



**W**ELCOMETO THE MARCH / APRIL 2012 EDITION of the MSIAC M&S Newsletter. The Newsletter presents a variety of M&S articles and events from communities enabled by M&S within the Department of Defense and beyond.

*This issue's focus is on tools used in various sectors of M&S. We present articles involving the cloud to the I2E simulation tool that enables alternative manufacturing.*

*Please note that although the wording in the excerpts may not always correspond to official DoD usage, the full articles available through the links provide valuable insights into significant ways that modeling and simulation helps foster innovation. We hope you enjoy this issue and welcome your comments.*

## FOCUS ON TOOLS

### Training Innovations Keep Trucks on Battlefield, Out of Classroom



**WVMS 1**—Wheeled Vehicle Mechanic School students have access to virtual vehicles that can be maintained, and even dismantled, using portable software. The program is accompanied by goals and challenges like a video game.

—Article continued on page two

## In This Issue

### FOCUS ON TOOLS

INNOVATIONS KEEP TRUCKS ON BATTLEFIELD



CAN JCATS MOVE TO THE CLOUD?



ANALYZING SOLAR-CELL MATERIALS



PILOTS TRAIN LIKE THEY FIGHT

PROGRESS REPORT ON M&S



M&S COALITION HOSTS EVENT



NEXT GENERATION OF THE M&S JOURNAL



SIMULATION AMMO ALLOWS TRAINING



100-YEAR SEA LEVEL RISE MODEL



M&S WHAT & WHEN



# FOCUS ON TOOLS

## Innovations Keep Trucks on Battlefield

—continued from previous page

Instructors at Fort Jackson's Wheeled Vehicle Mechanic School decided to use a little imagination to keep valuable equipment from being transferred from the battleground to the classroom.

Rather than treating it as a single problem to be solved, though, instructors decided to seize the opportunity to create interactive, mobile learning tools that improve the way Soldiers are trained as mechanics. These training areas are so specific that any part of the vehicle not contributing to the classroom's subject area has been eliminated.

In fact, the Independent Suspension System and Automatic Fire Suppression System used in the mine-resistant, ambush-protected vehicle, known as an MRAP, have been fully transplanted into individual mobile teaching tools.

"We took all of the components out of the vehicle and have mounted it on a training aid, and students can troubleshoot it without having the vehicle all around them," said Chief Warrant Officer 5 Luis Diaz, director of the WVMS. "The instructor will be able to monitor the Soldier's progress in a computer that will be part of this training aid. The instructor can introduce faults into the system and monitor the progress of students."

Those tools include training for the Independent Suspension System, or ISS, located beneath the bulky vehicle, and the Automatic Fire Suppression System, or AFSS, which runs in a network through the vehicle's structure. The ISS still requires students to hoist the tool above the ground, just as they would the actual truck.

"With the suspension system the students don't have to crawl under the truck," Diaz said. "We simulate that but we don't have to jack the whole vehicle up, which saves on time and improves safety."

"It's also less expensive," said Chief Warrant Officer 4 Garret Pickering, the site supervisor where suspension system training is conducted.

"We have the complete system that is needed to train the

Soldier and it takes up less space," he said. "It's portable and easier to move around to a smaller space."

The AFSS is mounted on racks and allows instructors to create different training scenarios and problems for students to solve.

"If a vehicle downrange encounters an IED (improvised explosive device) the fire suppression system reduces the amount of damage to that vehicle and also creates a higher chance of a Soldier surviving," said instructor Chief Warrant Officer 3 Roderick Pickett. "The new training tool allows the Soldier to diagnose problems without the cumbersome vehicle. You can get straight to diagnosing what's keeping that vehicle from working."

There is also a new training tool that is much less tangible. The Army has developed "virtual vehicles" that can be dismantled piece by piece as part of a software training program. It walks students through exercises both basic and critical, giving them as "real" an experience as possible from a computer exercise.

The digital environments within the program will also look familiar to students. Diaz said the software's developers photographed the workspace at Fort Jackson for use in the program, even adding local tools from the shops to the virtual environment.

*This article originally appeared on the U.S. Army website. For complete article, [click here](#).*

## Can JCATS Constructive Simulation Move to the Cloud?

**The Developer of the JCATS** (Joint Conflict and Tactical Simulation) system has launched a two-year effort to see whether the U.S. military's bedrock constructive simulation can be moved to a cloud-and-browser system.

"We see it as two separate tasks: develop a web-based client and support cloud delivery of JCATS," said Lauri Dobbs, JCATS program manager at Lawrence

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## FOCUS ON TOOLS

### Can JCATS Move to the Cloud?

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Livermore National Laboratory, which first developed the simulation in 1997. “You could envision using JCATS with both local clients, as they are today, and web clients for users in the field.”

Dobbs describes cloud JCATS as an “interesting concept,” but notes that it remains to be seen whether the idea will prove viable. JCATS is used in more than 300 U.S. facilities, 23 foreign countries, and is used for more than 2,000 Department of Defense and Department of Energy events a year. It is a distributed system that is federated with more than 15 models and simulations, though any DIS- or HLA-capable model can link with the simulation.

Despite its age, there appears to be plenty of life left in JCATS. The simulation has been upgraded to reflect big-picture environmental factors. JCATS Low Overhead Driver (JLOD) was developed in 2009, and added radar and jamming signatures, as well as supply convoys and consumption. JLOD also features high-value targets and defenses such as theater ballistic missiles, cruise missiles and integrated air defense, which can simulate coverage of a large area such as the U.S. East Coast. Perhaps more significant, given the current focus on irregular warfare, is JLOD’s modeling of urban population movement and communications.

“Future development is focused on a more extensive population model to support high intensity conflict near urban areas,” Dobbs said. “We will be focusing on the evacuation of large portions of a region by road, rail, air, sea and foot. JLOD will provide the signatures to other ground maneuver models that can influence or slow passage through city streets, while at the same time providing details for virtuals to visualize the crowds as needed.”

JCATS is also reducing the number of humans needed to control forces in the game where artificial intelligence cannot. The simulation now has automated air tasking orders, requiring less human intervention to manage air power. There is also a planner for amphibious operations, as well as theater and cruise missile launches. A generic planning tool, Robopucker, allows users to script actions.

This article originally appeared on the Training and Simulation Journal (TSJ) website. For the complete article, [click here](#).



### New Tool for Analyzing Solar-Cell Materials

**As the United States seeks to reinvigorate its job market** and move past economic recession, MIT News examines manufacturing’s role in the country’s economic future through this series on work at the Institute around manufacturing.

To make a silicon solar cell, you start with a slice of highly purified silicon crystal, and then process it through several stages involving gradual heating and cooling. But figuring out the tradeoffs involved in selecting the purity level of the starting silicon wafer—and then exactly how much to heat it, how fast, for how long, and so on through each of several steps—has largely been a matter of trial and error, guided by intuition and experience.

Now, MIT researchers think they have found a better way.

An online tool called “Impurities to Efficiency” (known as I2E) allows companies or researchers exploring alternative manufacturing strategies to plug in descriptions of their planned materials and processing steps. After about one minute of simulation, I2E gives an indication of exactly how efficient the resulting solar cell would be in converting sunlight to electricity.

One crucial factor in determining solar cell efficiency is the size and distribution of iron particles within the silicon: Even though the silicon used in solar cells has been purified to the 99.9999 percent level, the tiny remaining amount of iron forms obstacles that can block the flow of electrons. But it’s not just the overall amount that matters; it’s the exact distribution and size of the iron particles, something that is both hard to predict and hard to measure.

Graduate student David Fenning, part of the MIT team behind I2E, compares the effect of iron atoms on the flow of elec-

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## FOCUS ON TOOLS

### Analyzing Solar-Cell Materials

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trons in a solar cell to a group of protesters in a city: If they gather together in one intersection, they may block traffic at that point, but cars can still find ways around and there is little disruption. “But if there’s one person in the middle of every intersection, the whole city could shut down,” he says, even though it’s the same number of people.

A team led by assistant professor of mechanical engineering Tonio Buonassisi, including Fenning, fellow graduate student Douglas Powell and collaborators from the Solar Energy Institute at Spain’s Technical University of Madrid, found a way to use basic physics and a detailed computer simulation to predict exactly how iron atoms and particles will behave during the wafer-manufacturing process. They then used a highly specialized measurement tool—an X-ray beam from a synchrotron at Argonne National Laboratory—to confirm their simulations by revealing the actual distribution of the particles in the wafers.

*This article originally appeared on the MIT website. Reprinted with permission of MIT News, <http://web.mit.edu/newsoffice>. For complete article, [click here](#).*



### New Prowler Simulator Allows Pilots to Train Like they Fight

**Marines and civilians held a celebration** marking the first day of the now fully operational upgraded Prowler simulator at Marine Corps Air Station Cherry Point, N.C., Feb. 22.

The 2F-185 simulator is the first simulator aboard MCAS Cherry Point for the EA-6B Prowler Improved Capability III and provides better training capabilities for ICAP III pilots. The EA-6B Prowler ICAP II was upgraded to the ICAP III in 2010.

The simulator was first owned by the Navy, who decided in 2006 that the \$16 million simulator was no longer needed.

That same year, the Marine Corps decided to adopt the simulator and “yanked it from the jaws of the Defense Reutilization and Management Office,” said Barry Fetzer, deputy director of 2nd Marine Aircraft Wing’s Aviation Training Systems. DRMO is an organization that disposes of surplus military equipment.

Fetzer said the Marine Corps needs the more up to date and enhanced training capabilities the weapons system trainer could offer. Lt. Gen. John G. Castellaw, deputy commandant of Marine Corps Aviation in 2007, started the process of moving the simulator to MCAS Cherry Point.

Fetzer said after Castellaw signed the memo the Marines went to work.

“In a matter of a few months, they got the required headquarters endorsements to take possession of and relocate the 2F-185,” Fetzer said. The Marine Corps was able to relocate the simulator to a temporary storage facility in California where it received a much needed technology upgrade. In 2009 the simulator was moved in several hundred pieces, some weighing several tons, to MCAS Cherry Point.

Fetzer said, because of the superb cooperation between Naval Air Systems Command Aircraft Program Office, 2nd Marine Aircraft Wing, and MCAS Cherry Point personnel, a plan was developed and executed to bring the new simulator to MCAS Cherry Point.

After the simulator was moved to its current location on MCAS Cherry Point it was reassembled, received further upgrades and was tested to make sure it operates like the actual aircraft. “It is an effective and relevant training system,” Fetzer said. It is a training system that will stay with the Marines until the end of the venerable Prowler aircraft itself.

*This article originally appeared on the U.S. Marines website. For complete article, [click here](#).*





## A Progress Report on Modeling & Simulation for the Economy

### Last week Aneesh Chopra addressed the inaugural

National Modeling and Simulation Coalition with an update to an important R&D initiative focused on an industry of the future. In May 2010, an interagency working group made five priority recommendations to deliver on the promise of modeling and simulation (M&S) tools that spur productivity in advanced manufacturing, health care and education. We reported on our progress:

**Lowering Barrier to Entry:** To lower the cost and training barriers on the use of M&S tools by small and medium sized manufacturers, the Economic Development Administration and the U.S. Council on Competitiveness launched the National Digital Engineering and Manufacturing Consortium (NDMEC) last March focused on pilot activity in the Midwest. We reported on early success stories last month so we took this occasion to announce a challenge – Purdue University’s Manufacturing HUB.org launched an Apps Competition to develop easy-to-use, application specific simulation capabilities using OpenFOAM- an open source code for computational fluid dynamics.

**Lab to Market:** NASA launched code.NASA.gov - a directory of 25 open source codes released for a range of M&S applications that can now “fuel” further development in meeting related market needs. We’ve seen the results of commercializing federal R&D during a briefing by P&G to the President on the outcomes of a decade long partnership with Los Alamos National Labs (LANL). The resulting “Reliability Technology” initiative – a methodology to increase the “uptime” of complex manufacturing lines will scale to other manufacturers in the coming weeks through a simple web-based RT calculator that will facilitate process reliability benchmarking. We are confident this analysis will result in greater “insourcing” and strengthen manufacturing profitability.

**Health Care applications:** FDA’s 2011 strategic plan on Advancing Regulatory Science included computer modeling and simulation, and personalized medicine. To explore research opportunities and value proposition for M&S of medical devices, Dr. Jeff Shuren, Director, FDA’s Center

for Devices and Radiological Health (CDRH) and Aneesh hosted a business roundtable last fall with CTOs of medical device manufacturers including Baxter, Boston Scientific, CR Bard, GE Healthcare, Siemens, Smith-Nephew, TriReme Medical and Zimmer. Informed by leaders from academia and the private sector, CDRH aims to foster simulation based engineering by leveraging established open sourced anatomic and physiologic models and data sharing to revolutionize the regulatory evaluation pathway for medical devices and their development. In addition to accelerating innovation and the regulation process, this effort would enable virtual clinical trials and personalized medicine improving cost, speed and the quality of care. Drs. Donna Lochner and Tina Morrison, staff at FDA’s medical devices center, are coordinating new research in this area and making certain that, in the future, manufacturers have a clear and predictable understanding of how computer modeling and simulation tools may be used in new device submissions.

**Cloud Computing:** To scale M&S tools across hundreds of thousands of SMEs, and in the spirit of the White House Startup America initiative emphasizing the importance of growth companies, Autodesk committed to a line of cloud-based M&S tools that will be available to SMEs at affordable rates. Details will be available in the weeks ahead but click [here](#) for information on Autodesk’s existing “**Clean Tech Partner Program**” offering dramatic discounts for startups. Inspired by Autodesk’s announcement, ProTRAX Cloud, a web based power plant concept training simulator, shared its plans to launch a new website in the coming months that realistically replicates power plant functions enabling training of power plant operators 24x7. Stay tuned for more market-based application innovations.

**Education:** The recent Framework for Next Generation Science Standards (NGSS), developed by a National Research Council committee of leading scientists, engineers, and educators, identified modeling and simulation as a key area for experimental investigations by K-12 science students. To bring M&S tools in K-12 classrooms, NASA and CK-12 Foundation are poised to release, by the end of this month, a “flexbook” - Modeling and Simulation for High School Teachers: Principles, Problems, and Lesson Plans. Subject matter expert authors were solicited via Challenge.Gov and a

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## Progress Report on M&S for Economy

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broad announcement from Virginia Secretaries of Technology and Education. Chapters include M&S in education, business, and training. Ready-to-implement lesson plans include flight dynamics, DNA, bridge construction, water filters and control of a vacuum cleaner robot.

This article originally appeared on the Office of Science and Technology website. For original article, [click here](#).



## New Modeling and Simulation Coalition Hosts Inaugural Event

Members of the modeling and simulation community gathered in Washington on Feb. 6 for the Inaugural Congress of the National Modeling and Simulation Coalition (NMSC).

The NMSC is a new voluntary, nonprofit organization formed to bring together stakeholders who use modeling and simulation in a variety of industries, including defense, manufacturing, medicine, energy, transportation and education.

The coalition's mission is to create a community to advocate for modeling and simulation, as well as develop best practices for using M&S technology "to better the human condition and to strengthen the national well-being."

Sridhar Kota, assistant director for advanced manufacturing with the White House Office of Science and Technology Policy (OSTP), recommended lowering barriers to modeling and simulation technology in order to accelerate the pace of innovation. In particular, he encouraged democratizing the use of modeling and simulation tools for small and medium-sized manufacturers.

Aneesh Chopra, U.S. Chief Technology Officer, who serves as an assistant to President Obama and associate director for technology with OSTP, also supported these recommendations in his keynote address.

Chopra urged companies working with the Defense Department to harness the power of cloud computing for small and medium-sized businesses to access modeling and simulation. He emphasized that the private sector is very

interested in modeling and simulation, and that contractors should serve the market.

"Selling to small and medium-sized businesses is not a charity," he said. "It's a profitable business."

Indeed the private sector has taken a strong interest in modeling and simulation, as was evident by the diverse range of speakers at the inaugural congress.

This article originally appeared on the Training and Simulation Journal (TSJ) website. For the complete article, [click here](#).



## The Next Generation of the M&S Journal



The *M&S Journal* has been undergoing a transformation. Building on its reputation as a respected publication in modeling and simulation (M&S) for the past five years, upcoming issues of the *M&S Journal* will be theme-driven and have a new graphic design. The goal going forward is to provide original content on issues of importance to those working within the M&S community of practice. To achieve this goal, the *M&S Journal* will benefit from the advice and assistance of a newly formed editorial board comprised of established leaders throughout the M&S community.

This June, a reception and ribbon cutting ceremony will be hosted by the *M&S Journal*'s publisher, the DoD Modeling and Simulation Coordination Office (M&SCO), to mark the Next Generation of the *M&S Journal*. Dr. David Lashlee, Deputy Director of M&SCO and the *M&S Journal*'s Executive Editor, says "It's exciting to see how this has come together. The input of our new Editorial Board has exceeded our expectations and we are now receiving technical articles from among the finest minds in our field."

To view and subscribe to the *M&S Journal*, go to <http://www.dod-msiac.org/journals.html>.





## Simulation Ammo Allows for True-To-Life Training

When soldiers enter the training environment, it's important that their experience is as close as possible to situations they'll encounter in combat. The Army has invested a considerable amount of money to make training more realistic to better help Soldiers when they deploy.



*Staff Sgt. Steve Reyes of "Fox" Company, 51st Infantry Regiment, 1st Brigade Combat Team, 1st Armored Division, demonstrates the capabilities of realistic training Dec. 13, 2011, during an Expert Infantry Badge qualification event at Fort Bliss, Texas.*

Units gearing up for combat have used equipment as varied as Multiple Integrated Laser Engagement Systems -- laser tag-like devices commonly referred to as MILES gear -- and paintball weapons to provide a realistic training environment.

Lately, the Army has invested in Ultimate Training Munitions technology. With this new training gear, the bolts of Soldiers' M4s are changed out, allowing them to train with the same weapon they'll carry downrange. But neither the training bolt nor the training magazine can be used with live rounds, making training safer.

Sgt. Maj. Corbett Whitmore, the 1st Armored Division's 2011 Expert Infantry Badge, or EIB, qualification event president, used this technology during EIB qualifications Dec. 12-16 at Fort Bliss, Texas.

"Nothing is a better reinforcement than pain," Whitmore said. "And if you get hit, then you know you got hit. With MILES, you get a beep, but you don't know how you got hit or where you got hit. Out here, if you get hit in the arm, you get an arm injury and you have to assess that. If you get hit in the chest, then it's a kill. It's instant feedback, and it's a lot more accurate than using a paintball gun."

Sgt. Caleb Clark, the ammunition NCO for the 1st Armored Division's EIB qualification event, said the new technology allows Soldiers to continue training even if they've been hit.

"The biggest difference between the old ammo and this new stuff is the velocity," Clark said. "The old stuff had a higher velocity. It flew at 750 to 800 feet per second. This is only 325 to 350 feet per

second. It hurts a lot less. Guys would get pretty serious types of injuries from the old [simulation] rounds."

Though the UTM rounds are designed to provide realistic training, Soldiers are required to wear a face mask, eye protection and gloves when operating with or around the equipment. In addition, they must clean their weapon with a clean, dry cloth instead of using oil.

"[The bullet is] like lipstick; it gets pushed forward, and it marks," Clark said. "The old stuff had liquid inside it and it had to burst on impact. When it would freeze, it would be frozen hard, it wouldn't work right, and it hurt a lot worse. This stuff, they can heat it to 160 degrees, and they can freeze it down to 20 below. It's still going to work."

The new UTM rounds are available now through Training Support Centers Armywide. Units can draw the rounds from their local ammunition supply point.

*This article originally appeared on the U.S. Army website. For the complete article, [click here](#).*





## VMASC Researchers Developing 100-Year Sea Level Rise Decision Model

**According to scientific projections**, global seas are projected to rise noticeably in the next 100 years as the climate warms and polar ice caps melt.

Hampton Roads will be one of the urban areas in the United States most affected by rising seas. But what does that mean for agriculture? How will this impact the energy grid? And where should we build hospitals to serve a population that's likely to migrate throughout the region as areas are affected by high water?

Researchers at Old Dominion University's Virginia Modeling, Analysis and Simulation Center (VMASC) are looking at these

issues from a multidisciplinary perspective. With the aid of a \$45,000 seed grant from ODU's Climate Change and Sea Level Rise Initiative (CCSLRI), the researchers and students have designed a continuously running simulation of the next 100 years, which decision-making authorities can use to help guide urban planning, health care and emergency preparedness decisions.

"The main idea is we're trying to construct a parallel universe," said Saikou Diallo, research assistant professor at VMASC and a co-PI of the project. "You model an area, and anything that you can see you try to model, including people."

The result is CoRSE, the Continuously Running Simulation Environment sea level rise decision model. The model takes publicly accessible data in 17 domains - from agriculture and food, to energy, to emergency services, to water - and models the interconnections among those interests on a map of Hampton Roads, over a 100-year time period.

CoRSE isn't meant to be a crystal ball, but rather a tool for local and national leaders to make sure decision-makers are mindful of potential impacts that choices might have, even on completely different areas of interest.

Jose Padilla, project co-PI and a research assistant professor at VMASC, said the simulation also represents a paradigm shift in the way human behavior is modeled. CoRSE makes no assumptions that people are going to follow the "right" course of action in the face of rising seas, and that uncertainty is built into the model.

The model builds upon the infrastructure data taxonomy created by the U.S. Department of Homeland Security (DHS). But Padilla said CoRSE takes that as a starting point, and uses it to create a simulation-based tool for studying human dynamics - people,

their interactions and their dynamics with the region where they live and work.

Most of the design work for CoRSE has been tackled by graduate students Jeffrey Brelsford, Christopher Lynch, Olcay Sahin and Hamdi Kavak in ODU's Modeling,

Simulation and Visualization Engineering program. Mike Robinson, research assistant professor at VMASC, is also part of the team. The simulation currently uses off-the-shelf technology. The hope is for the final simulation to include a custom application designed at VMASC, one that's still user-friendly (Web-based) and mines data from public sources.

In the meantime, VMASC researchers say CoRSE can serve three purposes for local decision-makers: as a tool to decide on resource allocations, as a decision-support tool and as a training test bed.

The U.S. Department of Defense has already expressed interest in CoRSE and plans to visit VMASC later this year to look at what the team has designed.



*This article originally appeared on the VMASC Old Dominion University website. For original article, [click here](#).*



## M&S WHAT & WHEN

### MODELING & SIMULATION CALENDAR OF EVENTS

For a complete list of upcoming events, please visit the MSIAC website at  
[www.dod-msiac.org/calendar.html](http://www.dod-msiac.org/calendar.html)

#### AHS 68th Annual Forum and Technology Display

May 1 – 3, 2012  
Fort Worth, TX  
Steering Vertical Flight Technology in New Directions

#### AlaSim International 2012

May 1 – 3, 2012  
Huntsville, AL  
Showcasing the breadth and depth of simulation activity in Alabama and discuss the current state of simulation technology

#### Unmanned Aircraft Systems Conference

May 1 – 3, 2012  
Washington, DC  
Examine the recent developments, most critical capability gaps, and likely future direction for unmanned aircraft systems

#### Medical Technology, Training and Treatment (MT3) Conference

May 9 – 12, 2012  
Orlando, FL  
Showcasing innovative medical technologies and training that improves healthcare and patient safety

#### Insensitive Munitions and Energetic Materials Symposium

May 14 – 17, 2012  
Las Vegas, NV  
Insensitive Munitions and Energetic Materials Advancements and their Benefits to the Warfighter

#### 56th Annual Fuze Conference

May 14 – 16, 2012  
ExCel, London  
Next Generation Fuzing for Next Generation Weapons

#### Modern Modeling Methods (M3) Conference

May 22 – 23, 2012  
Storrs, CT  
The latest modeling methods and presenting research related to these methodologies

#### ITEC 2012

May 22 – 24, 2012  
London, England  
Interactive conference, designed to involve delegates and generate discussions to bring about new ideas

#### 2012 SOFIC

May 22 – 24, 2012  
Tampa, FL  
Building the Global Special Operations Forces Partnership

#### Armed UAS Conference

May 23 – 24, 2012  
Las Vegas, NV  
Current and future service needs & requirements for Armed UAS

#### 2012 National Laboratories Information Technology (NLIT) Summit

May 29 – June 1, 2012  
Sun Valley, ID  
Bringing together colleagues from across the US Department of Energy (DOE) complex to facilitate an exchange of information management (IM) best practices, strategy and methodology

#### International Conference on M&S in Engineering, Economics and Management (MS'2012)

May 30 – June 1, 2012  
New York, NY  
Aim is to stimulate scientific exchanges, promote international co-operation between the academic community and companies, and disseminate results of theoretical and applied research

#### Virtual Training Conference

June 5 – 6, 2012  
Washington, DC  
Bringing together the government and industry leaders who are at the forefront of developing and deploying this new technology

#### 80th MORS Symposium

June 11 – 14, 2012  
Colorado Springs, CO  
Exchange information, examine research and discuss critical national security topics

#### Next Generation ISR Conference

June 13 – 14, 2012  
Las Vegas, NV  
ISR current requirements and exposing the many future capabilities for the services and public service sectors

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## Training & Simulation Industry Symposium

June 13 – 14, 2012  
Orlando, FL

Learn about the latest requirements for Training and Simulation products and services being procured by the Army, Marine Corps, Navy and Air Force

## Military, Simulation & Training India 2012

June 21 – 22, 2012

India

Discuss the latest developments and requirements on training and simulation systems for India

## 3rd IEEE Track on Collaborative Modeling & Simulation – CoMets 2012

June 25 – 27, 2012

Toulouse, France

Aims to foster innovative research contributions that address collaboration issues in the field of M&S

## Full Motion Video Conference

June 27 – 28, 2012  
Washington, DC

Examine the latest OSD, Service and Intelligence community ISR and FMV needs, initiatives, plans and challenges

## 7th Annual Capitol Hill Modeling and Simulation Expo

June 28, 2012  
Washington, DC

M&S demonstrations from around the country will be brought to the nation's capital

### Promote an Event:

If you would like to promote an M&S event on the MSIAC Calendar, please email the event information to

[MsiacHelpDesk@dod-msiac.org](mailto:MsiacHelpDesk@dod-msiac.org).



## THE MSIAC M&S NEWSLETTER

The **MSIAC M&S Newsletter** is available as an automatic service. The Newsletter is a bi-monthly publication, sponsored by DTIC, that provides the most recent information and events from within the M&S community.

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