Project Information Form

Project Title	Optimizing EMS Through The Use Of Intelligent Transportation Systems (ITS) Technologies
University	University of Alabama at Birmingham
Principal Investigator	Andrew J. Sullivan
PI Contact Information	Andrew J. Sullivan, MSCE, PE Instructor and Researcher Civil, Construction, and Environmental Engineering University of Alabama at Birmingham (UAB) 1075 13th Street South, Hoehn 311 Birmingham, AL 35294-4440 Phone: 205-934-8414; FAX: 205-934-9855 E-mail: asullivan@uab.edu
Funding Source(s) and Amounts Provided (by each agency or organization)	$120,000 NCTSPM UTC-Federal $80,000 ALDOT-State, $40,000 FDOT-State
Total Project Cost	$240,000
Agency ID or Contract Number	
Start and End Dates	10/4/2012-4/4/2014
Brief Description of Research Project	This project will investigate needs and opportunities associated with the use of ITS as a tool for improving emergency response and outcomes. More specifically the study will examine in depth ITS technologies and transportation management strategies to: a. Optimize deployment of EMS resources through positioning of first responders within the transportation grid and implementation of urgency algorithms to facilitate Computer-Aided Dispatching (CAD) of emergency vehicles b. Mitigate non-recurrent incident induced congestion and its impacts on EMS responders and the general public. Use of active traffic management strategies (such as temporary shoulder lanes) and traffic signal preemption to allow quick access of first responders to the emergency site and/or the treatment facility will be also considered, and c. Optimize the use of healthcare resources to improve surge capacity under routine operations as well as in case of manmade, natural, of public health disasters.

Describe Implementation of Research Outcomes (or why not implemented) (Attach Any Photos)	An analysis of EMS dispatch and response times in the Miami area has been completed, along with simulation of potential time savings that could be gained with improved real-time traffic data. This analysis is being made available to local EMS agencies.
Impacts/Benefits of Implementation (actual, not anticipated)	Analysis shows that improved EMS response times can be obtained not only through the use of real-time traffic data, but also through the use of historical averages obtained through the monitoring of travel speeds of fleet vehicles.
Web Links • Reports • Project website	See NTCSPM website.