Creating a Coordinated Regional Approach to Transit and Traffic Management

A truck overturns on the Beltway. A building fire closes a major roadway. Service to a transit station is interrupted due to police activity. Events such as these occur frequently in the Washington metropolitan area. Fortunately, the immediate scenes of these incidents are handled skillfully and responsibly by police, fire, transportation, and other responder personnel. Following well-established incident command procedures, they work to clear the problems as quickly as possible, while providing safety and security.

However, these occurrences can have impacts on the transportation system miles from the incident scene – generating major traffic tie-ups or transit delays. Often on-scene responders are too busy to spend significant time addressing these faraway secondary "ripple effects" that could affect thousands of people. Until now, the region has addressed such ripple effects on a case-by-case basis without a central region-wide entity officially responsible for coordination.

Meet MATOC

Following experiences from the 9/11 attacks and other major incidents, transportation officials from Maryland, Virginia, the District of Columbia, and the Washington Metropolitan Area Transit Authority (WMATA) have committed to share and coordinate their transportation systems' conditions and information management during regional incidents. On behalf of the region, the National Capital Region Transportation Planning Board (TPB) has partnered with the major transportation agencies in creating MATOC, the Metropolitan Area Transportation Operations Coordination Program.

By integrating systems' technologies, improving procedures and planning, and providing more accurate and timely transportation information to the public, regional transportation agencies are working together to make travel smoother and safer. This is the vision of MATOC.

Mission

MATOC's mission is to provide situational awareness of transportation operations in the National Capital Region (NCR). This is achieved through the communication of consistent and reliable information that enables operating agencies and the traveling public to make effective and timely decisions. MATOC will continue to develop the tools and processes needed to facilitate coordinated operating agency responses.

Goals

To improve traveler safety and reduce the delay that results from incidents and emergencies by:

- Enabling better coordination of the transportation management strategies employed in response to incidents and emergencies by operating agencies throughout the NCR.
- Providing timely and reliable information that enables individuals to make better travel decisions.

Objectives

- To provide for the quick and reliable exchange of transportation system information among operating agencies in the NCR.
- To enable agency operations' staffs to more effectively and reliably coordinate with each other, and their peers in other agencies, when a major incident or emergency has occurred.
- To continually improve the region's ability to inform the public and manage the transportation system.
- To continually improve regional preparedness for effectively managing the transportation system in response to major incidents.

Strategies

- Develop and maintain standard procedures for interagency communication and coordination during major incidents or emergencies.
- Develop and maintain automated and personal communications channels between the regional information sharing systems, operations staffs, and public and private information disseminators.
- Enhance regionally coordinated transportation management response plans for major incidents or emergencies on critical transportation system links.
- Conduct post-incident reviews and identify improvements in information sharing technologies, standard operating procedures, and operations staff performance.
- Identify and provide training and table-top exercises to improve the performance of operations staffs relative to regional coordination.

d.
DISTRICT DEPARTMENT OF TRANSPORTATION

Maryland Department of Transportation

M metro

VDOT Virginia Department of Transportation

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

RITIS

The Regional Integrated Transportation Information System, or RITIS, is an automated system that supports MATOC activities by:

- Compiling real-time traffic and transit data from agencies around the region;
- Consolidating the data into a common format; and
- Enabling the data to be shared with agencies, the media, and the public.

Data provided through RITIS is in daily use by the region's major transportation operations centers.

MATOC Steering Committee

To further the regional coordination commitment, Maryland, Virginia, the District of Columbia and WMATA have collaboratively established the MATOC Steering Committee. The Steering Committee is the governing body of the MATOC Program and works through subcommittees specializing in operations and systems issues.

MATOC Staffing

The MATOC Facilitator acts as a "communications hub," ensuring that accurate and timely information on transportation incidents of a regional significance is shared among operations agencies and with the public. In addition to these responsibilities, the Facilitator leads, coordinates, and participates in the development of operating procedures, communications protocols, new system functionality, regional incident management plans, post-incident reviews, and training.

The MATOC operations staff coordinates with the MATOC Facilitator and transportation operators within the MATOC jurisdictions to ensure that coverage is available 16-hours a day, five days a week for regional incidents. During times of emergency and/or planned regional events, the MATOC Facilitator and operations staff provide extended coverage as needed. The MATOC staff follows standard operating procedures for the region, as developed by the MATOC Operations Subcommittee.

Inaugural Year

The inaugural year of MATOC operations launched on July 1, 2009. During its first year, MATOC:

- Tested and improved operating procedures.
- Hired an operations staff and provided coverage for five days a week, 16-hours a day. Increased coverage is provided for special events and emergency situations.
- Expanded its coverage of major arterials and enlarged its information network to include more regional organizations.
- Developed a white paper on regional information dissemination strategies. The white paper explains MATOC's role and establishes procedures for sharing information with public and private stakeholders.
- Developed a set of standard operating procedures, which detail how the MATOC operations staff will communicate and share information with stakeholders.
- Developed a benefits analysis that discusses the preliminary benefits of MATOC.
- Established an organizational home with the University of Maryland.

MATOC continues to more precisely define ongoing resource needs and identify stable funding resources.

The Benefits of MATOC

The NCR has different modes of transportation spread throughout several jurisdictions and are monitored by numerous agencies. To achieve MATOC's goal of improving traveler safety, MATOC communicates effectively with the agencies within the region that monitor these modes.

An initial MATOC Benefit-Cost Assessment found there is an average of 224 police-reported vehicle-related accidents per day across the NCR. MATOC currently averages 36 regionally significant incidents per month. Events that MATOC monitors include vehicle incidents, major construction activities on major highways or arterials, major disruptions to transit service, severe weather events, and major planned special events.

The estimated annual benefits of direct MATOC action calculate to $12.9 million in mobility savings, which includes a greenhouse gas savings of more than $500,000. These savings do not include the costs of secondary incident reduction. Therefore, if MATOC obtains an annual operating cost of $1.2 million, which would include support for RITIS, MATOC would provide a benefit-to-cost ratio of 10:1.

Glossary of Terms

DDOT	District Department of Transportation
MATOC	Metropolitan Area Transportation Operations Coordination Program
MDOT	Maryland Department of Transportation
NCR	National Capital Region
RITIS	Regional Integrated Transportation Information System
TPB	Transportation Planning Board
VDOT	Virginia Department of Transportation
WMATA	Washington Metropolitan Area Transit Authority

MATOC

Metropolitan Area Transportation Operations Coordination

For more information, contact:

Mr. Taran Hutchinson
MATOC Facilitator
Metropolitan Area Transportation Operations Coordination Program
Mobile: (240) 381-6107
Office: (301) 614-3702
Email: taran.hutchinson@matoc.org