PROBE DATA ANALYTICS SUITE

u s e r g r o u p

Quarterly Web Meeting

August 17, 2017









Welcome

Kelly Wells ◦ North Carolina DOT, PDA Suite User Group Co-chair

Participating Agencies

Agency	
Baltimore Metropolitan Council	North Carolina DOT
Delaware Valley Regional Planning Commission	New York City DOT
District DOT	Pennsylvania DOT
Durham-Chapel Hill-Carrboro (NC) MPO	Pennsylvania Turnpike Commission
Florida DOT (WSP)	Richmond Regional TPO
Maryland SHA	Vermont AOT
MWCOG	Virginia DOT
New Jersey DOT	UMD – CATT Lab & CATT Works
New Jersey Turnpike Authority	I-95 Corridor Coalition & support

Please confirm that your line is **muted** ***6**

Thank You!

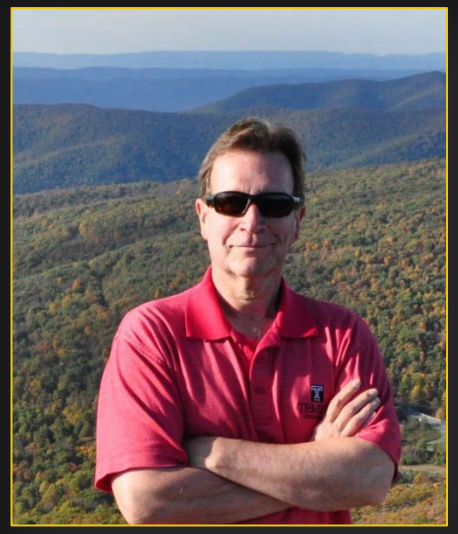
Topics for today

- Coalition Update
- PDA Suite: What's new / coming soon
- Holiday Travel Advisory "How-To"
- NPMRDS v2.0
- O-D Data Suite Focus Group Status
- NJCMS / PDA Suite – Ratings for Potential Projects
- Agency Input Session

KIM Engineering Building, University of Maryland

Introductions

Denise Markow
I-95 Corridor Coalition
Director



John Allen
UMD CATT Lab
Agency Support

Ed Stylc
Baltimore Metropolitan Council
Planner Analyst

Ira Levinton
New Jersey DOT
Project Engineer

Coalition Update

- Recent Meetings
  - RITIS User Group Meeting – June 8, 2017
  - GTFS Workshop (at NJTPA) – July 20, 2017
  - Volume & Turning Movement Steering Committee meeting – July 27, 2017
  - Potomac HOGs Exchange – August 9, 2017
- Upcoming Meetings
  - Crowdsourcing Summit (Waze use by member agencies) – Sept 14, 2017 (in-person & via web)
  - RITIS User Group Meeting – Sept 21, 2017 (via web)
- **Reminder**
  - We will be changing the PDA Suite User Group meeting schedule, from once every quarter to once every four months

Volume & Turning Movement Project ◦ Status

- User Survey - Completed
- Preliminary Data Analyses
  - Maryland
  - Rhode Island
  - Florida
  - Colorado
- Calibration (FHWA TMAS)
- Validation (TTI)

Getting Things Done.

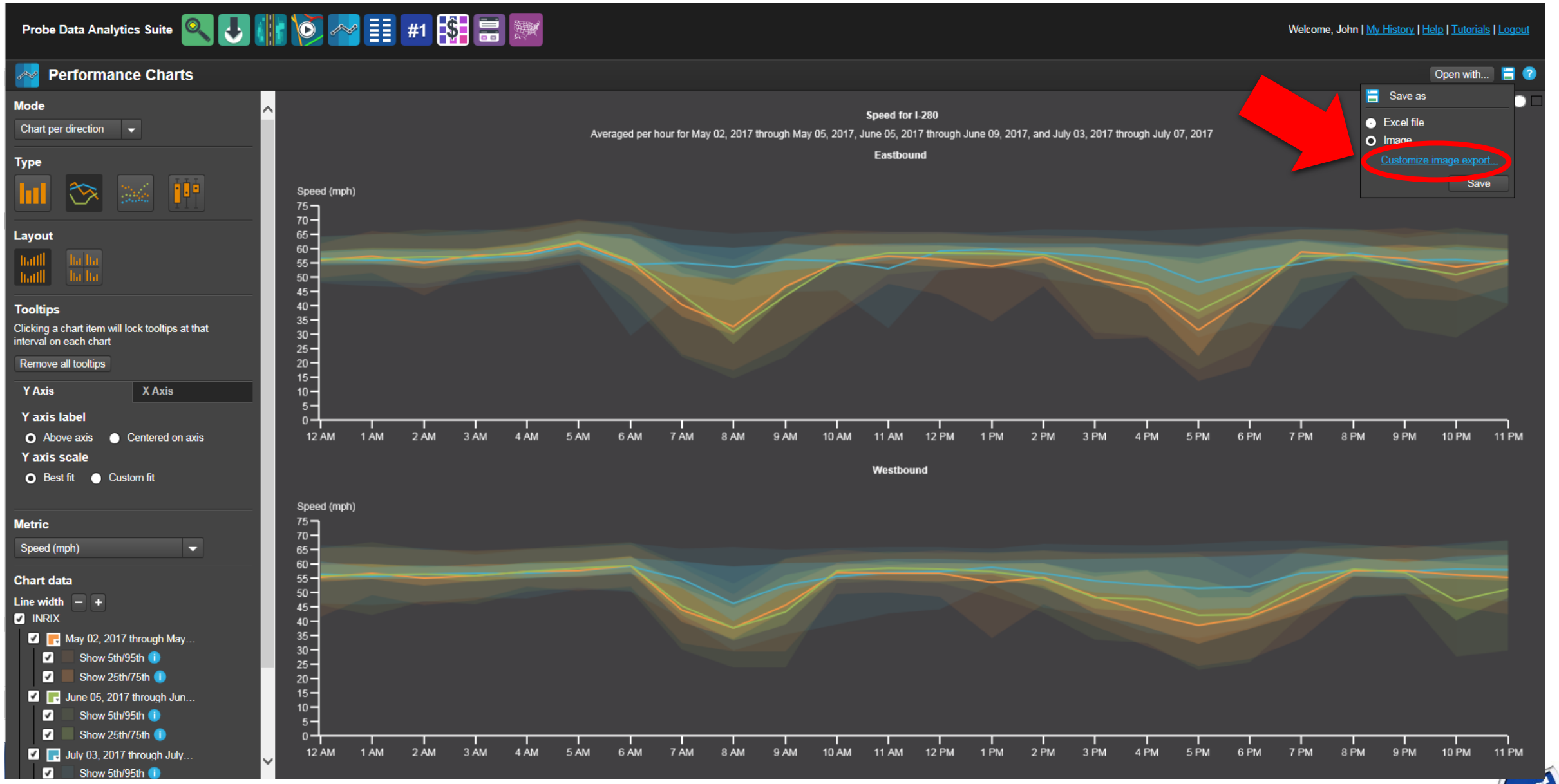
Action Item Follow-up (from the 05.11.17 Meeting)

- **FDOT pilot projects for the O-D data analytics tools**
  - John & Kim discussed a few potentials; will flesh out more
- **PennDOT requested automation features for the dashboard**
  - A meeting is being scheduled to discuss adding these features
- **Agencies to forward any PDA Suite-generated Travel Advisory Notices for distribution to the group**
  - None received, but see below
- **Check with Ed Stylc (BMC) on Memorial Day Travel Tips**
  - Ed's presenting today!

PROBE DATA ANALYTICS SUITE

What's new…

Customizable Performance Charts (paid for by PennDOT)



Customizable Performance Chart Control Panel

Axis color/width, image size or background (transparent/color)

Image title

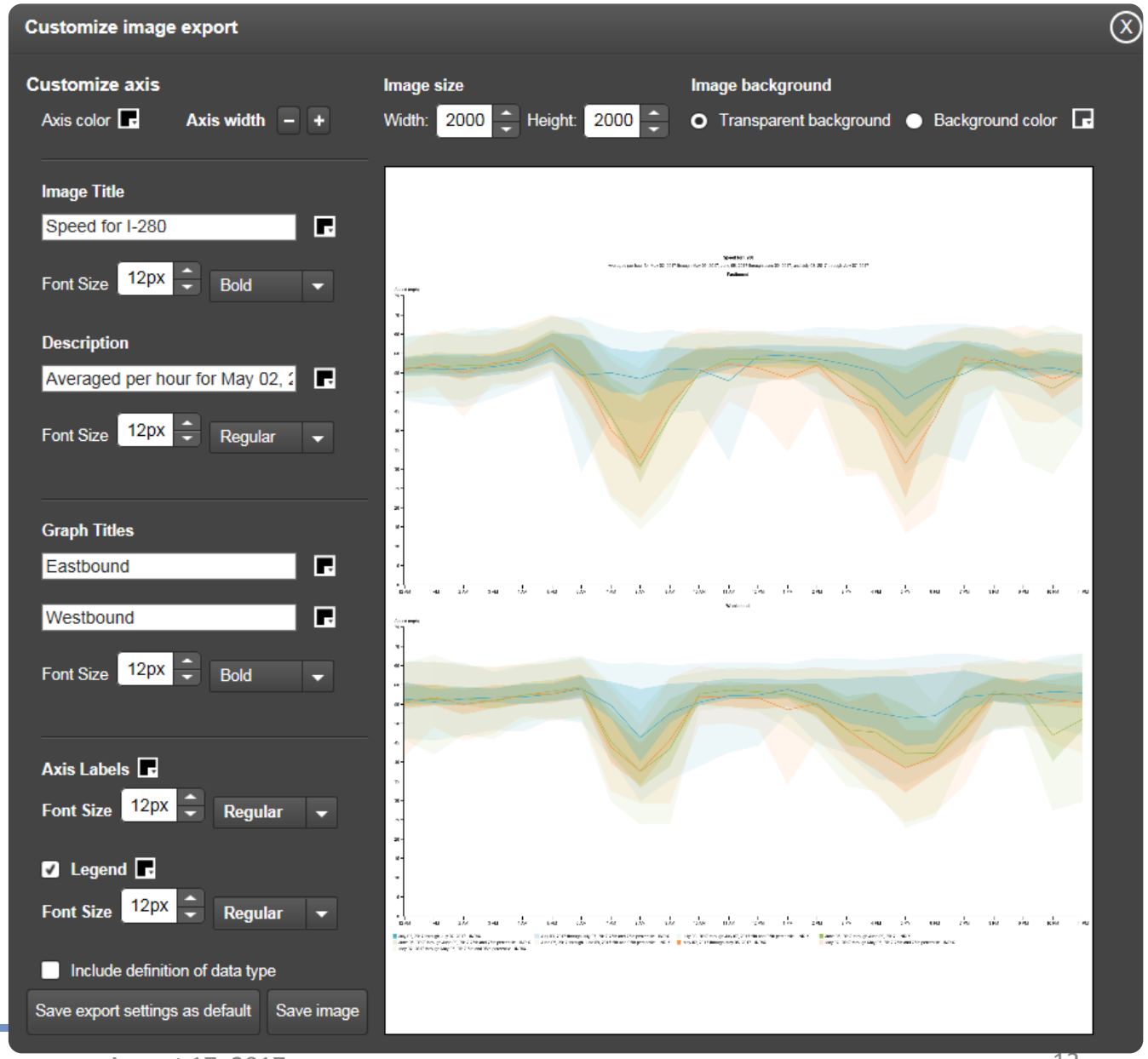
Description

Graph titles

Axis labels

Legend

Data type definition



Bottleneck Ranking with new metrics / feature

Raw speed drop weighted by queue lengths

Speed drop adjusted by bottleneck activation threshold, weighted by queue length

AADT weighted by queue length

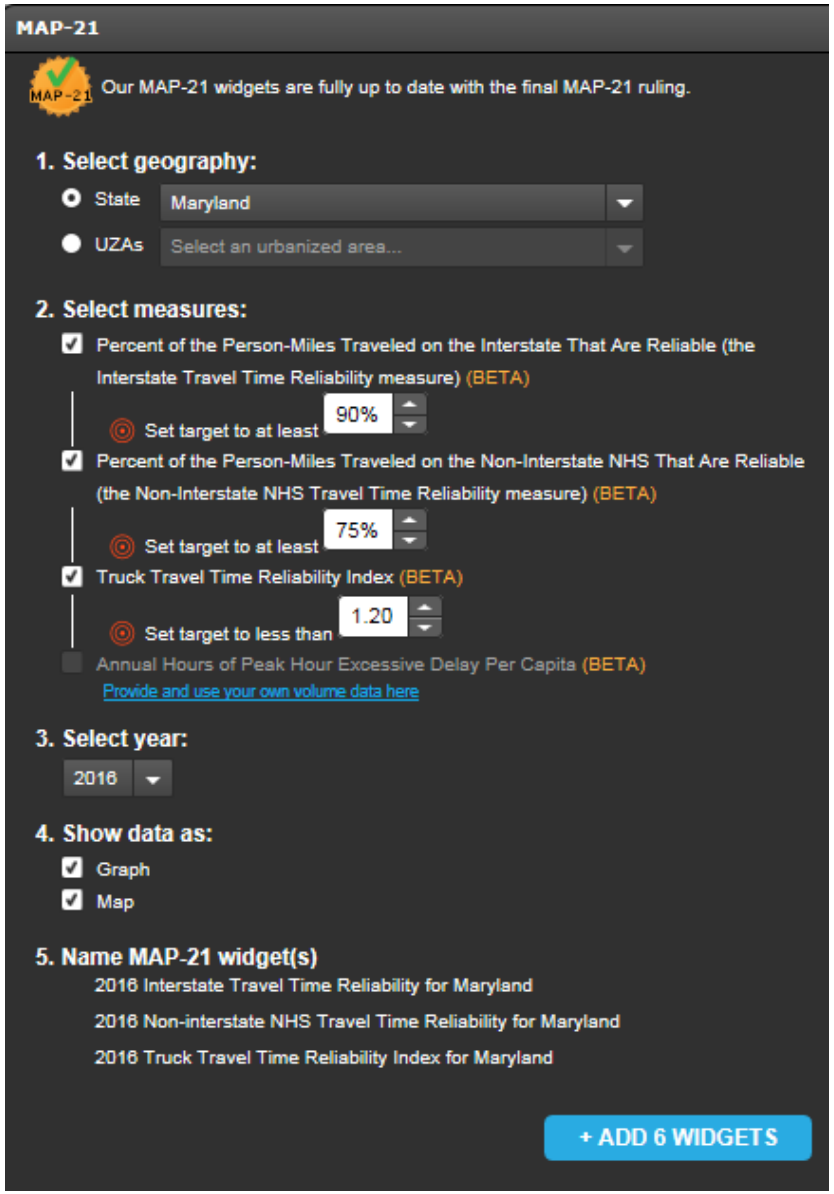
Raw speed drop weighted by VMT factor

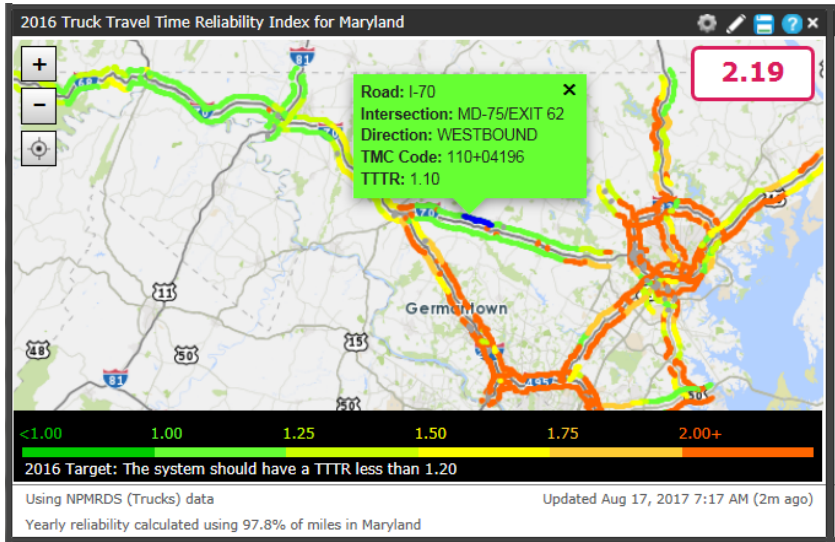
View in Performance Charts, or UDC

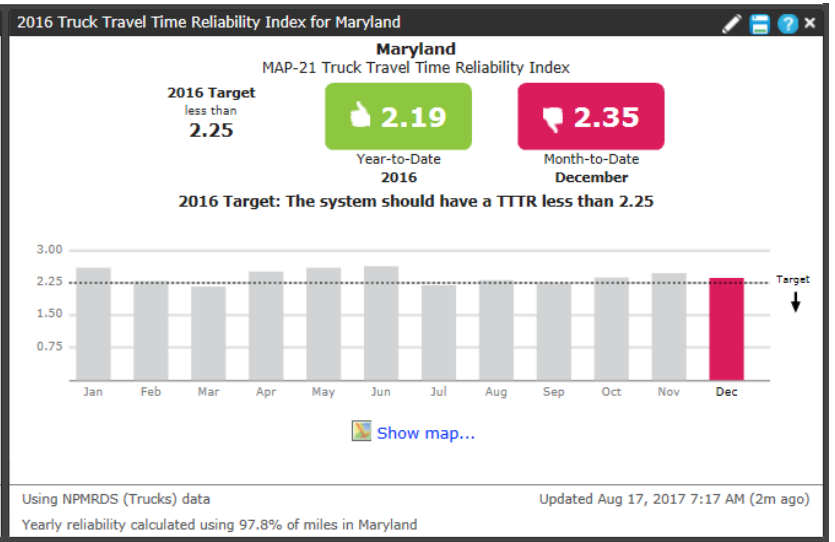
Speed-Differential-Impact	Speed-Percent-Impact	Volume Estimate	Delay Surrogate	External Tool Links
506,123.61	22,635.15	44,649.00	22,597,913,010.20	
350,364.02	15,147.03	80,696.00	28,272,974,882.39	
394,986.13	18,373.01	87,889.00	34,714,935,581.08	
296,647.04	14,258.78	68,959.00	20,456,483,043.65	
271,460.86	11,609.21	84,796.00	23,018,794,663.80	
242,544.63	9,752.27	101,890.00	24,712,872,290.99	
281,164.67	16,625.51	44,990.00	12,649,598,609.21	
237,012.53	10,067.45	88,274.00	20,922,044,076.40	

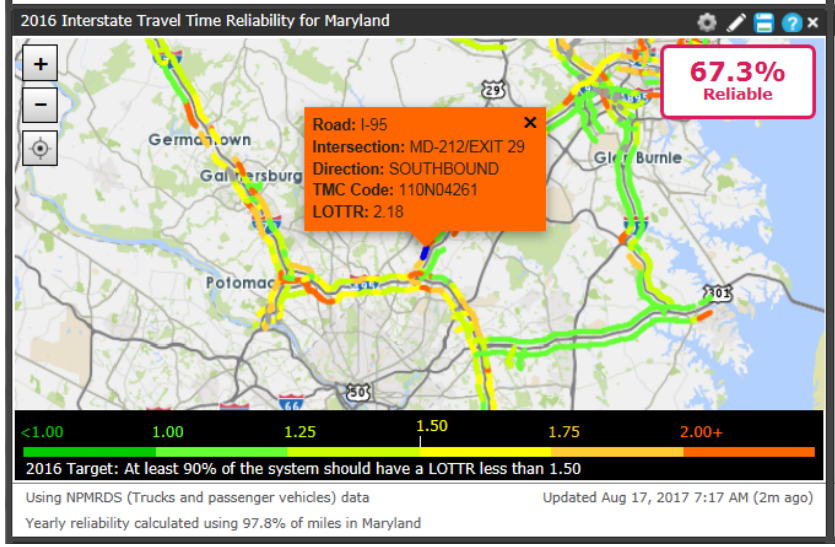
https://vpp.ritis.org/suite/help/#bottlenecks/new-metrics

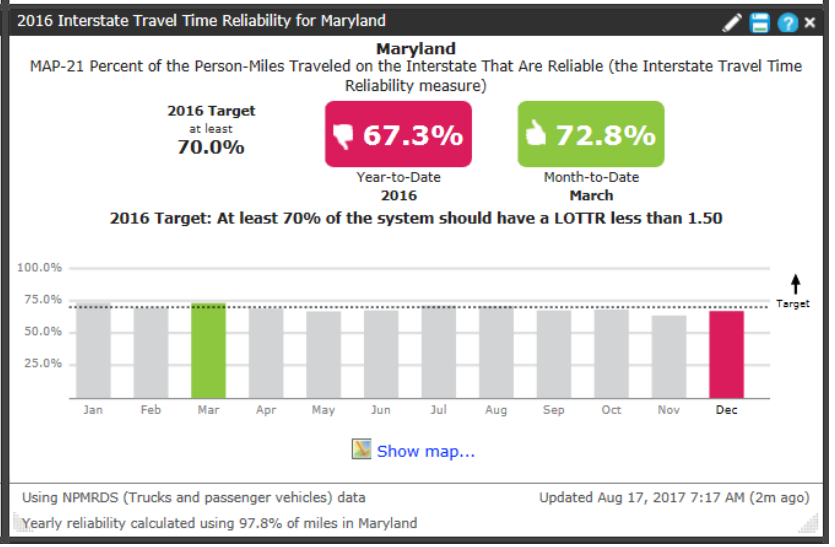
MAP-21 Dashboard widgets









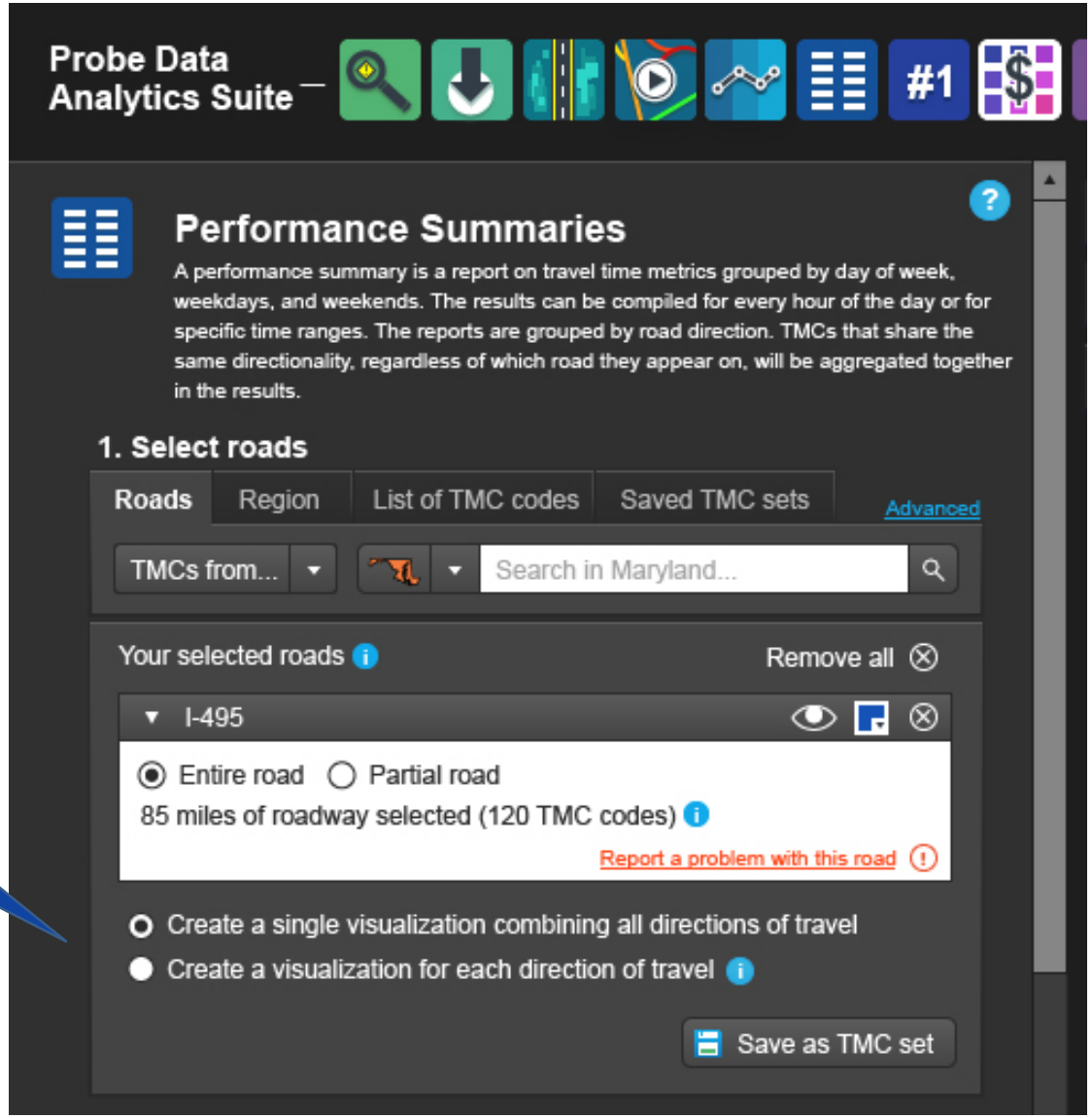


PROBE DATA ANALYTICS SUITE

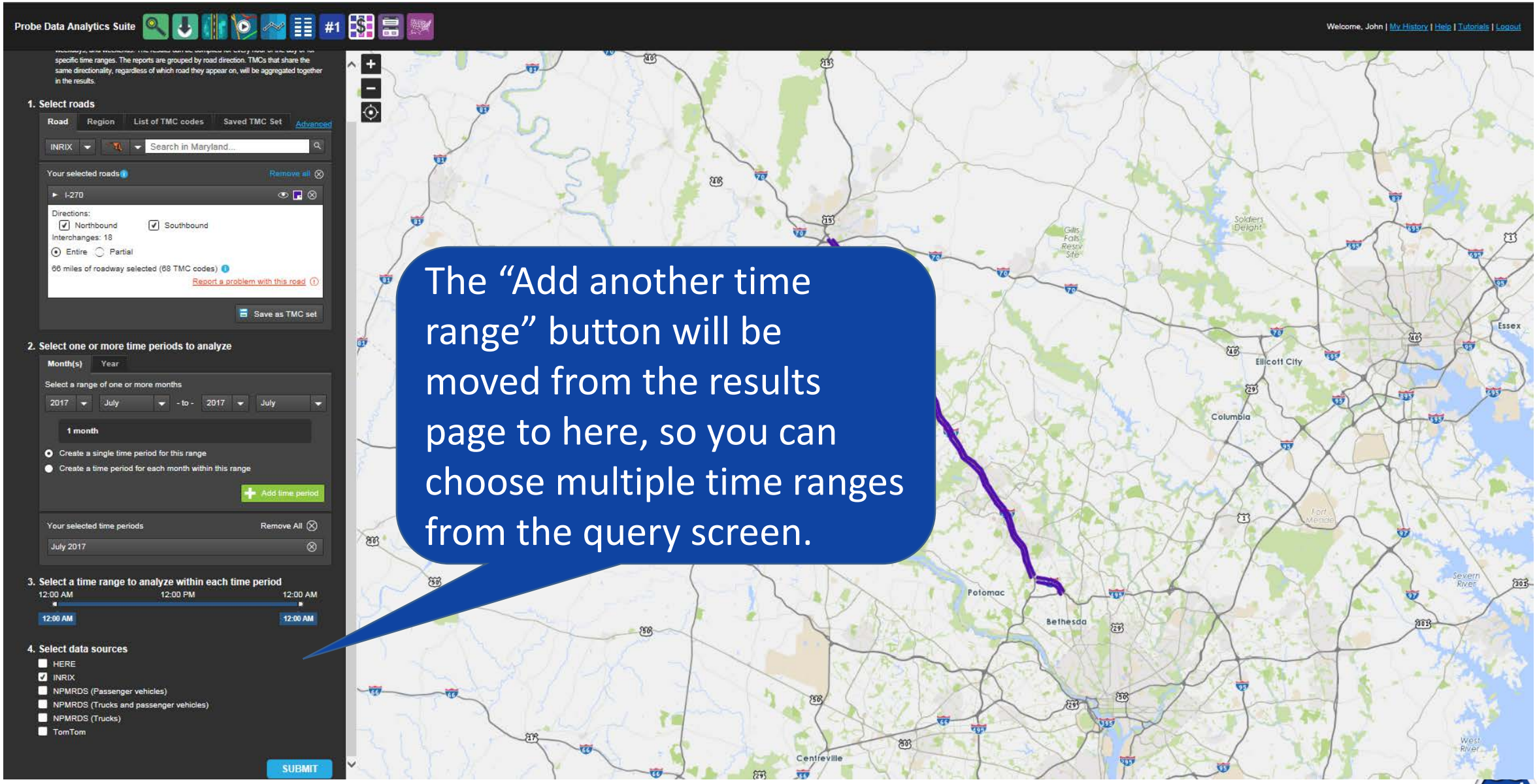
Coming soon…

Performance Summaries (query page)

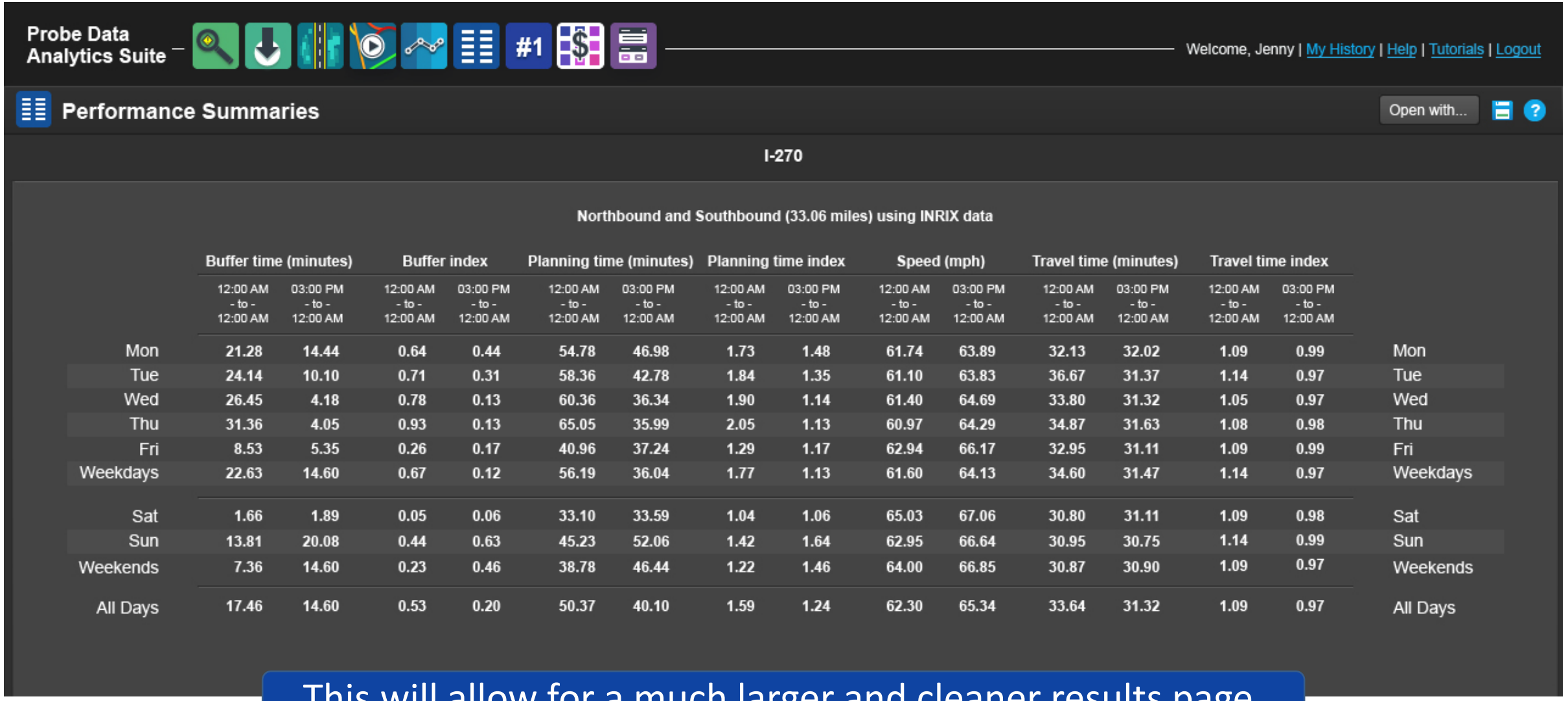
Create a visualization for each direction of travel, or combine directions into a single visualization



Performance Summaries (query page)



Performance Summaries (results page)

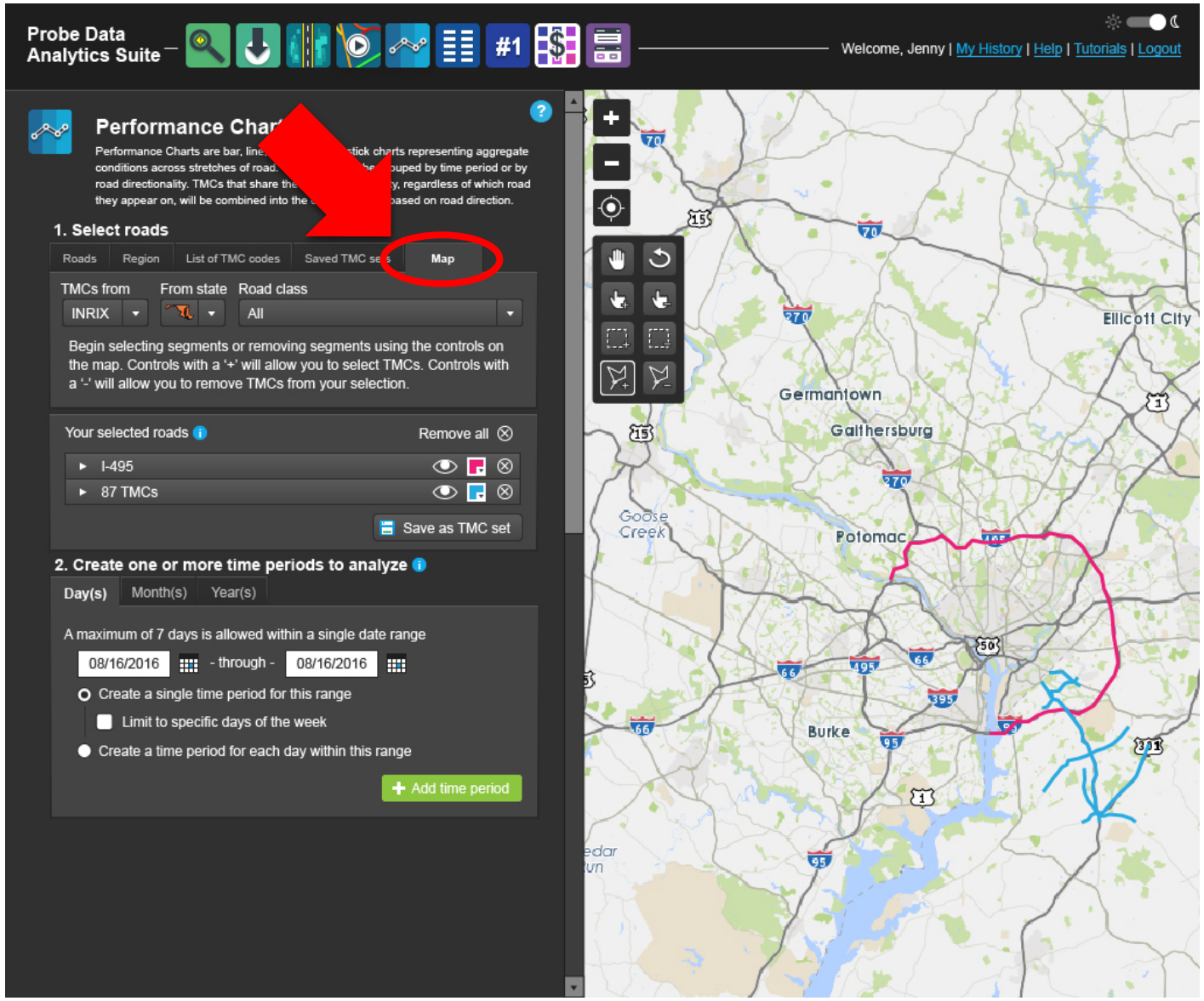


	Buffer time (minutes)		Buffer index		Planning time (minutes)		Planning time index		Speed (mph)		Travel time (minutes)		Travel time index		
	12:00 AM - to - 12:00 AM	03:00 PM - to - 12:00 AM	12:00 AM - to - 12:00 AM	03:00 PM - to - 12:00 AM	12:00 AM - to - 12:00 AM	03:00 PM - to - 12:00 AM	12:00 AM - to - 12:00 AM	03:00 PM - to - 12:00 AM	12:00 AM - to - 12:00 AM	03:00 PM - to - 12:00 AM	12:00 AM - to - 12:00 AM	03:00 PM - to - 12:00 AM	12:00 AM - to - 12:00 AM	03:00 PM - to - 12:00 AM	
Mon	21.28	14.44	0.64	0.44	54.78	46.98	1.73	1.48	61.74	63.89	32.13	32.02	1.09	0.99	Mon
Tue	24.14	10.10	0.71	0.31	58.36	42.78	1.84	1.35	61.10	63.83	36.67	31.37	1.14	0.97	Tue
Wed	26.45	4.18	0.78	0.13	60.36	36.34	1.90	1.14	61.40	64.69	33.80	31.32	1.05	0.97	Wed
Thu	31.36	4.05	0.93	0.13	65.05	35.99	2.05	1.13	60.97	64.29	34.87	31.63	1.08	0.98	Thu
Fri	8.53	5.35	0.26	0.17	40.96	37.24	1.29	1.17	62.94	66.17	32.95	31.11	1.09	0.99	Fri
Weekdays	22.63	14.60	0.67	0.12	56.19	36.04	1.77	1.13	61.60	64.13	34.60	31.47	1.14	0.97	Weekdays
Sat	1.66	1.89	0.05	0.06	33.10	33.59	1.04	1.06	65.03	67.06	30.80	31.11	1.09	0.98	Sat
Sun	13.81	20.08	0.44	0.63	45.23	52.06	1.42	1.64	62.95	66.64	30.95	30.75	1.14	0.99	Sun
Weekends	7.36	14.60	0.23	0.46	38.78	46.44	1.22	1.46	64.00	66.85	30.87	30.90	1.09	0.97	Weekends
All Days	17.46	14.60	0.53	0.20	50.37	40.10	1.59	1.24	62.30	65.34	33.64	31.32	1.09	0.97	All Days

This will allow for a much larger and cleaner results page.

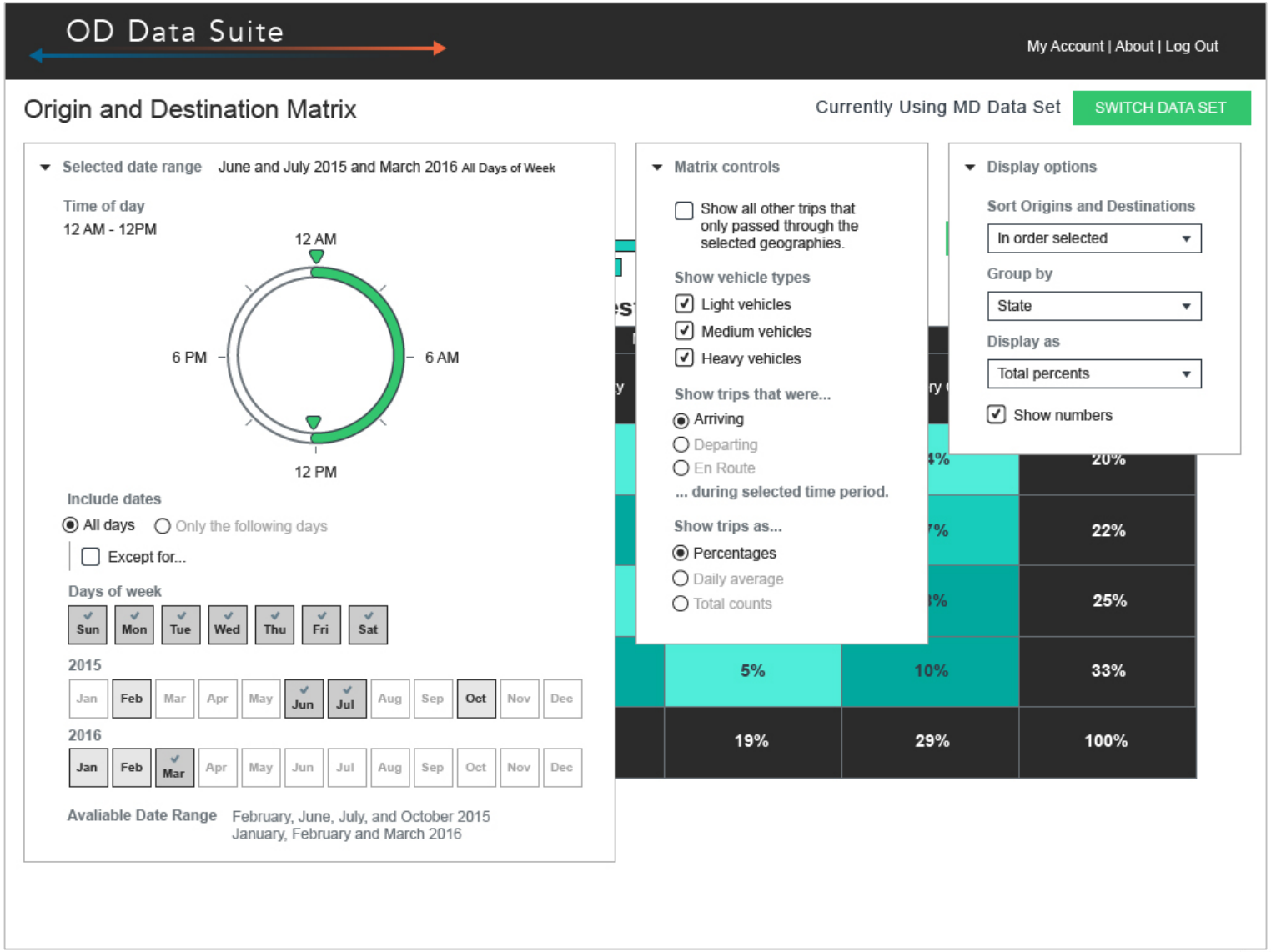
Map controls for TMC / Geography selection

› Map controls are expected to be deployed tomorrow.



Basic O-D Data Analytics (Phase 1)

› A Phase 1 release of the O-D Data Suite is currently scheduled for Q4.



Work continues on some really BIG efforts…

Continuing to remove the dependence on Flash

(NOTE: Flash support ends in 2020)

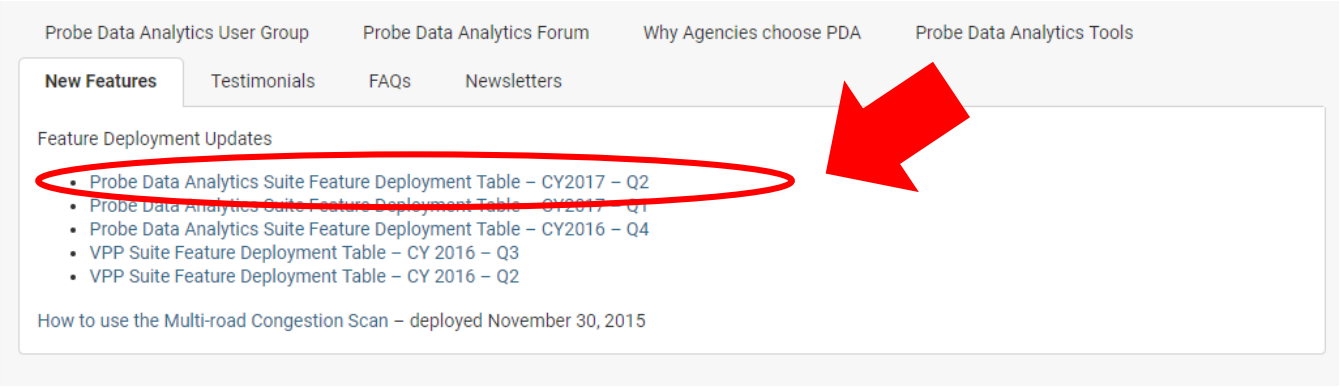
Continuing to evolve the system based upon user needs.

(Overload issue at the beginning of each month has been resolved)

Deploy Summary Table Update

› 2017 **Q2** Deploy Summary Table is available at:

http://i95coalition.org/projects/probe-data-analytics/



Thanks!

For more information, please contact:

John C. Allen
The Center for Advanced Transportation Technology Laboratory
jallen35@umd.edu | 215.666.3057

In the spotlight…

Agency Spotlight Presentation: "How-To" presentation for Holiday Travel Advisories

Ed Stylc
Planner Analyst
Baltimore Metropolitan Council

Baltimore Metropolitan Council

Travel Advisory Report Instructions Using the PDA Suite

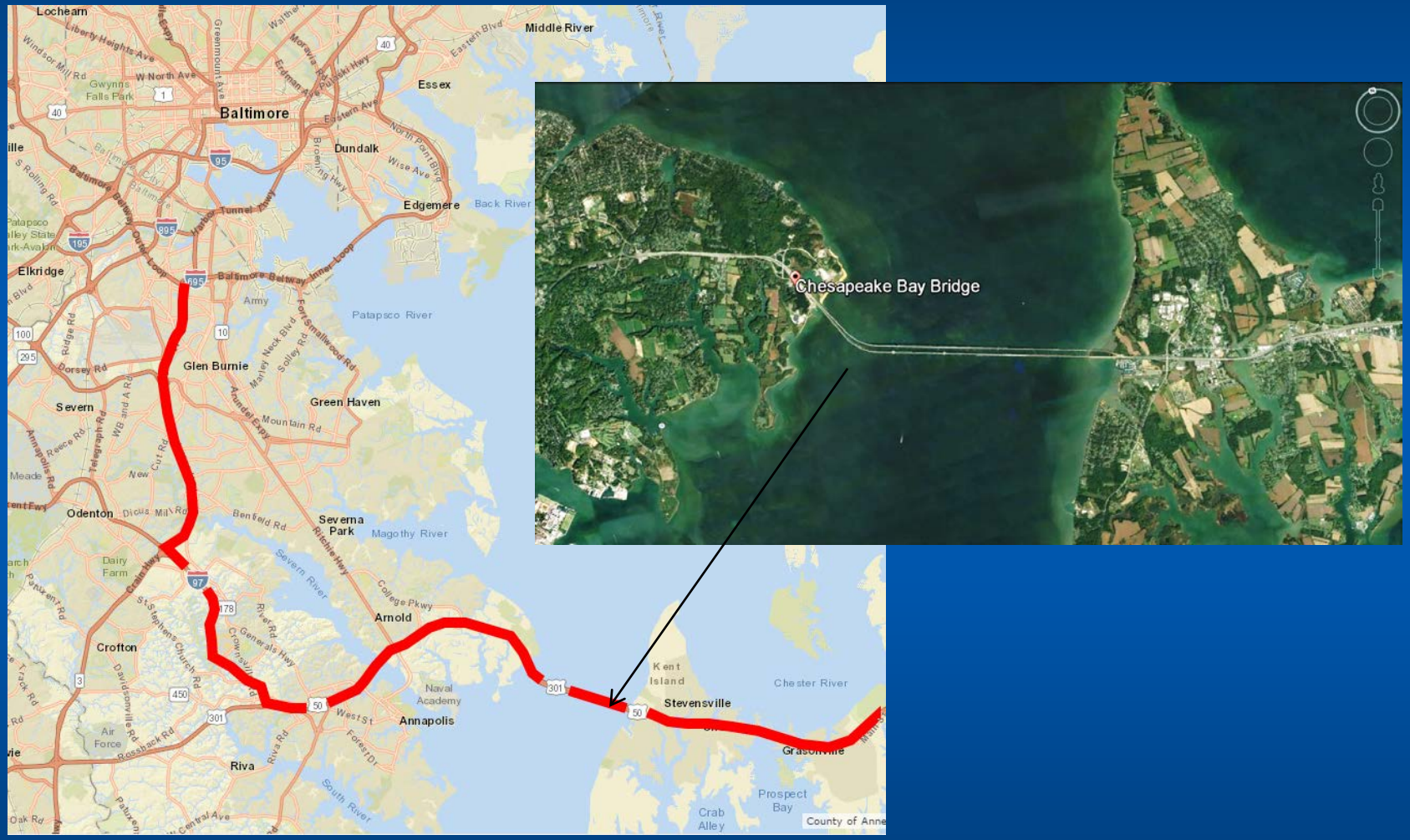
Labor Day 2017

Presentation to the Probe Data Analytics Suite Users Group – August 17, 2017

Baltimore Metropolitan Council

BRTB

Scope of Analysis - Chesapeake Bay Bridge, I-97, US-50 towards Maryland Beaches



Telling the story

- BMC contacts the Maryland Transportation Authority (MdTA) and AAA Mid Atlantic for traffic volume estimates, gas price information and travel time tips.

- Author summarizes the data in a few brief paragraphs.

- BMC then utilizes the PDA suite to provide examples to (hopefully) support the data and recommended travel times over the holiday weekend.

Example:

- In 2017, more than 356,000 vehicles will cross over the Chesapeake Bay Bridge during the Memorial Day weekend

Telling The Story

The Maryland Transportation Authority (MdTA) offers travel tips for the Labor Day holiday weekend:

Travel off-peak when heading to and from the Eastern Shore. The best times to travel the Bay Bridge this weekend include:

- Thursday - before 10 a.m. and after 10 p.m.
- Friday - before 10 a.m. and after 10 p.m.
- Saturday - before 7 a.m. and after 5 p.m.
- Sunday - before 10 a.m. and after 10 p.m.
- Memorial Day - before 10 a.m. and after 10 p.m.

Use the Probe Data Analytics Suite to see if these tips hold true historically

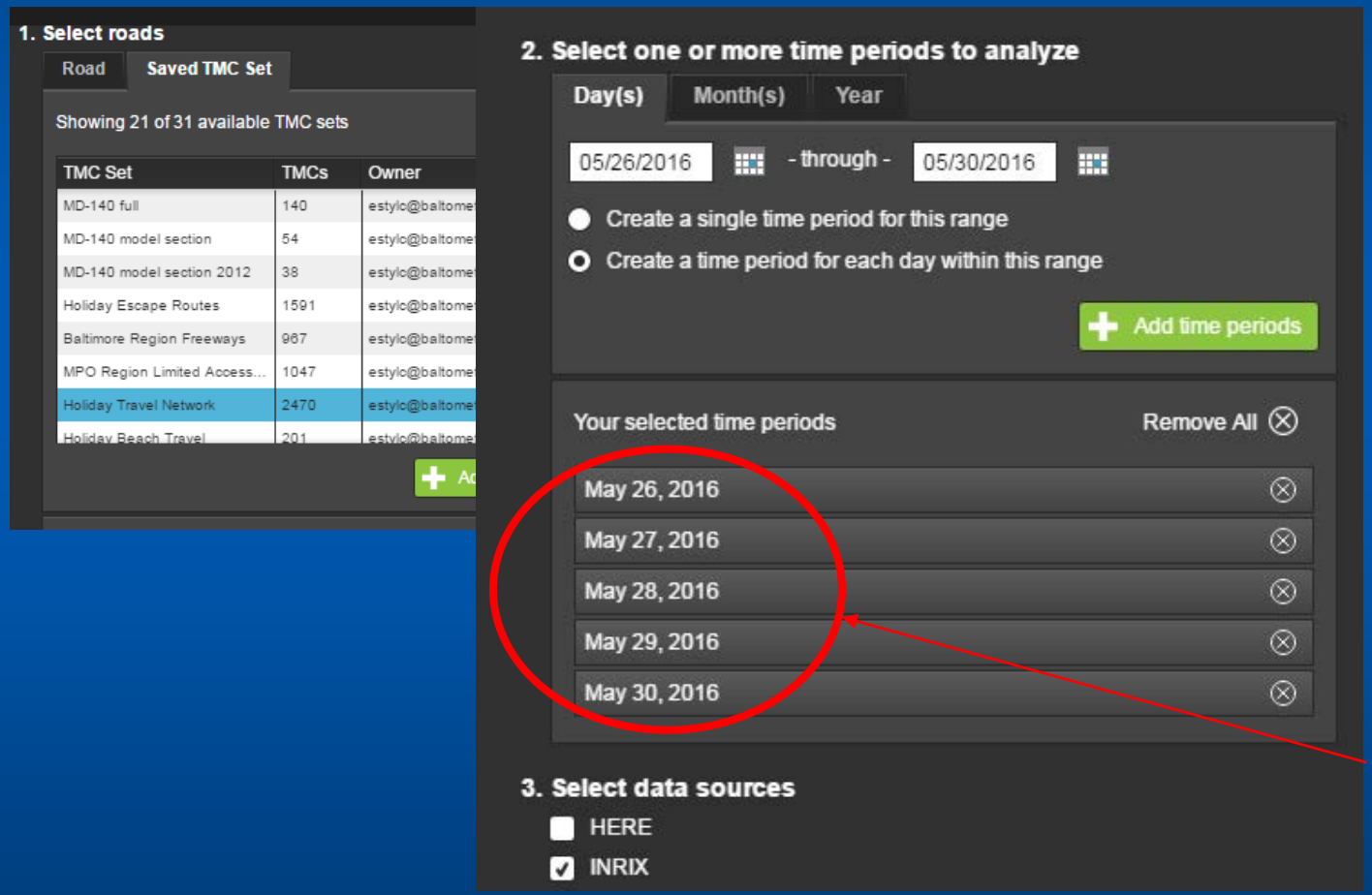
VPP Suite Apps / Visuals Used

Congestion Scan

Trend Map

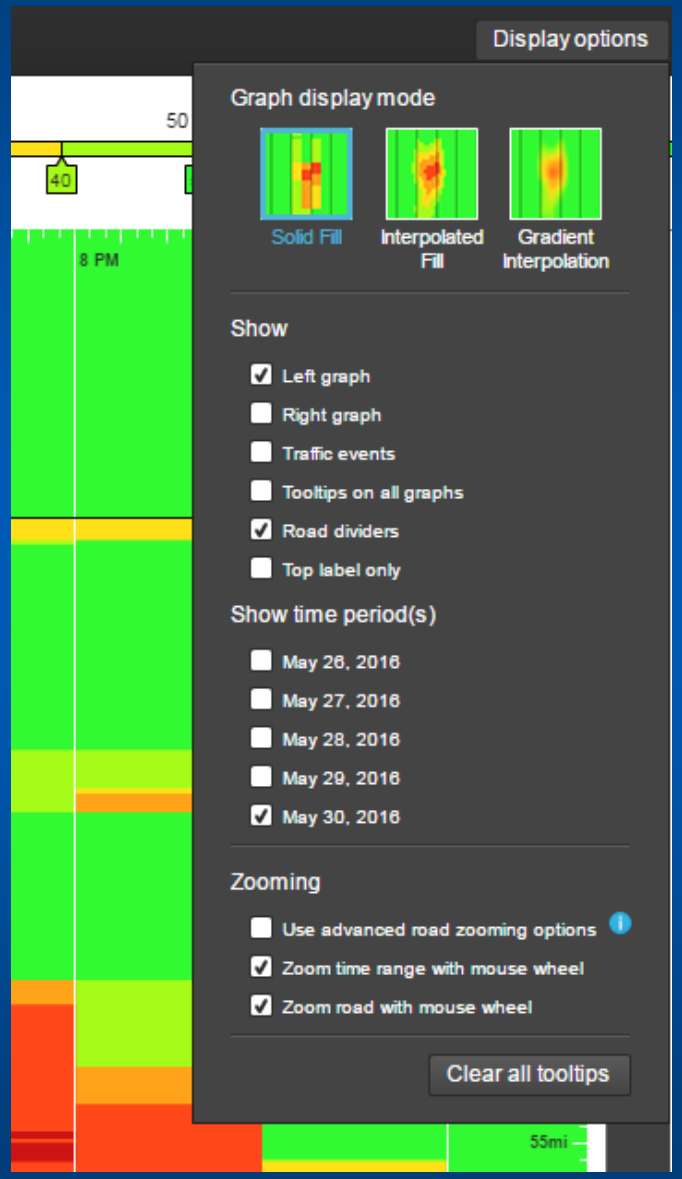
Using Congestion Scan

- Run individual scans for each day being analyzed
- Saved TMC set of Baltimore to Maryland Beach route selected



Check holiday weekend dates from previous year

Using Congestion Scan

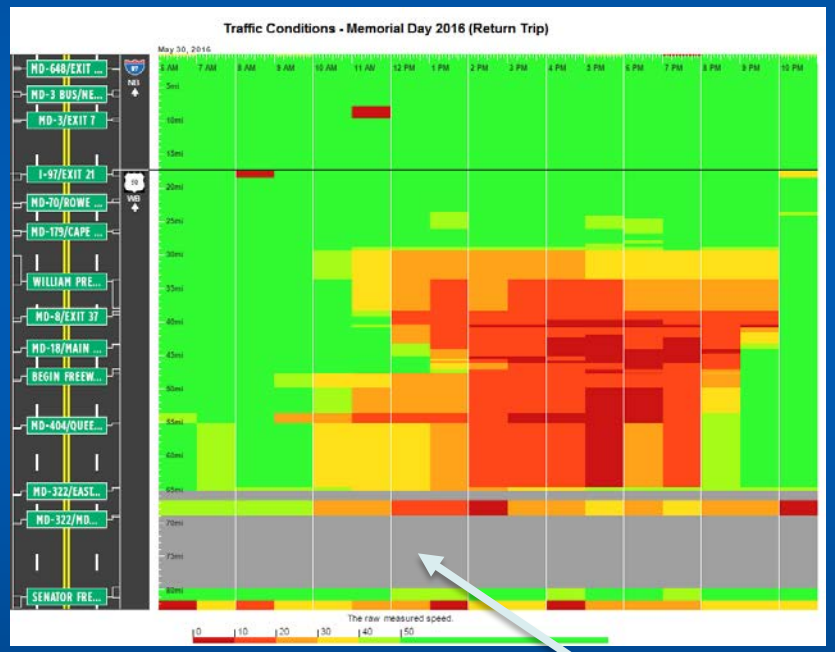


- Result will give all 5 days displayed side by side
- Use “Display Options” to choose the date and direction of traffic you are interested in
- In this example Monday is selected to see the return traffic westbound across the Bay Bridge
- Select other options based on preference

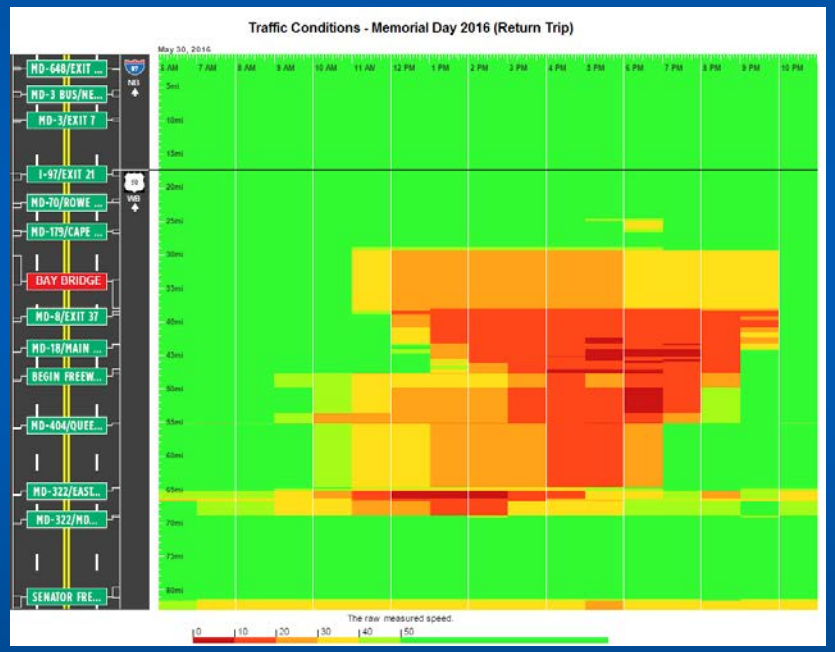
Evaluating the data set using Congestion Scan

- When running the congestion scan check the results from all PDA sources
- NPMRDS showed significant gaps for 2016 scans while INRIX did not

NPMRDS



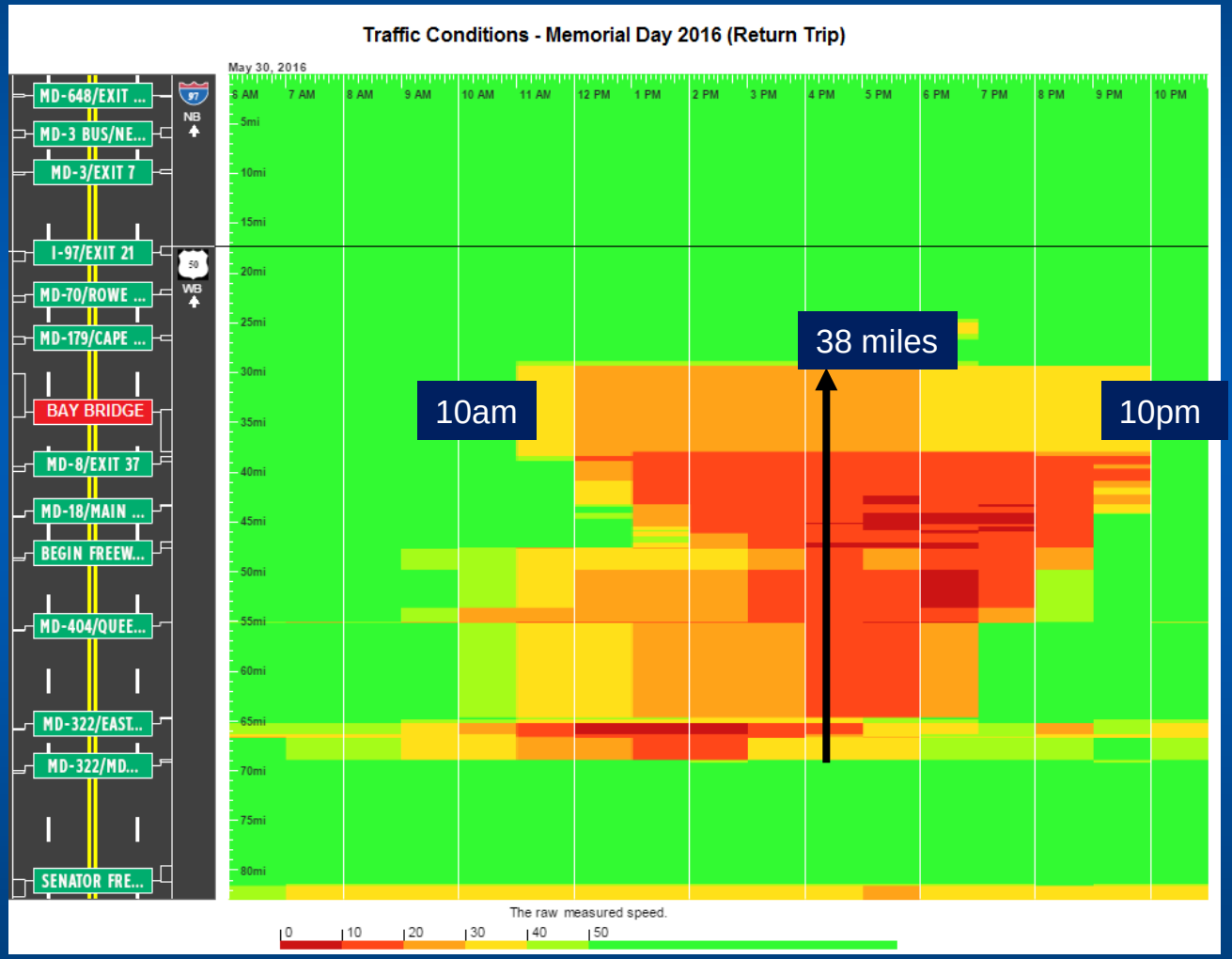
INRIX



DATA MISSING!

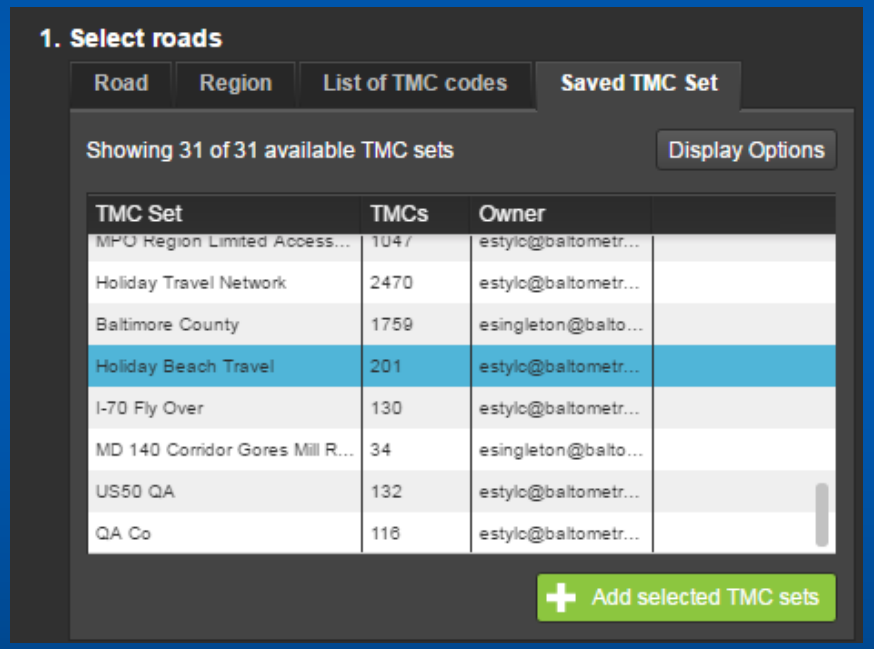
Telling the Story using Congestion Scan

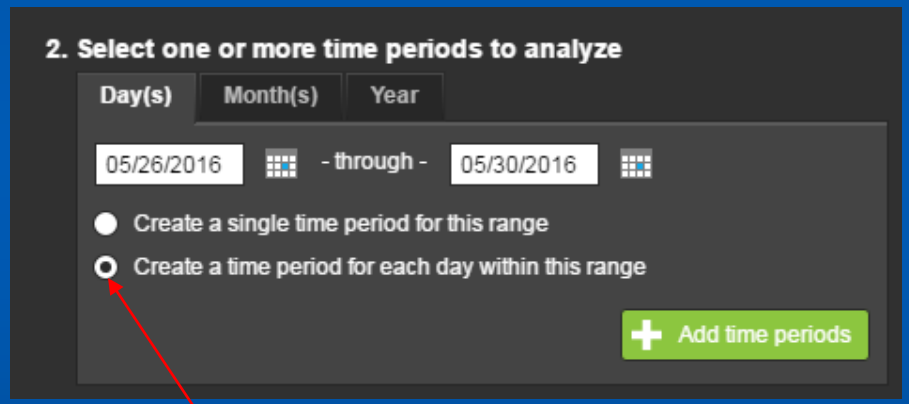
- MdTA suggested travelers make their trips before 10am and After 10pm on Memorial Day Monday
- In this case that was wise advise!



Animated Trend Map

- Saved TMC set I-97 and US-50 stitched together
- Same set used for Labor Day and July 4th Weekends
- Memorial Day weekend 2016 Thurs-Mon selected

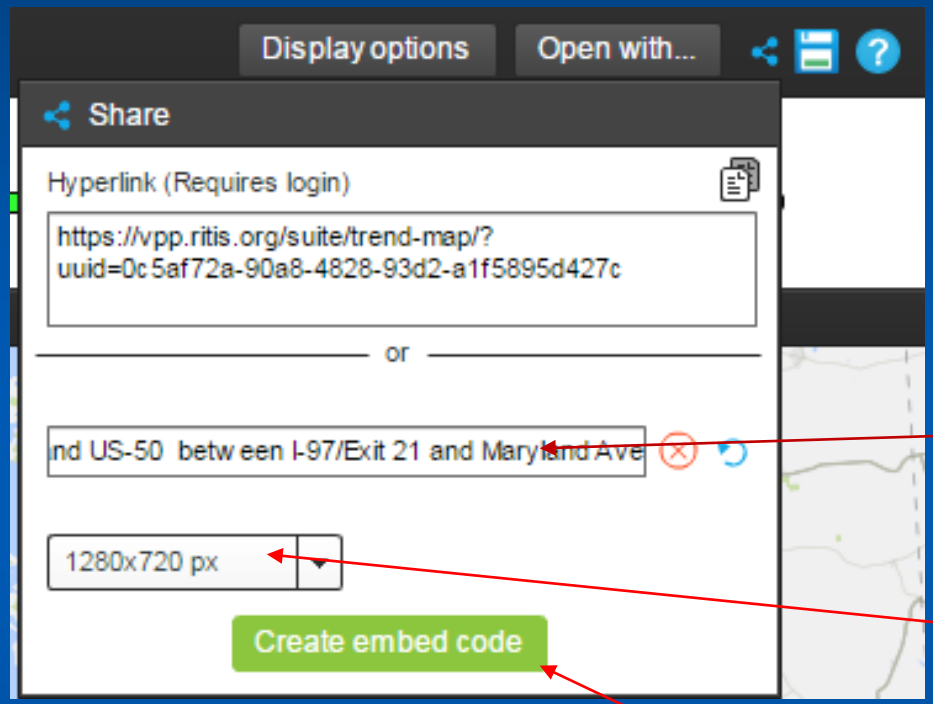




Select for separate animations for each day of the holiday weekend

Animated Trend Map

- Share

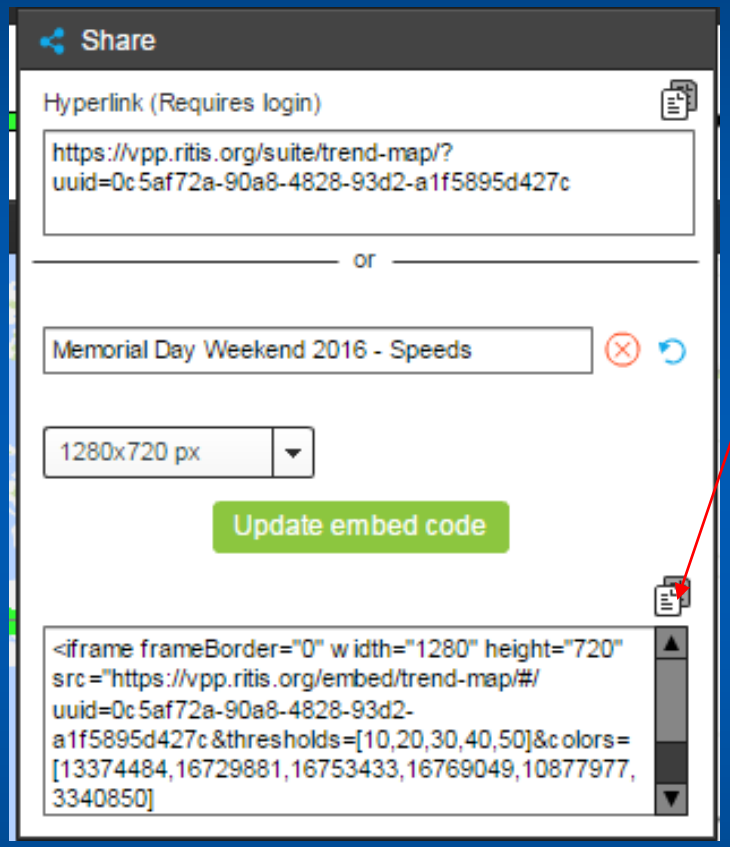


Change title from default to desired name

Size suggested by BMC webmaster

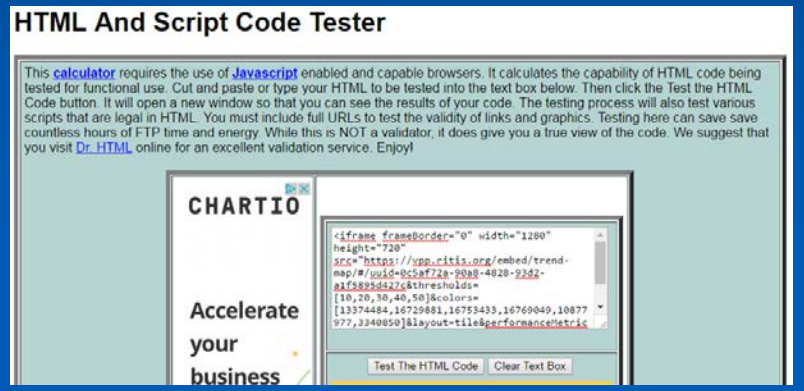
Create embed code link for web display

Animated Trend Map

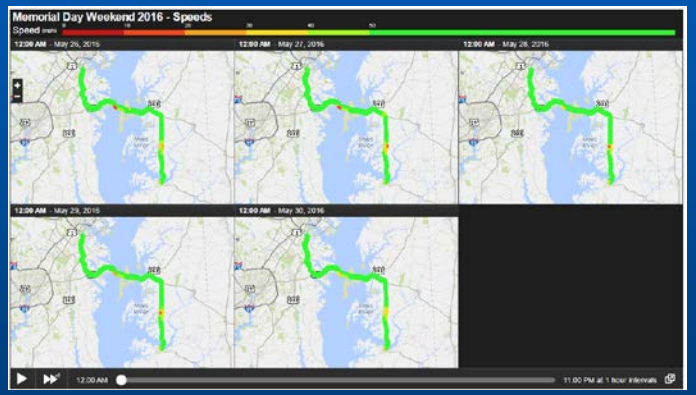


Copy embed code

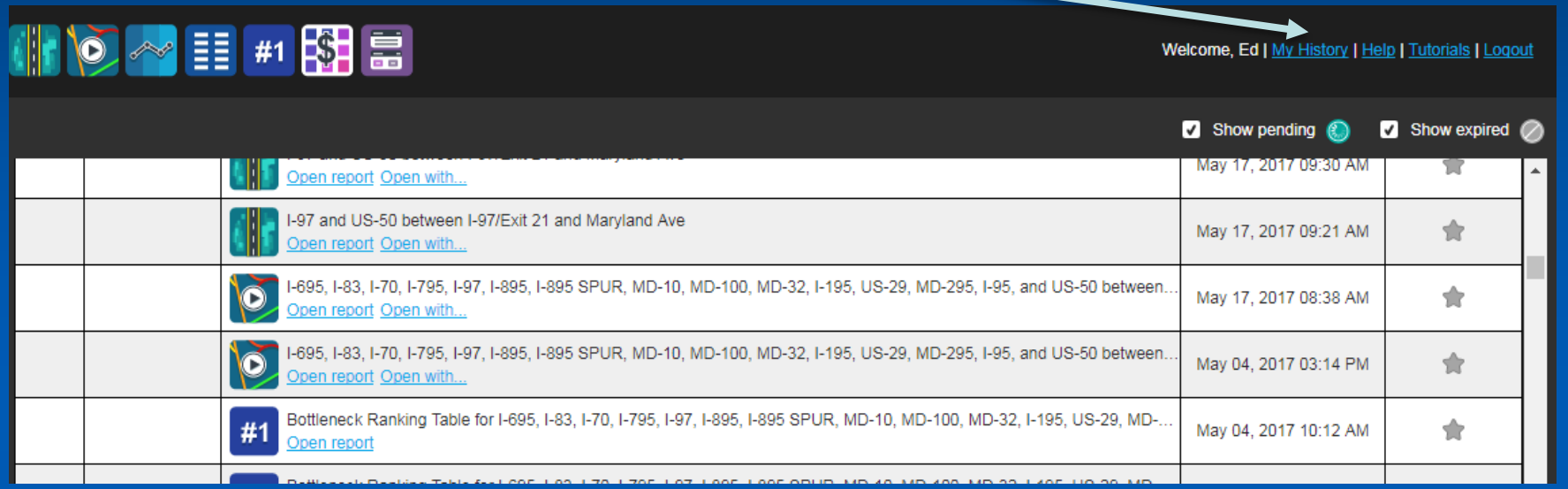
- Paste into test site and click “Test HTML code”
- http://www.csgnetwork.com/htmlcodetest.html



Animated pop up window should appear



My History



- "My History" and "Saved TMC Set" features allow for easy reproduction of holiday advisories without duplication of efforts

Press Release Development

BMC Public relations staff reached out to the following agencies for comments:

- Maryland Transportation Authority (MdTA)
- State Highway Administration
- AAA Mid Atlantic

Social Media Outreach

Local Media

THE BALTIMORE SUN
baltimoresun.com

Traveling during Thanksgiving week

Ed Stylc of the Baltimore Metropolitan Council demonstrates the "RITIS" (Regional Integrated Transportation Information System) program, which provides traffic data including the busiest times to travel for Thanksgiving on the roads in the region. Travelers also explain how they are attempting to avoid these travel issues. (Barbara Haddock Taylor, Baltimore Sun video)

Full Video: http://www.baltimoresun.com/91949645-132.html

Local Media

THE BALTIMORE SUN
baltimoresun.com

For those looking to get away on one of the popular travel weekends, the Baltimore Metropolitan Council studies the best and worst times for traffic. If you're heading across the Bay Bridge this weekend, the analysts recommend leaving either before 11 a.m. or after 10 p.m. to avoid the worst traffic. Another important factor: which day you drive.

"If you're going to take a three-day weekend, take a day on the back end," Ed Stylc, a travel analyst at the council. "Extend it after the holiday. Everybody on a standard weekend is leaving Sunday. If you can leave Monday, you're going to be a lot better off."

Scheduling

- August 1st – 5th (4 weeks before): Inform webmaster of intent to publish travel advisory
- August 7th -18th (3 weeks before): Run congestion scans and trend maps for 2016. Check for any anomalies from the previous year (weather events; data gaps, etc.)
- August 21st – 25th (1 week before): Contact MdTA for statement including traffic counts and estimated volumes for 2017. Write up advisory and provide it to webmaster
- Monday August 28th (4 days before) – Publish advisory to website and promote via social media throughout the week
- Labor Day weekend – August 31 – Sept 3

Final Thoughts

- BMC utilizes PDA tools to support travelers advisory suggestions from the MdTA who operate the toll facilities
- “My History” and “Saved TMC Set” features allow for easy reproduction of holiday advisories without duplication of efforts
- Ideally have the advisory ready the week before the holiday to release the Monday before
- Social Media promotion extremely helpful (460 hits on BMC website)

For More Information

Ed Stylc
(410) 732-0500 x1031
estylc@baltometro.org
www.baltometro.org

NPMRDS v2 ◦ Status Update

NPMRDS Analytics

The NPMRDS v2.0 is ready for you!

What's changed, and how to get access.
July 20, 2017

Enhancing the NPMRDS & making it easier to work with for national, state, and local agencies

https://connectdot.connectsolutions.com/p13dy8kw6mr/?launcher=false&fcsContent=true&pbMode=normal

NPMRDS v2 – Resource List

Resource	URL
› Quick Start Guide	https://npmrds.ritis.org/static/help/pdf/NPMRDSquickstart.pdf
› FAQs	https://npmrds.ritis.org/analytics/help/#npmrds
› Massive Data Downloader Tutorial	https://npmrds.ritis.org/analytics/tutorials/?video=5
› Shapefiles	https://npmrds.ritis.org/analytics/shapefiles
› Webinars	https://ops.fhwa.dot.gov/perf_measurement/
› Descriptive Metadata Document	https://npmrds.ritis.org/static/help/pdf/NPMRDS.pdf
› Helpdesk Support / Feedback Email*	npmrds@ritis.org

* - to contact support or provide feedback, use the corresponding “Need to reach out to us?” links on the NPMRDS Analytics landing page

Focus Group

Inaugural Meeting

June 16, 2017 ◦ 10:00 a.m. to 2:00 p.m.

Technology Ventures Building ◦ University of Maryland

Agency group members

- David Heller (SJTPO)
- Wenjing Pu (FHWA)
- Peng Xiao (VDOT)
- Keith Miller (NJTPA)
- Terrell Hughes (VDOT; alternate)

CATT Lab participants

- John Allen
- Nikola Ivanov
- Jenny Lees
- Catherine Plaisant
- Mark Franz

Other UMD participants

- Nikola Markovic (CATT)
- Di Yang (NTC)

SJTPO – South Jersey Transportation Planning Organization **NJTPA** – North Jersey Transportation Planning Authority **NTC** – National Transportation Center

Meeting Highlights

- The Case for using Use Cases
  - The Lab's approach to developing tools, features, functions, results
- Questionnaire Results
  - Surveyed agency members to get specifics on needs and wants
- CATT Lab's OD Data Suite UI /UX
  - Design mock-ups presented and discussed
- Agency's Input / Brainstorming Session
  - Conceptual sketches reviewed for agency input

Key takeaways

- Better understanding of agency's vision / priorities (related to O-D data use)
- Agency's current uses of O-D data
- Specific O-D use cases that are most important
- What future O-D uses, and use cases will be important
- Features and functions that would be useful
- Visualizations, summaries and types of reporting that would be most helpful

Next Steps

- ✓ Summarized the meeting discussion
- ✓ Submitted to Group for review / approval
- › The Lab will use suggestions to help refine features, functions & results page
- › And we'll use additional insight to prioritize future tool development and deploy

(The Meeting Log and presentation will be posted on the PDA Suite page of the I-95 CC's website)


Q
A

In the spotlight…

Agency Spotlight Presentation: Using the NJCMS & PDA Suite to rate planned projects

Ira Levinton, Project Engineer, Planning
Bureau of Commuter / Mobility Strategies

New Jersey
Department of Transportation

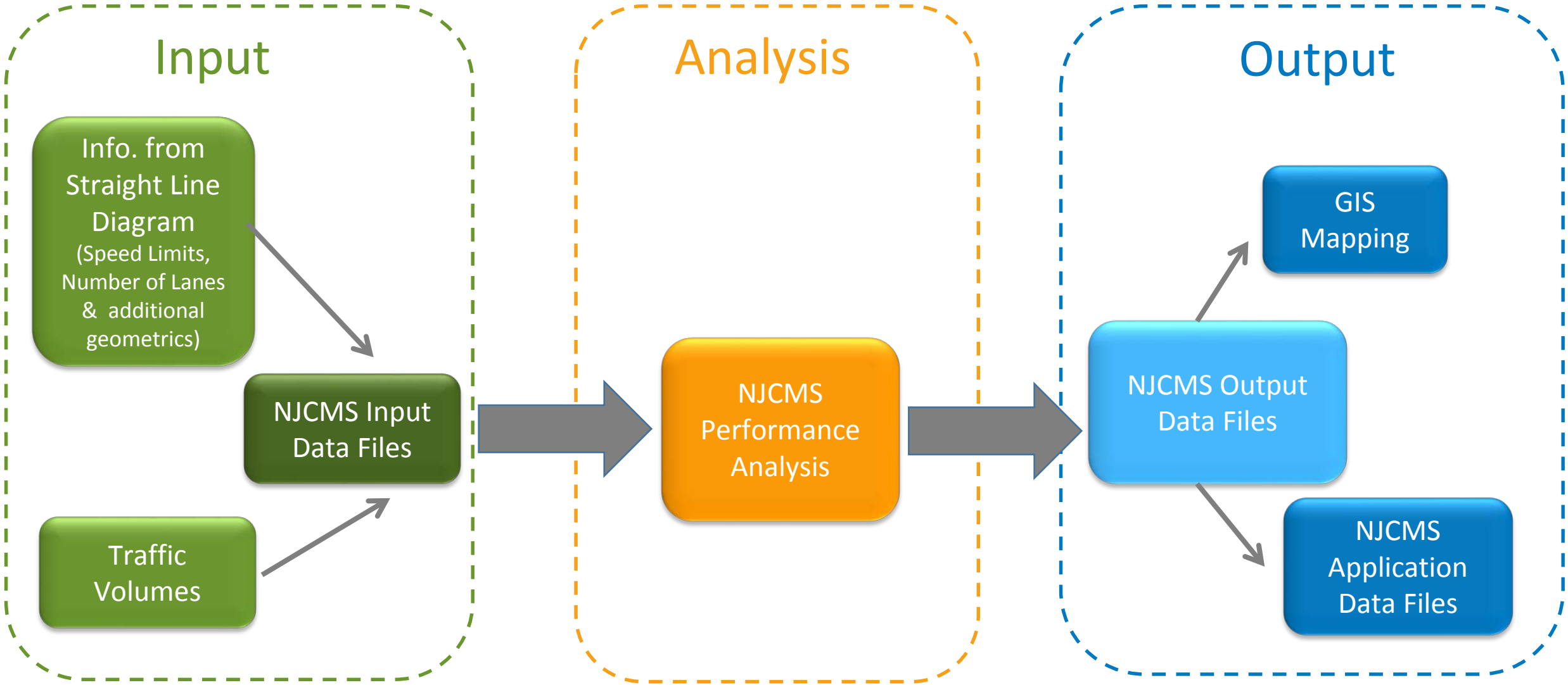
Background / Context

- Request from NJDOT Project Management to rate all 50 Congestion Relief-related projects in Project Management as of February 2017:
    - 35 Highway Operational Improvements
    - 6 Safety-related
    - 4 Safety / HOI-related
    - 5 ITS
- This will help Project Management / Capital Program Development determine which projects to fund for the next 5 to 10 years.
- Projects were traditionally rated using the New Jersey Congestion Management System (NJCMS-21)
- Ratings for Congestion Relief and other applicable systems such as Safety are used to determine the overall priority for Congestion-related projects.

New Jersey Congestion Management System

- Contains data and congestion performance measures for all Interstate, US and State routes in New Jersey
- Input data included traffic volumes, number of lanes, traffic signals and functional classification
- Data analysis and output is based on a typical weekday
- Output data includes Volume to Capacity (V/C) ratios
- Congestion scores were developed using V/C ratios, traffic volumes and functional class
- New Jersey has a large amount of shore areas with considerable more traffic in the Summer (however, the NJCMS does not have a Summer model)

NJCMS-21 Process Overview

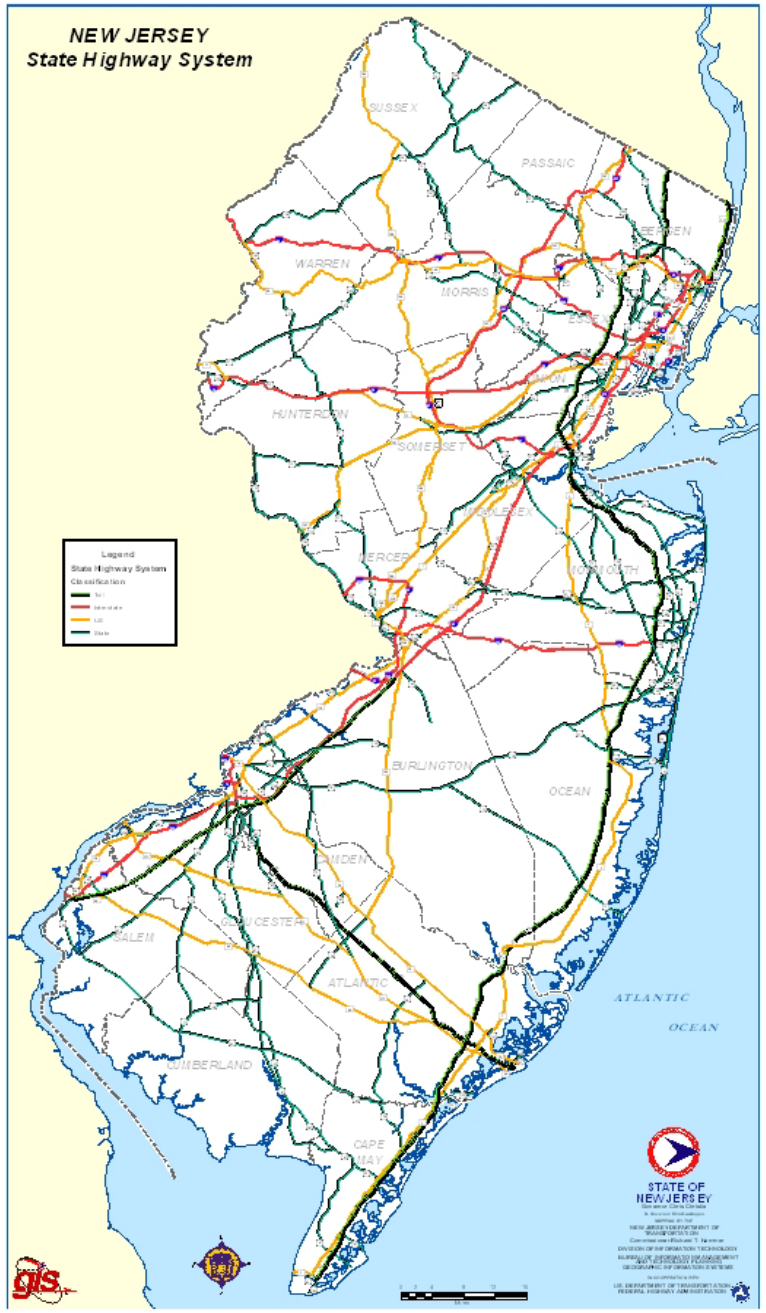


NJ's State Highway System

- The New Jersey Congestion Management System (NJCMS) contains all Interstate, US and New Jersey state routes
- The NJCMS contains several county routes and few municipal routes

New Jersey State Highway Mileage

Route Type	Mileage	Percent
Interstate Routes	433	15.4%
US Routes	782	27.8%
New Jersey Routes	1602	56.9%
Total	2817	100.0%



Rating tools used

› Congestion Ratings for priority categories of **Highest (1)**, **Next High (2)** and **Lower (3)** developed by using:

  – NJ's Congestion Management System
  – Probe Data Analytics Suite

CMS-21 Scoring Methodology

Congestion Scores

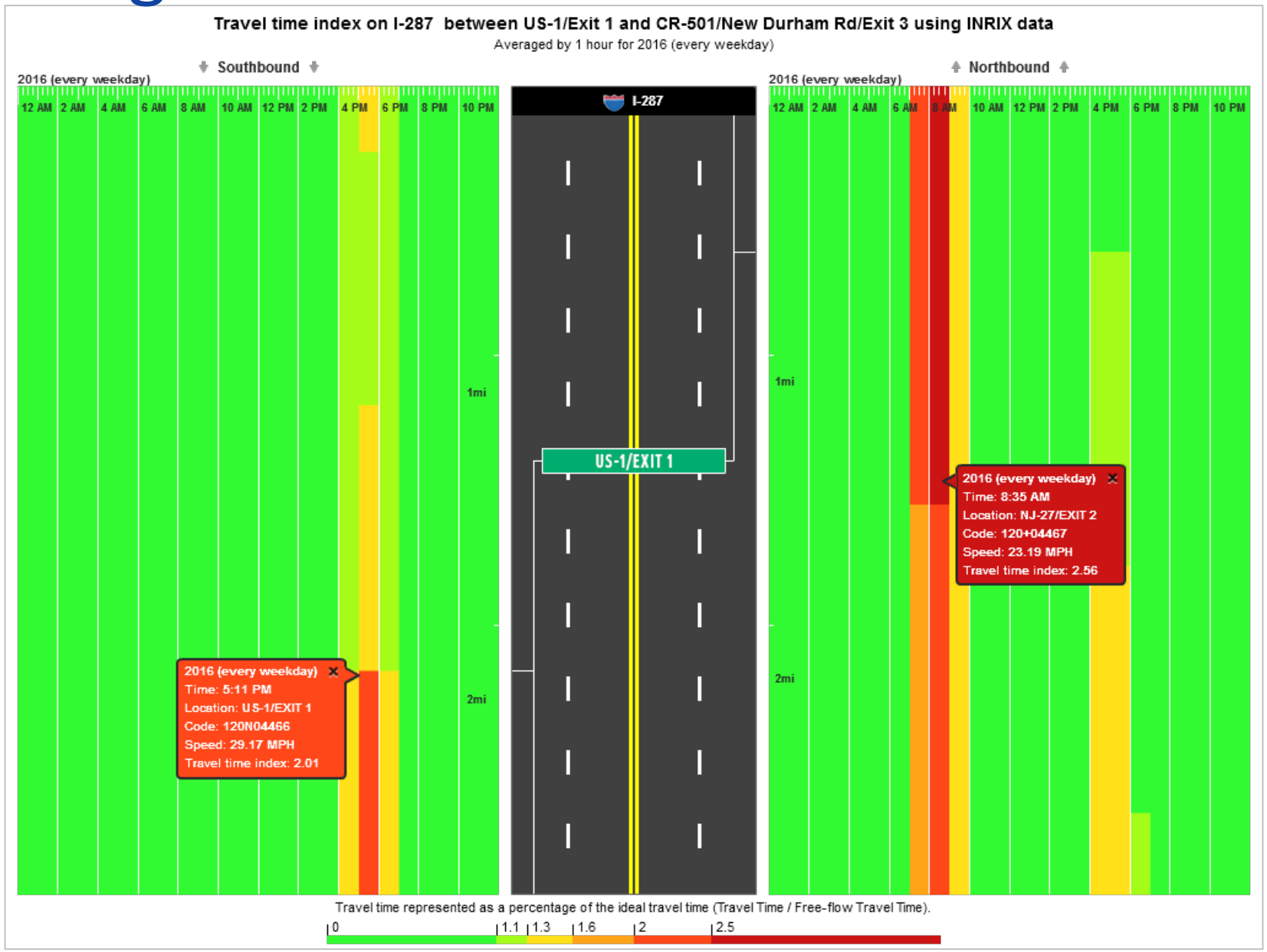
CMS Priority Scores developed using a combination of v/c ratios, ADTs and Function Class:

Element	v/c Ratios	Daily Volume (2-way)	Function Class
Weighting:	30% each, AM/PM Peaks	30%	10%
Scoring (0-10):	Scaled to max score of 10, @ v/c = 1.50 and above	normalized to: (score of 10 @ 100,000 vpd and above)	Principal Arterials, Freeways – 10 Undivided Principal Arterial – 8 Minor Arterial – 5 Collector – 3 Local Streets – 0

Probe Data Analytics Suite Use

- Use of Congestion Scan which includes measures for speed, Travel Time Index (TTI) and Planning Time Index (PTI)
- TTI for all of 2016 Monday to Friday combined is used for the Congestion related project ratings
- For locations that have considerable more traffic in the Summer, the Summer TTI for July and August 2016 combined is used

Sample Congestion Scan TTI



Algorithm for Rating Congestion Related Projects

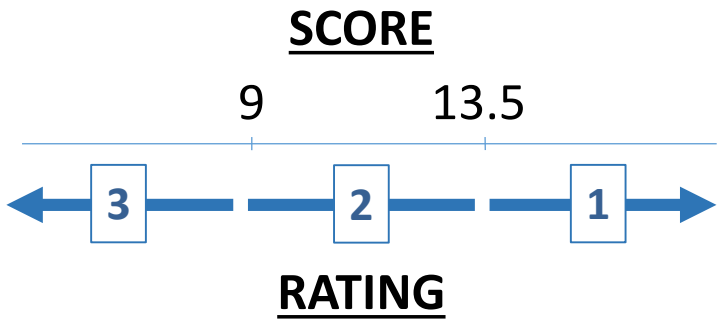
- Formula is: NJCMS Priority Rating Score + PDA TTI Score
- NJCMS Priority Score has a range from 0 to 10
- PDA TTI score was assigned to have a range from 0 to 15, based on giving the PDA TTI a higher weight than the NJCMS score, 60% to 40%
- PDA TTI scores are based on having a score of 0 for a TTI of 1 and a score of 15 where TTI is 2.5. The maximum TTI score recorded was around 2.5
- The resulting scoring formula is as follows:

NJCMS Score + 10 * (TTI – 1)

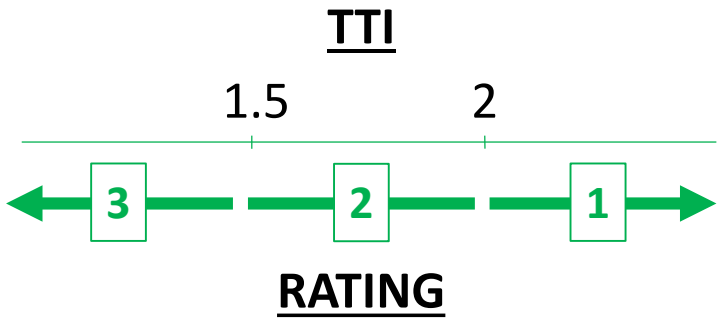
Scoring & Rating the Congestion Related Projects

- Ranges were selected for scoring to allow one-third of the scores or more to result in the highest rating of a “1”, with logical breakpoints such as 1.5 and 2

Total NJCMS + PDA TTI Score:



PDA TTI Rating:



- If the TTI rating is higher than the total rating, then the TTI rating is used (to elevate to more importance as the PDA has better data given the real time performance measures it uses).

Sample Priority Ratings Table

NJ Congestion Management System and Probe Data Analytics Suite
Travel Time Index Scores and Ratings
for a Sample of 12 Selected Projects
For Demonstration Purpose Only

Project Type	Route	24 Hr Total Volume	Max V/C AM	Max V/C PM	CMS Priority Score	2016 PDA TTI	Notes	CMS + PDA Score	Overall Priority	Priority Description
Operational	I-287	131150	1.00	1.00	8.00	2.38		21.80	1	Highest
Operational	I-287	128817	1.00	1.00	8.00	2.32		21.20	1	Highest
Operational	I-295	130229	0.93	0.82	7.50	2.27		20.20	1	Highest
Operational	US-1	76164	1.49	1.43	9.46	2.00		19.46	1	Highest
Operational	NJ-10	67373	1.03	1.09	7.70	2.08		18.50	1	Highest
Operational	US-46	51455	1.00	0.98	7.11	2.11		18.21	1	Highest
Operational	US-1	62259	1.06	0.99	7.46	2.03		17.76	1	Highest
Operational	US-206	30051	1.13	1.12	6.93	1.52		12.13	2	Next High
Operational	NJ-72	25979	0.47	0.56	4.59	1.70	1	11.59	2	Next High
Safety/Operational	US-46	30183	0.56	0.57	4.91	1.57	2	10.61	2	Next High
Safety	NJ-33	20746	0.43	0.42	3.87	1.55	3	9.37	2	Next High
Operational	US-206	21921	1.09	0.97	6.32	1.24	3, 4	8.72	3	Lower

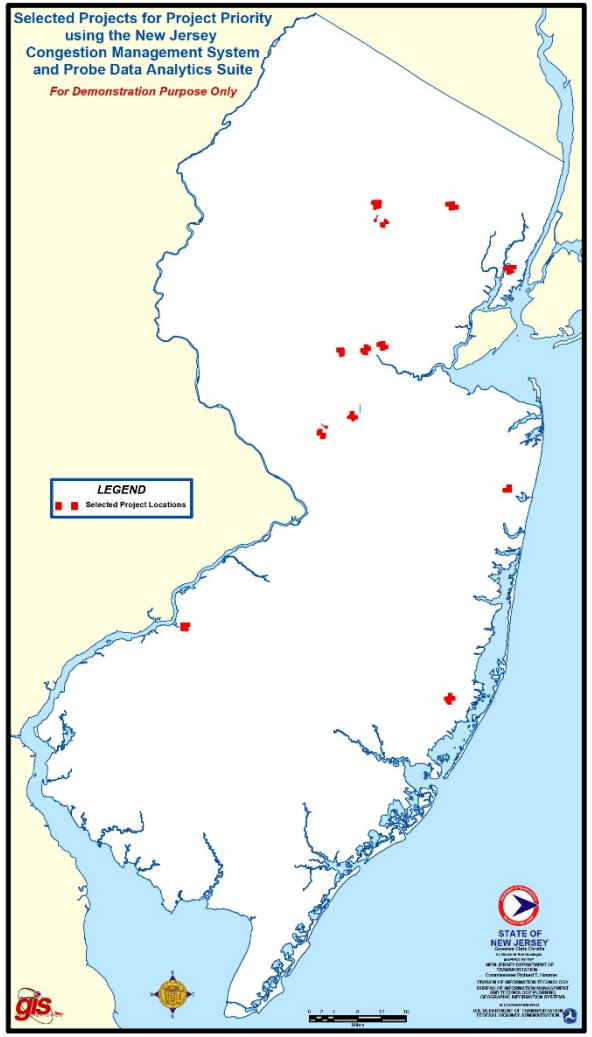
Notes

1 Summer TTI is used. 2016 weekday TTI is 1.15 resulting in overall score of 6.09 which would rate a "3".
2 TTI is higher than 1.5, rating given a "2" despite overall score of 10.61, which would rate lower at a "3".
3 Summer TTI is used. 2016 weekday TTI is 1.39 resulting in an overall score of 7.77
4 Summer TTI is higher than 1.5, rating given a "2" despite overall score of 9.37, which would rate a "3"

Priority Rating Table

CMS Priority Score	TTI	Final score	Overall Priority
At least 7.50	At least 2.00	At least 17.50	**1**
Between 6.00 and 7.49	Between 1.50 and 1.99	Between 11.00 and 17.50	**2**
Below 6.00	Below 1.50	Below 11.00	**3**

New Jersey Map with 12 Selected Projects



Ratings Results

- A large percentage of projects have TTIs over 2.0 and receive the highest rating of “1” based on having the highest scores

- As compare to a base scenario resulting from using the NJCMS priority score and the TTI for an average weekday, some projects have a higher rating because:

  The TTI rating is higher than the CMS rating

  Locations with higher summer volumes have higher TTIs in the summer.

- PDA Suite and CMS provide different performance measures that can be used in conjunction with each other to rate projects. PDA includes TTI, PTI and speeds, while CMS includes V/C ratios and delays.

Next Steps

- Project Management will review rating results from all project lists
- They will work with Capital Program Development to decide what project to fund for construction over the next several years
- Capital Program Development will put projects to fund into the Statewide Transportation Improvement Plan
- Decisions to move ahead on projects will be made at the Capital Programming Committee
- Once Construction is funded and scheduled, PDA Congestion Scan TTIs will be run before, during and after construction to verify if and by how much congestion is improved

Thanks!

For more information, please contact:

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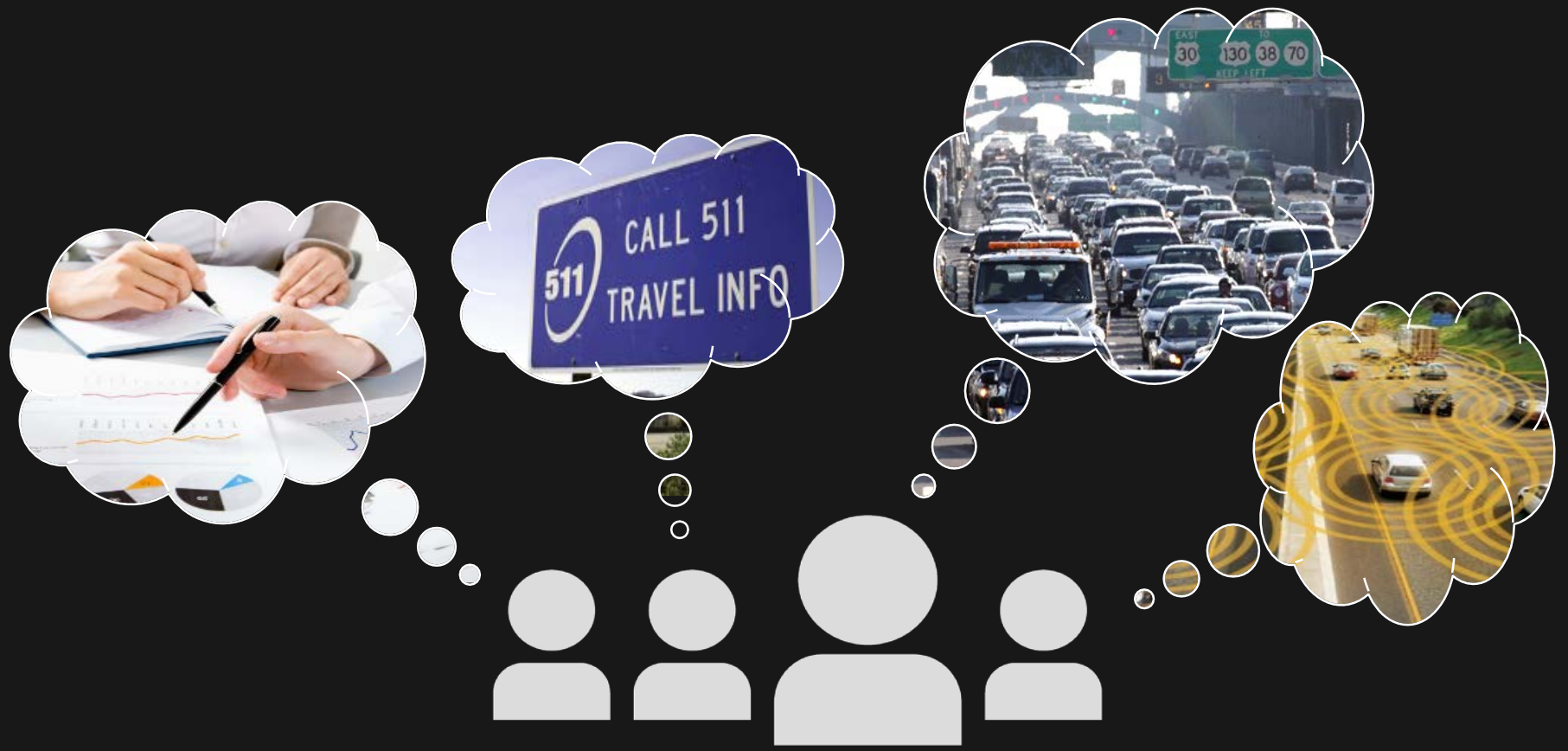
New Jersey Department of Transportation ◦ Commuter / Mobility Strategies
Ira.Levinton@dot.nj.gov | 609.530.2846

Agency Input Session



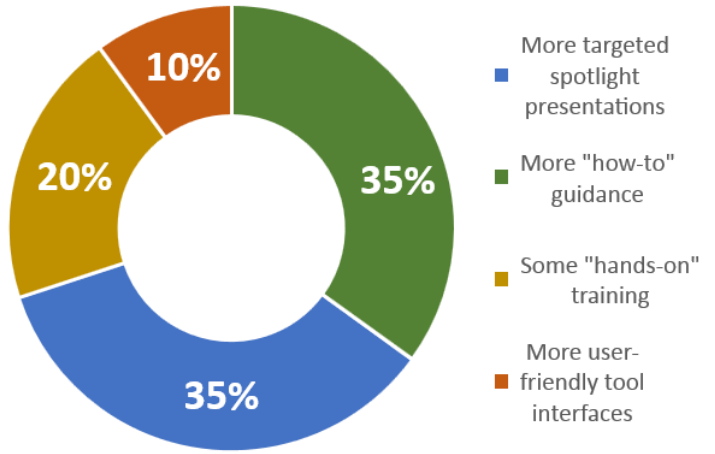
"What's on your mind?"

Instant Poll Summary

Poll results from Probe Data Analytics User Group members taken during the May 11, 2017 meeting.

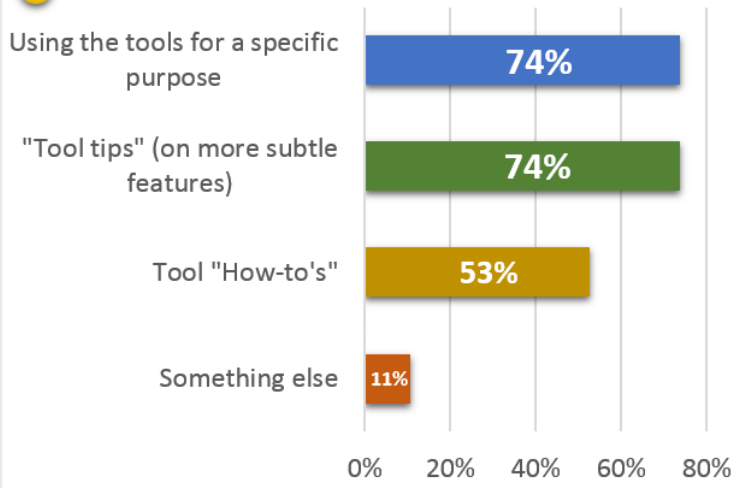
PROBE DATA ANALYTICS SUITE

1 Becoming a more skilled user…

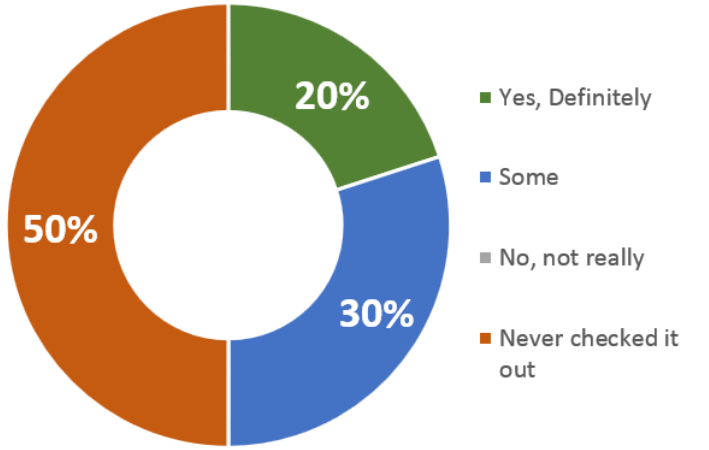


2 Desired future video tutorials…

(Multiple selections allowed)

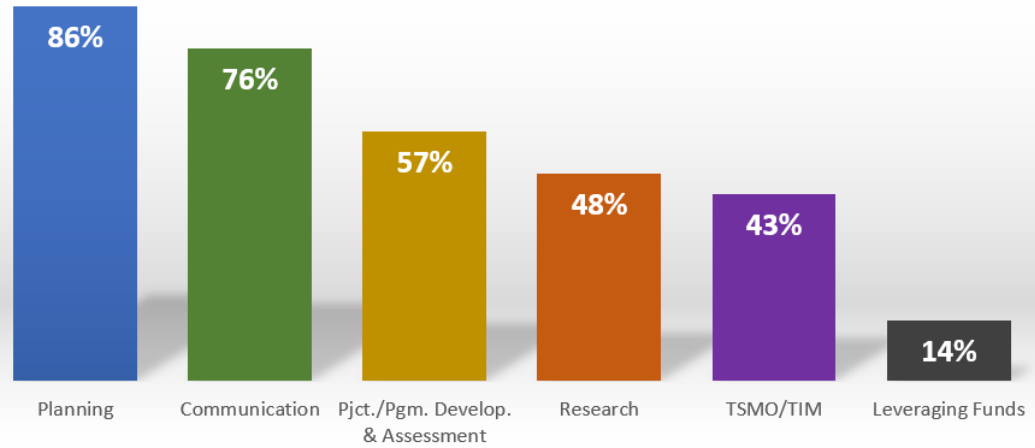


3 Value of the Deploy Summary Table…



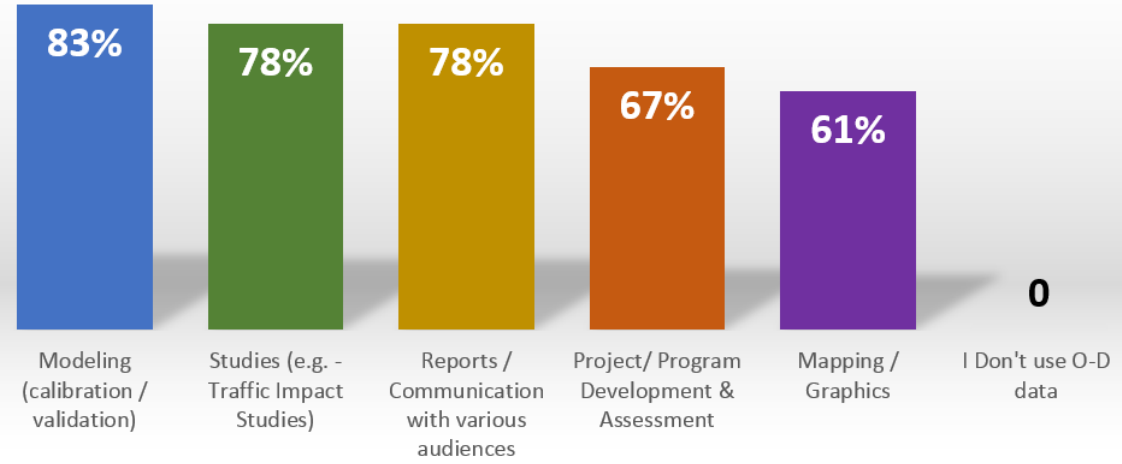
4 Areas currently using / wanting to use PDA Suite…

(Multiple selections allowed)



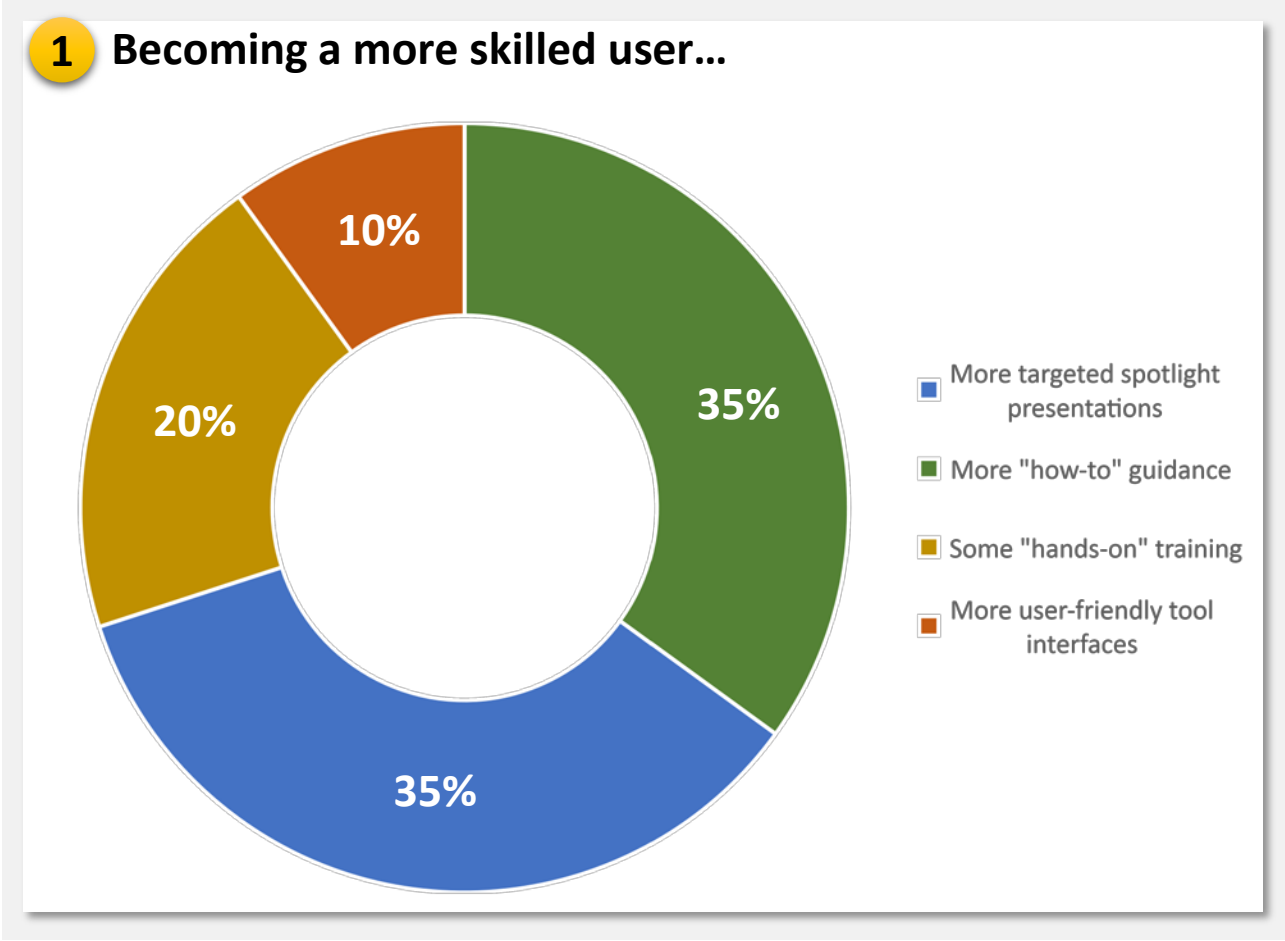
5 Most likely uses of O-D data…

(Multiple selections allowed)



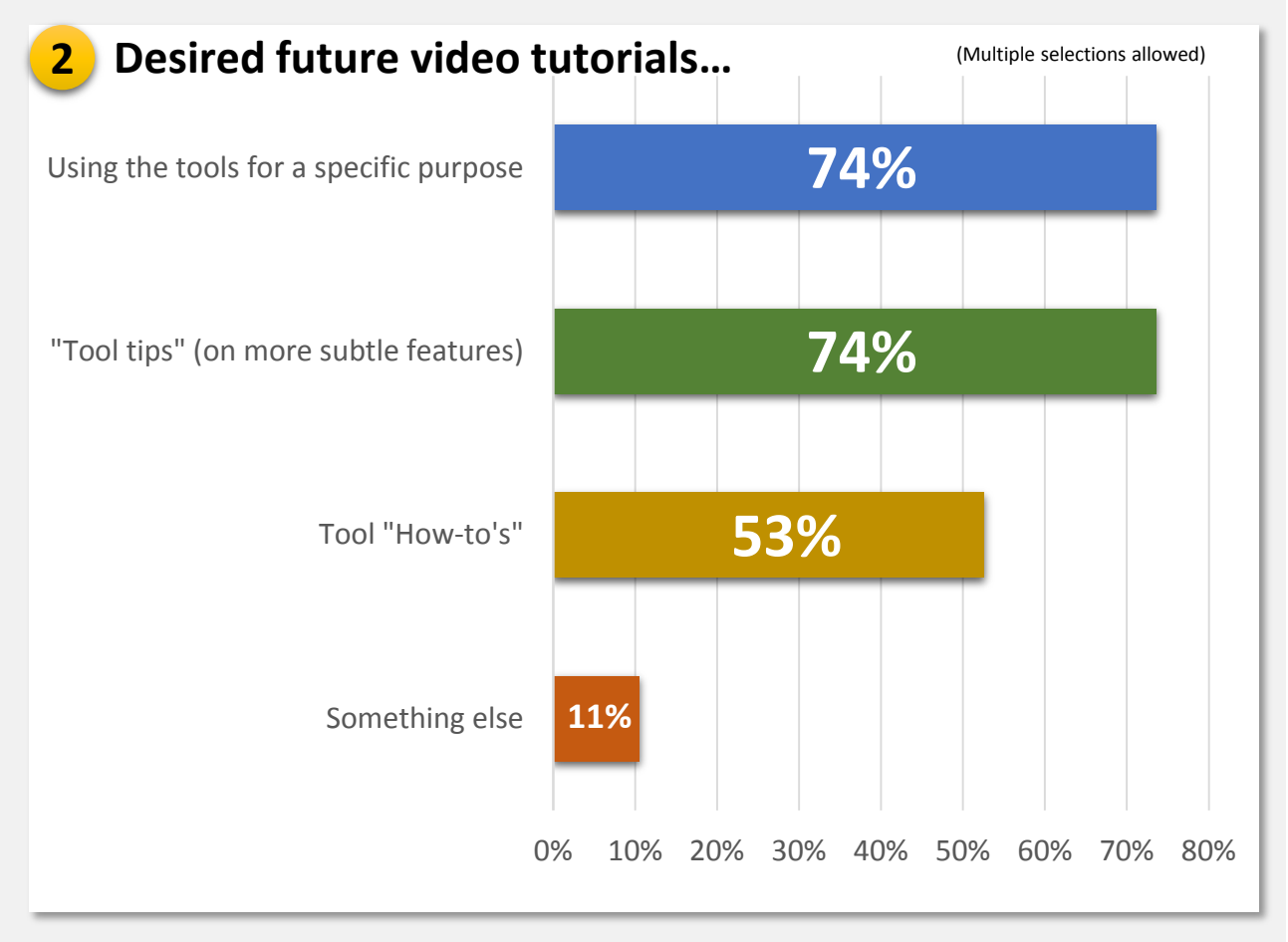
Agency Input Session

› **In what areas** would you like to see more presentations or “how-to’s”?



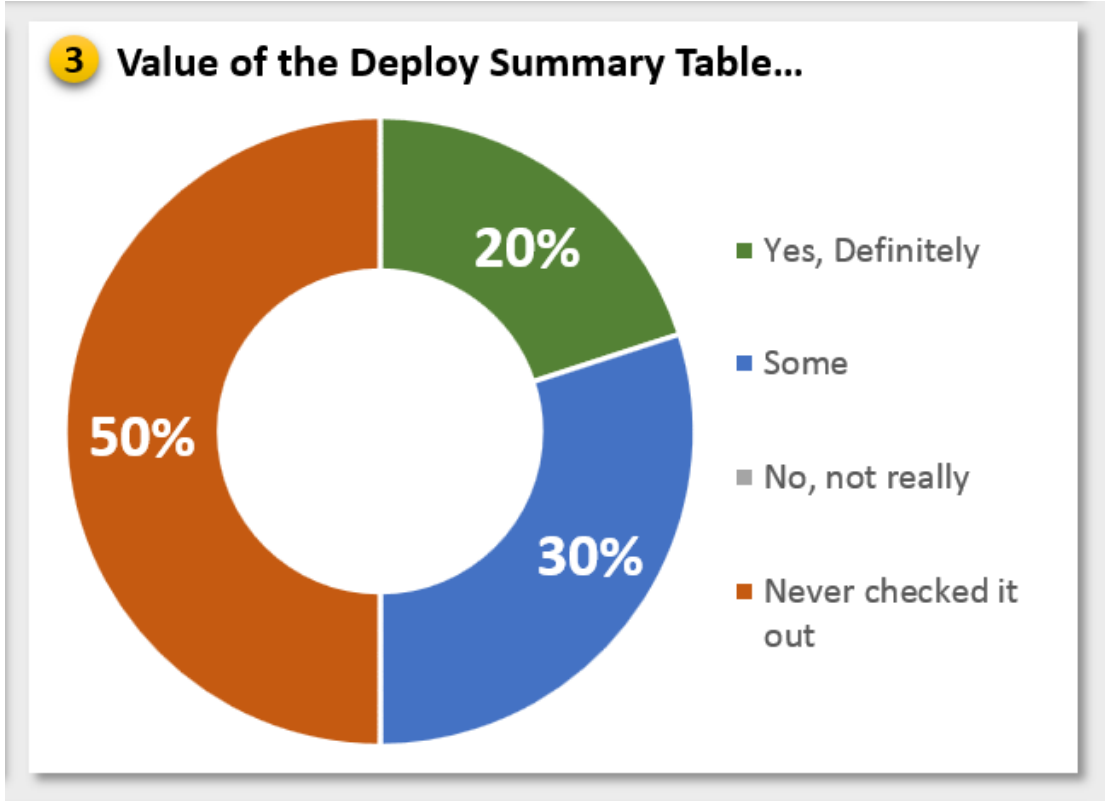
Agency Input Session

› **What are your suggestions** for new video tutorials?



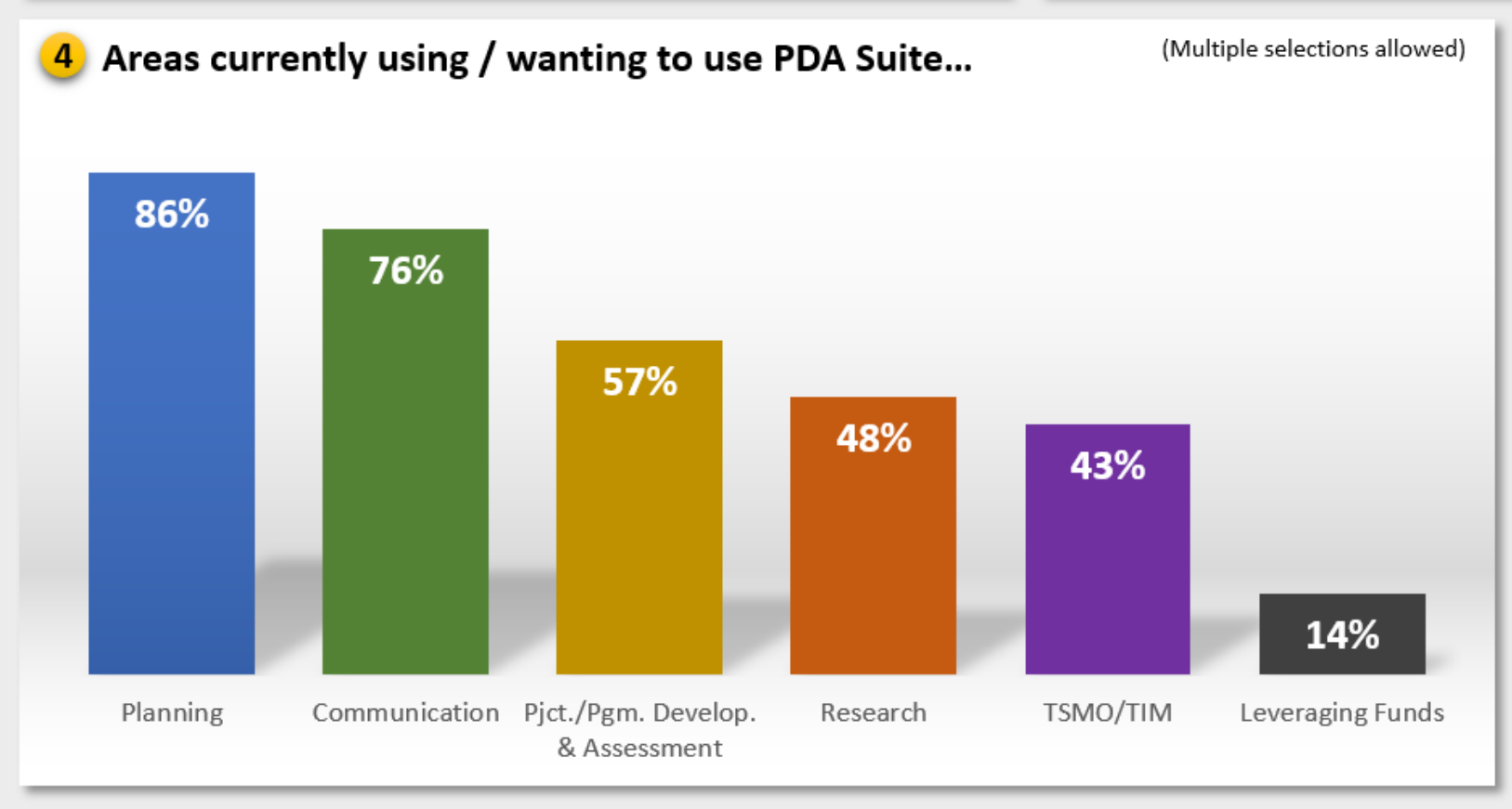
Agency Input Session

- **What value** are you getting from the table?
- **What can we do** to improve it?



Agency Input Session

- **Are the top three areas** where you want User Group focus?
- **Would you like more focus** on TSMO/TIM and leveraging funding?

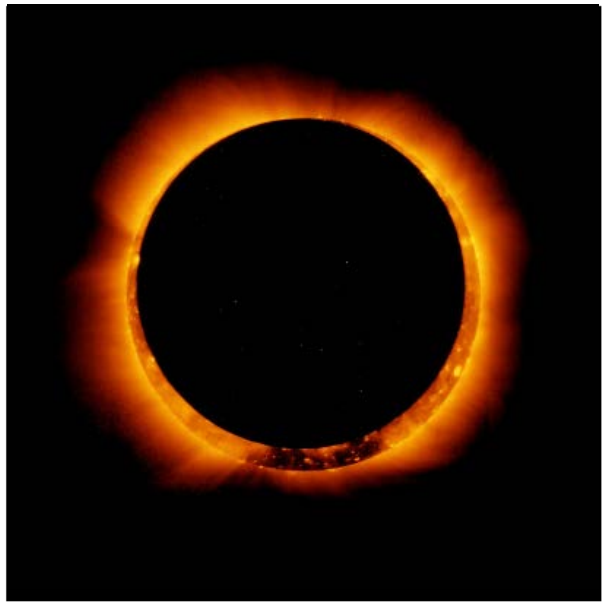


The Eclipse is Coming!

WELCOME TO THE NATIONAL OPERATIONS CENTER OF EXCELLENCE

https://transportationops.org/

NOCOE SOLAR ECLIPSE RESOURCES



The National Operations Center of Excellence is coordinating resources for the Total Solar Eclipse taking place on August 21, 2017.

Please visit our Solar Eclipse Resource page for details on the solar eclipse task force, resources for state and local agencies, and various other resources that may be of interest to you.

The path of totality will cover 14 states West to East across the country, however, the eclipse will be visible and have an effect on the entirity of the contiguous 48 states.

We recommend you watch our 2017 Total Solar Eclipse Webinar, held in November 2016, for a fantastic overview of Total Eclipse and its impact on traffic operations.

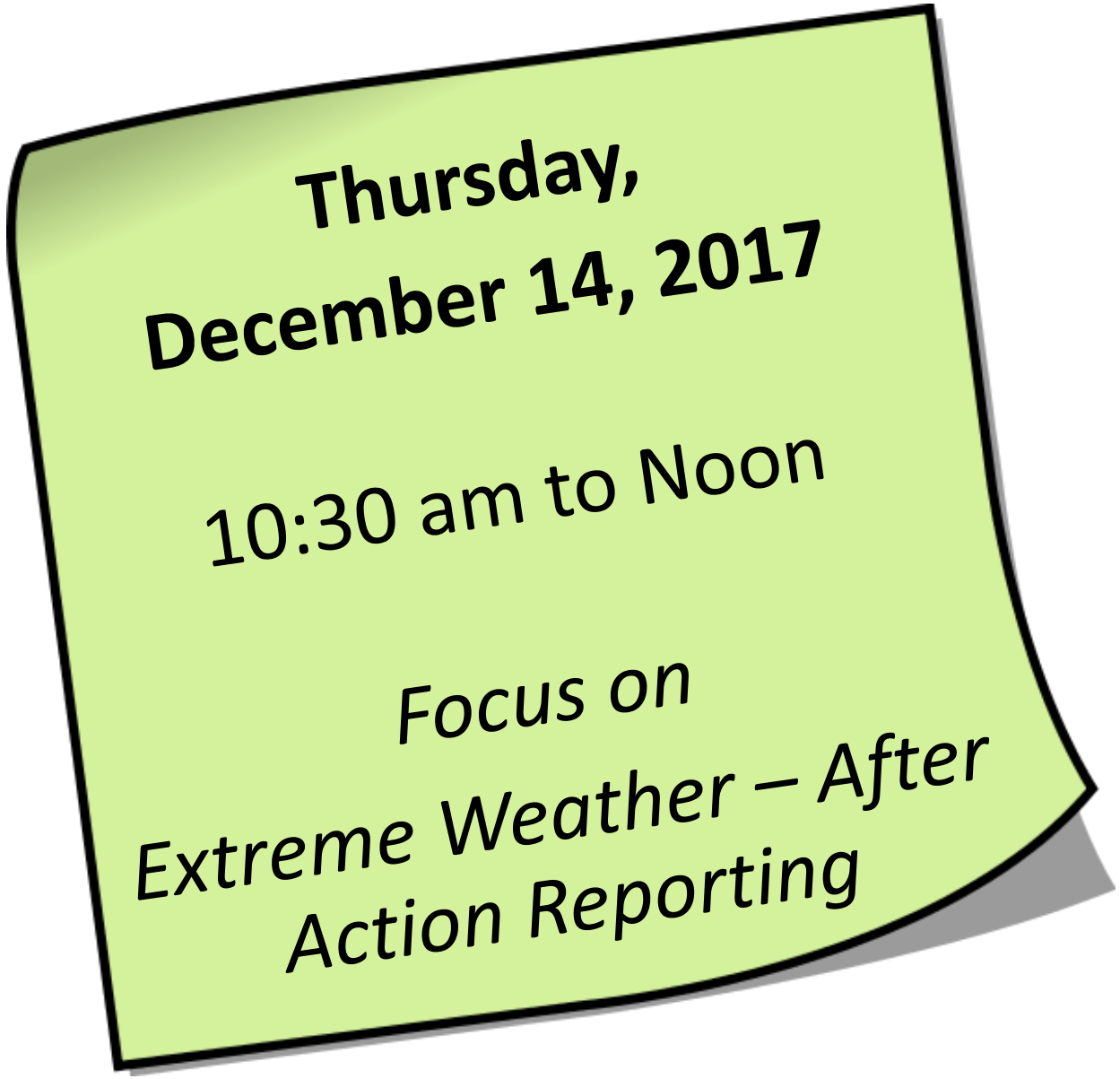
Additionally, make sure to register for our **July 27 webinar**, *Solar Eclipse Planning and Preperation One Month Out: Communications, Emergency Management, and Travel Estimates.*

For affected states, we'd love to hear about how you handled the impact to your transportation system!

Wrap Up

Denise Markow, I-95 Corridor Coalition

Next Meeting



Thank You!

For Questions, please contact:

VPP/VPP Suite – Denise Markow 301.789.9088 or dmarkow@i95coalition.org

VPP Suite Technical Support – vpp-support@ritis.org or John Allen (jallen35@umd.edu)

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I-95 CORRIDOR COALITION