

William F. Waite

President, The AEGIS Technologies Group Inc.

The AEGIS Technologies Group Inc. (formerly AEGIS Research Corp.) is a world leader in providing products and services for modeling and simulation (M&S). With offices in Washington, DC, Orlando, FL, and Huntsville, AL, as well as distributors worldwide, AEGIS is focused on putting simulation technology to work.

As founder and president of the AEGIS Technologies Group, William F. Waite has experience in space-based astronomy, sensor and weapon-system development, and a variety of simulation technology specialties. His current concerns include the evolution of the M&S market and business practices.

Q: What are your company's strengths in the military market?

A: AEGIS Technologies provides a variety of products and services to our military customers across the modeling and simulation domain. We are active in evolving simulation technology, participating heavily in High Level Architecture (HLA) standards, process invention, tools development and training delivery, for instance. We have strong capabilities in conceptual modeling; simulation-system architecture design; simulation development and qualification (e.g., validation, verification and accreditation, or VV&A); simulation application to engineering, analysis and training; and simulation business practices, such as the U.S. Department of Defense's Simulation-Based Acquisition (SBA) and the U.K. Ministry of Defense's Synthetic Environment-Based Acquisition (SeBA).

Q: What is the mission of AEGIS Technologies in the military market?

A: AEGIS' Software Products Division provides software applications to support simulation system development and use. Advanced Continuous Simulation Language (or ACSL, pronounced "axle") and HLA Labworks are two of a planned suite of comprehensive simulation tools. ACSL is a model development environment for time-dynamic continuous systems. HLA Labworks supports the HLA federation development and execution processes (FEDEP). Other products currently in development include a versatile scenario-generation application and a post-execution analysis support tool.

Q: How did your company take the core Advanced Continuous Simulation Language and improve on it?

A: Since acquiring the ACSL product in 1998, we have focused strongly on meeting the needs of our existing customer base of about 2,000 licensed users worldwide. Recent improvements have been to extend its translation capability so that ACSL models will run in Joint Modeling and Simulation System (JMASS) execution environments. Naturally, we have experimented successfully with ACSL in HLA-compliant federations and we are implementing permanent extensions of ACSL for HLA, the Joint Simulation System (JSIMS) and other open-architecture target environments.

Q: AEGIS Technologies customers are using ACSL in various

fields, including automotive, power and process control. How do you manage to apply the lessons learned from those divergent fields into your aerospace and defense work?

A: We actively look for opportunities to leverage tools, lessons learned and processes across application domains. First, we believe that simulation is fundamentally transferable across a wide range of target applications. We expect that what we learn in one domain will be valuable in others; and we (and our customers) have not been disappointed. We intend to leverage our competence in simulation, and by emphasizing "simulation-domain engineering" and reuse, we find (and make) opportunities to leverage skills and lessons learned.

Secondly, we are committed to providing both tools and services in commercial and defense applications. This diversity is good for us in any particular application area since we use our own products when appropriate. Having both product and service perspectives to bring to the table for our defense work is very valuable.

Q: Do you leverage more from commercial to military or military to commercial?

A: In many ways the influence between commercial and military application areas is a two-way street. In some cases, the defense sector is more mature (systematic VV&A, for instance). In other cases, industrial environments may show the way. In either case, we are interested to learn, remember and reuse.

Q: What's the future of military simulation and training?

A: The future of military simulation and training is enormous. The cost-effectiveness of simulation in training is still only partially appreciated, and both the demand for training effectiveness and countervailing budget pressure will inevitably grow. Simulation and training are assuming a place on the national agenda and the growing appreciation of the efficacy of simulation for training by senior decision-makers is apparent.

At AEGIS Technologies, for instance, we have recently established an operating division to manage our delivery of professional training. In that context, we use simulation to teach simulation. There are certainly frustrations and there is no free lunch, but just as the simulation industry at large is experiencing a kind of coming of age, so is military simulation and training.

Q: What are AEGIS' plans for the future?

A: The AEGIS Technologies Group Inc. is committed to establishing itself as one of the premier simulation companies in the world. Our strategy is to understand the simulation industry domain-model, to appreciate the needs of the industry in using simulation to do the real work, and to provide tools and efforts suited to that need. Naturally, this is a tall order. But as Casey Stengel might have said: "The future is right there in front of us." ★

