**Project Information Form**

Reporting Period: 07/01/2015 – 12/31/2015

<table>
<thead>
<tr>
<th>Project Title</th>
<th>Optimizing EMS Through The Use Of Intelligent Transportation Systems (ITS) Technologies</th>
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<tbody>
<tr>
<td>University</td>
<td>University of Alabama at Birmingham</td>
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<tr>
<td>Principal Investigator</td>
<td>Andrew J. Sullivan</td>
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</tbody>
</table>
| PI Contact Information | Andrew J. Sullivan, MSCE, PE  
Civil, Construction, and Environmental Engineering  
University of Alabama at Birmingham (UAB)  
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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 | DTRT12GUTC12  
NCTSPM 2012-064 |
| Start and End Dates | 10/4/2012-12/30/2014 |
| Brief Description of Research Project | This project is investigating needs and opportunities associated with the use of ITS as a tool for improving emergency response and outcomes. More specifically, the study is examining 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 algorithms to facilitate Computer-Aided Dispatching (CAD) of emergency vehicles  
b. Mitigate non-recurring 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. |
Describe Implementation of Research Outcomes (or why not implemented)  
(Attach Any Photos)

Draft report will be submitted to NCTSPM by March 30, 2016. Inconsistencies and weaknesses in some of the analysis were identified and have required additional work. We believe the analysis related to EMS dispatch, location, and optimum travel routes has been addressed. Preparation of the final report is underway and should be completed in the next few weeks.

Impacts/Benefits of Implementation (actual, not anticipated)

Nothing to report at this time.

Web Links

- Reports
- Project website

N/A

Names of students who are financially supported by this grant

Ossama O. Ramadan (UAB)  
Yan Xiao (FIU)

Names of students who are participating (but not financially supported) by this project

N/A