RITIS User Group Web Meeting Follow-Up - October 2020

Thanks to those who participated in the RITIS User Group Web Meeting on October 1, 2020. Please click on the links below for more information about the event or visit the User Group Tab on the RITIS section of the new Coalition website (https://tetcoalition.org/projects/ritis-pda-suite/).

- Presentation with Audio
- Slides Only
- Question & Answer Summary

Spotlight Presentation: RITIS Leveraged for Maryland DOT's Common Operating Picture

Jason Dicembre of Maryland DOT-SHA explained the motivation behind this effort was to build a platform around MDOT's metrics of Restoring Regional Transportation Services after disruptions or a weather event, that connected across all modes through real-time data feeds. Jason showcased the platform - developed with the CATT Lab – by presenting a series of dashboards depicting event impact widgets for roadways, transit, aviation and ports. Originally planned as an executive-level tool, it is currently used for operations in multiple levels of their organization for awareness of trends and can expand as new real-time data sets become available. Shown below is an example dashboard depicting **Highest Impact Events** by system.

HAZARDOUS WEATHER OUTLOOK

Hazardous Weather Outlook
National Weather Service Baltimore MD/Washington DC
434 PM EDT Tue Sep 29 2020

ANZ530>543-DCZ001-MDZ011-013-014-016>018-508-VAZ052>057-302045-
Chesapeake Bay north of Pooles Island MD-
Chesapeake Bay from Pooles Island to Sandy Point MD-
Chesapeake Bay from Sandy Point to North Beach MD-
Chesapeake Bay from North Beach to Drum Point MD-
Chesapeake Bay from Drum Point MD to Smith Point VA-
Tidal Potomac from Key Bridge to Indian Head MD-
Tidal Potomac from Indian Head to Cobb Island MD-
Tidal Potomac from Cobb Island MD to Smith Point VA-
Patapsco River including Baltimore Harbor-

MD State Highway Adm @MDSHA — 6 minutes ago
CORRECTION Baltimore County US 40 West at Martin Boulevard . Crash and injury. All lanes closed westbound. All lanes open eastbound. #mdotnews #mdtraffic bl

MTA Maryland @mtamaryland — 11 minutes ago
MARC Camden 855 - Departure Delay – Camden Line Train 855 (4:45 dpt Dorsey) is expected to experience a 15-20 minute delayed departure due to CSX freight interference causing single track operations between Dorsey and Laurel Sta t... https://t.co/vfDNIXGeu7

MD State Highway Adm — 28 minutes ago

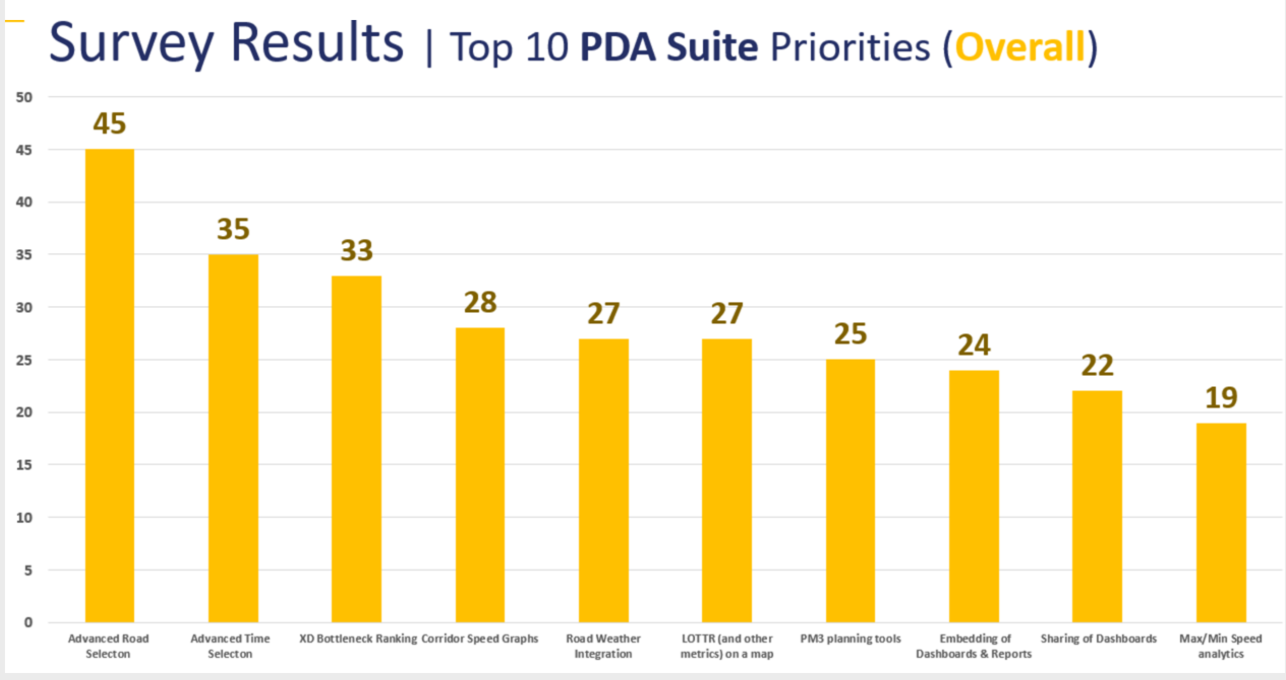
Event Type	Location	Updated	Start Time	Lane Status	Description
Incident	CROMWELL BRIDGE RD EAST/WEST AT MD 542	1m	02:20 PM	West East	Incident @ CROMWELL BRIDGE RD EAST/WEST AT MD 542 [Emergency Roadwork]
Incident	I-70 WEST AT MM 48.0	1m	04:45 PM	West East	Incident @ I-70 WEST AT MM 48.0 [Vehicle Fire]
Safety message	BROENING HW EAST/WEST AT NORTH SERVICE RD (PORT OF BALTIMORE - MARYLAND PORT ADMINISTRATION)	2m	07:00 AM		Safety Message Event @ BROENING HW EAST/WEST AT NORTH SERVICE RD (PORT OF BALTIMORE - MARYLAND PORT ADMINISTRATION)

Results from the Feature Ranking & Prioritization on Data Tools

Michael Pack from the University of Maryland CATT Lab presented the polling results from the previous RITIS User Group meeting (held in July 2020). The purpose of these polls was to get feedback on user priorities for a number of feature requests the Lab has received over time. Michael presented the results in three ways - from an overall perspective (shown below) and by type of user discipline - planning or operations. Using this breakdown, he showed top feature priorities for RITIS, PDA Suite, Trip Analytics and Signal Analytics. As an example, overall top priorities from the survey included:

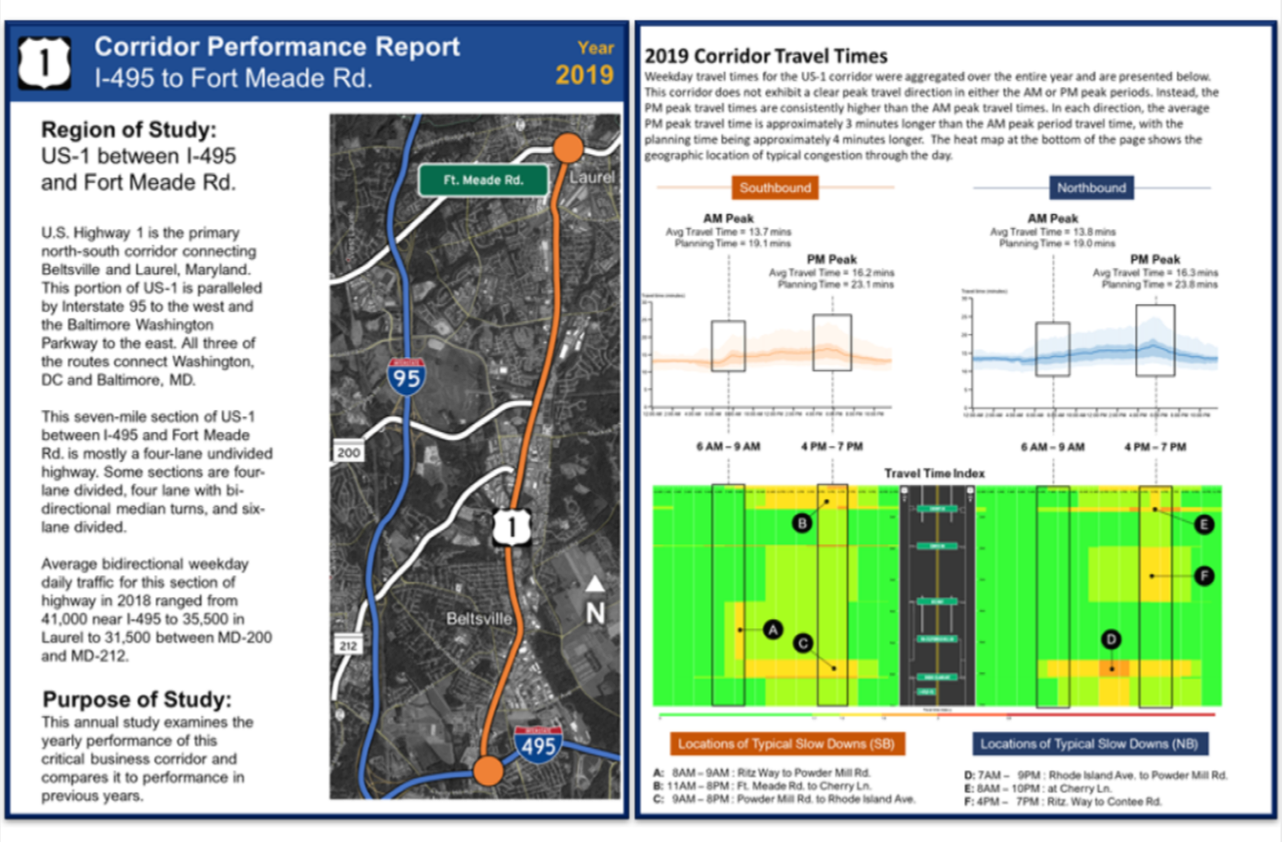
- RITIS – Causes of Congestion Pie Chart
- PDA Suite – Advanced Road Selection
- Trip Analytics – Hotspot Analysis
- Signal Analytics – Trip Distribution Graphs

The full results of the polling can be viewed in the presentation slides.



Working Group Updates

John Allen of the University of Maryland CATT Lab reviewed the progress of the Performance Reporting Working Group. Since the last web meeting, the Group developed more draft report templates: Monthly Congestion Report, Corridor Performance Report (shown below), Top 10 Bottleneck Report, and an After-action Review "one-pager." The Group also finalized the "How-To" guide layout and format that will be used for all reports. Staff from member agencies who are interested in testing these products should contact John Allen (jallen@umd.edu, 215.666.3057).



Corridor Performance Report
I-495 to Fort Meade Rd.
Year 2019

Region of Study:
US-1 between I-495 and Fort Meade Rd.

U.S. Highway 1 is the primary north-south corridor connecting Beltsville and Laurel, Maryland. This portion of US-1 is paralleled by Interstate 95 to the west and the Baltimore Washington Parkway to the east. All three of the routes connect Washington, DC and Baltimore, MD.

This seven-mile section of US-1 between I-495 and Fort Meade Rd. is mostly a four-lane undivided highway. Some sections are four-lane divided, four lane with bi-directional median turns, and six-lane divided.

Average bidirectional weekday daily traffic for this section of highway in 2018 ranged from 41,000 near I-495 to 35,500 in Laurel to 31,500 between MD-200 and MD-212.

Purpose of Study:
This annual study examines the yearly performance of this critical business corridor and compares it to performance in previous years.

2019 Corridor Travel Times
Weekday travel times for the US-1 corridor were aggregated over the entire year and are presented below. This corridor does not exhibit a clear peak travel direction in either the AM or PM peak periods. Instead, the PM peak travel times are consistently higher than the AM peak travel times. In each direction, the average PM peak travel time is approximately 3 minutes longer than the AM peak period travel time, with the planning time being approximately 4 minutes longer. The heat map at the bottom of the page shows the geographic location of typical congestion through the day.

Southbound
AM Peak: Avg Travel Time = 13.7 mins, Planning Time = 19.1 mins
PM Peak: Avg Travel Time = 16.2 mins, Planning Time = 23.1 mins

Northbound
AM Peak: Avg Travel Time = 13.8 mins, Planning Time = 19.0 mins
PM Peak: Avg Travel Time = 16.3 mins, Planning Time = 23.8 mins

Locations of Typical Slow Downs (SB)
A: 8AM – 9AM : Ritz Way to Powder Mill Rd.
B: 11AM – 8PM : Ft. Meade Rd. to Cherry Ln.
C: 9AM – 8PM : Powder Mill Rd. to Rhode Island Ave.

Locations of Typical Slow Downs (NB)
D: 7AM – 9PM : Rhode Island Ave. to Powder Mill Rd.
E: 8AM – 10PM : at Cherry Ln.
F: 4PM – 7PM : Ritz. Way to Contee Rd.

What's New in RITIS!

Michael Pack, University of Maryland CATT Lab, described the recent RITIS-Probe Data Analytics Suite deployments and enhancements. To find out more about what's new in the PDA Suite, click here.

Recent RITIS updates include:

- Updated Evacuation Layers and Files in the NCR, including new Dam Inundation Areas
- Significant enhancements and modernization for Detector Analytics Tools
- EQT Directionality Search improvements
- COVID updates to Impacts Platform, Data Portal, and Updated BTS COVID website background data

Recent PDA Suite updates include:

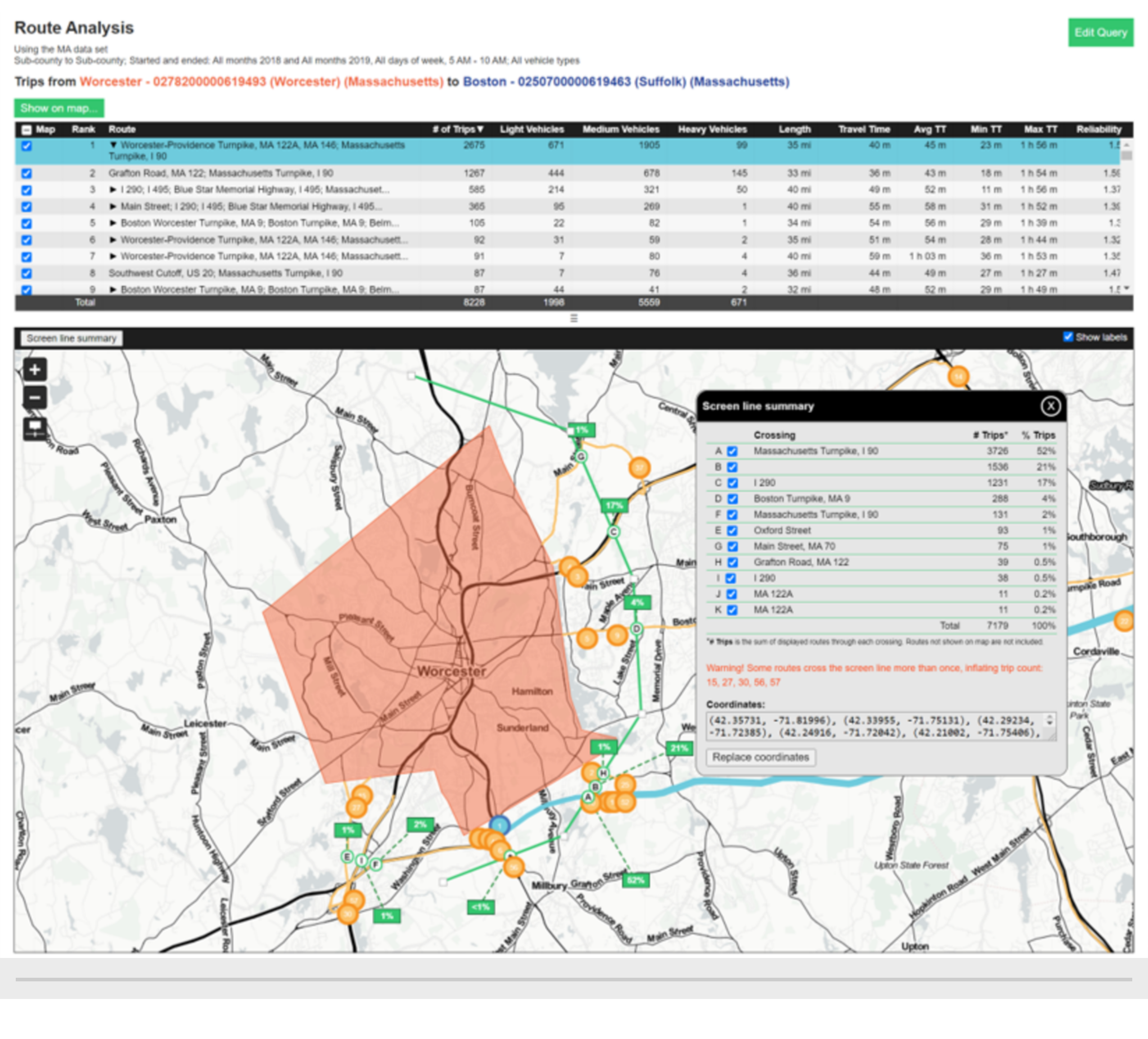
- MAP-21 reporting updates
- UI updates to denote when segmentation/mapping changes may affect reports

Other updates include:

- Trip Analytics: Route Analysis Map
- Trip Analytics: Filter summaries with geographic summaries, Segment & Route Analysis Enhancements, OD Matrix and Segment Analysis improvements, and Segment analysis road search sorting
- Signal Analytics: Date Range Selection improvements and Enhancements to speed up setup and deployment capabilities

What's in Development (for PDA Suite):

- Metadata Versioning for XD segmentation changes
- MassDOT GoTime Bluetooth Sensors
- HERE subsegment integration work
- LOTTR (and other MAP-21 measures) on a map



Route Analysis
Using the MA data set
Sub-county to Sub-county; Started and ended: All months 2018 and All months 2019, All days of week, 5 AM - 10 AM; All vehicle types

Trips from Worcester - 0278200000619493 (Worcester) (Massachusetts) to Boston - 0250700000619463 (Suffolk) (Massachusetts)

Map	Rank	Route	# of Trips ▼	Light Vehicles	Medium Vehicles	Heavy Vehicles	Length	Travel Time	Avg TT	Min TT	Max TT	Reliability
☑	1	▼ Worcester-Providence Turnpike, MA 122A, MA 146; Massachusetts Turnpike, I 90	2675	671	1905	99	35 mi	40 m	45 m	23 m	1 h 56 m	1.5
☑	2	Grafton Road, MA 122; Massachusetts Turnpike, I 90	1267	444	678	145	33 mi	36 m	43 m	18 m	1 h 54 m	1.5
☑	3	► I 290; I 495; Blue Star Memorial Highway, I 495; Massachuset...	585	214	321	50	40 mi	49 m	52 m	11 m	1 h 56 m	1.37
☑	4	► Main Street; I 290; I 495; Blue Star Memorial Highway, I 495...	365	95	269	1	40 mi	55 m	58 m	31 m	1 h 52 m	1.3
☑	5	► Boston Worcester Turnpike, MA 9; Boston Turnpike, MA 9; Belm...	105	22	82	1	34 mi	54 m	56 m	29 m	1 h 39 m	1.3
☑	6	► Worcester-Providence Turnpike, MA 122A, MA 146; Massachusett...	92	31	59	2	35 mi	51 m	54 m	28 m	1 h 44 m	1.3
☑	7	► Worcester-Providence Turnpike, MA 122A, MA 146; Massachusett...	91	7	80	4	40 mi	59 m	1 h 03 m	36 m	1 h 53 m	1.3
☑	8	Southwest Cutoff, US 20; Massachusetts Turnpike, I 90	87	7	76	4	36 mi	44 m	49 m	27 m	1 h 27 m	1.47
☑	9	► Boston Worcester Turnpike, MA 9; Boston Turnpike, MA 9; Belm...	87	44	41	2	32 mi	48 m	52 m	29 m	1 h 49 m	1.5
	Total		8228	1998	5559	671						

Screen line summary

		Crossing	# Trips*	% Trips
A	☑	Massachusetts Turnpike, I 90	3726	52%
B	☑		1536	21%
C	☑	I 290	1231	17%
D	☑	Boston Turnpike, MA 9	288	4%
F	☑	Massachusetts Turnpike, I 90	131	2%
E	☑	Oxford Street	93	1%
G	☑	Main Street, MA 70	75	1%
H	☑	Grafton Road, MA 122	39	0.5%
I	☑	I 290	38	0.5%
J	☑	MA 122A	11	0.2%
K	☑	MA 122A	11	0.2%
		Total	7179	100%

* # Trips is the sum of displayed routes through each crossing. Routes not shown on map are not included.

Warning! Some routes cross the screen line more than once, inflating trip count: 15, 27, 30, 56, 57

Coordinates:
(42.35731, -71.81996), (42.33955, -71.75131), (42.29234, -71.72385), (42.24916, -71.72042), (42.21002, -71.75406),

Update your Traffic Volume Data:

The tools discussed provide more accurate results when **you** provide updated traffic volume data! Please contact Michael Pack (PackML@umd.edu) for more information on getting your newer data into the PDA Suite.

VPP Marketplace

VPP III is coming in the summer of 2021. With the current VPP contract set to expire in 2022, the Coalition is working on getting VPP III operational by July 1, 2021, with data, ancillary products, and agencies to staff the Steering Committee. You can learn more about the VPP Marketplace here. Stay tuned!

Upcoming Coalition Events:

- December 10, 2020 - The Changing World of Optimal Traffic Monitoring- more information coming soon!
- February 4, 2021 - RITIS User Group – more information coming soon!

Follow the Coalition on YouTube and subscribe to be informed!

The Coalition has a YouTube channel. Recordings from many of the Coalition's webinars are available here - take a look!

Questions or Comments:
General Coalition: Denise Markow at 301.789.9088 or dmarkow@tetcoalition.org
Logistics: Joanna Reagle at 610.228.0760 or jreagle@kmjinc.com

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