTHON scripts to create performance measures

Regional Detours

Local Detours



Bottleneck Ranking

- This tool was used to find the location and intensity of bottlenecks “before”, “during” and “after” the collapse
- Bottleneck Ranking was also used for the three corresponding time periods in the year prior to the event.

Bottleneck Locations with Increased Impact Only During Closure

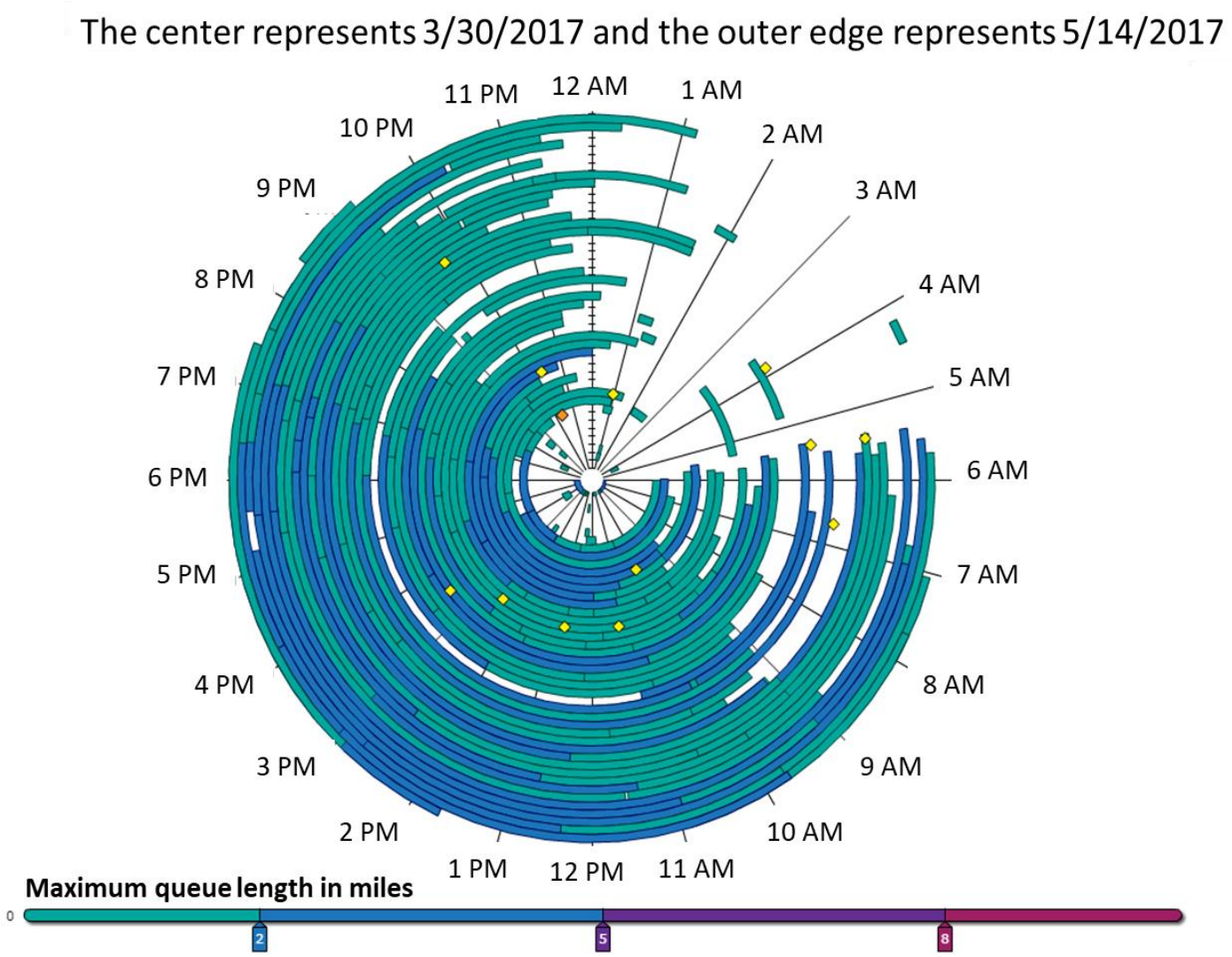
RANK	Location	Direction	LENGTH (Mile)	2017			2016		
				BEFORE	DURING	AFTER	BEFORE	DURING	AFTER
1	GA-13 @ I-85/GA-403/NORTHWOOD AVE	SB	0.24	55499	410317	26363	39232	43541	32275
2	GA-42 @ US-78/US-23/US-278/US-29/GA-8	SB	1.36	36945	408120	20165	28288	32775	23603
3	US-29 @ DECATUR RD	NB	1.00	93123	297372	0	0	55797	0
4	US-23 @ GA-154/MEMORIAL DR	SB	0.98	18301	131578	7400	4836	0	5765
5	US-19 @ 17TH ST	SB	0.26	38847	129764	3815	29829	26429	17536
6	US-29S @ PIEDMONT AVE	SB	0.64	23251	94745	0	742	1643	16387
7	US-19N @ GA-236/LINDBERGH DR	NB	1.2	34180	80473	8683	11132	13639	18770
8	I-85 @ GA-13/EB EXIT 86	NB	0.24	2247	76890	1137	1007	1677	1635
9	I-85S @ GA-400/EB EXIT 87	SB	0.37	246	49770	291	102	652	1149
10	GA-400 @ SIDNEY MARCUS BLVD/EXIT 1	SB	0.39	423	33611	1750	200	276	767

GA-13, ranked 1st , experienced an Impact increase of **639%** during the bridge closure compared to the ‘before’ period, and was **1456%** higher than ‘after’ bridge reopening. This segment has observed more frequent, more intense, and lengthier congestion episodes compared to the locations with lower values.

Time Spiral graphs

- The Time Spiral shows bottlenecks and events occurring at a selected location.
- These graphics help to clearly show changes in bottlenecks temporally, spatially and in intensity of the local and regional study areas.
- The Time Spiral for the top location during closure (at right) shows that the segment has been consistently congested from morning till evening almost everyday, with higher queue lengths in afternoon peak.

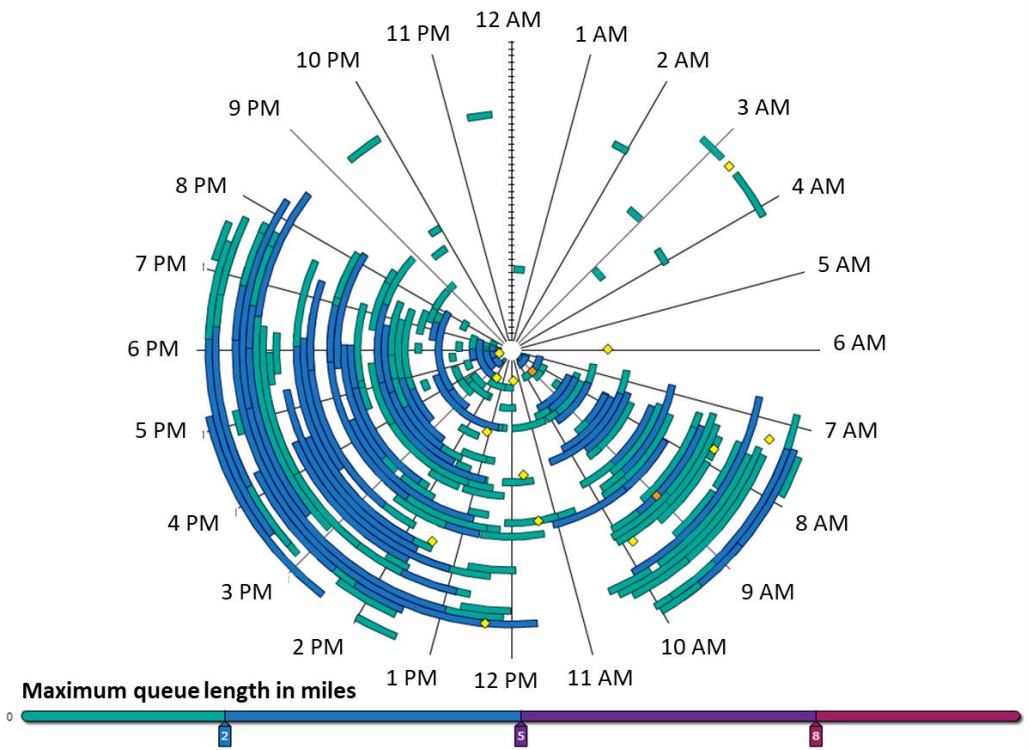
Time Spiral
Segment GA-13 S @ I-85/GA-403/Northwood Ave (during closure)



Time Spiral graph comparison example

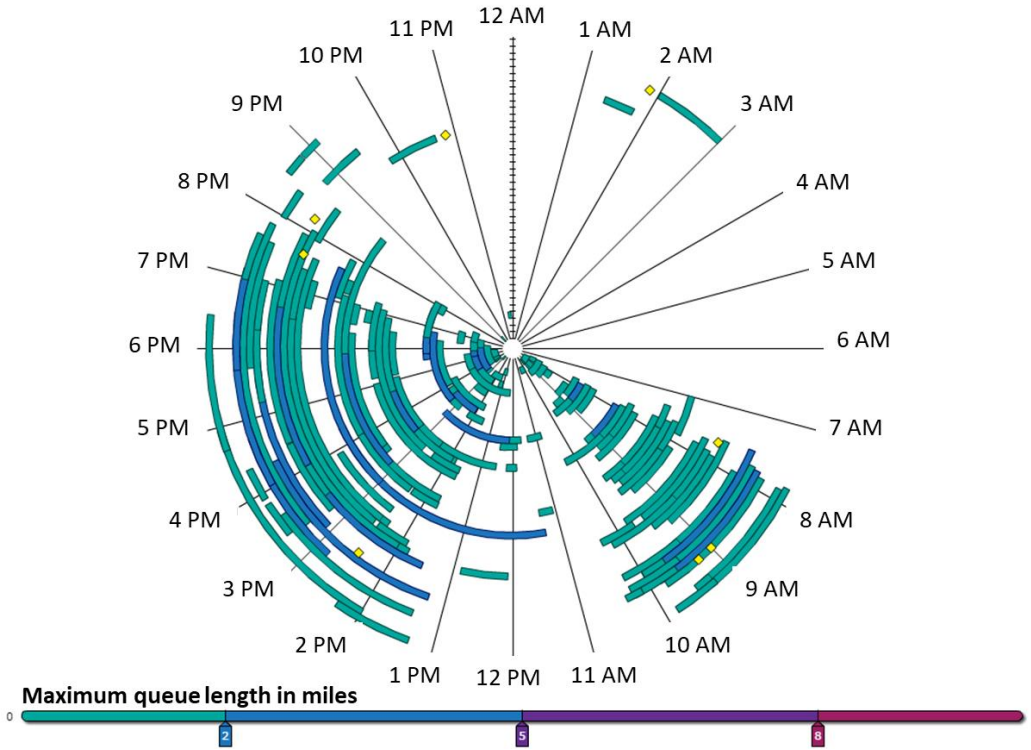
Spiral congestion graph of segment GA-13 S @ I-85/GA-403/Northwood

The center represents 2/13/2017 and the outer edge represents 3/30/2017



Before Collapse

The center represents 5/14/2017 and the outer edge represents 6/28/2017



After Opening

› Time Spiral graphs show some congestion relief after opening, partially due to seasonal travel changes as reflected in the analysis of data in the year prior to the event.

Bottleneck Ranking

- Going beyond the obvious analysis of the I-85 closure, the data can also be used to discover less conspicuous impacts to the local road network.

Bottleneck Locations with Increased Impact Only During Closure

RANK	Location	Direction	LENGTH (Mile)	2017			2016		
				BEFORE	DURING	AFTER	BEFORE	DURING	AFTER
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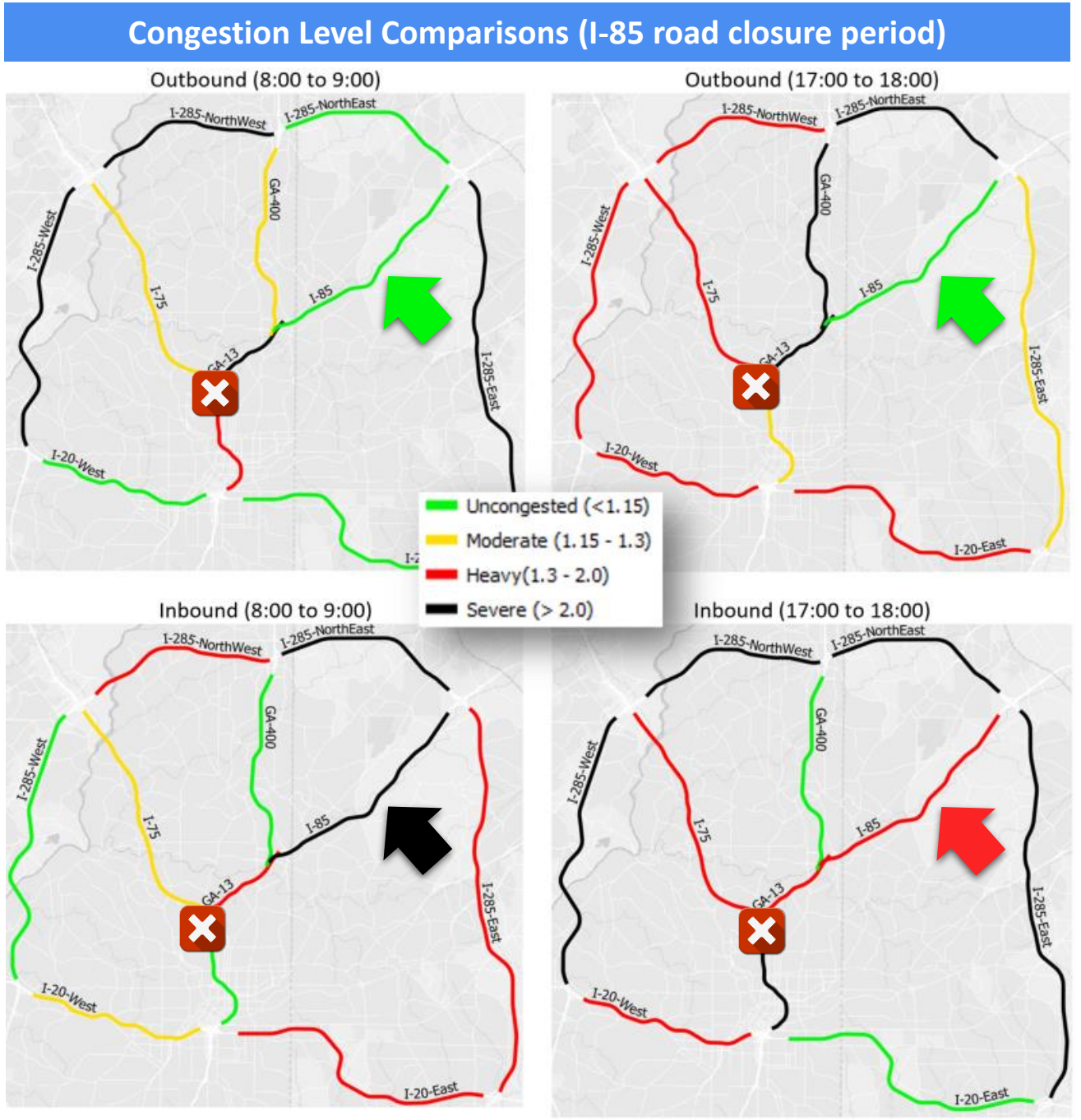
Comparing changes in 'before' and 'after' impact on this segment shows that after opening, congestion on this segment has not significantly increased relative to similar periods in 2016. This may be due to the change in drivers' route choice behavior where some shifted to the alternative route (GA-13) 'during' the closure and experienced better travel time, and kept using that route even after bridge opening.

Travel Time Index (TTI)

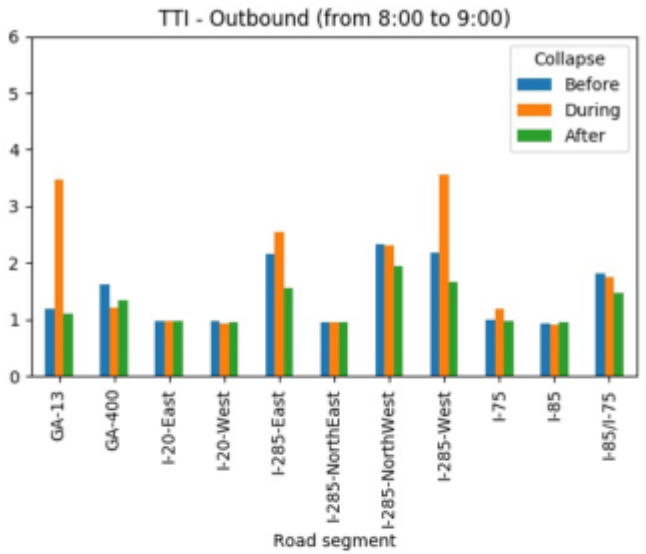
- Travel time reliability analysis was used for measuring uncertainty associated with speed volatility caused by congestion
- The open portion of I-85 has remained uncongested for **outbound traffic**, both in the morning and evening peak hours
- Conversely, it has been severely and heavily congested for the **inbound traffic** during morning and evening peaks, respectively

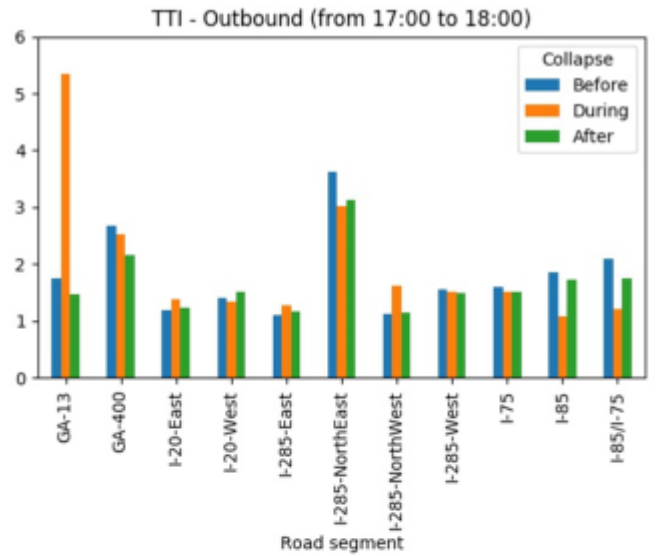


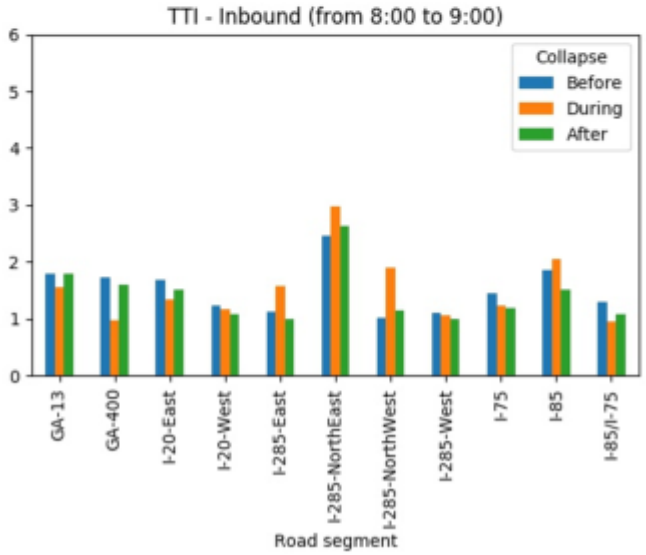
Travel Time Index (TTI)

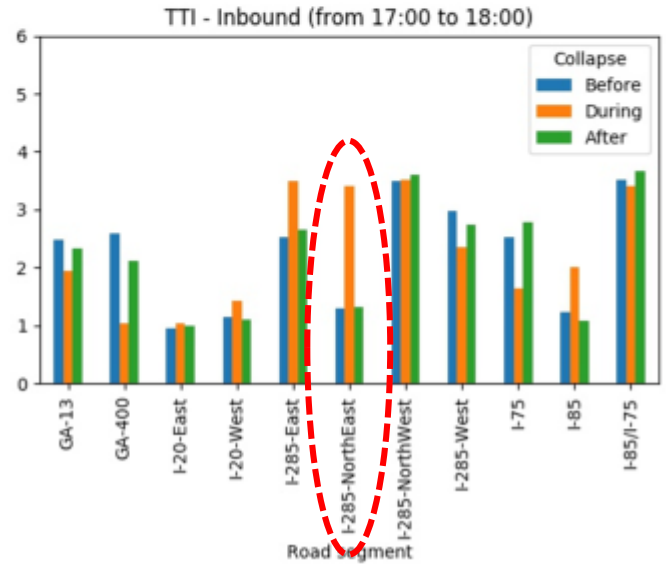
- Congestion on GA-13, which is a parallel road next to the I-85 bridge collapse location, has become severely congested during the reconstruction period
- Congestion on GA-13 northbound for evening peak is much worse compared to the morning peak
- This is compatible with the bottleneck location analysis results discussed earlier, in which the 0.24 mile segment of GA-13 was ranked 1st

Congestion Level Comparisons (Before, During, After the Collapse)





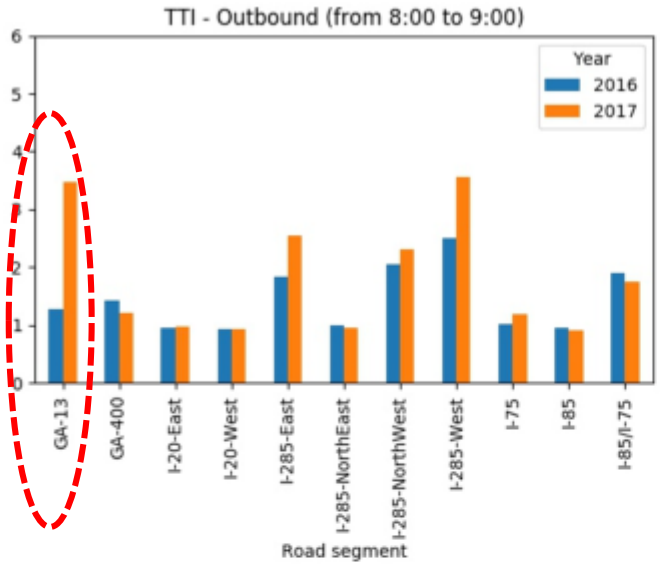


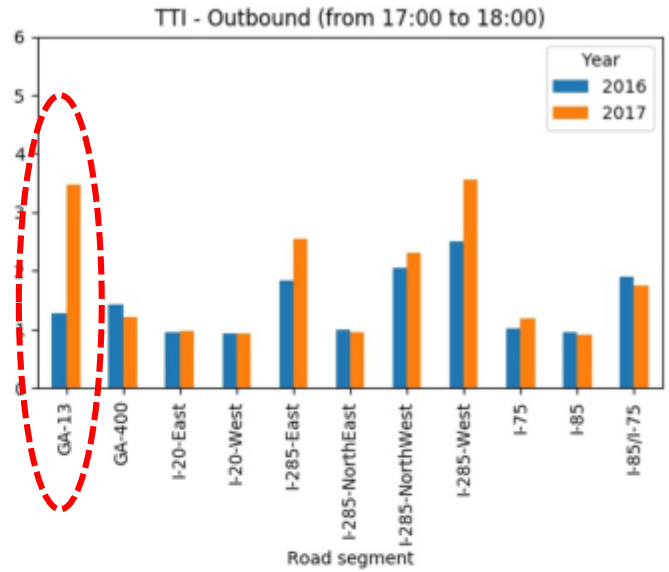


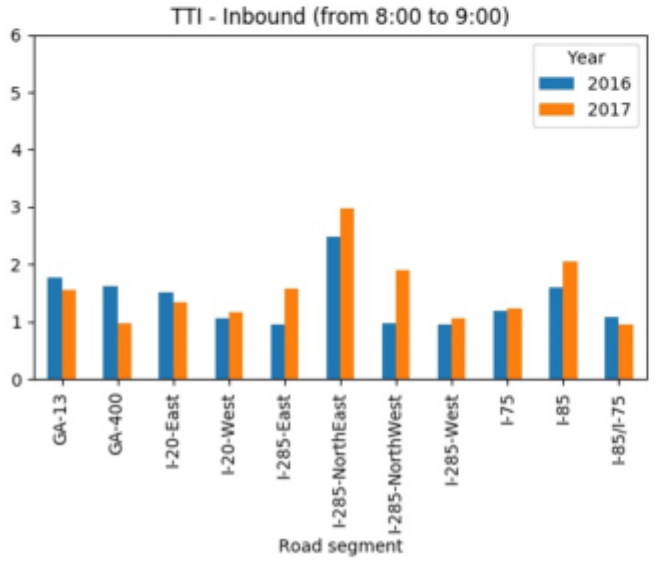
Travel Time Index (TTI)

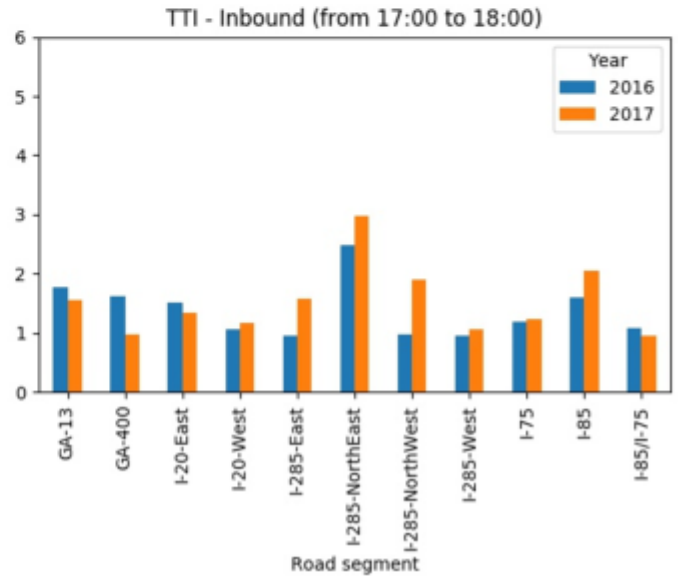
- Similar calculations were performed based on the data for the year prior to the bridge collapse, and on the exact time periods
- GA-13 congestion levels in the year before the bridge closure have been much lower compared to the I-85 bridge closure time in 2017
- Majority of the segments in the study area, show increased TTI during the event when compared to the same interval in the year before

AM/PM Peak Hour Comparisons (Mar 30th – May 13th)





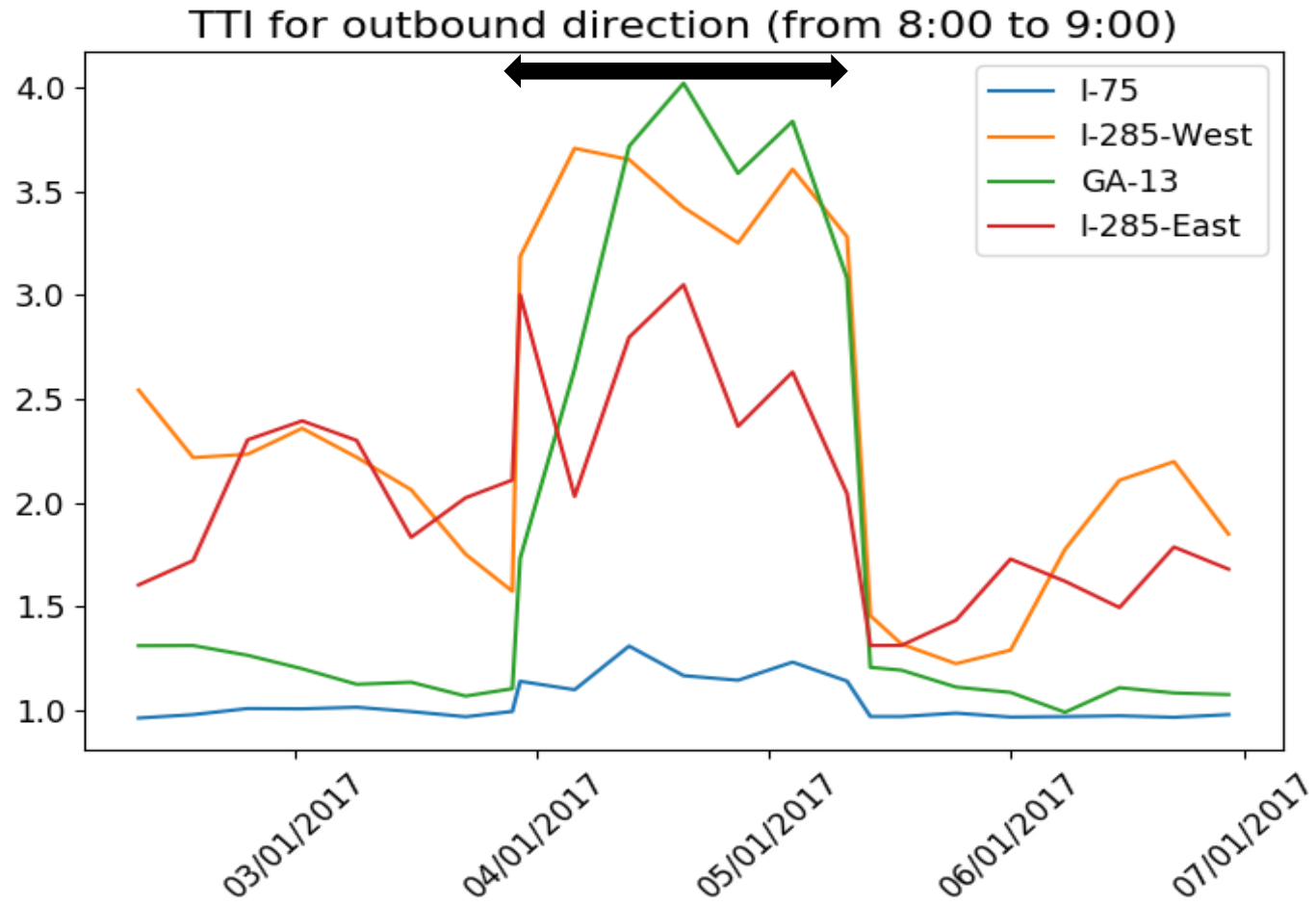




Weekly Travel Time Index (TTI)

- This graph selectively shows four routes that exhibited more fluctuation in their congestion level
- Congestion levels on these road has risen with the start of I-85 road closure (March 30, 2016) and has dropped after reopening (May 13, 2017) ⟷
- Changes on GA-13 and I-285-West has been more significant

Selected Route Comparisons (Feb. 13th to June 27th, 2017)



Comparative Congestion Index

- **In order to track the overall changes in congestion in one snapshot**, an index was developed to indicate the relative value of TTI during the road closure, compared to average TTI before and after the bridge collapse period:

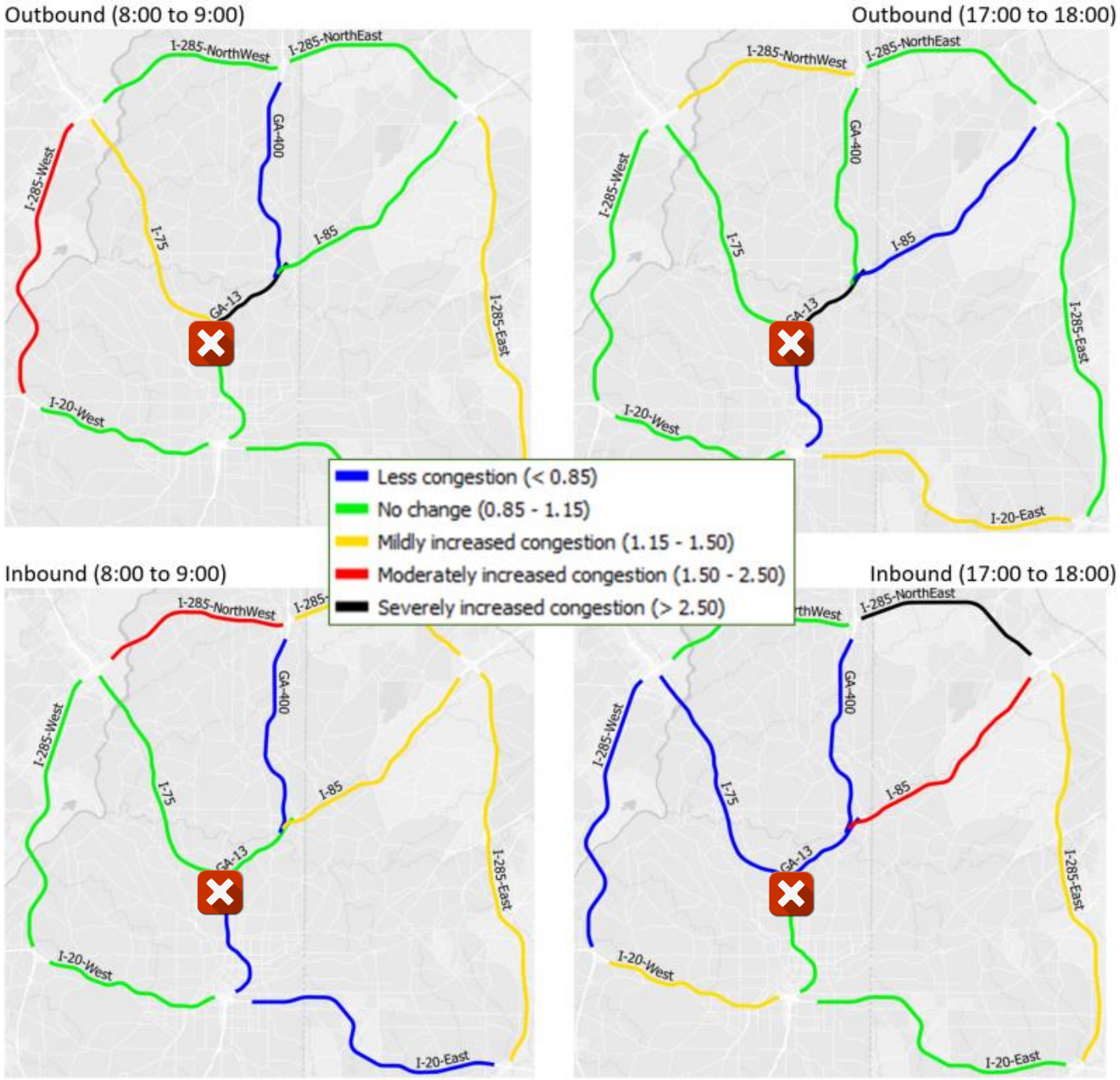
$$Comparative\ Congestion\ Index\ (CCI) = \frac{TTI\ during}{0.5 * (TTI\ before + TTI\ after)}$$

- **Comparative Congestion Index (CCI)** was calculated for all roads in both inbound and outbound directions, and five index value ranges were chosen to form five categories, each marked by a color-coding:

Less Congestion (<0.85)
No change (0.85 – 1.15)
Mildly increased congestion (1.15 – 1.50)
Moderately increased congestion (1.50 – 2.50)
Severely increased congestion (>2.50)

Comparative Congestion Index

- Overall, it seems that the system has been more resilient to the bridge closure shock in **inbound** travel direction.



Resiliency by the numbers

- Relative change (expressed by CCI) in both TTI and PTI for outbound direction during the bridge closure, is higher compared to the inbound direction
- Also, standard deviation, range, median and quartile values of the TTI, PTI and CCI indicate that changes in travel time reliability and excessive delays are less significant in inbound direction
- The numbers suggest that **inbound traffic during the collapse event has been distributed more evenly both spatial and temporal among detours** compared to the outbound traffic

Overall TTI and PTI Summary for Inbound/Outbound Travel Directions

Time	Measurement	TTI				PTI			
		Before	During	After	CCI	Before	During	After	CCI
OUTBOUND	**MEAN**	**1.64**	**1.89**	**1.46**	**1.25**	**1.91**	**2.24**	**1.71**	**1.26**
	Standard Deviation	0.68	1.12	0.50	0.68	0.83	1.40	0.66	0.66
	Minimum	0.92	0.91	0.94	0.60	0.97	0.97	0.97	0.56
	25%	1.10	1.19	1.11	0.97	1.22	1.38	1.34	0.95
	50 % (Median)	1.57	1.44	1.46	1.02	1.83	1.65	1.69	1.01
	75%	2.03	2.47	1.63	1.19	2.45	2.94	1.94	1.28
	Maximum	3.63	5.34	3.13	3.33	4.21	6.40	3.80	3.16
INBOUND	**MEAN**	**1.88**	**1.91**	**1.81**	**1.11**	**2.22**	**2.25**	**2.15**	**1.12**
	Standard Deviation	0.81	0.90	0.86	0.48	0.99	1.10	1.07	0.54
	Minimum	0.95	0.95	0.98	0.44	1.00	1.01	1.04	0.38
	25%	1.23	1.18	1.09	0.83	1.42	1.32	1.27	0.77
	50 % (Median)	1.70	1.60	1.51	1.00	1.96	1.84	1.76	0.98
	75%	2.51	2.27	2.56	1.26	2.94	2.99	3.09	1.34
	Maximum	3.51	3.51	3.67	2.63	4.24	4.17	4.45	2.63
ALL DIRECTIONS	**MEAN**	**1.76**	**1.90**	**1.63**	**1.18**	**2.07**	**2.25**	**1.93**	**1.19**
	Standard Deviation	0.75	1.00	0.72	0.59	0.92	1.25	0.91	0.60
	Minimum	0.92	0.91	0.94	0.44	0.97	0.97	0.97	0.38
	25%	1.14	1.18	1.09	0.89	1.30	1.34	1.27	0.90
	50 % (Median)	1.60	1.53	1.48	1.00	1.86	1.77	1.74	1.00
	75%	2.21	2.39	1.83	1.23	2.72	3.02	2.40	1.32
	Maximum	3.63	5.34	3.67	3.33	4.24	6.40	4.45	3.16

Conclusions

- ✓ Changes in congestion levels, bottleneck locations, and mobility performance measures are successfully captured and reflected by probe data
- ✓ Analytics tools in the PDA Suite can be effectively used for tracking changes in the bottlenecks in the aftermath of major road closures
- ✓ 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 based on predefined threshold values helps in communicating the findings to the decision makes, planners and interested citizens
- ✓ Since TTI, PTI and CCI do not have dimensions, this method can be used to compare resiliency and adoptability of a network to shocks caused by a major event, with other networks.

Thanks!

For more information, please contact:

Masoud Hamedi, PhD
The Center for Advanced Transportation Technology
masoud@umd.edu | 240.487.9323

Meeting PM3 Performance Measure Requirements

NPMRDS v2

MAP-21 ANALYTICS

Some background

- **FHWA has finalized PM3 Performance Measures** – including travel times, reliability and delay - to implement the Transportation Performance Management (TPM) framework established by MAP-21 and FAST Acts

- **State DOTs and MPOs will need to:**
  - Establish targets for applicable measures
  - Document the strategies & investments used to achieve the targets
  - Report-out on progress toward those targets

- **NPMRDS v2 datasets and MAP-21 Analytics are now available** to visualize performance, help set targets, and develop the required files and deliverables for submission to FHWA

FYI for existing RITIS / PDA Suite users

For those states that have already purchased RITIS / PDA Suite:

THERE ARE NO ADDITIONAL COSTS TO YOUR STATE FOR THE NPMRDS v2 / MAP-21 ANALYTICS

these data and tools are already available to you

Highlights of the new NPMRDS v2

- The NPMRDS v2 uses **INRIX® Path Processing**—increasing coverage and improves accuracy
- Both **Inner and Outer TMCs** are provided, increasing data granularity
- Data is available sooner at the end of each month
- A **Data Density Indicator** has been added
- More accurate **GIS shapefiles** with **15 Highway Performance Monitoring System (HPMS) attributes conflated to the TMC network**

Three easy steps to start using NPMRDS v2

LEARN

Video tutorials & documentation available to get you up to speed fast

EXPLORE

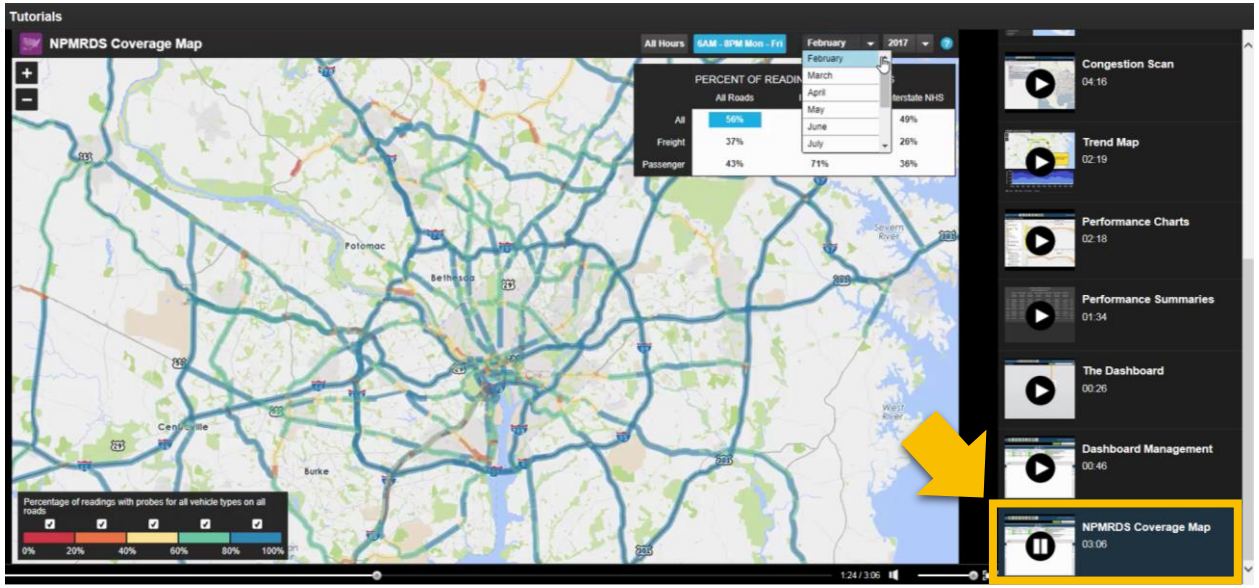
Investigate national to local data density & completeness

ACQUIRE

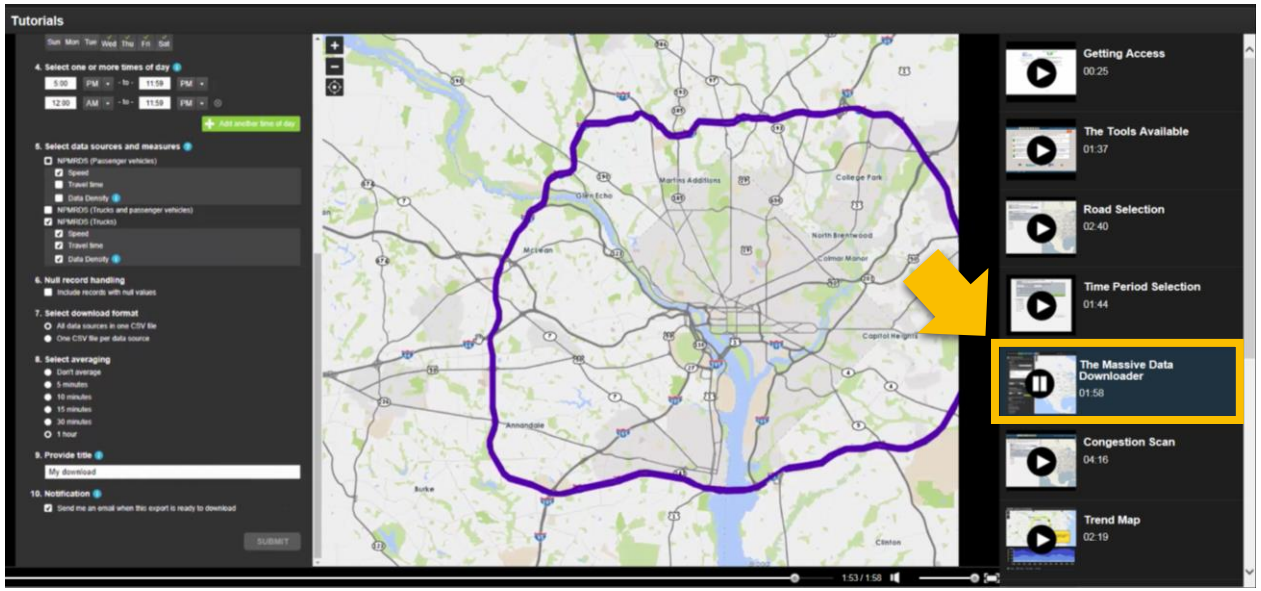
Tailor the data to your needs using Massive Data Downloader

Learn how to use the tools

NPMRDS Coverage Map video



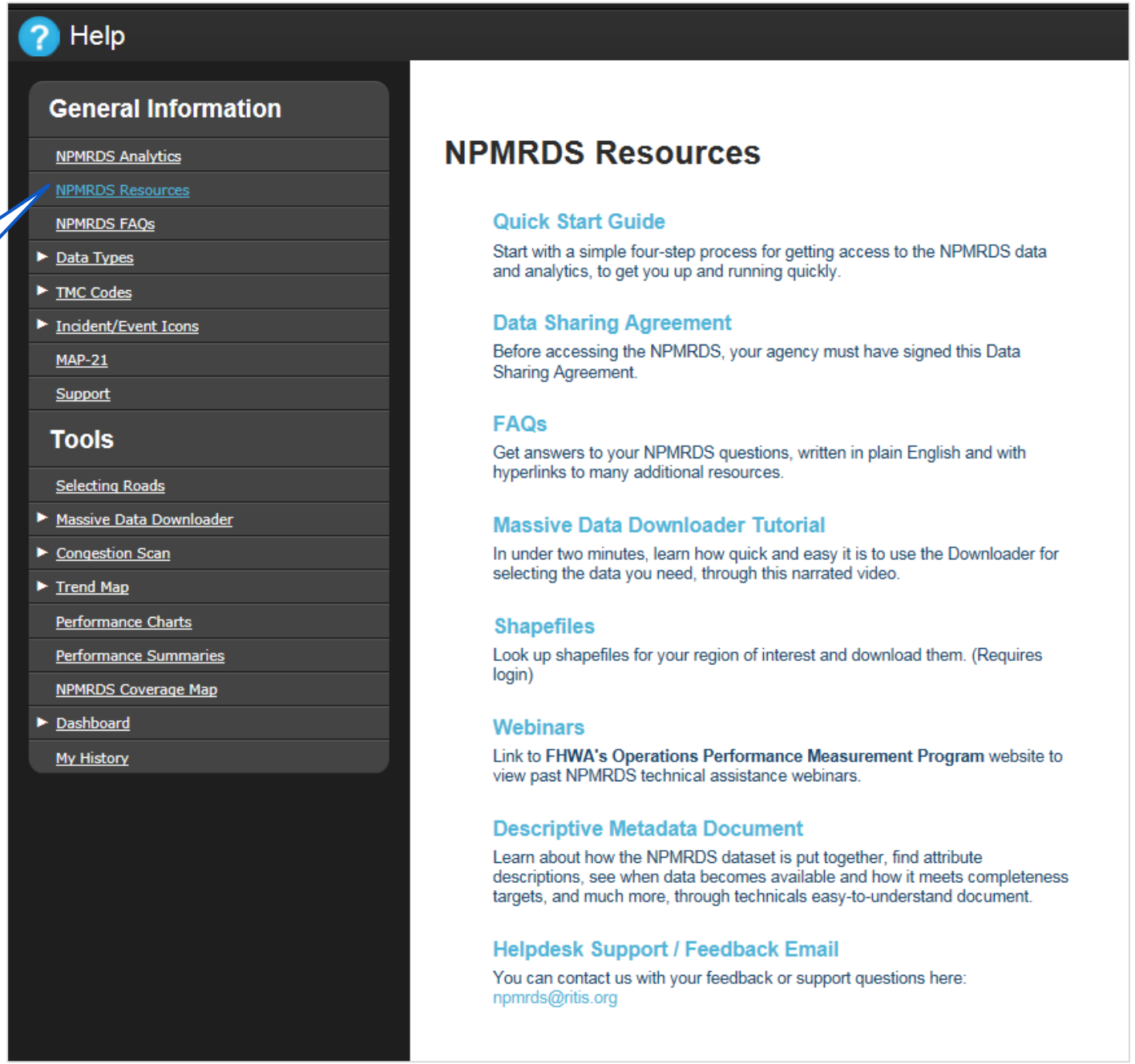
Massive Data Downloader video



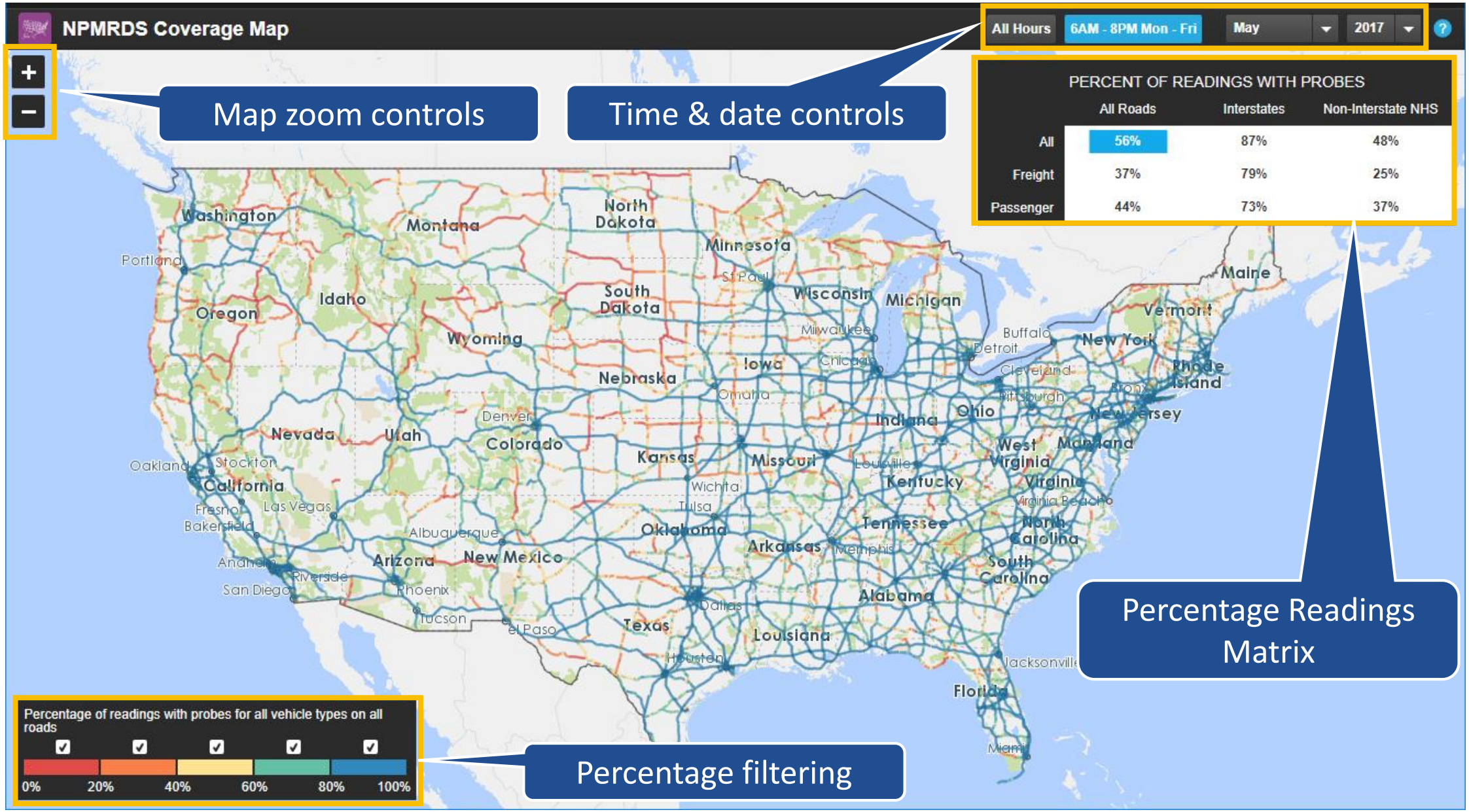
https://npmrds.ritis.org/analytics/tutorials/

NPMRDS resources

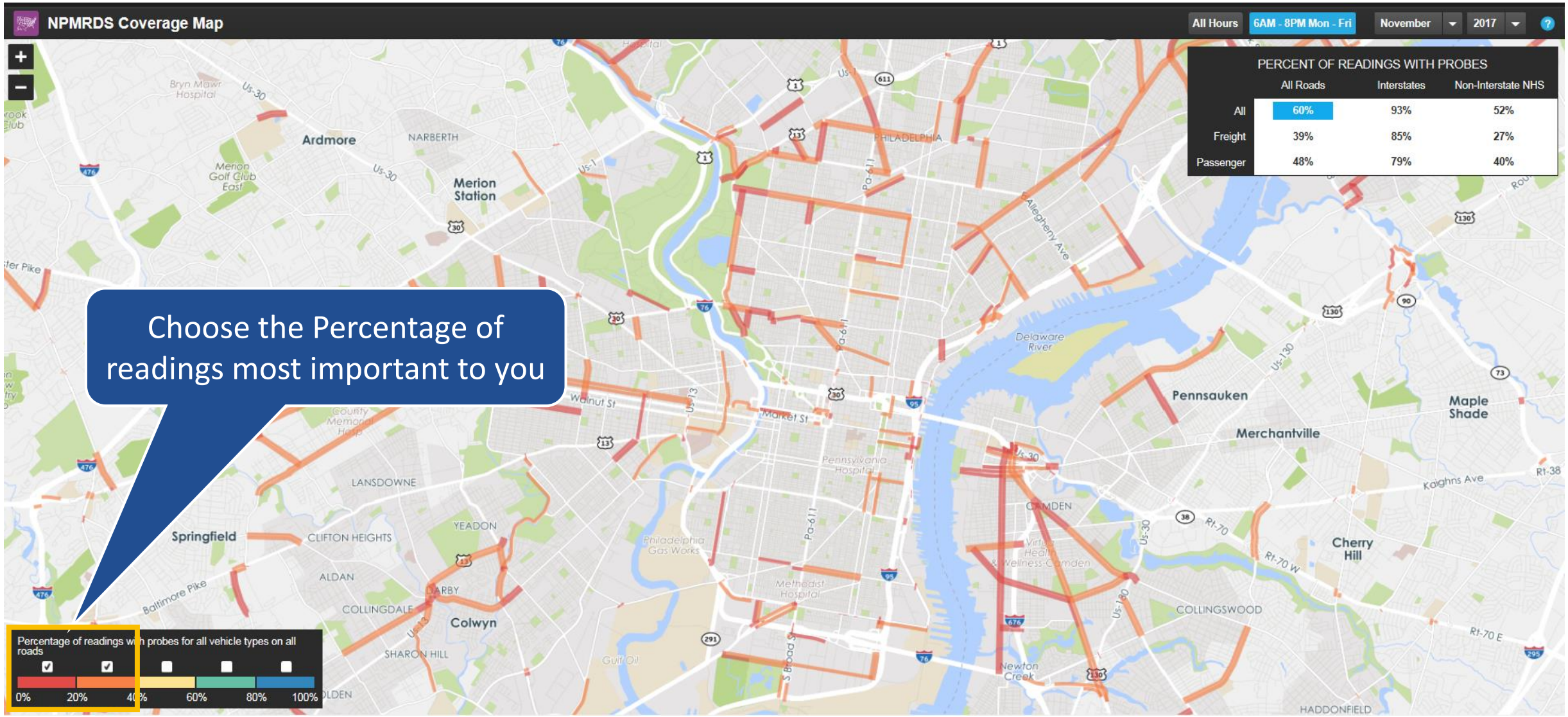
https://npmrds.ritis.org/analytics/resources



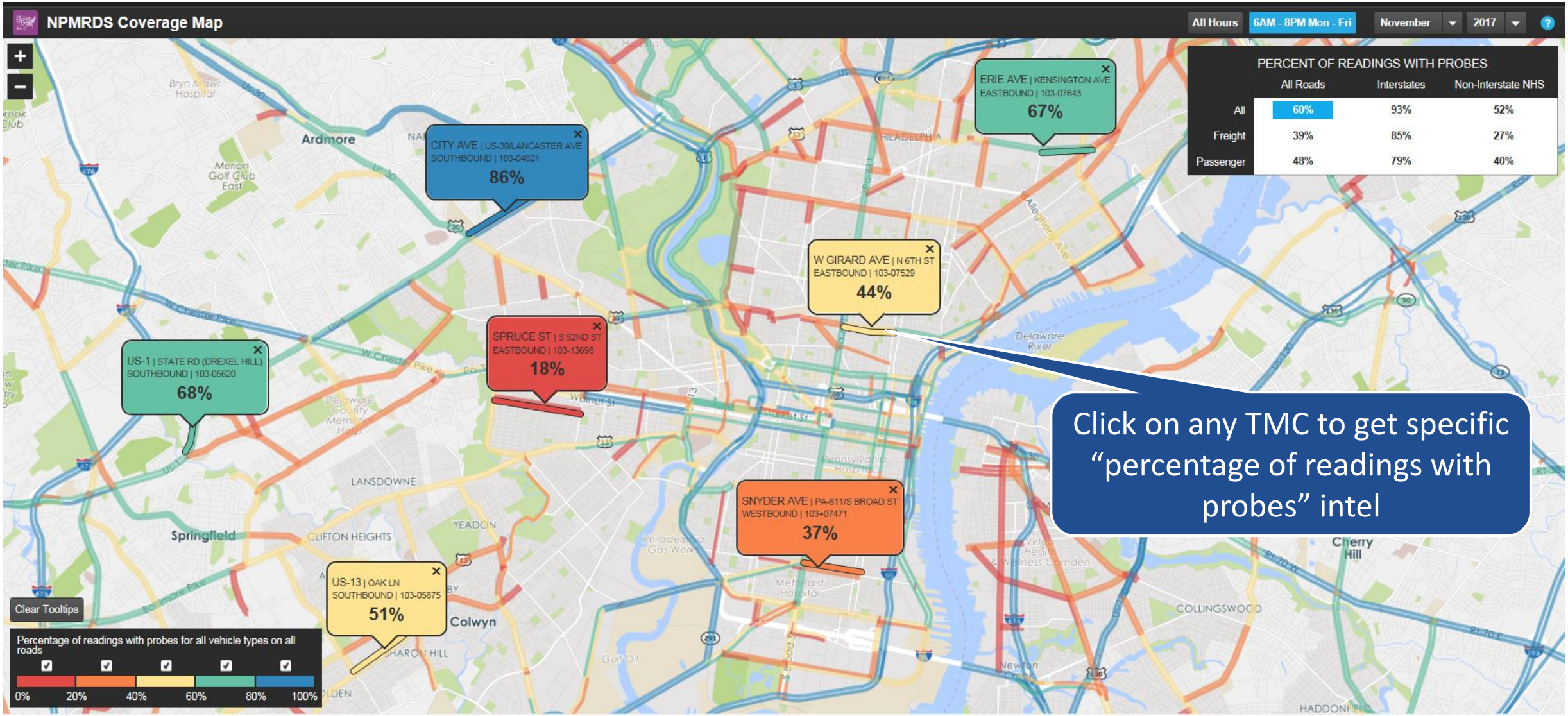
Explore the interactive NPMRDS coverage map



Filter the Percentage of readings



Highlight Individual TMC percentage of readings

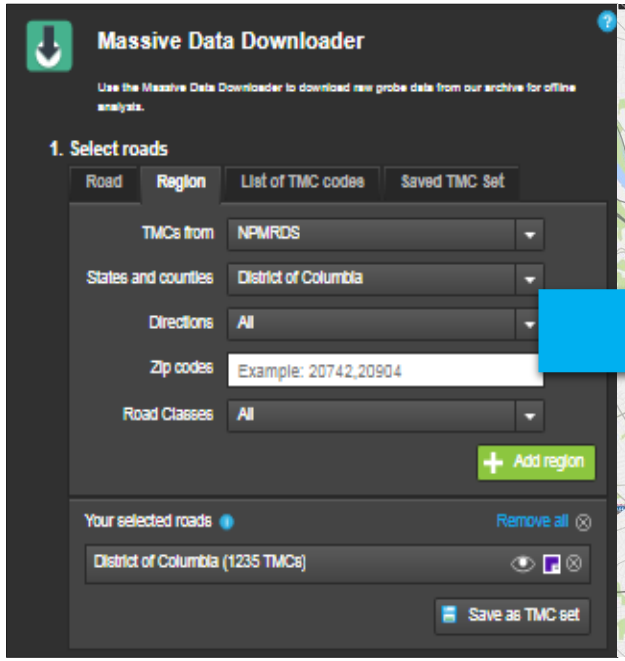


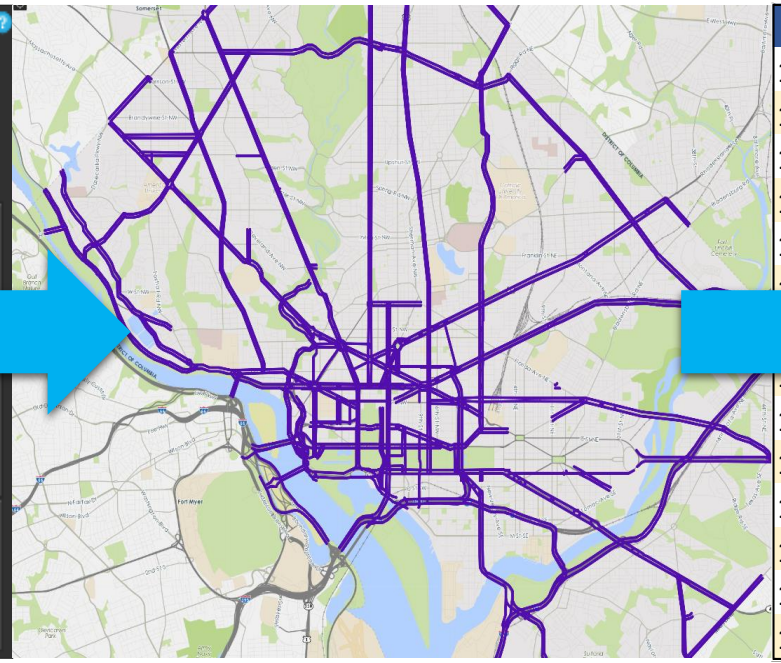
Acquire data using the Massive Data Downloader

1 Query your geography

2 View your selections

3 Receive your results*



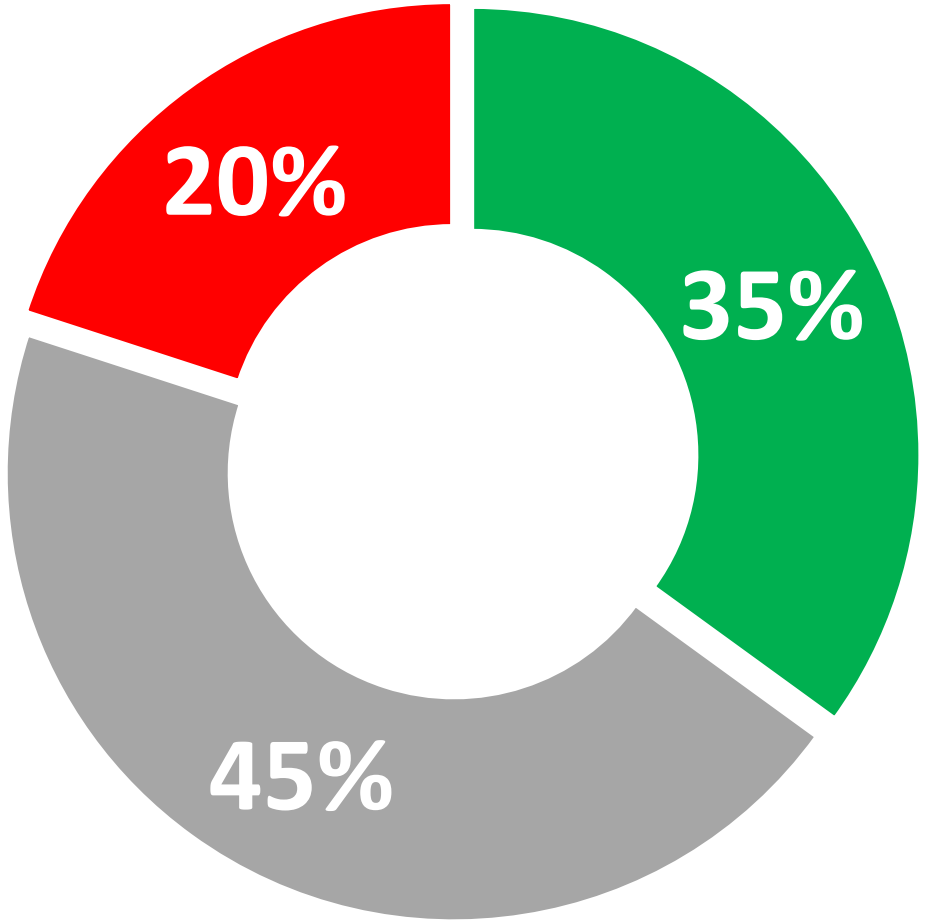


tmc_code	measurement_tstamp	speed	travel_time_minutes
110N10120	6/19/2017 6:00	14	0.03
110-06853	6/19/2017 6:00	4	7.17
110+10195	6/19/2017 6:00	15	2
110+10747	6/19/2017 6:00	27	0.26
110-06831	6/19/2017 6:00	13	4.95
1[illegible]04275	6/19/2017 6:00	53	0.75
1[illegible]46	6/19/2017 6:00	22	0.31
1[illegible]10730	6/19/2017 6:00	8	6.47
110P06547	6/19/2017 6:00	27	0.01
110P05756	6/19/2017 6:00	37	0.25
110+04324	6/19/2017 6:00	39	0.92
110P05835	6/19/2017 6:00	35	0.16
110-04334	6/19/2017 6:00	49	0.59
110+07833	6/19/2017 6:00	36	0.37

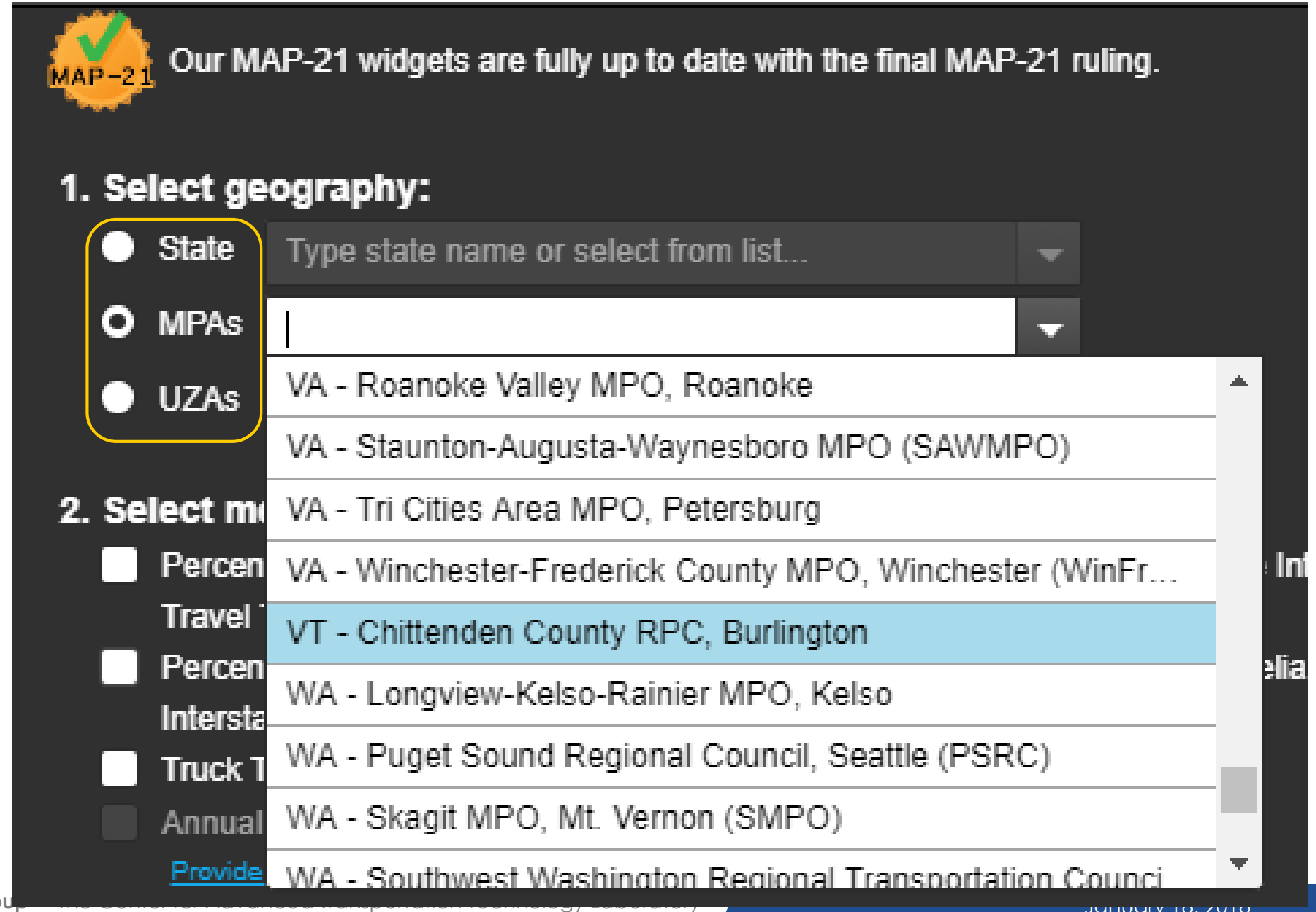
* - when your results are ready, you'll receive notification via email, or go to **My History**

Instant Poll Result (from the 12.14.17 PDA Suite User Group meeting)

"Has your agency begun to use PDA Suite tools for the MAP-21 measures?"

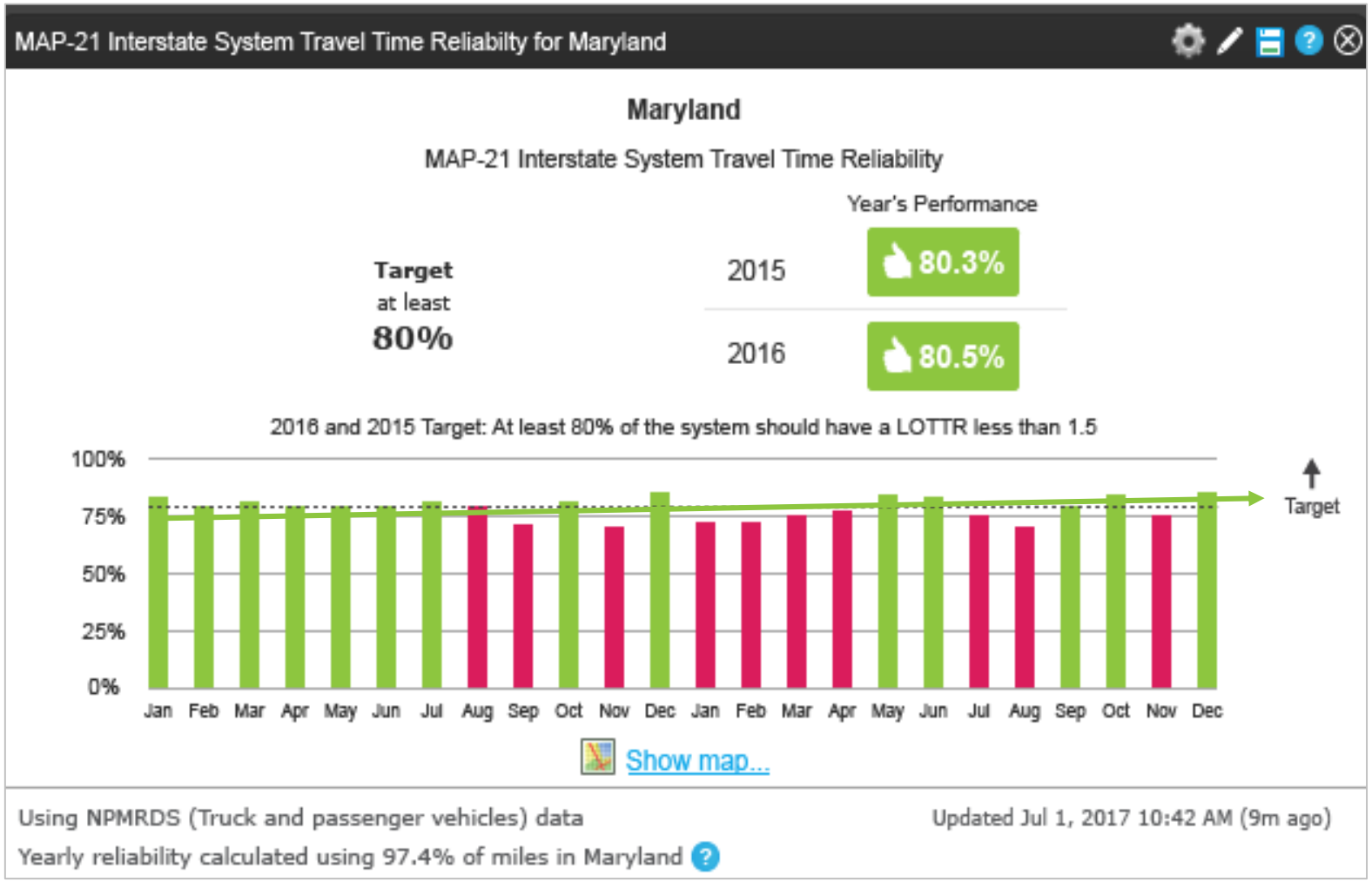


Selecting Your Geography



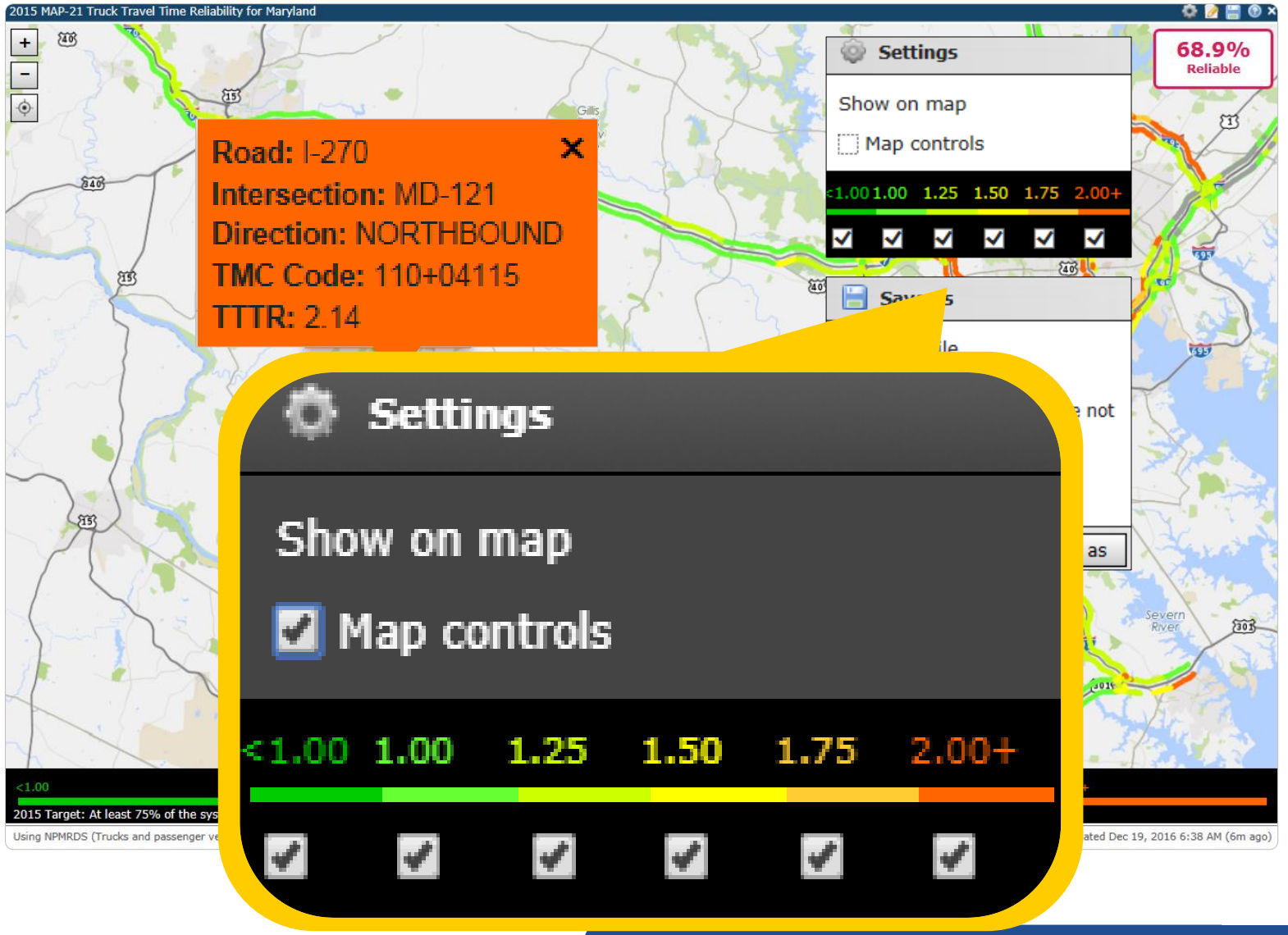
Graph widgets visualize performance to your pre-selected target

- Newly deployed features include:
  - Expanded timeline for multi-year comparisons
  - Auto-generated trendline to aid in target-setting



Map widgets visualize interactive TMC segments

- Features include:
  - Filter by performance thresholds
  - Export the data behind the map
  - Create comparative dashboards (state vs MPO)



Federal report generation just got EASY

- Tabular results will be generated in the required reporting format through an "easy button”
- This allows agencies to immediately create all of the necessary files and deliverables for submission to FHWA with one click

Just a reminder…

For those states that have previously purchased RITIS / PDA Suite:

THERE ARE NO ADDITIONAL COSTS TO YOUR STATE FOR THE NPMRDS v2 / MAP-21 ANALYTICS

these data and tools are already available to you

Getting Access to MAP-21 tools

› If you are NOT a RITIS/PDA customer, here is how you get access…

First, choose up to three levels of analytical capability

Basic Service

MAP-21 Analytics

The MAP-21 Analytics package provides **all you need to meet PM3 requirements**. This is the minimum cost to your agency.

Option A

Additional NPMRDS Data

You can **add INRIX NPMRDS data** (NHS only) from Jan. 2016 through Jan. 2017 to support target-setting and trend analysis.

Options B/C

Advanced Analytics

You can also **add NPMRDS Advanced Analytics** for deep-dive analytical capabilities for your NHS, OR for full coverage of your entire TMC network.

Next, choose a **Funding Option…**

Pooled Fund Study

For more information on pricing and how to become a Pooled Fund Member:

Contact Matt Hardy mhardy@aashto.org

Direct with UMD/CATT Lab

The University of Maryland CATT Laboratory can offer the same options as are available in the pooled fund study, plus additional options for work zone management, agency incident data fusion, WAZE data integration, and more. For more information on pricing and options:

Contact Michael Pack PackML@umd.edu

Direct with INRIX®

INRIX can offer all of the options listed above plus additional real-time or near-real-time data and features. For more information on pricing and options:

Contact Rick Schuman rick@inrix.com

Through the I-95 Corridor Coalition

The I-95 Corridor Coalition has identified a channel to enable members to access the MAP-21 PM3 tools. For more information:

Contact Patricia Hendren phendren@i95coalition.org

MPOs, save the date

MAP-21 PM3 Analytical Tool Set Demonstration
Tuesday, January 23rd, 2018
2pm Eastern

The webinar will also demonstrate a greater level of analytical capabilities that can be used by MPOs for:

- internal and external communications,
- enhanced target setting insights,
- decision-making for both planning and operations, and
- outreach support

For more information, contact AMPO staff at staff@ampo.org

AMPO

Thanks!

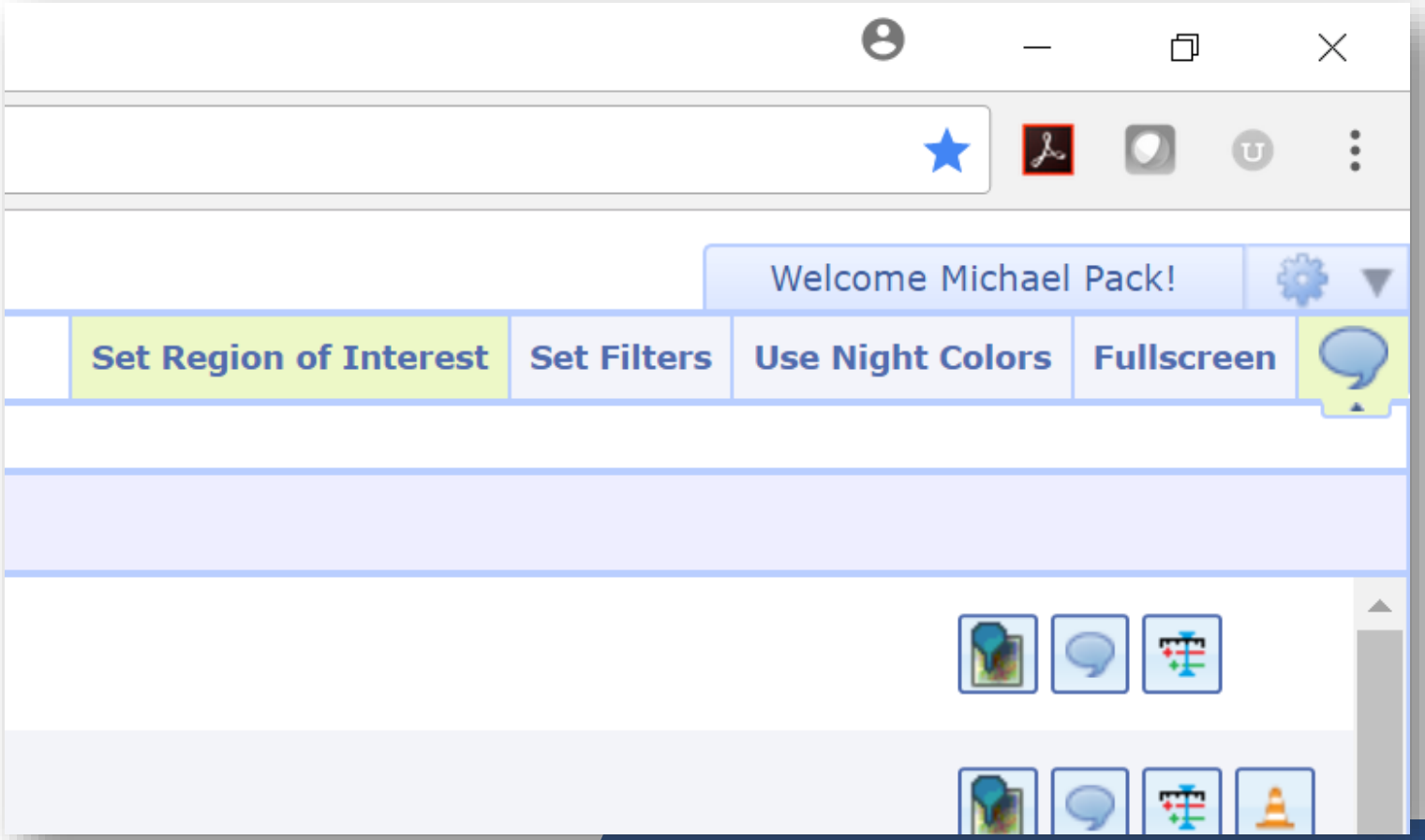
For more information, please contact:

Michael Pack, Director
The Center for Advanced Transportation Technology Laboratory
packml@umd.edu | 240.676.4060

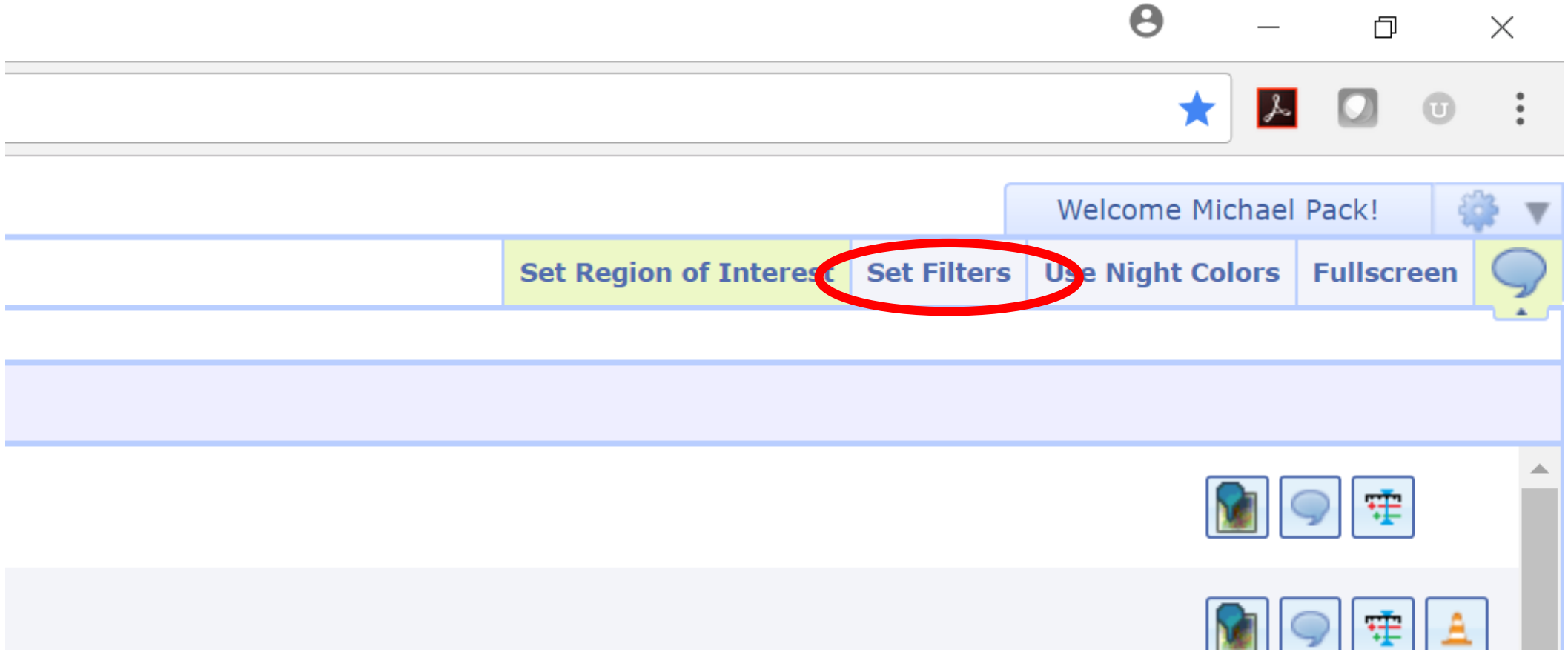
Pack's Pointers

Features you may not know about….

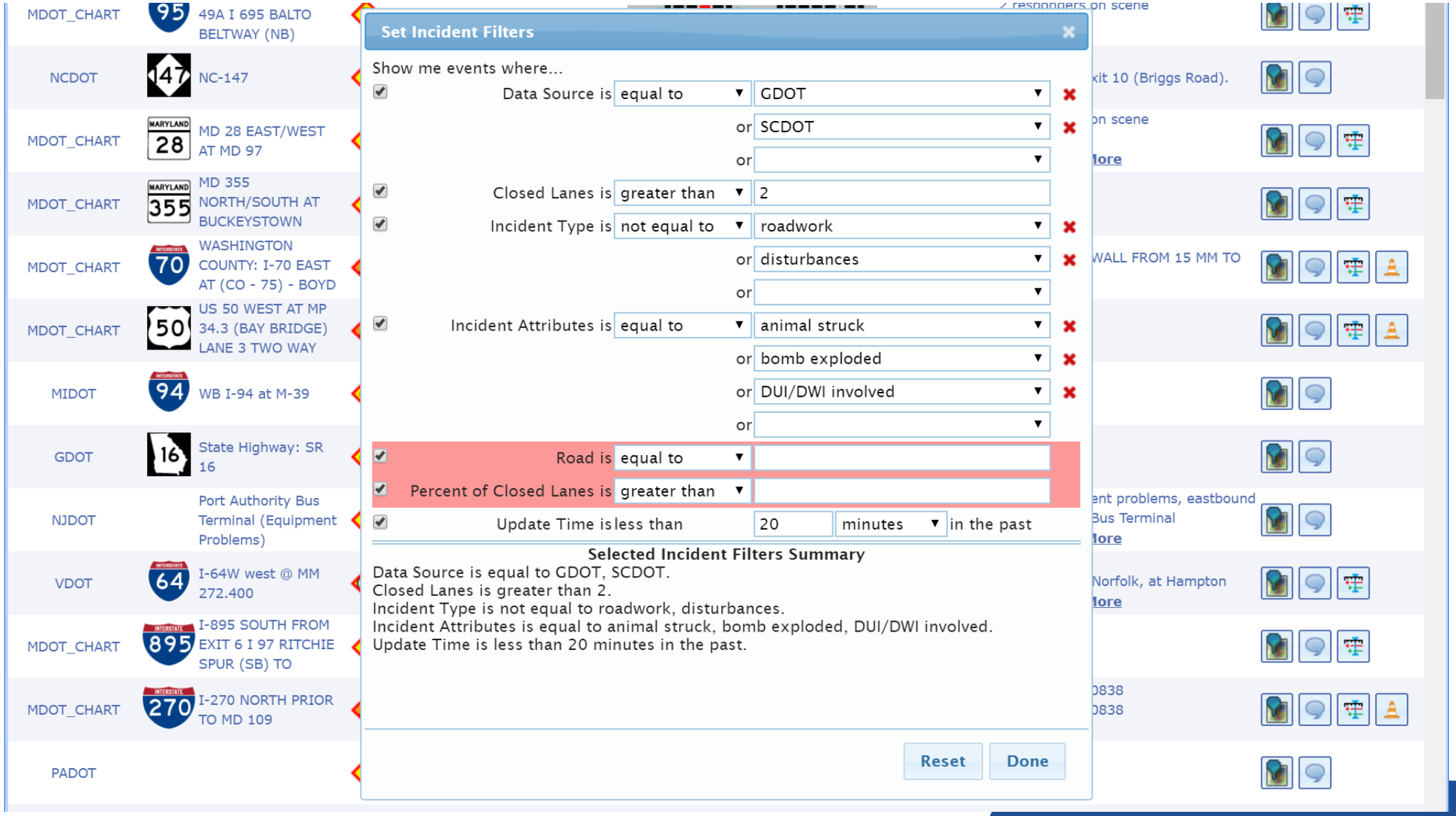
- Map & Incident List Filters
- Region of Interest
- RITIS Meeting Access



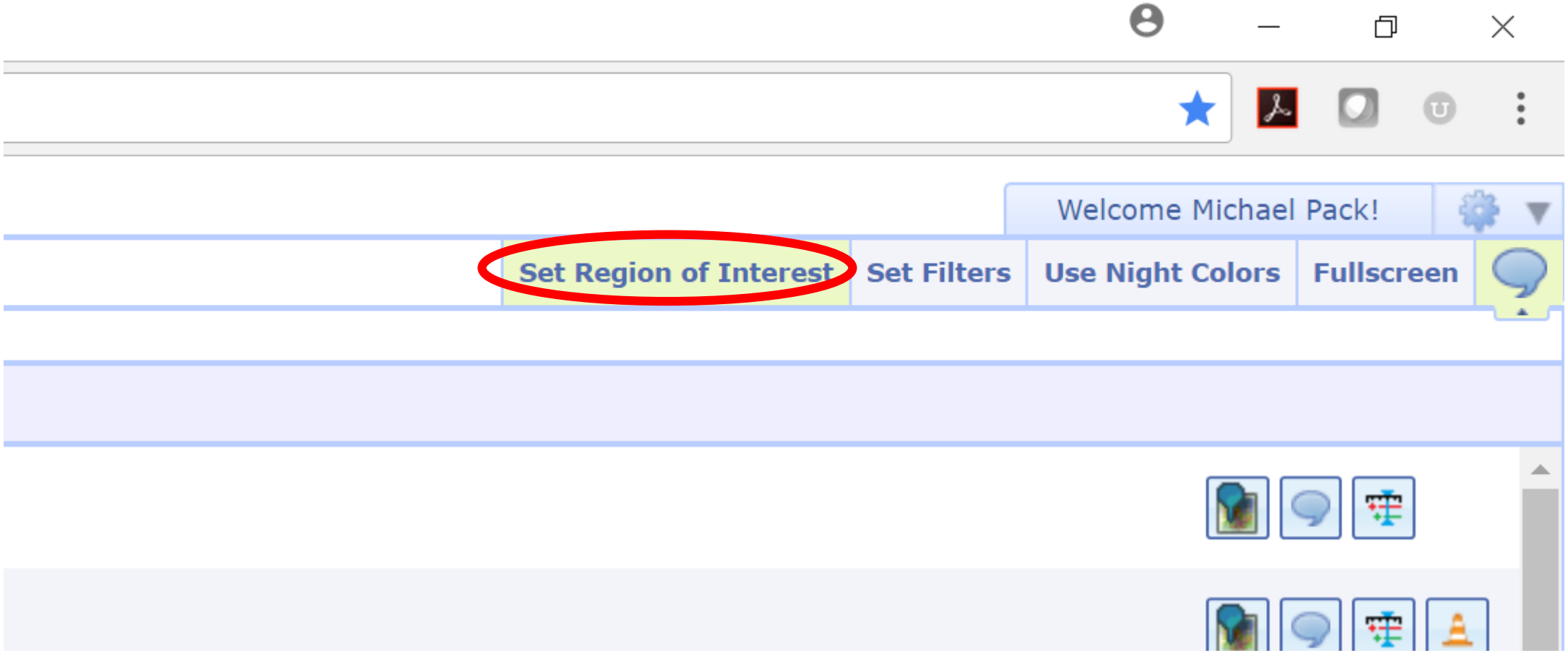
Map & Incident List Filters



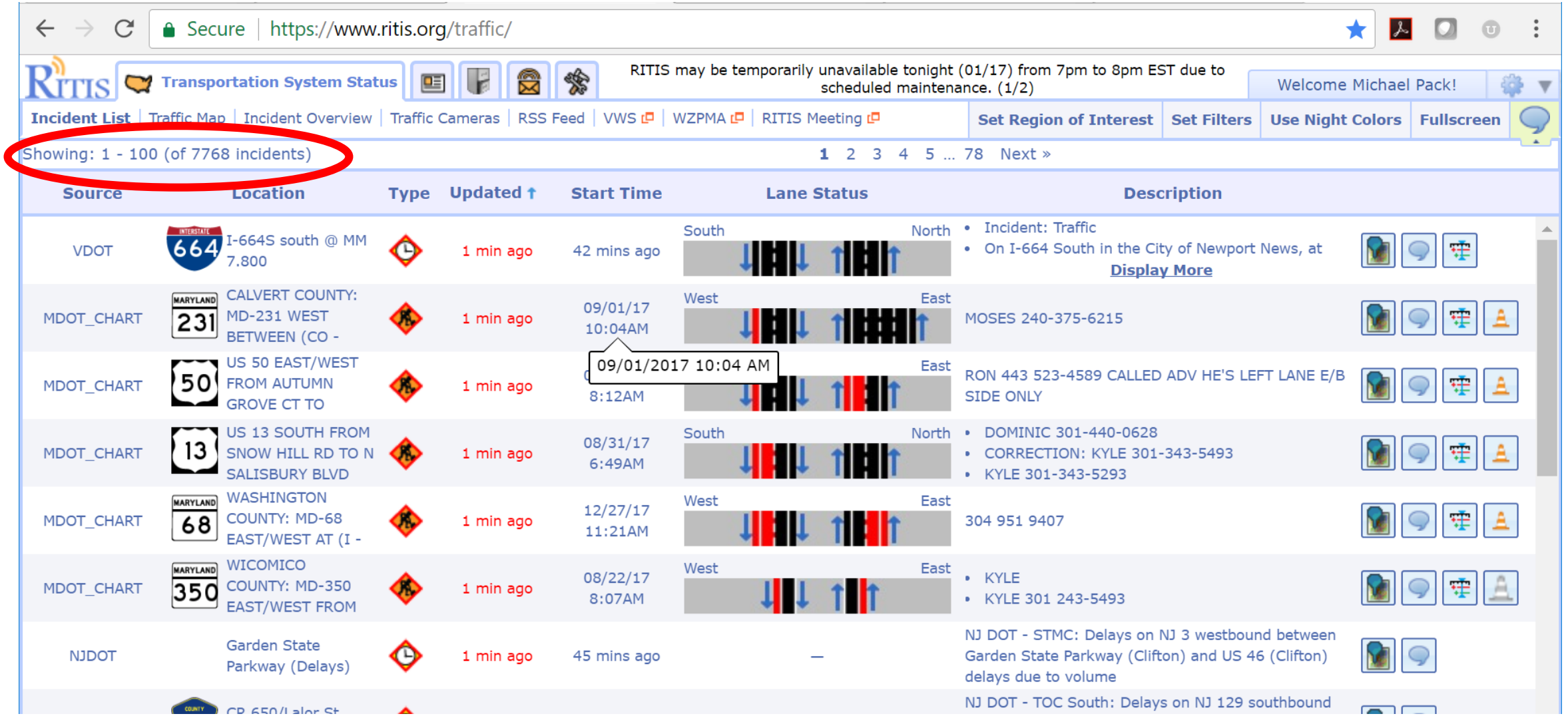
Map & Incident List Filters



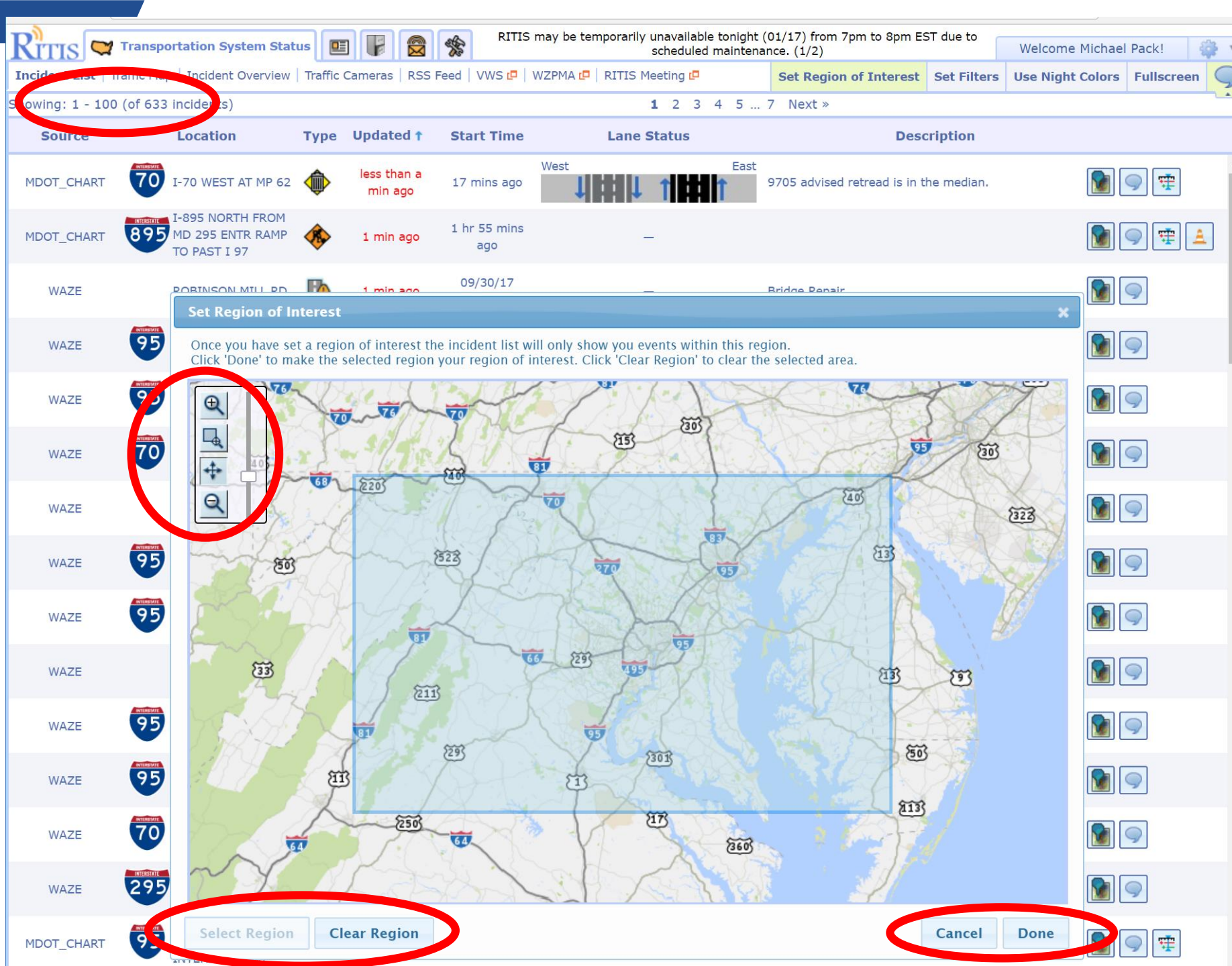
Region of Interest



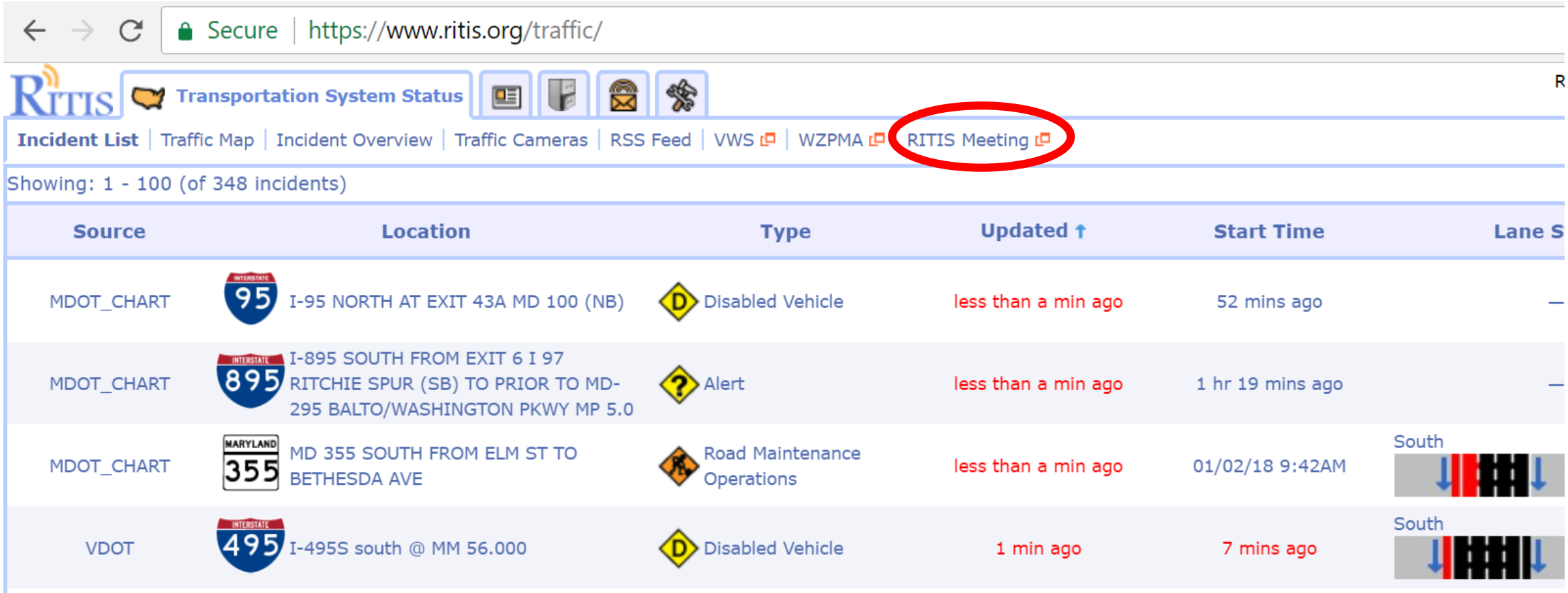
Region of Interest



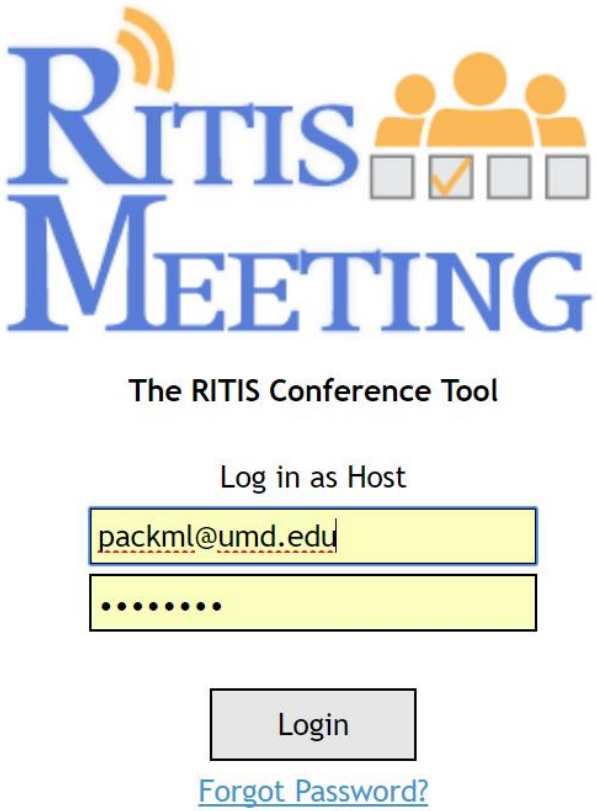
Region of Interest



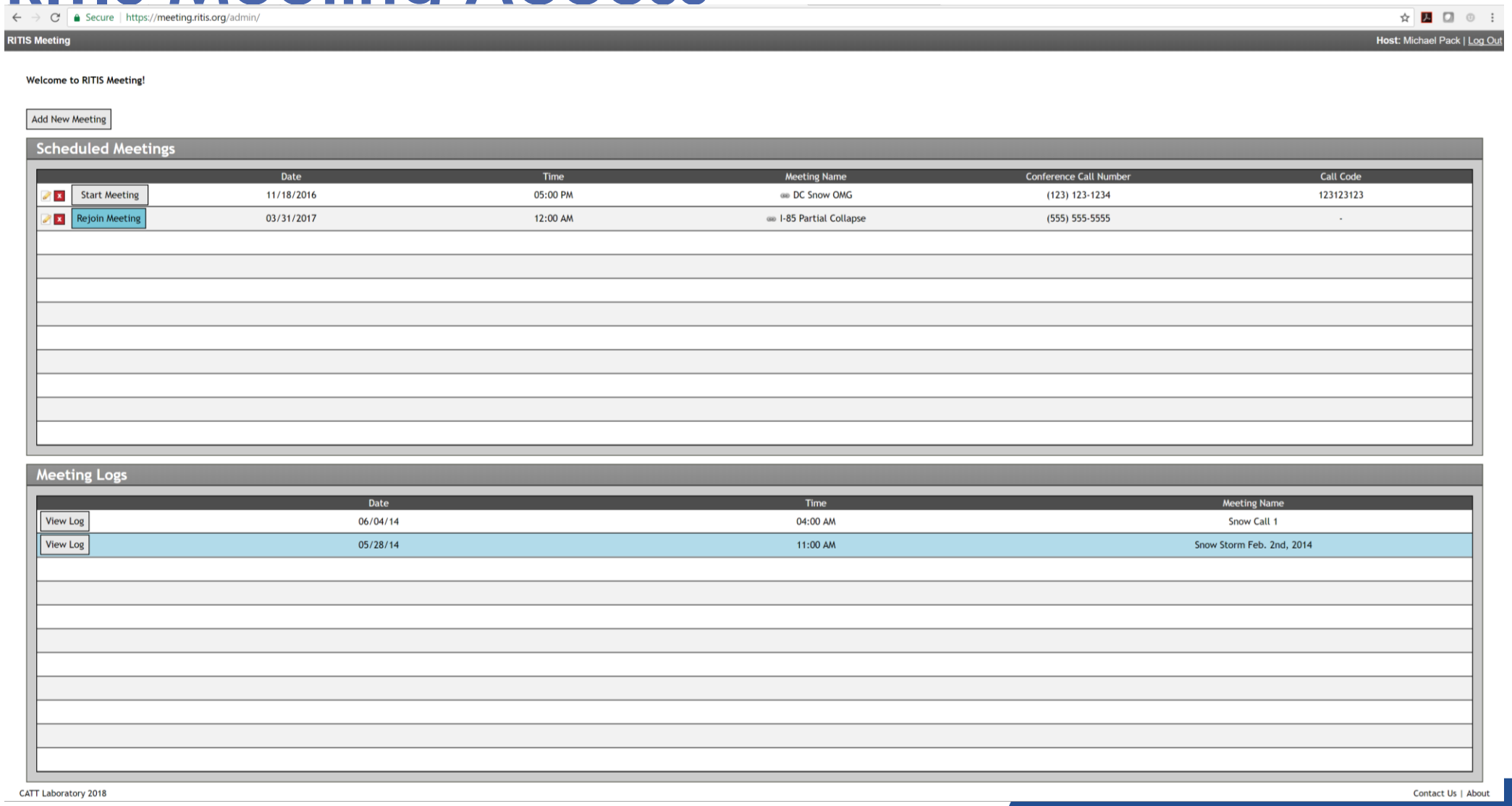
RITIS Meeting Access



RITIS Meeting Access



RITIS Meeting Access



In the spotlight…

Using RITIS for Extreme Weather "Bomb Cyclone" Nor'easter

Taran Hutchinson, MATOC Facilitator

MATOC
Metropolitan Area Transportation Operations Coordination

By the numbers…

- Formed January 2, 2018; dissipated January 6, 2018
- Top wind speeds of 90 mph
- Highest gust was 126 mph
- Max. of 24 in of snowfall; 0.5 in of ice
- 300,000 power outages
- 22 confirmed fatalities

The MATOC Perspective

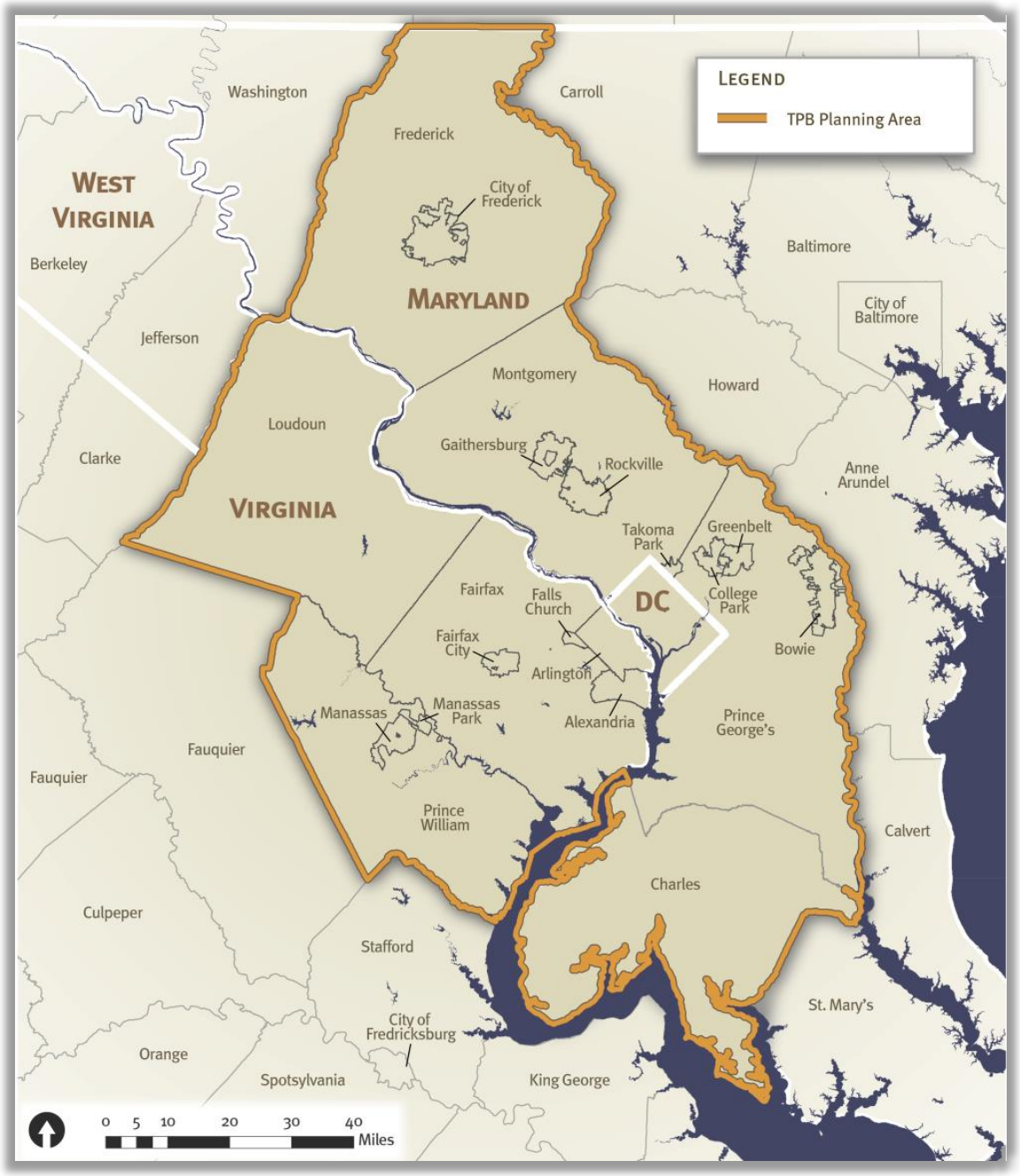
MATOC
Metropolitan Area Transportation Operations Coordination

"Working together to reduce incident-related travel delays through improved coordination, cooperation and information sharing."

- The Metropolitan Area Transportation Operations Coordination (**MATOC**) is a **joint operations program between DDOT, MDOT, VDOT, & WMATA** to improve inter-agency information sharing and coordination
- MATOC's mission is to provide **situational awareness** of transportation operations in and around the National Capital Region (NCR)
- **Focuses on DOT Operations** and Traffic Incident Management issues
- Works with **DOT Maintenance** representatives to **improve coordination efforts in advance of, during, and after severe weather events**
- **RITIS** serves as MATOC's core system to **monitor transportation conditions** in and around the NCR

The MATOC Perspective

- **National Capital Region (NCR)**
  - Approximately **3,500 square miles**: District of Columbia, Suburban Maryland, and Northern Virginia
  - Population: **5+ million people**
  - **Home to the Federal Government**
  - Civilian Labor Force: **3 million jobs**
    - **350,000+ federal jobs**
    - **300,000+ state and local jobs**
  - **3** state DOTs
  - **22** area local governments
  - **30+** transportation agencies
  - **100+** public safety agencies
  - Consistently ranked **as one of the most congested urban areas** in the nation

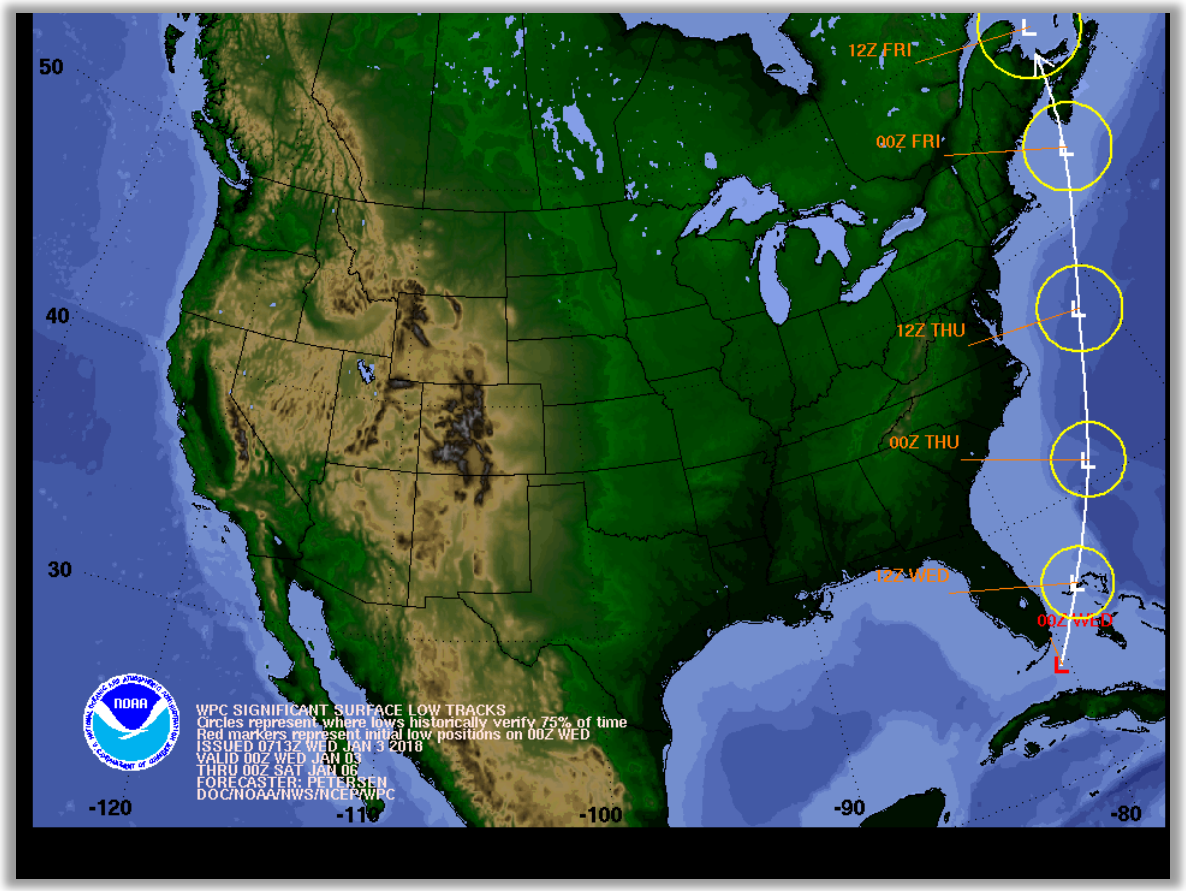


What Works, What Doesn't

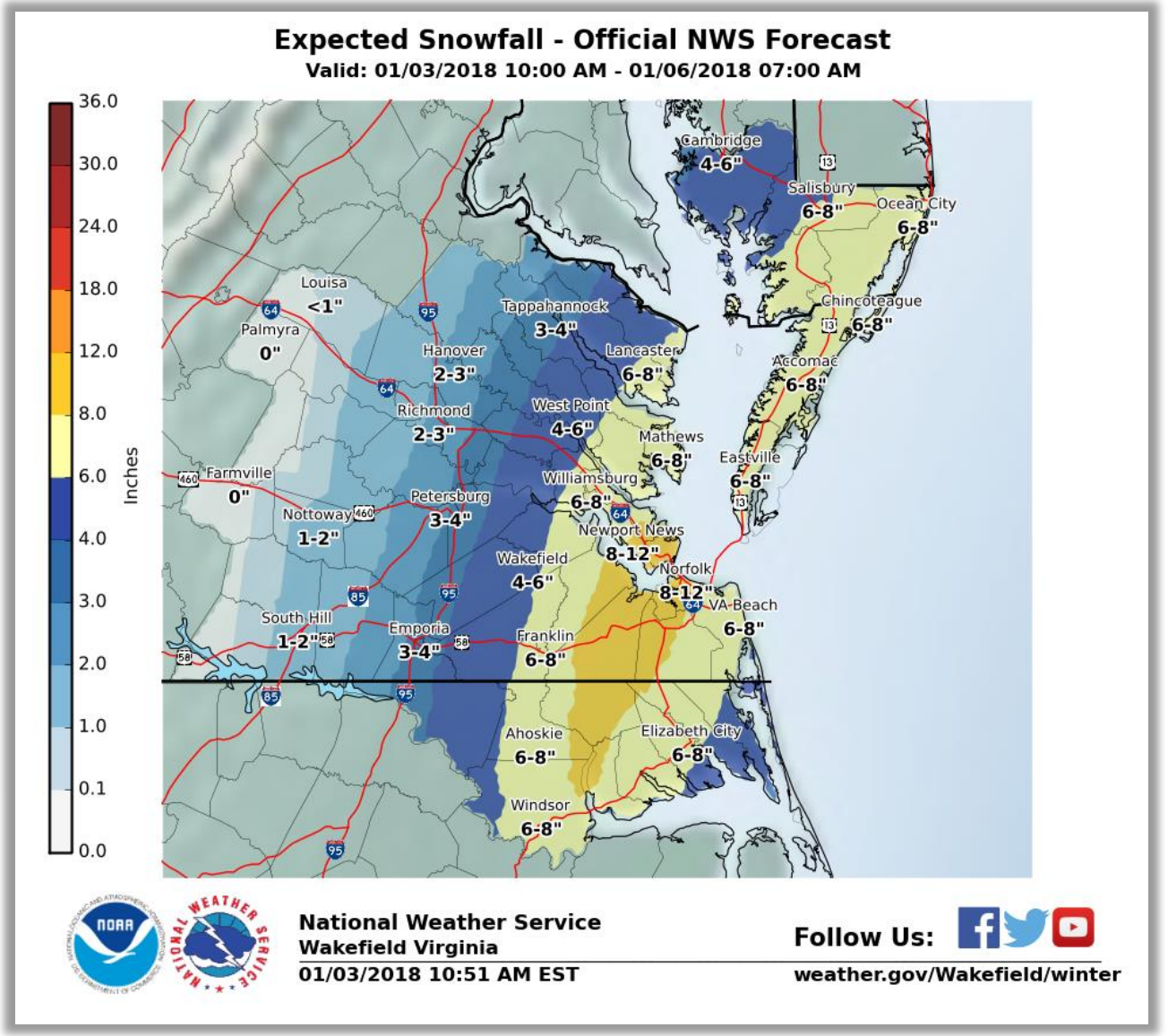
- **NWS:** The Nation Capital Region presents a **challenging area to forecast** given its geography
- **Regional Weather Call** assists with decision making process (typically 3AM)
  - **Federal, State, Local** partners report out on their mobilization/response plans and provide status of their infrastructure **(200+ people)**
  - **Discuss demand management strategies** to get commuters to/from work and expedite recovery operations
  - **US Office of Personnel Management (OPM)** provides guidance on status of Federal Government within the DC Metro Area
    - **Most Federal, State, Local jurisdictions follow OPM's guidance**

- **MATOC provides an opportunity** for OPM/NWS to gather additional information from the area DOTS **to improve the decision making process**

National Weather Service Forecast for January 4, 2018

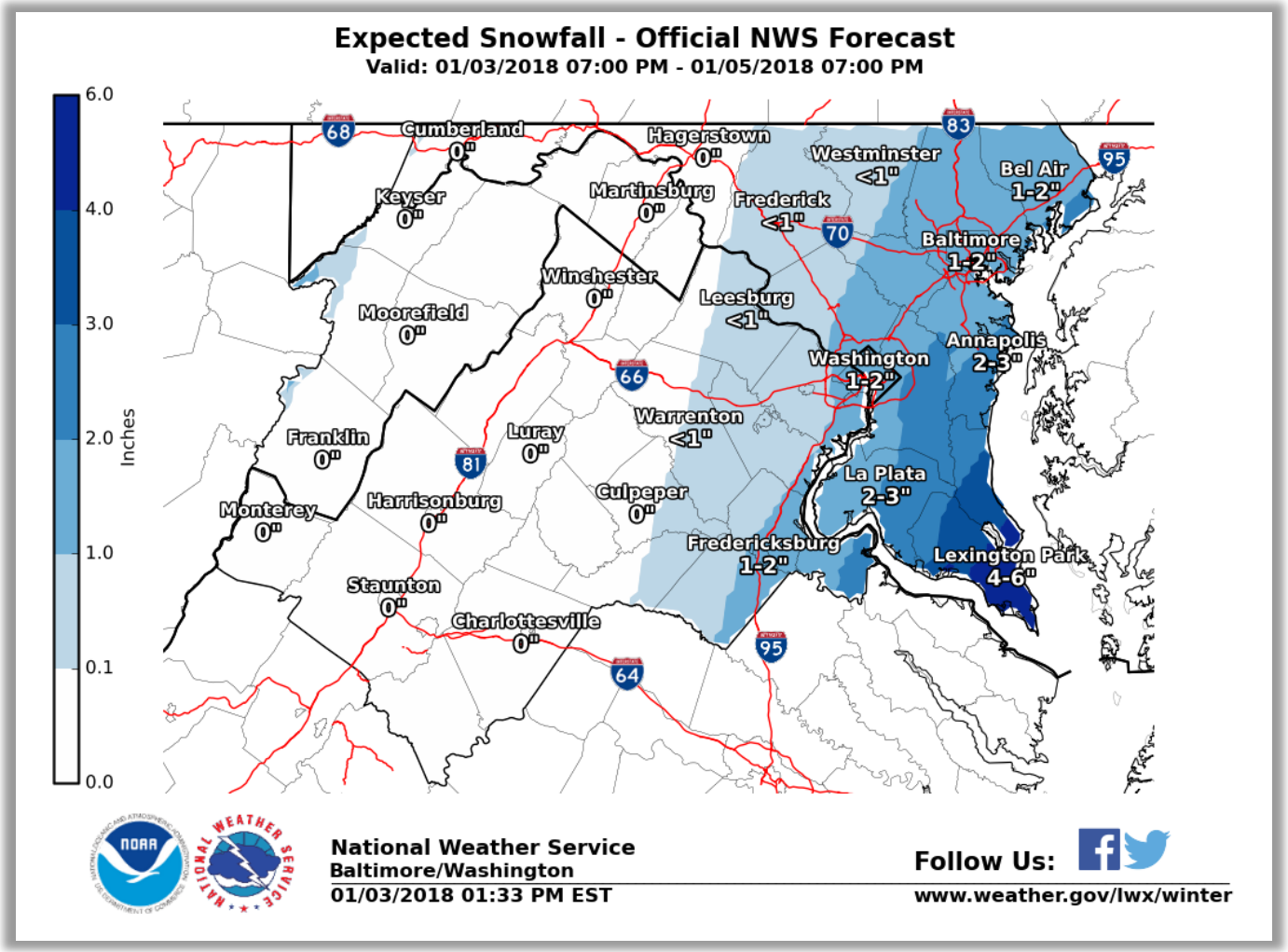


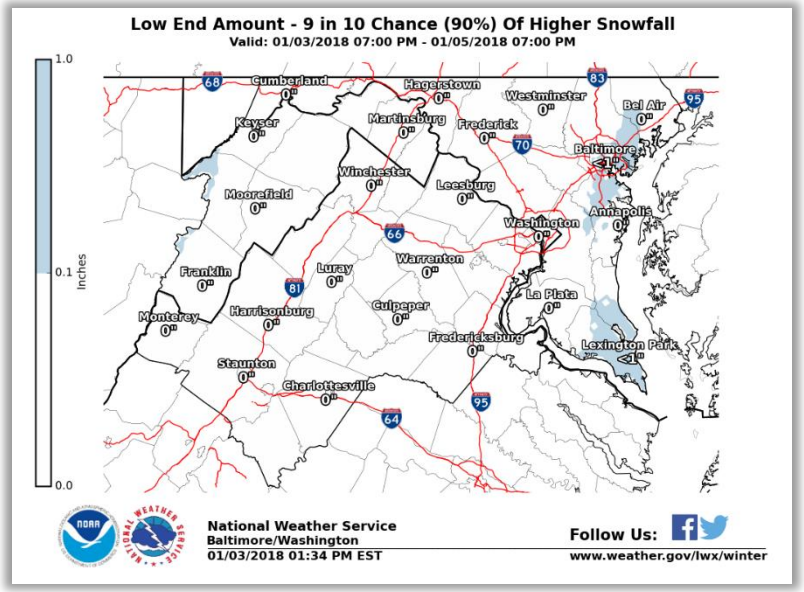
Projected Storm Track
"Coastal Storm/Nor'easter"

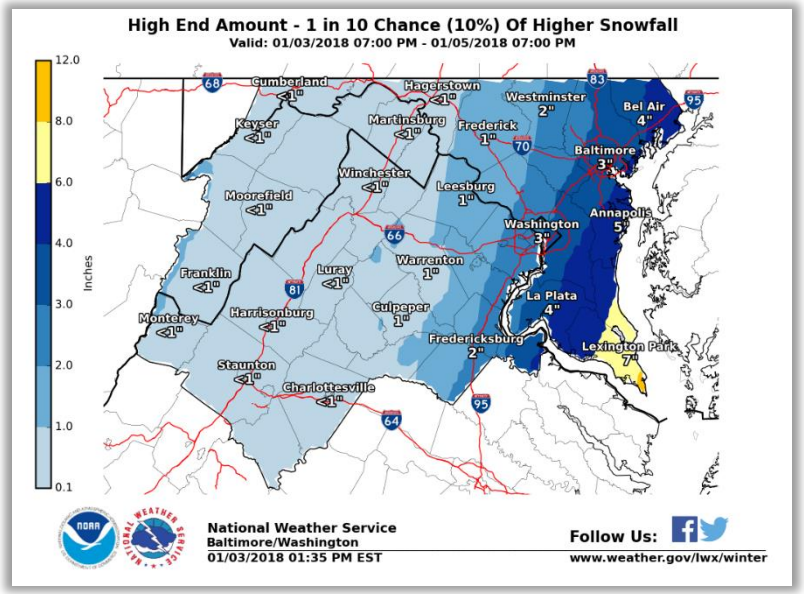


National Weather Service Forecast

› A Coastal Snow/Wind Event for January 4th (primarily east of I-95)

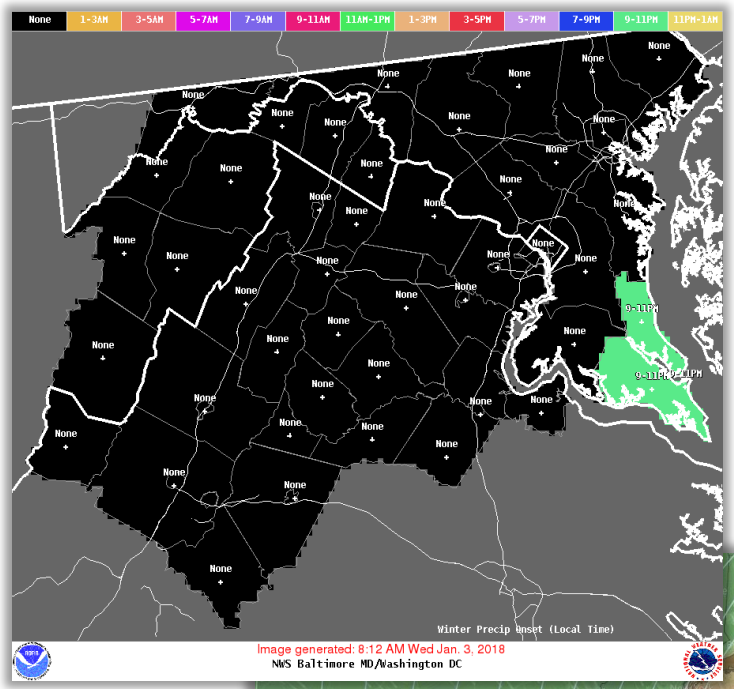


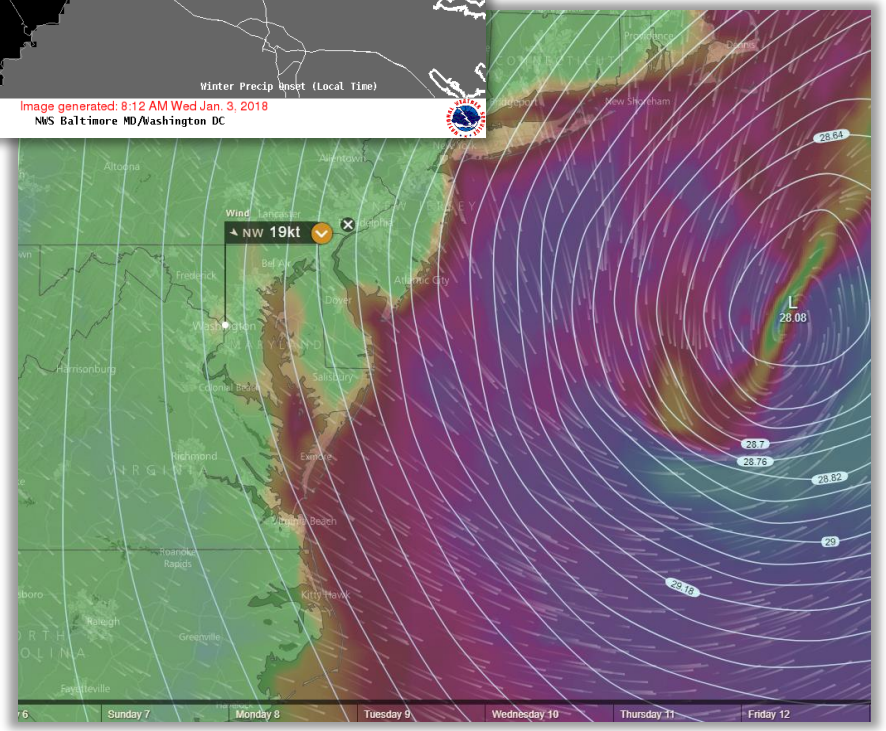




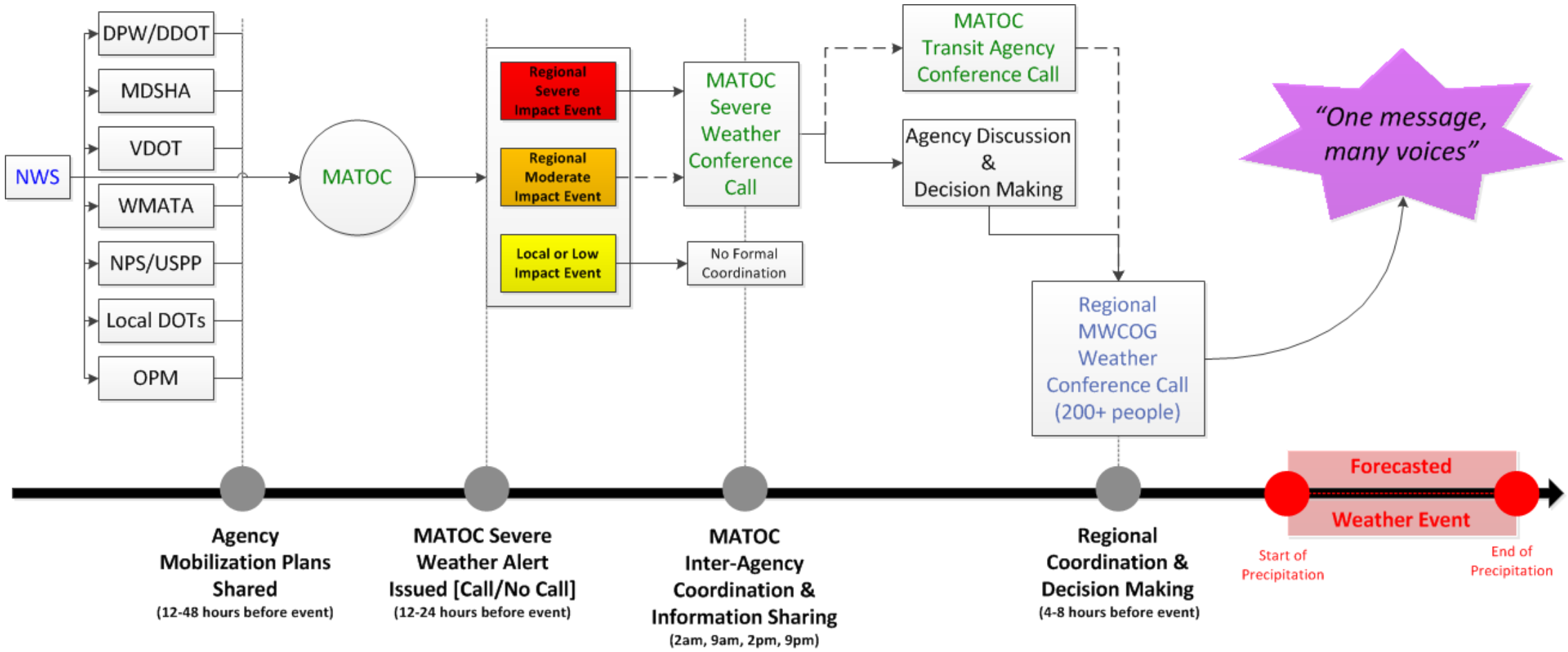
Issues & Concerns

- **Timing**
  - When will the system arrive?
  - Impacts to morning and/or afternoon rush
- **Temperatures**
  - Status of pavements/sidewalks after a prolonged cold snap
  - Refreeze issues expected at sunset
- **Wind Speeds**
  - Sustained winds impact high profile vehicles
    - Commercial vehicles, buses, trains, etc
      - 50mph winds impact Metrorail
      - 40mph gusts impact bridges
  - Wind gusts can bring down trees and wires
    - Roadway blockages and power outages
  - Blowing snow may impact recovery efforts

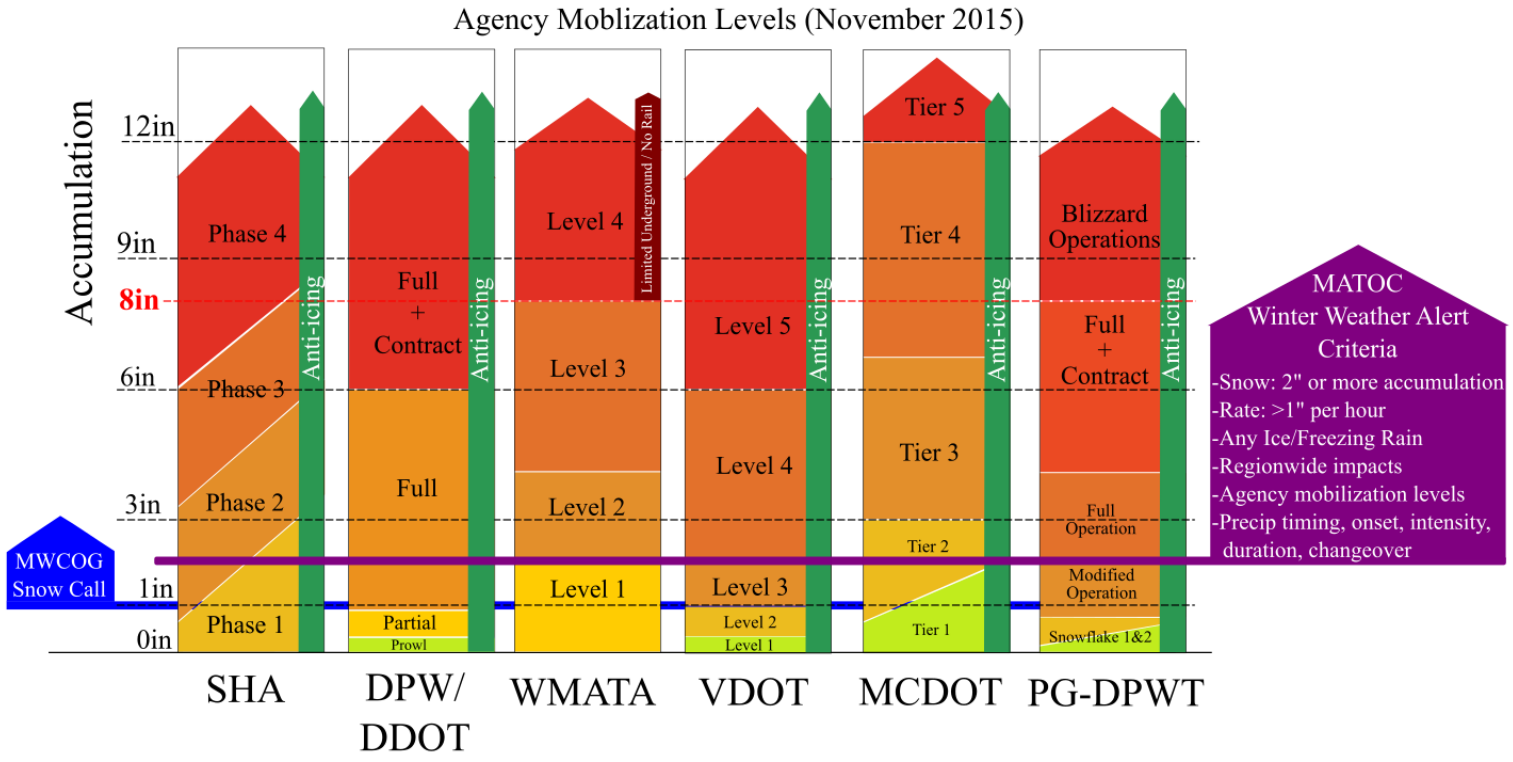




MATOC Severe Weather Coordination Process



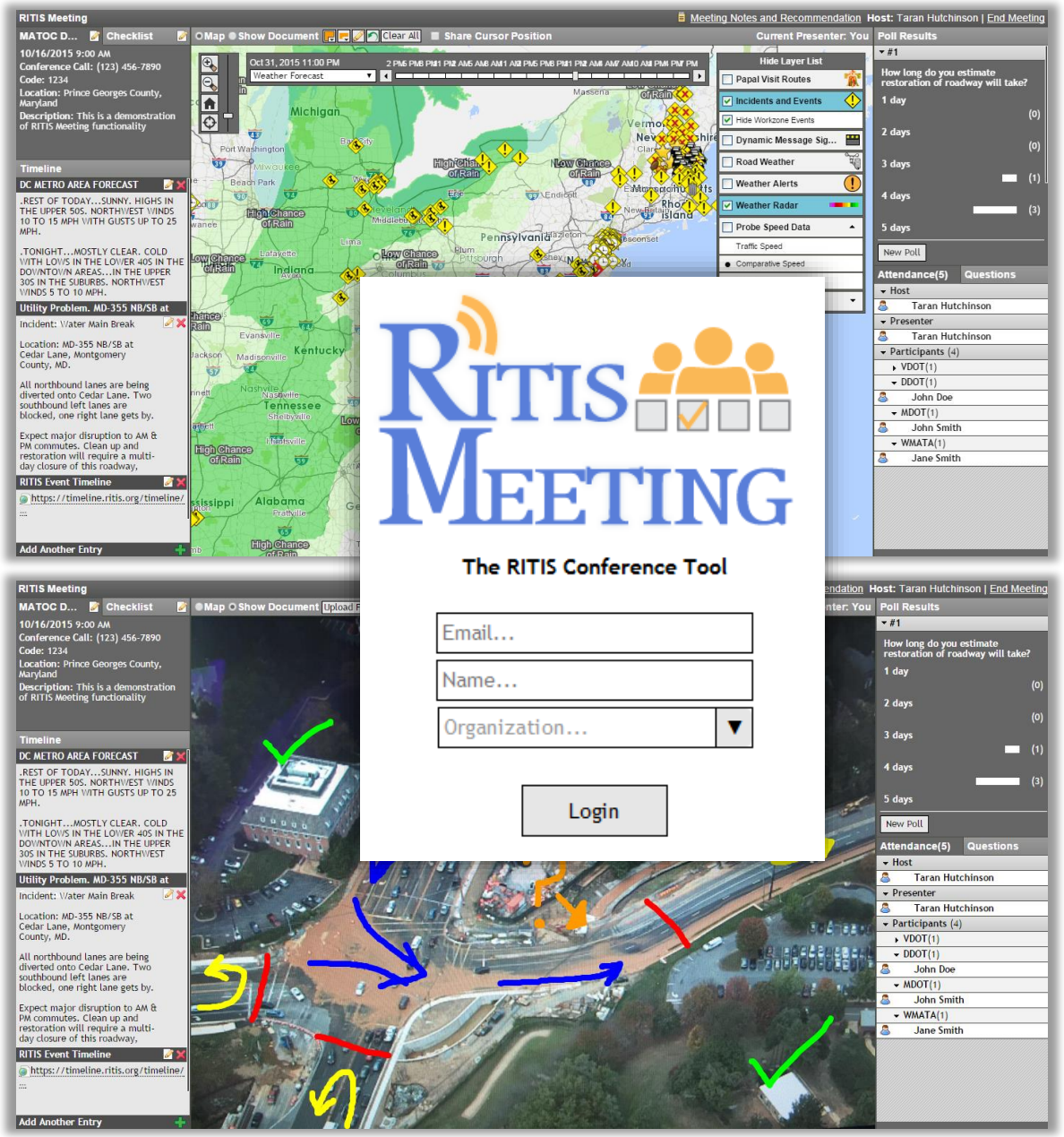
Speaking the same language



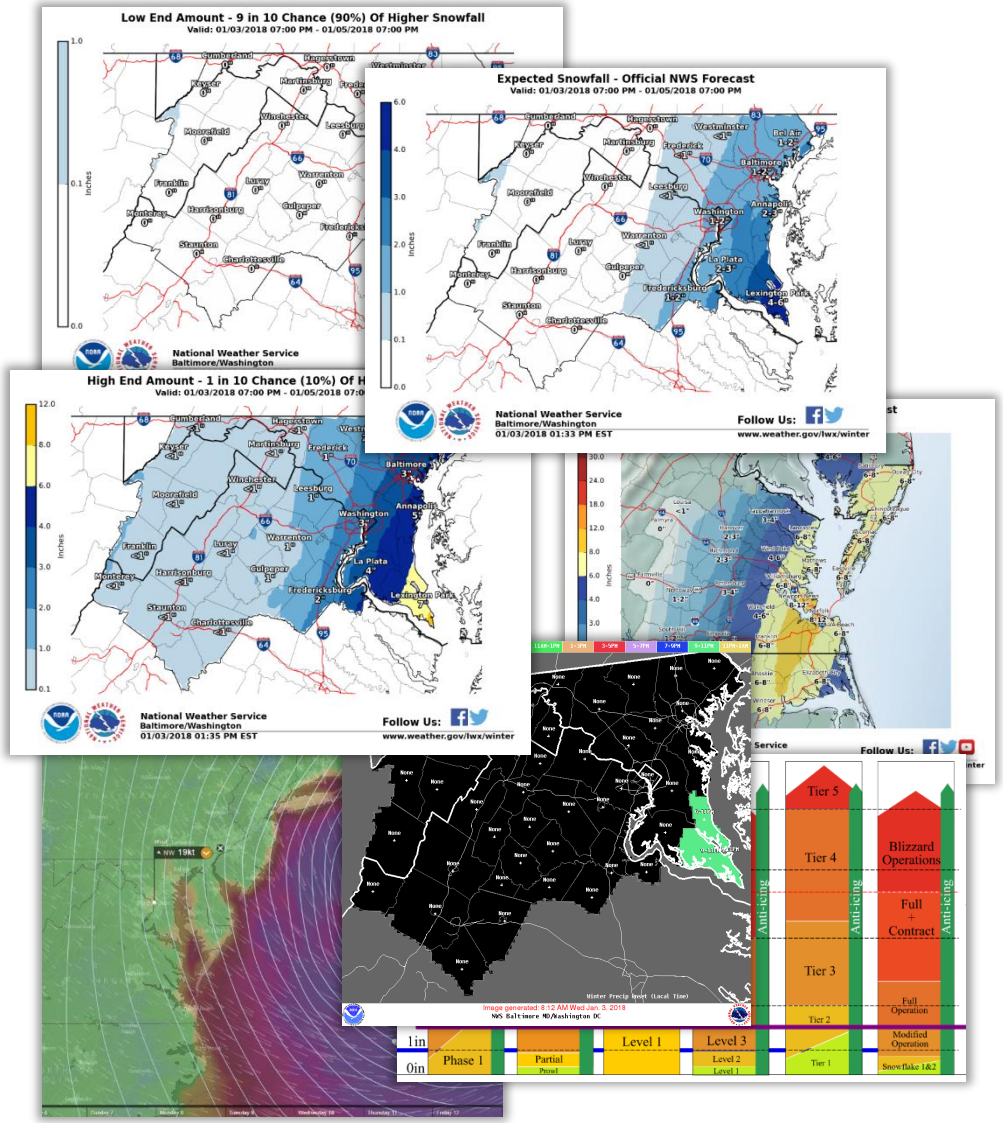
Transportation System Status Levels		Suggested terminology and *PIO templates*
Road Condition 5: IMPASSABLE/ DANGEROUS/ TREACHEROUS Some roads could be **temporarily impassable**. This may be the result of severe weather (low visibility, etc.) or road conditions (drifting, excessive unplowed snow, glare, ice, accidents, stranded vehicles, etc.) Skeletal transit services. Limited above-ground rail service if more than 8" of accumulation. Lane drops in certain sections.		"treacherous","impassable", "dangerous" *Be where you need to be by <time>.* *Get where you need to be before the weather gets bad.* *Stay where you are.*
Road Condition 4: ICY/SNOW PACKED 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.		"unsafe", "impassable" "major delays" *Be where you need to be by <time>. Avoid or postpone travel for next <hours>.* *Stay at the office an extra <hour>, or leave early, to avoid travel during a winter storm.*
Road Condition 3: SNOW AND/OR SLUSH COVERED 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.		"caution", "passable" *Avoid being stranded at bus stops* *Avoid or postpone travel for next <hours>.* *Stay off the roads.* *Stay at the office an extra <hour>, or leave early, to avoid travel during a winter storm.*
Road Condition 2: SNOW / SLUSH COVERED W/ WHEEL TRACKS EXPOSED 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.		"passable" *Avoid discretionary travel. Road crews engaged in clearing activities.* *Curtail "elective" travel. Avoid unnecessary travel.*
Road Condition 1: CLEAR WET/DRY 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.		"passable"

Coordination – RITIS Meeting

- **Simple** web meeting function that:
  - Streamlines call/meeting management
  - Multiple-presenter functionality
  - Interactive mapping, share documents and images, drawing functions
  - Shared view of an event or incident
  - Document meeting minutes
  - Open and transparent decision-making (e.g., real-time polling)
  - **Participants receive a PDF meeting summary at the end of the session**
- Works on all internet browsers
  - **No plugins required**
  - Supports up to 300 participants per session



Coordination – RITIS Meeting Summary



MATOC DOT Weather Call: January 4, 2018 Event (Call #1)

Jan 03, 2018 02:00 PM

Host: Taran Hutchinson
District of Columbia, District of Columbia
MATOC Severe Weather Working Group Conference Call to discuss the forecasted overnight/morning winter weather event expected to impact AM rush on Thursday, January 4, 2018.

Recommendation

Recommend a 3am MWCOG Snow Call on Thursday, January 4, 2018. Request DOTs to brief out on how effective pre-treatment activities have been in anticipation of AM Rush in case we need to consider a new strategy.

Number of Attending Participants 17

Timeline

WASH DC GREATER METRO AREA FORECAST

WASHINGTON DC GREATER METROPOLITAN AREA FORECAST
137 PM EST WED JAN 3 2018

.THIS AFTERNOON...MOSTLY CLOUDY. HIGHS IN THE LOWER 30S. SOUTHEAST WINDS AROUND 5 MPH.

.TONIGHT...CLOUDY. A CHANCE OF SNOW IN THE EVENING, THEN SNOW AFTER MIDNIGHT. TOTAL SNOW ACCUMULATION AROUND AN INCH. LOWS IN THE LOWER 20S IN THE DOWNTOWN AREAS...AND AROUND 18 IN THE SUBURBS. NORTHEAST WINDS AROUND 5 MPH, BECOMING NORTH 10 TO 15 MPH WITH GUSTS UP TO 30 MPH AFTER MIDNIGHT. CHANCE OF SNOW 90 PERCENT.

.THURSDAY...CLOUDY WITH A CHANCE OF SNOW IN THE MORNING, THEN PARTLY SUNNY IN THE AFTERNOON. BLUSTERY WITH HIGHS IN THE UPPER 20S. NORTHWEST WINDS 15 TO 25 MPH WITH GUSTS UP TO 40 MPH. CHANCE OF SNOW 50 PERCENT.

.THURSDAY NIGHT...PARTLY CLOUDY. COLD WITH LOWS AROUND 9 ABOVE. NORTHWEST WINDS 15 TO 20 MPH WITH GUSTS UP TO 35 MPH. WIND CHILL VALUES AS LOW AS 10 BELOW AFTER MIDNIGHT.

.FRIDAY...MOSTLY SUNNY. HIGHS AROUND 18. NORTHWEST WINDS 15 TO 20 MPH WITH GUSTS UP TO 35 MPH. WIND CHILL VALUES AS LOW AS 10 BELOW IN THE MORNING.

.FRIDAY NIGHT...MOSTLY CLEAR. COLD WITH LOWS 5 TO 10 ABOVE. WIND CHILL VALUES AS LOW AS 10 BELOW.

.SATURDAY...SUNNY, COLD WITH HIGHS 15 TO 20. WIND CHILL VALUES AS LOW AS 10 BELOW.

.SATURDAY NIGHT...MOSTLY CLEAR. COLD WITH LOWS 5 TO 10 ABOVE.

Meeting Notes

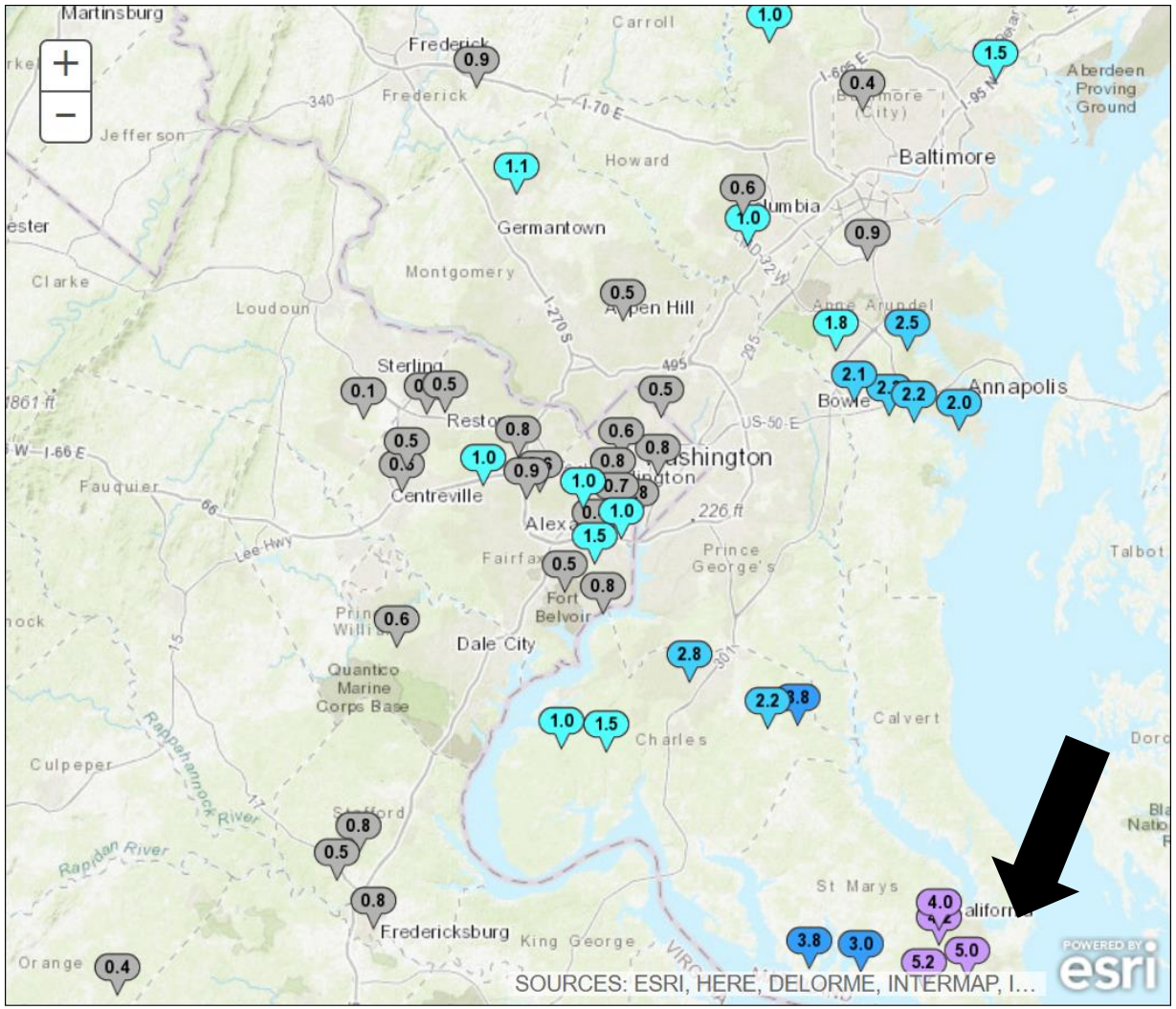
Jan 03, 2018

(02:18 PM) **William Truong:** DDOT: Will begin anti-icing at 8PM tonight. Salt trucks will have a full deployment at 1 AM. Non-motorized staff monitoring bridges and sidewalks starting at 6 AM. Creating more of a wet atmosphere rather than an icy atmosphere.
(02:19 PM) **William Truong:** VDOT: Finalizing anti-icing and brining today. There is residual salt on the roads so not too worried. Will be on a Level 2 mobilization (about 1,000 piece of equipment), with the storm being on the on the east, there is a chance that equipment may be moved from the west.
(02:20 PM) **William Truong:** MD SHA: Deploying full MD SHA staff tonight at midnight. Did not pre-treat. Will be applying salt.
(02:21 PM) **William Truong:** MC DOT: Did not pre-treat due to the residual salt on the road. Full deployment at 3 AM.
(02:21 PM) **William Truong:** PG DPW&T: Enough salt on the roadways already. Full shift starting at 11 PM tonight.
(02:21 PM) **William Truong:** NPS: Enough pre-treat down already. Shift will start between midnight and 2 AM.
(02:22 PM) **William Truong:** WMATA: Rail – Level 1 activation at midnight. Not expecting to be have any service issues. Will be doing sidewalks and entrance clearance. Bus – Will ramp up with additional bus supervisors on the streets.
(02:26 PM) **William Truong:** There will be a 3 AM MWCOG Winter Weather Conference Call.

Shared Media

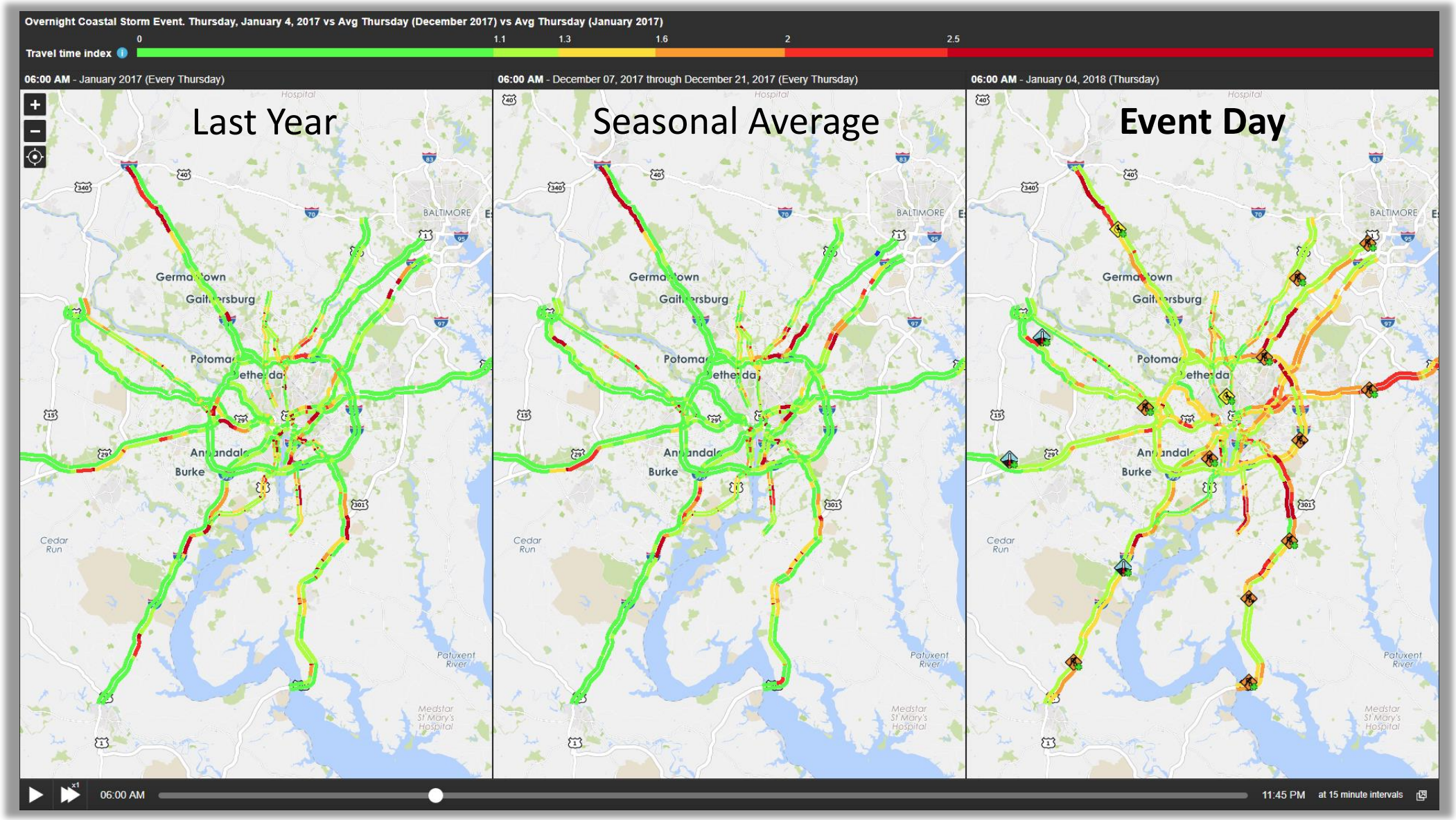
Outcomes – January 4, 2018

- **OPM Guidance (4AM):** Open with 2-hour Delayed Arrival with option for unscheduled leave or telework
- **Area Schools:** Most closed, some on a 2-hour delay
- **Snowfall Totals:**
  - A dusting to 3”
  - 3”-5” towards the southeast & shore
- **Wind Speeds:**
  - Average: 18-24mph
  - Highest: 32-38mph
  - Highest Gust: 42-49mph
- **Temperatures:**
  - Low: Low Teens
  - High: Upper 20s

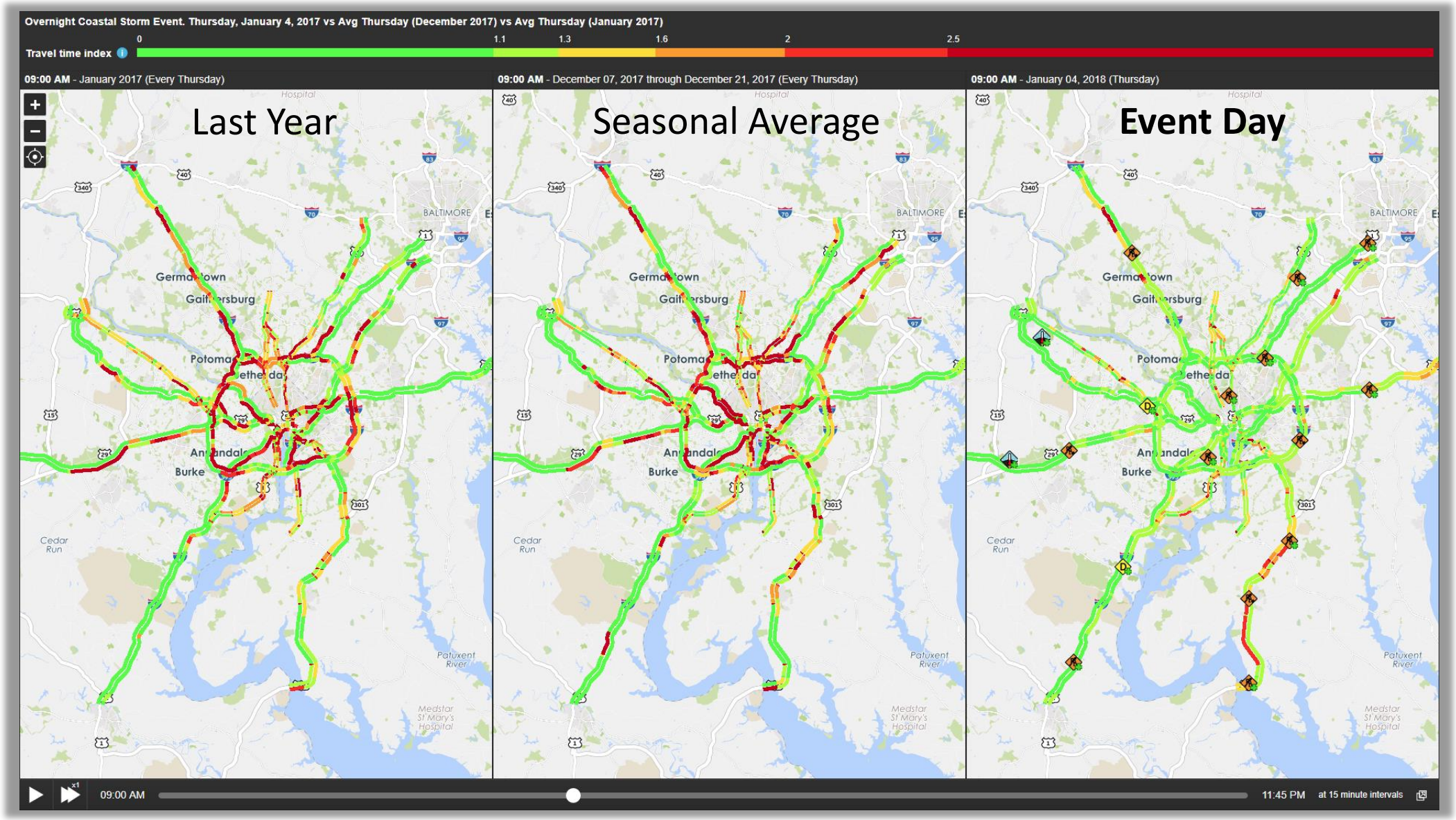


Snowfall Map (Post Event)

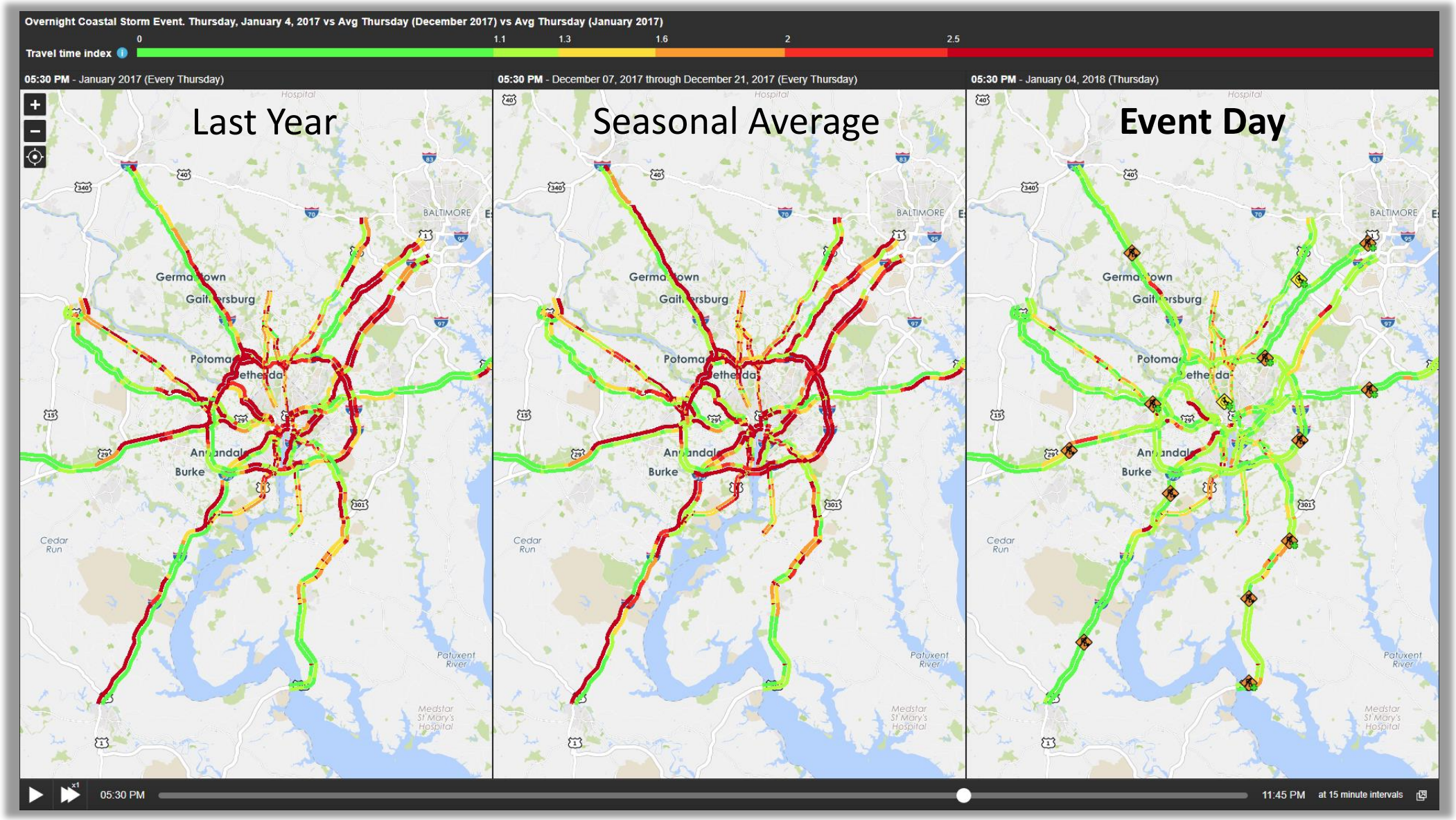
Analysis – PDA Trend Map (6:00AM)



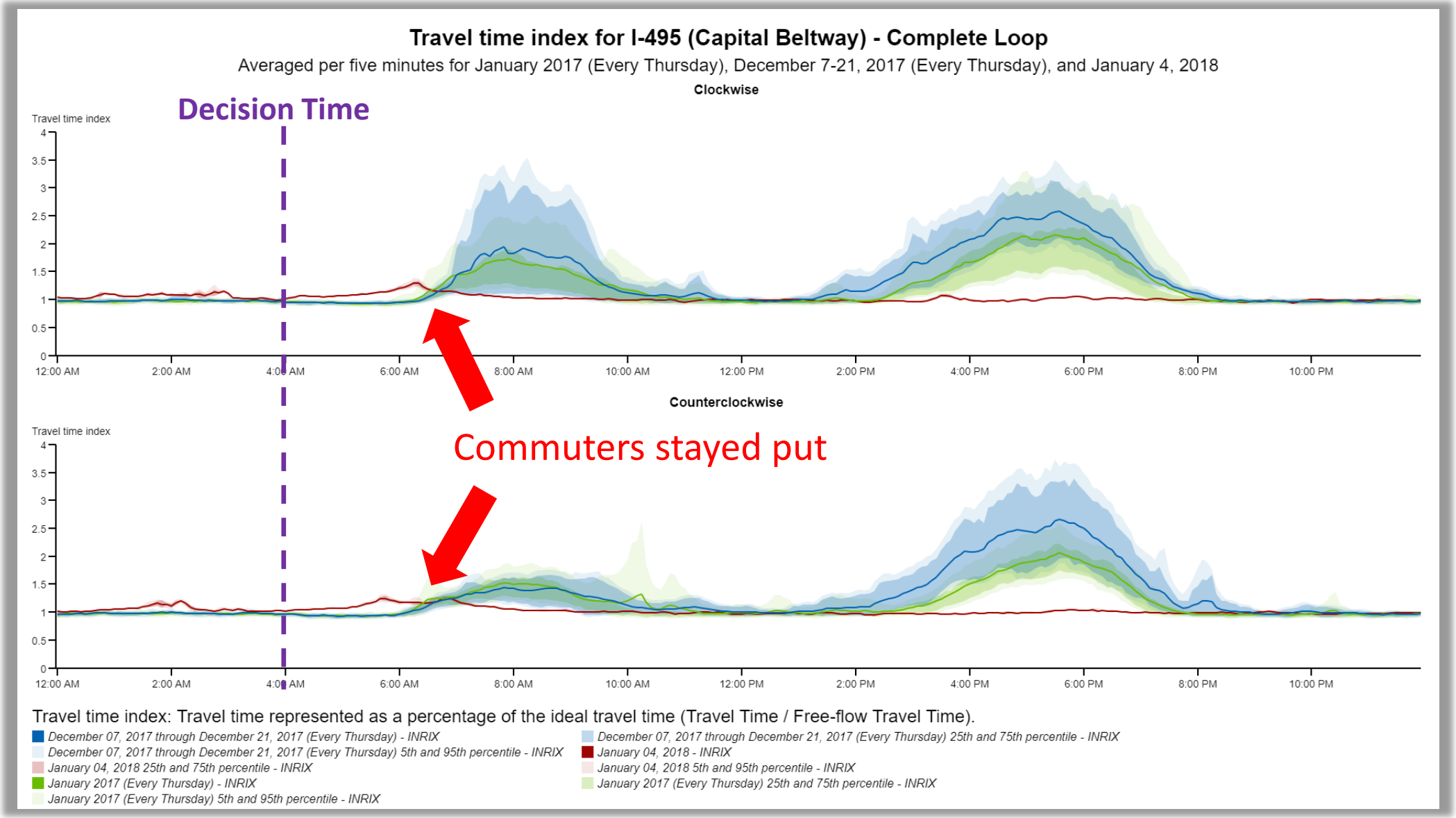
Analysis – PDA Trend Map (9:00AM)



Analysis – PDA Trend Map (5:30PM)

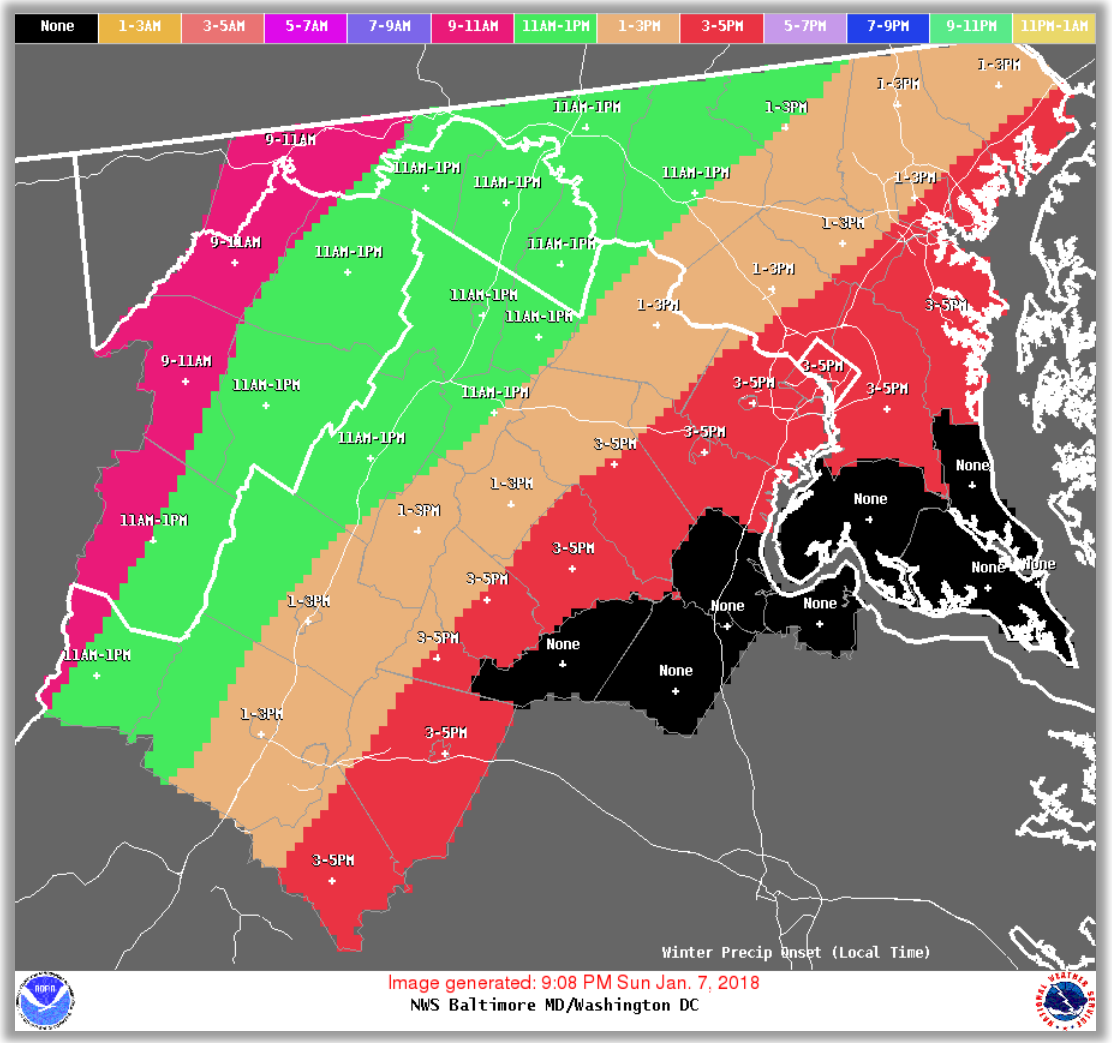


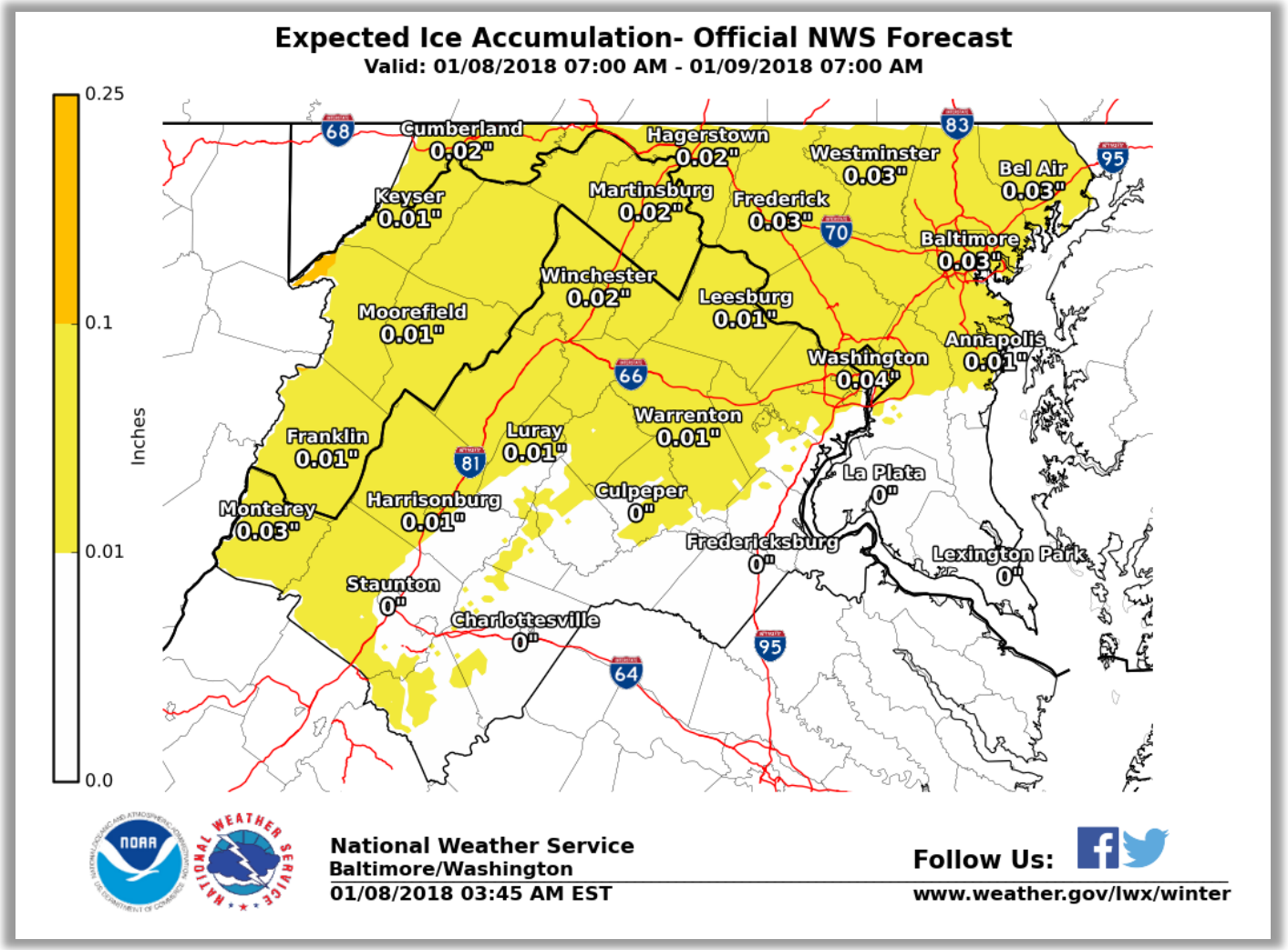
Analysis – PDA Performance Chart



Four days later…

Wintery Mix / Icing Event Expected During PM Rush (Jan 8)

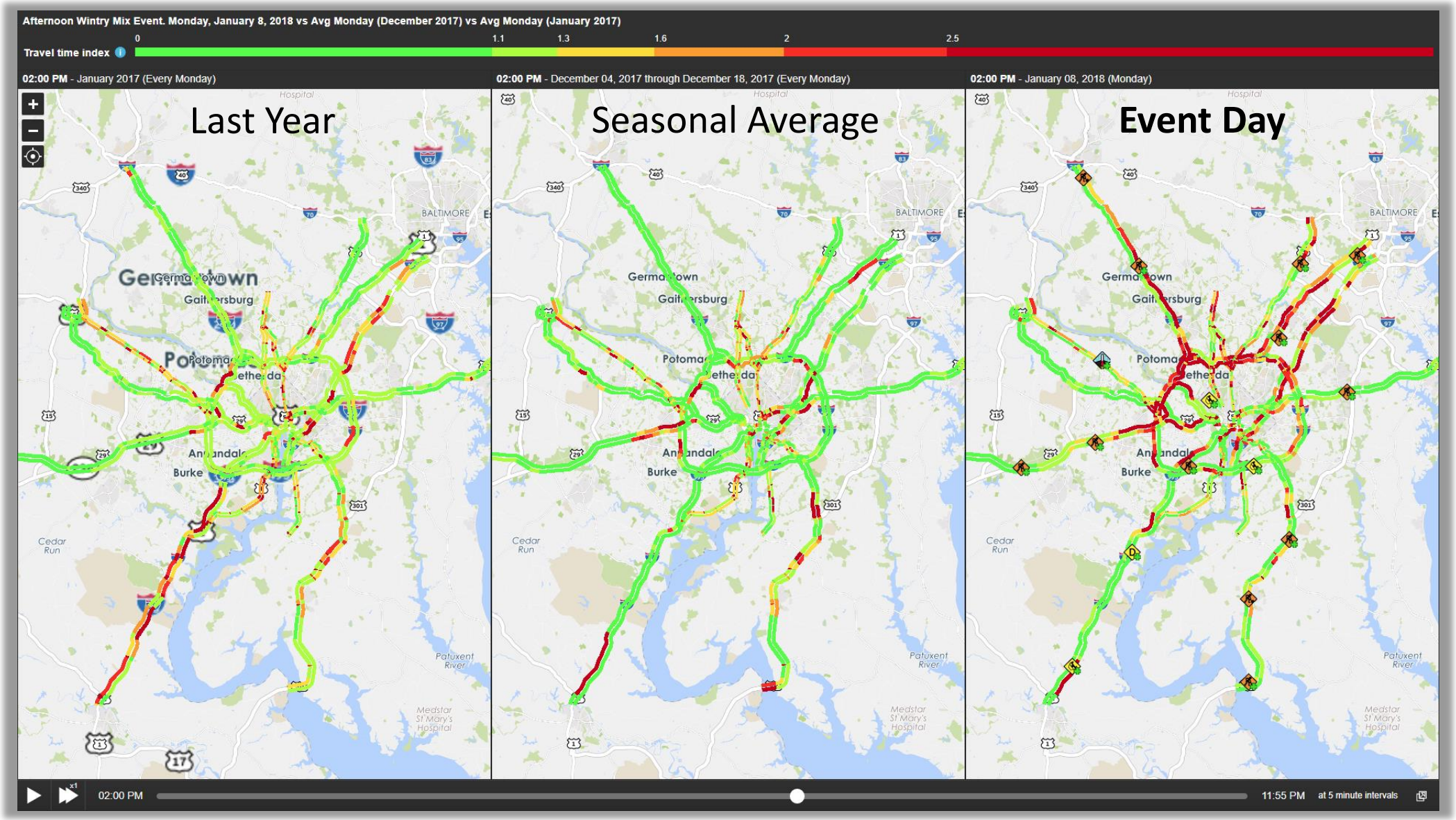




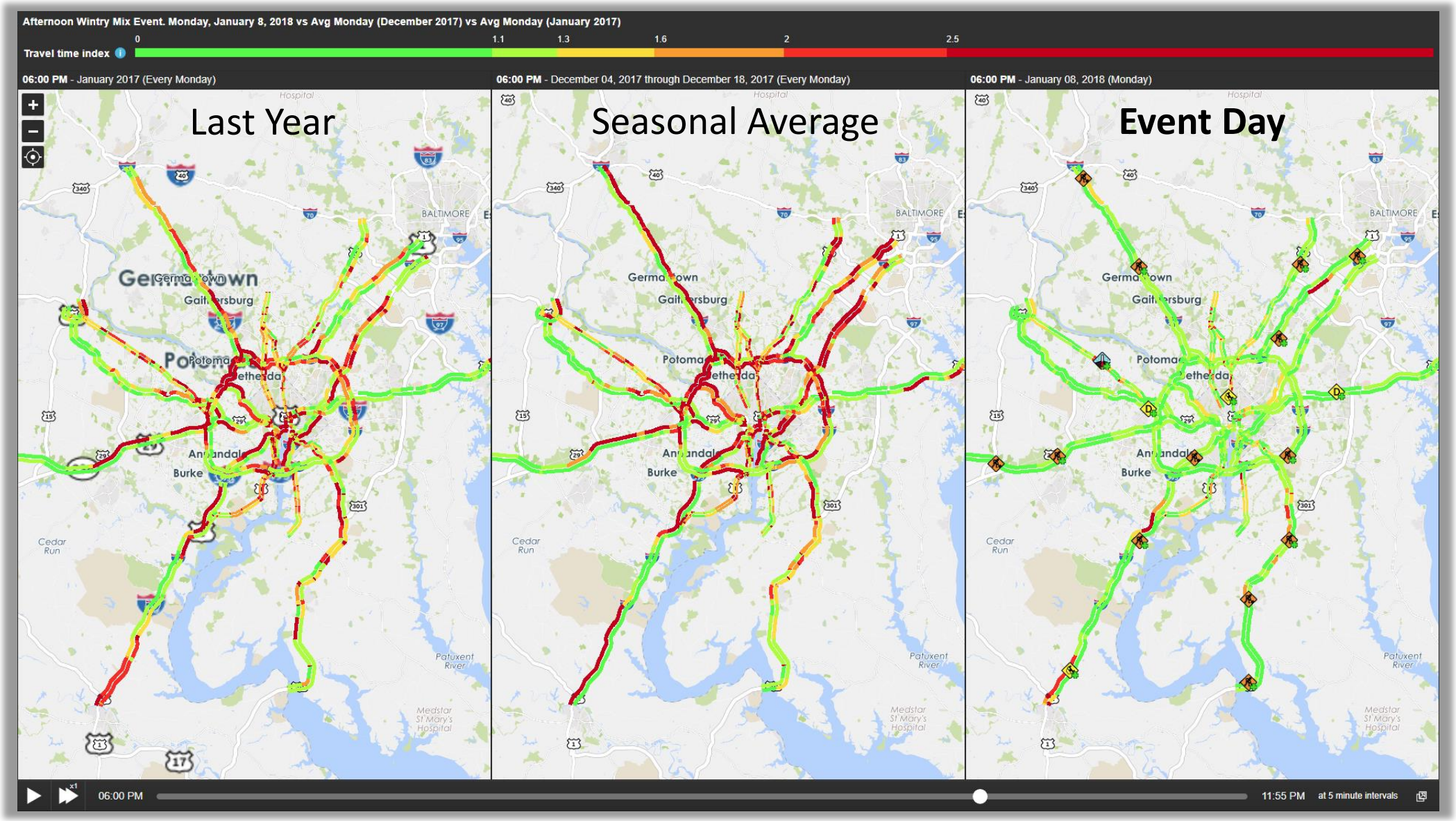
Outcomes - January 8, 2018

- **DOTs & Transit:** Split decision
  - ½ Recommend early dismissal
  - ½ Recommend staying open, keep commuters at work
- **OPM Guidance (11AM):** Remain open, will monitor and adjust as needed
- **Area Schools:** Some schools already closed for the day. Remaining opted for a 2-hour early dismissal
- **Precipitation Totals:**
  - Precipitation begins early afternoon
  - Transition from rain to freezing rain
  - Ice: Trace to 0.05”, mostly points north and west
- **Roadways:** Interstates/primaries okay, **but…..**

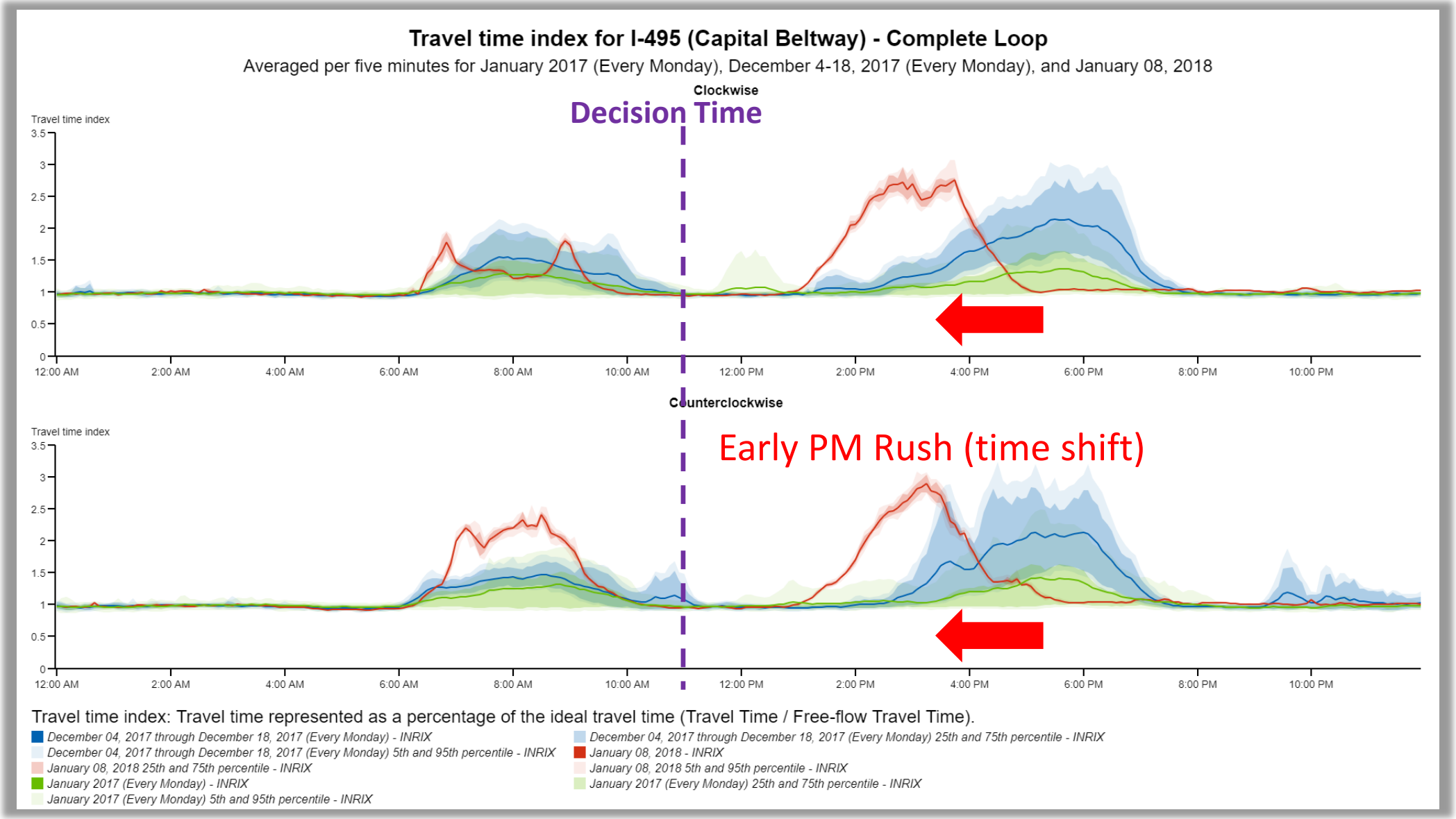
Analysis – PDA Trend Map (2:00PM)



Analysis – PDA Trend Map (6:00PM)



Analysis – PDA Performance Chart



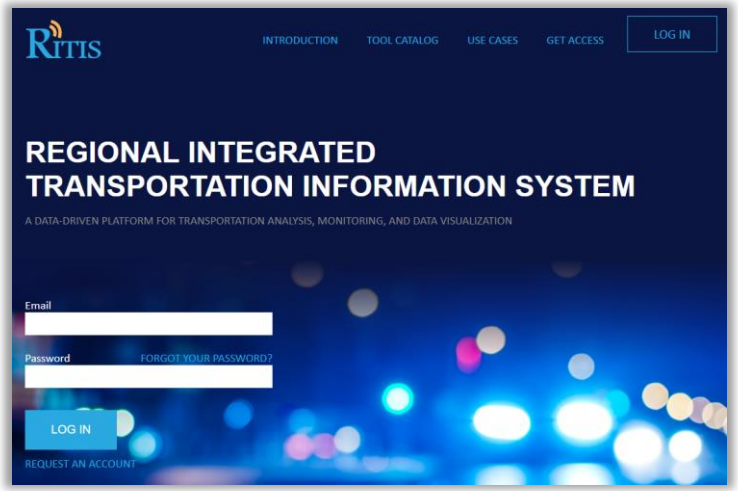
Takeaways

- RITIS tools have a **direct impact** in the decision making process
- Agencies want to know how effect their strategies have been and they want to know it **NOW**
- Archived data helps to 1) **justify decisions**, 2) **provides critical feedback** during post-event analysis and 3) also helps **identify information gaps and new issues** that need to be addressed for future events
- RITIS provides a **trusted information platform that strengthens relationships** between agencies and across sectors

MATOC
Metropolitan Area Transportation Operations Coordination

d. District Department of Transportation
MDOT MARYLAND DEPARTMENT OF TRANSPORTATION
VDOT Virginia Department of Transportation
M metro

"Working together to reduce incident-related travel delays through improved coordination, cooperation and information sharing."



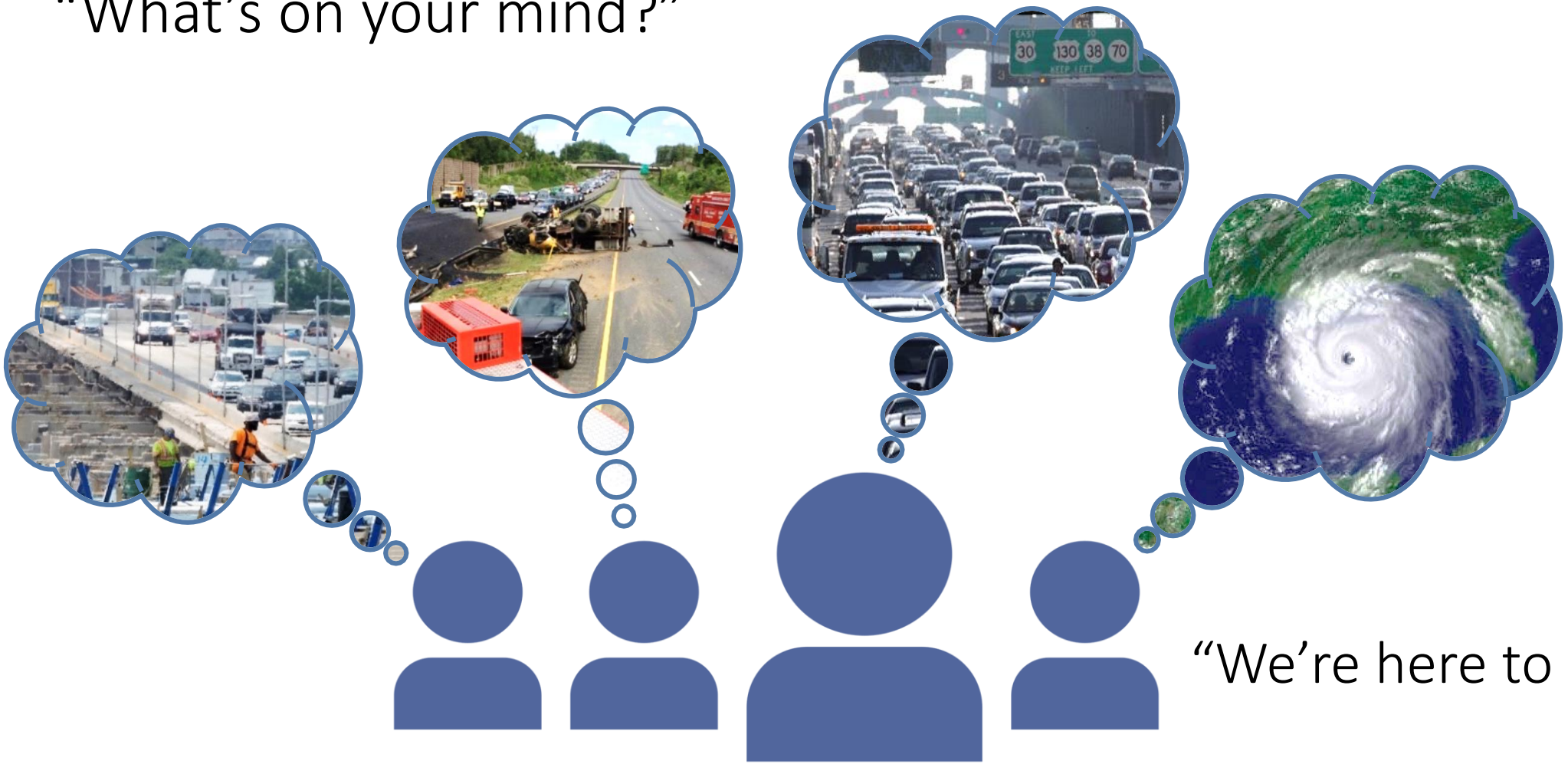
Thanks!

For more information, please contact:

Taran Hutchinson, Facilitator
Metropolitan Area Transportation Operations Coordination
Taran.Hutchinson@matoc.org | 301.405.7841

Agency input session

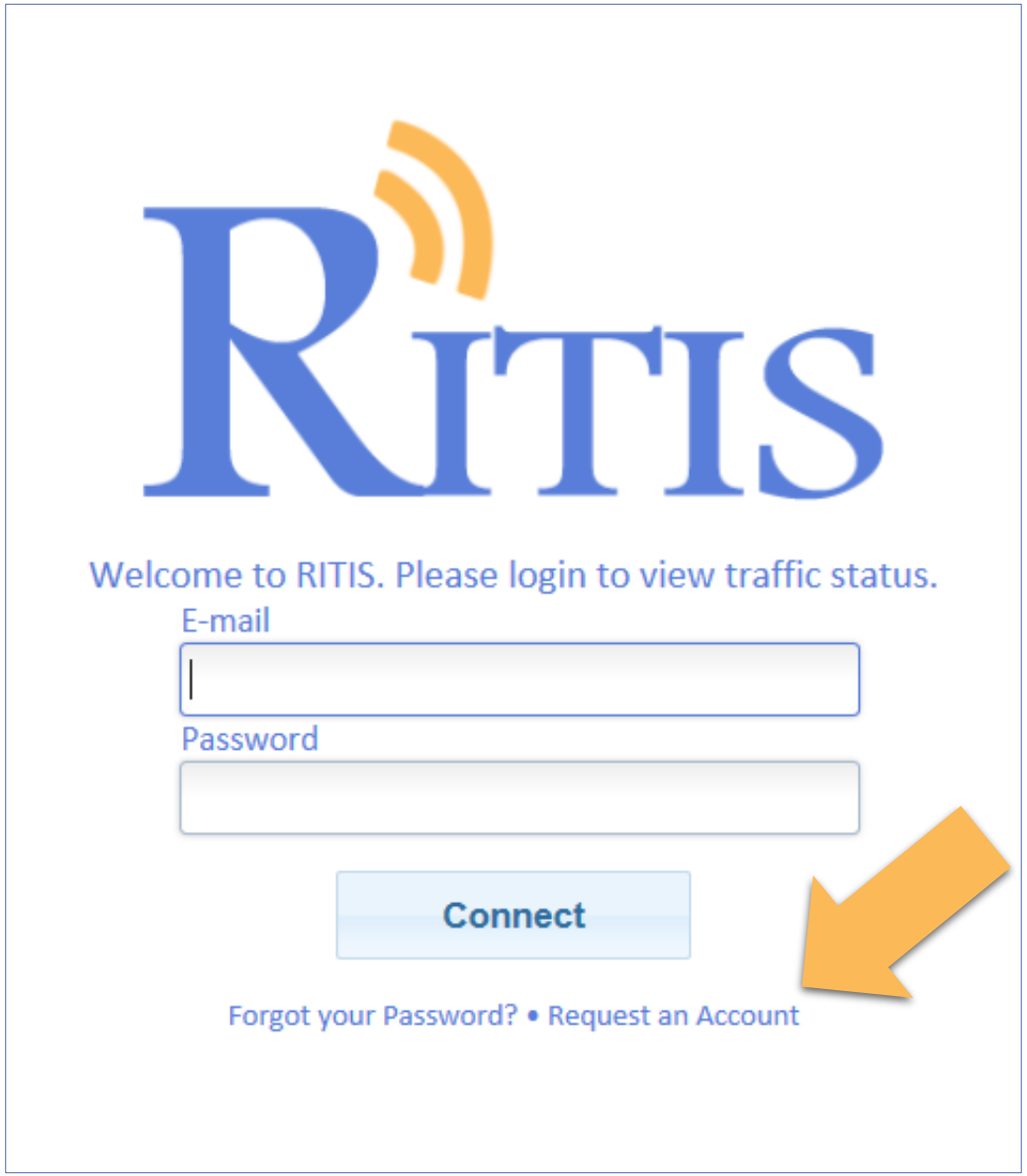
"What's on your mind?"



"We're here to help!"

How to get access

1. www.ritis.org
2. Click “Request an Account”
3. You’re on your way…



Member involvement

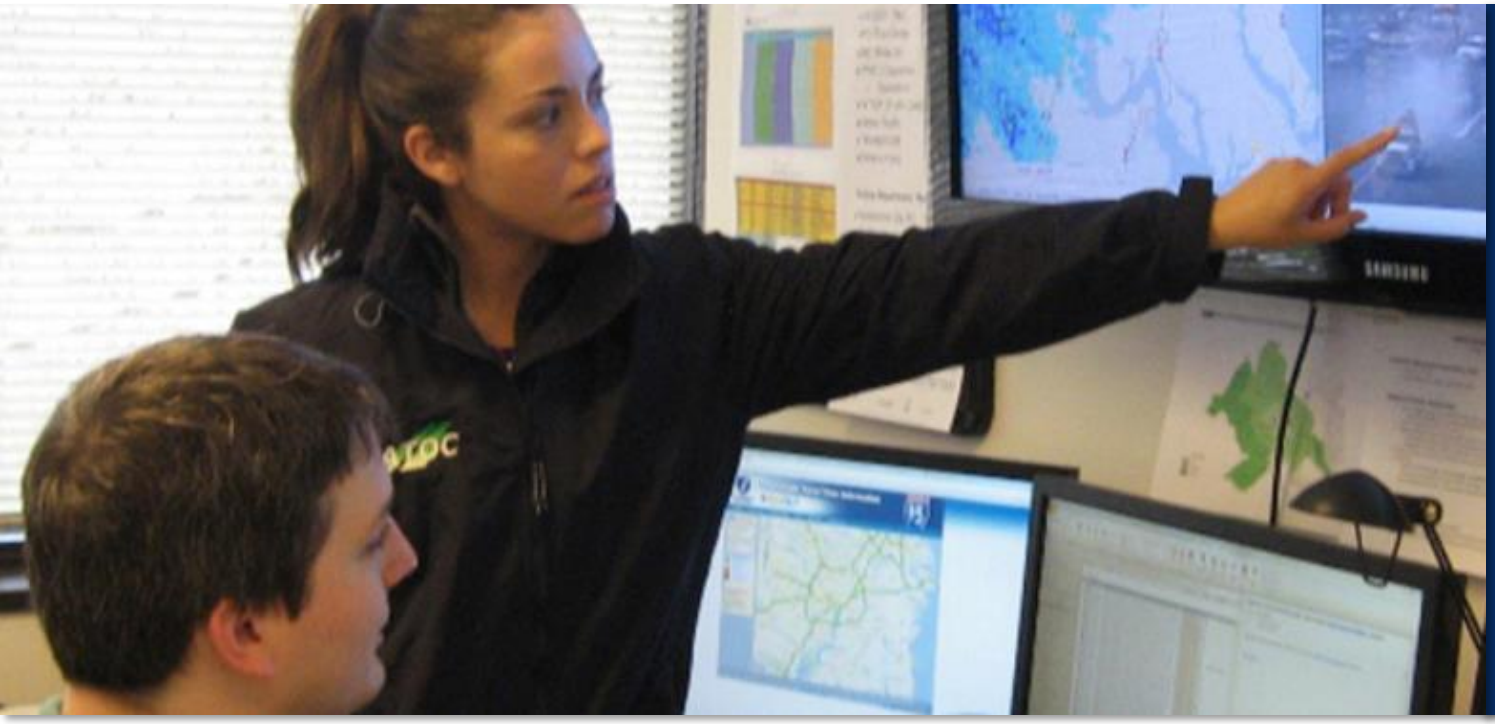
The **key** to success of the RITIS User Group is **your** involvement:

- Share common or unique use of the tools in your work
- Present after-action reviews, lessons learned
- Demonstrate accomplishments, big or small
- Contribute ideas, suggestions, feedback
- Help prioritize and guide RITIS feature enhancements

Free RITIS training

MATOC
Metropolitan Area Transportation Operations Coordination

- **MATOC Staff offer free monthly webinars** to transportation, public safety, and emergency management agencies interested in incorporating the RITIS platform into their operations.



2018 Webinar Schedule (10:00 AM EST)

RITIS 101
Learn the Basics

- January 26th
- March 23rd
- May 25th
- July 27th
- September 28th
- November 16th

RITIS Refresher / Advanced Features

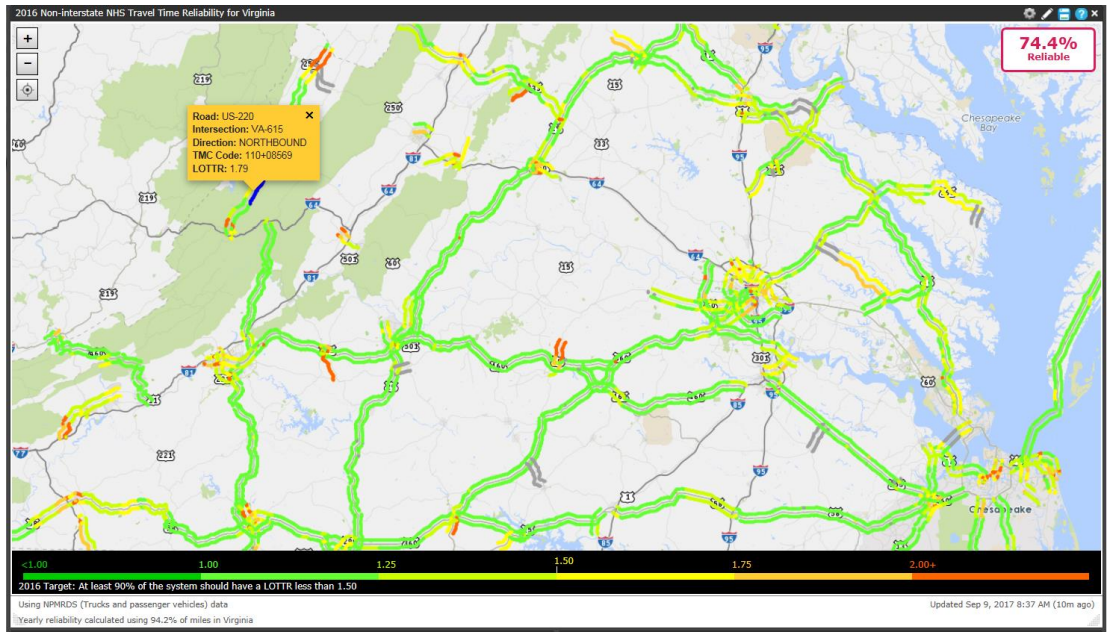
- February 23rd
- April 27th
- June 22nd
- August 24th
- October 26th
- December 21st

If you are interested in attending a webinar or would like additional information about these sessions please email: training@matoc.org

Free video tutorials

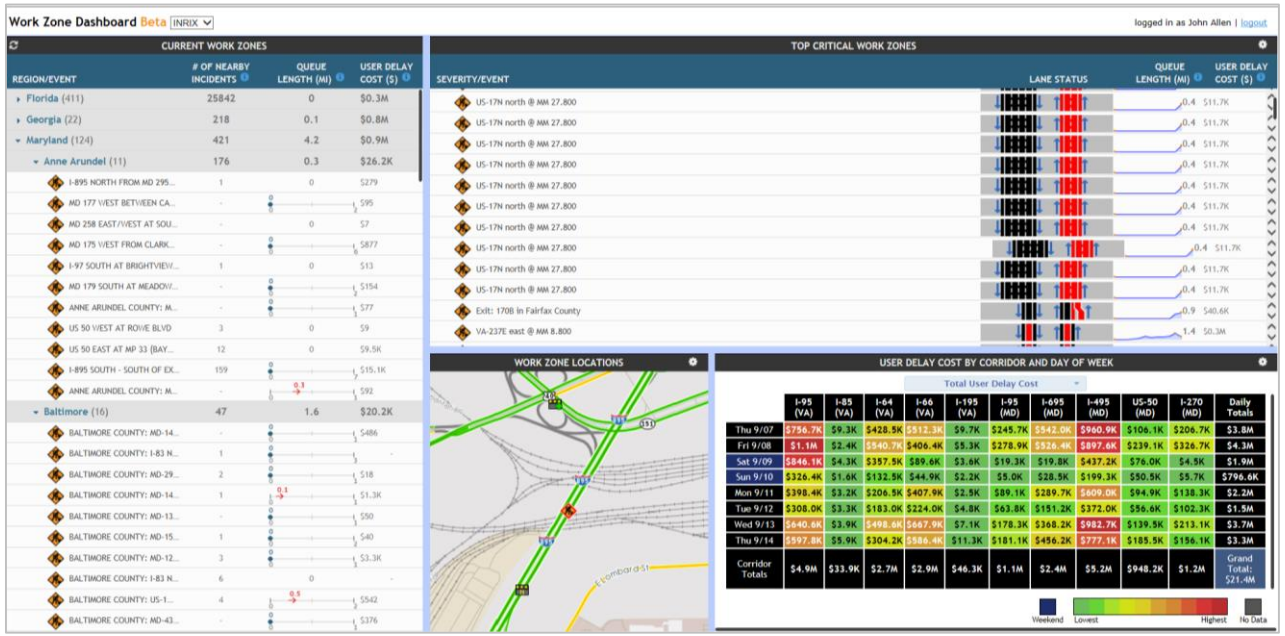
› Not sure how to use the tools? Come watch a video!

NPMRDS & MAP-21 Analytics



https://vimeo.com/208589756

Work Zone Performance Monitoring



https://vimeo.com/207291891

More are available; new videos added regularly here: https://vimeo.com/user55759816/videos

Contact info

I-95 Corridor Coalition TSMO

Denise Markow | 301.789.9088 | dmarkow@i95coalition.org

RITIS technical support

support@ritis.org

Thanks!

These slides will be made available after the call

Next meeting

May 10, 2017 ◦ 10:30 AM – 12:00 PM (EST)