

**TRAFFIC INCIDENT MANAGEMENT FOR THE BALTIMORE REGION (TIMBR) COMMITTEE**

Wednesday, June 5, 2019

9:45 a.m.

Walter E. Washington Convention Center, Room TBD  
Washington, DC, 20001

**MINUTES**

**1. WELCOME AND INTRODUCTIONS**

Eileen Singleton opened the meeting with introductions.

**2. REVIEW OF MINUTES FROM MARCH 6, 2019**

There were no comments on the minutes.

**3. PENNSYLVANIA TURNPIKE COMMISSION USE OF WAZE**

The PA Turnpike is a toll highway that features five (5) tunnels in operation and spans through rural and urban areas. Diverse roadway components pose a serious challenge to day-to-day emergency response operations. Todd Leiss, Traffic Incident Management Coordinator from the Pennsylvania Turnpike Commission, gave a presentation on his agency's implementation of Waze data to mitigate the challenges. The following key comments and questions were raised during this presentation:

- There is an open-road policy on the PA Turnpike.
- The Traffic Operations Center (TOC) functions as a 911 call center system to dispatch Fire, EMS, HAZMAT, and/or Police to clear the roadway as quickly as possible. For major incidents requiring a detour in place, it takes approximately 1-1.5 hours to implement on average.
- On average, there are roughly 8,000 crashes per year with 15-20 fatalities on the PA Turnpike. The lowest number of fatalities was recorded a few years ago. When this number jumped from 8 to 27, the PA Turnpike Commission looked into it and determined that the spike was directly correlated to an increase in distracted driving.
- All emergency responders are on the same radio system that is accessible through the AT&T Push-to-Talk service. Waze is also integrated with their system and alerts come directly from the ATMS. Todd stated that Waze integration offers early detection; there are many instances where calls come in with no activity on the roadway while there are times when incidents go unreported.

- All TOC systems can be viewed and controlled from a cell phone. Various inputs (\*11, phone calls, Waze, PennDOT events, Weather events, Special events, Construction and Maintenance events) feed the emergency notification system.
- When users report incidents through Waze, TOC personnel will measure the accuracy of the reported incident based on the number of reports and the users' confidence levels before dispatching responders. Urban areas will generally have more activity and reports than rural areas; the higher the number of reports, the higher the accuracy of an incident. Generally, there are more reports during the day than overnight; there have been instances where they have responded to a single report during off-peak hours. There is no formal QA/QC process on the accuracy of the report(s) before the alert is sent out to all emergency responders but planned activities such as construction workzones do go through the QA/QC process before sending the data to Waze. Waze alerts typically come in several minutes or up to 20 min before other notifications to the TOC
- The Turnpike Commission was the 11<sup>th</sup> agency to join the Waze Connected Citizens Program. This allows the agency the ability to add road closures/openings to Waze in real time. Operators are Waze map editors and have been trained to add information directly to Waze. Construction locations are being reported to Waze.
- Waze data is not yet integrated in the Advanced Traffic Management System (ATMS) software; that will be added in the next update of the ATMS.
- Computer-Aided Dispatch systems send notifications directly to Waze.
- The Traffic Incident Management system viewer shows vehicle fleet location, weather, Waze incidents, INRIX speed data, and detour routes.
- The Turnpike Commission roadside assistance call number is available directly in the Waze app.
- GPS capabilities in Waze allow the PA Turnpike to set a geofence around their facilities. This is used to alert drivers to slow down as they approach the service toll plazas.
- Weather and INRIX data is integrated with Waze to help provide a better picture and understanding for any slowdowns or congestion detected in their systems.
- Every week the traffic engineers/managers get a summary of damaged signs reported by Waze users.
- Every morning at 5:00AM, a summary of reported potholes and roadkill locations are sent to road patrols and highway maintenance technicians.

Waze added "EZ Pass Only" routing functionality, which resulted in a significant reduction in toll violations.

The Turnpike Commission is working on tools to predict incidents and dispatch based on predictions.

Other capabilities being developed:

- Send alert message to vehicles within a geofenced area of the 5 MPH speed near the toll plazas
- Post travel times to destinations in service plazas using the Waze Traffic View Tool
- Pilot project of Audio Alerts through Waze for lane reductions and curve warnings

- Events added to Waze by drivers regarding potholes and roadkill are being sent automatically to the Maintenance Foreman each day
- HAAS alerts: PA Turnpike Commission is currently testing a modular application called HAAS Alert The device has three wires and is easily installed on emergency vehicles to allow emergency crews to communicate with drivers in the vicinity of or en route to a call. Messages are programmable through the Waze app and can alert drivers to slow down as they are approaching the emergency vehicle and/or scene. Emergency responders can automatically blast messages to drivers by simply activating the emergency lights when this device is hooked up to their vehicles. Todd mentioned that HAAS has proven to be a benefit but there are many products available on the market. He adds that New Jersey is piloting the iCone technology in their Connected Vehicles Program.

Some tips for an agency working with Waze:

- get data people involved;
- get operators involved in map editing;
- work with other DOTs to learn about use cases;
- participate on the CCP listserv;
- Waze does not maintain “official” detour routes, Waze is capable of directing and encouraging motorists to take the preplanned routes if the routes are given to them during the detour; and
- Waze does not identify routes approved for trucks, although truck drivers use Waze.

Mr. Leiss noted other activities of the Turnpike Commission:

- The Turnpike alerting tool, 511PA Connect, is used for a trapped queue that will be longer than four hours; messages are pushed to people in a selected geographic area. It has been used several times. He added that New Jersey is adopting a similar tool.

#### **4. STATE AND LOCAL TIM UPDATES**

##### Proposal to Maryland Highway Safety Office

The proposal was submitted under the Pedestrian and Bicycle Emphasis Area of the Maryland Strategic Highway Safety Plan. The goal is to 'identify and promote safe driving and pedestrian behaviors for all motorists and public-safety professionals at the scene of emergency events'. Achieving the responder safety/training objective is to be done through a statewide TIM conference and public education materials in the Baltimore region with a focus on best practices, legislative updates, and training efforts related to TIM. The funding is for FFY 2020. We are still waiting to hear about whether our proposal will be funded.

##### Outreach to Local Jurisdictions

We are trying to hold these meetings where local jurisdictions meet with SHA Districts. These meetings are still being held and should be completed by the end of the year. A summary of the meetings will be available at the December TIMBR meeting.

##### Upcoming Planned and Special Events

- The Ocean City Airshow is scheduled for the June 14<sup>th</sup> – June 16<sup>th</sup> weekend.

- There will be a first annual Jellyfish Festival in Ocean City the following weekend from June 21<sup>st</sup> – June 23<sup>rd</sup> weekend; this music festival coincides with Delaware's 3-day Firefly Music Festival.

#### Update from MDOT SHA

- MDOT SHA partnered with JMT and published the first quarterly Traffic Incident Management Newsletter, [All Lanes Open: Moving Maryland](#). It is modeled after the Oregon TIM Newsletter and is composed of four (4) pages with quick headings and visuals about all TIM related events and activities in Maryland. There is some material on what CHART accomplishes but it is designed to allow other partners to bring in stories about the projects that work well in TIM. It is also an outreach to partners to collectively and collaboratively communicate together to ensure that all agencies are on the same page and moving forward.
- MDOT is working to participate in the Waze Connected Citizens Program.
- MDOT SHA supports the MSP Unmanned Aerial Systems (UAS) Program. Colonel Pallozzi is expected to approve a policy to allow MSP to fly drones for crash reconstruction. In its pilot UAS program, MSP has found a 75% reduction in lane closure time. One of the main purposes of using UAS is to do crash reconstruction and reduce lane closures. Complex scenes can be mapped by UAS in under 30 minutes and will be integrated in the CHART system.
  - There was a question on the UAS durability and performance in extreme weather. It can withstand 50-mph winds but in these conditions, the battery will drain due to the additional energy required to stabilize the cameras. The battery will run about 45 minutes in ideal conditions, depending on the size of the unit. Total Stations will be used when conditions are not amenable to using UAS.
  - MSP has 4 UAS – one on the Eastern Shore and the others on Western Shore.
  - After pilot use for six months, MSP will assess the program and refine as needed. The goal is to have one UAS per troop.
  - MSP has found UAS photogrammetry is more precise than Total Station.
  - The integration team will look to include UAS video of the scene while the bottleneck dissipates and stream the video to mView.
  - Pilots must obtain a Remote Pilot Certificate from the FAA under the FAA's Small UAS Rule (Part 107) and be present within line of site of the UAS in order to legally operate it.
  - PA Turnpike Commission has purchased a tethered UAS.
- MDOT SHA is working with MEMA on the iPAWS roadway notification application.
- Over the last few years, there has been an increase in commercial vehicle crashes and commercial vehicles falling off the roads. In the last 5 years, number of commercial vehicle crashes increased 30% which results in increased lane closure time, increased incident response time because responders are at these scenes longer. SHA is looking into why this is happening. There was a question about how much commercial vehicle miles traveled have increased over the same time period.
- Eastern Shore Operations is trying to reduce slowdowns and is focusing on Kent Island congestion. There are bottlenecks on parallel residential streets and motorists have been taking the off-ramps and hopping directly back on the on-ramps to bypass a handful of cars. MDOT SHA is looking to join the Connected Citizens Program and partner with Waze as one way to address these congestion issues. MDOT SHA has been working with MSP to increase patrol presence and optimize traffic signal timing upstream of the congestion also.

#### Update from MDOT Maryland Transit Administration

- MTA Towing and Recovery staff are getting trained in towing.
- MTA Vehicle Recovery and Maintenance Fleet will mirror CHART maintenance vehicle specifications.
- MTA Police have three drones and five certified pilots to use for rail safety, transit, and critical infrastructure monitoring.

#### Update from Cumberland Valley Volunteer Firemen's Association

Jack Sullivan reported that a National Safety Council survey of how people react to incident scenes found that 61% of people polled struck or almost struck a responder at an incident scene ([study results](#), [CBS News report](#), [Emergency Responder Safety Institute release](#)). He also noted three reports that might be of interest:

- [Study of Protecting Emergency Responders on the Highways and Operation of Emergency Vehicles](#)
  - review of first responder agencies who have adopted emergency lighting and vehicle conspicuity technology
- [Hardening Blocking Vehicles for Traffic Incidents and Planned Special Events](#)
  - summarizes a workshop convened in 2018 on how to harden blocking vehicles to protect responders and the public. Report includes best practices in innovative traffic control devices and best practices in outfitting and deploying blocking vehicles.
- [The Past, Present, and Future of Responder Safety at Roadway Incidents](#)
  - summarizes proceedings of a workshop convened by the Emergency Responder Safety Institute in 2018 to envision the future of roadway incident response safety and traffic incident management. The group identified what has been successful, what still needs to be done, and what is required to achieve the vision of a future where all responders working on the roadway are properly protected while they do their jobs.
    - biggest challenge is more definitive and accurate data for struck by and near misses; damage
    - roadway struckbys have increased significantly

Some other information of interest passed on by Chief Sullivan:

The [First Draft of the next edition of NFPA 1901 - Standard for Automotive Fire Apparatus](#) is available on the NFPA website:

- One area of interest for firefighter safety at roadway incidents is Section 13.8 Optical Warning Devices.
- There are changes proposed regarding warning lights modes (a new third mode is proposed for night or low-level light conditions) and the addition of an optical sensor to determine ambient light conditions.
- There are also changes proposed for the synchronization of warning lights.
- Section 15.9.3.2.1 – Addresses the chevrons on the rear of fire apparatus and proposes to change the wording from the original specific colors (Red & Fluorescent yellow) to “different and high-contrasting colors”.
- The Public Comment Closing Date is June 25, 2019.

### TIM Training Updates

- 500+ (99%) of Howard County Police have been trained on TIM to date.
- 273 people are trained to provide TIM training to date; only 2% of these people are actually conducting the TIM trainings.
- 7,439 (32.0%) trained to date. The breakdown of responders trained by discipline is attached.
- Pat Rooney is working on a proctored TIM webinar to make the trainings more accessible.

### **5. OTHER BUSINESS**

The meeting adjourned at 10:45 A.M.

#### ***Members***

Ian Beam, Maryland Department of Transportation  
Tina Bui, Daniel Consultants  
Bob Cumberland, Emergency Responder Safety Institute  
Joe Davis, Maryland Transit Administration, Support Operations  
Bill Johnson, MDOT State Highway Administration  
Shelley Kellam, MDOT Maryland Transportation Authority  
Tanya King, Daniel Consultants  
Michael Lane, Harford County Sheriff  
Alvin Marquess, Jacobs  
Andrew Meese, Metropolitan Washington Council of Governments  
Tim Peck, MDOT State Highway Administration  
Daivamani Sivasailam, Metropolitan Washington Council of Governments  
Tom Tran, Daniel Consultants  
Scott Yinger, MDOT State Highway Administration  
Greg Yost, Cumberland Valley Volunteer Firemen's Association  
Yan Zhang, Howard County Department of Public Works

#### ***Staff and Guests***

Joe Kroboth, Cumberland Valley Volunteer Firemen's Association/Emergency Responder Safety Institute  
Todd Leiss, Pennsylvania Turnpike Commission  
Scott Parr, Embry-Riddle Aeronautical University  
Mohamad Raqib, MDOT State Highway Administration  
Eileen Singleton, Baltimore Metropolitan Council  
Jack Sullivan, Emergency Responder Safety Institute  
Dave Wolfe, Drive Engineering