



SHOWDAILY

TUESDAY, NOVEMBER 27, 2007

World's Largest Simulator Born in Orlando

The *USS Trayer*, locked forever inside a steel-framed building just outside of Chicago, Illinois, is a brand-new US Navy ship that will never see the ocean.

But for the 45,000 Navy recruits who will receive their training on the vessel each year, the *USS Trayer* is destined to leave an indelible mark on them as they are deployed on sea-going assignments around the world.

The world's largest military training simulator, the 210-foot-long *USS Trayer* had its inception at Orlando's Naval Air Warfare Center Training Systems Division (NAWC TSD), headquartered in the city's Central Florida Research Park. NAWC TSD is the Navy's principal center for modeling, simulation, and training systems technologies. The center provides training systems development and acquisition for a broad spectrum of military programs, including aircraft, surface ships, submarines, and a wide variety of other specialized requirements.

The *USS Trayer*, which went into full training operations this past summer, is notable for its extensive use of special effects often used by Orlando's theme park industry and is heralded as a pinnacle achievement of the cooperation between military and private industry training simulation developers.

Developed under the project name of Battle Stations 21, the *USS Trayer* is an \$83 million, full-size replica of a modern guided-missile destroyer. Built for the Navy's Recruit Training Command at Great Lakes, Illinois, the *USS Trayer* is housed inside its own 157,000 square-foot building. The ship replica is tied to a "pier"

and "floats" in 90,000 gallons of water.

When young Sailors step onto the *USS Trayer*, training system operators, using sophisticated computer programs and "immersion" special effects simulate a real ocean voyage, complete with shipboard motions, ocean sounds, engine noise, and emergency situations.

"Immersion" special effects are often used at Disney World and Universal Studios, and use smoke, heat, fire, water, motion, and sound to make an experience more realistic. For instance, a ride at Disney that takes you "back in time" to see a prehistoric world complete with jungles and dinosaurs will use heat, steam, darkness, special lighting effects, recorded animal and reptile noises, and the smell of sulfur to make the visitor feel like he has really traveled back in time.

In a similar way, the *USS Trayer* is equipped to prepare sailors for a wide variety of conditions that they may encounter on a ship, including explosions, fire, and flooding of certain parts of the vessel. By using the same sort of "immersion" special effects, sailors are made to feel as though, for instance, the ship has suffered an explosion that has damaged its outer hull. Sailors will feel a giant jolt, and the ship will rumble, shake, and vibrate. Real water will start to flood parts of the ship, and real flames will shoot out of walls and equipment.

All the while, audio speakers will blare the sounds associated with such an event, including explosions, yelled orders, "injured" Sailors screaming in pain, and sirens, horns, and mechanical noises.

(See Largest Simulator, p3)

<p>INTERNATIONAL ALLIANCE PAGE 6</p>	<p>CONGRESS PAGE 12</p>	<p>ACCENT TRAINING PAGE 16</p>
---	------------------------------------	---



**THE TRAINING IS SIMULATED.
THE READINESS IS REAL.**

L-3 LINK. NO ONE IS BETTER PREPARED TO PREPARE THE WARFIGHTER.

As the pioneer in pilot training, L-3 Link is the world's most comprehensive resource for efficient, effective training solutions. Today we supply complete fixed wing, rotary wing, unmanned aircraft and crew mission trainers around the world. L-3's expertise extends to a full range of training services and solutions which we never stop improving so that you never stop improving. To see how L-3 Link is leading the way in training today's mission-ready warfighters go to Link.com



LEADING.

L³ LINK

C³ISR > GOVERNMENT SERVICES > AM&M > **SPECIALIZED PRODUCTS**

L-3com.com

Largest Simulator from page 1

Using their training, Sailors are expected to respond to a variety of emergency situations to save both their shipmates and their ship.

While using special effects first seen in the theme park industry, military developers are quick to point out that the *USS Trayer* was not built for fun, but to train the warfighter to survive and win any battle on the sea. By putting naval recruits through 17 different battle and emergency scenarios on the *USS Trayer*, their ability to cope with such real-world conditions greatly improves.

Navy CDR Kirk Lippold, the captain of the *USS Cole* when it was attacked in Yemen in 2000, said after seeing the *USS Trayer*: "The training provided by Battle Stations 21 will give them those few precious seconds they will need to save their ship and shipmates. While dramatic in its visual appearance and realism, Battle Stations 21 accurately depicts the types of damage that can occur to a ship from an explo-

Cover photo: US Navy

sion. The importance of exposing Sailors to that type of environment will give them the confidence to know they can respond to it and will be critical to their ability to sustain themselves in battle."

Overseen by NAWC TSD's Cross-Warfare Program, partners in the development and fielding of the *USS Trayer* included the Naval Facilities Engineering Command, the Recruit Training Command, and the Naval Service Training Command. The design-and-build contract for the *USS Trayer* was awarded to McHugh Training & Simulation, a division of Chicago's James McHugh Construction. More than 60 subcontractors across the country also played critical roles in the successful development of the system.

For all I/ITSEC participants, the *USS Trayer* stands as a prime example of the benefits gained from the close cooperation between military and private industry training system developers.

TODAY'S CONFERENCE

HIGHLIGHTS

Tuesday November 27

SPECIAL EVENTS

- 0830-1000 Opening Ceremonies (*Room W320*)
- 1030-1230 General / Flag Officer Panel (*Room W320*)
- 1300-1500 ETSA Workshops (*Room 224 CD*)
- 1400-1500 Warfighters' Corner (*Booth 3127*)
- 1400-1500 Transforming the Future through Medical Simulation (*Room W414 CD*)
- 1500-1515 Joint Training Transformation Special Event
- 1600-1730 Emerging Needs for Medical Simulation (*Room W414 AB*)

BRIEFINGS

- 1300 Boeing Program Media Roundtable (*Booth 1639*)
- 1330-1400 Metro Orlando Economic Development Commission – media opportunity with Orlando area M&S experts from government, industry and academia (*Media Room / D-1*)
- 1330 United States Joint Forces Command media-only viewing of the Joint Training Transformation Special Event (*Booth 1909*)
- 1500-1600 Microsoft media briefing (*Booth 4307*)

EXHIBIT HALL HOURS

1200–1800

SHOWDAILY

The I/ITSEC Show Daily is published by the National Training and Simulation Association.

Publisher

Fred Lewis, RADM, USN (Ret)
flewis@ndia.org

Editors

John S. Williams
jwilliams@ndia.org

Scott Gourley

scott_r_gourley@yahoo.com

Photography

Mitch Coffey
mcoffey@jmkassociates.com

Associate Editors

Ian Kemp
iandavidkemp@googlemail.com

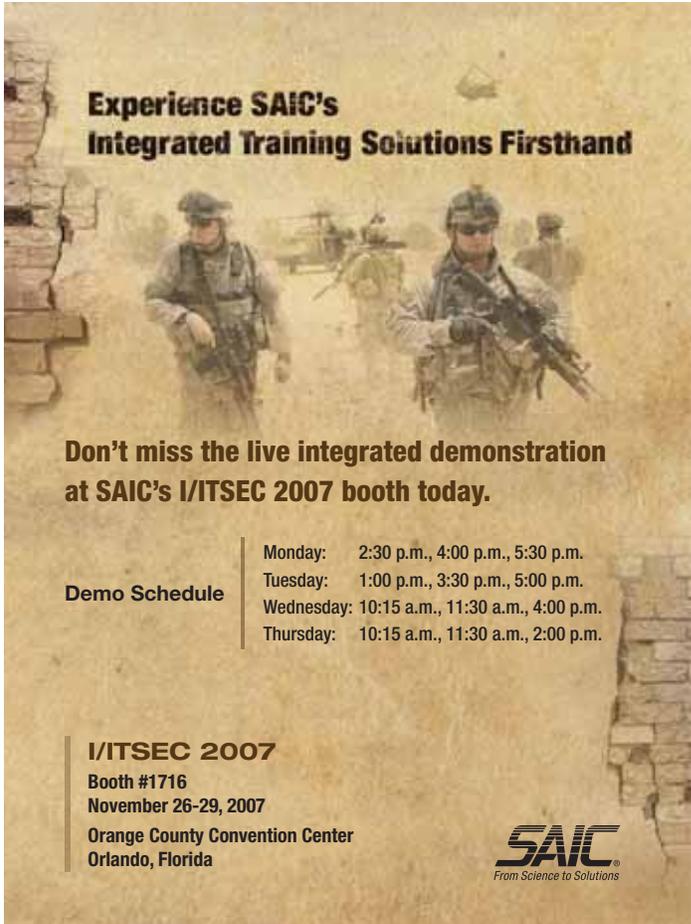
Darren Lake

darren@drlake.co.uk

Advertising

Dino Pignotti
dpignotti@ndia.org

Print production managed
by Tradeshow Publications, LLC



**Experience SAIC's
Integrated Training Solutions Firsthand**

**Don't miss the live integrated demonstration
at SAIC's I/ITSEC 2007 booth today.**

Demo Schedule	Monday:	2:30 p.m., 4:00 p.m., 5:30 p.m.
	Tuesday:	1:00 p.m., 3:30 p.m., 5:00 p.m.
	Wednesday:	10:15 a.m., 11:30 a.m., 4:00 p.m.
	Thursday:	10:15 a.m., 11:30 a.m., 2:00 p.m.

I/ITSEC 2007
Booth #1716
November 26-29, 2007
Orange County Convention Center
Orlando, Florida



CTC User Forum Discusses Needs

Yesterday, Cubic (Booth 2601) sponsored a Combat Training Center (CTC) User Forum for the ABCA Nations (America, Britain, Canada, Australia) to share experiences on current capabilities and discuss future enhancements and improvements. The central theme of the discussions was 'meeting the force readiness challenge for the contemporary operating environment (COE) in a joint and multi-national context.' Cubic's interest in the theme is driven by its provision of Combat Training Center (CTC) systems and associated operations and support to the ABCA nations.

Invited guests included over 35 military officers and trainers from the four countries who are directly involved in the procurement of training systems or the delivery of readiness.

To provide a framework for discussion, briefings on the CTCs used by the ABCA Nations were provided by the Cubic site managers who directly support customers who are responsible for the delivery of effective collective training. These included the Alaska Training Range Evolution Plan system used by US forces, the Area Weapons Effect Simulation (AWES) system used by the British Army, the Canadian Weapons Effects Simulation (CWES) system and the Australian Combat Training Capability-Live Simulation, Range Instrumentation and Information System.

The session concluded with an open discussion centered on how Cubic is filling gaps in training capability for the COE - notably training in urban and complex terrain, counter IED training, and joint and

combined training. Positive views were expressed by US and Australian officers on the value gained from their joint and combined training on Exercise Talisman Sabre in June, the countries' biennial, bilateral exercise that this year focussed on a Combined Task Force (CTF) in a short warning, power projection, forcible entry scenario.

Participants also discussed the elements of air/land integration implemented or demonstrated with AWES and CWES by the UK and Canada. These discussions highlighted effective integration of Live, Virtual, and Constructive simulations to better enhance operational readiness.

Ray Barker, Senior Vice President and General Manager of Cubic's Readiness Systems Business Unit, thanked the attendees for their participation and open exchange of ideas. "The forum helped to facilitate a better understanding of common training needs and potential solutions that may be applied to the emerging challenges for each of the nations," he told the Show Daily.



Australian soldiers attack a village during Talisman Sabre 2007.



nGRAIN[®]

Partnering to deliver 3D performance support solutions for training, maintenance, and operation of complex equipment



NGRAIN partners with leading system integrators, resellers, and technology providers.

► Visit NGRAIN Booth #1439 or www.ngrain.com/partner

PRESAGIS

PRE-LIVE THE FUTURE



WELCOME TO A NEW ERA IN MODELING & SIMULATION

Image courtesy of BAE Systems

Presagis is transforming the industry by offering a comprehensive portfolio of powerful COTS-based software solutions. With core technology built on open standards, our solutions will help you meet the rigorous demands of even the most advanced modeling & simulation applications.

SEE FOR YOURSELF AT [I/ITSEC 2007](#)
OR ON-LINE AT WWW.PRESAGIS.COM

Launch Partners:

Microsoft



Renewed Emphasis on International Cooperation

The NTSA and some of the other national simulation and training organizations around the globe are renewing their collaborative efforts at this year's event. "I/ITSEC is truly an international enterprise. If you look at the number of international delegates that we have visiting our event every year and the number of countries that are involved and interested in these technologies, there has been a steady growth in those delegate numbers," explains NTSA president Fred Lewis (RADM US Navy ret).

International collaboration between the NTSA, the European Training and Simulation Association (ETSA, Booth 3229), the Korea Training Systems Association and the Simulation Industry Association of Australia is focused through the International Training and Simulation Alliance (ITSA).

"We wanted to develop an international partnership without being perceived as a threat. We want them to be part of an alliance where our only interest is pushing the state of the art in technology forward and being of greater service to our constituents. So in order to make that happen we began what we call the International Simulation and Training Alliance," he adds.

"That alliance is formed of a constellation of like-minded organizations across the globe, including NTSA. The idea is that there would be communication between those satellites and there have been encouraging signs of development. However, those involved want to give the alliance new vigour. We have seen that we need a renewed emphasis on interaction and we will be pushing that

more strongly than we have been able to do in the past and you are going to see that," says RADM Lewis.

The NTSA is going to be more aggressive in the sense of developing ITSA, but RADM Lewis is keen to emphasize that the NTSA is not looking to overreach its bounds in the international environment and is looking for collaboration opportunities rather than individual growth.

"I/ITSEC is truly an international enterprise. If you look at the number of international delegates that we have visiting our event every year and the number of countries that are involved and interested in these technologies, there has been a steady growth in those delegate numbers,"

Fortunately, the NTSA's view is echoed by the other organizations in the alliance. Richard Curtis, executive director of the ETSA, also emphasises the cooperative opportunities. "ETSA is growing and provides an increasing range of services to its members. Some on specifically European issues, but many, such as standards, have an international dimension. ITSA provides an excellent conduit for ETSA to work with other associations to promote best practice in training and simulation with an international dimension," he told the Show Daily.

He adds that RADM Lewis has been instrumental in developing the cooperation through ITSA and has been working closely with those in Europe with an interest in the area.

Through the alliance relationship ETSA is now trying to garner further support for the industry in Europe. The association now runs the conference program at ITEC, Europe's own training and simulation exhibition. In 2008 the event is being held from 10 to 12 June in Stockholm, Sweden and next year ETSA will also be producing the official catalogue for the event.

Today, at I/ITSEC from 1330 to 1500 ETSA will also be running two workshops (Room 224 C/D) titled 'M&S Standards and Operability' and 'Standards & Accreditation for Training and Simulation'. "These workshops will be free to all European I/ITSEC attendees," said Curtis. "We are trying to catch up on the curve with areas like standards and accreditation where the US is ahead of us."

Alongside its involvement in ITEC, ETSA and ITSA have also negotiated a tie-in with the Defence Services Asia 2008 exhibition and conference in Kuala Lumpur.

During the event, which is being held from 21-24 April, the organization will be holding a training and simulation seminar. The one day seminar, which will be on 23 April, will cover the training, education and simulation issues for defence forces in Asia. The event will have wide reaching application and include international participation through speakers and sponsor and delegate opportunities.

Geospatial Services
Synthetic Terrains . GIS . Visualization Software
Visit Us in Booth #2200

**Geo-Specific High Fidelity Synthetic Terrains
for Mission Planning and Rehearsal,
Analysis, and SAF Simulation**

**Full GIS Integration, Complex
Building Features, and Open
Visualization Initiatives**

AEGIS
TECHNOLOGIES

Lightent
DIGITALGLOBE

www.AEGISTG.com

NORTHROP GRUMMAN

DEFINING THE FUTURE™

©2006 Northrop Grumman Corporation



**It's our job
not to let him down.**

Information is a lifeline, especially in battle. Northrop Grumman is the premier provider of trusted solutions to the U.S. Department of Defense and agencies throughout the government. From mission planning, training, modeling and simulation, to battle management and space systems support, Northrop Grumman is entrusted to assure information superiority at every level. Our technology solutions result in a more resourceful federal government that assists people, delivers services, improves operations and defends our country. At Northrop Grumman, we know that information touches lives. It can even save them. That's why America relies on Northrop Grumman.

www.northropgrumman.com

Lockheed Martin Develops Next-Generation Convoy Trainers

Lockheed Martin Simulation, Training & Support is developing a new generation of immersive convoy simulators for the US Marine Corps following the award of a \$52.5 million contract in October.



Lockheed Martin will build 10 Combat Convoy Simulator (CCS) systems at Camp Pendleton, CA; Camp Lejeune, NC; Twentynine Palms, CA; Kaneohe Bay, HI; Okinawa, Japan; and at several reserve training sites. Six simulator student stations representing four Humvee and two Medium Tactical Vehicle Replacements are housed in adjacent rooms in a single building allowing

entire units to train together in virtual convoys.

The CSS offers numerous improvements over previous convoy trainers:

Visual fidelity is enhanced by incorporating a modern, multi-threaded visual gaming image generator to provide textured, high-resolution, realistic visual detail.

The simulator's weapons are wireless and no longer tethered,

providing students more freedom to move around the vehicle and providing a more realistic weapon response and recoil.

During each training mission, vehicle commanders and a crew of up to five Marines in each vehicle will be presented with realistic terrain and threat environments and one or more training scenarios such as re-supply, patrol, logistics support, high-value target extraction, medical evacuation, call for close air support and call for fire.

"We have transformed our proven technology in an evolutionary way that meets the most urgent needs of the warfighter," said Jim Craig, vice president of ground, maritime & civil solutions. "Convoy operations are highly targeted by insurgents and continue to be a leading cause of casualties."

"The potential of this technology is unparalleled," Craig said. "We are able to adjust scenarios presented on the convoy trainers, allowing our customers to prepare for an ever-growing range of situations. Our platform is scaled to support capabilities that can be introduced as our military customers identify additional needs."

CCS builds on technology developed for the Virtual Combat Convoy Trainer (VCCT) used by the US Army, US Air Force and USMC as well as the Army's Close Combat Tactical Trainer - Reconfigurable Vehicle Simulator (CCTT RVS). More than 85,000 personnel from the three services have trained on the VCCT since its introduction in 2004.

You're on the edge.
Every decision counts.

All that stands between
you and the enemy is
skill and training...

**We're right there
for you. We won't
let you down.**

Simulation and Training

SOLUTION: UNITECH.

www.unitech1.com

Visit booth 3700 for demonstration times

YOU'LL FIND US THE WORLD LEADER IN TANKER FLIGHT SIMULATION

Thales delivers the training solutions for a wide range of tanking aircraft, including the KC-135, KC-10, Tristar, KE-3A, VC-10 and A330-MRTT.

With a strong presence in the US, and sector experience spanning more than 50 years, our reputation for providing state-of-the-art technical support for flight simulators, visual systems and flight training devices is second to none.

Thales is a registered US Department of Defence supplier and is a world leader in training and simulation technology.

When the time comes for a platform to be refuelled in the air, it's the training gained via Thales simulators that make all the difference to tanker crew skills and mission success.



Thales, the No.1 tanker simulator supplier to the USAF.

THALES

The world is safer with Thales

Microsoft Launches New Modeling Platform

Today at 1500, Microsoft (Booth 4307), a first time exhibitor at the event, will give attendees at I/ITSEC a taste of a new modeling and simulation software platform that the company has developed for the industry.

"It's the first time we have been at the show and we are pretty excited to be here," said Shawn Firminger, Studio Manager, ACES Studio, Microsoft Game Studios. Firminger, along with many others in the company, has been responsible for bringing Microsoft ESP to market.

According to the company, Microsoft ESP is a visual simulation platform providing a PC-based simulation engine, comprehensive set of tools, Application Programming Interfaces, and documentation to support code development, content integration and scenario-building capabilities along with an extensive base of world-content that can be tailored for simulations used in training, decision support and R&D modeling. The ESP platform—engine, tools, and content—are already used today in Microsoft Flight Simulator X, a popular entertainment platform for immersive simulation and visualization.

"What we are trying to do is make things more affordable and reduce the development time," Firminger told the Show Daily. Telling the story of Microsoft ESP will be three partners who have already used the software solution.

"We already have three industry players that have working simulations using our solution," said Ed McCahill, marketing manager, Microsoft ESP. The companies that will be there to talk about their

experiences are Acron Capability Engineering (Booth 3346), Adacell Systems (Booth 409), and SAIC (Booth 1716) who all have simulations built with Microsoft ESP on their booths.

"We've been planning for over a year and a half to bring this to market," said Firminger. He added that the companies that Microsoft had been working with had been able to use Microsoft ESP to bring their simulators together in the six to 12 month range.

One of the major benefits that Microsoft sees being part of its solution is the extensive modeling of the Earth that is available as part of the platform. "The software platform includes a visual simulation engine, tools for development and a model of the entire globe," McCahill states.

That Earth database, developed originally for the air environment, already includes accurate modeling of 24,000 airports. "It's a great solution", McCahill said, "and its entirely extensible."

Microsoft is also expected to announce that Northrop Grumman is to become the next partner to use Microsoft ESP. The company will use the system for its Joint Mission Planning System (JMPS). The company recently showcased the newest JMPS software at the international Mission Planning Users Conference in Orlando, FL.

WARFIGHTERS' CORNER

The Warfighters' Corner (Booth 3127), launched at I/ITSEC 2005, provides a forum for warfighters from each of the services to describe their recent operational experience in the Global War on Terrorism to representatives of the simulation and training industry.

Speaking at 1400-1500 Tuesday will be:

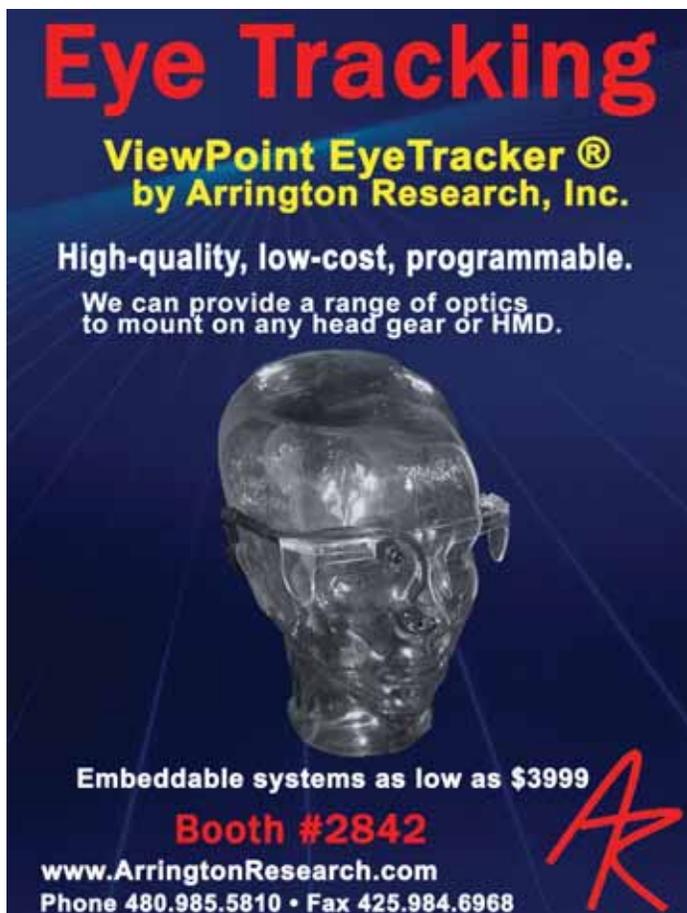
US Air Force Major Mike Branch and Senior Airman Ben Soltis who are both MQ-1 Predator Instructors with the 11th Reconnaissance Squadron at Nellis AFB, NV. They will discuss the Predator's combat capabilities, its role in the GWOT and show actual video from operations in Iraq and Afghanistan.

US Army Captain Joe Evans deployed to Afghanistan in 2003 as a Battalion Team Chief for an Embedded Training Team of the Afghan National Army and subsequently deployed with the 1st Battalion, 32nd Infantry to Iraq from September 2003-September 2004. He then commanded first a headquarters company and then an infantry company of the 10th Mountain Division during a deployment to Afghanistan from March 2006 through June 2007.

US Marine Corps Captain Drew Harris is a logistician who will describe his experience of performing logistics operations in support of Operation Iraqi Freedom (OIF) from a consumer and intermediate level supply perspective.

US Navy Lieutenant James Clark deployed during OIF with SEAL Team TWO in April 2004 to conduct combat operations in Multi-National Division-North's area of operations. He planned, coordinated and conducted numerous Special Operations missions against terrorist cells.

US Army Sergeant Byron Main, who deployed three times with the 7th Transportation Battalion in support of OIF, will be the speaker at today's Meet the Warfighter (Booth 3901) at 1600.



Eye Tracking

ViewPoint EyeTracker®
by Arrington Research, Inc.

High-quality, low-cost, programmable.

We can provide a range of optics
to mount on any head gear or HMD.

Embeddable systems as low as \$3999

Booth #2842

www.ArringtonResearch.com
Phone 480.985.5810 • Fax 425.984.6968



AAI: DELIVERING INNOVATIVE TRAINING SOLUTIONS.



Skilled and well-trained personnel are the greatest strength of U.S. and allied military units.

AAI is a leader in providing the men and women of our armed forces with practical and innovative training solutions that prepare them to perform their missions at the highest levels.

We deliver critical skills training to combat system operators, maintainers, and warfighters on land, at sea, and in the air.

To learn more, e-mail monrad@aaicorp.com or phone 410-628-5240.



INNOVATION THAT WORKS.®

aaicorp.com

Congressional Caucus Outlines Further M&S Growth

Monday morning's special events included a presentation and exhibit visit by several members of the US Congress.

"We have a return engagement from the delegation from the Modeling and Simulation (M&S) Caucus from the Congress of the United States and a panel session with them, along with attendance throughout the event by some of the members and some of their staff," explained NTSA President Fred Lewis (RADM US Navy Ret). "They will be here the whole time and that is a real high point for us."

In his Monday morning welcome to the panel members, RADM Lewis highlighted the significance of H. Res. 487, which was passed by the US House of Representatives on 16 July 2007, which he dubbed "a watershed event for our industry."

The resolution was introduced by Congressman J. Randy Forbes as bipartisan legislation designed to formally recognize the contribution of M&S to the nation's economic prosperity and national security. Eight Members of the M&S Caucus: Congresspersons Mike Conaway, Jo Ann Davis, Tom Davis, Thelma Drake, Tom Feeney, Anthony "Ric" Keller, Solomon Ortiz, and Heather Wilson joined as original cosponsors of the legislation.

Congressman Forbes also led the I/ITSEC delegation, which included Congresspersons Feeney, Keller and Bobby Scott.

The four Caucus members began the day by outlining both individual and group visions for expanding the supporting technologies and national applications of M&S.

In terms of a group message, one key theme involved highlighting M&S as "a tool" that has been nurtured and developed in the defense arena, but can now be applied in new economic and domestic security arenas.

In terms of personal vision, for example, Congressman Forbes emphasized that "nothing can stop" the growth of M&S, but added his belief that "there are two things that can slow it down."

The first potential negative was what Forbes felt was the mistaken view of some that M&S is "a zero sum game" in which a contract awarded to one company reduced the available support to other companies. It was a belief that he strongly refuted.

In addition, he noted that another threat to the speed of M&S growth comes from a "lack of knowledge of what M&S can do and is doing."

Elaborating on that issue, he offered a take-away thought by challenging the industry to "push the envelope" by using the Congressional Resolution and its recognition of M&S as a critical national technology as a starting point for discussions with national policy makers.

As an example of expanded M&S applications, Congressman Forbes highlighted the importance of agriculture as the nation's most critical infrastructure, claiming that M&S should now be applied to the nation's food supply so that policy makers could look across a broad spectrum of future possibilities before making near term policy decisions.

Congressman Keller, who returned for his sixth I/ITSEC event, focused his comments on the underlying importance of education and a well educated workforce in maintaining national M&S capabilities.

Congressman Scott used the panel opportunity to call for the broader application of M&S technologies to areas like homeland security, disaster preparedness, road and tunnel infrastructure planning, and other applications that would directly benefit the public.

Characterizing the recent Congressional Resolution as "the first step," Congressman Scott said that the next step would be for Congress to provide the funding and support to expand M&S technology programs at the college and university level.

Congressman Feeney offered a historical parallel between President Eisenhower's commitment to the National Defense Highway System, with its resulting benefits to all Americans, and the new need for "an interoperable national M&S system to maintain our critical technology edge."

"We are seeing the spill off from that resolution in the form of educational opportunities that will be developed through legislation by the Congress," RADM Lewis told the Show Daily. "That's not been approved yet, but it looks like there is a very good chance of having some ground breaking legislation approved that would offer grants, on a national scale, for the study of modeling and simulation technologies. This would be a major development for us and it falls right in line with the newly adopted STEM (science, technology, engineering and mathematics) initiative."



Congressman J. Randy Forbes

What does your training future hold?

with ESP...

Exceptional engineering support services
Training that is ready, responsive and flexible
Innovative efficiencies, engineered to optimize training

FOR THE WARFIGHTER

ESP, Inc.
Booth # 3117
www.espinc1.com

The advertisement features a central graphic of a blue, multi-faceted, crystalline structure. This structure is overlaid on a collage of images: a fighter jet in flight, a person in a green flight suit, a close-up of a person's face, and a military aircraft on the ground. The overall theme is military training and simulation.



Because Training Matters

Weapons alone cannot defeat the enemy. That is why military units around the world are turning to training systems that give their troops the edge. At Lockheed Martin we understand the importance of training because we know what's at stake for today's warfighter. We develop realistic training systems to maximize human performance, helping our troops make life and death decisions. Training gives warfighters the advantage they need before entering the battlefield. It matters.

PEO STRI Develops Training Devices to Save Lives

The use of combat body armor, the improved training received by every US Army warfighter, the rapid evacuation of casualties to field hospitals and the skill of military surgical teams have combined to reduce the 'died of wounds' rate for Operation Iraqi Freedom to an historic low of 11%.

PEO STRI- Product Manager Combined Arms Tactical Trainers (PM CATT) is demonstrating two projects at Booth 138 intended to save lives and reduce casualties.

In response to an Operational Needs Statement, PM CATT, with engineering design and prototype support from the Tank, Automotive Research, Development and Engineering Center, rapidly developed the High Mobility Multipurpose Wheeled Vehicle Egress Assistance Trainer (HEAT) to prepare soldiers for the effects of being in a M1114 Uparmored Humvee rollover and to practice drills to enable them to react properly to such a situation. As the lightest armored tactical vehicle used in Iraq, the M1114 is more prone to roll over as a result of enemy action such as an improvised explosive device or in an accident than heavier vehicles. The additional weight of armor, particularly the latest Frag 5 standard, makes it particularly difficult to open the doors when the vehi-



The HMMWV Egress Assistance Trainer teaches soldiers how to react when a Humvee rolls over.

cle is tipped over.

There are two critical angles, 25 degrees and 30 degrees, that soldiers are taught to recognize in the HEAT. At 25 degrees a trained driver can prevent the vehicle from rolling over. "Thirty degrees is the critical angle where the vehicle is going over," Lieutenant Colonel Scott Pulford, Product Manager for Ground Combat Tactical Trainers, explained to the Show Daily. "Soldiers need to brace. The gunner needs to be brought inside the vehicle. We want the crew to know what it feels like, the orientation, because at that point the vehicle is going over."

The Army's Red River Army Depot, TX, manufactures the trainer using cabs from Humvees that have been so badly damaged that it is not economical to repair them. The cabs are mounted on a purpose-designed frame which is controlled by a single operator. Five soldiers can ride in the trainer including the gunner; rubber rifles, ammunition cans and water bottles are loaded inside the cab. "Anything that is unsecured becomes a projectile," explained LTC Pulford. "We are trying to remind soldiers how important a vehicle's load plan is." A full 180 degree rollover can be achieved in nine seconds but the speed of rollover was not a critical factor in the design of the HEAT. Egress can be practised with the cab tipped on its side at a 90 degree angle or on its roof at a full 180 degrees. "There is nothing easy about this," LTC Pulford stressed. Internal cameras enable an after action review to be conducted.

PM CATT has ordered 53 HEAT trainers of which 30 are now fielded in CONUS, Germany and Italy with the remainder scheduled for fielding by next February. A similar system has been produced by the Army Materiel Command's forward repair facilities to support training in Afghanistan, Kuwait and Iraq. LTC Pulford said a requirement is now being staffed for a further 150 trainers and that the Red River Army Depot is prepared to produce these within a calendar year.

In the demonstration at I/ITSEC, a weighted mannequin is used so that soldiers can demonstrate casualty extraction and move the casualty to a demonstration of the training provided to warfighters



ITEC
2008
DEFENCE • TRAINING • SIMULATION • EDUCATION

10-12 June 2008
Stockholmsmässan
Stockholm, Sweden
www.itec.co.uk

The only Conference and Exhibition outside the USA, dedicated to Defence Training, Education and Simulation

Why Exhibit?

- ITEC will be taking place in Sweden for the first time
- Sweden is the centre for the major PFP training and simulation exercise – Exercise Viking 2008
- ITEC delivers training and simulation senior officials and procurement officers from the international military and defence industry
- Network in a business environment with existing and potential clients

If you would like to register your interest in ITEC 2008, please visit the ITEC website at: www.itec.co.uk/enquiry or call: +44 (0)208 910 7048

Organised By:



National Training & Simulation Association, USA

Conference Managers:



ETSA



at the Army's Medical Simulation Training Centers (MTSCs). The scenario at the PM CATT booth demonstrates how various training systems developed independently can be linked to provide more realistic and cost effective training. "We never designed HEAT to be part of the MTSC but I do believe as we see MTSC requirements continue to evolve MTSC may have its own dedicated HEAT trainer," said LTC Pulford.

The MTSC concept was developed to focus on the treatment which warfighters provide in the 'platinum 10 minutes' immediately after their buddies are wounded. The main emphasis is upon hemorrhage control, airway control and the treatment of tension pneumothorax using the Virtual Patient System which includes a Bleed Breath Mannequin (BBM), which bleeds, breaths, has a pulse and a voice thanks to a microphone linked to the operator station, and Part Task Trainers. The modular design of the BBM enables a wide variety of wounds to be replicated including amputations caused by bomb blasts. When multiple BBMs are used soldiers learn how to triage and then treat casualties using the Combat Application Tourniquet, the Improved First Aid Kit and other life-saving devices as soon as they are fielded. "The Army has learned a lot over the past two years about the criticality of this training enabler," said LTC Pulford.

PM CATT is standardizing training aids for the Combat Advanced Skills Training (CMAST) and Combat Life-Saver (CLS) training at the 18 MSTC sites at CONUS and OCONUS locations, a site in theatre and a deployable suite for available for contingencies. LTC Pulford

said the requirement is still being developed for how many additional MTSCs are needed and where these should be located.

Future enhancements to the MTSC include the introduction of the Stand Alone Patient Simulator (SAPS) and the Medical Training Evaluation and Review System (MeTER). The SAPS, developed by the Research, Development and Engineering Command's Simulation and Training Technology Center, is a rugged, full body patient simulator that is physiologically based and completely wireless, enabling Soldiers to move casualties and truly train as they fight.



The Bleed Breath Mannequin enables wounds to be realistically simulated.



© 2007 Rockwell Collins, Inc. All rights reserved.

Prepare yourself. Rockwell Collins next-generation helmet-mounted display simulators are as close to reality as you can get. Our complete system features high resolution and a wide field of view – totally immersing aviators in the experience and helping them succeed in real-life situations. Advanced "Clip and Go" technology further enhances versatility and ease of use, yielding more efficient and effective training. 760.438.9255

Visit us at I/ITSEC booth #3401.

www.rockwellcollins.com/optronics

**Rockwell
Collins**

Building trust every day

Say Again All After...

"The goal of our programs is never having to say or hear 'What,'" observes Judy Ravin, President of the Accent Reduction Institute (ARI, Booth 644). "That's what we do."

As first time exhibitors at I/ITSEC, ARI is introducing a new kind of curriculum to the world of training.

Based on the proprietary Ravin Method, the company's training programs assist individuals in the pronunciation techniques required to speak and understand clear communications.

The training products are delivered through a variety of methods, from CD-ROMs to online classes.

ARI's clients include other I/ITSEC exhibitors like Lockheed Martin (Booth 1938 & 1139) and Boeing (Booth1639) as well as coalition partners and homeland security organizations.

"But we're not industry specific," Ravin notes, adding that the company also provides training to non-native English speakers around the globe at Fortune 100 companies, universities, as well as to federal and state agencies and their contractors.

Emphasizing the critical importance of clear communications in emergency situations, Ravin explains that the situation is much more complicated when combined with background noises like vehicle movement or weapons firing.

"English has 15 vowel sounds while most languages have between five and eight," she says, noting that those five to eight common vowel sounds do not include the "a" used in both "can" and "can't."

"We are changing the motor memory of the speech apparatus

and the auditory apparatus so that people can understand each other seamlessly," she adds.

Ravin's company includes instructors who have all taught accent reduction on the university level as well as software developers.

"Our goal is to get accent reduction training accomplished as quickly and cheaply as possible," she says. "We now have it to the point where the instruction can be completed in 15-16 hours."

In addition to teaching people how to master English accents, the company has also developed another proprietary program called "Tuning Your Ear to Accents". This second program teaches English

"The goal of our programs is never having to say or hear 'What,'"

speakers how to quickly understand heavily accented speech patterns of the foreign nationals with whom they work and serve.

"If we're going to work with foreign nationals we need to teach people the sound substitutions for commonly mispronounced words," Ravin says.

"In most cases it's not about getting rid of an accent," she concludes. "Whether working with American or foreign nationals, our mission is to help people maintain their unique cultural identity while removing language barriers."



SIMTV.org



Now Broadcasting

The New Simulation and Training Internet Television Network

Created by the National Training and Simulation Association (NTSA) to bring you online video about your industry and to showcase the full capabilities of modeling and simulation technology.

Discover this new and exciting virtual world and be sure to tell us what you think. For information about getting your company video on the SIMTV network, contact **Debbie Dyson at 703-247-9480 or ddyson@ndia.org.**

Training Military Professionals for Safety and Proficiency

Innovation With One Purpose: Safety



FlightSafety's integrated military training combines highly advanced technologies with proven training systems, all with the goal of ensuring safe, proficient pilots. As the world's leading aviation training company, we have more than 56 years of safety training experience, including more than 40 years training members of all branches of the military.

Military aviation professionals rely on our mission-critical training programs and FlightSafety-built training devices. Our training devices cover the range from fixed- and rotary-wing full-mission simulators to cargo-load, weapons-systems and part-task trainers. Our new and innovative products and services further serve to make us a prominent member of the team that supports the U.S. Army's Flight School XXI, which includes the world's largest simulator training facility. FlightSafety was the first to offer electric motion and control loading simulators. To date we've designed, manufactured and installed more than 25 all-electric, full flight simulators to support military training. Our advanced technology includes the VITAL X PC-IG visual system for nonstop virtual flight and mission training between any points on the globe, accurately presented in lifelike detail.

Mobile Combat Tactics Trainer

FlightSafety's new transportable/deployable, PC-based training system combines graphical flight simulation, touch-screen technology and high-fidelity control loading for an easy-to-operate field trainer. Supporting all levels of training – individual, crew and collective – these trainers can be linked with similar and other devices for mission rehearsal to facilitate both Intra-service and Joint operations.

Constant Mission Readiness

We are devoted to staying on the leading edge of advanced training technology, but we understand that technology is simply a means to deliver a well-trained, fully qualified military aviator. FlightSafety remains the top choice for military professionals looking for the best possible training and the security of being fully prepared for duty.

For more information on military training, please contact John Marino, Vice President, Defense Training Systems, at 703.414.5500.



NEWS IN BRIEF

AgustaWestland Selects Presagis Software for Helicopter Simulation

AgustaWestland has selected the Presagis (Booth 2301) STAGE Scenario to drive the interactive simulation capabilities of its new helicopter demonstrator.

The demonstrator, which will be showcased by AgustaWestland (Booth 915) at I/ITSEC, combines AgustaWestland's two simulators used to support the development of the Future Lynx helicopter for the British Army and Royal Navy, and the AW101 helicopter which has been selected by the armed forces of seven countries including the US Marine Corps, under the designation VH-71A Kestrel, for the Marine One Presidential transport role.

Vcom3D Adds Afghan Languages to Vcommunicator

Vcom3D, (Booth 523) has added the Afghan languages of Pashto and Dari to its existing roster of available content for the Vcommunicator Mobile LC. The US Army's 101st Airborne Division tested the Vcommunicator Mobile with the additional languages at the Joint Readiness Training Center at Fort Polk, LA during October 2007. Vcommunicator Mobile LC is an iPod-based tool which provides training in local dialects and culture

during downtime as well as acting as a one-way translation tool during operations.

Barco Launches New Projector

Belgian visual systems manufacturer Barco has announced the launch of a new ten megapixel projector to the market. The LX-5 is the first native resolution projector of 10 million pixels and features a high dynamic contrast range of 10,000:1. According to the company, the projector pushes new, revolutionary liquid crystal on silicon (LCoS) technology to its limits by maximizing its capabilities to generate images with extreme pixel density. The LCoS optimization of the system allows the LX-5 to project true, realistic black levels.

Quantum3D Announce AV-8B Selection

Quantum3D announced yesterday that Indra Systems has selected its Independence IDX 4000 ER image generator as a critical component of Indra's upgrade of the US Marine Corps AV-8B Radar Night Attack Weapons System Trainers at MCAS Cherry Point and MCAS Yuma. The upgraded training devices will support training for all AV-8B missions, incorporating high-fidelity simulation of the entire sensor suite deployed on the all-weather AV-8B aircraft, and will operate in both stand-alone and networked environments.

Apply Now for M&S Professional Certification!



The distinction of a true M&S professional.

Attain the recognition you deserve for your expertise in Modeling & Simulation by becoming a CMSP (Certified Modeling & Simulation Professional). Many simulation industry professionals have already attained certification, and the designation is set to become the industry standard in the years ahead.

- Demonstrate commitment to your career
- Gain recognition from your peers

VISIT www.simprofessional.org FOR MORE INFORMATION



NTSA Modeling & Simulation Awards

Earn recognition for your company!

Showcase your innovative project!

Each year, the National Training and Simulation Association presents awards for outstanding achievement in the development or application of models and simulation.

Awards are given in the following categories: Training, Analysis, Acquisition, Cross-Function (multiple uses), and Individual/Lifetime Achievement.

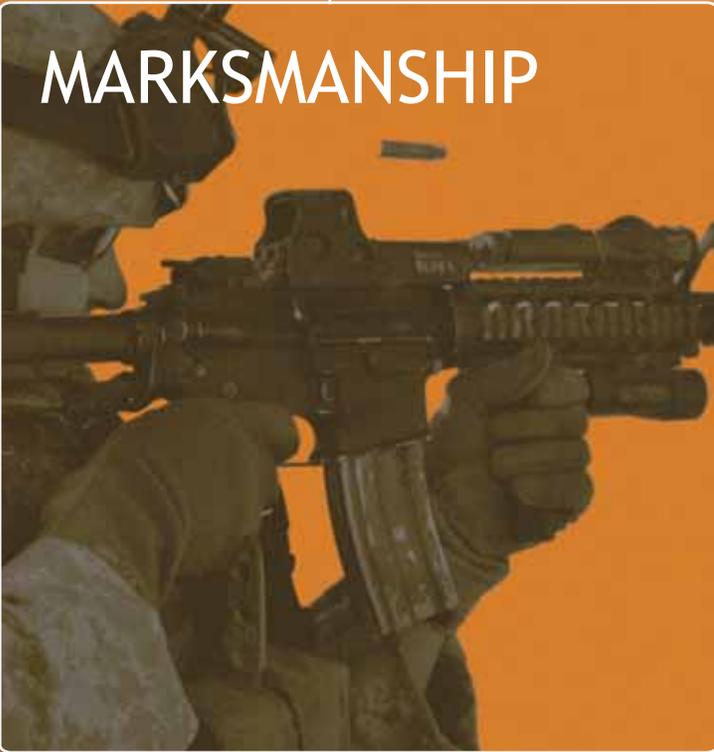
Nominations are now being accepted for the 2007 NTSA M&S Awards. Please note that nominations entered here must be for Non-DoD employees or teams (doing work in support of DoD is fine).

Please visit www.trainingsystems.org/nomform.cfm for more information and to submit your nomination.

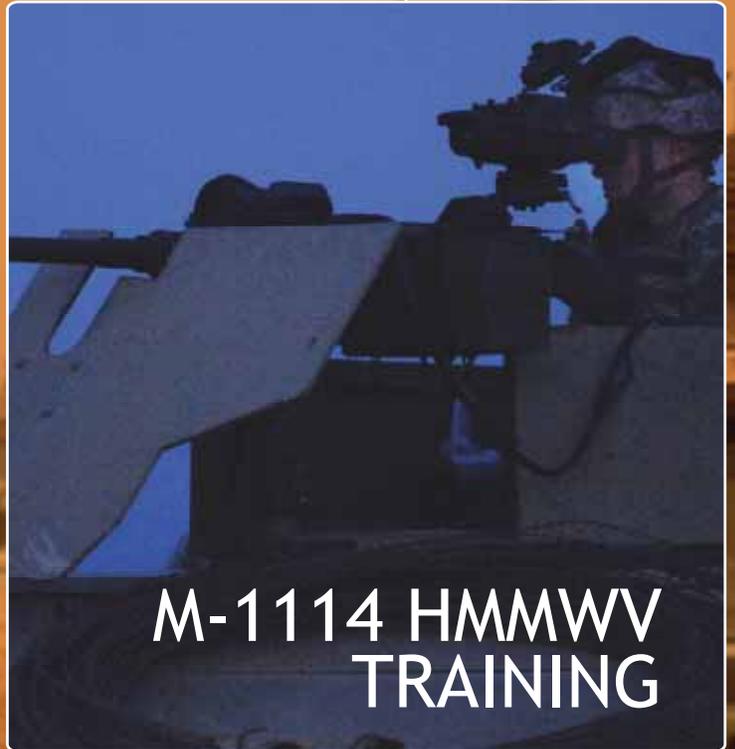
Nomination deadline is January 15, 2008.

Two ways to train.

MARKSMANSHIP



M-1114 HMMWV TRAINING



Experience is crucial in preparing military forces for combat. Cutting edge laser marksmanship and driver simulation training can provide that experience in a realistic, immersive and challenging training environment that prepares troops before deployment.

MPRI. Competent. Dedicated. Experienced. Versatile. Respected around the globe.

Photos Courtesy of U.S. Army

Only one way to be prepared.



The CAE-developed Common Environment/ Common Database (CE/CDB) is in-service with the United States Special Operations Command. USSOCOM now has a simulation database architecture that supports rapid, correlated database generation designed to significantly enhance mission rehearsal speed and capabilities. The CE/CDB is a perfect example of CAE's innovation and technology leadership, all aimed at helping our customers achieve mission readiness and stay one step ahead.

Come visit our booth (#2224) at I/ITSEC 2007 to see a demonstration of the CE/CDB.



CE/CDB image



MH-47G simulator



CAE Medallion™ visual

AM073a