

**MILITARY KEYNOTE ADDRESS**  
**MILITARY SIMULATION: WHERE WE ARE AND WHERE WE OUGHT TO BE GOING**

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**ABSTRACT**

I plan to present my perspectives on several challenges and opportunities facing the simulation community. These include the burden of “model centric” approaches in analysis, observations on High Level Architecture (HLA) what it is doing and not doing, the challenge of representing asymmetric and nonlinear conflict, and perspectives on the new arena of Joint warfare experimentation.

“Model centricity” results in part from the Office of the Secretary of Defense (OSD) over the last five years or so on increasing use and integration of simulation in Acquisition, Training and Analysis. Simulation seems to

be doing well in the acquisition and training communities. But in the analysis community, I submit that simulation may have reached the point of diminishing returns. Not only is simulation a ponderous method of analysis, it is not well-suited to exploring the unknown, which is what we face in the analysis community these days.

Is HLA the new ADA of the software world? HLA may have been a bureaucratic approach to integration that now needs revisiting. It costs scarce resources to convert, and even after HLA compliance, it takes work to make simulations interoperate *if* one needs them to interoperate (which raises the paradox of HLA’s goal of interoperability of simulations to get greater and greater span and detail and the historic aversion of “mega-model”). HLA also introduces still being worked challenges in validation, verification and accreditation (VV&A) of interoperating models; it may be very difficult to know what you really have when everything is all hooked together. Is there a better common sense to simulation interoperability, particularly in the analysis arena?

Many force design and force employment (read requirements, operations) issues today are driven by considerations of asymmetric operations and nonlinear behaviors. These present huge challenges for the simulation community; challenges which may push even the most modern simulations into irrelevance in many analysis applications.

Finally, the new arena of joint warfare experimentation suggests a hybrid methodology; something that mixes training, testing and analysis methods into something new. There are emerging insights on the kinds of simulation technology that may be helpful in this relatively new domain.

**AUTHOR BIOGRAPHY**

**VINCENT P. ROSKE, JR.** serves the Chairman of the Joint Chiefs of Staff as the Deputy Director (Wargaming, Simulation and Analysis); Force Structure, Resources, and Assessment Directorate (J-8), The Joint Staff. Mr. Roske

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