STRATEGIC PLANNING TO IMPROVE MOBILITY AND SAFETY FOR THE CONNECTICUT-NEW JERSEY-NEW YORK REGION

By: TRANSCOM

IN THIS CASE STUDY YOU WILL LEARN:

1. The Strategic Plan identified four regional goals: Regional Coordination, Sustainability, Performance Measurement and Management and Planning for the Future.
2. The TRANSCOM Operations Information Center (OIC) works to employ the TSMO solutions identified as a part of the strategic planning process in its day-to-day incident management and coordination of the regional transportation systems.
3. In 2017, based on TRANSCOM's Open Reach System, the OIC handled over 14,402 incidents which required regional coordination.

BACKGROUND

Following a major construction conflict in the mid-1980s, the Port Authority established a Trans-Hudson Task Force to support initiatives that would sustain and enhance interstate transportation capacity and services. A major discovery of their effort was the need for greater construction coordination amongst agencies within the region.

The Port Authority convened a meeting of regional transportation leaders to discuss the situation. The member agencies were pioneers in the adoption of TSMO and understood the need for an organization whose mission would be to improve the mobility and safety of the traveling public by supporting its member agencies through interagency communication and the enhanced utilization of their existing traffic and transportation management systems. The resulting solution was the creation of TRANSCOM (also known as the Transportation Operations Coordinating Committee). In 1999, TRANSCOM became an independently incorporated non-profit governed, funded and represented by every major transportation agency in the New York, New Jersey and Connecticut region.

TRANSCOM successfully provided regional communications during major emergencies, incidents and events such as the 9/11 attacks, Hurricanes Sandy and Irene, and numerous construction projects and special events. In addition, TRANSCOM implements and operates Intelligent Transportation Systems (ITS) to improve the quality, timeliness, and dissemination of transportation information.

THE FHWA/USDOT RESOURCE CENTER AND TRANSCOM STRATEGIC PLANNING PROCESS

In 2013, the Board of Trustees recognized the need to initiate a more formal strategic planning process. In response, the member agencies reached out to the FHWA/USDOT's Resource Center staff to facilitate the application of the strategic planning process. The purpose was to establish a shared vision for regional transportation system operations and provide a framework to ensure TRANSCOM's programs, services and systems would be directed in a manner that moves toward that future.

The strategic planning process explored how TRANSCOM may be positioned to support outcomes and performance at a regional scale and on a system level. The strategic planning process was completed during the summer of 2015 and generated the 2016-2018 Strategic Plan. Recognizing the validity of the prior plan, the group determined that the new process would focus on updating the 2019-2021 plan. The TRANSCOM team ranked progress made on accomplishing the regional goals, objectives and strategies using the Capability Maturity Model (CMM) self-assessment tool. It was decided that the new strategic planning process would seek to address strategies that were identified as "defined," but not yet "optimized." This was accomplished over the course of three workshops.

REGIONAL TSMO GOALS AND STRATEGIES FOR TRANSCOM

The Strategic Plan identified four regional goals: Regional Coordination, Sustainability, Performance Measurement and Management and Planning for the Future. Each goal was further supported by a series of...
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objectives and strategies to define needed actions and measurements to achieve each goal. The goals, objectives, strategies, and activities align with the different levels of TSMO integration (System, Technical, Cultural, Operational and Institutional). The plan further recognized the importance of regional transportation operations and coordination in meeting the region’s mobility needs which included strategies to maximize use of existing system capacity to include freight, transit, parking, evacuation plans, weather information, and providing the most up-to-date and coordinated regional construction and special event information.

TSMO DEPLOYMENT AND OUTCOMES

Below are some examples of noteworthy TSMO deployments resulting from the strategic planning process. They are organized by the TSMO levels of integration; System, Technical, Cultural, Operational and Institutional.

- System – Future update and replacement of the incident management system.
- Technical – Development of construction conflicts tool to provide up-to-date regional construction information, and support interagency coordination of construction planning.
- Cultural – Participation in the strategic planning process included staff from all modes of regional travel and law enforcement.
- Operational – Working with member agencies, regional partners, and other stakeholders, TRANSCom has worked to employ regional and corridor performance measures in accordance with national requirements.
- Institutional – In March 2018, there were 4 nor’easters. Each storm introduced different operational issues such as limitations on all or some types of trucking movements and certain transit operations. Due to the jurisdictional control of agency facilities within the region, these prohibitions were system-wide for some and by facility for others. Agency members understand the role that TRANSCom plays in coordinating these restrictions and developing coordinated and common messaging for dynamic message signs.

The TRANSCom Operations Information Center (OIC) works to employ the TSMO solutions identified as a part of the strategic planning process in its day-to-day incident management and coordination of the regional transportation systems. In 2017, based on TRANSCom’s Open Reach System, the OIC handled over 14,402 incidents which required regional coordination.

REAL-LIFE EXAMPLES

On Monday March 27, 2017, two accidents impacted the west-bound Cross-Bronx Expressway (CBE/I-95) from 2:16 a.m. until 1:20 p.m. The first incident closed the lower level of the George Washington Bridge (GWB) until 11:34 a.m. According to the 2017 INRIX Global Traffic Scorecard, the CBE between Exit 6A/I-278 and Exit 1C/Alexander Hamilton Bridge (exit right before the GWB) is the most congested corridor in the United States for the third year in a row.

TRANSCom's OIC used its Open Reach and DFE/SPATEL tools to monitor the regional impact of the incident such as accessing various agency CCTVs, distributing notifications to member agency command and operations centers, as well as MTA and private carrier transit agencies, and coordinating the interagency use of DMS/HAR. During the Cross-Bronx Expressway incident, jurisdiction was designated to NYSDOT Region 11 Joint Traffic Management Center, but requests were made to the NYS Thruway Authority, various MTA Bridges, other NYSDOT regions and both ConnDOT Operations Centers (Bridgeport and Newington) to support the use of alternate routes in lieu of the CBE and I-87 within the NYC limits. In addition, TRANSCom reached out to all member agencies advising that they monitor traffic conditions before starting with midday construction projects located near alternate routes and the George Washington Bridge.

TRANSCom used the SPATEL tool to also monitor the real-time impacts of the incident on the traveler trips that would use CBE. As an example, trips from the Throgs Neck Bridge to I-80 in New Jersey which normally takes 25 minutes was taking two hours.

These same tools were used to provide, a more detailed “after action” evaluation of the impacts of this incident. The results of the analysis indicated that there were approximately 38,000 vehicle-hours of delay for I-87 southbound traffic and 158,000 vehicle-hours of delay for westbound CBE traffic. It should be noted that based on financial data from the NYS Thruway Authority for the Yonkers Toll Plaza and the PANYNJ for the GWB, approximately 8-10% of the traffic is estimated to be commercial.

MTA reported that seven bus routes in the corridor were also impacted by the incidents. As CBE travel was delayed by up to 45 minutes, it is assumed that transit users on arterials were delayed 20 minutes. Based on ridership statistics obtained from the MTA website this represents approximately 4,200 passenger-hours of delay to transit users within the corridor that could be attributed to these incidents.

FURTHER INFORMATION

NOCoE Knowledge Center: https://transportationops.org/knowledge-center