

# THE ROLE OF MODELING AND SIMULATION TECHNOLOGIES IN DISASTER PREPAREDNESS AND EMERGENCY RESPONSE

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*Plans are nothing; planning is everything. – Dwight D. Eisenhower*

As nations and communities consider how to improve their level of preparedness and their ability to respond to emergencies, whether man made or natural disasters, the response teams are increasingly relying on a variety of drills, exercises and training to hone their skills and effectiveness. These activities are more than just verifying plans; they are intended to improve the planning aspects of dealing with emergencies. In recent years, the use of modeling and simulation technologies has become valuable in conducting exercises that are meaningful, cost effective, AND realistic. These exercises are intended to stress the decision makers and incident commander's level of understanding, the appropriate use of tools/equipment, and to validate tactics as they respond to various emergencies. Additionally, many models, information management tools, and a host of devices are also used both in exercises as well as during response operations to provide situational awareness and ensure resiliency through speedy response and effective recovery.

Today, many nations have various technology initiatives underway targeted at improving the entire preparedness and response cycle. These initiatives range from researching unique models to developing large scale systems that use models, simulations, gaming technologies, virtual worlds, and distributed computing to address both command and control doctrine and tactical and decision making activities.

This session will provide an eclectic mix of modeling and simulation efforts underway to produce innovative and cost effective capabilities to significantly improve the ability of the response teams and to improve the societal resiliency.

Potential Panel Members (4 with one as back up)

- 1- DHS S&T SUMMIT
- 2- FEMA National Exercise and Simulation Center (NESC) M&S
- 3- Naval Postgraduate School
- 4- SWEDis use of M&S in Crisis Management/German Emergency Response M&S
- 5- DoD: possibly Pentagon Force Protection Agency use of M&S
- 6- Defense Threat Reduction Agency M&S activities
- 7- M&S Usage in real world Emergency Response: Washington DC/Seattle/Cincinnati