

Testing and Training: A National Partnership — 2nd Annual Symposium and Exhibition

“We’re Testing Weapons Systems And Conducting Training the Way The 21st Century Warfighter Fights”

NORENE L. BLANCH



“IMPERATIVES FOR READINESS” — NAVY VICE ADM. PATRICIA TRACEY, DEPUTY ASSISTANT SECRETARY OF DEFENSE FOR MILITARY PERSONNEL POLICY.

Budget reductions, significant decreases in the workforce, and program cancellations are an all too familiar reality throughout the federal government, and the Department of Defense (DoD) has been impacted for more than a decade like no other agency. This has caused DoD to make reforms in acquisition policy and come up with creative alternatives for ensuring military readiness in an ever-changing political environment where the warfighter must be ready to deploy at a moment’s notice.

Opening Day

With the warfighter as the focal point, defense-related testing and training communities, government agencies, private industry, and academia came together for the 2nd Annual Testing and Training Symposium and Exhibition, held Aug. 17-19, in Orlando, Fla., to form what conference organizers refer to as a “21st Century Partnership.” In addition, a diverse group of exhibitors from industry, government agencies, and the Army, Navy, Air Force, and Marines showcased their wares during the three-day Exhibition.

The conference highlighted how these communities reached their objective of

FOREIGN REPRESENTATIVES FROM LEFT: GROUP CAPT. CHRIS LAMPARD, ROYAL AIR FORCE, UNITED KINGDOM; MAJ. BILL FLEMING, STAFF OFFICER, ARMY MATERIEL COMMAND, EMBASSY OF CANADA; DR. JOHN RILEY, ATTACHE’ DEFENCE SCIENCE, EMBASSY OF AUSTRALIA.



conducting cost-effective testing and training through improved cooperation and coordination. Moreover, it provided participants with an opportunity to develop more effective communications and understanding on issues impacting the readiness, effectiveness, and survivability of our nation’s combat forces.

Second in a series, this year’s Symposium and Exhibition was sponsored by several agencies: the National Defense Industrial Association (NDIA), Test and Evaluation Division, in cooperation with the Office of the Secretary of Defense (OSD); the Naval Air Warfare Center



CHAIRMAN’S TABLE, SEATED FROM LEFT: JAMES F. O’BRYON, DIRECTOR, LIVE FIRE TEST AND EVALUATION, OSD; NAVY REAR ADM. TIMOTHY BEARD, COMMANDING OFFICER, NAVAL STRIKE AND AIR WARFARE CENTER; RETIRED ARMY BRIG. GEN. SAMUEL COCKERHAM; NAVY CAPT. LADSON WEBB, DIRECTOR, AVIATION PROGRAMS, PROGRAM EXECUTIVE OFFICE (AIRCRAFT CARRIERS).

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Training Systems Division (NAWCTSD); the U.S. Army Simulation, Training and Instrumentation Command (STRICOM); the Marine Corps Programs Office; Air Force Agency for Modeling and Simulation (AFAMS); and the National Training Systems Association (NTSA).

C. Samuel Campagna, Director, Operations, NDIA, welcomed the audience and

FLORIDA LEADERSHIP, FROM LEFT: ARMY BRIG. GEN. JIMMY WATSON, ASSISTANT ADJUTANT GENERAL, ARMY STATE OF FLORIDA; CONGRESSMAN JOHN L. MICA (R-FLA.).



O'Bryon also serves as chairman of the Test and Evaluation Division of NDIA.

Briefing the conference agenda on opening day, O'Bryon told the audience that input from last year's event was crucial for development of this year's agenda. "Responses from last year's conference questionnaires expressed the strong desire to have this symposium focus on the needs of the warfighter," said O'Bryon. As a result, he focused his keynote remarks and addressed the audience from that perspective.

Keynote speakers included United States Congressman John Mica (R-Fla.); Terry Finger, Staff Assistant, Military

ability, our whole purpose for coming together as a nation is military security and the common defense of this nation.

"We have to do that today in a cost-effective manner," said Mica, "and we're in a new world in terms of world order as we get called upon, whether we like it or not, to be some of the police forces of the world – and that all has a price tag too."

Mica reflected on the national defense and how we spend money. Noting that in 1955, 63 percent of the federal budget went toward national defense, he contrasted those numbers with today's reduced defense budget. "In 1999, right now, that's down to 16 percent. We have a much smaller share in defense and in

PARTNERING STEP 1, "LEARNING TO COMMUNICATE," SEATED FROM LEFT: NAVY REAR ADM. TIMOTHY BEARD, COMMANDING OFFICER, NAVAL STRIKE AND AIR WARFARE CENTER; JOHN DALY, AMON CARTER PROFESSOR OF COMMUNICATIONS, DISTINGUISHED TEACHING PROFESSOR, PROFESSOR OF MANAGEMENT, UNIVERSITY OF TEXAS AT AUSTIN; O'BRYON.



introduced the symposium chairman and moderator of the event, James F. O'Bryon, Deputy Director of Operational Test and Evaluation/Live Fire Testing, Office of the Secretary of Defense.



TESTER AND TRAINER, FROM LEFT: DR. ERNEST SEGIE, SCIENCE ADVISOR TO DIRECTOR, OPERATIONAL TEST AND EVALUATION, OSD; JOHN WALSH, ASSISTANT DIRECTOR, COLLECTIVE TRAINING, OFFICE OF THE UNDER SECRETARY OF DEFENSE FOR READINESS.

our number one national priority."

Although the defense budget has drastically decreased, the

demand on the military to perform has dramatically increased. Warfighters have been forced to transition from their role as our nation's defenders to their current role as peacekeepers serving as part of multinational forces spread out over numerous "hot spots" throughout the world.

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Congressional Viewpoint

United States Representative John L. Mica (R-Fla.) reflected on national history when he stated, "Under our nation's constitution, our number one responsi-

bility, our whole purpose for coming together as a nation is military security and the common defense of this nation.

TRAINING AND READINESS
Mica considers training of the warfighter to be *important* and *vital*. The whole di-

mension of the training of our military forces is dramatically changing,” he explained. Referring to force composition, Mica noted that the nation’s forces are no longer just made up of active-duty personnel, but also of reserve personnel who need to be called into active duty at short notice. “We need readiness capability, and that’s why training and education is so important.”

Simulators and simulations are cost-effective supplements to live exercises for ensuring the readiness of military personnel despite budget and manpower constraints. “When you have such an important responsibility as national defense, and when you have a limited commodity—which is taxpayer dollars—you want to see that [the money] is spent in an appropriate and cost-effective manner, and nothing is more cost-effective in my opinion than simulation. Nothing has a better future in my opinion than simulation,” says Mica.

ADVANCED

DISTRIBUTED LEARNING

Another important initiative Mica supports to enhance readiness is Advanced Distributed Learning (ADL). Mica described ADL as a program providing “real-time training over the Internet so that soldiers and sailors can access training information and data when and where they need it by simply logging onto the computer. This initiative will use technology to eventually replace paper-based education and training supplements, and again, we have to look at cost-effective approaches.”

THESE PROJECTS OFFER REAL TRAINING OPPORTUNITIES TO THE WARFIGHTER

Mica spoke about his involvement and success over the past three years in supporting the Live Fire Testing and Training initiative in Congress.

Simulation is one area that has been enhanced with these funds. Education of the warfighter in particular will get a boost through such projects as the Small Arms Trainer and the Combat Trauma Patient Simulator (Human Patient Simulator).

Small Arms Trainer. The Use of Modeling and Simulation to Support Small Arms Testing, Lethality, and Vulnerability Issues (MSSAT) project provides a reconfigurable engineering tool to the small arms community. MSSAT is using modeling and simulation techniques for design, evaluation, modifications, and testing of new weapon concepts. This project has made use of the Small Arms Simulator Testbed (SAST) to provide a validated synthetic environment from which real-time high-fidelity performance data can be collected and analyzed. This data will allow the user to address trade-off analyses, performance predictions, and lethality issues related to the development and testing of small arms weapons systems. MSSAT uniquely addresses the needs of both the live fire testing community and the small arms training community by directly supporting conceptual design, developmental testing, operational testing, and small arms training.

Human Patient Simulator. The Human Patient Simulator uses technology to take training for medical treatment on the battlefield to a new level. This initiative combines the efforts of the military and private sector in the development of a training tool that will teach medical personnel to properly assess and treat medical emergencies that would be expected in combat or national emergencies.

Main Agenda

According to O’Byron, the Human Patient Simulator, is a particularly exciting program, not only because it began as a Live Fire Testing and Training project, but also because it has already saved more money than we have invested into it. “We have now brought that through the incubator, and now it is on its own and is doing extremely well.”

LET’S TALK

The Human Patient Simulator is just one of many successes the testing and training community could talk about. “Things are changing,” said O’Byron. He stressed the importance of the testers and trainers coming together as partners to discuss ways in which they can most ef-

fectively and economically prepare the warfighter for their mission in the face of these changes.

Taking the Issues to the Source

What better way to help testers and trainers work together more effectively than to go to the source—the testers and trainers themselves. And the conference organizers did just that by offering two break-out sessions that asked testers and trainers participating in the conference two important questions. What can we, the testers, do for the trainers? What can we, the trainers do for the testers?

Q

How can we the testers, help the trainers?

A

The tester group facilitated by John Walsh, Assistant Director, Collective Training, Office of the Under Secretary of Defense (Readiness), determined that interaction between testers and trainers could be improved by involving testers in training events. These testers should be trained before testing begins and feedback used. The group also expressed that interaction between testers and trainers would be improved by getting equipment to the units sooner.

In addition, testers also wanted to see improvements in the area of data reuse, and cited examples of Advanced Warfighting Experiments, and Aegis. They also identified developmental testing, operational testing, training exercises, and educational institutions as prominent sources offering data gathering opportunities.

The group also suggested that stimulators for testing and training (T&T) usage be exploited and incentive funds be established for T&T projects.

Q

How can we, the trainers help the testers?

A

The trainer group facilitated by Dr. Paul Deitz, Technical Director, U.S. Army Materiel Systems Analysis Activity, facilitated the session. Discussing the unique perspective of the trainer’s position, the

group noted that they fall in between the systems engineer and the warfighter. This gives them the ability to evaluate and critique the "heart of the envelope."

Moreover, they believed that improvements in the following areas would be helpful to the testers.

- Better crossover between training and testing personnel, parallel integration at the technical/teacher level and test/training command level.
- Piggy-back tests on training evolution.
- Opportunities for distributed collaboration among unique facilities and in solving problems associated with federal release of spectral bandwidth.

Additional areas needing improvement include the development of common architecture for the instrumentation of testing and training; separation of the essence from the implementation for runtime, reconstruction, and differing needs; validation by the "Warfighter-in-the-Loop;" and improvements in digital data collection (embedded meta-data for ex-post facto reconstruction and multiple end users).

Industry Perspective

The conference audience also heard the views of industry presented by corporate leaders from the Economic Development Council of Mid-Florida, Northrop Grumman, Logicon Corporation, Science Applications International Corporation (SAIC), and the University of Central Florida.

Allied Nations

Various allied nations are making progress in implementing cooperation between testing and training communities. The conference audience heard from Australia, Canada, and the United Kingdom on their efforts and opportunities for partnering with these nations.

Resounding Themes – Small Steps Toward Implementation

After the presentations, briefings, and brainstorming, the task of getting these collaborated suggestions from paper to implementation becomes the real challenge. The answer may be found by looking at the recurring themes that surfaced throughout the conference.

The most prominent themes among the keynote speakers, panelists, and participants included the need for earlier involvement of testers in the development of weapons systems; earlier introduction of simulation into the process; increased collaboration to improve data collection procedures so that testers and trainers can both benefit from documented lessons learned; bringing realistic scenarios to both testing and training; and more concentration on finding ways to leverage technology and research capabilities among government facilities, industry, and academia.

With each theme, every suggestion, and the countless discussions emerging from the conference, ultimately comes the framework for the successful formulation of a "21st Century Partnership." And with this partnership lies the potential for testers and trainers to take one small step toward implementation of these ideas, along the path that leads these two communities to fulfilling their most important priority of all – to test weapons systems and conduct training *the way the 21st century warfighter fights*.

GOVERNMENT-WIDE ACQUISITION MANAGEMENT INTERN PROGRAM

Deidre Lee, Administrator, Office of Federal Procurement Policy, announced the launching of the Government-wide Acquisition Management Intern Program in October 1999. Sponsored by the U.S. Department of the Interior (DOI), the first class of interns is scheduled to arrive in June 2000. "I appreciate the efforts of the Procurement Executive Council's Acquisition Workforce Subcommittee in pulling this together," said Lee. "Certainly, we want to take advantage of this opportunity. I look forward to wide participation by departments and agencies as we launch the first class of the Government-wide Acquisition Management Intern Program."

A generic Memorandum of Understanding that expresses the terms of the program; a generic Reimbursable Support Agreement that exchanges funds; a program description; and an itemized projected budget can be downloaded from the ARNet Web site at <http://www.arnet.gov/Updates/gwamip.html>.

For further information on the program, contact:

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