

# I/ITSEC Recap Issue

The **NTSA** Newsletter

[About NTSA](#)



## I/ITSEC 2016

The World's Largest Modeling, Simulation & Training Conference

### Upcoming Events

**January 28 - February 1, 2017**

[IMSH \(International Meeting on Simulation in Healthcare\) 2017](#)

Orlando, FL

**April 25-27, 2017**

[MODSIM World 2017](#)

Virginia Beach Convention Center  
Virginia Beach, VA

**May 9, 2017**

2017 Simulation & Training Community Forum  
Dayton, OH

**May 16-18, 2017**

[ITEC 2017](#)

Ahoy, Rotterdam

**June 14-15, 2017**

Training & Simulation Industry Symposium  
(TSIS) 2017  
Orlando, FL

**July 2017**

Capitol Hill M&S Expo  
Washington, DC

**August 2017**

ADL iFest  
Metro DC

**September 11-15, 2017**

2017 Fall Simulation Interoperability  
Workshop (SIW)  
(Sponsored by SISO / Supported by NTSA)  
Orlando, FL

**September 26, 2017**

National Modeling and Simulation Coalition  
Meeting  
Detroit, MI

**November 27 - December 1, 2017**

[Interservice/Industry Training, Simulation &  
Education Conference \(I/ITSEC\) 2017](#)

Orlando, FL

**NTSA President RADM James Robb, USN (Ret) Discusses  
“Overwhelming” Government Support** [Read more](#)

**Chief of Naval Personnel Highlights Sailor 2025 During I/ITSEC  
Panel Discussion** [Read more](#)

**I/ITSEC 2016 Recap** [Read more](#)

**I/ITSEC 2017 – Call for Submittals & Exhibit Space Selection**  
[Read more](#)

Visit **NTSA’s YouTube Channel** to see videos from this year’s  
I/ITSEC! [Read more](#)

**I/ITSEC Show Dailies** Available Online [Read more](#)

**Serious Games Showcase & Challenge Winners** [Read more](#)

2016 **NTSA Modeling & Simulation Awards** and  
2016 **Governor’s Award for Lifetime Achievement** in Modeling  
& Simulation [Read more](#)

**YouTube - New videos from I/ITSEC 2016!**



**HEADLINES FROM THE MODELING,  
SIMULATION  
& TRAINING INDUSTRY**

**MODSIM World 2017** – December 21 Abstract Submission

Deadline [Read more](#)

**National Modeling & Simulation Coalition** – NMSC Newsletter & M&S Research Report [Read more](#)

**Modeling Best Practices Benchmarking Project (MBP2)** – Call for Participation [Read more](#)

## ITSA News

**MilSim Asia** [Read more](#)

**ITEC 2017** [Read more](#)

**Australasian Simulation Congress** [Read more](#)

## NTSA Member News

DiSTI Wins Operator/Maintainer Trainer Contract for the US Army C-RAM LPWS [Read more](#)

CACI to Support US Navy Training [Read more](#)

AEgis Technologies Official DoD Reseller of Modest3D Software Suite [Read more](#)

Elbit Systems Meets Major Milestone [Read more](#)

Saab Receives Upgrade Orders for US Army Training Systems [Read more](#)

Q4 Selected for USMC C-130T Visual Display System Upgrade [Read more](#)

Royal Danish Navy Bridge Simulator Contract [Read more](#)

Barco Announces Introduction of F70 Series [Read more](#)

Modifications for B-52 Training System [Read more](#)

3D perception to Deliver Visual Display System to Lockheed Martin [Read more](#)

Esterline Delivers Display System to BAE SYSTEMS [Read more](#)

Lockheed Martin Transforms Training and Logistics Business [Read more](#)

MOD Agrees £1 Billion Deal for UK Test & Training Sites [Read more](#)

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

**NTSA President RADM James Robb, USN (Ret) Discusses “Overwhelming” Government Support**

*(Reprinted from I/ITSEC Show Daily, Thursday, 1 December)*



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

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

**WWW.SIMPROFESSIONAL.ORG**



In his initial review of I/ITSEC 2016, NTSA President Jim Robb was quick to identify continually growing levels of government support.

“My takeaway is that the government is back,” Robb told the *Show Daily*. “The overwhelming support by senior leadership in the military was incredible. We probably had over 100 military distinguished visitors. I’ve interacted with a lot of them, and, in almost

every case, when they come here and see this they are amazed by it.”

In addition to the quantity of government visitors, Robb emphasized the quality in terms of benefits to industry exhibitors.

“They were of extremely high quality,” he said. “We had operators. We had representatives from a wide variety of organizations – not only in training but also acquisition and headquarters staff and leadership. And they were very, very impressed with what they saw here. I’m very pleased.”

Robb was equally pleased with overall attendance, which he estimated as “probably up a couple of percent from last year.”

In terms of specific discussion areas, he offered the representative example of “substantive discussions” focused on the challenges of connecting live, virtual, constructive elements together.

“It’s important when you can have those discussions with senior leaders, because many of these challenges are related to policy in areas like the balance between IT safety and IT capabilities,” he said. “When you are pushing you are usually pushing into resistance from policy that is designed to stop bad things from happening. Unfortunately, that can also prevent good things from happening. So a discussion about how to find the right balance is really critical. It’s not that we don’t want to be safe. We just need to put out that the person who says ‘No’ can’t be the last to answer. Somebody has got to come in and say, “Not, no. But go and figure this out and get on with it.”

Robb also had high praise for the second iteration of OBW.

“We’ve had a lot of great comments and some discussions about the OBW future – maybe OBW 2.0 – which is possibly a more persistent environment,” he said, adding that NTSA efforts include “promoting OBW as a unique laboratory and development environment.

“One of the main reasons is because it’s ‘government-like’ but it’s not ‘government’” he explained. “That way industry can come and plug in much more easily than they could with a pure government environment. The power of a ‘government-like’ architecture is that people don’t have to go out and get all the government approvals to ‘play in the sandbox.’ That means they much faster can go in and do development kinds of things: see how it really works; see how it interacts with the rest of the systems; and see how it could

be compliant. Industry can then go back and either refine it or use it as a sort of transition tool. The government can say, 'This has been pre-certified on the OBW framework.' And that could help things go faster when they try to get it plugged into the real government architecture."

"The capabilities are actually on the floor," he added. "The challenge is in getting them integrated, which can take years in many cases."

Echoing a theme shared by the CNO on Wednesday morning, Robb agreed on the critical need for things to move faster and the rapid acquisition advantages of expanded engagement between government and industry.

"If you look inside the OBW planning cycle, you'll find a microcosm of that arrangement, because the industry is in the room with the government people, collaborating on the development of the OBW integrated network," he said.

"This whole year has been about LVC," he concluded. "And LVC is important. But to really make the LVC vision work we have got to solve the mechanics and IT complexities in the back end, while more clearly defining the requirements on the warfighter end. And those are two areas we're working."

[Top](#)

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### **Chief of Naval Personnel Highlights Sailor 2025 During I/ITSEC Panel Discussion**



VADM Robert Burke, USN, the Navy's top personnel officer, highlighted Sailor 2025 and stressed the importance of modernizing the Navy's personnel system during a panel discussion on the Navy's Design for Maintaining Maritime Superiority at the Interservice/Industry Training, Simulation and Education Conference (I/ITSEC) in Orlando, FL on 30 November.

To read more click [here](#).

[Top](#)

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### **I/ITSEC 2016 Recap**

#### **50th Anniversary of I/ITSEC a Resounding Success**

With over 15,300 total attendees including an increase of 250 government registrations, I/ITSEC 2016 was by all accounts another successful event. Senior leader participation was significant led by the Chief of Naval Operations



and the Commander, Air Force Materiel Command. There were over 100 distinguished government visitors and a significant increase in government booths on the exhibit floor.

### **I/ITSEC 2016 Attendance Numbers\*\***



Exhibit Visitors: 5100\*  
Conference Attendees: 4000\*  
Exhibit Personnel: 6,200  
International Visitors: Over 1700 attendees from 58 Countries  
Exhibiting Companies: 489 occupying 387 exhibit spaces in 188,000 net square feet

\* ALL registration categories include access to the exhibit hall. With 9,100 combined exhibit visitors in addition to the 6,200 exhibit personnel already present on the floor, a total of over 15,300 walked the I/ITSEC exhibit halls.

\*\*Please note that we are in the process of auditing our registration files to insure complete accuracy. Numbers stated above are estimates only. Final numbers will be available the first of February after the audit is complete.

[Top](#)

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### **I/ITSEC 2017 – Call for Submittals & Exhibit Space Selection**

#### **Authors**

To be one of the 150 papers, or two dozen tutorials, presented at I/ITSEC 2017 you need to begin now. The submittal process will be open from January 4th through February 24th. See [author page](#) for details and the Call for Submittals.

#### **I/ITSEC 2017 Theme & Army Lead Service**

With the very successful conclusion of I/ITSEC 2016, planning is well under way for 2017. This year's I/ITSEC set several metrics that will challenge the 2017 team, headed by the U.S. Army. The theme for I/ITSEC 2017 is "**Harnessing New Technologies to Win in a Complex World**". Brigadier General William E. Cole, Program Executive Officer for the Army's Program Executive Office for Simulation, Training and Instrumentation, stated that "Our military continues to train for the complexities of an ever-evolving future battlefield. I have no doubt the modeling and simulation industry will excel in meeting the challenge to ensure our warfighters are expertly trained to fight and remain the most lethal force in the world", Cole said.

#### **I/ITSEC 2017 Exhibit Space Selection Schedule**

**Join NTSA now for Early Space Selection and Booth Discount Benefits!**

NTSA Sustaining Members are the only exhibitors that select space onsite at I/ITSEC. If you are an NTSA Sustaining Member and have not yet selected space for 2017, please contact Debbie



Langelier [dlangelier@ndia.org](mailto:dlangelier@ndia.org) no later than **January 20, 2017**. Sustaining Members receive a 10% discount on booth space. (Maximum discount = \$5,000) Contact Patrick Rowe, NTSA's Director of Membership, at [prowe@ndia.org](mailto:prowe@ndia.org) to join or upgrade your membership.

**NTSA Regular Members** will begin to select space on approximately **February 7, 2017**. Regular Members receive a 5% discount on booth space. If you are not currently a member and would like to join and select space early, please contact Patrick Rowe ([prowe@ndia.org](mailto:prowe@ndia.org)) no later than January 20, 2017.

**NTSA Associate Members** will select space following Regular Member selection. Associate Members receive no discount on booth space, but are allowed early selection.

**Previous I/ITSEC Exhibitors:** Open selection will take place for all remaining exhibitors on approximately March 1, 2017.

[Top](#)

---

## Visit NTSA's YouTube Channel to see videos from this year's I/ITSEC!

Over forty videos have been recently posted on the [NTSA YouTube channel](#).

Some highlights include:

- Opening Ceremonies including Keynote Speakers
- General/Flag Officer Panel
- Interviews and technology highlights and from the Exhibit Floor
- I/ITSEC 50th Anniversary video (a terrific, detailed history of I/ITSEC and MS&T)
- Operation Blended Warrior (highlights from several vignettes)
- Congressional Modeling & Simulation event
- Highlights of the Serious Games Showcase & Challenge
- Highlights from the STEM Pavilion

[Top](#)

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## I/ITSEC Show Dailies Available Online



All four issues of the I/ITSEC 2016 Show Daily are available on the home page of the I/ITSEC website here: [www.iitsec.org](http://www.iitsec.org).

If you didn't have time to read the Show Dailies thoroughly onsite, take a moment to download them and read them at your leisure. Each issue features numerous interviews with thought leaders as well as various items of interest from the Exhibit Floor and the Conference.

[Top](#)

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## Serious Games Showcase & Challenge Winners

### Government-Developed Serious Games Lead the Field with Five Awards



A great year for Serious Games Showcase & Challenge! Winners for this year's SGS&C pose after the ceremony, along with SGS&C industry chair, Shane Taber (ECS) and government chair, Steve McCabe (USAF Simulators Division). Photo credit: I/ITSEC

Serious games are serious business. This year's Serious Games Showcase & Challenge (SGS&C) announced and recognized the 2016 winners on Dec. 1 at the Interservice/Industry Training, Simulation and Education Conference (I/ITSEC), the world's largest conference for modeling and simulation.

This year's 20 finalists were showcased on the floor during the four-day I/ITSEC show, where close to 15,000 attendees had the opportunity to play a diverse cross-section of serious games developed by business, government and students in subject matters that ranged from medical professional training to rocket simulation, learning and managing debt.

But the serious game that seemed to capture the attention of the I/ITSEC attendees was **U.S. Army STARS: Elements**, one that helps students learn and visualize the foundations of chemistry through interactive models, games, and challenges. **U.S. Army STARS: Elements** was voted on by attendees as their favorite game, earning them the prestigious **People's Choice Award**.

Developed by the U.S. Army Game Studio, Software Engineering Directorate, **U.S. Army STARS: Elements** was also awarded the best in mobile and won the Students' Choice category, with more than 1,000 evaluations received by students in Orange County Public Schools.

Shane Taber, SGS&C planning committee lead, said "This is a historic event because it marks the first time that a single game

has won three award categories, including both of the 'choice' driven awards. This is truly commendable.”

A new category added this year was the Innovation Award, which recognizes characteristics or techniques that enhance the serious game in a new or different way. These techniques can be hardware integration, instructional design, game design, content topic, or a combination thereof.

The innovation committee felt that two games were deserving of this honor in its inaugural year.

“Ironically, we saw virtually the same innovation from two teams: both teams focused on helping amputees practice skills related to using their prosthetic by driving gameplay through muscle use,” said SGS&C Director, Jenn McNamara. “One team used a device agnostic approach for high-end myoelectric prostheses, and the other team worked with the non-profit organization, Limbitless Solutions and their 3D, affordable prosthetics for children.” The two winners are **ADAPT-MP** by Design Interactive, Inc., and **Limbitless Training Games** by the University of Central Florida.

The other category winners in this year's contest were:

1. Best Business — **Post Attack Reconnaissance (PAR) Virtual Training Mode** by the Virtual Heroes division of Applied Research Associates was developed to help Air Force members become familiar with what normal and post-attack looks like.
2. Best Government – **USC Standard Patient** by the Army Research Lab developed by the USC Institute for Creative Technologies and BreakAway Games allows players to practice their medical interviewing and diagnostic skills on virtual patients with helpful coaching.
3. Best Student — **Bots & (Main)Frames** by New York University Tandon School of Engineering helps players develop programming and computational thinking skills.

Interested participants submit games during the August to September timeframe each year and the finalists are invited to showcase their games at I/ITSEC, which also includes the finalists from international partners representing the Australasian Simulation Congress, Brazilian Independent Games Festival (BIG) and the newest partner who will participate in next year's contest, Asia Pacific Simulation Alliance. Then SGS&C finalists are reviewed by an esteemed panel of worldwide evaluators to determine the winners for each category.

For more information about SGS&C or details regarding submissions, which open August 2017, visit [www.sgschallenge.com](http://www.sgschallenge.com).

[Top](#)

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## 2016 NTSA Modeling & Simulation Awards and 2016 Governor's Award for Lifetime Achievement in Modeling & Simulation

NTSA presented its annual Modeling & Simulation Awards, as well as the 2016 Governor's Award for Lifetime Achievement in Modeling & Simulation, at the NTSA M&S Awards Dinner at the Hyatt Regency Orlando on Tuesday, November 29. NTSA President RADM James Robb, USN (Ret), presented awards to a diverse group of teams and individuals from the US Air Force, US Navy, US Army and industry.

### 2016 Governor's Award for Lifetime Achievement in Modeling & Simulation

Mr. Rob Matthews

Naval Air Warfare Center Training Systems Division



Mr. Rob Matthews, Deputy Technical Director for the Naval Air Warfare Center Training Systems Division (NAWCTSD), was recognized for a lifetime of achievement in M&S excellence. From his days as an enlisted sailor to his current role as a senior civilian leader, the imprint he has had on the M&S and Training (MS&T) landscape is as extensive as it is varied. His lasting contributions span not only a variety of disparate Navy training projects across all Navy warfare branches (Aviation, Surface, Sub-surface, and Personnel), but also a variety of Navy and DoD MS&T infrastructure initiatives. Mr. Matthews was recognized for his unending commitment to advancing M&S during his 35 plus year career, and for the enduring legacy and impact his wide ranging and visionary contributions will have on the Navy and on the M&S and Training communities.

### 2016 NTSA Modeling & Simulation Awards



Rear Admiral James Robb, NTSA (l) and Dr. Michael Oliver, Air Force Materiel Command (r)

#### Acquisition

Armament Sustainment Engineering Team  
Air Force Materiel Command

The Air Force Materiel Command Armament Sustainment Engineering Team aggressively and rapidly transitioned all Technical Data Packages from two dimensional products to a three dimensional model-based environment with extraordinary results. The incorporation of 3D printing tools and in-house modeling, simulation and Finite Element Analysis capabilities resulted in reduced manufacturing lead time requirements; the identification of multiple and previously unknown root failure causes; and reduction in First Article failures, part costs, and the number of physical tests required. Their work saved millions of dollars and impacted thousands of air platforms across five major Air Force Commands.



#### Training

Mr. Darius Saleemizadeh  
L-3 Link Simulation & Training

Mr. Darius Saleemizadeh, working on the Gray

Billy Pate (l) and  
Darius Saleemizadeh  
(r) of L-3 Link

Eagle Composite Maintenance System Trainer program, implemented a creative modeling and simulation solution unlike any of the traditional approaches – a solution which has proven to reduce development and sustainment costs. The need to simulate thousands of electrical and mechanical connections representing the position or state of connectors and plugs located throughout the aircraft posed a major technical challenge. Mr. Saleemizadeh viewed the challenge fundamentally as a graph problem, and created two graph structures with node-edge connections, one representing physical connections, and the other representing power connections. His innovative modeling approach allows for easier updates – to the data file instead of to the source code. This combination of data-file based modeling and the absence of application code modification resulted in a tangible reduction of development hours relative to typical design alternatives.



Paul Butler and Mike  
Evans of Mitre

### **Training**

Squad Overmatch Tactical Combat Casualty Care--US Army PEO STRI & Other Organizations

The Squad Overmatch team, led by the US Army's Program Executive Office for Simulation Training and Instrumentation and comprised of multiple organizations with expertise in training and experimentation techniques, conducted Tactical Combat Casualty Care training experiments at Fort Benning, GA. They developed an integrated training approach consisting of both virtual and live training designed to improve situational awareness, resilience and stress management. Each squad went through a three-step training process (Concept – Virtual – Live) that utilized augmented reality, role players, advanced effects kits and sensory cues to enhance the training. The realistic training shortened the time required to develop trained and cohesive squads. Ninety-seven percent of the Soldiers and Marines felt that Squad Overmatch better prepared them for the operational environment. US Army Central Command has requested deployment to Camp Buehring, Kuwait, and the Army Surgeon General's Office will continue funding development through FY18.

[Top](#)

**Full Articles**  
**HEADLINES FROM THE MODELING,  
SIMULATION  
& TRAINING INDUSTRY**



**MODSIM World 2017**

*Modeling and Simulation in the Age of Data*

**April 25-27, 2016**

**Virginia Beach, VA**

MODSIM World 2017, which will be held at the Virginia Beach Convention Center April 25 – 27, 2017, is a multi-disciplinary M&S activity that provides a unique opportunity to learn about new applications and practices across diverse domains.

“What’s unique about MODSIM World is that it looks at modeling and simulation through a lens that goes across multiple domains of application,” observed Eric Weisel, Ph.D., Director of Applied Research, Office of Research, Old Dominion University, Norfolk, VA. Weisel, the 2017 MODSIM World Conference Chair, explains, “I/ITSEC primarily looks at simulation and training. Other conferences look at things like game development. In contrast, we are looking at modeling and simulation in a holistic way across all of those domains.”

“The conference theme is ‘Modeling and Simulation in the Age of Data,’” he added. “That theme came from the rapid advancement in the accessibility of vast quantities of data. It’s very important to address how the M&S community interfaces with the Big Data and Data Science communities and how M&S can take greater advantage of this improved access to data.”

### **MODSIM World 2017 Call for Abstracts**

#### **Abstract Submission Deadline: 21 December 2016**

We invite your abstract submission to **MODSIM WORLD 2017** in one of the following MODSIM World conference tracks:

- Training and Education: enhancing the application of M&S in training and education
- Analytics and Decision-Making: M&S for decision support, data mining, prediction, analysis
- Science and Engineering: enhancing M&S from concept to integration to visualization
- Visualization and Gamification: techniques to enhance M&S-enabled training and decision aiding

### **Abstract Submission Guidelines**

Abstracts of up to 250 words must be submitted by **21 December 2016**. Include (1) a concise and descriptive title and the author(s) affiliation(s); (2) a short statement of the main point(s); (3) the methodology (for experimental and survey work); (4) the scope of the work; and (5) key findings and major conclusions.

For more details and to submit an abstract please follow the submission instructions here: [www.modsimworld.org](http://www.modsimworld.org).

Please direct any questions to the Program Chair, Benjamin Bell ([benjamin.bell@eduworks.com](mailto:benjamin.bell@eduworks.com)) or to the Deputy Program Chair, Marco Estrada ([marco.t.estrada@hii-nns.com](mailto:marco.t.estrada@hii-nns.com)).

[Top](#)

---



### The **National Modeling & Simulation Coalition (NMSC)** issued its inaugural

quarterly newsletter in November 2016. The Fall 2016 issue, which features updates on various NMSC activities and remarks from the Chair and the Editor, can be found [here](#).

### **Research Challenges in Modeling and Simulation for Engineering Complex Systems**

One of the items featured in the NMSC Newsletter is a short summary of a two-day workshop held in January 2016 to work on the development of a common research agenda for the M&S community, in particular on the role of M&S in engineering complex systems. Co-sponsored by National Science Foundation, NASA, the Air Force Office of Scientific Research (AFOSR), and NMSC, the Workshop has generated a detailed report of recommendations and suggestions for M&S research. The newsletter summary, written by Dr. Richard Fujimoto, Regents' Professor at the Georgia Institute of Technology, provides a concise overview of the two-day workshop – participants, the main technical themes, and the goals of the workshop.

The final report from the workshop - **Research Challenges in Modeling and Simulation for Engineering Complex Systems** - is now available [here](#).

Please visit the NMSC website at [www.thenmsc.org](http://www.thenmsc.org) for complete details on the coalition and its leadership, ongoing activities and goals.

[Top](#)

---

### **Modeling Best Practices Benchmarking Project (MBP2) – Call for Participation**

#### **Please Complete Survey by December 31**

Lone Star Analysis is conducting a “Modeling Best Practices” benchmarking survey, with the intention of using the results to develop a paper/presentation for I/ITSEC 2017.

#### **MBP2 Project Overview:**

Thank you for your interest in the Modeling Best Practices Benchmarking Project (MBP2).

This survey asks for some information about you and your organization, so that we can contact you for follow up. For example, some organizations will be interviewed, in addition to this survey.

Your personal or identifiable information will not be shared or sold. The project is operated within the guidelines of the APQC Benchmarking Code of Conduct, available at [www.APQC.org](http://www.APQC.org).

Your responses will be incorporated with the responses of others, but will not be attributed to you or your organization. In some cases, we may seek to highlight best practitioners by name, but this will only be done by permission; your name, and the name of your organization will not be used without permission.

The survey consists of an introduction, followed by questions on each benchmarking topic.

You may find some of the topics don't apply to your organization. Feel free to skip these questions, or any other questions which you don't understand, or don't want to answer.

The amount of time required to take this survey varies widely. Most respondents find it will take at least 15 minutes. Some may take longer.

You need not complete the survey in one session. However, the survey will not be open indefinitely, so we suggest completing the survey within 24 hours of starting.

### **Introduction, Definitions & MBP2 Background**

Modeling, Simulation and Analysis (MS&A) supports a wide range of economic, academic and governmental efforts. Different communities have their own practices, but there is little interaction among communities. Best practices in one MS&A community may not be familiar to others.

The Modeling Best Practices Benchmarking Project (MBP2) seeks to survey a broad range of modeling best-practices with the goal of sharing insights among professionals who might not otherwise have the opportunity to gain perspective outside their own communities.

You will be presented with questions about how your organization performs modeling, and your opinion on some topics related to modeling. MBP2 defines "modeling" as "*computer abstractions of reality.*"

Usually this means math representations, which may be called "simulation" or "computer forecasting." In some cases, it is called "big data" if it involves computer enabled analysis. "Big data" algorithms, neural nets, deep learning models are all "models" for the purposes of MBP2.

Models may be based on "wisdom of crowds" and involve some form of computer-enabled or web-enabled group elicitation, or forecasting competition.

But, The MBP2 definition excludes individual humans guessing, no matter how gifted they are, because this is not amenable to benchmarking and not generally computer enabled.

MBP2's definition of "benchmarking" is "comparison of methods



and results across several organizations, seeking to understand common challenges, and seeking to identify best practice.”

The survey explores several topics, developed in consultation with senior practitioners with experience in a wide range of MS&A disciplines. In addition, publications on generic (not discipline specific) modeling practice were consulted in developing benchmarking topics.

**The survey will close on 1 January. To participate, please visit:**

[https://www.surveymonkey.com/r/RAP\\_MBP2](https://www.surveymonkey.com/r/RAP_MBP2).

[Top](#)

## **ITSA** NEWS



**MilSim Asia**  
**January 17-18, 2017**  
**Marina Bay Sands, Singapore**

Just about a month to go until MilSim Asia takes place. Book your conference pass before 31st December and save up to £300. Speakers from both military and industry will address issues ranging from the strategic outlook in Asia to specific simulation solutions unique to the region.

[View the Day 1 Agenda](#)  
[View the Day 2 Agenda](#)  
[Speakers](#)

Exhibit spaces are still available.

For complete details, please visit <http://www.milsimasia.com/>.

[Top](#)



The International Forum  
for the Military Simulation,  
Training and Education Community  
[ITEC.CO.UK](http://ITEC.CO.UK)



**ITEC 2017**

**Conference Agenda Now Available**

A selection of senior international military representatives will

provide leading insights into the issues at the forefront of the military simulation, training and education scene at ITEC 2017. Europe's leading symposium for military simulation, training, and education, technology and services, will take place at Ahoy Rotterdam, 16-18 May 2017. For a detailed look at the ITEC 2017 Conference Agenda, please visit [www.itec.co.uk](http://www.itec.co.uk).

The conference at ITEC 2017 embraces the theme of 'Innovation through Collaboration' and will approach the 'Triple Helix' innovation model and its co-operation of the host nation of the Netherlands with the institutions of NATO and NATO member states, who share similar challenges in areas such as readiness for complex operations and mission preparation in a Coalition context. This critical issue, among many others, will be explored throughout the ITEC 2017 program by leading contributors from across the globe in four separate streams. In addition to the brand new Advanced Engineering stream, the themes of M&S Technologies and Architectures, Requirements to Solutions (Training and Education) and Dual-Use Training Applications will be covered by leading industry experts as well as senior military officials from across the globe.

To find out more about ITEC, please visit [www.itec.co.uk](http://www.itec.co.uk).

[Top](#)

---

**Australasian Simulation Congress**  
**August 28-31, 2017**  
**International Convention Centre**  
**Sydney, Australia**  
**<http://www.simulationcongress.com/>**

What a success the 2016 Australasian Simulation Congress (ASC) was – we thank the previous committee for their efforts and hard work producing a stellar event, pulling together over 800 delegates, 34 exhibitors and key government representatives.

The Australian Simulation Congress moves to Sydney in 2017. It will have been 5 years since we have had a conference in Sydney, so we are looking forward to the new perspectives that the Harbour City will bring.

Our conference theme – People Powered Innovation - aims at highlighting the human element in simulation, and the role simulation plays in innovation.

At its heart, every application of simulation is ultimately about people – whether it is enabling individuals or teams to achieve peak performance or solving problems in infrastructure that will improve the lives of millions of people. As a simulation community, we need to ensure we understand the impact of what we do on the people that interact with, or are affected by, our simulations. As well as this, the ASC is about sharing the achievements of the people making up the simulation community.

Innovation is very much the word of the year – a buzz word applied to any new product or service to try to make it sell. It is at risk of

becoming, if not already, a cliché, however this is a shame with simulation being a major enabler that can be used to drive true innovation. It also leads to an underestimation of the value of our community being innovative in incorporating new tools and techniques in simulation.

The 2017 ASC committee is hard at work to reflect on your feedback from the 2016 event, and to provide a Congress that continues to celebrate the achievements of the simulation and serious gaming community.

We would like to introduce ourselves, the incoming Convenors, and our core team as it currently stands:

- Jessica Stokes-Parish (ASC Co-Convenor & SimHealth Stream Convenor) together with Cyle Sprick (SimHealth Scientific Convenor), Ingrid Wolfsberger (SimHealth Co-Convenor) & Victoria Brazil (SimHealth Co-Scientific Convenor)
- Philip Swadling (ASC Co-Convenor & SimTecT Stream Convenor) together with Anjum Naweed (SimTecT Scientific Convenor)
- Dale Linegar (Serious Games Stream Convenor).

We are working to streamline and align the submission processes, secure site visit locations and finalise invited guests and presentations. In the coming weeks you will hear more from us in regard to a formal Call for Submissions, details on the annual Serious Games Challenge and a Sponsorship & Exhibition Prospectus. You can expect the submissions portal to be open in January, closing late March. Above all, we want to highlight the key activities of all aspects of the community and engage you in thought provoking and inspiring interactive discussions, debates and think tanks.

Join us in Sydney for the 2017 Australasian Simulation Congress, an event promising to showcase you - the human element and innovators of simulation.

Best wishes,  
Jessica Stokes-Parish and Phil Swadling

[www.simulationcongress.com](http://www.simulationcongress.com)

[Top](#)

## NTSA Member News

### **DiSTI Wins Operator/Maintainer Trainer Contract for the US Army C-RAM LPWS**

*(Reprinted with permission of MS&T magazine)*

The DiSTI Corporation has won a \$2.8M contract from the U.S. Army's PEO STRI for the development of the Counter-Rocket, Artillery, Mortar (C-RAM) Intercept Land-based Phalanx Weapon System (LPWS) Operator/Maintenance Trainer (OMT). The application will provide training on the weapon system's operation and maintenance tasks using an immersive 3D virtual interactive

environment.

The C-RAM LPWS is a high-value site defense system that provides immediate situational awareness, precision fires, real-time targeting and kill assessment. The LPWS intercepts rockets, artillery shells and mortar rounds. DiSTI will build an interactive virtual training environment recreating the C-RAM LPWS platform.

As the prime contractor for the C-RAM LPWS OMT, DiSTI will provide a fully integrated solution incorporating the 3D interactive virtual environment, simulation software, networked instructor/operator station, multi-mode lesson engine/procedure monitor software, and the networked electronic classroom's computers and displays. The training systems will be delivered to Fort. Sill in Oklahoma, Fort Campbell in Kentucky and Fort Lee in Virginia by April 2018.

The C-RAM LPWS OMT program will use the latest release of DiSTI's commercially available VE Studio development toolkit that provides a proven, patented process to efficiently create interactive 3D content published to the Unity game engine. VE Studio offers a database-centric production pipeline to efficiently manage 3D virtual environment development; reducing program development cost and risk.

This contract award follows two recent on-time deliveries in 2016 of virtual maintenance training systems previously contracted by PEO STRI for the UH-72A Lakota Light Utility Helicopter and Stryker Mobile Gun System; both contracts with DiSTI as the prime contractor.

[Top](#)

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### **CACI to Support US Navy Training**

*(Reprinted with permission of MS&T magazine)*

CACI International has won a prime position on a contract worth up to \$192 million to provide training and curriculum development to the US Naval Education and Training Command (NETC).

NETC is the largest shore command in the Navy, and is responsible for the training and development of Navy personnel to ensure fleet readiness. Under the contract, CACI will support Navy training and distance learning objectives by developing and delivering instructor-based learning and modular, scalable, interactive solutions for mobile and stationary devices.

[Top](#)

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### **AEgis Technologies Official DoD Reseller of Modest3D Software Suite**

*(Reprinted with permission of MS&T magazine)*

Modest Tree has announced that AEgis Technologies has become

the exclusive United States Department of Defense distributor of the eLearning software suite, Modest3D.

"After careful examination of distributor partnerships, we have chosen AEGIS as our reseller to the Department of Defense. AEGIS has an extensive offering of top quality 3D models for military and civil uses, and has a strong history in the military marketplace," said Sam Sannandaji, CEO of Modest Tree.

The Modest3D eLearning software, which includes Modest3D Editor and Modest3D Explorer, offers the ability to rapidly create a wide variety of 3D interactive training applications, including 3D classroom demonstrations, virtual maintenance trainers and advanced interactive game-based training. The Modest3D suite was selected by the Canadian Military to develop in-house training products for the Army, Navy, and Air Force.

[Top](#)

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### **Elbit Systems Meets Major Milestone**

*(Reprinted with permission of MS&T magazine)*

Elbit Systems has announced that its joint venture with KBR - Affinity Flying Training Services - has reached a significant project milestone with the delivery of its first training aircraft. The two Grob G129TP 'Prefect's' that will deliver elementary flying training were the first of the fleet of aircraft to fly into RAF Cranwell.

The G120TP, which are side-by-side two seater aircraft, are used to teach basic aviation principles and handling skills as well as provide an introduction to basic navigation, night flying and instrument-only flying. The G120TP will be based out of RAF Cranwell and RAF Barkston Heath.

Affinity Flying Training Services will purchase a total of 38 aircraft to support the three levels of flying training. The remainder of the fleet will be delivered next year.

"We are delighted to have delivered these aircraft only nine months after contract award," said Martin Fausset, CEO of Elbit Systems UK. "We are proud to be a part of this significant project and look forward to seeing more aircraft coming on stream next year."

[Top](#)

---

### **Saab Receives Upgrade Orders for US Army Training Systems**

*(Reprinted with permission of MS&T magazine)*

Saab has received three orders from the US Army Program Executive Office of Simulation, Training and Instrumentation (PEO STRI).

Saab will now provide OSAG 2.0 interoperability upgrades for the



US 7th ATC's Deployable Instrumentation System - Europe (DISE) and the Combat Vehicle Tactical Engagement Simulation System (CVTESS) to meet US Army and European forward deployment interoperability requirements.

These new orders, implemented as Mid-Life Service Upgrades, deliver a first of its kind fully interoperable solution to the customer. They will enable soldiers to quickly configure training system lasers to operate using either MILES Communication Code (MCC), primarily used in US training environments or the OSAG 2.0 standard, used by most nations in Europe, for training engagements in any theatre and together with multinational units. OSAG 2.0 is a software code originally developed by Saab that enables true ballistic simulation of ammunition used in anti-tank and vehicle weapons when firing with laser transmitters.

In addition to the OSAG 2.0 upgrade of the DISE infantry systems, Saab will also deliver OSAG 2.0 enabled CVTESS capability for the M1 Abrams Main Battle Tank, the Bradley Infantry Fighting Vehicle and brackets for OPFOR vehicles.

Originally delivered in 2001 for up to Battalion sized training, DISE provides deployable instrumented Live Training capability consisting of Tactical Engagement Simulation System lasers and detectors, exercise control (EXCON), battle tracking, data collection and rapid After Action Review (AAR) capability for Live Training events.

Based in Grafenwoehr, Germany, the upgraded DISE capability will be deployed throughout Europe supporting Training Support Activity Europe (TSAE) for Joint and Multinational forces.

[Top](#)

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#### **Q4 Selected for USMC C-130T Visual Display System Upgrade**

*(Reprinted with permission of MS&T magazine)*

J.F. Taylor, Inc. has selected Orlando, Florida based Q4 Services, for the Naval Air Warfare Center Training Systems Division's (NAWCTSD) visual display and projection system upgrade for US Marine Corps C-130T flight simulator.

"We are delighted to be selected to support J.F. Taylor, Inc. on the C-130T program," said Brian Simpson, president and CEO, Q4 Services LLC. "Q4's SupraVue® collimated visual display and high resolution digital projection solution ensure an extremely realistic and reliable visual training environment is created for their customers."

The C-130T flight simulator is a multi-role, multi-mission transport aircraft that provides in-flight refuelling as well as rapid ground refueling and transportation of personnel and cargo.

[Top](#)

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## Royal Danish Navy Bridge Simulator Contract

*(Reprinted with permission of MS&T magazine)*

The Danish Defence Acquisition and Logistics Organisation (DALO), acting on behalf of three naval training centres in Denmark, has chosen Kongsberg Maritime to supply sophisticated new bridge simulation facilities.

The contract includes a main delivery to the Danish Home Guard School (Marinehjemmaværnssektionen Slipshavn) of four (with the option of additional four) DNV Class B Part Task Bridge Simulators with instructor and debrief stations and integration with real vessel equipment for enhanced physical realism. It also includes delivery of Royal Danish Navy vessel models and exercise areas relevant to specific training needs, mostly covering Danish and surrounding waters.

Two other Royal Danish Navy facilities have options for new simulator equipment as part of the contract award. The Royal Danish Naval Academy (Søværnets Officersskole) has already ordered a DNV Class A full mission bridge simulator, part task bridge simulators and a desktop classroom configuration. Additionally, the contract also includes an optional bridge simulator system for the Royal Danish Naval Warfare School (Søværnets Taktikkursus).

[Top](#)

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## Barco Announces Introduction of F70 Series

*(Reprinted with permission of MS&T magazine)*

Specially built for the simulation market, the laser phosphor-based F70 range addresses the market's specific requirements.

The F70 is designed for performance and reliability. With the Constant Light Output (CLO®) functionality, the projector produces constant brightness and color over an extended period of time. And thanks to Barco's unique and proprietary Single Step Processing (SSP®) technology, all image processing for 4K UHD - including warp, blend, gamma and color - is calculated in a single operation. Performing this procedure in just a single step produces a much higher overall image quality, with a sharper image and fewer artifacts and less latency.

The design of the F70 also takes into account the mounting requirements and suite of lenses of the F3x series - including the FL and FS models - making the F70 a good choice for technology upgrade decisions.

With brightness levels in simulation configurations of up to 5,000 lumens, the F70 is one of the brightest single-chip DLP projectors on the market with 4K UHD resolution. Features especially designed for simulation include smear reduction (improving the image in a high-speed setting), and the dual input WQXGA @120 Hz (allowing either 3D stereoscopy, High Frame Rate, or dual input IR and RGB content). In addition to the F70, there is also the dedicated FS70, which features enhanced IR goggle stimulation

through a dedicated IR illumination source.

"We are very proud to introduce our newest projector into the simulation market, furthering our commitment to this industry," said Dave Fluegeman, director of Barco's Simulation Division. "We have engineered the system right down to micro-precision: dual iris and optical filters ensure better contrast and higher black levels, and high-quality lenses further guarantee a perfect on-screen image with exceptional colors. The F70 is the complete projection package for immersive simulation environments, allowing trainees to completely engage and prepare for their mission - on land, on sea, or in the air."

[Top](#)

---

### **Modifications for B-52 Training System**

*(Reprinted with permission of MS&T magazine)*

Rockwell Collins, as subcontractor to Aviation Training Consulting (ATC), will assist ATC in providing training systems modifications to the US Air Force's B-52 Training System. The contract to ensure the Air Force's ability to maintain crew readiness for its bomber strike force runs through 2024.

Rockwell Collins will support ATC in restoring concurrency to the B-52 Training System by developing major system modifications to support new capabilities on board the B-52 Bomber aircraft. Major modifications include upgrades to the cockpit procedures trainer, electronic warfare simulator, weapons systems trainer, aircrew training devices and mission trainers.

[Top](#)

---

### **3D perception to Deliver Visual Display System to Lockheed Martin**

*(Reprinted with permission of MS&T magazine)*

3D perception, Inc. has announced the signing of a contract to deliver a Northstar™ immersive visual display system (VDS) for Lockheed Martin Corporation in support of the United Kingdom's Military Flying Training System (UK MFTS) Fixed Wing program.

The VDS will support a Beechcraft T-6C flight training device (FTD), and will be delivered, ready for training, in 2018 to the UK's Royal Air Force's RAF Valley, Wales.

The simulator will feature 3D perception's Northstar visual display system with an immersive 270-degree horizontal by 120-degree vertical field-of-view dome screen which can fit within a 20x20 foot floor space. The design features an extremely high-resolution pilot view. The display system's projectors are automatically aligned, blended, and color calibrated via Northstar's sensors embedded in the 18-foot diameter dome screen, expediting and simplifying maintenance procedures and producing a completely seamless image.

The Lockheed Martin T-6C FTD will feature a high-fidelity cockpit and incorporate the fidelity and performance of a full flight simulator without the full motion.

[Top](#)

## **Esterline Delivers Display System to BAE SYSTEMS**

*(Reprinted with permission of MS&T magazine)*

Esterline Simulation Visual Systems will deliver to BAE SYSTEMS (Military Aircraft & Information) Warton site, a state-of-the-art display system capable of high-quality out-of-the-window, nighttime and night-vision-goggle (NVG) scenes.

The display system will be used by BAE SYSTEMS in a new, purpose-built facility to demonstrate BAE SYSTEMS' capabilities across various fast jet platforms to potential customers.

The display system is a 9-channel TREALITY® SEER dome and also includes a Head-Up Display (HUD) projector. Optical edge-blending is used to achieve quality blend regions even for low-light NVG conditions. These blend plates are mounted on motorized fixtures so they can easily be removed for daylight scenes. The display system also includes Esterline's XDS RACU projector control and automatic alignment systems.

[Top](#)

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## **Lockheed Martin Transforms Training and Logistics Business**

*(Reprinted with permission of MS&T magazine)*

Lockheed Martin has announced a refocusing of their Training and Logistics Systems (TLS) business. The company is leveraging core components across its training and logistics portfolio to drive scalable capabilities to the market.

By driving solutions from a core repository of highly complex technical data that sets a baseline for training and logistics products, Lockheed Martin will increase efficiency and save millions of dollars in engineering, development and proposal costs, which will allow the company to provide more predictable performance for customers while becoming more cost-competitive.

Lockheed Martin's existing training and logistics products will now fall within five areas. SciosView™, an integrated suite of proven logistics products providing full mission data for air, land and sea platforms; SciosTrain™, platform-based virtual training systems that employ advanced technologies to accelerate operational proficiency; SciosTest™, a comprehensive set of world class test and support solutions to ensure mission success and warfighter safety; SciosLive™, live, virtual and constructive training environments using augmented/virtual reality to deliver state-of-the-art training; and SciosReady™, turn-key solutions for performance-based training programs that meet evolving demands for customers around the globe and provide the shortest path to learning.

The term "Scios" is derived from the Latin word, scio, meaning

knowledge, and represents Lockheed Martin's smart, technologically-driven approach to delivering the most advanced training and logistics solutions.

[Top](#)

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## **MOD Agrees £1 Billion Deal for UK Test & Training Sites**

*(Reprinted with permission of MS&T magazine)*

The UK Ministry of Defence has agreed a £1 billion contract amendment to modernise and run some of its UK test and training sites that will deliver £300m of efficiencies over the next 11 years.

The considerable efficiencies have been made possible through an amendment to the existing Long Term Partnering Agreement (LTPA) contract with UK company QinetiQ.

Under the contract amendment QinetiQ and the MOD have agreed to invest approximately £180 million to modernise air ranges at MOD Aberporth, Wales and MOD Hebrides, Scotland and test aircrew training at MOD Boscombe Down, Wiltshire.

QinetiQ will reduce infrastructure costs, modernising equipment and aircraft, and adopt a more strategic approach to the delivery of Test and Evaluation and Training Support capability. It has also pledged to work with Small and Medium Enterprises (SMEs) to foster innovation and develop future skills to help deliver the LTPA.

At MOD Boscombe Down investment will provide a fleet of modern training aircraft and an up-to-date syllabus for Test Aircrew Training at the Empire Test Pilots' School.

[Top](#)

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