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## COMPETITIVE DIVISION – PRACTITIONER

### Applying High Reliability Organization Theory to Emergency Management

Our research team examined the potential application of a methodology used by a number of agencies (NASA, US Navy, nuclear and airline industries, trauma hospitals, etc.) to Emergency Management. This methodology is used in complex, high-stakes work where mistakes can equal great harm.

A catastrophe is a complex event. Complex systems behave in ways that may not be explainable using conventional models like simple cause-and-effect. In a complex system, there are sometimes effects without any evident cause, and causes that generate no observable effects.

For an emergency manager working in a catastrophic disaster event, whether natural- or human-caused, there are temporal, social, and situational factors with which response systems must contend. While HRO represents maxims for leaders to navigate decision-making in the face of uncertainty, HRO is not a ‘catch-all’ solution. It may be implemented as an adjunct and enhancement to existing emergency management processes and bureaucratic features such as the Incident Command System (ICS) and the federalism of emergency management organizations in the United States. Implementing HRO may feel ‘unnatural’ to some lead decision makers, since this is not how humans normally behave.

Our poster depicts the case for a pro-active implementation of HRO in the steady-state (peacetime) period, so that HRO principles and routines may be sufficiently developed and exercised toward development of a certain ‘level of comfort’ with the methodology among the practitioners, subject-matter experts, and leaders who will ultimately be implementing the HRO principles during a crisis.

Collaborators are: Jonathan W. Gaddy, Calhoun County EMA; David W. Hollinger, Drexel University, Dept. of Public Safety; Susan Perkins, Mississippi EMA; Steven Ward, FEMA Region III