

NTSA & I/ITSEC Newsletter

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Virginia Beach, VA

[Simulation & Training Community Forum \(STCF\)](#)

May 10, 2016
Dayton, OH

[ITEC 2016](#)

May 17-19, 2016
ExCel
London, UK

[TSIS \(Training and Simulation Industry Symposium\) 2016](#)

June 15-16, 2016
Orlando, FL

Capitol Hill Modeling & Simulation Expo
Rayburn House Office Building (Foyer)
July 7, 2016
Washington, D.C.



Certified Modeling and
Simulation Professional
THE DISTINCTION OF A TRUE M&S PROFESSIONAL

EARNING THE CMSP DESIGNATION WILL:

- Demonstrate expertise in the field of M&S to your employer and the larger M&S community
- Provide opportunities for professional advancement

Requirements include 3-8 years of work experience (depending on level of highest collegiate degree), 3 professional letters of reference, and successful completion of an online examination.

To learn more about the requirements, the CMSP exam, and the applications process, please visit

WWW.SIMPROFESSIONAL.ORG



Don't Miss all the Interesting Videos
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HEADLINES FROM THE MODELING,
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Important Events for Modeling & Simulation Community of Practice - March 9-10, 2016, Chesapeake, VA

March 9, 2016 – 2016 Modeling & Simulation Leadership Summit

March 10, 2016 – 2016 National Modeling & Simulation Coalition (NMSC) Annual Meeting

These important annual M&S events will both be held at the Marriott Chesapeake in Chesapeake, VA.

- The **2016 Modeling & Simulation Leadership Summit** is sponsored by the National Training and Simulation Association (NTSA) in support of the Congressional Modeling and Simulation Caucus. The purpose of the event is to bring the M&S Community of Practice together to hear about and discuss issues facing the Modeling and Simulation industry, and to attempt to reach consensus on one or two specific, actionable initiatives for the Caucus to take for action. The event will feature:
 - Theme: Black Swan: Supporting National Priorities with Modeling & Simulation
 - Remarks from Congressman J. Randy Forbes and other members of the Congressional Modeling & Simulation Caucus
 - Keynote speaker(s)
 - Panel discussions featuring various Subject Matter Experts
 - Cities: Vulnerabilities and Challenges
 - Cyber Security and Terrorism: How Do We Prepare?
 - Interactive discussions on specific initiatives

Please note that a reception for attendees of both the M&S Leadership Summit and NMSC Annual Meeting will be held on the evening of March 9.

- The **National Modeling & Simulation Coalition (NMSC)** represents M&S across all domains and disciplines including healthcare, manufacturing, energy, transportation, education, homeland security, defense and others. The **2016 NMSC Annual Meeting** will focus on the theme of “Developing the M&S Workforce” in addition to the ongoing work of expanding the coalition and setting new goals and objectives. The event will feature:
 - Keynote Speaker (Invited): Ms. Elizabeth Baron,

Virtual Reality and Advanced Visualization
Technical Specialist, The Ford Motor Company –
“Remarkable Virtuality: Awesome Realism and
Amazingly Efficient Product Design”

- Medical Simulation Panel Discussion featuring:
 - Rosalyn Scott, M.D., M.S.H.A., Director, VA Healthcare System of Ohio’s Simulation Consortium
 - Paul Pribaz, Executive Director of Jump Innovation, Jump Trading Simulation & Education Center
 - Mats Johansson, President & CEO, EON Reality
 - Robert Amyot, M.D., President, CAE Healthcare
 - Pamela Boyers, Ph.D., Associate Vice Chancellor for iEXCEL, University of Nebraska Medical Center
- Briefings on recent and ongoing NMSC activities
- Breakout sessions on specific topics of interest:
 - Developing the M&S Workforce
 - NAICS codes for Modeling & Simulation
 - M&S Research Agenda

Registration is open. Please visit the event website (<http://www.trainingsystems.org/events/index.cfm>) to see detailed agendas, as well as information on lodging and registration.

A registration discount will be given to those attending both events.

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Full Roster of Special Events at MODSIM WORLD 2016

MODSIM World is a unique multi-disciplinary conference for the exchange of modeling and simulation knowledge, research and technology. We join theory and practice across industry, government and academia--providing for an open interchange of information, knowledge and technology.

This year, MODSIM World 2016 will take place April 26-28, 2016 at the Virginia Beach Convention Center in Virginia Beach, VA. The theme for this year's conference is “Empowering User Communities with Modeling and Simulation,” which reflects the importance of users and partners in the business model and the ability for modeling and simulation (M&S) to shape and influence each community.

Sure to attract local, national, and international attendance,

MODSIM World 2016 will address the state of M&S in the community domains of today, including: cyber, energy, healthcare, entrepreneurship, manufacturing, inter-modal transportation, defense, homeland security, and lifelong learning. Cross-cutting these domains are the enduring tracks of Training and Education, Analytics and Decision-Making, Science and Engineering and Visualization and Gamification.

In addition to thought provoking keynote speakers, panelists and collaborative events, MODSIM World 2016 is hosting a full schedule of paper presentations from experts around the entire M&S community, as well as special events geared towards bringing excitement and awareness to the conference format.

MODSIM World Special Events

Technology Showcase

MODSIM World 2016 will once again feature the Technology Showcase. This event allows attendees to learn about the latest technologies and tools being developed by M&S companies first hand. During the showcase, M&S industry leaders will speak to the audience about the technologies on display in their booths. The event allows attendees to experience the wide variety of M&S companies who participate annually in the MODSIM World conference, and to better understand the state of the art technology in the field. The event is also an excellent networking opportunity for vendors and attendees to connect over shared interest in the products on display.

The event format will feature individual, moderated, presentation and Q&A time for each participating industry. The moderator will then open the floor to attendee questions to further explore the products on display. After each company completes their presentation, the moderator will direct the audience to the next booth to continue the event. The Technology Showcase will occur on Wednesday April 27 on the show floor in front of each vendor's booth.

Entrepreneur Competition

The Entrepreneur Competition is a unique event to showcase innovative start-up ideas in modeling and simulation. Individuals, small teams, and small businesses compete for a cash prize awarded to the best new modeling and simulation-based product or service. Finalists from the preliminary competition will present their idea in front of a distinguished panel of judges and the live audience. All conference attendees are encouraged to view this event.

During the final round, the audience will have an opportunity to vote for their favorite idea by using electronic voting devices provided by Turning Technologies, LLC. The winner will be announced on Thursday April 28.

M&S Challenge Competition – sponsored by SimIS

MODSIM World 2016 will feature a new event - the Modeling and Simulation (M&S) Challenge Competition - where talented individuals can use the power of M&S to solve problems important

to their community, government, business or industry sector. Developers, analysts, and subject matter experts can all participate in this unique competition and demonstrate the power of M&S. Selected team presentation videos will be played in front of a distinguished panel of judges and the live audience. All conference attendees are encouraged to view this event.

During video presentation viewing on Wednesday April 27, the audience will have an opportunity to vote for their favorite project by again using electronic voting devices provided by Turning Technologies, LLC. The winner will be announced later that day. Plan to attend MODSIM World 2016, April 26-28, 2016 at the Virginia Beach Convention Center in Virginia Beach, VA. Go to www.modsimworld.org for more detail and registration.

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MODSIM 2016 Theme to Focus on Critical Cyber Threat

Critical infrastructures in the U.S. such as the electric grid, water supply, transportation, financial systems and emergency services can benefit significantly from greater use of modeling and simulation to make systems more resilient and reliable. While the U.S. has yet to experience a truly serious operational event within its power generation capability or a significant breach of its critical infrastructure, industry and policymakers alike agree that the disruption of electric power operations or other vital infrastructure components could be catastrophic to national security and the economy. Meanwhile, our national infrastructure continues to be subject to an increase of cyber-attacks, both in number and sophistication.

As the generation of Baby Boomers who built and now supervise many of the power generation and distribution systems retire in ever increasing numbers, the need to equip the “next generation” workforce becomes increasingly urgent. This new generation is faced with two compelling challenges: 1) The necessity of operating utilities at levels of performance and safety that are now regulatory, while increasing the power output, and 2) Being capable and ready to counter cyber threats that can catastrophically cripple the grid and endanger the public.

Modeling and simulation can play a key role in critical infrastructure operation and protection, since experimenting on such systems is not only impractical, it is often very costly and/or dangerous. The MODSIM World “Got Grid” theme recognizes the value of M&S in improving utility operations while helping to secure our critical infrastructure from cyber-attacks. Got Grid will showcase papers and events describing current programs, and concepts and approaches. Topics are expected to address the

use of M&S to prepare a new generation to operate and to address the vulnerability to physical and cyber-security breaches; modeling cyber and physical infrastructure interdependencies; investigating and analyzing cyber threats; and testing protection approaches and configurations.

Industry and government both have important roles in the effort to secure this crucial part of cyberspace, and MODSIM World 2016 provides an effective and lively forum for the exchange of ideas and best practices.

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MODSIM World Chair Michael Spitz Discusses Upcoming 2016 Event (Video)



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Virtual Volleyball Training Company Credits MODSIM World for Success of their App

VolleySim, founded in November 2014 by Sanci Hall, a lifelong volley ball player, credits participation in MODSIM as leading to worldwide popularity of their training app. "VolleySim concentrates on the defensive side, and on the body language of opposing players," said Sanci. Reading and teaching player body language in real life is incredibly difficult, she continued, but critical if a defensive player is to know where the ball will go, Sanci says. The VolleySim app synthesizes these clues, giving an immersive training experience that is impossible to replicate in real-life training.

VolleySim participated in the entrepreneurs competition at

MODSIM 2015 and immediately experienced a spike in downloads. At MODSIM, the competition's judges critiqued the app and made vital suggestions, said Sanci, who credits their MODSIM participation last year with the company's takeoff. VolleySim has been downloaded by almost 60,000 users worldwide, representing at least ten countries so far, from Turkey to South Korea.

"We plan to return to MODSIM this year to present our story as a case history of how MODSIM can give a real boost to startups", says Sanci.

VolleySim app is available in the Apple and Google app stores. For more information, e-mail info@volleysim.com or sanci@volleysim.com.

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2016 Simulation Innovation Workshop (SIW) - Call for Papers

SISO invites you to participate in the 2016 Simulation Innovation Workshop (SIW) in Orlando Florida, September 11 – 16, 2016.

This year's theme is:

Simulations Drive Innovation & Standards Drive Interoperability

The SISO community has been fostering innovation and interoperability since the early 90s. Today, the technology landscape in front of us provides an even greater opportunity for the application of simulations and enabling standards. Our workshops provide an opportunity to share and build towards the future. If you are a developer, engineer, program manager, user, or Modeling and Simulation (M&S) visionary, then SIW is the place to be.

SISO's vision is to be on the leading edge of innovation and our mission is stay dedicated to the promotion of interoperability and reuse of models, simulations, and associated data. And our annual SIW offers a great venue for you to connect and collaborate on ideas that will forge the future. Come join us, and consider sharing about your innovations and interoperability experiences.

In addition to our 2016 theme, the SIW is focused on three core tracks:

1. Acquisition Lifecycle and Technology Transfer

- Information that provides guidance on the selection and use of M&S standards and practices to support the Acquisition Lifecycle.

2. Services, Processes, Tools, and Data

- Technologies, frameworks, and methodologies that provide service or support for modeling and simulation.

3. M&S Specialty Applications

- Simulation technologies applied for a specific purpose such as augmented reality, medical, cyber security, space, human behavior, system/vehicle or weapon product development, IoT, LVC interoperability, and command and control systems.

One of the major components of the SIW event is SISO University. Through tutorials offered at SIW, subject matter experts in their field provide relevant and fresh training to keep our community sharp in the arena of M&S as it relates to interoperability, reuse and systems engineering.

Key Dates:

8 Apr 2016	Abstracts Due Electronically
2 May 2016	Abstract Acceptance Notification
1 July 2016	Papers Due Electronically
22 July 2016	Paper Acceptance Notification
5 Aug 2016	Final Paper Revisions Due
5 Aug 2016	Initial PowerPoint Presentations Due
26 Aug 2016	Final PowerPoint Presentations Due
11 - 16 Sept 2016	2016 Simulation Innovation Workshop – Orlando, Florida

The 2016 SIW provides an excellent opportunity for M&S professionals, entrepreneurs and visionaries to connect and collaborate on new innovations and in the development of standardization products that capture and formalize best practices, lessons learned, and professional experiences. Our common goal is to advance the use of models, simulations, and associated data to better support the needs of communities such as acquisition, analysis, cyber, experimentation, intelligence, medical, planning, test and evaluation, training, and virtual games.

Conference Tracks:

Acquisition Lifecycle and Technology Transfer Track

The Acquisition Lifecycle and Technology Transfer (ACQ) Track focuses on the promotion and use of M&S standards and practices that support the acquisition lifecycle. We solicit papers that address the identification, application, and value-added benefits of M&S for analysis, research and development, test and evaluation, training, asset management, and system lifecycle strategies. Papers that demonstrate specific applications to specific systems and the benefits of M&S to those systems are preferred.

Services, Processes, Tools, and Data Track

The Services, Processes, Tools, and Data (SVCS) Track encompasses technologies, frameworks, and methodologies to provide services that support models, simulations, and associated

data. The track is interested in both processes and their implementations/tools in areas of: distributed simulation process; verification, validation, and accreditation; communication infrastructure; and simulation and environment reuse. The SVCS track focuses on evolving a systems engineering solution to simulation problems across the spectrum from design, through implementation and deployment, to validation, use, and reuse.

M&S Specialty Applications Track

The M&S Specialty Applications (SPEC) rack is concerned with using simulation technologies for a specific purpose such as: LVC interoperability; augmented reality; Internet of Things (IoT) integration, system, vehicle, or weapon product development; space travel; understanding and prediction of human behavior; and design of interoperable command and control systems. Present thrust areas center on the application of M&S for Cyber Warfare, Medical, Space, IoT, and Future Training, but the forum is not limited to these topics. We solicit papers that address the use of Modeling and Simulation in these or other specific applications.

Submission Instructions:

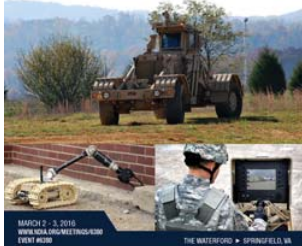
We invite you to submit an abstract that aligns with any of the three core tracks, and are especially interested in papers centered on this year's theme. Please submit your abstract, paper and presentation to the SISO web site at www.sisostds.org.

September 11-16, 2016
The Florida Hotel and Conference Center
Orlando, Florida
www.sisostds.org/2016SIW

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**NDIA Ground Robotics Capabilities
Conference & Exhibition
March 2-3, 2016
Springfield, VA**
www.ndia.org/meetings/6380



The agenda is now available for the NDIA Ground Robotics Capabilities Conference & Exhibition. Visit the website at www.ndia.org/meetings/6380 and click on the 'Agenda' tab to view the current agenda.

The purpose of the 2016 Ground Robotics Capabilities Conference & Exhibition is to provide a forum for Industry and Government stakeholders to engage in honest dialogue to determine how to realize the robotics and autonomous systems vision across all Services of the U.S. military. Senior defense professionals from government, industry and the military are expected to be in attendance at this year's

conference. As the joint vision is established, industry leaders, warfighters, DoD agencies, labs, materiel developers, and combat developers must engage in conversation to determine how we will be “Realizing the Robotic & Autonomous Systems Vision”. Registration is open to the public and attendees of all professional levels are encouraged to participate.

Sponsorship opportunities are available! By enhancing your brand with a sponsorship at this premier event, you'll build a stronger perception from the audience and stand out from the crowd. Visit www.ndia.org/meetings/6380 and click on the ‘Sponsorship Information’ tab to view the menu of available options.

An exhibition hall will feature the latest in Ground Robotics technology. Visit www.ndia.org/exhibits/6380 for more information or to purchase your booth in real time.

For more information or to register for this event, please visit www.ndia.org/meetings/6380.

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Headlines from the Interservice/Industry Training, Simulation & Education Conference (I/ITSEC)



I/ITSEC 2016 - Call for Papers & Tutorials – Deadline: Friday 26 February

Abstracts for I/ITSEC 2016 Papers and Tutorials must be submitted by midnight on Friday, 26 February.

For complete details, please visit the [author website](#).

Need some inspiration? The 2015 Best Papers and Tutorials are posted [here](#).

NTSA does not anticipate extending the Abstract submission deadline this year. Please note that the submission process closes at midnight on Friday 26 February.

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Operation Blended Warrior 2016 - Call for Participation – Deadline: Friday 26 February

Participation may be limited, and early responses are requested. Deadline to participate is Friday, February 26, 2016.

Readiness Through LVC

The Operation Blended Warrior inaugural event took place during I/ITSEC 2015 and showcased the capabilities of 31 industry and government

participants, networked across the exhibit floor, with a focus on standards, after-action review, and cyber. Building upon last year's success, these areas will continue to be emphasized in 2016 and we will be adding multi-level security/cross-domain solutions and performance measurements as new focus areas. Additionally, OBW '16 will be open to both U.S. and coalition partners, and may include remote/long-haul connectivity to the exhibit floor.

How to participate:

- Go to <http://exhibits.iitsec.org> and review, download and complete the [OBW 2016 Call for Participation Form](#) (PDF)
 - Send completed forms to to NTSA c/o Gary Fraas (gfraas@ndia.org) AND Debbie Langelier (dlangelier@ndia.org) by 26 February 2016
- You will then be contacted by the planning team for further information and instructions

Review 2015 information and call for participation at <http://exhibits.iitsec.org>. Sponsorships will also be available. Please contact Debbie Langelier for more information about sponsoring this important event.

Debbie Langelier, CEM
Director of Exhibits

Gary Fraas
NTSA Operation Blended Warrior Coordinator

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I/ITSEC Turns 50 This Year!

As you may know I/ITSEC will turn 50 this year, having begun as the Naval Training Device Center/Industry Conference in 1966.

You can read more about the conference history at <http://www.iitsec.org/about/Pages/History.aspx>.

NTSA is collecting tidbits/memories, to be used in the Newsletter/Facebook/Social Media/Website throughout this anniversary year. Do you have a memory, program, or photo from I/ITSEC past that you would like to share?

Please provide to Barbara McDaniel (bmcdaniel@ndia.org) via email or, if you have something hardcopy to share send to:

Mrs. Barbara McDaniel
NTSA
2111 Wilson Boulevard
Suite 400
Arlington, VA 22201

If you provide a photo or program, please note whether you want it returned!

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Passing of Two I/ITSEC Friends

We are sorry to report that we have lost two long-term friends of I/ITSEC.



Dr. Vince Amico

Vince Amico, who was the “General Chair” of the 1979 Interservice/Industry Training Equipment Conference (predecessor to today’s I/ITSEC), passed away in early February.

Vince was awarded the I/ITSEC Lifetime Achievement Award for his dedicated and inspirational leadership. Until only the last couple of years Vince and his lovely wife Beth would visit I/ITSEC and marvel at the energy and accomplishments of the community. Beth, who passed away in 2015, was also involved in the simulation world and was a wealth of historical information. Vince’s obituary can be found [here](#).



Allen G. Collier

Word has also reached us that Allen G. Collier, who produced the I/ITSEC Newsletter for many years and later served as historian, died recently. Al, who was also a recipient of the I/ITSEC Lifetime Achievement Award, had been in ill health for

an extended time. Unfortunately at this point we have no further details of his passing.

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STEM Success Story at I/ITSEC: Talon Simulations



Student Leader Participants Return as Corporate Exhibitors

Talon Simulations, a year-old Orlando-based company, got its start through its founders' participation in the I/ITSEC Student Pavilion in 2014. The two students' mentor at the

University of Central Florida, BG Steve Seay (USA-Ret.) - a former I/ITSEC Service Executive - strongly encouraged them to display their prototype virtual reality flight simulator at I/ITSEC in the Student Leaders' booth at the STEM pavilion that year. Aided by a grant from the National Science Foundation, Brandon Naidis and his colleague, Jordan Griffin, displayed a second generation version of their prototype simulator at I/ITSEC 2014. "We had a

fantastic reception at I/ITSEC", says Brandon. "It was an ideal place to test the market, do market research, and it made us decide to launch Talon Simulations". "From I/ITSEC 2014, we realized we were on to something", said Brandon.

Talon's product line at present consists of a compact, low-cost motion simulation platform integrated with a state of the art virtual reality headset--a "simulator in a suitcase", according to Brandon. "We went from prototype to product at I/ITSEC 2015", says Brandon. Talon also reached an agreement with Raydon prior to I/ITSEC 2015 whereby Raydon exhibited three of their simulators integrated with their convoy training software and provided demos at their booth as well, doubling Talon's presence. "At I/ITSEC 2015, we followed up with contacts made the previous year at the Student Pavilion, and now we're following up on many promising leads", according to Brandon. While Talon is focused on ground and aerial vehicle training at present, they're also exploring possibilities within the entertainment industry. "We're deciding on which eventual priorities we need to focus on", said Brandon.

Talon fully intends to return to I/ITSEC in 2016, possibly enlarging their exhibit space. "We wouldn't be anywhere without I/ITSEC", Brandon concludes. Talon Simulations can be reached at sales@talonsimulations.com

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ITSANEWS



ITEC PRESENTS THE 2016 CONFERENCE PROGRAMME (Reprinted from ETSA Newsletter)

ITEC is pleased to present the **2016
conference programme**, set to be

delivered at ExCeL, London from 17-19 May.

ITEC 2016 will welcome over **2,200 delegates from the
international military training, education and simulation
community to London** for the first time since 2012.

Book with 3 colleagues or more at the same time and benefit from a **20% discount**.

The **2016 ITEC Conference**'s overarching theme is "**An
Enterprise Approach; Beyond Training**". The conference will be constructed from four pillars.

Some of the leading speakers and sessions you can see at the conference:

[Enterprise Approach to Training and Education \(Enterprise & Procurement\)](#)

Enterprise Capability Management

Professor John Louth, Director, Defence, Industries and Society, RUSI

Improving Interorganizational Network Effectiveness

Commander Paul Pine, MTAO Requirements Manager, Royal Navy

Enterprise Resource – Improving Defence Resilience

Simon Pepper, Head of Training Solutions, Babcock International Group

[M&S Technologies and Architectures](#)

Training as a Service in the U.S. Army: A Cloud Migration Strategy

Dr Jeremy Lanman, Chief Architect, U.S. Army PEO STRI

Intelligent Tools to Support Instructors with the Assessment of Pilot Behaviour in the Simulator

Jitske Voskamp, Training Specialist, Aerospace Operations, Training and Simulation Department, Netherlands Aerospace Center

Joost van Oijen, R&D Engineer, Aerospace Operations, Training and Simulation Department, Netherlands Aerospace Center

Antropomorphic Motion Simulator

Oussama Ben Farah, Research and Development, Buck Engineering & Consulting

[Training and Education - Requirements to Solutions](#)

Training and Education Challenges for Modern Military Enterprises

Colonel William Monfries, Colonel Education, Headquarters

Urban Operations - Battling Challenges through Innovation and Technology

Captain Sander Cruiming, Staff Officer M&S, Royal Netherlands Army

Connected Universal Assessment and Real-time Analysis for Training

Robert Pratten, CEO, Conductor

[Dual-Use Training Applications](#)

Usability Study of the Two Vascular Infusion Part Task Training Systems

Dr Teresita Sotomayor, Chief Engineer, U.S. ARL STTC

Civil-Military Interaction – An Immersive Training Environment

Salih Cem Kumsal, EIT Technology SO, NATO

International Civilian-Military Cooperation, Challenges and Opportunities

David Jones, Chief Executive, Rescue Global

For more information about the conference programme, please visit the [ITEC website](#) or [download the conference preview](#).

[WHY SHOULD YOU ATTEND ITEC 2016?](#)

[Discover the latest technology](#) and innovations driving the

sector

[Source new suppliers](#) who can improve your product or operational flexibility

[Network with key industry players](#), suppliers and integrate with the entire training and simulation community

Learn about [developments for the future in the conference](#)

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NTSA Member News

Saab Awarded Contract for Additional Deliveries for U.S. Army's Combat Vehicles

(Reprinted with permission of MS&T magazine)

Saab has been awarded the fourth and fifth options of a multi-year contract for deliveries of a laser-based training system for the US Army's armored combat vehicles. The order value of \$32 million was booked by Saab as order intake in December 2015.

The Combat Vehicle Tactical Engagement Simulation System (CVTESS) indefinite delivery/indefinite quantity (IDIQ) contract was signed with the US Army in 2012. It consists of this order and further options that can be exercised over a time period of five years with potential total order value of \$90 million.

Since 2012, CVTESS has provided the US Army with the next-generation of laser-based training systems for its armored combat vehicles. The system supplies a highly accurate, laser-based simulation of the combat vehicle weapons used on all M-1 Abrams Main Battle Tank and the Bradley Fighting Vehicles (BFV) variants, including opposing forces vehicles.

CVTESS is easy to install and maintain, reducing the cost and time of combat vehicle training. Its highly realistic combat scenarios and after-action reports provide soldiers with the experience and knowledge necessary to be safe and effective in the field.

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NATO Center of Excellence acquires MASA SWORD licenses for training and planning purposes

(Reprinted with permission of MS&T magazine)

The NATO Crisis Management and Disaster Response Center of Excellence (CMDR COE) located in Sofia, Bulgaria recently licensed MASA SWORD for training military and civilian users of the center in emergency preparedness, collaboration in operations and civil-military cooperation.

SWORD is a wargame with automated forces designed for training, planning, and decision support. It uses advanced artificial intelligence to enable realistic simulations of military and civil units reacting to a wide variety of scenarios. Their automated actions

follow doctrine and procedures previously validated by subject matter experts. This unique capability allows for large-scale exercises to be conducted realistically while minimizing costs and animation effort.

The CMDR COE will use SWORD to train participants for emergency situations and for interoperable scenarios including both civil and military actors. The use of SWORD will also help them in contingency planning for crises and disasters.

MASA Group President and CEO, Juan-Pablo Torres, said: "As MASA continues to develop SWORD for its customers around the world, emergency planning has proved to be a vital functionality. We have been continually improving SWORD for many years so that our customers can use it for both training and planning purposes. MASA is honored that the NATO CMDR COE has chosen SWORD as its constructive simulation and we are proud to support NATO's crisis management and disaster response operations. We are truly excited about this first acquisition of SWORD by a NATO entity and we look forward to other potential deployments across NATO in the future".

Colonel Vassil Roussinov, Director of the Center of Excellence, said: "We were looking for a state of the art constructive simulation with an extensive use of artificial intelligence capable of dealing with complex interoperability issues both on the military and the civil sites. After extensive evaluation, we found that SWORD was the most effective tool for our teams to train and work with. What really set SWORD apart was that we felt that it was the tool that could not only cover our current but also our future requirements in a society that is increasingly demanding. In cooperation with MASA Group we can make a lot of improvements in the near future in the CMDR field and can propose to NATO a new environment where they can train and exercise crisis and disaster management issues".

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Rockwell Collins Signs 'Serious Games' Cooperative Agreement with University of Utah

(Reprinted with permission of MS&T magazine)

Citing the need to bridge the gaps between gaming technology and high-end military simulation, Rockwell Collins and the University of Utah Entertainment, Arts and Engineering (EAE) Department have entered into a cooperative research and development agreement.

"This collaboration will focus on leveraging our combined research findings into improved image generation product offerings designed to bridge the actual and perceived capability gaps between IGs and serious games," said LeAnn Ridgeway, vice president and general manager of Simulation & Training Solutions for Rockwell Collins. She said both the University of Utah and Rockwell Collins will benefit from the collaboration, which will also expose the college students to careers in simulation and training.

“Our research has identified gaps between current high-end military training requirements and the technology capabilities of multiple commercial game engines, and tasked University interns and Rockwell Collins engineers to work towards closing those gaps,” she said.

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ECS Supporting PEO STRI's Squad Overmatch Study with Medical Simulation

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Engineering and Computer Simulations (ECS) is supporting the Army's Squad Overmatch Study, which is currently evaluating training methodologies and technologies with potential for improving human performance on the battlefield and reducing the incidence of Post-Traumatic Stress (PTS). Specifically, the study is focused on advanced training and technologies that can improve situational awareness, stress management, and resilience.

Combat stress increases when casualties occur, as members of the unit care for the injured while continuing the combat mission. Those who are well trained in Tactical Combat Casualty Care (TC3) are better able to handle stress and respond more quickly when faced with trauma. The study includes research into optimizing casualty care training.

The Squad Overmatch Study team leverages ECS' Tactical Combat Casualty Care Simulation (TC3Sim), a computer-based application that teaches life-saving skills for treating injuries while under fire or in the minutes following combat action. TC3Sim was originally designed for Combat Lifesavers, Army Medics, and Navy Corpsmen who support Marine units and was funded by Army Research Lab Human Research and Engineering Directorate Advanced Training and Simulation Division.

ECS reconfigured injury scenarios from TC3Sim to make them compatible with Virtual Battle Space 3, which is the Army Games for Training (AGFT) combat simulation that was used during the recent virtual training phase of the study. The researchers hypothesized that they would find that virtual training facilitates increased awareness of the situation and would prepare trainees to respond more effectively when casualties occur and then recover more quickly from situational stress.

Soldiers and Marines participating in the study began in classroom training, and then participated in VBS3/TC3 virtual gaming before moving to live training.

ECS' Training and Education Division manager, LTC (Ret) Frank Colletti said: “Our strengths in health care and medical simulations provide the basis for training to treat at the point of injury and may also indirectly enable Soldiers to be more effective at operating as a squad-level fighting unit on the battlefield. It's exciting to be able to help Soldiers become more resilient and capable of handling

post-traumatic stress after the battle."

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F-35 Pilots Rehearse & Refine Advanced Tactics in Linked Sims

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As the US Air Force prepares for initial F-35 Lightning II operations, pilots at Hill Air Force Base are rehearsing missions with new simulators delivered by Lockheed Martin.

Pilots are now training with four full mission simulators linked together to hone their tactical employment of the F-35 against ground and airborne threats. As a complement to live fights, the full mission simulators present a secure, realistic environment for pilots to develop tactics and integrate the F-35 into the Air Force's arsenal. The 34th Fighter Squadron at Hill Air Force Base is the first operational F-35A squadron and will reach combat readiness in August 2016.

To date, 143 pilots and 846 maintainers for the Air Force have qualified through the F-35 Training System. By August 2016, more than 190 F-35 pilots and 1,000 maintenance personnel for the Air Force will be mission ready.

The full mission simulators are the centerpiece of the F-35 Training System designed to maximize simulation for effectiveness and affordability. Currently, 191 suppliers contribute to the F-35 Training System. The F-35 program is built on extensive industrial participation to generate economic growth in F-35 nations and deliver the best value.

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Cubic Wins Integrated Ground Combat Training Systems Delivery Order

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Cubic Global Defense (CGD) has won a \$2.1 million delivery order from the US Marine Corps for an Instrumented-Tactical Engagement Simulation System II (I-TESS II).

The I-TESS II system is a fully integrated ground combat training system in a deployable package used in military operations in urban terrain facilities and non-live fire maneuver ranges at Marine Corps bases and installations.

The systems' components include small-arms laser transmitters, rocket-propelled grenades, AT4 anti-tank and anti-armor rocket simulators and laser detection sensors for personnel, vehicles, mobile and portable command and control systems. Future deliveries will include enhanced software and access to instructional videos, making the I-TESS II system more accessible

with improved features.

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Belgian MOD Acquires VBS3 Site Licenses For Military Training Centers

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The Belgian MOD has acquired site licenses to use Bohemia Interactive Simulations' Virtual Battlespace 3 (VBS3) at several training centers across the country for tactical training.

"We are pleased to welcome the Belgian military into the very active group of European countries using VBS3 for military training," said Pete Morrison, BISim's Co-CEO. "VBS3 has a long history of delivering cost-effective and quickly deployable desktop simulation for maneuver training."

VBS3 provides an immersive virtual environment that helps soldiers train on tactics, rehearse for missions, and practice standard operating procedures. With its After Action Review tool, the software is designed to help soldiers to learn to think, make decisions and improve communications before heading to the field for live exercises. VBS3 is used for tactical training and mission rehearsal on desktop computers as well as part-task trainers and full mission simulators. The Belgian MOD will receive VBS3 with VBS Gateway, an easy-to-use interoperability gateway for DIS/HLA interactions.

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Alion Named Awardee of DoD CS TAT MAC

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Alion Science and Technology was named a recipient of the Defense Technical Information Center's (DTIC) Cyber Security and Information Systems Technical Area Tasks Multiple Award Contract (CS TAT MAC). CS TAT MAC is part of the DTIC Information Analysis Centers (IACs) program that serves as a source for maximizing the value of each dollar the department spends.

Under this contract, Alion will compete for tasks to perform technical analysis, research, development and testing and evaluation efforts in the areas of: software analysis, information assurance, knowledge management and information sharing, as well as modeling and simulation (M&S). The work will enable greater efficiency and reuse of results by actively promoting the sharing of Scientific and Technical Information (STI) via DTIC's libraries.

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Heartwood Offers E-book Series on Why Virtual 3D Learning is Superior

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Heartwood has launched the first in a series of informational eBooks about cost savings and why virtual 3D interactive training is superior to traditional options.

Heartwood, a 3D interactive technology company, says it launched the first in a series of informational eBooks in response to frequent customer queries about cost savings and why virtual 3D interactive training, “learning by doing” is superior to traditional options.

“The Future of Training” explores the WHY of 3D interactive virtual training, explaining its ability to be more effective than passive e-learning, and cheaper than costly live training sessions. Heartwood is offering a [free download of this first book at this link](#).

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Elbit Provides RUAG Defence with Advanced Cyber Security Simulator

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Elbit Systems Ltd. has announced that its wholly-owned subsidiary, CYBERBIT Ltd., has been awarded a contract to provide the Switzerland-based company, RUAG Defence, with CYBERBIT's CyberShield - Cyber Security Trainer and Simulator (T&S).

The CyberShield simulator enables users, individually or as a group, to detect, respond and prevent cyber attacks, while experiencing advanced up-to-date attacks under real network protection conditions. The simulator provided to RUAG Defence will also present various network protection scenarios, conduct follow-up debriefing and evaluate the results. The system will enable simultaneous training for multiple users on attacks directed at IT networks as well as industrial control networks (Supervisory Control and Data Acquisition - SCADA) used in most utilities.

RUAG Defence will use the CyberShield Trainer and Simulator as a basis for further development, before integrating it into the company's comprehensive Cyber Training capabilities.

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MetaVR Provides Visuals for SOTACC JTAC Training Simulator Upgrade

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MetaVR has sold 24 Virtual Reality Scene Generator (VRSG) licenses for the installation of Joint Terminal Attack Controller (JTAC) training simulators at the Special Operations Terminal Attack Controller Course (SOTACC) facility at the US Army Yuma Proving Ground in Yuma, Arizona.

MetaVR's business partner Battlespace Simulations (BSI) was recently awarded a contract by Special Operations Command, Hurlburt Field, FL, to install two classrooms with desktop JTAC

simulators featuring BSI and MetaVR software at the SOTACC facility. The new simulators replace the Call For Fire Trainer (CFFT) simulators delivered several years ago by Fidelity Technologies. For this upgrade, a purely commercial-off-the-shelf (COTS) solution was selected over current government issued CFFT systems.

The contract calls for two classrooms, each of which consists of eight JTAC student stations, an instructor station, an instructor role-player station and a NVIS Ranger 47 simulated laser range finder. MetaVR VRSG, geospecific terrain and extensive 3D content libraries, along with BSI's Modern Air Combat Environment (MACE) software are the key components of the Windows desktop systems. Each station also includes a tablet running a ROVER feed of VRSG's simulated sensor view and a communications suite with BSI's Viper DIS Radio software to simulate PRC-117, PRC-148, PRC-152 radios. All new hardware, including two terrain servers loaded with MetaVR's CONUS++, Asia, and Africa terrain data sets round out the upgrade. The two classrooms share a DIS network that will let students collaborate on exercise missions.

As in other MetaVR and BSI's accredited desktop JTAC simulators, VRSG provides out-the-window (OTW) views for the instructor, student and role player stations; as well as sensor views and the view within the Ranger 47 simulated military equipment. MACE provides entity scenario generation and execution, including call for fire, 9-Line, and 5-Line interfaces as well as the virtual pilot/role player station. BSI's Viper DIS radio provides an operationally realistic communications environment and BSI's DIScord DIS recorder enables after-action review (AAR) and debrief.

In the first quarter of 2016, MetaVR will deliver high-resolution geospecific 3D terrain of the Prospect Square area at the SOTACC Yuma Proving Ground (YPG). SOTACC trains Special Forces troops from the U.S. Army, Air Force and Marine Corps in the conduct of close air support missions and certifies them as JTAC-qualified. The four week JTAC qualification course includes three weeks of academic training and one week of live-fire close air support training.

YPG is a general-purpose desert environmental test facility and Prospect Square is an impact area used for high explosive munitions. MetaVR is building the virtual terrain with 2 cm per-pixel resolution imagery of Prospect Square that was captured by MetaVR's remote-controlled portable aircraft, the MetaVRC. The aircraft was built and flown by Swift Radioplanes in military controlled air space. With both the 2 cm imagery and 2 to 10 meter elevation data, MetaVR will compile full-resolution (2 cm) terrain tiles of Prospect Square with MetaVR Terrain Tools for Esri® ArcGIS®. The total area of coverage of this terrain data set will be 17 sq.km. At 2 cm resolution, such details as small craters left from exploded ordnance are visible on the terrain. Underlying the high-resolution 3D terrain of Prospect Square is MetaVR's CONUS ++ terrain, which was built with 1 meter per-pixel terrain imagery and DTED-1 elevation data.

High School Students: Make Festival Expo 2016 Your One-Stop STEM Career Source!

Imagine having the opportunity-- under one roof for 3 exciting days -- to meet and get college and career advice from representatives of some of the top colleges and universities in STEM, in addition to learning of rewarding STEM employment opportunities from leading industry employers; finding out about internships, mentorships and scholarships in STEM, plus connecting with real-life role models in STEM fields.

You'll experience it all at the [Festival Expo's 2016 Career Pavilion for High School Students!](#) Students and parents, don't miss the opportunity to attend this must-see (and free) event April 15-17 in Washington, DC where a myriad of colleges, universities and companies will participate to help put students on the correct path in STEM!

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3, 2, 1, lift off! Students explore space with mISSion imaginaTlon

NASA and Texas Instruments team up to boost STEM education in the classroom and beyond

Pairing the endless possibilities of space exploration with the limitless opportunities of education, Texas Instruments (TI) (NASDAQ: TXN) and NASA are partnering to show students how science, technology, engineering and math (STEM) make feats like space exploration possible with mISSion imaginaTlon. The partnership and its programs aim to spur the imaginations of the next generation of scientists, engineers, explorers and innovators who are in today's math and science classrooms.

Combining expertise, TI Education Technology and NASA have developed programs that promote STEM-focused lessons for students and teachers in middle and high school. Launching today, the mISSion imaginaTlon [online quiz](#) allows participants to see if they have what it takes for a year-long mission aboard the International Space Station. After discovering how ready they are to live in space, students can then put their STEM skills to the test with the mISSion imaginaTlon design challenge, which asks students to devise solutions to four space-related challenges.

"Imagination is the fuel that feeds progress and innovation," said Peter Balyta, Ph.D., (@pbalyta), president of TI Education Technology. "Alongside NASA, we are excited to unleash student creativity as students explore how science, technology, engineering and math can solve future problems on earth, in space and beyond."

The questions students are asked to solve reflect the challenges commander Scott Kelly and cosmonaut Mikhail Kornienko currently face as they participate in the first year-long mission aboard the

station. Questions range from designing a plan for feeding astronauts to creating a waste-management system.

The winner of the challenge will receive a video chat with a NASA expert, a TI-Nspire™ CX graphing calculator and other fun prizes.

“If anything shows students how exciting STEM subjects can be, it’s astronauts spending a year in a space station, doing science experiments and demonstrating cutting-edge technology,” said Donald James, associate administrator for NASA’s Office of Education. “The year-long mission is an excellent opportunity to capture students’ attention and set them on a course to become the next generation of explorers.”

Through the four-year TI/NASA partnership, students and educators will learn more about the space station, which enables researchers from all over the world to work on innovative experiments that cannot be done anywhere else. Further programs launching in 2016 will train students on the realities of continuous occupation in space.

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