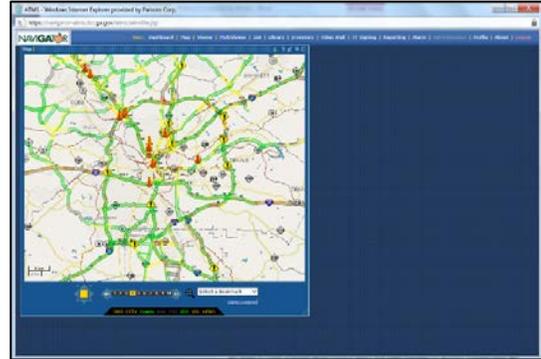




## 8. SOFTWARE

The Georgia Department of Transportation (GDOT) has established an efficient transportation management program since the inception of NaviGator, a custom advanced transportation management system (ATMS). Parsons has been instrumental in building out GDOT's NaviGator system functionality to support traffic and incident management activities across the state since NaviGator's introduction in 1996.

The GDOT NaviGator software system is based on the Parsons Intelligent NETWORKS® software platform, and it is currently being used by the traffic operations and Highway Emergency Response Operators (HERO) groups. The NaviGator software is an integrated solution that is comprised of several different components to facilitate daily activities for GDOT staff in the Atlanta Transportation Management Center (TMC) and the Macon Traffic Control Center (TCC). GDOT's NaviGator system has scaled over the years to include integration with various local cities and counties.



Parsons is fortunate in having provided the framework for GDOT's NaviGator system, which has proven to be the primary tool for enabling efficient traffic operations and incident management statewide. Through Parsons' extensive investment in supporting the continuous evolution of NaviGator, personnel and contractors have the capability to communicate and coordinate with other agencies, monitor the flow of traffic and dispatch key incident and traveler information. NaviGator users have the ability to monitor traffic conditions from GDOT-owned field devices as well as third-party sources. When incidents occur, NaviGator users can dispatch HERO units when appropriate; record and manage information about the incident; and provide information to the traveling public. In addition, support for GDOT's Traffic Interruption Reports (TIR) is built into NaviGator, which allows users to manage construction statewide and record accurate lane closure information. Whether an incident or construction project is being managed, NaviGator users are given the ability to notify motorists about potential delays and safety concerns via dynamic message signs, the 511 Integrated Voice Response (IVR) system and the 511ga.org public website.



Most recently, NaviGator was enhanced to provide an Automated Location and Dispatch System (ALADS) feature to support GDOT HERO operations on all thirty HERO routes. GDOT HERO vehicles are equipped with in-cab systems that host the NaviGator ALADS software which allows for two-way communication between the GDOT HERO driver and a TMC operator. The NaviGator ALADS solution provides TMC operators the ability to dispatch the closest available HERO to an incident and prioritize motorist assistance. In addition, GDOT HERO personnel are

provided the capability to enter and create their own incidents using the in-cab software system, which reduces radio communication, provides for a faster and more efficient data collection process and ultimately eliminates the need for paper forms.

Parsons is currently tasked with the upcoming integration between NaviGator system and the Web Emergency Operating Center (WebEOC) application, currently scheduled for implementation in 2016. GDOT's WebEOC application is used during emergency situations to share status information in real



time, specifically events such as extreme weather flooding, snow/ice, hurricane evacuations or tornado damage. Whereas WebEOC serves the primary goal of exchanging information amongst all relevant parties, the lack of integration with NaviGator has required dual entry of emergency event information when needing to disseminate information to the public via dynamic message signs, the 511 IVR and the 511ga.org public website. Integrating WebEOC with NaviGator will streamline the emergency management process, thus saving more time and further improving efficiency.



Beyond the NaviGator and WebEOC software systems, the Parsons team is intimately knowledgeable with the Traffic Operations District Database (TODD) system that is currently used by the Macon TMC staff to track area maintenance schedules in District 3. The TODD system has been developed in-house over the years and is designed to be a tool for tracking district activities such as preventative maintenance.



In addition to the TODD system, Parsons is very familiar with the statewide asset management tool, Maximo, which is being used by our staff in the Atlanta and Macon TMCs to track the status of assets/devices and infrastructure components that make up GDOT's intelligent transportation system (ITS). The Parsons team has played a major role in the use of these maintenance management tools, which may be applicable to the GDOT roadside assistance and maintenance (RAM) program.

The Parsons team is fortunate to have been directly involved with providing support staff to the Atlanta and Macon TMCs. As a result, our knowledge of GDOT's operation has become quite expansive and has enabled our understanding of various GDOT systems/processes. In addition to the software noted above, we have a thorough understanding of a few additional key software systems that are currently being used by GDOT's traffic operations group, including:

- ▶ ESRI ArcGIS Mapping
- ▶ Georgia Emergency Management Agency (GEMA) EMnet
- ▶ GDOT 511/IVR Applications (Web Alerts and Floodgates)

Parsons has a unique advantage in that we have been directly involved in developing NaviGator, the principle software solution used in GDOT traffic operations and management. Our experience with using the myriad of software tools, developing standard operating procedures (SOPs), providing operations personnel/support, training GDOT staff and leading the Traffic Incident Management Enhancement (TIME) Task Force provides a well-rounded perspective. The Parsons team offers first-hand insight into the needs of an operation that includes emergency personnel, incident responders, law enforcement and other transportation authority stakeholders.

Parsons' varied skillset, leadership and close working relationship with GDOT in combination with our direct involvement with GDOT's ITS and the NaviGator system will be of great value to the GDOT Roadside Assistance and Maintenance Program. We are prepared to utilize the existing GDOT software systems as prescribed and are also in a position to recommend new tools, extend NaviGator functionality, and/or integrate with other systems as GDOT's traffic operations business continues to evolve.