Probe Data / NPMRDS Analytics

(Revised February 2019 by FHWA Division for Florida)

FLORIDA
FEDERAL HIGHWAY ADMINISTRATION

FDOT

MPOAC

Texas Transportation Institute

CATT LABORATORY

THE CENTER FOR ADVANCED TRANSPORTATION TECHNOLOGY UNIVERSITY OF MARYLAND

INRIX

Contacts to Remember

For help with the data analytics tool: support@ritis.org

For information on NPMRDS: https://ops.fhwa.dot.gov/perf_measurement/index.htm

For help with Data Sharing Agreement: npmrds@ritis.org (for NPMRDS data set)

For Non-FDOT user-access help: christine.shafik@dot.state.fl.us (for other PDA data sets)

For information on PM3 implementation in Florida: https://www.fhwa.dot.gov/fldiv/tpm.cfm

FDOT TPM PM3 Implementation points of contact:
Jessica.VanDenBogaert@dot.state.fl.us, Mark.Reichert@dot.state.fl.us (FDOT Central Office)
Frank.Corrado@dot.gov (FHWA Florida Division)

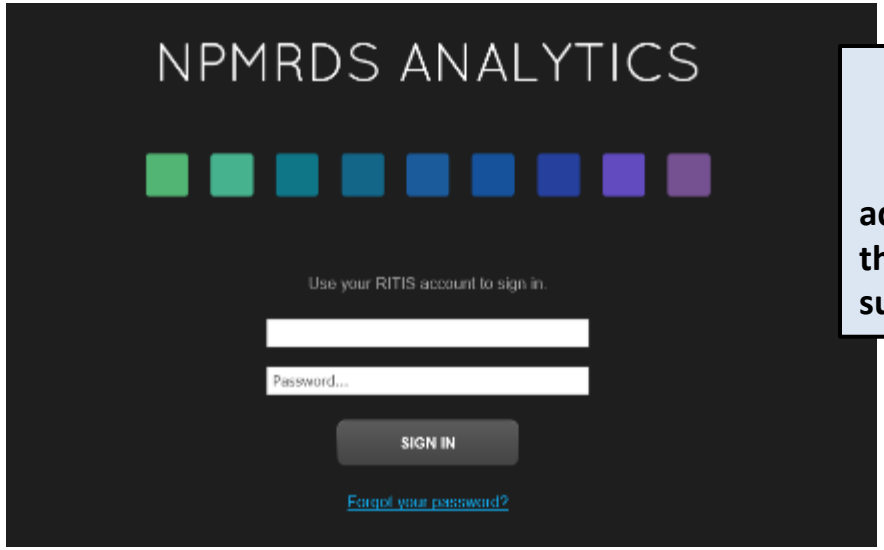
Contents

Contents

Overview of Data Analytics Tool

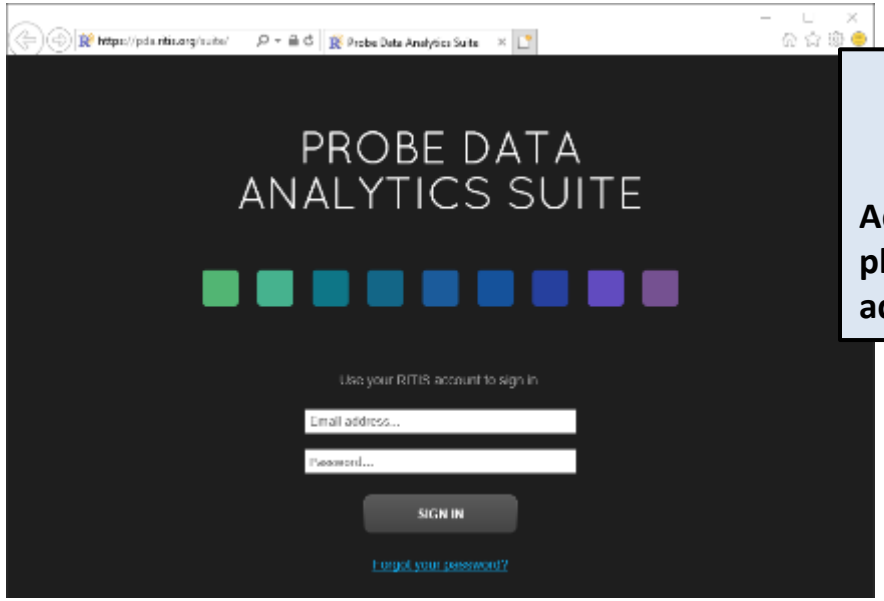
Overview of NPMRDS/Probe Data Analytics (PDA) Suite

- Advanced data analytics tool to conduct planning and traffic ops analyses
- RITIS NPMRDS Analytics provided through FHWA/AASHTO to support TPM-PM3
- RITIS PDA Suite provided through arrangement between RITIS and FDOT
- Access includes FDOT, MPOs, researchers, and contractors working on behalf of Florida Agencies
- For simplicity, this presentation will show the features of the PDA Suite



FHWA/AASHTO through RITIS

advanced features through Statewide subscription



Florida Version through RITIS

Advanced features plus access to add'l data sets

Main Screen of Probe Data Analytics Suite

Data Downloader

Deep-Dive Data Analytic Tools

Dashboard (Create “Widgets”)

Tutorials

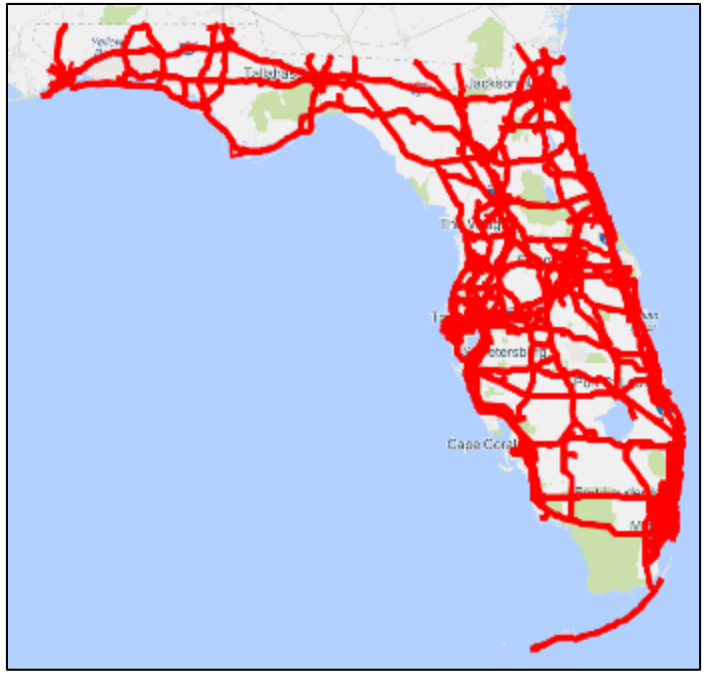
MAP-21 Widget for PM3 Monitoring (Shortcut)

Latest Updates

Network Coverage

- **NPMRDS** – FHWA-provided Travel Time Data Set established for Florida's TPM-PM3 purposes
  - Covers full extent of NHS in the US
  - INRIX (NPMRDSv2) Data: ≥ 2017
  - HERE (NPMRDSv1) Data: ≤ 2016
  - Processed Data, 15-min. increments
- **HERE** – Probe Data Set
  - Expanded network, beyond NHS for purposes other than PM3
  - Included because of FDOT's arrangement with HERE
  - Down to 1-minute increments
  - Near Real-Time

NPMRDS *(NHS)*



HERE Probe Data

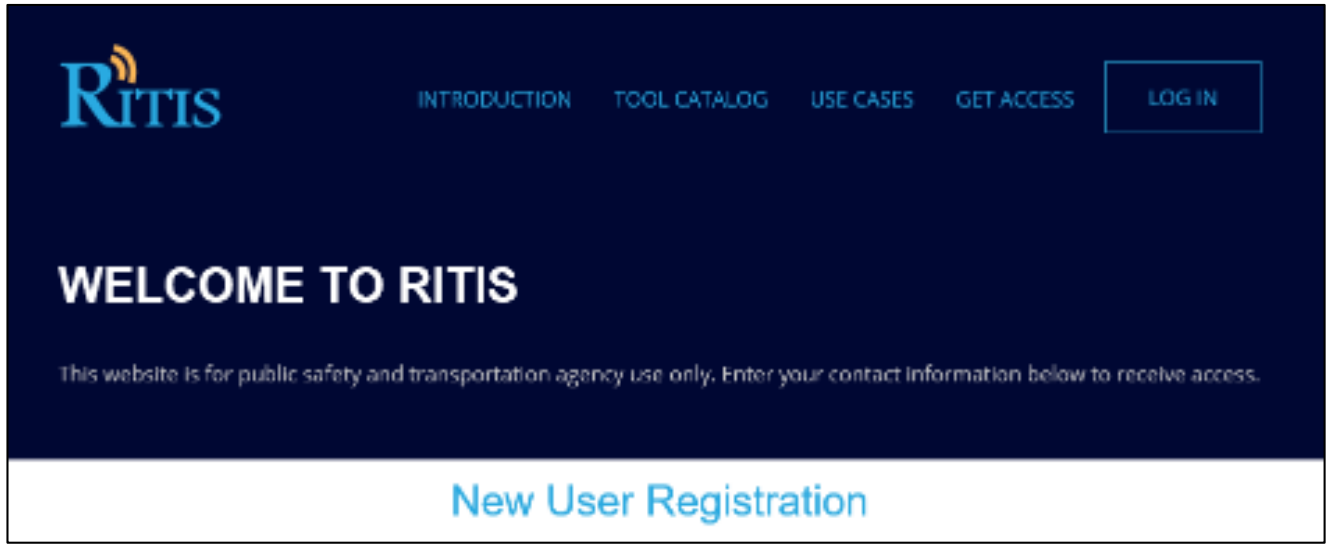
Entire NPMRDS TMC network beyond NPS is available through RITIS

Contents

How to Gain Access

How to Gain Access to the Tool

1. Request a user account at https://www.ritis.org/register/
   (Your organization may need to sign a Data Sharing Agreement for FHWA NPMRDS through RITIS)



For help here, contact support@ritis.org

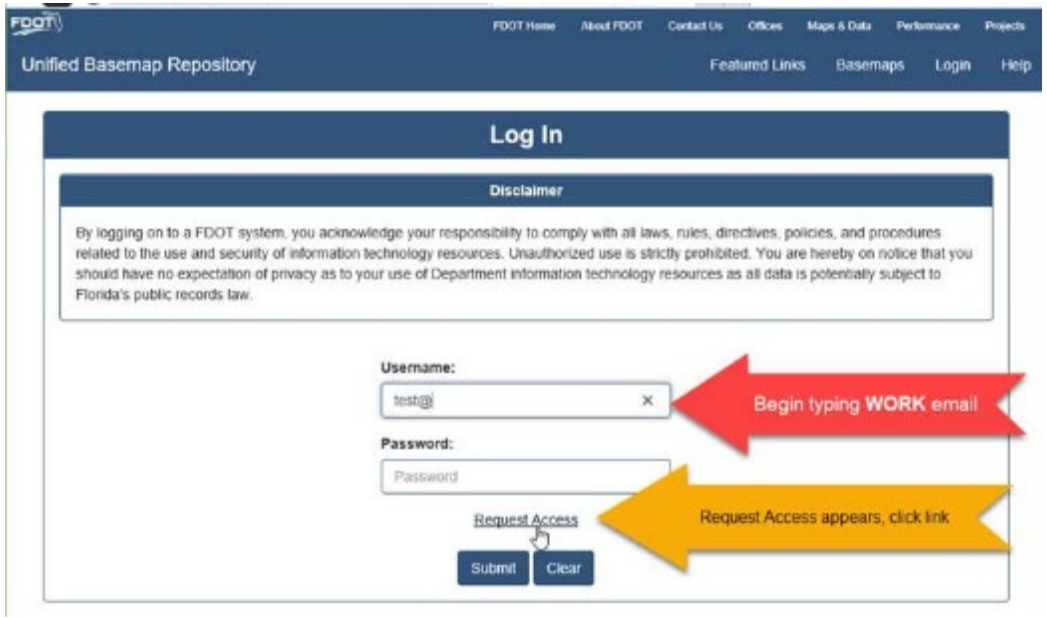
How to Gain Access to the Tool

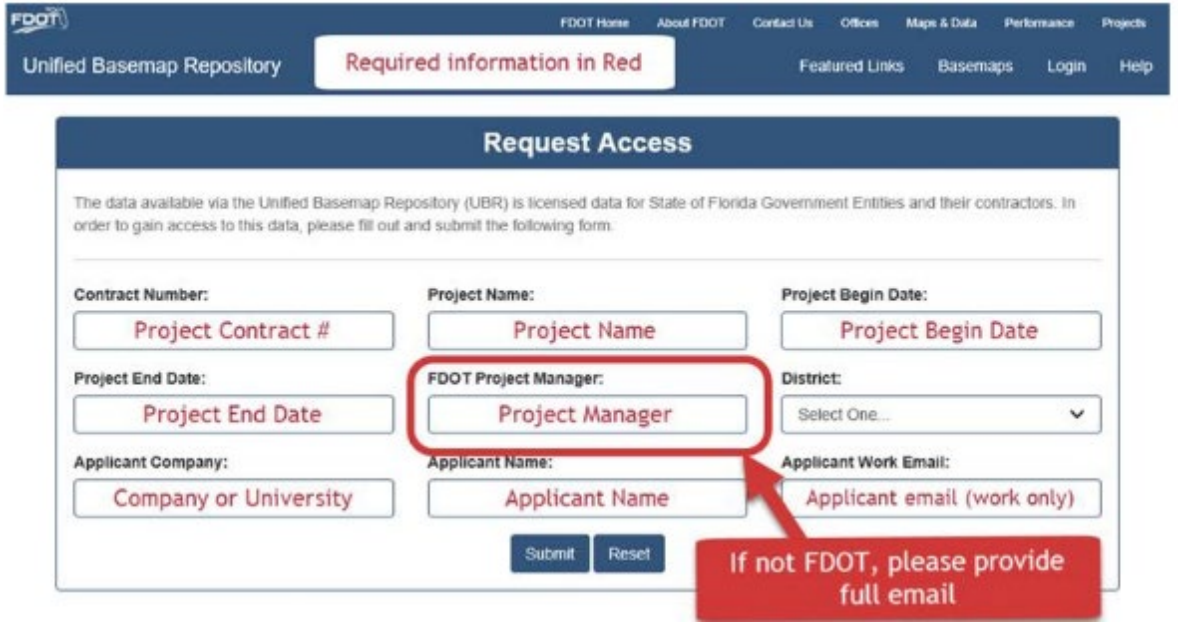
2. Non-FDOT users request access through FDOT Unified Basemap Repository https://ubr.fdot.gov

(to use the PDA Suite with its additional data sets through FDOT)

FDOT keeps track of users of licensed data

UBR Admin contacts RITIS to activate user.





For help here, contact christine.shafik@dot.state.fl.us

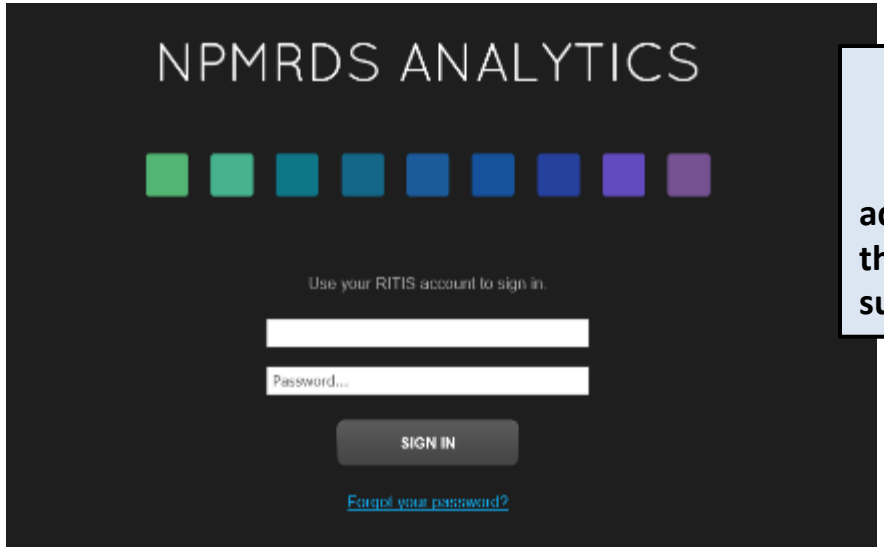
How to Gain Access to the Tool

3. Activate and Access your Account

NPMRDS Data Analytics Suite:
https://npmrds.ritis.org

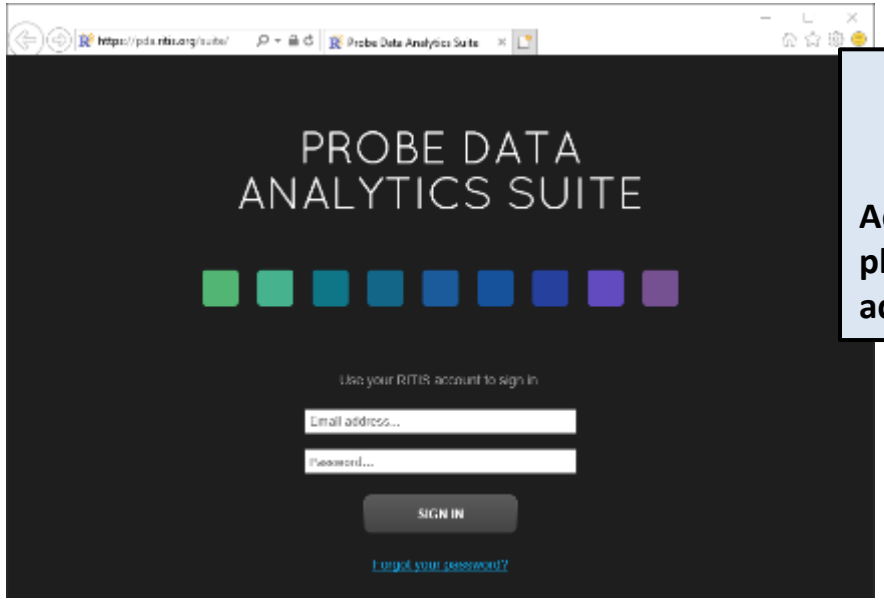
Probe Data Analytics (PDA) Suite:
https://pda.ritis.org

The NPMRDS Data Analytics Tool is provided through the AASHTO Pooled Fund Study, supported by FHWA.
The PDA Analytics Suite includes NPMRDS Tools features plus additional features and access to multiple probe travel time data sets.
*For simplicity, information here will refer to the **PDA Suite**.*



FHWA/AASHTO through RITIS

advanced features through Statewide subscription



Florida Version through RITIS

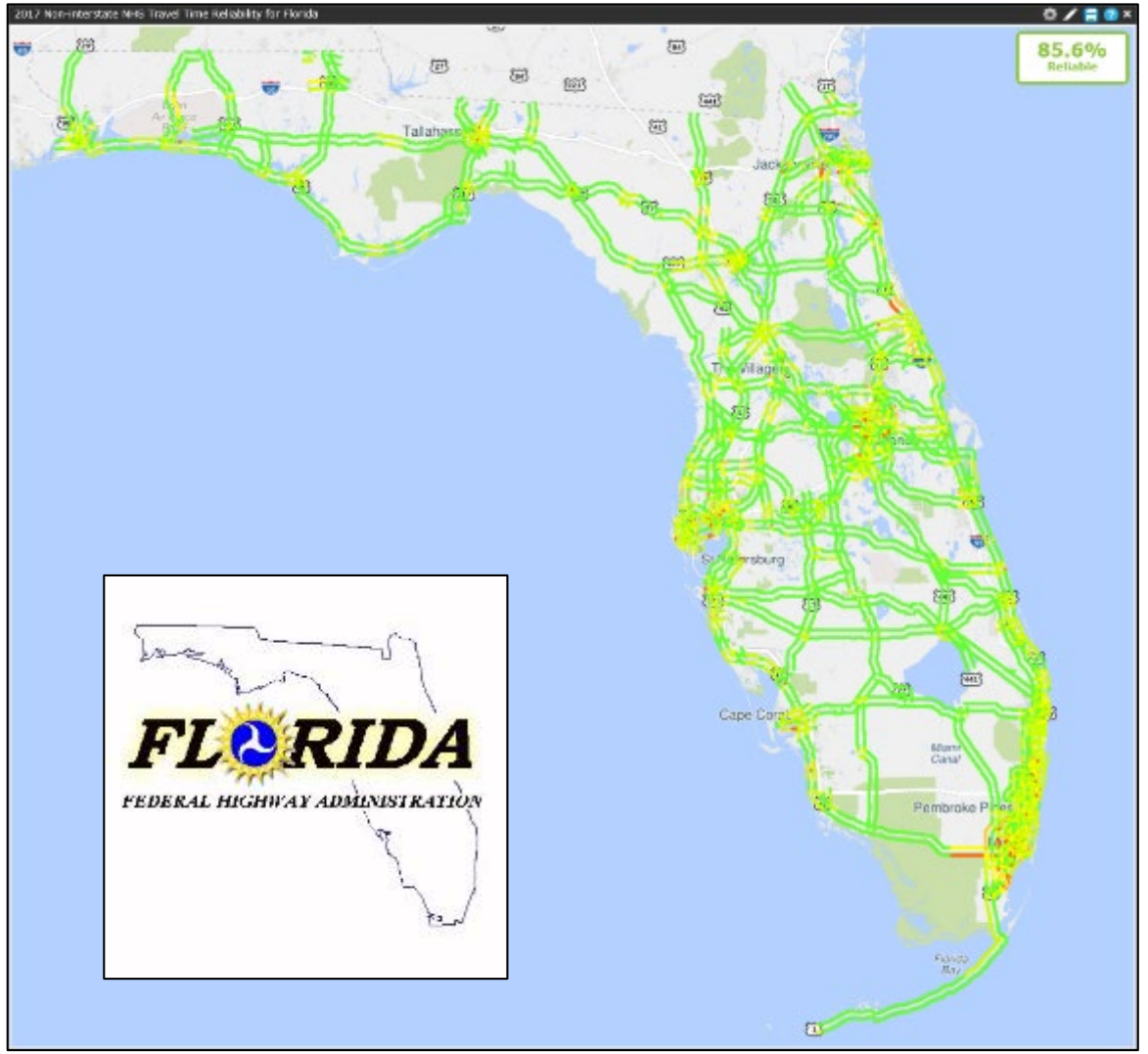
Advanced features plus access to add'l data sets

Contents

Features for Florida Users

Features for Florida Users

- Dashboard
  - MAP-21/PM3 Metrics
  - Other Metrics
- Deep-Dive Analytics



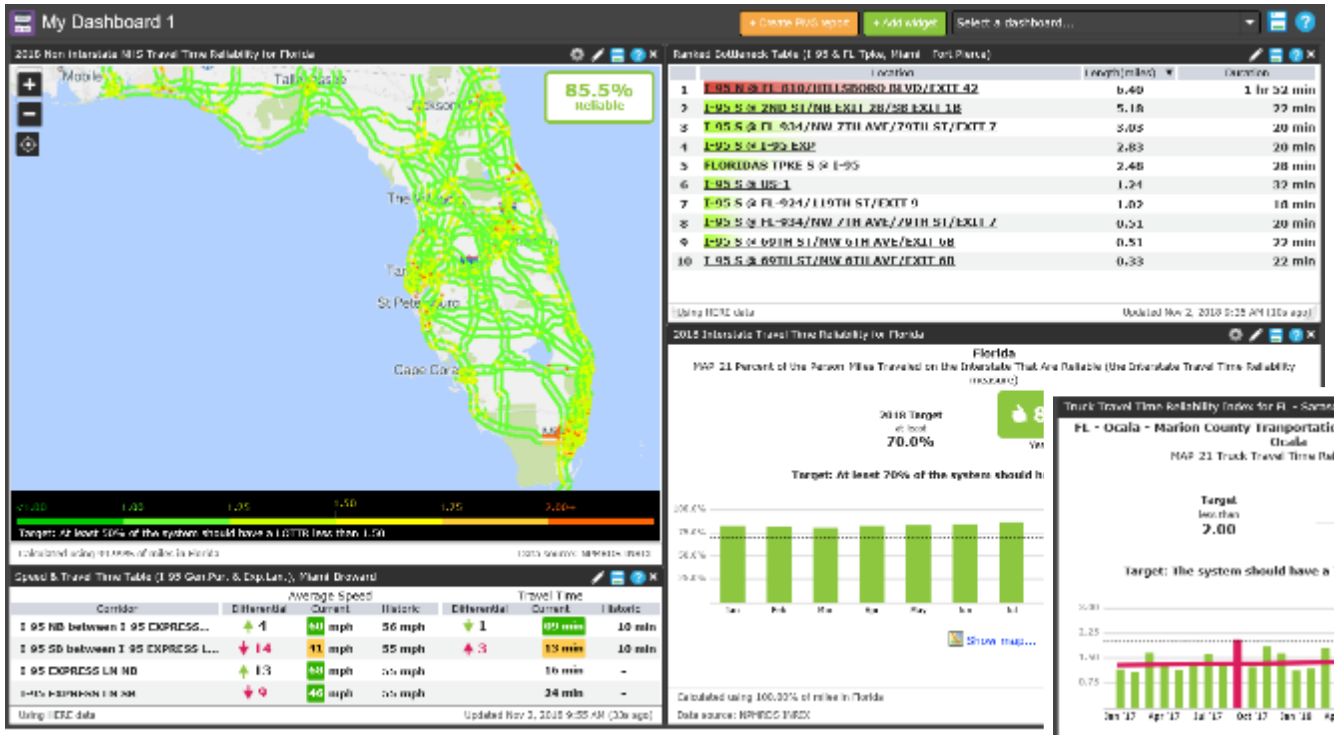
2017 Non-Interstate NHS Travel Time Reliability

Dashboard

DASHBOARD

Create your own personal dashboards to monitor corridor performance in regions of interest.

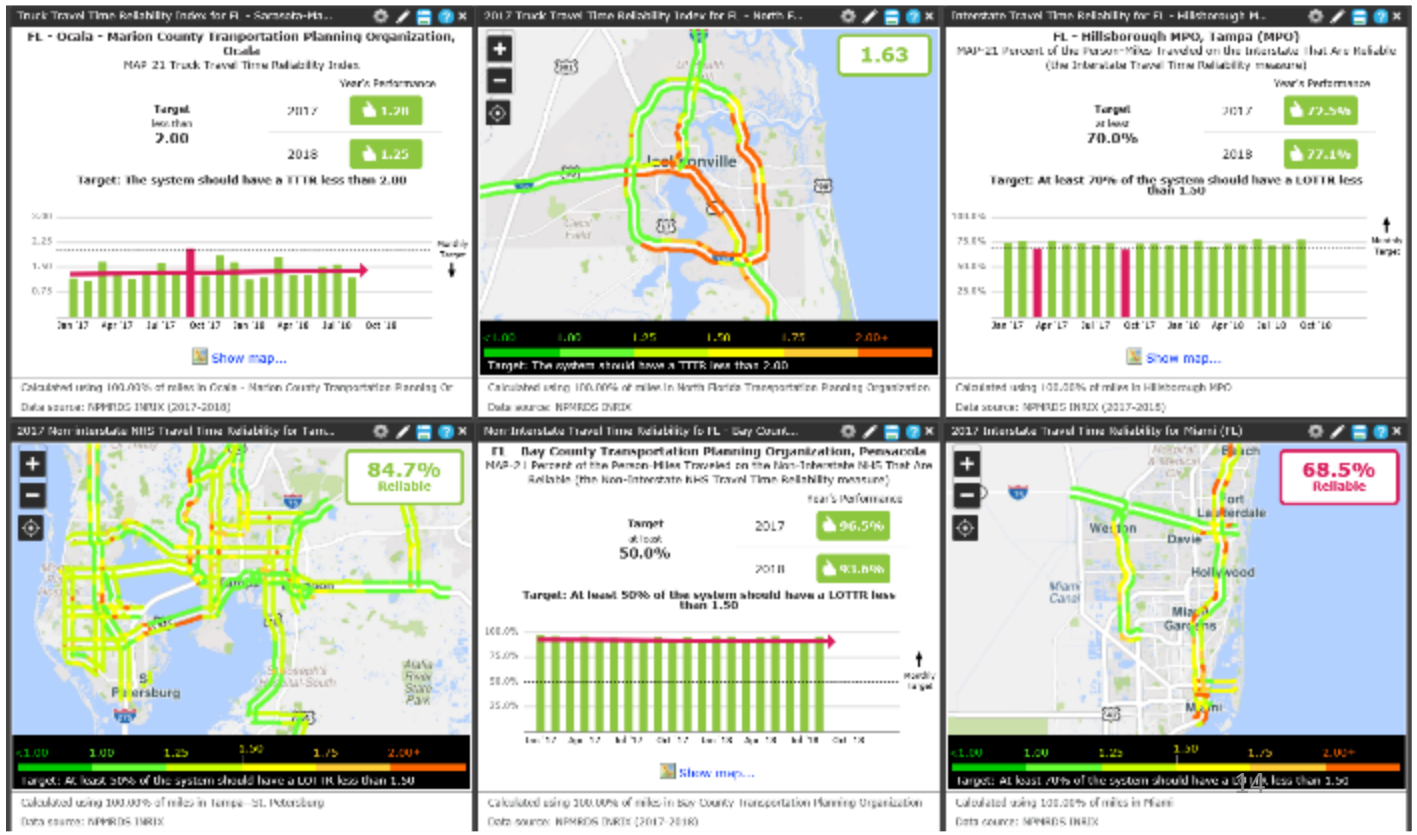
Tutorial Help



Create multiple personalized Dashboards to monitor performance in areas of interest

Each Window within the Dashboard is called a “Widget”

Widgets refresh automatically as new data becomes available (monthly or up to the minute)



Dashboard – Add Widget

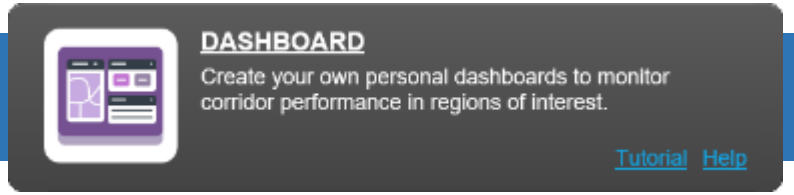
+ Add widget

DASHBOARD
Create your own personal dashboards to monitor corridor performance in regions of interest.
Tutorial Help

Widgets Currently Available

Widgets to be Added Soon*

Dashboard – MAP-21/PM3 Metrics



- Access to PM3 features, including the capabilities to compute and visualize PM3 Metrics as required by the TPM Rule
- An "Easy Button" functionality for FDOT to create the annual PM3 inputs required for FHWA HPMS
- Pre-set Geographic Area pull downs for Florida statewide, Florida MPAs, and Florida UZAs.
- Trend-line capabilities to help address target-setting requirements

Here are each Metropolitan Area's Baseline Conditions and 2021 Targets for PM3 Measures as reported to FDOT

Every MPO decided to support FDOT's statewide target for the next 4 years.

TPM PM3 2018-2021 Performance Measures for Florida Geographic Locations

Metropolitan Planning Area (MPA)	Main City	%Interstate Reliable		%NHS Non-Int Reliable		Truck Travel Time Index	
		Baseline	Target	Baseline	Target	Baseline	Target
Bay County TPO	Panama City	N/A	N/A	96.5	50.0*	N/A	N/A
Broward MPO	Fort Lauderdale	67.0	70.0*	81.9	50.0*	1.64	2.00*
Capital Region TPA	Tallahassee	100.0	70.0*	88.8	50.0*	1.08	2.00*
Charlotte County-Punta Gorda MPO	Port Charlotte	100.0	70.0*	96.5	50.0*	1.13	2.00*
Collier MPO	Naples	100.0	70.0*	97.0	50.0*	1.12	2.00*
Florida-Alabama TPO	Pensacola	100.0	70.0*	92.8	50.0*	1.18	2.00*
Gainesville MTPO	Gainesville	100.0	70.0*	81.1	50.0*	1.08	2.00*
Heartland Regional TPO	Sebring	N/A	N/A	99.5	50.0*	N/A	N/A
Hernando/Citrus MPO	Brooksville	100.0	70.0*	96.7	50.0*	1.10	2.00*
Hillsborough MPO	Tampa	72.5	70.0*	82.8	50.0*	1.88	2.00*
Indian River County MPO	Vero Beach	100.0	70.0*	95.5	50.0*	1.07	2.00*
Lake-Sumter MPO	Leesburg/Lady Lake	100.0	70.0*	98.7	50.0*	1.25	2.00*
Lee County MPO	Fort Myers/Cape Coral	100.0	70.0*	89.9	50.0*	1.25	2.00*
Martin MPO	Stuart	100.0	70.0*	97.9	50.0*	1.12	2.00*
MetroPlan Orlando	Orlando	53.4	70.0*	85.6	50.0*	2.54	2.00*
Miami-Dade TPO	Miami	56.8	70.0*	59.6	50.0*	2.98	2.00*
North Florida TPO	Jacksonville	79.5	70.0*	86.8	50.0*	1.63	2.00*
Ocala/Marion County TPO	Ocala	100.0	70.0*	96.4	50.0*	1.28	2.00*
Okaloosa-Walton TPO	Fort Walton	100.0	70.0*	92.8	50.0*	1.08	2.00*
Palm Beach TPA	West Palm Beach	85.4	70.0*	91.0	50.0*	1.63	2.00*
Pasco County MPO	New Port Richey	100.0	70.0*	91.9	50.0*	1.17	2.00*
Pinellas County MPO/Forward Pinellas	Clearwater	84.5	70.0*	86.4	50.0*	1.80	2.00*
Polk TPO	Bartow	93.5	70.0*	98.3	50.0*	1.51	2.00*
River to Sea TPO	Daytona Beach	100.0	70.0*	88.2	50.0*	1.20	2.00*
Sarasota/Manatee MPO	Sarasota	93.1	70.0*	92.5	50.0*	1.39	2.00*
Space Coast TPO	Melbourne	100.0	70.0*	92.2	50.0*	1.07	2.00*
St. Lucie TPO	Fort Pierce/Port St. Lucie	100.0	70.0*	96.5	50.0*	1.11	2.00*
STATEWIDE	Florida	82.2	70.0	85.6	50.0	1.43	2.00

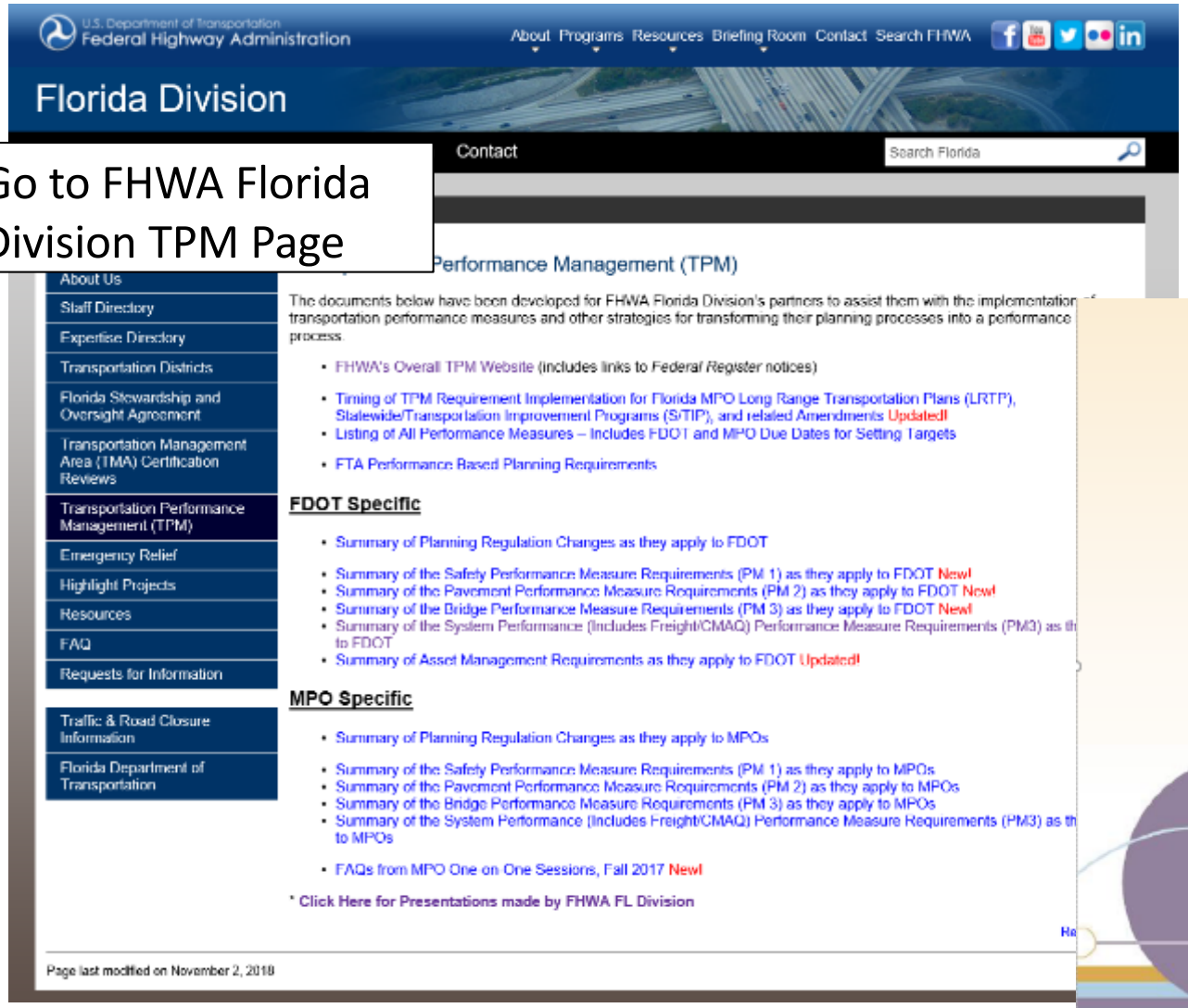
**Agrees to plan and program projects so that they contribute toward the accomplishment of the respective FDOT target.*

Urbanized Area (UZA)	Main City	PHED per Capita^ (Hours)	% Segments without Speed Limit Info.^^	Completeness (High,Mod.,Low,Poor)
Jacksonville	Jacksonville	7.3	48.4	Poor
Miami-Fort Lauderdale-West Palm Beach	Miami	12.8	56.1	Low
Orlando-Kissimmee-Sanford	Orlando	11.6	47.3	Poor
Tampa-St. Petersburg-Clearwater	Tampa	9.2	49.8	Poor

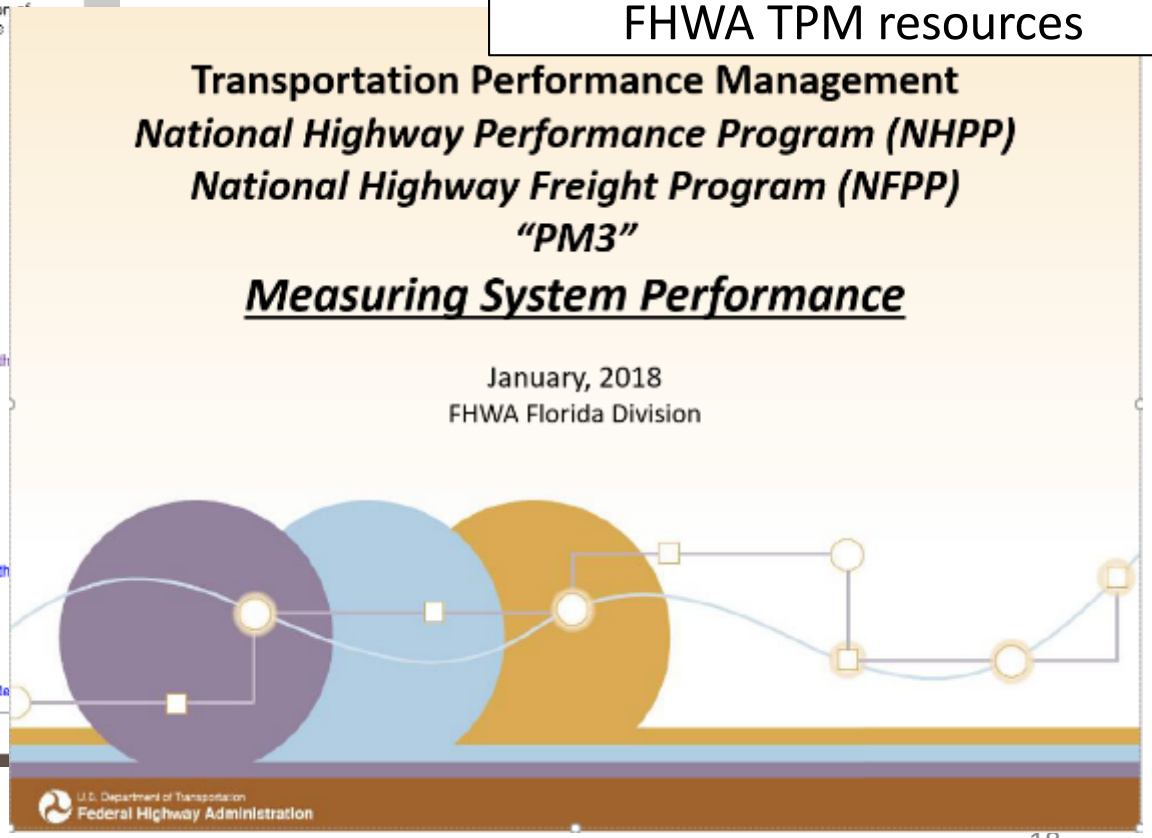
^PHED Measure currently not required for any Florida area. ^^FDOT is encouraged to report the Posted Speed Limits for the NHS via HPMS.

For TPM – PM3 information…

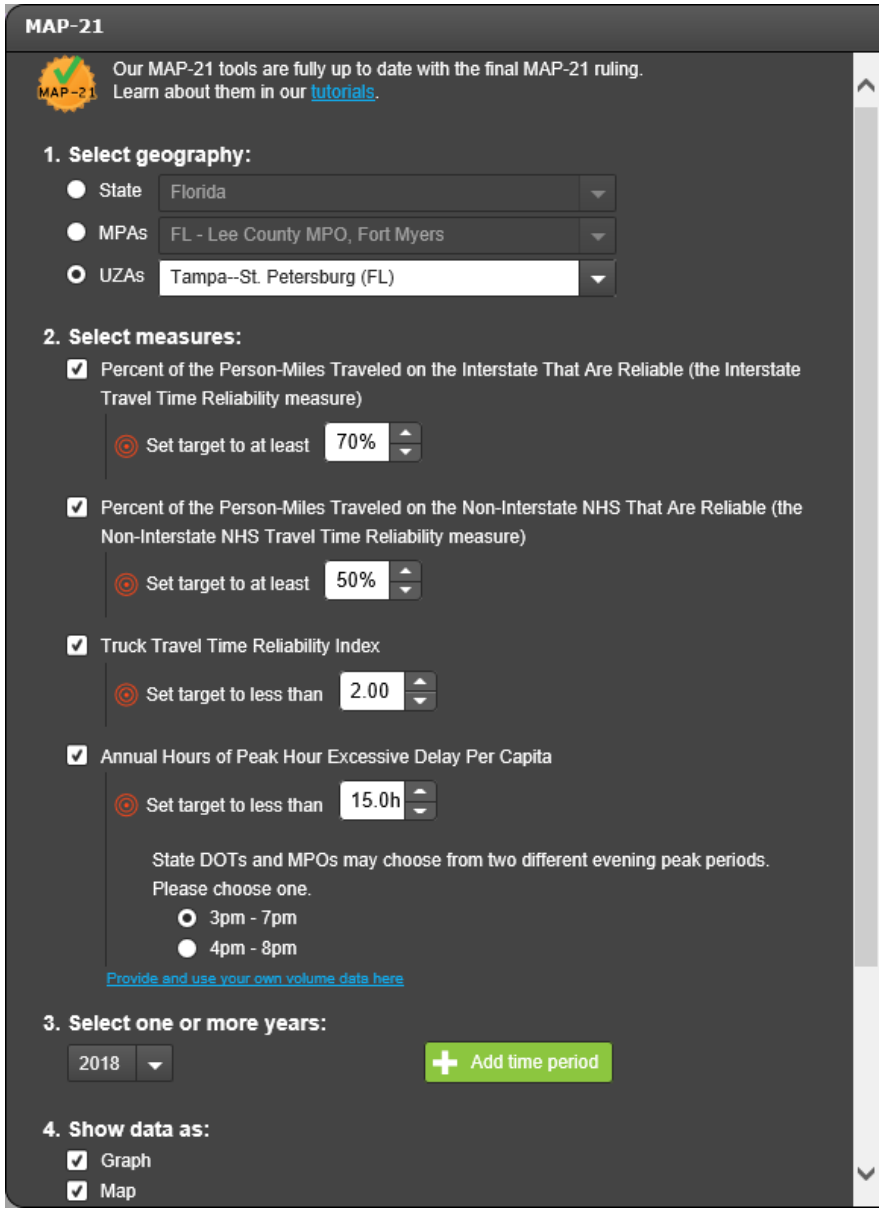
Go to FHWA Florida Division TPM Page

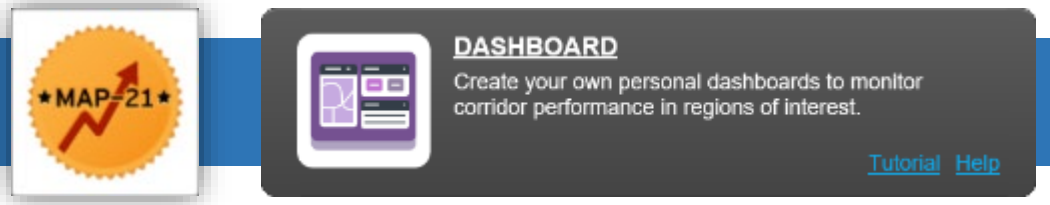


Includes presentation on PM3 Basics, and links to FHWA TPM resources



Dashboard – MAP-21

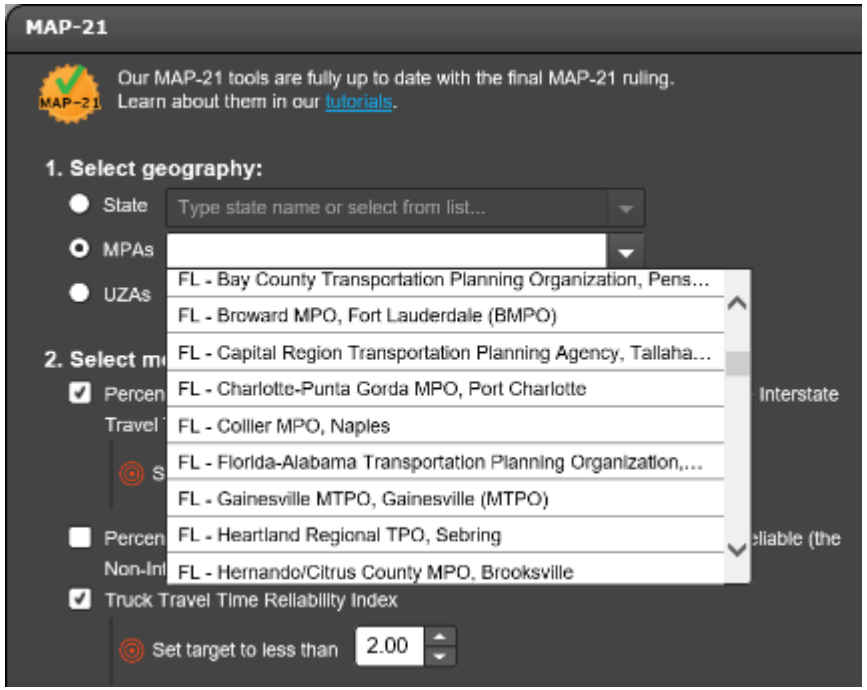




Create Widgets for PM3 Measures and Targets:

- Interstate Travel Time Reliability
- Non-Interstate NHS Travel Time Reliability
- Truck Travel Time Reliability Index
- Annual Hours of Peak Hour Excessive Delay per Capita*

**Available to Florida users even though not currently required by FHWA*



Ex. Florida Metropolitan Planning Areas

Dashboard – MAP-21 (Examples)

DASHBOARD
Create your own personal dashboards to monitor corridor performance in regions of interest.
Tutorial Help

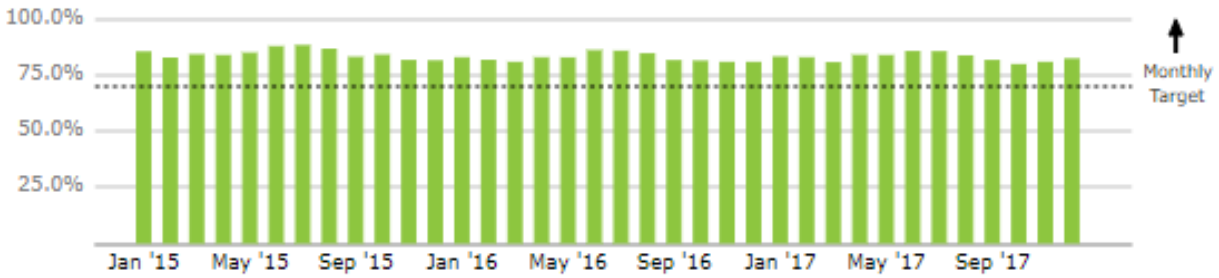
Interstate Travel Time Reliability for Florida

Florida

MAP-21 Percent of the Person-Miles Traveled on the Interstate That Are Reliable (the Interstate Travel Time Reliability measure)

	Year's Performance
Target at least **70.0%**	
2015	82.4%
2016	83.3%
2017	82.2%

Target: At least 70% of the system should have a LOTTR less than 1.50



Show map...

Calculated using 99.93% of miles in Florida

Data source: NPMRDS HERE (2015-2016) and NPMRDS INRIX (2017)

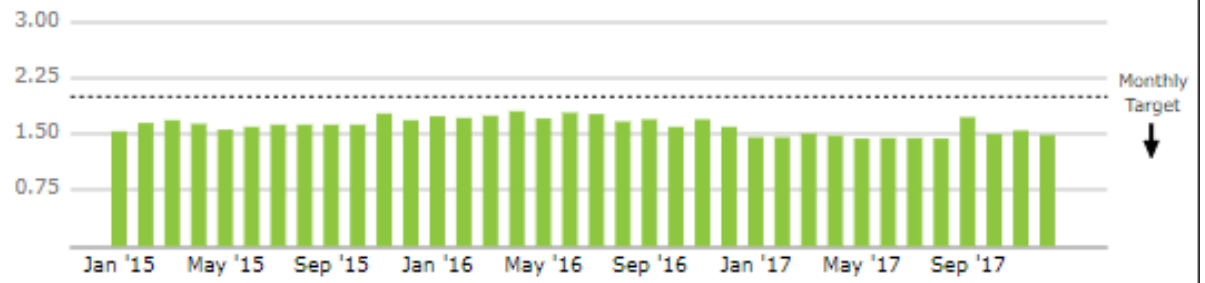
Truck Travel Time Reliability Index for Florida

Florida

MAP-21 Truck Travel Time Reliability Index

	Year's Performance
Target less than **2.00**	
2015	1.56
2016	1.52
2017	1.43

Target: The system should have a TTTR less than 2.00



Show map...

Calculated using 99.93% of miles in Florida

Data source: NPMRDS HERE (2015-2016) and NPMRDS INRIX (2017)

Dashboard – MAP-21 (Examples)

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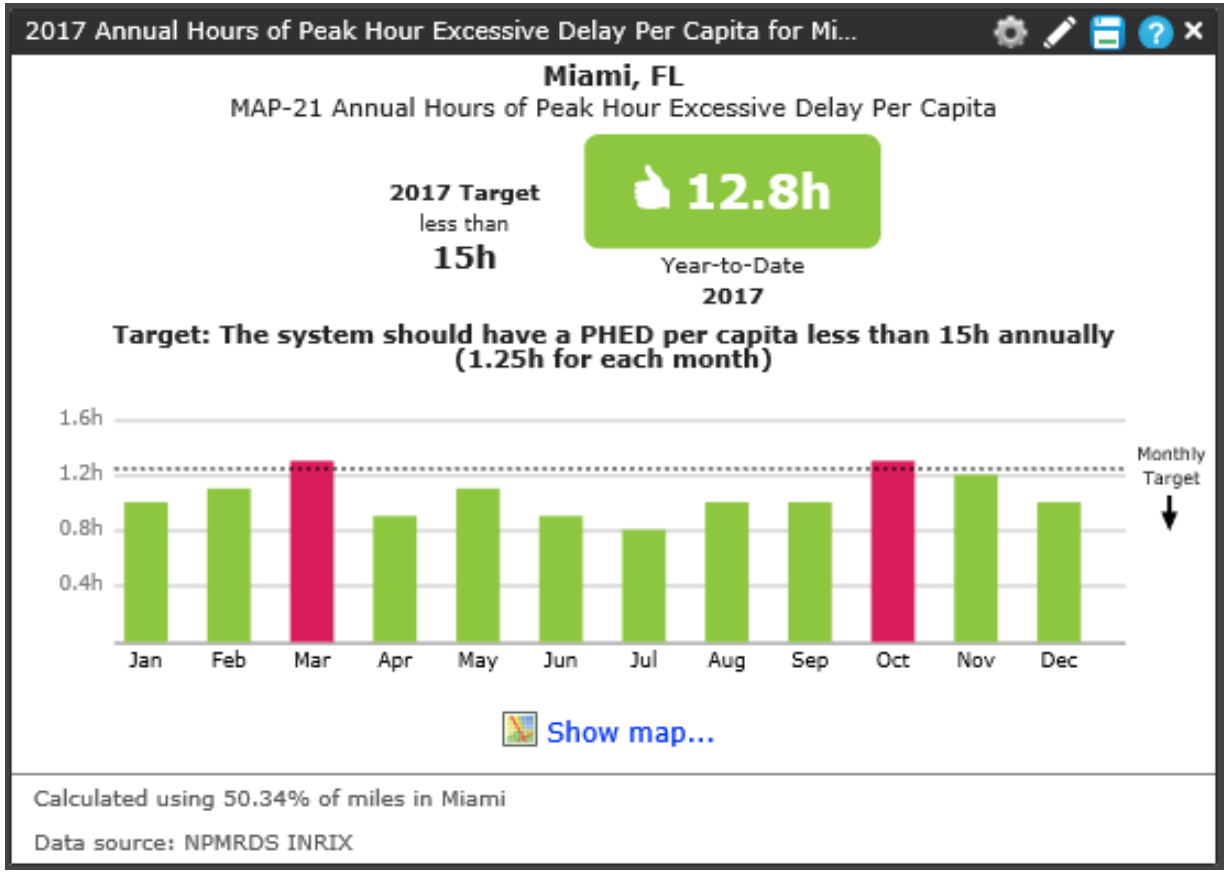
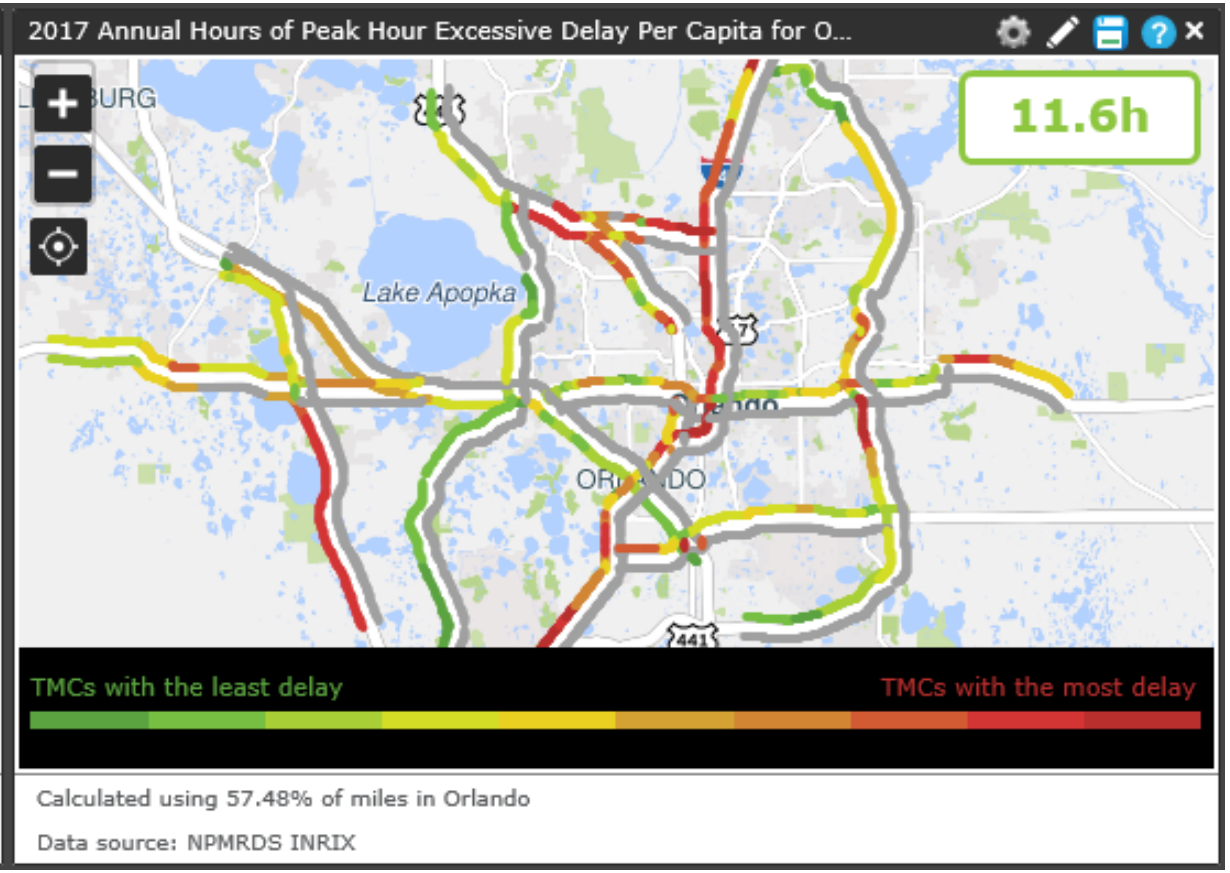
Tutorial Help

Annual Hours of Peak Hour Excessive Delay per Capita

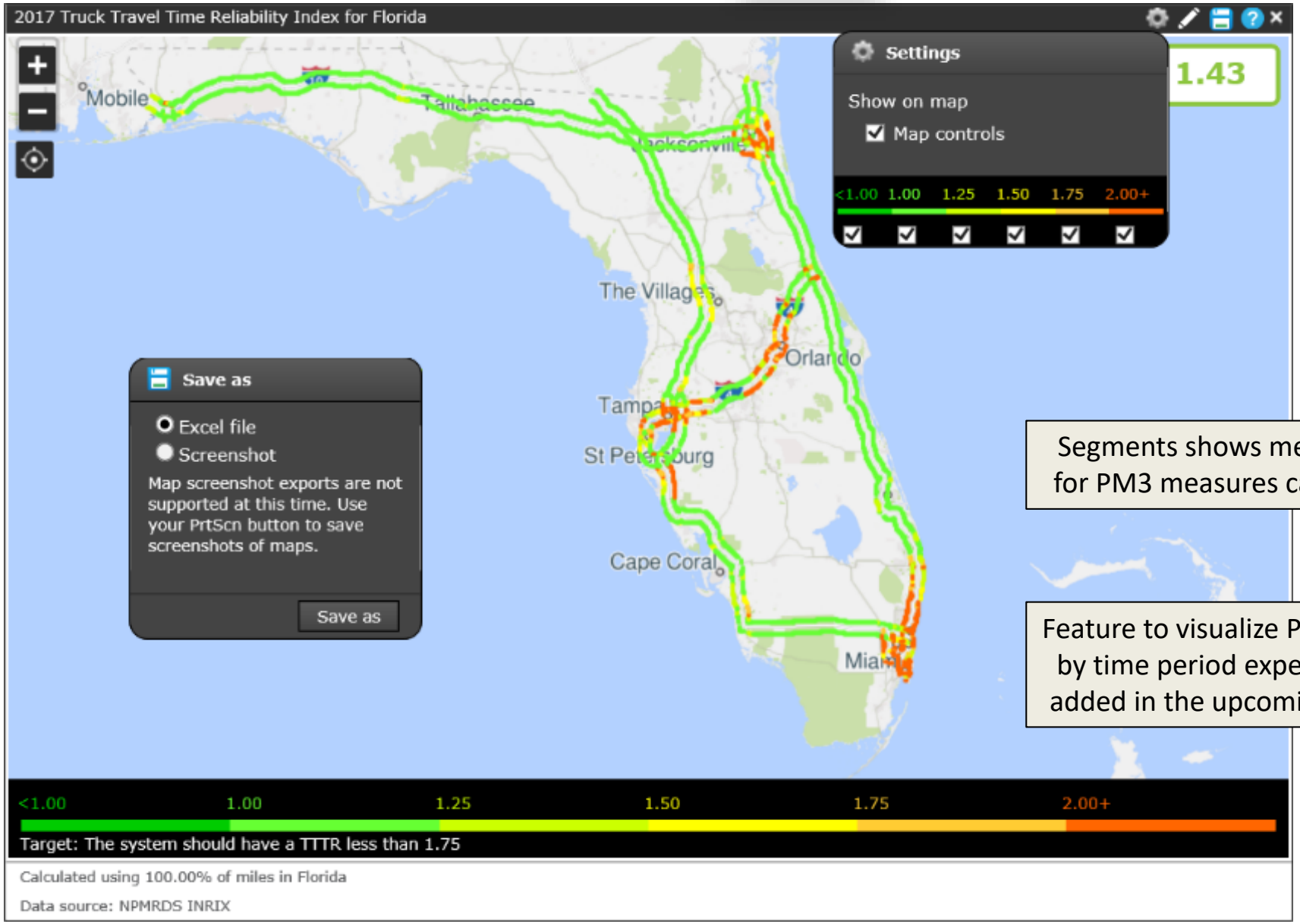




FDOT is encouraged to report the Posted Speed Limits for the full extent of the NHS via HPMS.
Tool will still generate the measures based on available data.

Dashboard – MAP-21 (Examples)

DASHBOARD
Create your own personal dashboards to monitor corridor performance in regions of interest.
Tutorial Help



Segments shows metrics used for PM3 measures calculations

Feature to visualize PM3 metrics by time period expected to be added in the upcoming months

Dashboard – MAP-21 (Examples)

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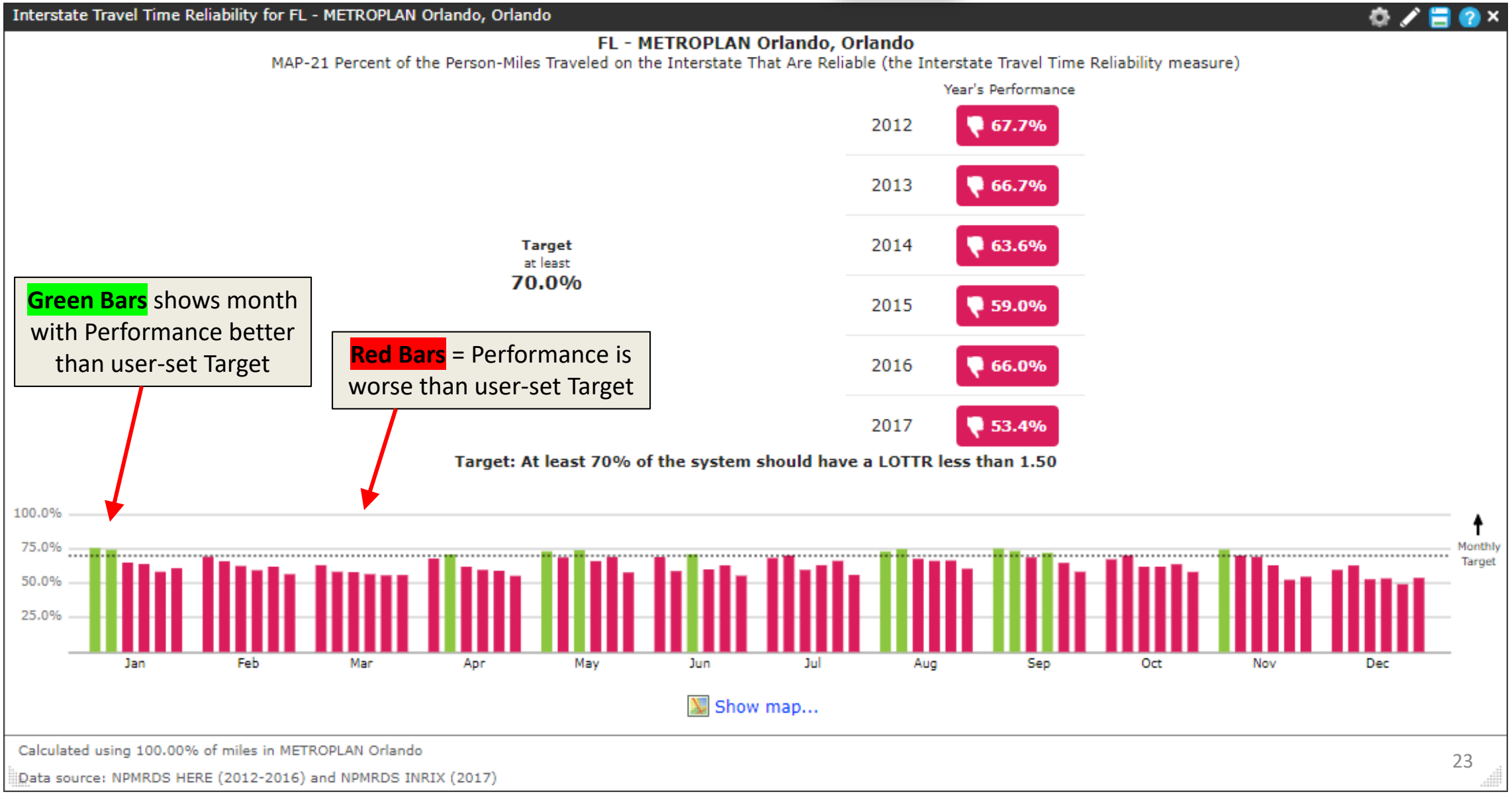
Tutorial Help



Dashboard – MAP-21 (Examples)

DASHBOARD
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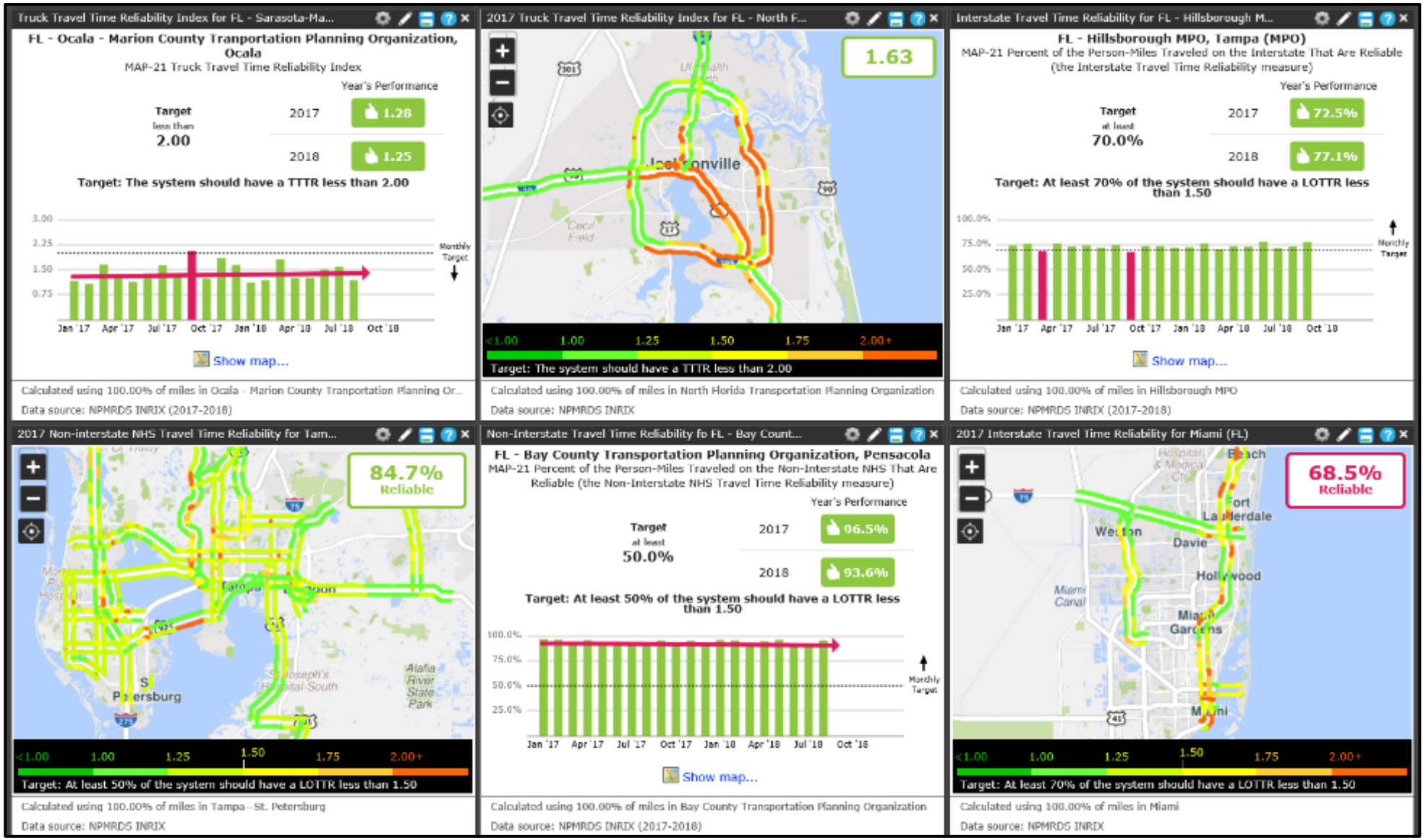
Tutorial Help

Widgets can be arranged and resized to user preference

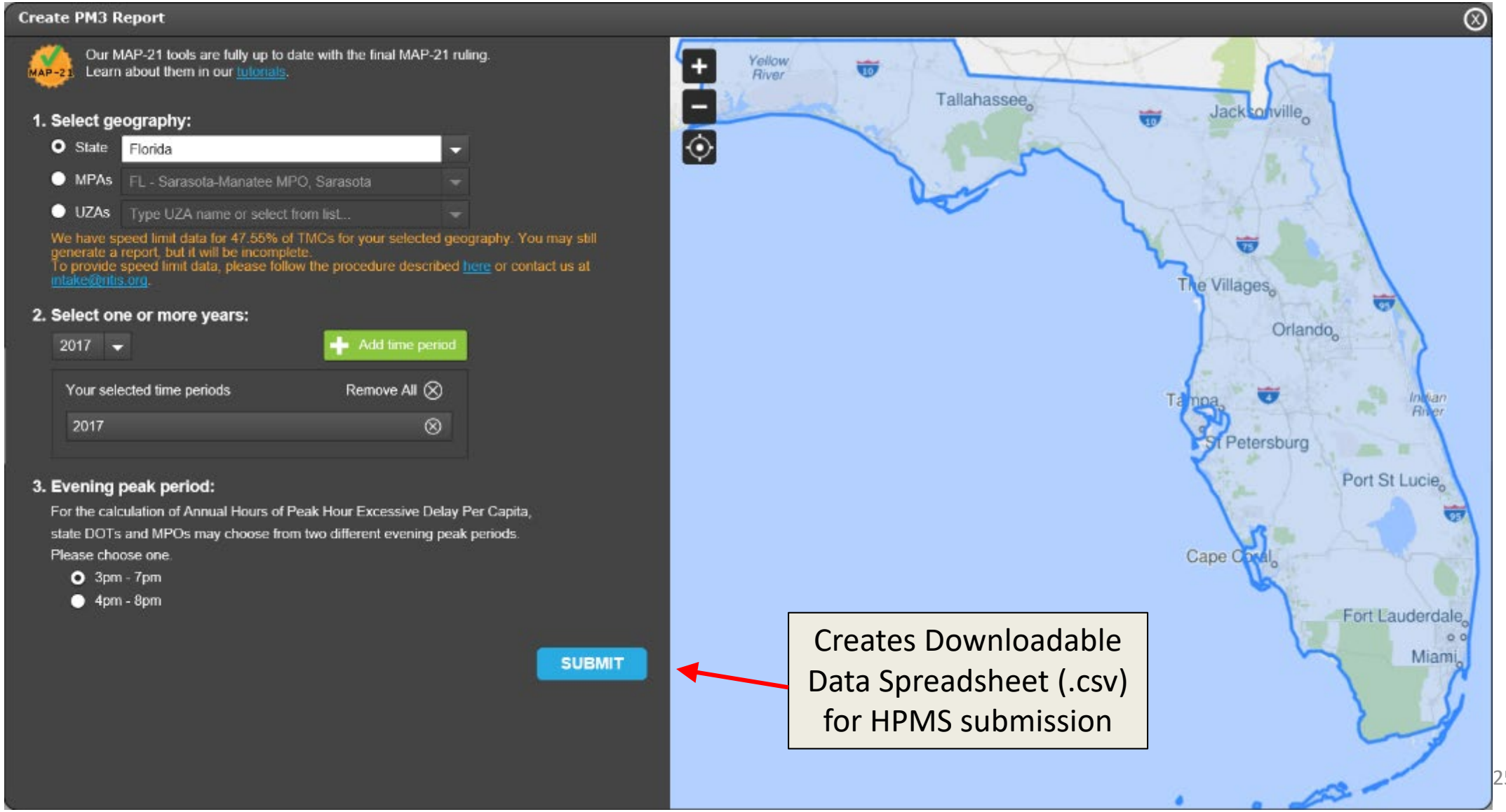


Dashboard – PM3 Report

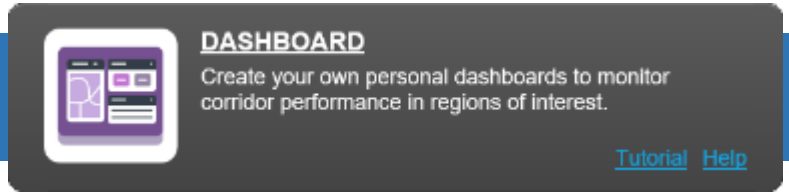
+ Create PM3 report

DASHBOARD
Create your own personal dashboards to monitor corridor performance in regions of interest.
Tutorial Help

PM3 Metrics for HPMS Reporting and Documentation

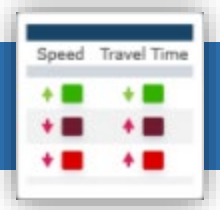


Dashboard – Other Metrics



- Access to other features, including monitoring speed and travel time for corridors, and list of bottlenecks for a region or corridor
- Data is provided by HERE in real-time; updates every minute
- Additional features for performance comparison, reliability charts, and incidents & events will be added in the near future

Dashboard – Speed and Travel Time



DASHBOARD
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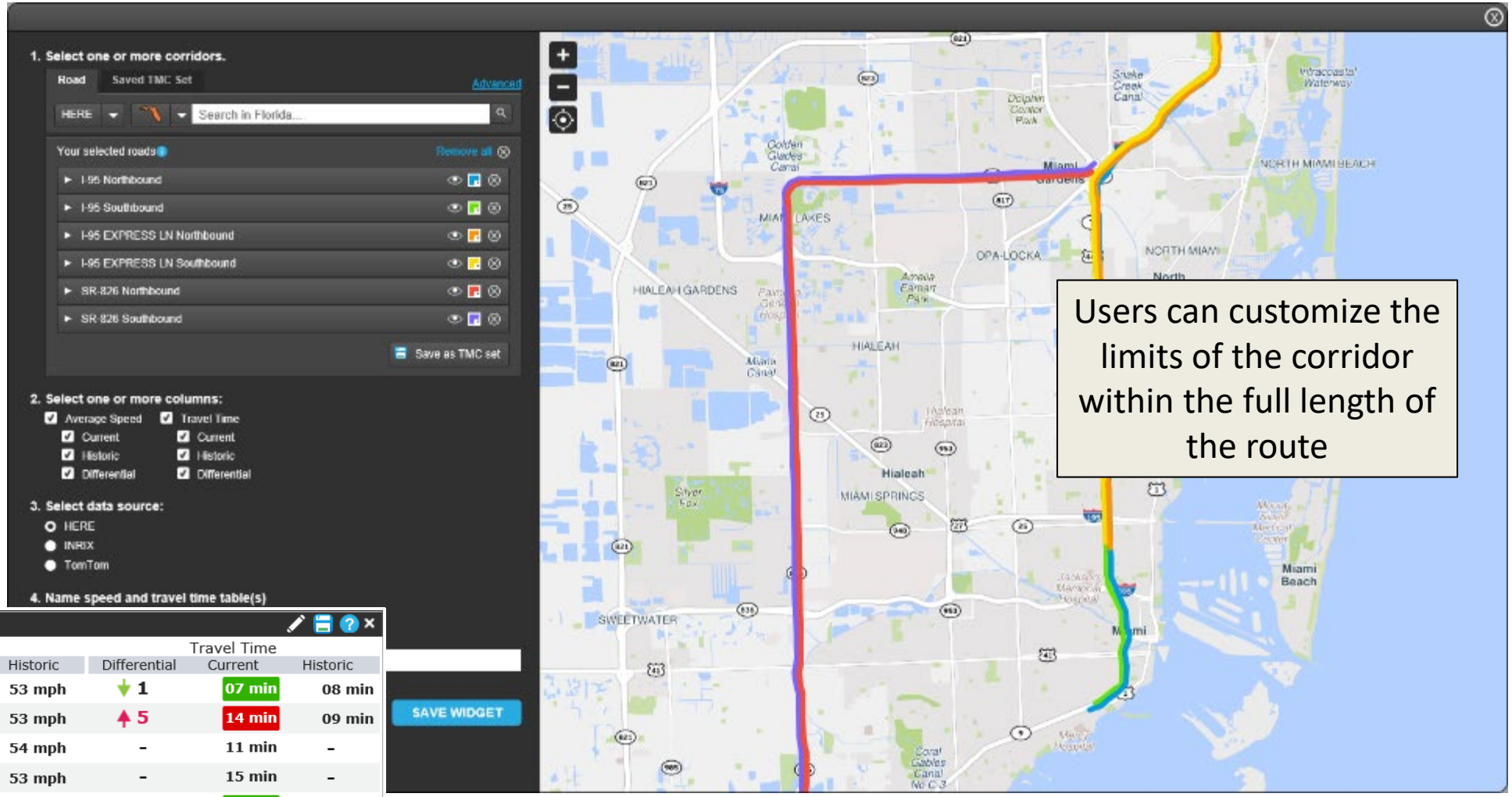
Tutorial Help

Speed and Travel Time Table

Interface for Creating this Widget:



Widget:

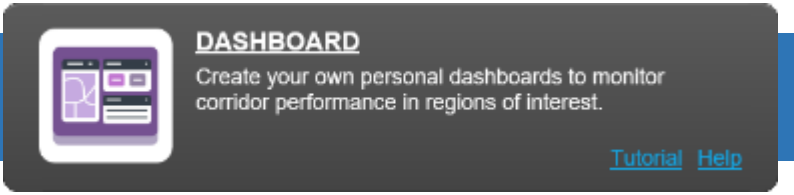
Speed and Travel Time Table

Corridor	Average Speed Differential	Average Speed Current	Average Speed Historic	Travel Time Differential	Travel Time Current	Travel Time Historic
I-95 NB	↑ 5	58 mph	53 mph	↓ 1	07 min	08 min
I-95 SB	↓ 19	34 mph	53 mph	↑ 5	14 min	09 min
I-95 EXPRESS LN NB	↑ 7	61 mph	54 mph	-	11 min	-
I-95 EXPRESS LN SB	↓ 9	44 mph	53 mph	-	15 min	-
SR-826 NB	↓ 2	51 mph	53 mph	↑ 1	13 min	12 min
SR-826 SB	↓ 13	40 mph	53 mph	↑ 3	15 min	12 min

Using HERE data — Updated Sep 27, 2018 9:52 AM (20s ago)

← Real-Time (Updates Every Minute)

Dashboard – Ranked Bottleneck



Ranked Bottleneck Table

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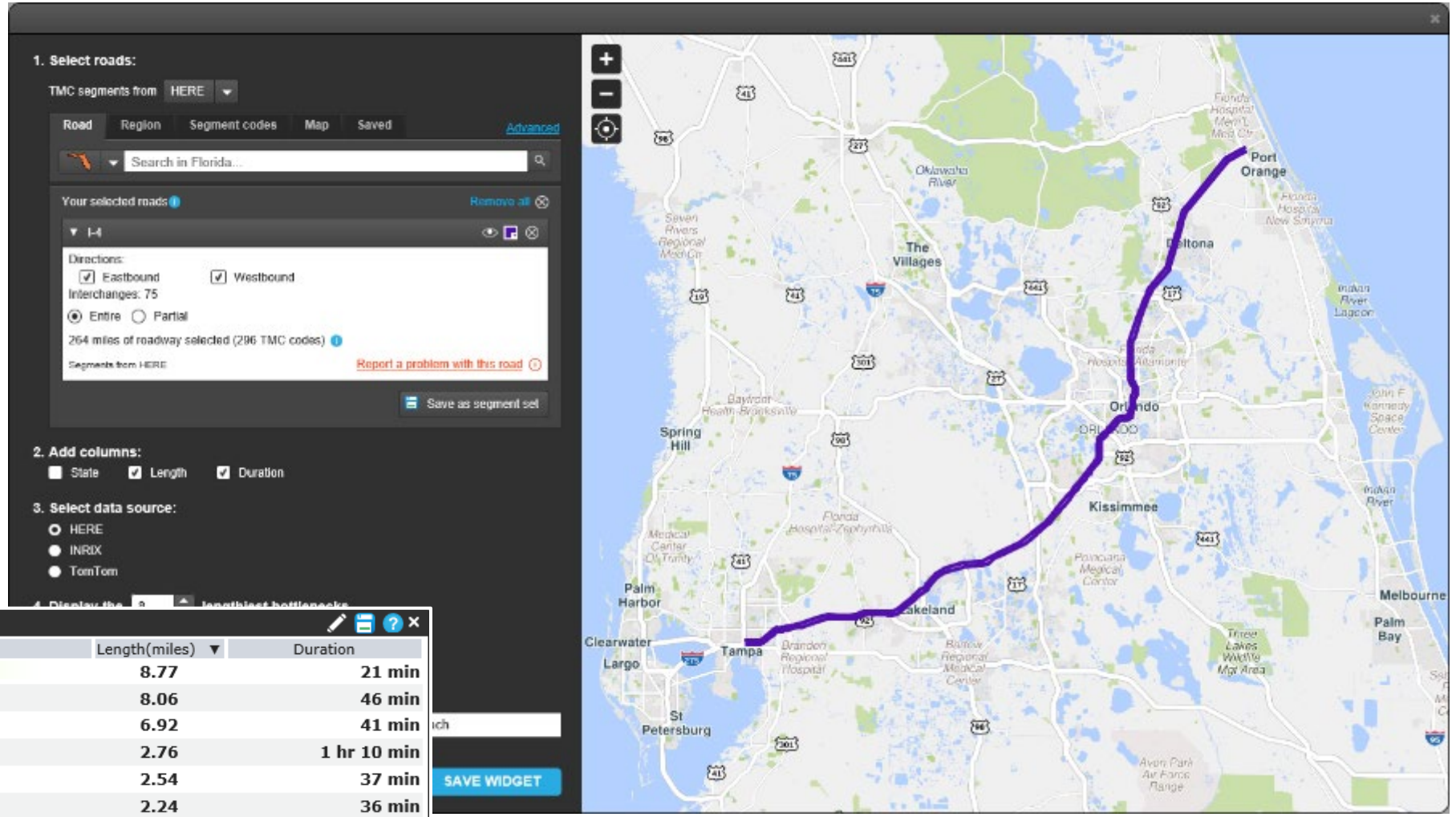


Widget:

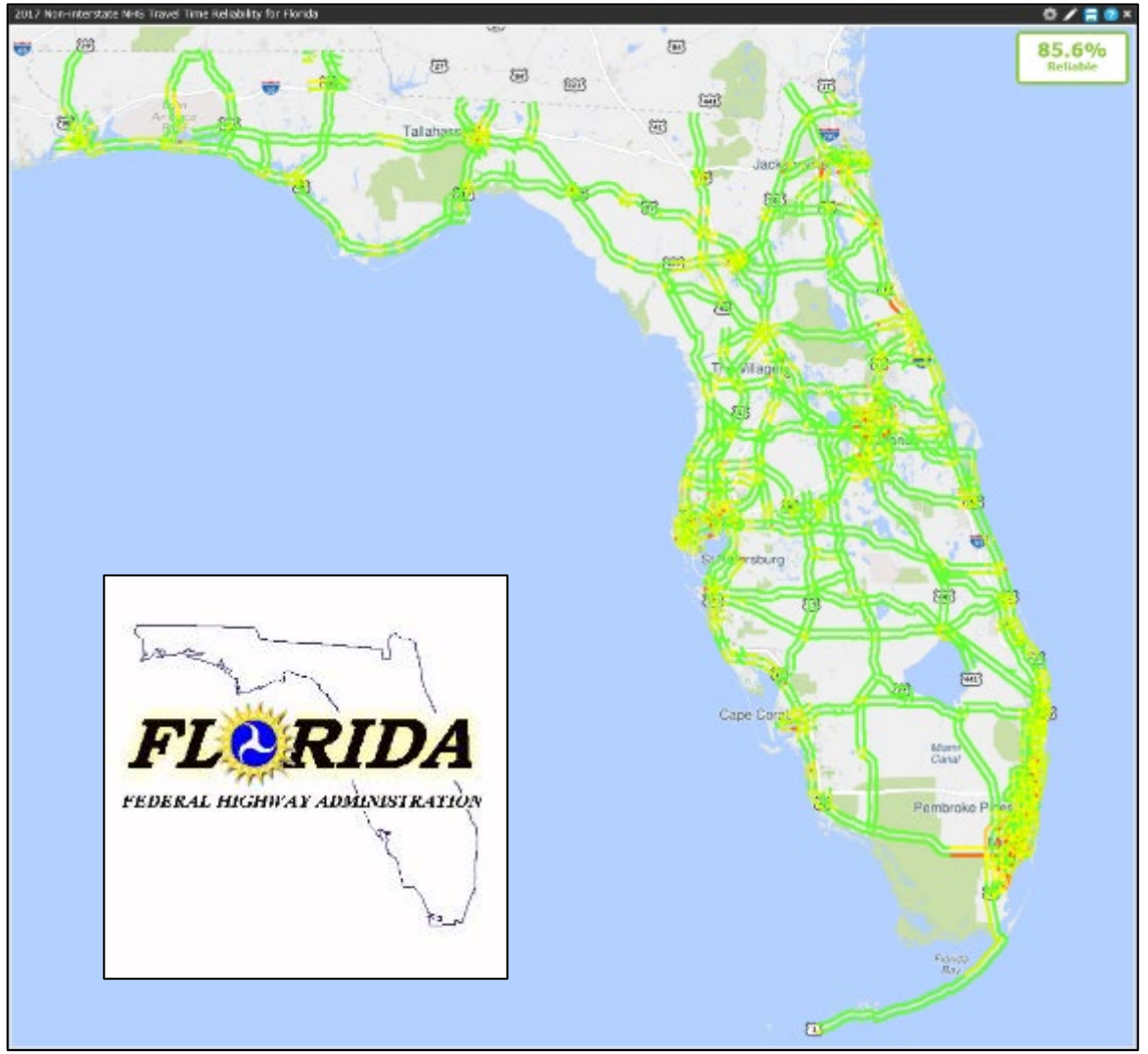
Ranked Bottleneck Table (I-4), Tampa-Orlando-Daytona Beach

	Location	Length(miles) ▼	Duration
1	I-4 W @ FL-414/MAITLAND BLVD/EXIT 47	8.77	21 min
2	I-4 W @ MCINTOSH RD	8.06	46 min
3	I-4 E @ FL-557/EXIT 22	6.92	41 min
4	I-4 W @ COUNTY LINE RD/EXIT 15	2.76	1 hr 10 min
5	I-4 W @ I-275	2.54	37 min
6	I-4 W @ DEBARY AVE/DEBARY DR/EXIT 53	2.24	36 min
7	I-4 W @ FL-574/E DR MARTIN LUTHER KING JR BLVD/EXIT 4	1.57	16 min
8	I-4 E @ CONROY RD	1.09	15 min

Using HERE data — Updated Nov 5, 2018 7:31 AM (5s ago)

Features for Florida Users

- Dashboard
  - MAP-21/PM3 Metrics
  - Other Metrics
- Deep-Dive Analytics



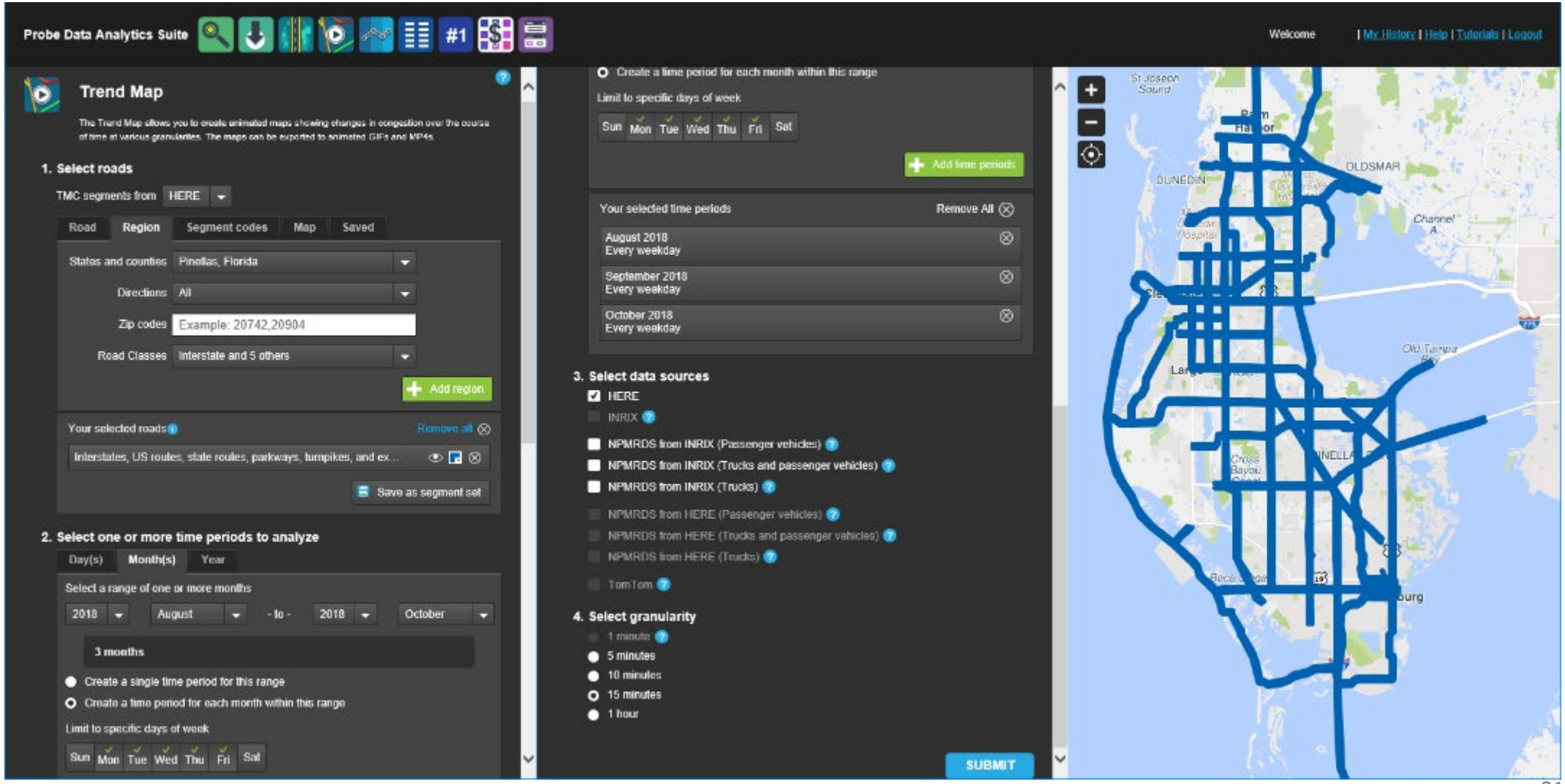
2017 Non-Interstate NHS Travel Time Reliability

Deep Dive Data Analytics

- Advanced data analytics provide Florida users ability to conduct analyses
  - Spatial: customizable for area of concern (by counties, roads, TMC codes, or map-selection)
  - Temporal: customizable for period of concern (by days, months, years, etc.)
- Enable performance reporting, post incident reviews, problem identification, project prioritization, before/after, work zone monitoring, rapid response to inquiries, press release preparation, and more.
- Data sources include:
  - NPMRDS (All of NHS in the US)
  - HERE (Florida network only)

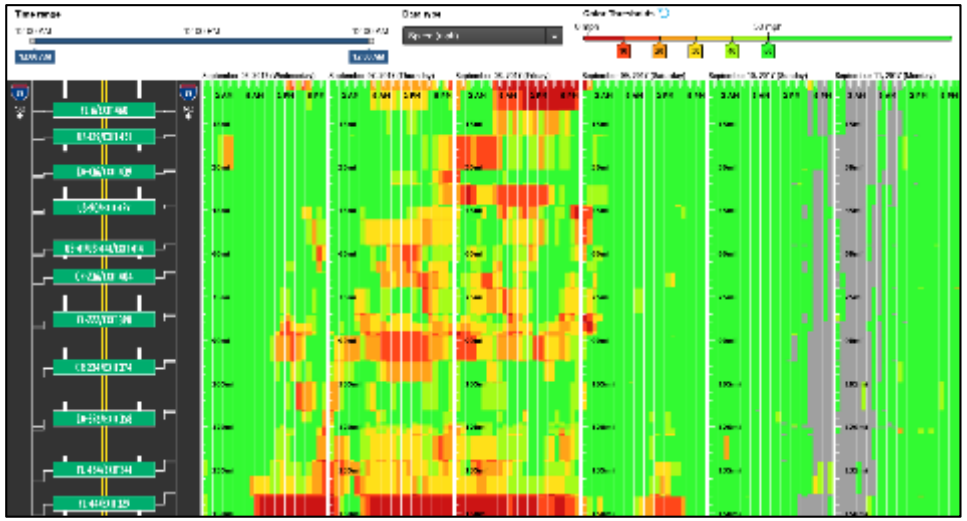
Deep Dive Data Analytics

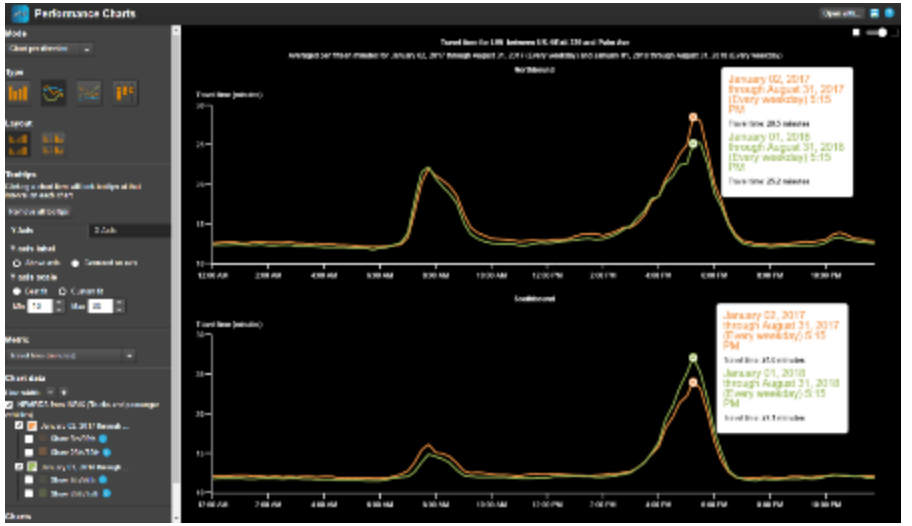
Interface for Running Analysis:

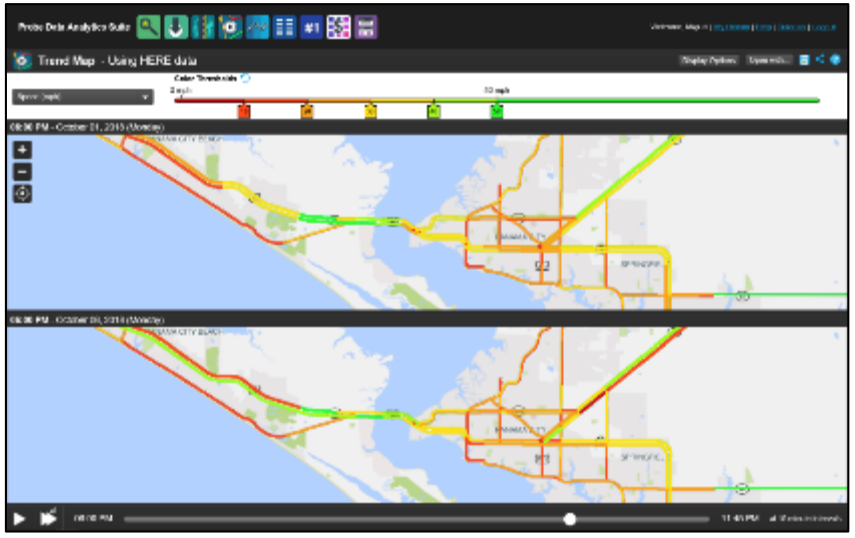


Deep Dive Data Analytics

Analysis Output Examples:



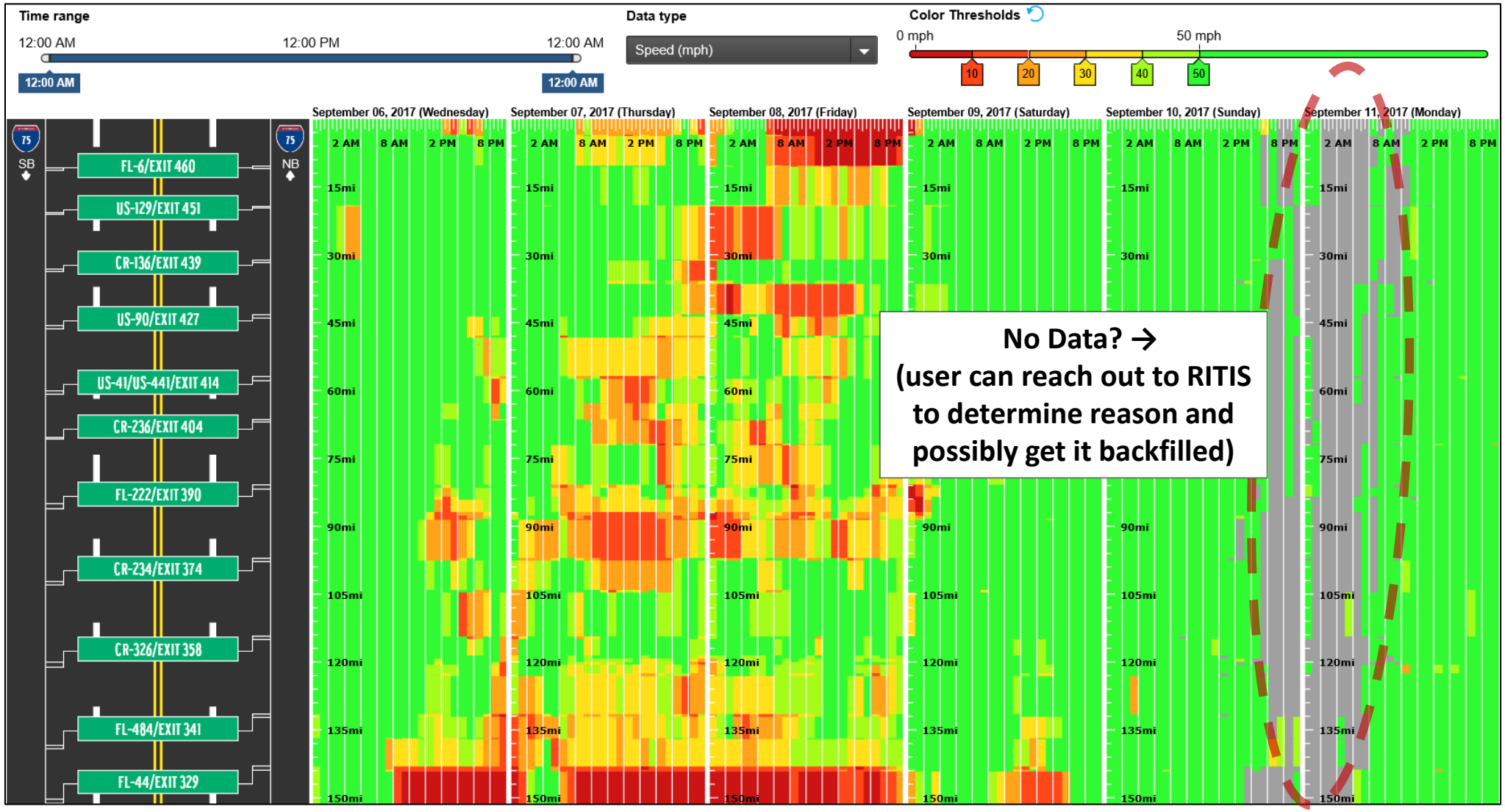




Deep Dive – Congestion Scan

CONGESTION SCAN
Analyze the rise and fall of congested conditions on a stretch of road.
Tutorial Help History

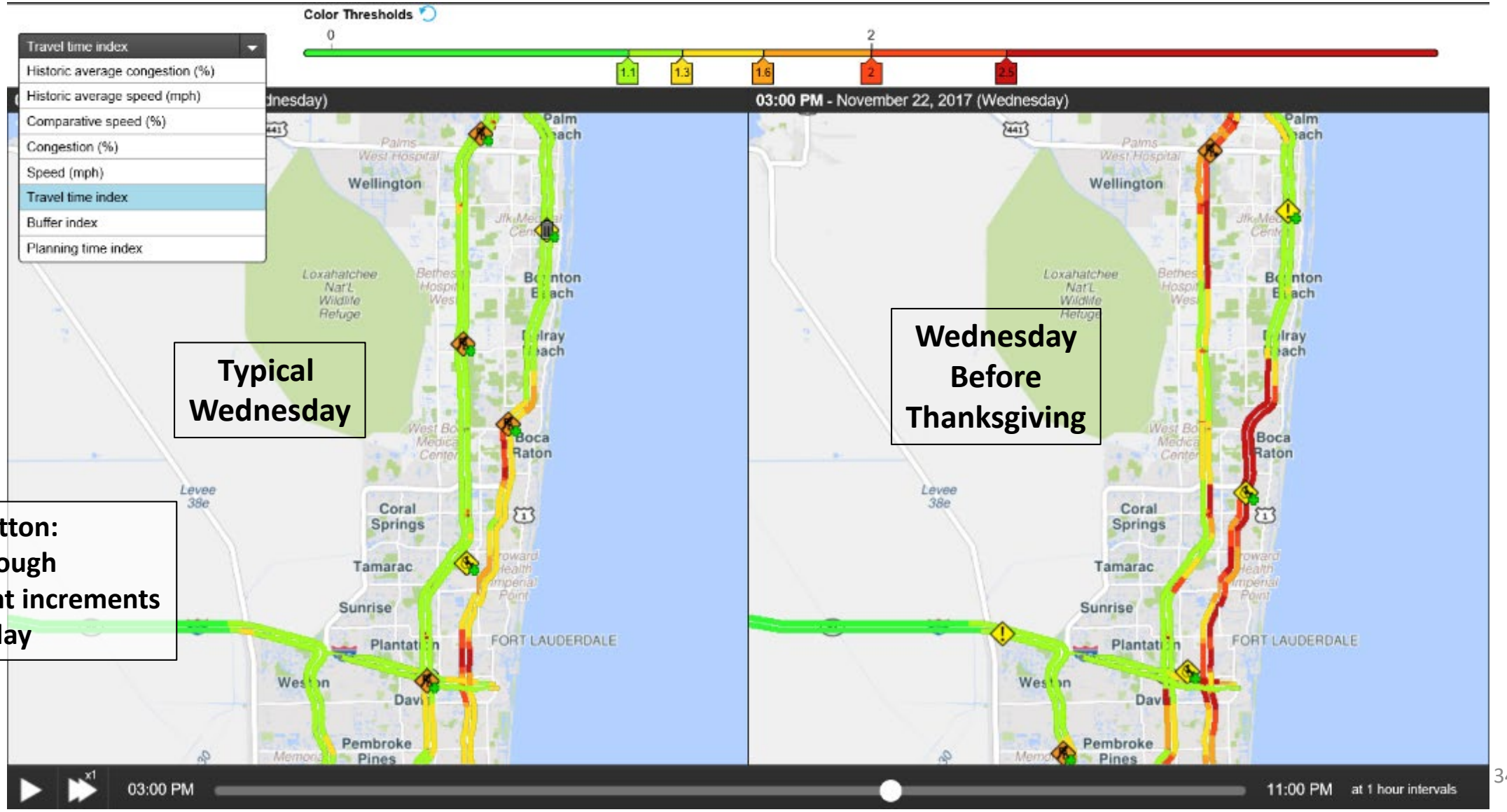
I-75 Hurricane Irma Evacuation (Sept. 2017)



Deep Dive – Trend Map

TREND MAP
Create animated maps of roadway conditions.
Tutorial Help History

Holiday Rush: Thanksgiving Day



Play Button: See through different increments of the day

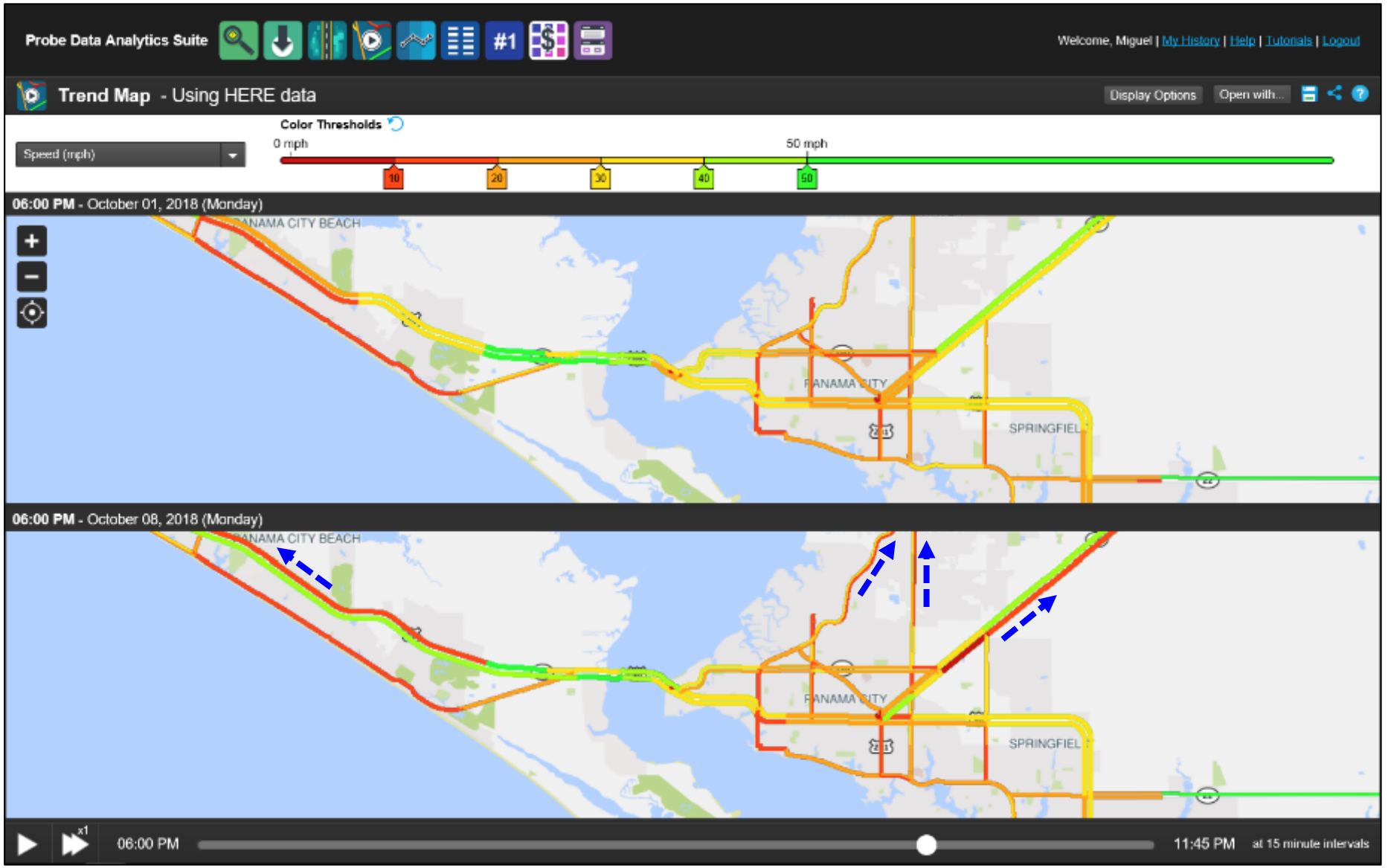
Deep Dive – Trend Map

TREND MAP
Create animated maps of roadway conditions.
Tutorial Help History

Hurricane Michael Evacuation (Oct. 8, 2018 @ 6:00 PM), Panama City, FL

Monday, Oct. 1st (Typical Monday)

Monday, Oct. 8th (Mandatory Evacuation Order Issued)



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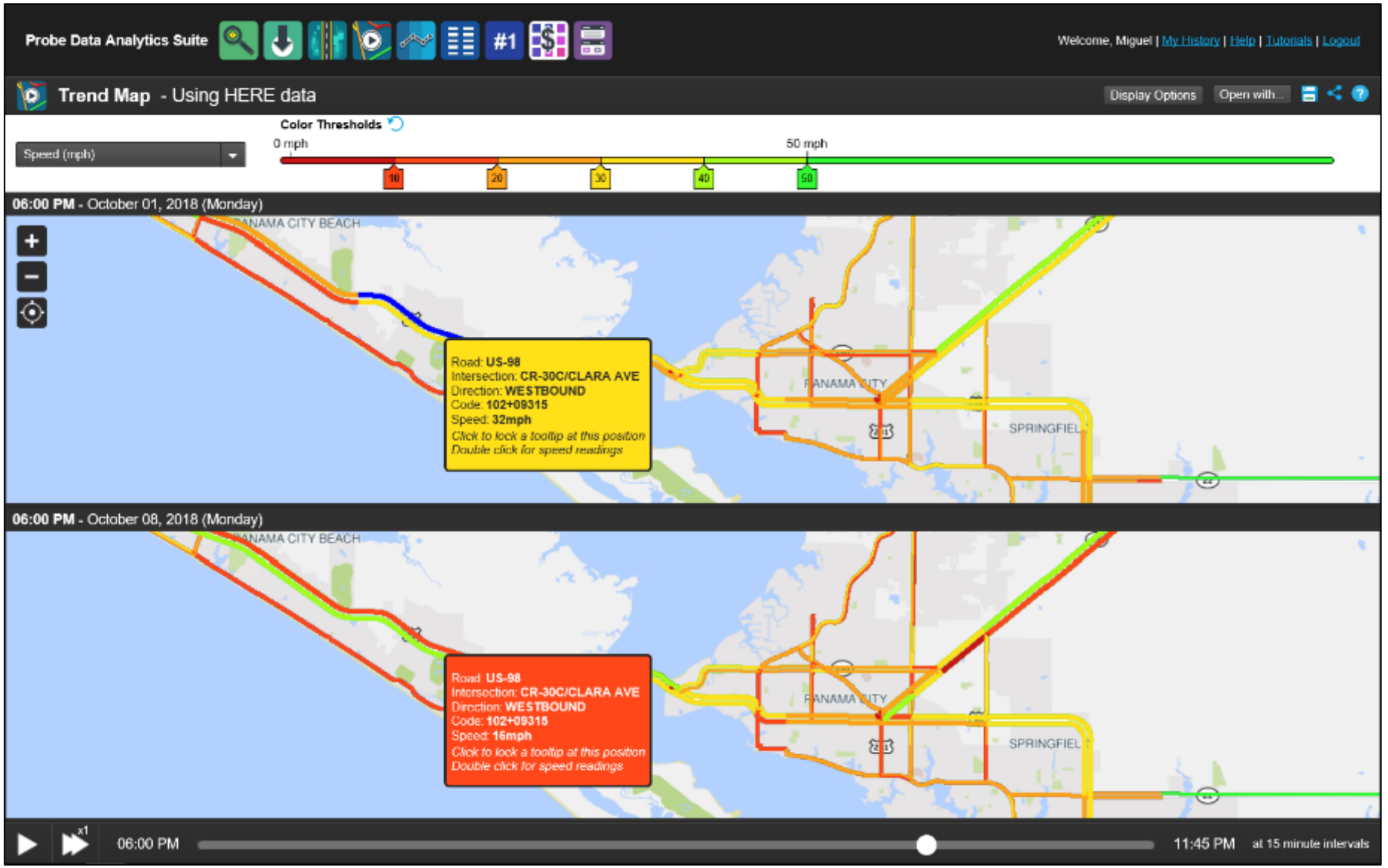

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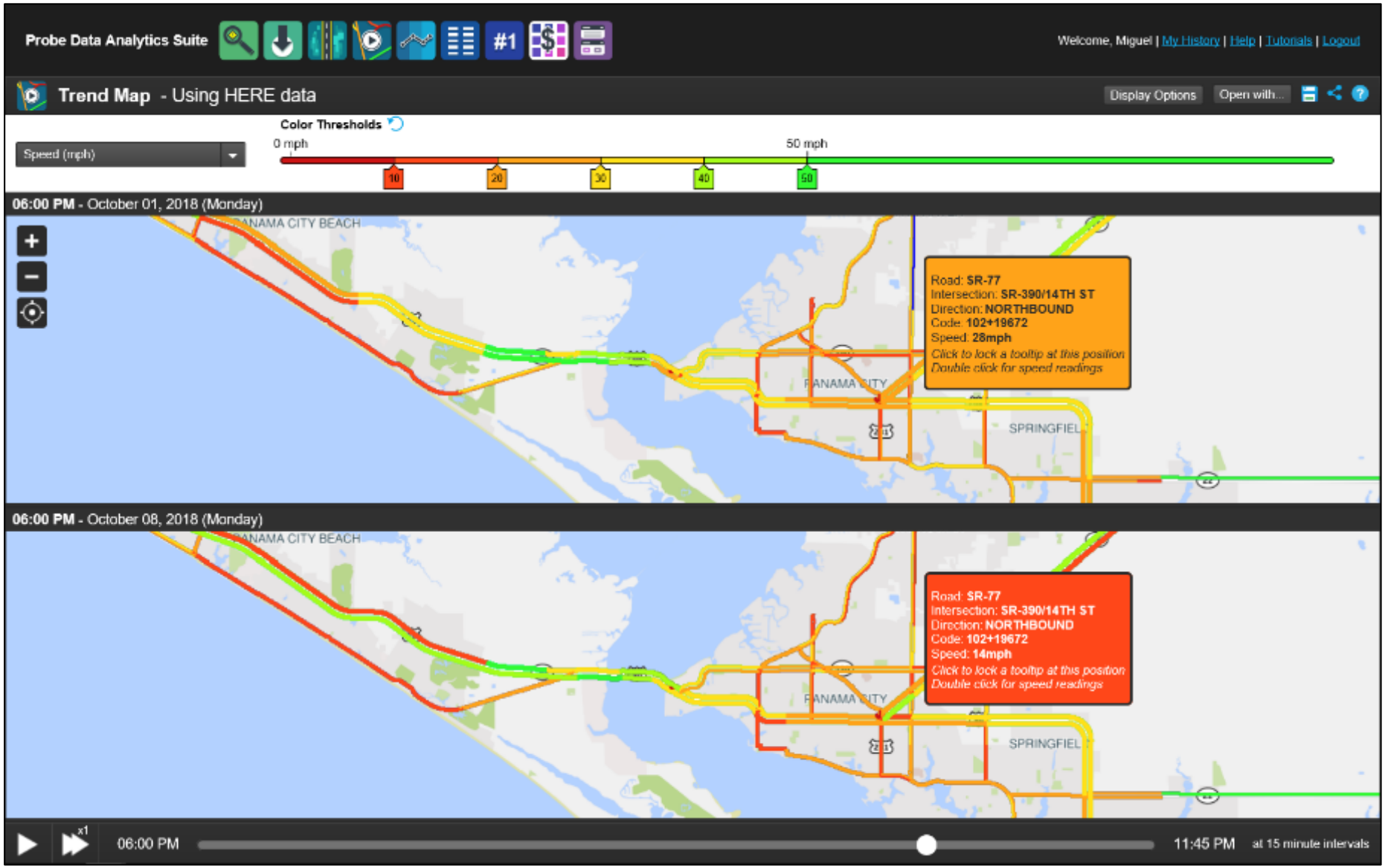

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Create animated maps of roadway conditions.
Tutorial Help History

Hurricane Michael Evacuation (Oct. 8, 2018 @ 6:00 PM), Panama City, FL

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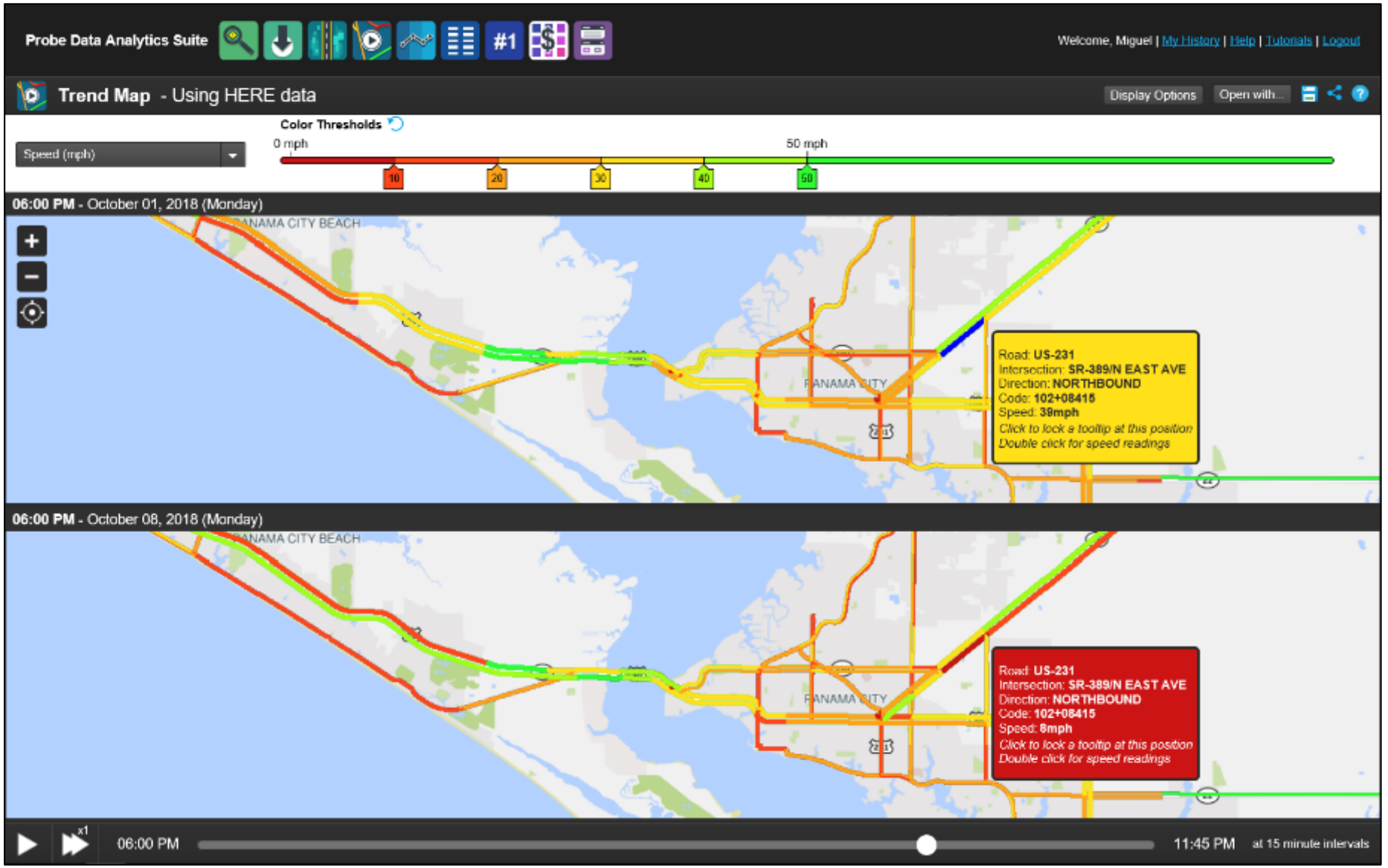
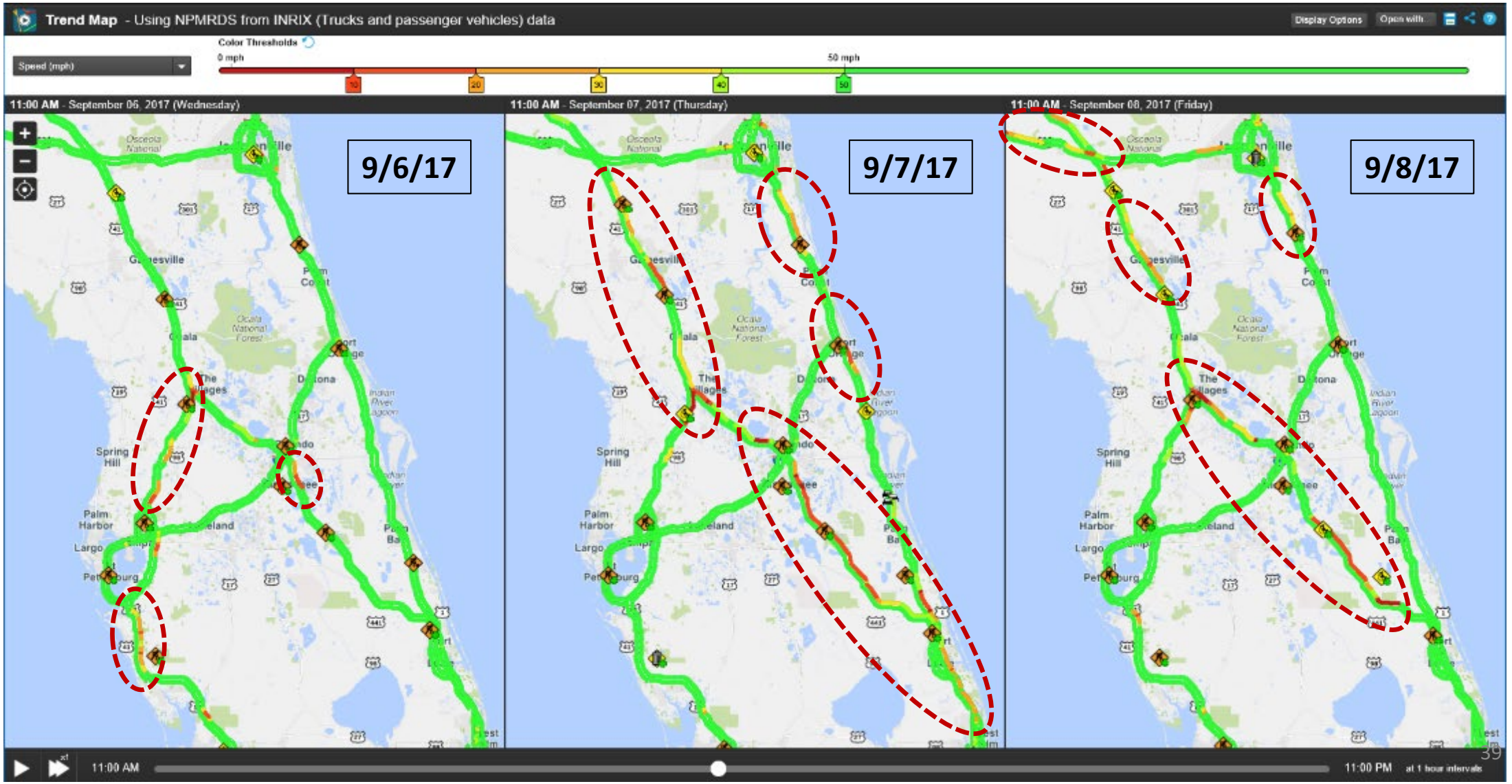


Deep Dive – Trend Map

TREND MAP
Create animated maps of roadway conditions.
Tutorial Help History

Hurricane Irma Evacuation (Sept. 6-8, 2017 @ 11:00 AM), Interstates & FL Turnpike

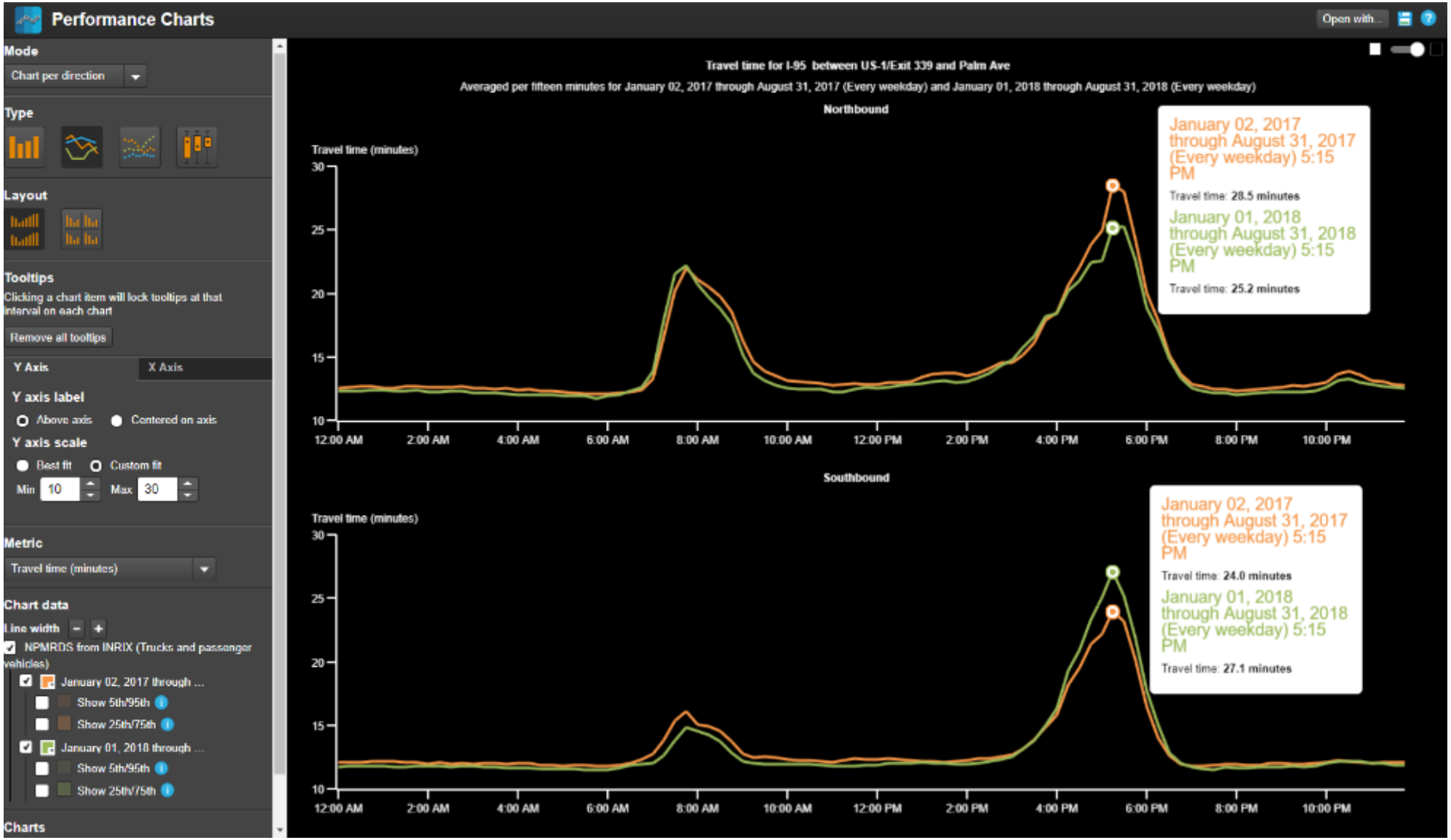


Deep Dive – Performance Charts

PERFORMANCE CHARTS
Chart performance metrics over time.

Tutorial Help History

Comparing year-to-year change

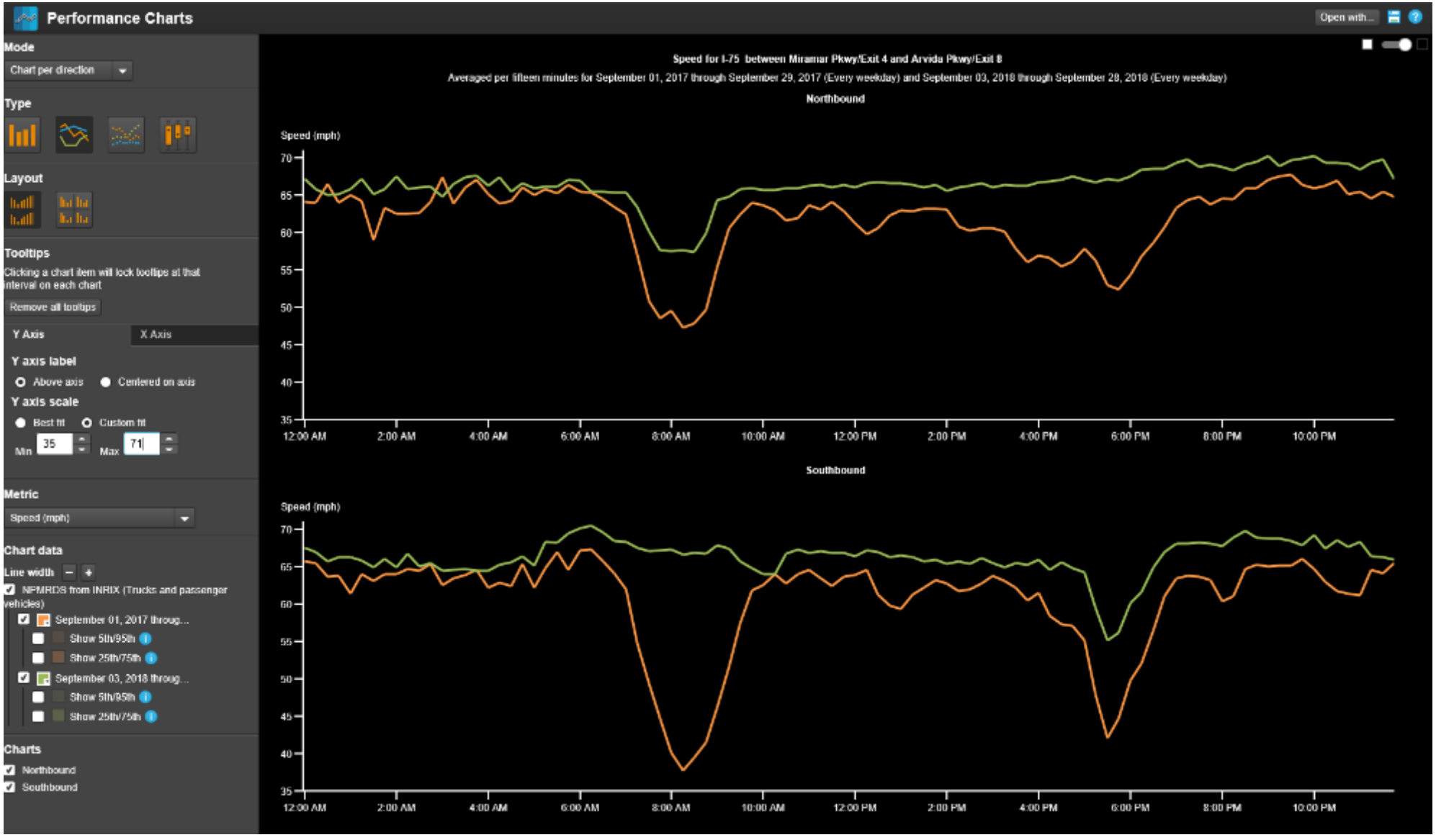


Deep Dive – Performance Charts

PERFORMANCE CHARTS
Chart performance metrics over time.

Tutorial Help History

Before-and-after opening of Express Lanes (I-75 Broward)



Deep Dive – Performance Summaries

PERFORMANCE SUMMARIES
Report on Buffer Time Index, Planning Time Index, and other performance metrics.
Tutorial Help History

Report metrics for any area and time period

Performance Summaries

Open with...

April 2018 Northbound | April 2018 Southbound

I-95 between I-95 EXP and 151St St/Exit 11 Southbound using NPMRDS from INRIX (Trucks and passenger vehicles) data

April 2018

	Speed (mph)	Buffer time (minutes)	Buffer index	Planning time (minutes)	Planning time index	Travel time (minutes)	Travel time index	
	7 AM - to - 8 AM	7 AM - to - 8 AM	7 AM - to - 8 AM	7 AM - to - 8 AM	7 AM - to - 8 AM	7 AM - to - 8 AM	7 AM - to - 8 AM	
Mon	27.84	27.37	3.00	36.51	4.99	19.32	2.64	Mon
Tue	26.91	22.23	2.49	31.14	4.25	19.99	2.73	Tue
Wed	25.86	21.88	2.43	30.89	4.22	20.79	2.84	Wed
Thu	26.71	23.31	2.62	32.22	4.40	20.13	2.75	Thu
Fri	27.73	20.07	2.22	29.09	3.97	19.39	2.65	Fri
Weekdays	27.03	22.87	2.54	31.87	4.35	19.89	2.72	Weekdays
Sat	34.62	16.13	1.81	25.06	3.42	15.53	2.12	Sat
Sun	52.03	6.95	0.82	15.46	2.11	10.34	1.41	Sun
Weekends	41.75	15.11	1.73	23.83	3.25	12.88	1.76	Weekends
All Days	29.94	25.41	2.85	34.34	4.69	17.96	2.45	All Days

Deep Dive – Bottleneck Ranking

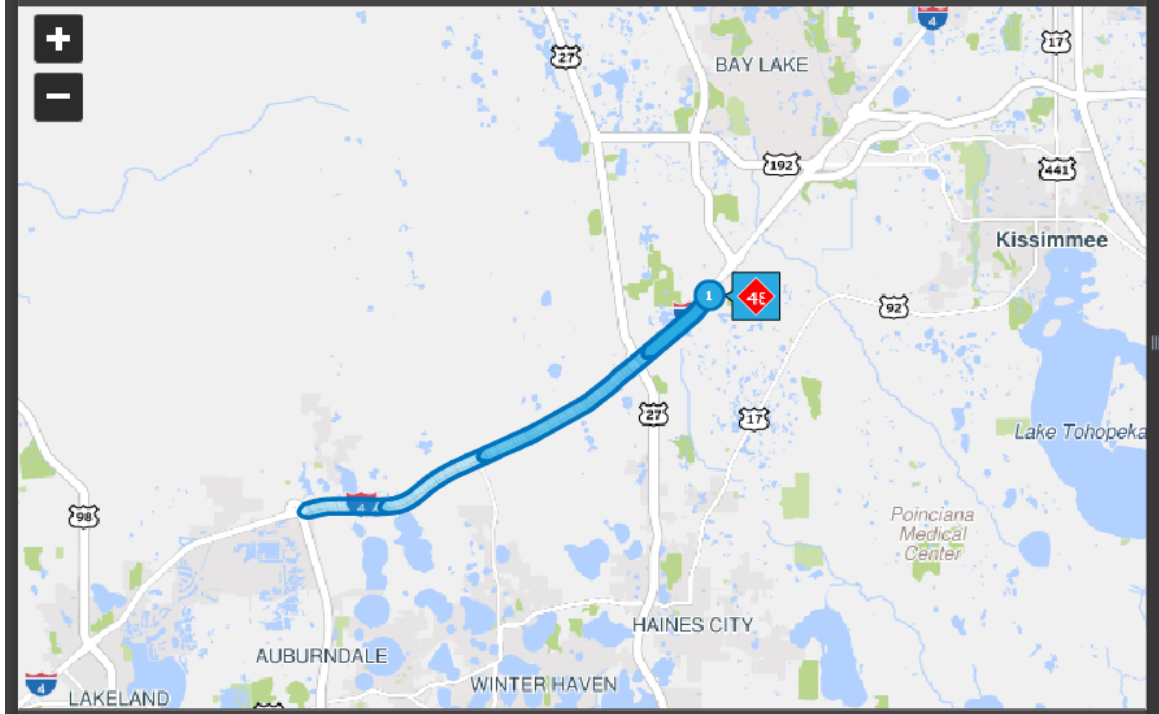
BOTTLENECK RANKING
Rank bottlenecks and discover which ones have the greatest impact.
Tutorial Help History

At a region or corridor, for a specified timeframe

Bottleneck Ranking Table for I-4 between April 1, 2018 and April 30, 2018 (149 total) — Display Options

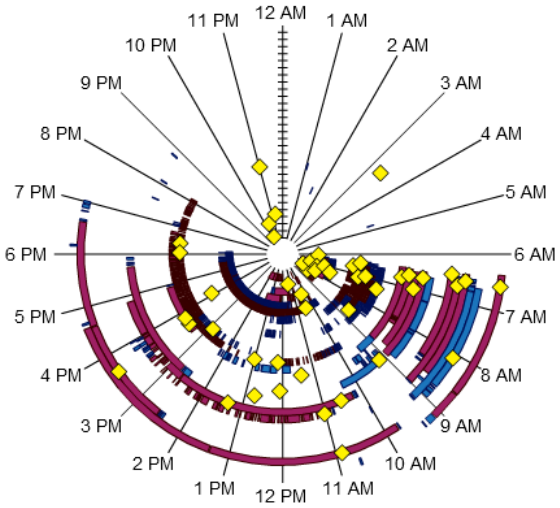
			Bottleneck Profile			Influences	Base impact weighted by				
Rank	Map	Head Location (approximate)	Average...	Average dai...	Total duration	All Events/I...	▼Base Impact	Speed different...	Congestion	TOTAL DELAY	External Tool Links
1	☐	I-4 E @ CR-532/EXIT 24	6.97	2 h 58 m	3 d 17 h 02 m	48	36,587.21	1,471,788.08	60,090.88	65,034,635,703.96	
2	☐	I-4 E @ CR-535/EXIT 27	2.84	5 h 41 m	7 d 02 h 55 m	55	29,461.31	1,153,947.78	54,362.04	65,573,082,848.02	
3	☐	I-4 W @ I-275	1.83	7 h 02 m	8 d 19 h 10 m	60	23,608.92	795,232.14	41,184.24	52,187,109,447.77	
4	☐	I-4 W @ FL-429 TOLL/EXIT 60	3.91	3 h 07 m	3 d 21 h 58 m	42	21,814.84	912,856.65	42,923.84	48,181,714,931.88	
5	☐	I-4 E @ IVANHOE BLVD/EXIT 4	3.36	3 h 14 m	4 d 01 h 17 m	82	19,868.94	664,700.25	37,202.40	49,254,288,155.54	
6	☐	I-4 E @ FL-429 TOLL/EXIT 60	9.11	41 m	20 h 37 m	66	12,595.41	541,593.81	23,786.59	26,436,547,740.70	

Map — for I-4 E @ CR-532/EXIT 24 — Display Options



Time Spiral — for I-4 E @ CR-532/EXIT 24 — Display Options

The center represents April 1, 2018 and the outer edge represents May 1, 2018.



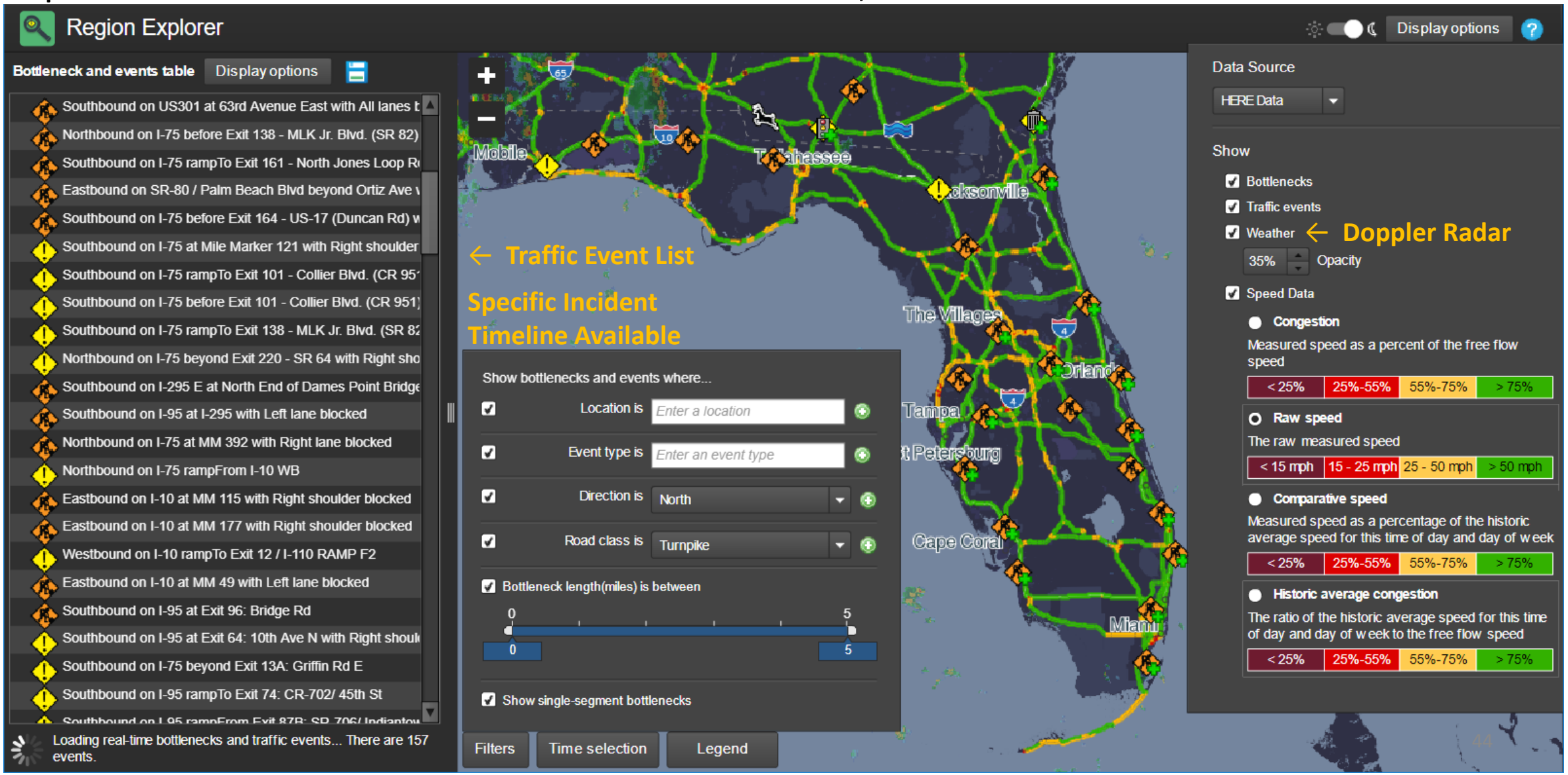
Maximum queue length in miles ☐ Grayscale — Icon Legend

0 — 2 — 5 — 8

Deep Dive – Region Explorer

REGION EXPLORER
Explore the relationships between bottlenecks and traffic events in real-time and in the past.
Tutorial Help

Explore real-time or historical data on bottlenecks, events…



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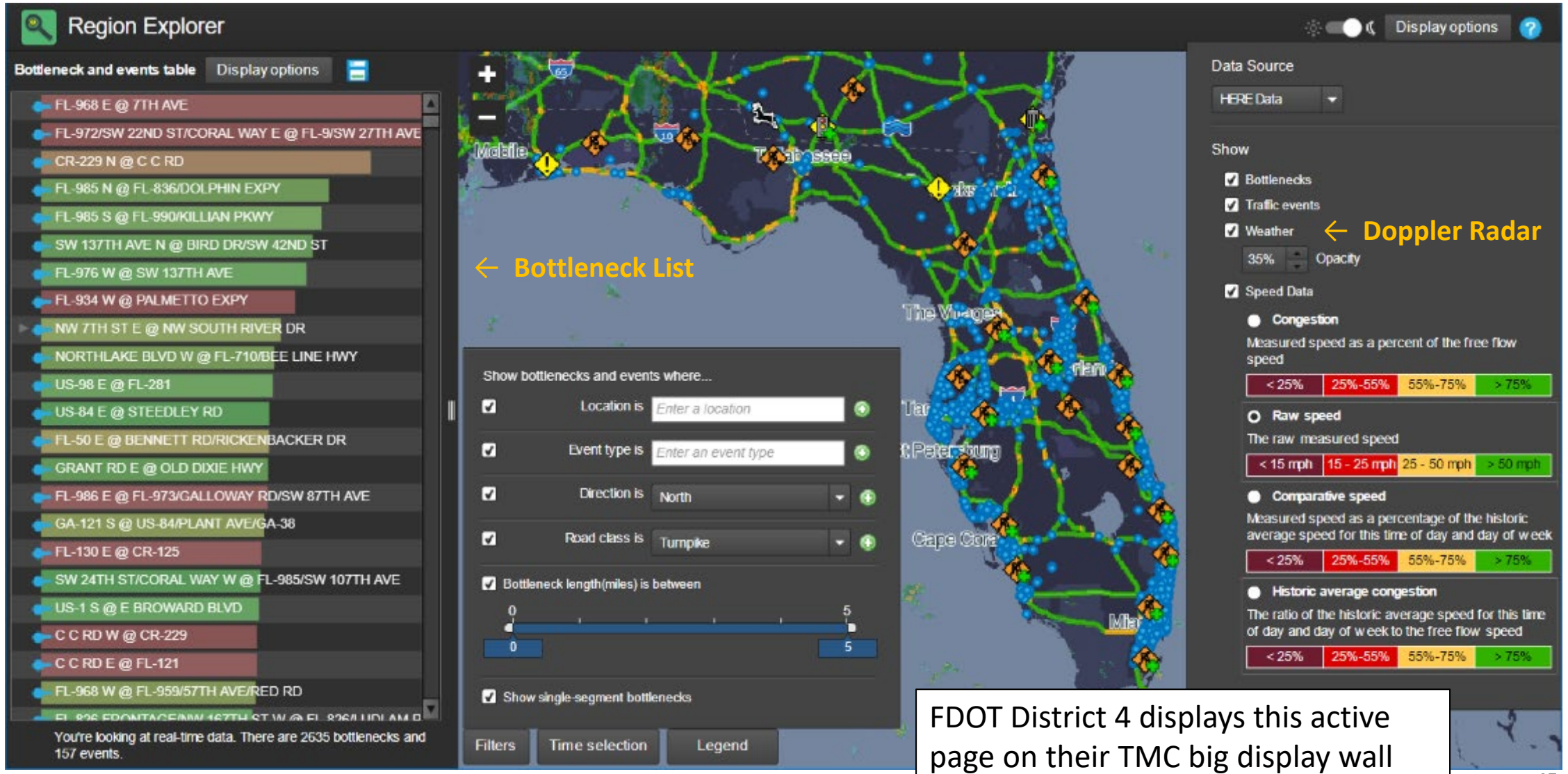


FDOT District 4 displays this active page on their TMC big display wall

Deep Dive – Region Explorer - Event Timeline

REGION EXPLORER
Explore the relationships between bottlenecks and traffic events in real-time and in the past.
Tutorial Help

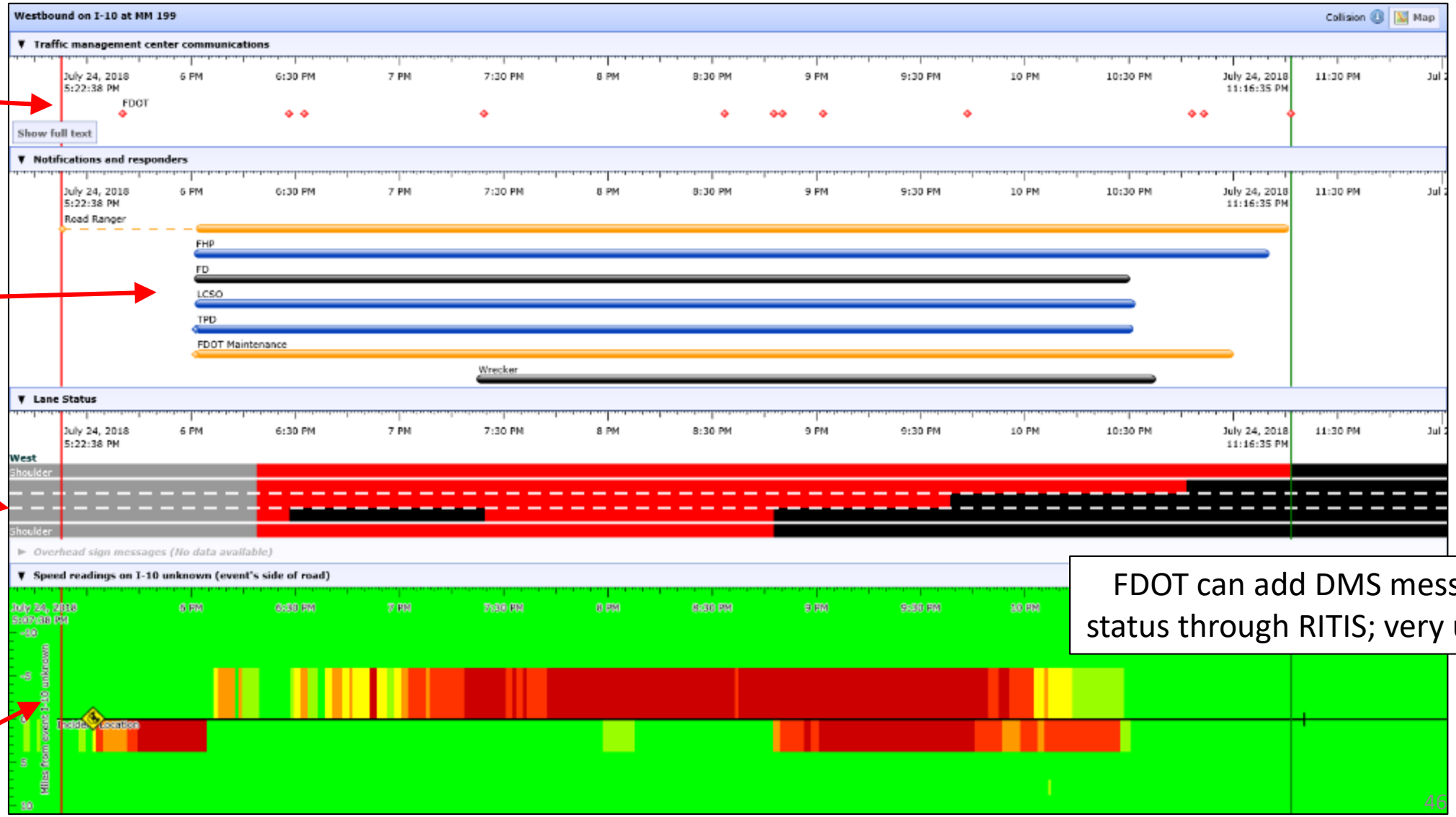
Information on incident events, from reporting to clearance

TMC Communications

Incident Responders Arrival

Lanes & Shoulders Closures

Congestion Conditions Upstream & Downstream



FDOT can add DMS message status through RITIS; very useful

Deep Dive – User Delay Cost

Impact of Delay on Users

USER DELAY COST ANALYSIS
Put a dollar amount on how much a road's performance impacts its users.
Tutorial Help History

Interstate-275 (Florida) User Delay Costs

Sunday, June 10, 2018 to Saturday, June 30, 2018

Vehicle Type: All | Display: Total cost | Legend: Weekdays (Lowest – Highest), Weekends (Lowest – Highest), No data

Display options: Total cost; Cost per VMT; Person-hours of delay; Vehicle-hours of delay; Vehicle miles traveled (VMT); Delay per VMT; Coverage

Use Default Values or Define your own Delay Thresholds and User Hourly Costs

Total Cost

	12 AM	1 AM	2 AM	3 AM	4 AM	5 AM	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM	Daily Totals
6/10/18	$1.5K				$0.9K	$0.5K	$0.7K	$6.4K	$0.8K	$1.3K	$1.9K	$1.9K	$2.3K	$1.7K	$0.7K	$1.2K	$4.2K	$4.7K	$0.3K	$1.9K	$2.5K	$1.6K	$2.6K	$0.7K	$42.1K
6/11/18	$0.8K				$1.1K	$1.7K	$8.9K	$30.3K	$31.3K	$11.9K	$2.4K	$4K	$1.2K	$1.4K	$1.5K	$12.7K	$35.9K	$48.8K	$19.3K	$1K	$0.5K	$0.9K	$0.4K	$2.3K	$219.3K
6/12/18	$0.3K				$0.3K	$0.7K	$5.3K	$24.7K	$20.8K	$8K	$3.4K	$4K	$3.1K	$5K	$8.5K	$25.5K	$47.3K	$66.6K	$46.2K	$12.3K	$0.4K	$1.2K	$0.9K	$0.7K	$286.9K
6/13/18	$0.7K				$0.5K	$0.4K	$6.3K	$25.2K	$31.8K	$16.3K	$5.9K	$0.4K	$2.5K	$6.7K	$1.5K	$10.7K	$40.8K	$70.3K	$44.1K	$14.8K	$2.4K	$0.7K	$1.9K	$6.3K	$291K
6/14/18	$1.7K	$0.6K	$0.3K	$0.5K	$1.7K	$0.7K	$6.7K	$29.4K	$49.7K	$23.9K	$14.8K	$11K	$4.7K	$6K	$2.7K	$19K	$37.5K	$53.3K	$29.5K	$3K	$0.9K	$2.2K	$0.5K	$0.3K	$300.6K
6/15/18	$0.3K	$0.4K	$0.1K	$1.7K	$6.1K	$1.3K	$3K	$18.7K	$16.9K	$5.7K	$4.7K	$5.5K	$9.3K	$11.2K	$18.2K	$29.4K	$51.9K	$58.1K	$17K	$2.5K	$1.3K	$1K	$0.6K	$2.1K	$266.8K
6/16/18	$1.9K	$3.9K	$0.5K	$0.4K	$0.3K	$0.8K	$0.6K	$0.9K	$0.4K	$1K	$1K	$12.7K	$15.8K	$10.7K	$17.8K	$18.7K	$7.6K	$5.6K	$4.6K	$7.5K	$0.9K	$6.1K	$2K	$1.7K	$123.4K
6/17/18	$0.3K	$0.3K	$0.3K	$1K	$1.1K	$0.8K	$28.2K	$0.7K	$0.8K	$1K	$1.8K	$2.5K	$9.4K	$6.9K	$1K	$1.1K	$0.6K	$1.9K	$6.7K	$5.8K	$2.3K	$1.4K	$0.7K	$1.2K	$77.8K
6/18/18	$0.5K	$0.3K	$0.4K	$0.6K	$0.7K	$0.2K	$5K	$23.7K	$24.6K	$10.5K	$6.6K	$2K	$3.5K	$1.1K	$1.1K	$6.8K	$27.4K	$42.7K	$14.4K	$3.4K	$0.[illegible]				
6/19/18	$0.3K	$0.3K	$0.2K	$0.5K	$0.6K	$0.5K	$6.7K	$29.7K	$30.5K	$7.8K	$1.7K	$0.7K	$0.4K	$0.4K	$3.5K	$27.1K	$82.8K	$84.1K	$36.5K	$1.2K	$1.[illegible]				
6/20/18	$1K	$0.8K	$1.2K	$1.6K	$0.8K	$0.5K	$4.6K	$33.3K	$36.7K	$12.3K	$12K	$11.7K	$6.8K	$3.5K	$0.7K	$12.3K	$34.2K	$51.1K	$26.8K	$10.6K	$1[illegible]				
6/21/18	$0.2K	$0.4K	$0.3K	$0.7K	$1.2K	$0.6K	$5.5K	$23.7K	$24.9K	$7.3K	$8K	$7.5K	$4.4K	$8K	$9.4K	$13.2K	$36.9K	$46.5K	$18.9K	$7.4K	$3.[illegible]				
6/22/18	$0.4K	$0.6K	$2.9K	$0.3K	$1.1K	$0.6K	$2.4K	$9.5K	$8.7K	$10.5K	$11.5K	$6.2K	$7.1K	$7K	$10.7K	$33.1K	$105.4K	$103.2K	$53.9K	[illegible]					$404.3K
6/23/18	$1.3K	$0.4K	$0.7K	$0.7K	$0.6K	$1K	$1.5K	$0.6K	$0.4K	$0.9K	$1.2K	$1.6K	$6.4K	$20.3K	$34.3K	$31.8K	$23.8K	$11.1K	$7.4K	[illegible]					[illegible]194.1K
6/24/18	$1.4K	$0.7K	$0.8K	$0.4K	$0.4K	$0.4K	$0.4K	$0.6K	$3.4K	$1.1K	$1.7K	$11.5K	$18.5K	$12K	$11.9K	$15.4K	$15.7K	$28.1K	$28.9K	[illegible]					$188K
6/25/18	$2K	$0.6K	$1.6K	$1.3K	$0.4K	$0.9K	$7.4K	$28.2K	$28K	$9.8K	$1.2K	$0.8K	$1.2K	$0.4K	$0.4K	$9.2K	$32.1K	$50.1K	$29.1K	[illegible]					[illegible]222.1K
6/26/18	$0.3K	$1.2K	$0.1K	$0.2K	$0.6K	$0.4K	$7.1K	$27K	$27.2K	$9.6K	$3.2K	$0.8K	$0.7K	$1.8K	$5.9K	$23K	$45.6K	$59.3K	$24.8K	[illegible]					$247K
6/27/18	$6.4K	$0.4K	$0.2K	$0.5K	$1.3K	$1K	$7.2K	$33.5K	$61.8K	$18.5K	$4.2K	$2.2K	$3.4K	$3K	$6.5K	$16.2K	$39.5K	$55.1K	$31.4K	[illegible]					$305K
6/28/18	$1.1K	$1.1K	$1.5K	$0.4K	$0.4K	$1.7K	$6.4K	$23.9K	$25.4K	$16.6K	$6.5K	$5.3K	$13.5K	$13.5K	$24.9K	$47.4K	$76.2K	$83.2K	$34.5K	[illegible]					[illegible]401.8K
6/29/18	$0.3K	$0.1K	$0.3K	$0.4K	$2.9K	$0.2K	$2.1K	$14.3K	$11.9K	$9.9K	$9.4K	$12.9K	$11K	$22.6K	$16.8K	$27.5K	$41.2K	$50.3K	$36.1K	[illegible]					[illegible]281.1K
6/30/18	$0.4K	$0.7K	$0.3K	$0.2K	$0.5K	$0.3K	$1.2K	$0.5K	$0.3K	$5.2K	$7.9K	$24.4K	$34.4K	$28.6K	$12.4K	$8.5K	$3.4K	$2.6K	$0.9K	$2K	$1K	$4.1K	$6K	$0.6K	$146.6K
Hourly Totals	$23.1K	$15K	$12.7K	$13.4K	$23.3K	$14.9K	$117.3K	$384.9K	$436.4K	$189.1K	$111.1K	$129.6K	$159.9K	$171.7K	$190.3K	$389.8K	$789.8K	$976.6K	$511.5K	$162.4K	$58.5K	$47K	$34.3K	$50.1K	Grand Total $5,013,014.99

Sunshine Skyway Br Lane Closure Impact

Friday, June 22, 2018 6:00 PM
Delay cost:
Total: $53,868.78
Per VMT: $0.2
Hours of delay:
Person-hours: 2,185h 14m 14s
Vehicle-hours: 1,783h 52m 2s
Vehicle miles traveled (VMT):
Total: 238,384 miles
Passenger: 214,546 miles
Commercial: 23,838 miles
Delay per VMT: 0.449 mins / mile
Data validity: 99.37%
Click the table cell to see links to congestion scans

Export to Excel

Contents

Data Downloader

Massive Data Downloader

MASSIVE DATA DOWNLOADER
Download raw probe data from our archive for offline analysis.
Tutorial Help History

Download Data for spec. region/road, metrics, times…

Massive Data Downloader

Use the Massive Data Downloader to download raw probe data from our archive for offline analysis.

1. Select roads

Road | Region | List of TMC codes | Map | Saved TMC Set | Advanced

NPMRDS INRIX | Search in Florida...

Your selected roads | Remove all

I-110 between Fairfield Dr/Exit 4 and I-10

Directions: Northbound, Southbound
Interchanges: 5
Entire / Partial
From: Intersection: FAIRFIELD DR/EXIT 4
To: Intersection: I-10
8.04 miles of roadway selected (9 TMC codes)
TMCs from NPMRDS INRIX | Report a problem with this road

Save as TMC set

2. Select one or more date ranges

01/01/2017 - through - 05/31/2017
01/01/2018 - through - 05/31/2018

Add another date range

3. Select days of week

Sun Mon Tue Wed Thu Fri Sat

4. Select one or more times of day

12:00 AM - to - 11:59 PM

Add another time of day

5. Select data sources and measures

HERE
INRIX
NPMRDS from INRIX (Passenger vehicles)
NPMRDS from INRIX (Trucks and passenger vehicles)
Speed
Historic average speed
Reference speed
Travel time
Data Density
NPMRDS from INRIX (Trucks)
NPMRDS from HERE (Passenger vehicles)
NPMRDS from HERE (Trucks and passenger vehicles)
NPMRDS from HERE (Trucks)
TomTom

6. Select units for travel time

Seconds
Minutes

7. Null record handling

Include records with null values

8. Select averaging

Don't Average
5 minutes
10 minutes
15 minutes
1 hour

9. Provide title

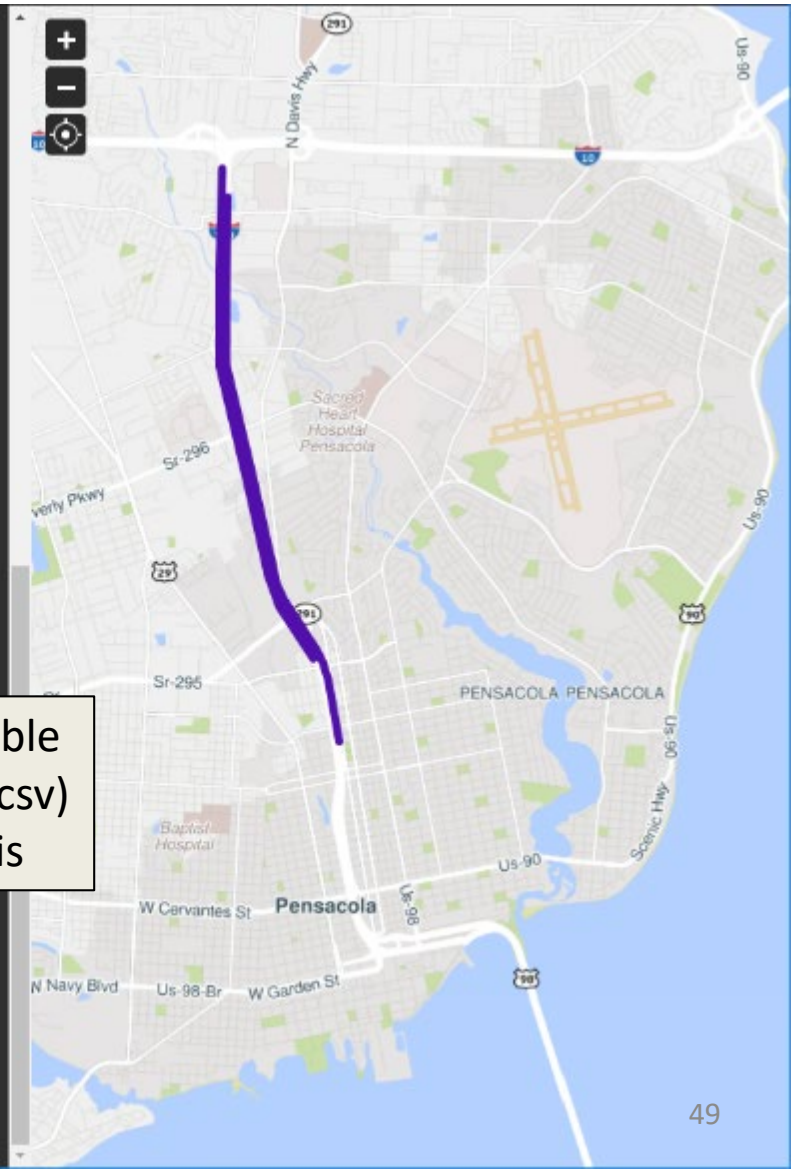
My Data

10. Notification

Send me an email when this export is ready to download

SUBMIT

Creates Downloadable Data Spreadsheet (.csv) for Offline Analysis

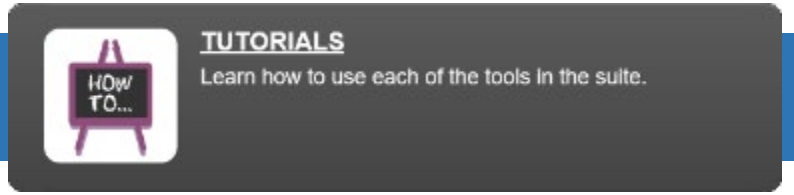


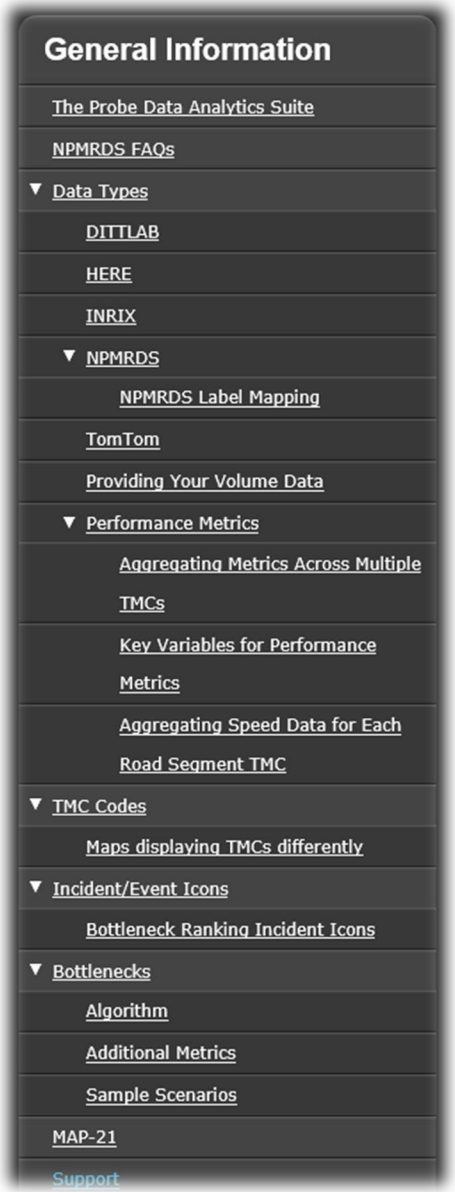
Contents

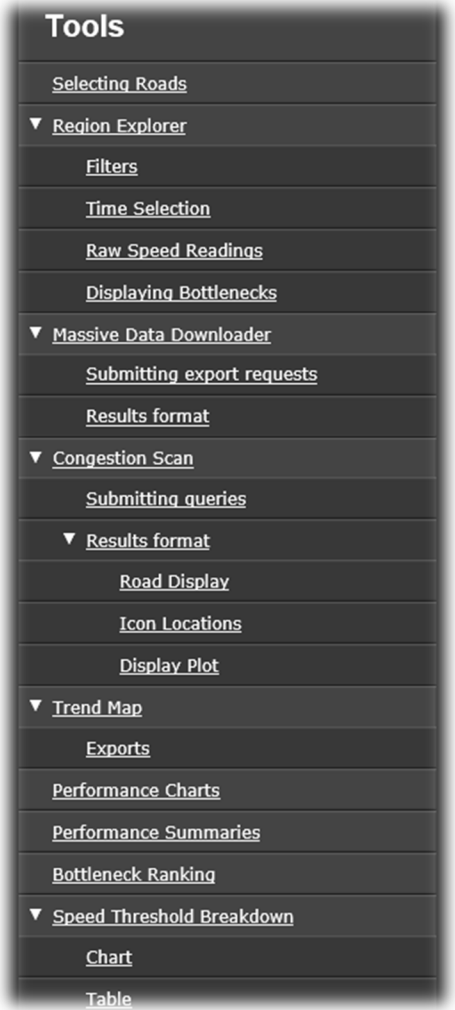
Help & Tutorials

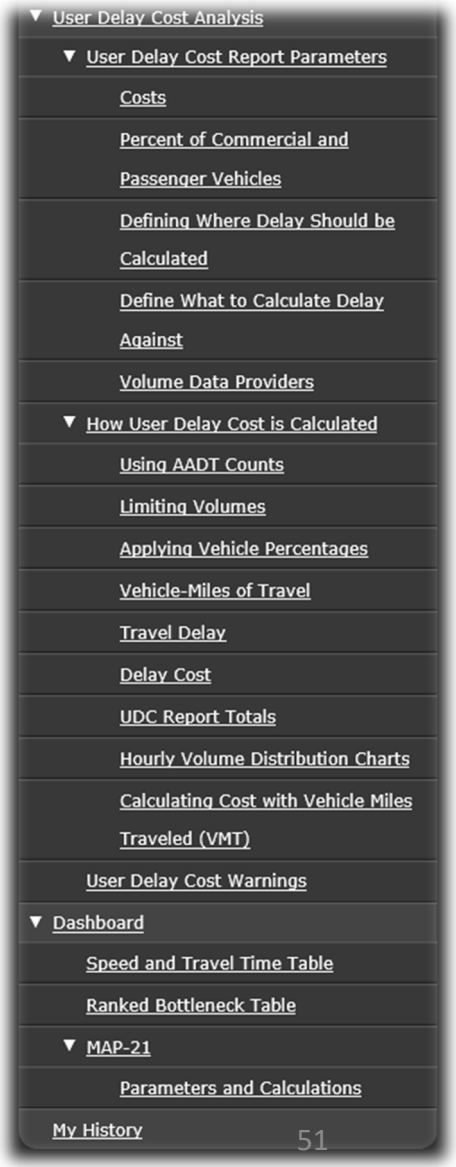
Help and Tutorials

- Detailed explanations available on everything found in PDA Suite
- Detailed Video Tutorials on the use of every tool, widget and feature
- Direct access to Help and Tutorials from each tool
- New analysis templates are posted in the Help File section (e.g., holiday travel forecast, before-after study…)
- Free Monthly Training on RITIS (https://matoc.org/training/)
- In-Person training for groups can be arranged through RITIS.









Contacts to Remember (once again)

For help with the data analytics tool: support@ritis.org

For information on NPMRDS: https://ops.fhwa.dot.gov/perf_measurement/index.htm

For help with Data Sharing Agreement: npmrds@ritis.org (for NPMRDS data set)

For Non-FDOT user-access help: christine.shafik@dot.state.fl.us (for other PDA data sets)

For information on PM3 implementation in Florida: https://www.fhwa.dot.gov/fldiv/tpm.cfm

FDOT TPM PM3 Implementation points of contact:
Jessica.VanDenBogaert@dot.state.fl.us, Mark.Reichert@dot.state.fl.us (FDOT Central Office)
Frank.Corrado@dot.gov (FHWA Florida Division)

Contents

Contacts for further Support

Probe Data / NPMRDS Analytics

(revised by FHWA Division for Florida)

FLORIDA
FEDERAL HIGHWAY ADMINISTRATION

Questions?

FDOT

MPOAC

Texas Transportation Institute

CATT LABORATORY
THE CENTER FOR ADVANCED TRANSPORTATION TECHNOLOGY UNIVERSITY OF MARYLAND

INRIX