



BY REPRESENTATIVE J. RANDY FORBES, R-VA

"With tight federal budgets, shouldn't we be expanding modeling and simulation applications to ensure our warfighters are the best-trained in the world?"

I recently asked this question of a high-level military commander in a House Armed Services Committee (HASC) hearing. What I received in return was a blank stare and an answer that showed me that modeling and simulation (M&S) was not on his radar screen. At first I was surprised, but then I started asking around. I turned to my colleagues on the HASC, other members on the floor, even my staff, asking the same question. Over and over, the response was the same.

It was clear to me that there was a need for education in Washington on the importance of the modeling and simulation industry. And so, the decision to form a congressional caucus on modeling and simulation was born. Word traveled quickly on Capitol Hill and on the morning of the caucus kick-off breakfast—one hour before the event was set to start—guests swelled into the hallway jockeying for a position in the hearing room. With the aid of a variety of industry representatives from large and small businesses, Members of Congress and their staffs were able to experiment with hands-on modeling and simulation technology on Capitol Hill.

Today, the Congressional caucus membership includes Chairman of the House Armed Services Committee, Duncan Hunter, R-CA, and representatives Ken Calvert, R-CA, John Carter, R-TX, Mike Conaway, R-TX, Jo Ann Davis, R-VA, Thelma Drake, R-VA, Tom Feeney, R-FL, Ric Keller, R-FL, and Joe Wilson, R-SC. In addition, over 50 modeling and simulation companies have become caucus "industry partners" offering their expertise and guidance as the caucus moves forward.

With the formation of the caucus, and the growing awareness of this critical industry, we now face two vital action items: the cultivation of industry partnerships and the expansion of M&S applications.

A true engine in the modeling and simulation industry has been the partnership of government, academia and industry. This partnership is vital to generating the necessary technologists for this complex and fast-paced field and to building on the technologies that already are internationally recognized as the very best available.

In Virginia's 4th District, which I represent, under the leadership of Admiral Edmund Giambastiani, Joint Forces Command (USJFCOM) has undertaken the unenviable responsibility of building the largest synthetic training environment that will ever be realized through the development of the Joint National Training Capability (JNTC). On a daily basis, the JNTC applies modeling and simulation to unify the services, combatant command and the agencies that support homeland defense

through programmed exercises.

To complement this objective, Old Dominion University has been a principle academic adviser to the USJFCOM through the development and growth of the Virginia Modeling Analysis and Simulation Center. Through their collaboration, the partnership has exponentially multiplied the creative and analytical progress of the industry.

Other examples of this type of direct cooperation exist as well, such as the relationship between the Institute for Simulation and Training with the University of Central Florida to the U.S. Army and the Institute for Creative Technologies associated with the University of Southern California. These partnerships serve as petri dishes for modeling and simulation innovation and ought to be cultivated and developed in order to continue reaping their valuable benefits.

The second action item in the modeling and simulation industry is the encouragement of expansion of M&S applications. The M&S community is rare in that its members come from diverse academic backgrounds such as engineering, psychology, computer science, mathematics, physics, history and politics to name a few. While this industry grew out of the Defense Department, today its scope and influence increasingly reach well into the development of technologies in industries such as finance, automotive, entertainment and medicine. In fact, many of the technologies in this industry are universally applicable allowing advances in industry and academia such as visualization, analytical tools, knowledge management, and behavioral representation to be developed and reused.

From doctors performing hands-on simulated surgeries, to homeland security models that account for details such as wind direction and construction sites, to transportation models that show projected traffic patterns in your hometown for decades in the future, modeling and simulation is on the verge of breaking out of the defense industry and into the everyday lives of Americans. And as we encourage M&S to enter our daily lives in practical application, the industry grows in significance and continues to push the boundaries of technology.

Today we stand at a critical juncture in the modeling and simulation industry. As partners in this endeavor, elected officials, businesses, academia and military consumers of modeling and simulation have a responsibility to work together. Through our collaboration we can harness the power of modeling and simulation in support of new technology, in support of our warfighters and in support of our national interest. ★

Editor's note: Forbes is a member of the House Armed Services Committee, House Judiciary Committee and the House Science Committee. He is also co-chair of the Congressional Navy/Marine Corps Caucus. For more information on the Congressional Modeling & Simulation Caucus, please visit www.house.gov/forbes/mascaucus.

