# CONGESTION REPORT 2nd Quarter 2019

A quarterly update of the National Capital Region's traffic congestion, travel time reliability, top-10 bottlenecks and featured spotlight

July 16, 2019



## **ABOUT TPB**

Transportation planning at the regional level is coordinated in the Washington area by the National Capital Region Transportation Planning Board (TPB). Members of the TPB include representatives of the transportation agencies of the states of Maryland and Virginia, and the District of Columbia, local governments, the Washington Metropolitan Area Transit Authority, the Maryland and Virginia General Assemblies, and nonvoting members from the Metropolitan Washington Airports Authority and federal agencies. The TPB is staffed by the Department of Transportation Planning of the Metropolitan Washington Council of Governments.

### **CREDITS**

Author: Jan-Mou Li

Project Management: Andrew J. Meese

Oversight: Kanti Srikanth

Data/Tools: I-95 Corridor Coalition Vehicle Probe Project; INRIX, Inc.;

CATT Lab of University of Maryland

#### **ACCOMMODATIONS**

Alternative formats of this document are available upon request; visit www.mwcog.org/accommodations or call (202) 962-3300 or (202) 962-3213 (TDD).

Copyright © 2019 by the Metropolitan Washington Council of Governments

# **CONGESTION REPORT**

# 2<sup>nd</sup> Quarter 2019

## **Table of Contents**

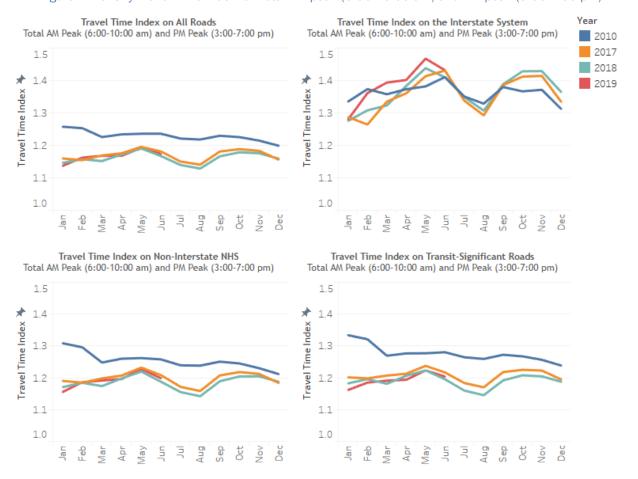
- 2 **CONGESTION TRAVEL TIME INDEX (TTI)**
- 3 RELIABILITY PLANNING TIME INDEX (PTI)
- 4 TOP 10 BOTTLENECKS
- 10 **CONGESTION MAPS**
- 12 **2019Q2 SPOTLIGHT**

## **CONGESTION - TRAVEL TIME INDEX (TTI)**

Interstate System TTI 2 <sup>nd</sup> Quarter 2019: TTI Trailing 4 Quarters:	1.43 1.38	↑1.6% or 0.02¹ ↑1.8% or 0.02²	Non-Interstate NHS <sup>3</sup> TTI 2 <sup>nd</sup> Quarter 2019: TTI Trailing 4 Quarters:	1.21 1.19	↑0.5% or 0.01 ↓0.3% or -0.004
Transit-Significant <sup>4</sup> TTI 2 <sup>nd</sup> Quarter 2019: TTI Trailing 4 Quarters:	1.21 1.19	↓0.1% or -0.001 ↓1.0% or -0.01	<b>All Roads</b> TTI 2 <sup>nd</sup> Quarter 2019: TTI Trailing 4 Quarters:	1.18 1.16	†0.1% or 0.001 ‡0.3% or -0.003

 $<sup>^{1}</sup>$  Compared to  $2^{nd}$  Quarter 2018;  $^{2}$ Compared to one year earlier;  $^{3}$  NHS: National Highway System;  $^{4}$  See "Background" section.

Figure 1 Monthly Travel Time Index for Total AM peak (6:00-10:00 am) and PM peak (3:00-7:00 pm)



*Travel Time Index* (TTI), defined as the ratio of actual travel time to free-flow travel time, measures the intensity of congestion. The higher the index, the more congested traffic conditions it represents, e.g., TTI = 1.00 means free flow conditions, while TTI = 1.30 indicates the actual travel time is 30% longer than the free-flow travel time.

## **RELIABILITY - PLANNING TIME INDEX (PTI)**

Interstate System PTI 2 <sup>nd</sup> Quarter 2019: PTI Trailing 4 Quarters:	2.00 1.93	†0.9% or 0.02 <sup>1</sup> †2.3% or 0.04 <sup>2</sup>	Non-Interstate NHS <sup>3</sup> PTI 2 <sup>nd</sup> Quarter 2019: PTI Trailing 4 Quarters:	1.45 1.43	↓0.7% or -0.01 ↓1.0% or -0.01
Transit-Significant <sup>4</sup> PTI 2 <sup>nd</sup> Quarter 2019: PTI Trailing 4 Quarters:	1.45 1.43	↓1.9% or -0.03 ↓1.8% or -0.03	<b>All Roads</b> PTI 2 <sup>nd</sup> Quarter 2019: PTI Trailing 4 Quarters:	1.39 1.38	↓1.3% or -0.02 ↓1.0% or -0.01

 $<sup>^{\</sup>rm 1}$  Compared to 2  $^{\rm nd}$  Quarter 2018;  $^{\rm 2}$  Compared to one year earlier;  $^{\rm 3}$  NHS: National Highway System;  $^{\rm 4}$  See "Background" section.

Figure 2 Monthly Planning Time Index for Total AM peak (6:00-10:00 am) and PM peak (3:00-7:00 pm)

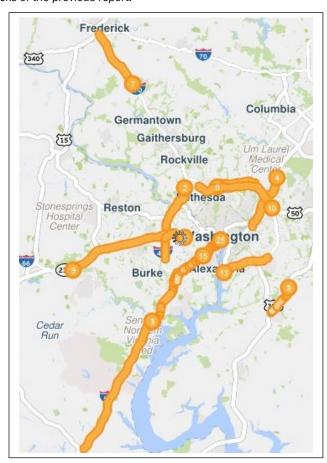


*Planning Time Index* (PTI), defined as the ratio of 95th percentile travel time to free flow travel time, measures travel time reliability. The higher the index, the less reliable traffic conditions it represents, e.g., PTI = 1.30 means a traveler must budget 30% longer than the uncongested travel time to arrive on time 95% of the instances (i.e., 19 out of 20 trips).

# **TOP 10 BOTTLENECKS**

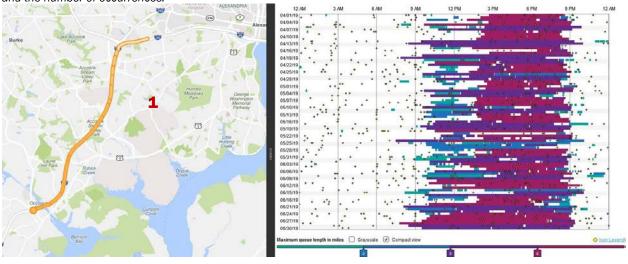
Rank (Last		_	Average		
Quarter Rank)	Location	Average duration	max length (miles)	Total duration	Impact factor
1 (1)	I-95 S @ VA-123/EXIT 160	9 h 30 m	4	36 d 1 h 42 m	203,276
2 (2)	I-495 CW @ I-270-SPUR	2 h 51 m	4.37	10 d 19 h 42 m	99,212
3 (8)	I-95 N @ VA-123/EXIT 160	4 h 26 m	3.83	16 d 20 h 52 m	93,217
4 (**)	BW PKWY N @ POWDER MILL RD	6 h 45 m	2.44	25 d 14 h 24 m	82,534
5 (4)	I-66 E @ SYCAMORE ST/EXIT 69	7 h 35 m	1.94	28 d 19 h 32 m	78,001
6 (5)	I-495 CCW @ MD-97/GEORGIA AVE/EXIT 31	2 h 56 m	3.08	11 d 3 h 24 m	67,280
7 (23)	I-270 S @ MD-109/EXIT 22	2 h 49 m	3.69	10 d 16 h 40 m	64,486
8 (**)	US-301 N @ OLD INDIAN HEAD/ROSARYVILLE RD	8 h 22 m	1.54	31 d 17 h 31 m	63,611
9 (3)	I-66 W @ VA-234/VA-234-BR/EXIT 47	1 h 21 m	8.25	5 d 3 h	61,881
10 (10)	I-495 CW @ MD-450/ANNAPOLIS RD/EXIT 20	3 h 46 m	3.23	14 d 7 h 29 m	60,031

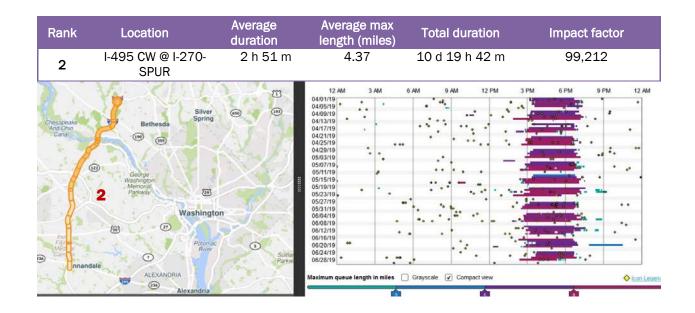
<sup>\*\*</sup>Not in the top 50 bottlenecks of the previous report.

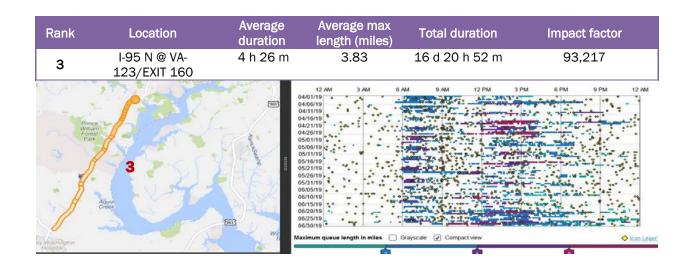


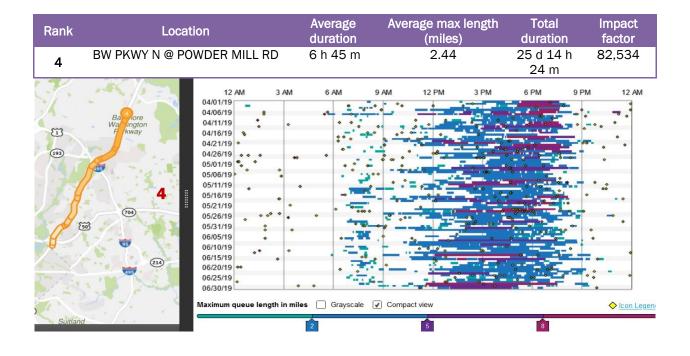
Rank	Location	Average duration	Average max length (miles)	Total duration	Impact factor*
1	I-95 S @ VA- 123/EXIT 160	9 h 30 m	4	36 d 1 h 42 m	203,276

<sup>\*</sup> The Impact Factor of a bottleneck is simply the product of the Average Duration (minutes), Average Max Length (miles) and the number of occurrences.

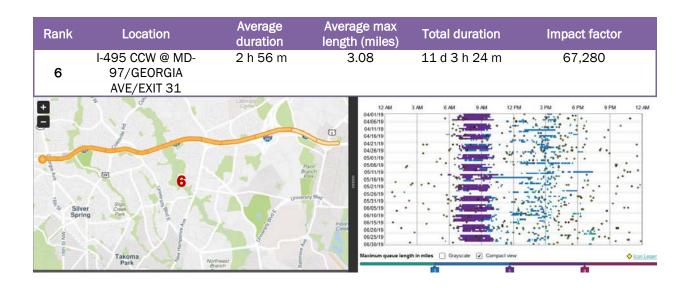


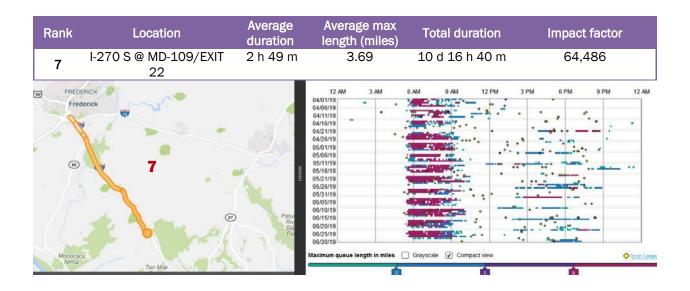


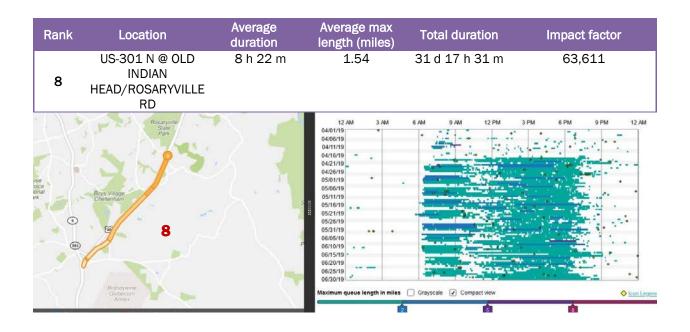




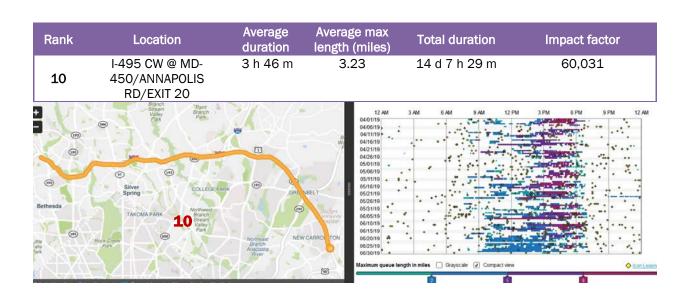




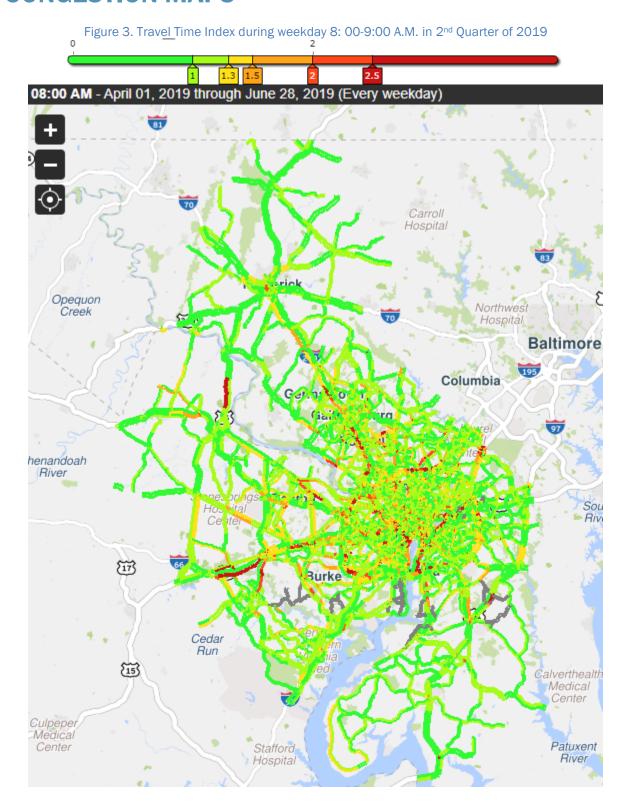


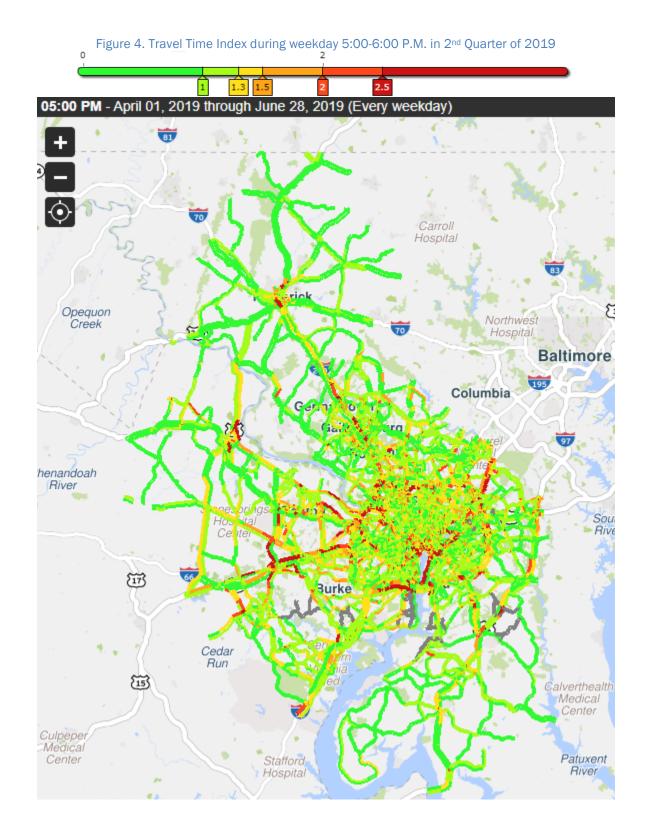


Rank	Location	Average duration	Average max length (miles)	Total duration	Impact factor
9	I-66 W @ VA- 234/VA-234- BR/EXIT 47	1 h 21 m	8.25	5 d 3 h	61,881
Mee	August Aurora Buil Run  Buil Run  Buil Run	mora Fartan Medical Campus Annandale Burke	12 AM 3 AM 0401719 0405719 0405719 0471719 0471719 0472719 0472719 0503719 05571719	6 AM 9 AM 12 PM	3 PM 6 PM 9 PM 12 AM



## **CONGESTION MAPS**





## **2019Q2 SPOTLIGHT**

The SPOTLIGHT section of the Regional Congestion Report is on hiatus for the 2<sup>nd</sup> quarter of 2019.



777 North Capitol Street NE, Suite 300 Washington, DC 20002