

Modeling and Simulation, Cyber-Infrastructure, and Critical Infrastructure Analysis

**A Panel Discussion at the 3rd Annual
SARMA Conference**

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21st Century Security Challenges

- A globalized world with increasingly integrated infrastructure
- Increasingly advanced and pervasive technology, particularly IT
- Technology driving new socio-behavioral, political, and organizational dynamics
- Timescales are shorter and cause-and-effect less clear, i.e. “unintended consequences” in planning and action
→ ***we need new tools to reason about complex systems and plan effectively***

Advanced IT Offers Transformational Solutions

- Ubiquitous sensing and data fusion
 - Cheap distributed computing and new software environments and applications
 - Cyber-infrastructure backbone
 - Visualization and Pattern ID Tools
 - Advanced modeling and simulation tools
(CAS, Complex Networks, ABM, ...)
 - Tools for Complex Planning and Foresight
- *BUT, we need a deeper understanding of how to strategically develop, integrate, and manage such resources*

Today's Distinguished Panel

- **Mr. Greg Knapp**
Exec Dir, Joint Warfighting Center, JFCOM
- **Dr. Nabil Adam**
Sr. Program Manager, DHS S&T
- **Dr. Stephen Prior**
Exec. Dir, NCCIA, NDU
- **Dr. Kevin McCabe**
Dir, Ctr Study NeuroEconomics, GMU