Project Information Form

Project Title	**A Comprehensive Investigation of Visibility Problems on Highways:** Developing Real Time Monitoring and Prediction System for Reduced Visibility and Understanding Traffic and Human Factors Implications
University	University of Central Florida
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Funding Source(s) and Amounts Provided (by each agency or organization)	NCSPM, FDOT and UCF
Total Project Cost	
Agency ID or Contract Number	NCTSPM 2013-038
Start and End Dates	Nov. 2013-Sep. 2015
Brief Description of Research Project	Visibility is one of the most important impacts weather can have on road system; weather-related visibility is often due to fog. Florida is among the top-rated states in the United States with regards to traffic safety problems resulting from adverse visibility conditions caused by fog. This study plans to validate an alternative low-cost approach that can meet or exceed existing performance of traditional technologies. With supplemental meteorological data sets, the studies will seek to identify the unique characteristics/signature of the "fingerprint" of fog formation. The computer software algorithms will be trained to adapt to micro-local conditions to improve accuracy.
Describe Implementation of Research Outcomes (or why not implemented)	This study will develop software algorithms to process and analyze the data from the multi-level arrays of temperature and relative humidity, wind speed/direction, and subsurface moisture in conjunction with measurements from the co-located visibility sensors. This study will also

(Attach Any Photos)	consider the human factors issues relevant to implementing a visibility system on highways. This includes drivers' responses to different messages in reduced visibility conditions and their preferences.
Impacts/Benefits of Implementation (actual, not anticipated)	Improved roadway safety can result from this project as improved detection and prediction of visibility obstructions can help avoid crashes, improve traffic management from reduced congestion, and save money via more efficient advance deployment of law enforcement or other crews necessary to monitor deteriorating visibility conditions.
Web Links • Reports • Project website	TBD