



Metropolitan Area Transportation
Operations Coordination

TPB Technical Committee
February 4, 2011
Item #6

Briefing on Experience During the January 26 Winter Storm of the Metropolitan Area Transportation Operations Coordination (MATOC) Program

Presentation to the Transportation Planning Board

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February 16, 2011

DRAFT



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



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About MATOC

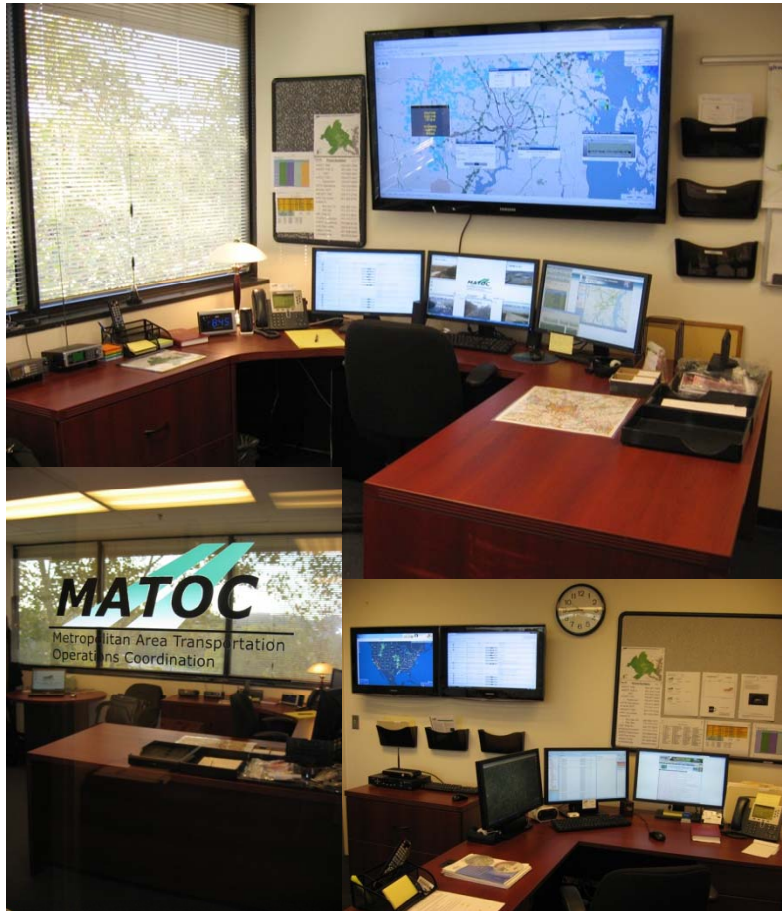
- Established in 2008, MATOC is a joint program of the District of Columbia, Maryland, and Virginia DOTs and the Washington Metropolitan Area Transit Authority (WMATA)
 - Mission: regional situational awareness of transportation conditions and incidents
 - Goals: improve traveler safety and reduce transportation delays
- MATOC activities include:
 - Monitoring and communicating reliable information during major incidents
 - Enabling operating agencies and the traveling public to make effective, coordinated and timely decisions
 - Maintaining a web-based transportation information system
 - Facilitating standard operating procedures among transportation agencies





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MATOC Operations



Hours of Operation

- Monday-Friday 4:30am-8:00pm
- After hours: On-Call Schedule
- Expanded schedule during major events

Staff

- 1 Facilitator, 2 Operators

Day-to-Day Duties

- Monitor several public and private feeds
- Maintain Situational Awareness of significant incidents affecting the region's transportation network.
- Recommend actions to mitigate delays
- Develop and maintain relationships amongst affected stakeholders





- Expanded hours of coverage to 24/7
- Provided Hourly Situational Awareness Reports
 - Jan 26 (2:00pm) to Jan 27 (12:00pm)
 - Objectives of the Situational Awareness Reports
 - Keep stakeholders aware of significant transportation incidents affecting the region as well as the status of road conditions and other transportation modes
 - Allow stakeholders to make better decisions on how to respond and plan for operations
- Coordination with other agencies
 - Proactive outreach to maintain awareness of agency activities
 - Monitored COG Snow Conference Calls, Regional Transit Operators Group Conference Call, emails



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Situational Awareness Report: 11PM

DISTRICT OF COLUMBIA

- All major routes are experiencing slower than normal traffic due to adverse road and weather conditions.
- Heavy Delays, I-295 Southbound, delays lead towards to Outer Loop where traffic is stopped due to multiple disabled vehicles on the Outer Loop
- Incident, Canal Road Outbound towards Chain Bridge, reports that the road is closed.

MARYLAND

- Heavy Delays, I-270 both directions, between MD-121 & MD-80, reports of traffic getting by in one lane in the vicinity of truck scales.
- Heavy Delays, I-495 Outer Loop on the Woodrow Wilson Bridge. The Thru Lanes of OUTER Loop are nearly at a standstill, delays extended from MD-5 back to US-1 in Virginia, approximately 8 miles.
- Road Closure, I-495 Inner Loop prior to Seminary Road. All travel lanes remain closed, crews continue to clear the highway. Traffic moving very on both sides of the Capital Beltway between Georgia Avenue and River Road.
- Road Closure, US-29 (Columbia Pike) Northbound, at MD-198, weather related closure.
- Road Closure, MD-210 Northbound at the Capital Beltway, Jackknifed tractor trailer blocks all lanes

VIRGINIA

- Heavy Delays, I-66 Westbound between US-50 (Exit 55) and VA-28 (Exit 52), due to several disabled vehicles.
- George Washington Parkway: Reports of Southbound is being stopped at VA-123, Northbound traffic is being stopped TR & Key Bridges.
- Road Closure, US-1 Southbound at Huntington Avenue still remains closed, awaiting plows.
- Road Closure, US-50, between Cedar Lane and Prosperity Avenue, reports of a tree down, blocking both directions.

MTA MARC Train

- Brunswick Line: MARC 883 has terminated service at Kensington and has been forced to return to WASH. Wintry conditions have downed power lines which has prevented the MARC train from operating to stops through Martinsburg.

VRE

- Manassas Line Train #337 Still stopped. Railroad crew now en route to remove more trees. MAN 337 3 hours late.

MTA Commuter Bus

- All MTA Commuter Bus routes that are contracted Dillon, Keller, Eyre, and Martz will not operate on Thursday January 27th. Although we expect major roadways to be treated overnight, most lots will still need to be plowed and a significant number of bus drivers will be unavailable due to the working late Wednesday night. Afternoon service for Thursday will be cancelled.



Observations

- Systems that MATOC monitors performed as they were designed: RITIS, CapWIN, WebEOC
 - No technical or telecommunications failures
- Transit providers provided timely and accurate information on current and planned service levels
- Roadway agencies also provided information, but struggled due to the overwhelming number of issues they had – information sharing slowed down
- Once traffic subsided, snow clearance activities accelerated

Challenges

- Operations Centers can get overwhelmed
 - Frontline staff deal with high volumes of incidents, calls, etc.
 - Other storm responsibilities
 - Deterioration of reliable & timely information dissemination
- Utility outages and weather conditions limit what you can see with CCTV coverage
- Reliance on private information providers and the media
 - Concern about relying on unverified information from the media
- More difficult to monitor conditions of roadways not covered by state DOT systems (e.g. Federal Parkways)

MATOC's Potential

- MATOC fulfilled its current role in providing situational awareness to agencies
 - Frequent notifications from MATOC
 - Information sharing through the Regional Integrated Transportation Information System (RITIS)
- But information provision to the public was a significant issue in this storm
- Future MATOC plans, some of which still need funding, would help address this public information need



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MATOC Future Direction Major Work Activities

• MATOC Website

Phase 1: MATOC website describing MATOC program, document repository, and work space for facilitator – Spring 2011

Phase 2: MATOC Traveler Information website with real-time traffic maps, Mobile App downloads, subscription alerts, and 3rd party developer resources – Summer 2011





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MATOC Future Direction Major Work Activities

- Performance Measures
 - Continue Benefit-Cost Analysis Work
 - Automate Benefit-Cost Calculations & Reporting
- Program Planning
 - Annual Program Work Plan Update
 - Long Term (5 YR) Work Plan Development
- Ongoing RITIS O&M Support

**MATOC Benefit-Cost Analysis
White Paper**

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June 2010

d. District Department of Transportation
Maryland Department of Transportation
M metro
VDOT Virginia Department of Transportation

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MATOC Future Direction Major Work Activity Potential Expansion

- Potential Future Major Work Activity Expansion
 - Expanded MATOC Ops Coverage
 - MOITS Strategic Plan Projects
 - Forum & Process to coordinate maintenance & construction
 - Establish venue and process for coordination of managed lane facilities
 - Forum & Process to cooperatively examine, coordinate, and adjust signal timing & optimization
 - Expand/Build upon RITIS capabilities

- Transition to New MATOC model of Operational and Administrative Support
 - Funding agreements for FY11 DDOT, VDOT, and FTA MATOC Work Plan Support
 - New MATOC MOU

Outlook

- MATOC web site to be deployed mid-2011 will provide public information
- General transportation conditions
- Specific advisories
 - Help get out the “stay off the roads” message to the public when that is appropriate
 - Staying safe, allowing quicker snow clearance from roadways

Next Steps

- Further potential for MATOC role in event preparation, exercises
- MATOC staff involvement recommended in the proposed COG after-action analysis
- Re-look at MATOC, agency standard operating procedures for snow events
- Encourage looking at preparing for weather events with similar strategies to the way pre-planned events are handled
 - E.g., July 4th, Inauguration, marathons

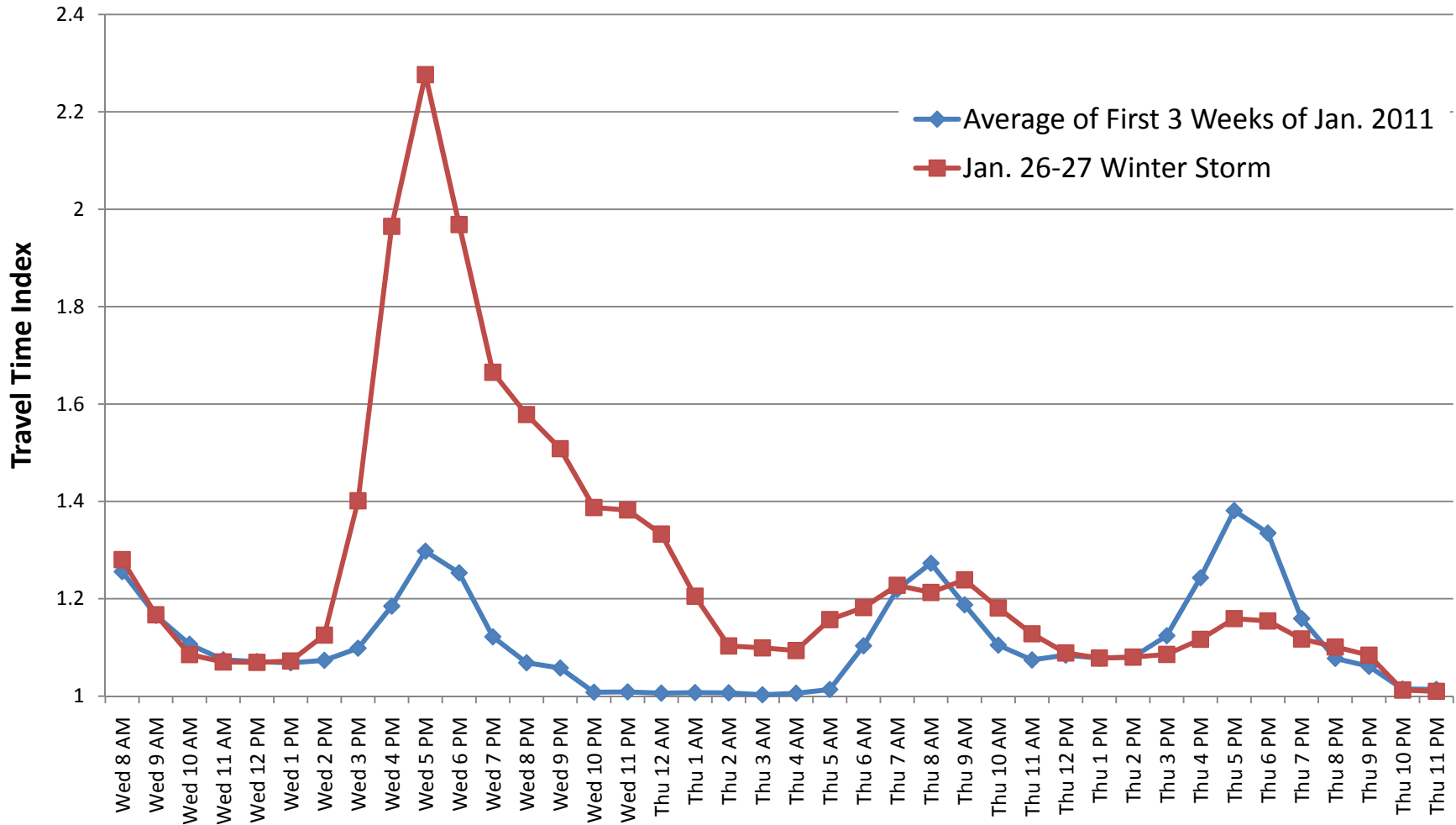
Examples of Highly Congested Segments during the Jan. 26-27 Winter Storm

Highway	Segment	Hour	Speed (mph)	Travel Time Index*
I-495 OL	From Old Georgetown Rd to I-270 Spur	Wed. 8-9 PM	5.4	11.4
I-270 NB	From I-270 Spur to Montrose Rd	Wed. 7-8 PM	5.6	10.8
I-66 WB	From Fairfax Co. Pkwy to Sully Rd	Thu. 0-1 AM	6.4	9.8
I-495 IL	American Legion Bridge	Wed. 5-6 PM	7.4	8.2
I-95 SB	From Franconia Rd to Fairfax Co. Pkwy	Wed. 5-6 PM	7.5	8.3
I-495 OL	Woodrow Wilson Bridge	Thu. 1-2 AM	10.2	5.6

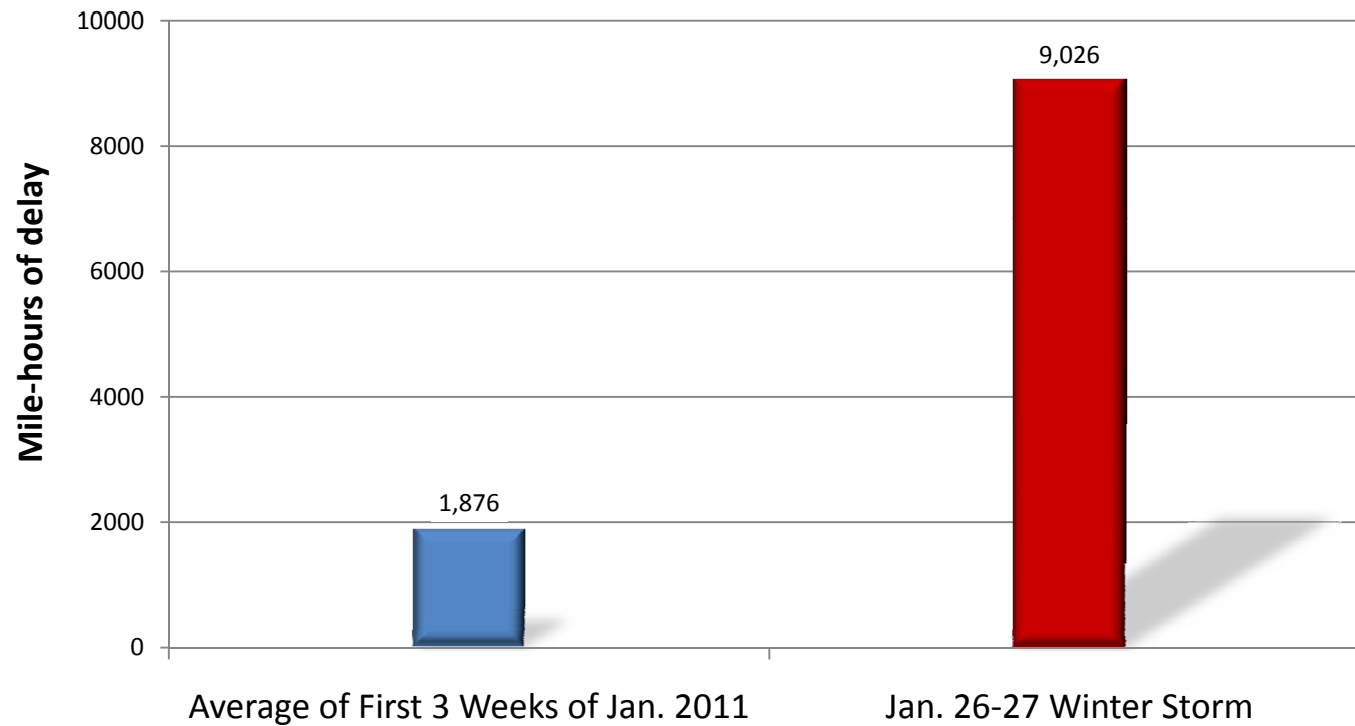
*Travel Time Index = Actual travel time / Free flow travel time

Regional Comparison of Jan. 26-27 Travel Time Index to Average Conditions

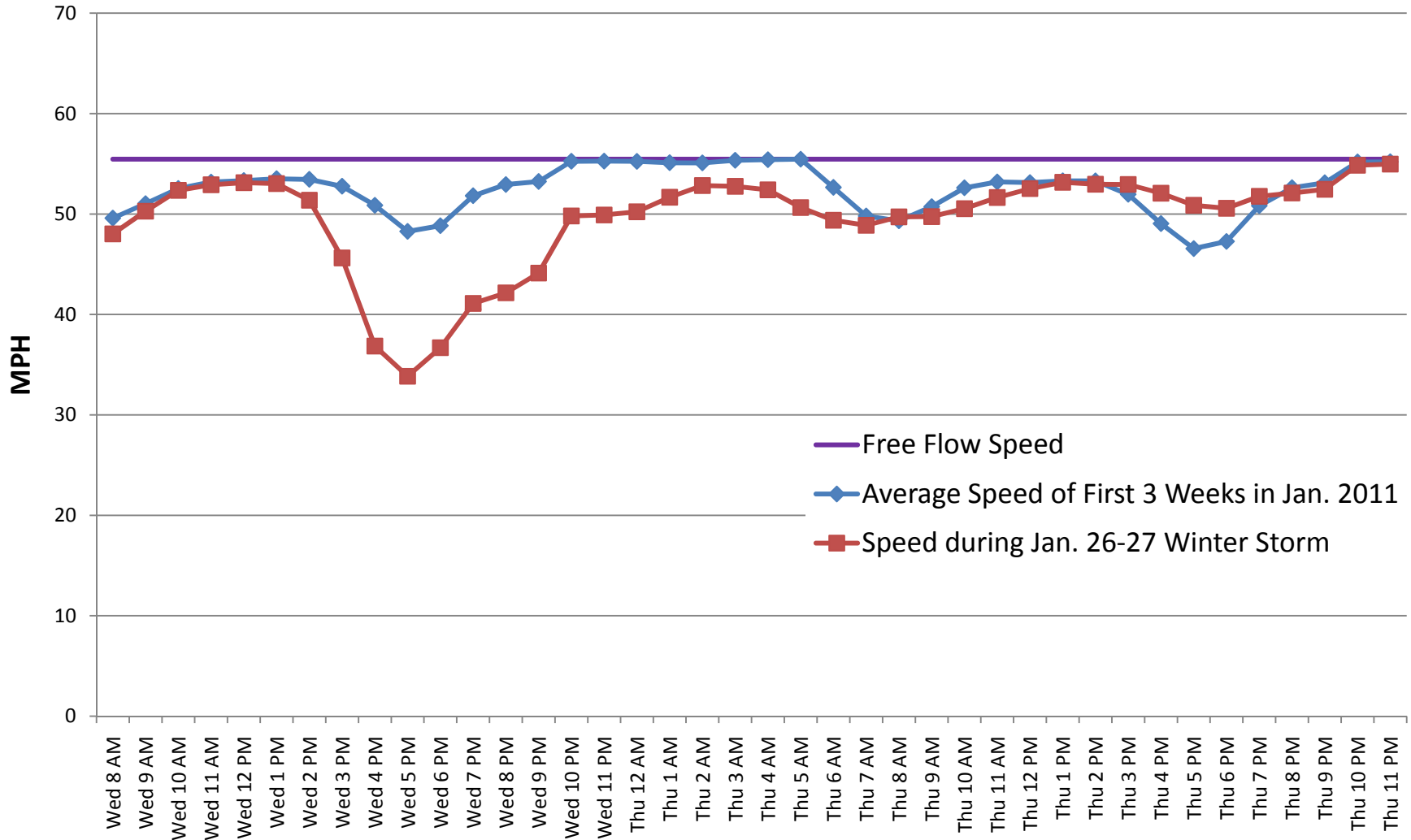
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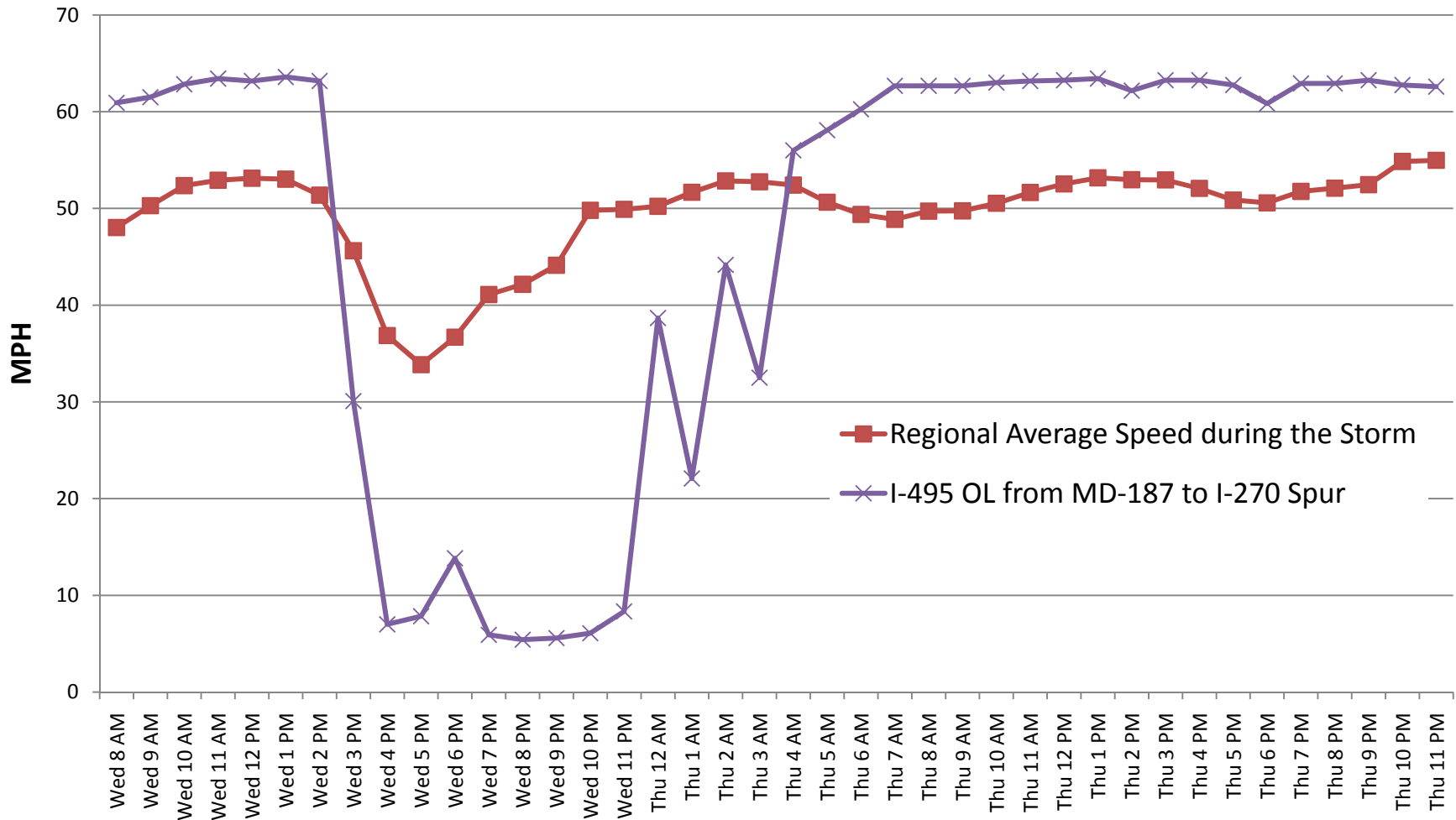
Total Travel Delay Increased by Almost 4 Times (From 1:00 PM Jan. 26 Wednesday to 8:00 AM Jan. 27 Thursday)



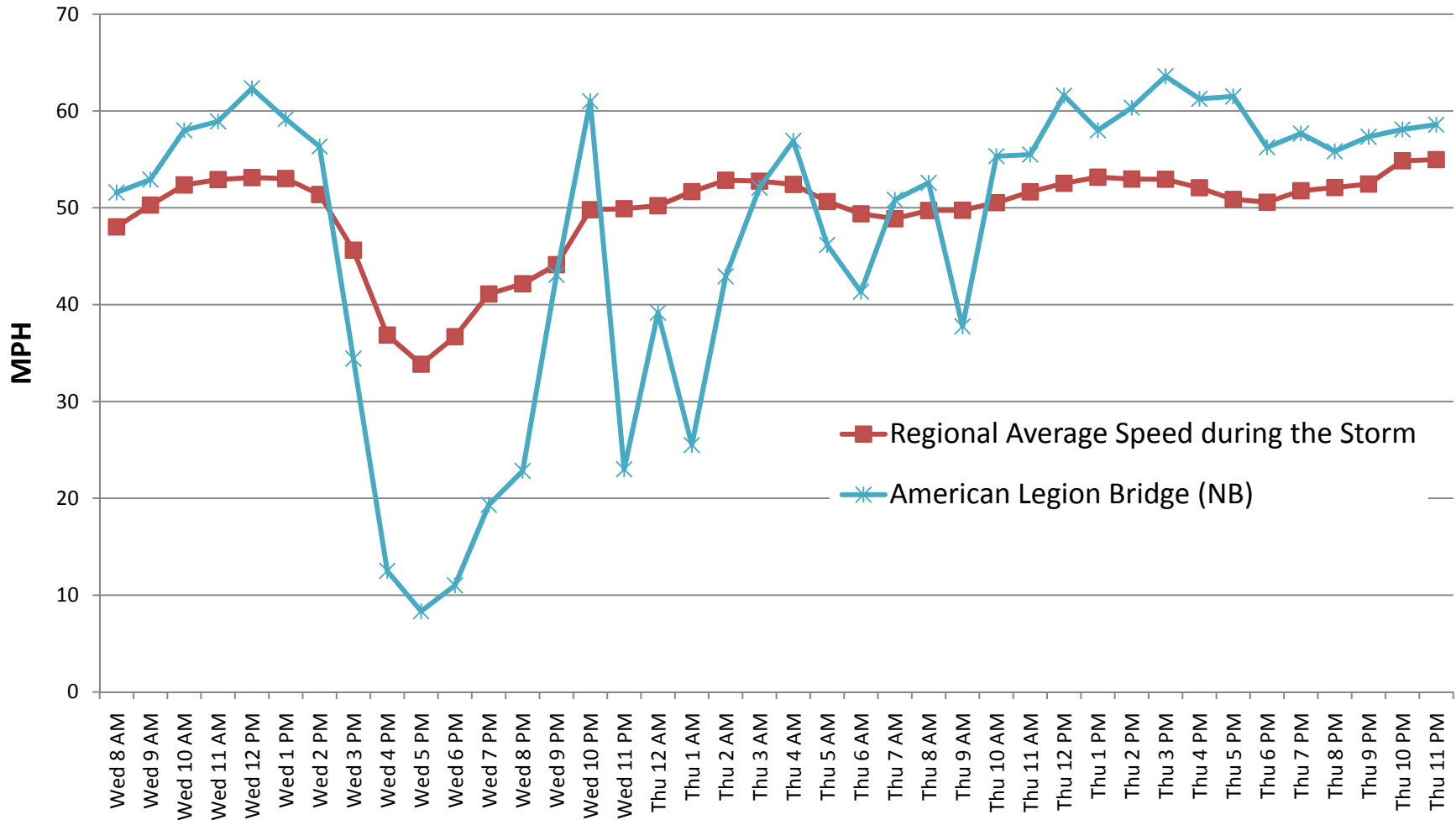
Regional Comparison of Jan. 26-27 Speeds to Average Conditions



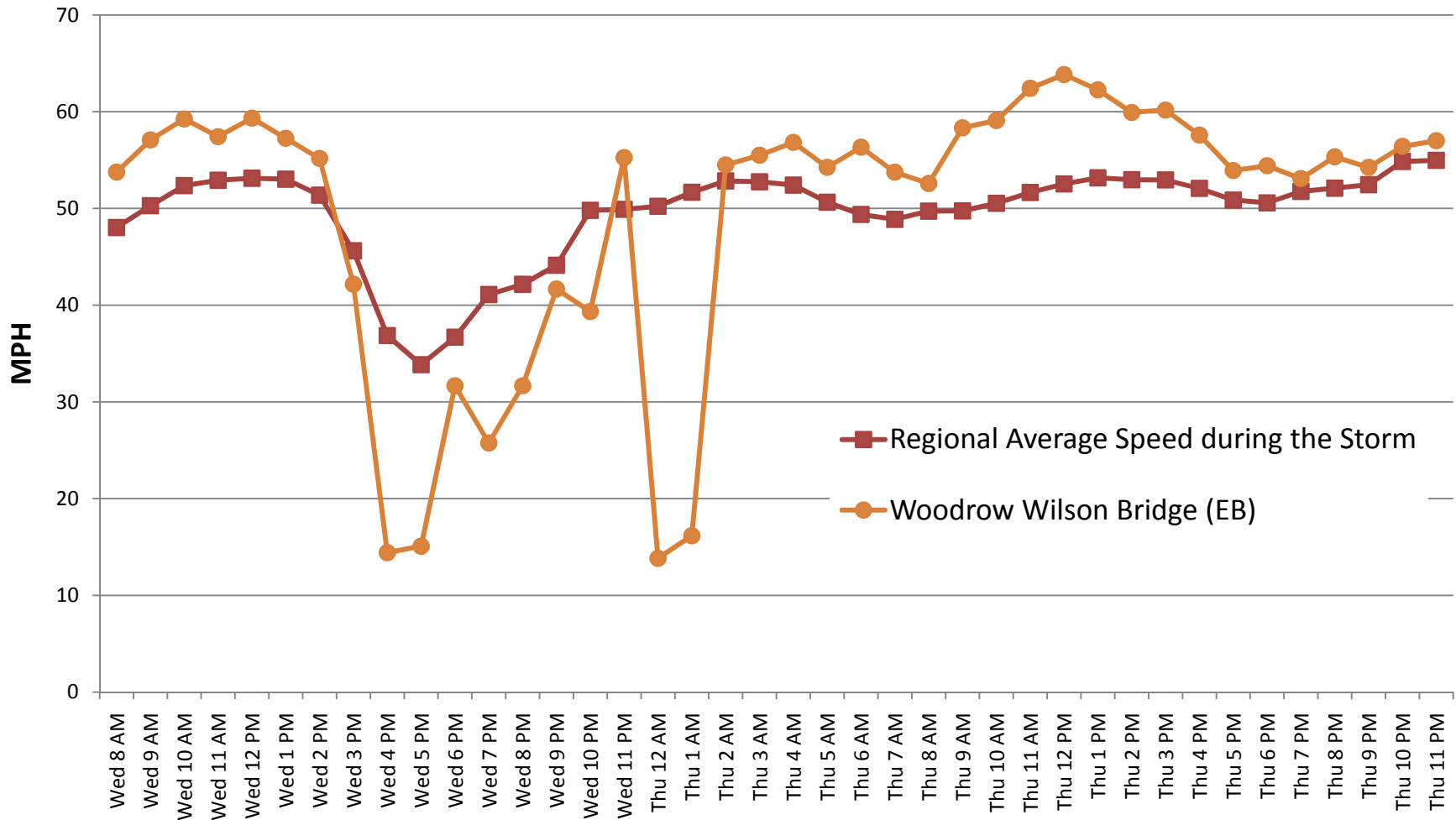
Comparison of Individual Segment Speeds to Regional Average during the Jan. 26-27 Winter Storm (1/3)



Comparison of Individual Segment Speeds to Regional Average during the Jan. 26-27 Winter Storm (2/3)



Comparison of Individual Segment Speeds to Regional Average during the Jan. 26-27 Winter Storm (3/3)





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Questions

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