Project Title – Consequence Based Route Selection for Hazardous Material Cargo: GIS-Based Time Progression of Environmental Impact Radius of Accidental Spills

University – Florida International University

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Funding Source(s) and Amounts Provided (by each agency or organization)

Total Project Cost – $80,068

Agency ID or Contract Number – 2012-036S

Start and End Dates – 7/1/12 to (ACTIVE)

Brief Description of Research Project – The objectives of this research are to assess hazardous material cargo routing options using multi-objective criteria to reduce potential risks due to spills; develop a time progression model to predict the impact radius of spills from hazardous material cargo on well-being of neighboring communities; develop an interactive GIS based tool to demonstrate the potential risks based on characteristics of the hazardous cargo and transportation routes for two case studies; and demonstrate time progression of impact radius, quantification of risks, and affected population based on route choices. The results of this research can be used for developing strategies to minimize risks of transportation accidents which impact human health and safety as well as environmental quality.

Describe Implementation of Research Outcomes (or why not implemented)

Place Any Photos Here

Impact/Benefits of Implementation (actual, not anticipated)

Project Website – stride.ce.ufl.edu/tansel-abstract