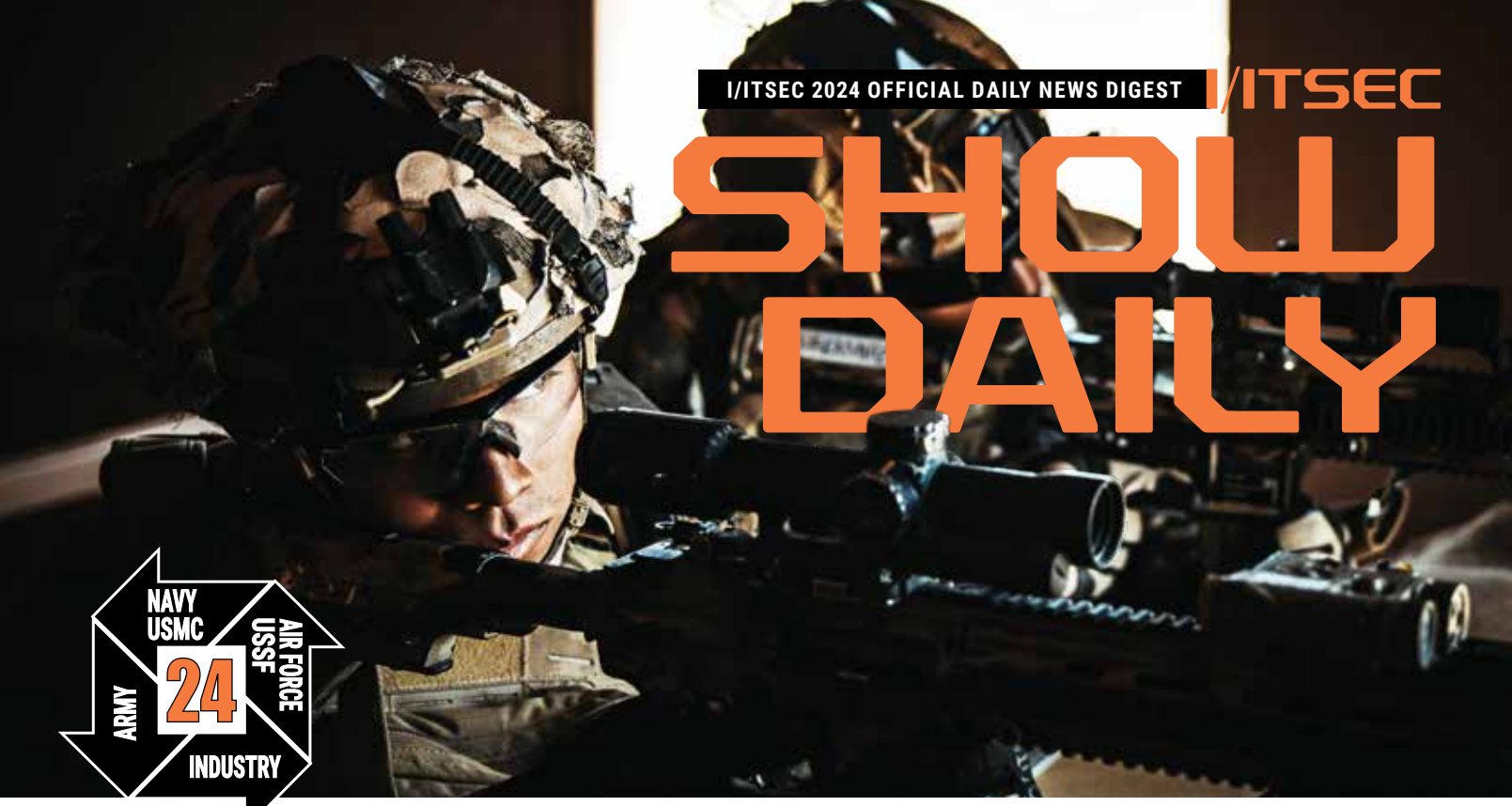

I/ITSEC 2024 OFFICIAL DAILY NEWS DIGEST

# I/ITSEC SHOW DAILY

NAVY USMC AIR FORCE USSF ARMY 24 INDUSTRY

MONDAY
December 2, 2024

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Published by NTSA

## Marines Prepare to Fight and Win

As the Program Manager for Training Systems (PM TRASYS) under Marine Corps Systems Command, Colonel Marcus Reynolds points to a year of accomplishments and intense activity as his organization approaches I/ITSEC 2024.

"Our mission under Marine Corps Systems Command is to field training systems for the Marine Corps to support force design," he began. "At the core of that mission is the creation of an immersive training environment that accurately simulates complex battlefield conditions. And we replicate that environment to prepare Marines to fight and win in any clime and any location."

Reynolds said that this goal is achieved by leveraging cutting-edge modeling and simulation technologies across Team Orlando, noting, "We are able to put that technology out there to the warfighter more quickly to enhance their operational readiness and help them to adapt to the evolving threats wherever they are. Because as you look at what's going on in the world right now, there are a lot of changes across the board, whether it's in Europe or in the Central Command Area of Responsibility or in the Indo-Pacific Command region. The Marine Corps is not just focused on one region in the world. We focus across the globe."

He continued, "Right now, we have a pacing threat, and we are ensuring that we're making our nation safer through deterrence. Additionally, we maximize resources by fostering collaboration with other stakeholders. We collaborate across the joint services and leverage the tools provided by the JSJ7 [Joint Staff J7] and industrial partners."

In addition to delivering the most advanced training systems available today, Reynolds said that his program office is looking into the future at the training capabilities that will be needed in the next five, 10 or even 20 years.

He emphasized that the individual warfighter, and not the supporting machine, is the most valuable asset and that PM TRASYS focuses all its efforts on that reality.

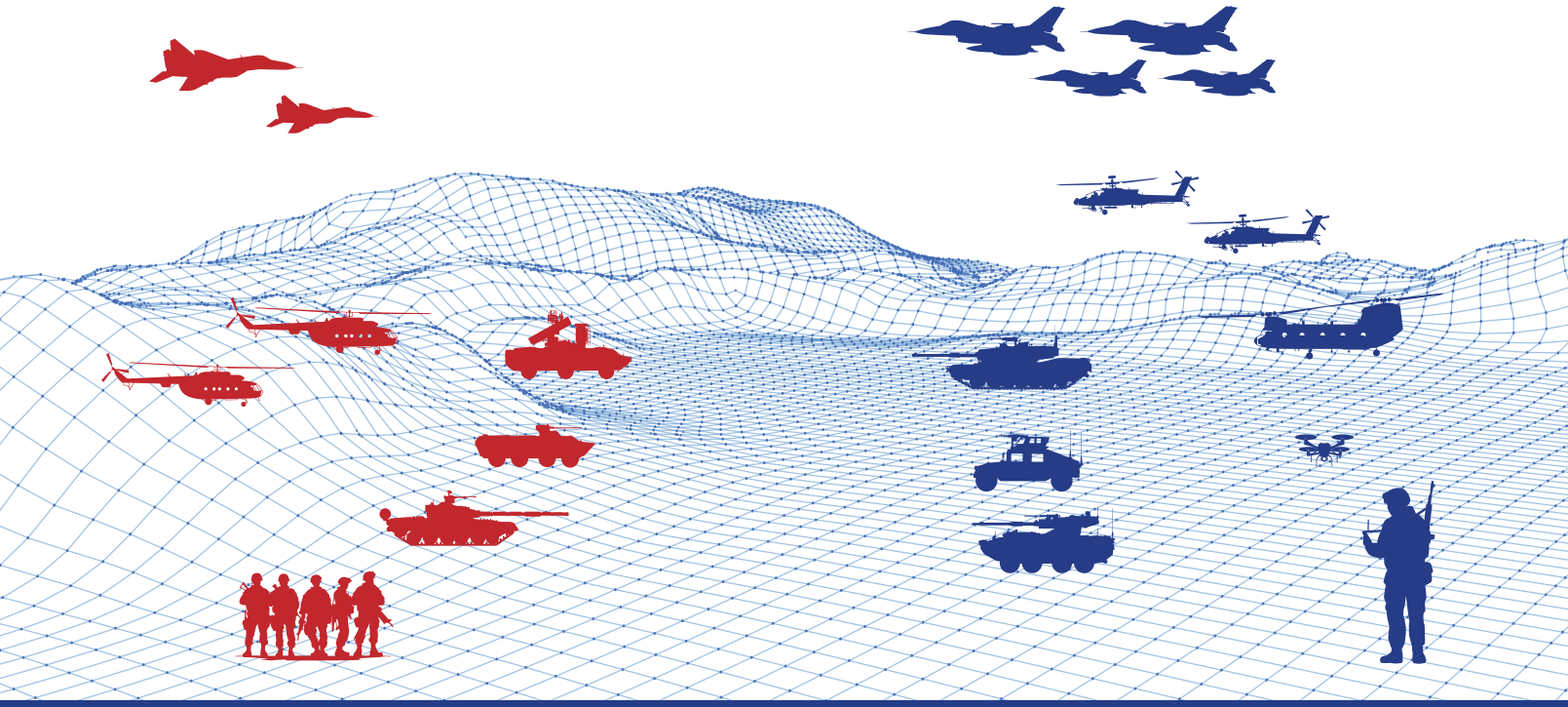
"Sometimes we are asked why we say 'warfighter' instead of 'Marine,' and it's because we are changing as the Department of Defense and becoming more joint every day," he said. "A day that I don't talk to the other services here on Team Orlando is very rare. In fact, if you go around the globe you will see us training with representatives from every service branch and our many coalition partners. We focus on warfighters, because it's more than just Marines."

Shifting to training facilities and programs, Reynolds highlighted several activities and milestones that have taken place over the past year.

"Since last year's I/ITSEC we have had two

*Continued on p16*

**Have questions? Ask BLU! Text 'Hi' to 866.653.1573 or scan the QR Code!**



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## MONDAY, DECEMBER 2
## CONFERENCE HIGHLIGHTS

### REGISTRATION HOURS

*0700-1800* ***(South Concourse)***
*0730-1800* ***(Satellite Registration - Hyatt Regency Main Lobby)***

### EXHIBIT HALL HOURS

*1400-1800*

### SIGNATURE EVENTS

*1030-1200* Congressional Modeling and Simulation Caucus ***(Room 330ABCD)***

### FOCUS EVENTS

*1415-1545* Black Swan: The Singularity Paradox ***(Room 330ABCD)***
*1430-1600* America's Seed Fund: Planting Seeds for Success Under the SBIR/STTR Program ***(Room 310CD)***
*1430-1600* Certified Modeling and Simulation Professional 3.0 ***(Room 310AB)***
*1430-1600* Different Makes Us Stronger: How to Build Diverse Thinking for Today's Defense Dominance ***(330GH)***
*1600-1730* 2024 I/ITSEC Fellows Presentation ***(330ABCD)***

### COMMUNITY OF INTEREST

*1415-1545* Implications of Artificial Intelligence for DoD Human Systems Training Applications ***(Room 320H)***

### PROGRAM BRIEF

*1430-1545* USMC PM TRASYS – Acquisition Update ***(Room 330EF)***

### TUTORIALS

***(Download the I/ITSEC app for synopses)***

*0830-1000; 1030-1200; 1245-1415*
Best Tutorials ***(Room 330EF)***
*TUT 1:* M&S and LVC Basics ***(Room 310AB)***
*TUT 2:* All About the Base - ICS ***(Room 310CD)***
*TUT 3:* Digital Engineering, Digital Twins, and the Return on Investment ***(Room 320A)***
*TUT 4:* It Starts with You (The Human) ***(Room 320B)***
*TUT 5:* Lifecycle of M&S Confidence — From Acorn to Tree ***(Room 320C)***
*TUT 6:* Accessibility and the Human Elements of Training ***(Room 320D)***
*TUT 7:* XR MR VR – Get Real ^3 ***(Room 320E)***
*TUT 8:* Navigating Global Partnerships ***(Room 320F)***
*TUT 9:* Lagniappe ***(Room 320G)***
*TUT 10:* AI & You ***(Room 330GH)***

I/ITSEC
# SHOW DAILY

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## The Annual I/ITSEC Bag Stuffing

On Sunday, over 100 volunteers from government, industry, academia and research organizations came together alongside NTSA President Vice Admiral Sean Buck, USN (Ret.), for the traditional I/ITSEC bag-stuffing event. Demonstrating the teamwork that defines I/ITSEC's success, the volunteers prepared thousands of attendee bags, embodying the collaborative spirit of the event.

## BEST TUTORIAL NOMINEES

**Navigating the Generative AI Revolution**
0830-1000, Room 330EF
Presenters
Sae Schatz, PhD, Partnership for Peace Consortium
Julian Stodd, Sea Salt Learning Ltd.
Geoff Stead, MyTutor

**An Introduction to Cognitive Systems for Modeling & Simulation**
1030-1200, Room 330EF
Presenters
Randolph Jones, PhD, CMSP, Soar Technology, LLC
Dylan Schmorrow, PhD, Soar Technology, LLC

**Unleashing the Potential: Harnessing Large Language Models and Generative AI in Military and Industry Applications**
1245-1415, Room 330EF
Presenters
Ramona Shires, ND, Aptima, Inc.
Robert McCormack, PhD, Aptima, Inc.

AI and Machine Vision Sessions Daily in U.S. ARMY DEVCOM Booth 2135. Scan QR Code for schedule.

# Welcome to I/ITSEC 2024!

My first I/ITSEC. On June 3 of this year, I was selected to become the new President of the National Training and Simulation Association (NTSA). I am very proud to be at the helm and to continue the wonderful initiatives and accomplishments of our former President, the late RADM James Robb, USN, (Ret.) as well as to accelerate progress charting my own course to maintain a positive trajectory for the modeling, simulation and training technology workforce. As many of you know, I have joined a small, yet high performing team, truly committed and dedicated throughout the year to planning, organizing and executing seven conferences and/or events in direct support of the modeling and simulation industry and our membership. I/ITSEC, the grandest of them all, continues to be the key focal point to bring together government, industry, and academia in furtherance of leveraging advances in modeling and simulation technology to improve human performance through training.

I come to NTSA after 40+ years of commissioned service in the United States Navy. I was fortunate enough to have begun my career at the U.S. Naval Academy in Annapolis, MD and concluded my service serving as the 63rd Superintendent there. I am proud to continue to serve our nation in a new capacity that directly contributes to our national defense as well as to improve the delivery of safe care in the medical industry by improving training through modeling and simulation.

RADM Robb passionately encouraged teamwork and open communication and fostered a strong sense of unity among the NTSA staff, all while keeping the focus on the customer. His professional legacy includes a strong NTSA team and an I/ITSEC committee of over 300 volunteers. A keystone achievement during his presidency was the continued expansion of the NTSA Scholarship program. At I/ITSEC 2024 we continue that expansion by awarding 22 total scholarships. NTSA will award $175,000 for six bachelor's degrees, five master's degrees, and 11 PhD scholarships to a group of highly qualified and motivated candidates. Through RADM Robb's leadership, NTSA expanded its commitment to growing the modeling and simulation technology workforce. He established priorities to serve and attract underrepresented students in Science, Technology, Engineering and Mathematics (STEM). These programs help teachers integrate hands-on strategies to support children and youth learning complex STEM concepts, to help inspire the next generation workforce of the simulation and training community. This initiative will also continue to be vigorously supported and expanded.

The lead services this year are the United States Navy and United States Marine Corps. Along with the phenomenal volunteer I/ITSEC leadership, headed by Conference Chair Jim Threlfall and Program Chair Fred Fleury, the service teams have been diligently planning throughout the year to ensure a top-notch conference. The 2024 theme that will thread through each special event, paper presentation and tutorial is *Assuring Deterrence through Integrated Training and Readiness – The Need is Now!*

Tuesday, December 3 will bring our opening ceremonies to the Hyatt Regency Orlando. The Honorable Carlos Del Toro, our 78th Secretary of the Navy, will deliver our late morning opening ceremony Keynote Address. In addition, we have the honor of having our naval services represented at the four-star level for the early morning Fireside Chat to kick off our opening ceremonies. Admiral Christopher W. Grady, our 12th Vice Chairman of the Joint Chiefs of Staff, will participate in a moderated Fireside Chat Tuesday at 1400 in the Orange County Convention Center. Rick Schmidt, President and Chief Executive Officer at Tipping Point Solutions, Inc. will serve as this year's Industry Keynote. Also on Tuesday, this year's Senior Leader Panel will include senior representatives from U.S. Military Services, OSD and International Allies. Many other uniformed and civilian senior leaders from OSD and all four services have confirmed. We have a strong international contingent attending, and the team is tracking record numbers of Flag, General Officers and Senior Executive Service speakers.

I want to personally thank the 300 volunteers that make I/ITSEC happen, and especially our Conference Chair, Jim Threlfall, and our Program Chair, Fred Fleury. They have provided solid support and leadership to not only I/ITSEC, but to me personally, and I thank them for that. They also, along with the conference subcommittees, put hundreds of hours into the planning and execution of the program, and can take credit for the incredible content that you will enjoy. Visit IITSEC.org to review the program; you will be impressed. Download the mobile app to plan your visit by searching I/ITSEC 2024 in your Apple or Google app store.

On the webinar front, we had a very exciting event in November that brought together the Service Executives to discuss their plans and expectations for I/ITSEC [See page 33 in this issue of I/ITSEC Show Daily]. It was a powerful hour, and the recording will be available online at NTSA.org/Events. There will not be a webinar in December.

Please let me or any member of the NTSA team know how we can help; we are here to serve.

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# Conference Chair Shares Unique Perspective on I/ITSEC Planning

## As I/ITSEC 2024 Conference Chair, Jim Threlfall has something of a holistic perspective on the event.

Outlining that perspective and the foundational process of developing the conference, Threlfall began, "At the conclusion of I/ITSEC 2023, we conducted what we call a 'soft launch,' which is just a quick meeting of the incoming conference committee, leadership and subcommittee members."

"Then we transition into more formal planning sessions that take place throughout the year," he continued. "The first one is our kickoff meeting in January, when we go through lessons learned from 2023 to discuss what worked, what didn't work and what we potentially need to adjust. We make those adjustments to the program if we need to – how we build it, how we present it – and then we start assembling our subcommittees." Consisting of six paper, one tutorial, one professional development workshop and special events subcommittees, Threlfall said, "these are part of what we call our 300 plus volunteers who put together the I/ITSEC program."

In March, the abstract review process begins. "This is when we open the I/ITSEC portal for people to submit proposals," Threlfall continued. "They're small abstracts, usually no more than 300 words, submitted by those who potentially want to be part of the I/ITSEC program. The subcommittees review those submissions for papers, tutorials, workshops and special events."

For accepted abstracts, the authors then prepare a formal paper, potentially 10 to 12 pages, in which they describe the presentation in greater detail, including the target audience and learning objectives. "Then we pull the entire subcommittee group back together for what we call a paper review of each one of the submissions," Threlfall said. "So really, the submissions go through two major evaluations to make sure we're getting the best of the best."

While the accepted authors continue their process by building a 20-minute presentation of their submission, Threlfall said his team comes together in September as a conference committee for the program review and start assembling the initial program. At that time, Threlfall said, "We've got an initial agenda. We know when things are going to be presented. We know how they're going to be bundled together in sessions. We know the special events and potentially when they're going to occur. We have a good look now at the vendors that have signed up to be part of our event in our exhibit hall."

Threlfall said the final meeting, in October, is a presentation review, where they assess the presentations the authors have prepared, evaluating aspects such as readability and flow, "and making sure that it's not a marketing presentation for a company or an organization, because the I/ITSEC sessions are not about marketing your company. They're about marketing the knowledge that you want to transfer on to others. So that kind of locks down everything, and at that time we're in the final stretch to the conference, and the remaining time is really just a conference committee refinement and making sure everything's on cue for the opening and closing ceremonies and other last details."

In assembling the massive event that is I/ITSEC 2024, Threlfall described how he has worked closely with the National Training and Simulation Association (NTSA) and others.

"As the chair, I work closely with NTSA, which puts on the conference," Threlfall said. "NTSA provides us with their goals and expectations and the services do the same. So, as the conference chair, my goal is to take those guidelines and ensure that our 300 volunteers, our subcommittees, are moving in a direction to accomplish that."

"I also work with the service leadership to ensure that we are meeting the goals for the conference that have been defined as part of our kickoff meeting," he added. This coordination is reflected in the extreme relevance of this year's theme, *Assuring Deterrence Through Integrated Training and Readiness – The Need is Now!*

"It was mentioned recently from the Army Chief of Staff, General George, that Russia, China, Iran and North Korea represent the 'axis of upheaval' that is increasingly collaborating and conspiring to undermine democratic values and drive a wedge between us and our allies and partners," Threlfall explained. "We continue to see that firsthand through the war in Ukraine, with the insertion of the North Korean forces now into that potential battle, with theater and drone support from Iran and the recent events in the Middle East region."

Threlfall continued, "So as we continue to provide systems to our allies and partners in these regions, the ability for us to also provide

*Continued on p8*

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**Conference Chair** ...continued from page 6

effective modeling, simulation and training for these systems is essential to ensuring the integration of these capabilities into a more cohesive tactical advantage for our allies and partners.

"But that also applies to our own forces, ensuring that they are at the level of cutting edge in both technology and techniques, so that we can maintain that advantage we have on our adversaries. If our adversaries see that cutting edge that we have over them – because now we're sharing it with our allies and partners to go against our adversaries, not directly, but indirectly – then that adds to our deterrence of even a wider threat," he said.

Asked if there are any aspects of I/ITSEC 2024 that he would like to highlight, Threlfall said, "I think the entire conference is exceptional and I want to make sure that each participant has a path to gain the knowledge and experience that they expect."

For practitioners – engineers, those who build the models, simulations and training products – he emphasized the tutorials on Monday, paper sessions Tuesday through Thursday and the professional development workshops on Friday.

"We also have management and business developers that are a big part of our conference," Threlfall said, "and for them, I would emphasize the Congressional Caucus on Monday, so that they get a view from Congress of modeling, simulation and training and where it's going in the federal government, along with the Senior Leader Panel; the Secretary of the Navy, the Honorable Del Toro, and the Vice Chairman, Joint Chiefs of Staff, Admiral Grady, will speak on Tuesday. So that's great information they can glean from the military side, and from the other special events and program briefs Tuesday through Thursday for those managers and business developers."

He added, "And a major emphasis for everyone is the exhibit hall, where participants get to see firsthand the technology and the emerging and innovative solutions that are available for their organization and their units."

Threlfall attributes the success of building the I/ITSEC conference to a cohesive team and continuous collaboration and communication.

Highlighting the growth in the number of special events at this year's I/ITSEC, Threlfall said,

"If you went back 10 and 15 years, you may have had three, maybe six, special events. This year we're going to have 55." He added that the Next Big Thing, started a few years ago, has also grown to eight sessions over three days at this year's I/ITSEC. "Those are great events to enhance the conference and our participants' knowledge," he said.

In his message to attendees, Threlfall said, "I hope they take the opportunity to preview the program and agenda as early as possible, which then enables them to go into the I/ITSEC 2024 mobile app and build a path for themselves through the conference so that they can maximize their I/ITSEC experience."

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James L Regens & Quint Avenetti, Extreme weather preparedness is critical to tactical success in the battlespace, October 1, 2024.

# Black Swan Explores Singularity Paradox

On Monday afternoon I/ITSEC attendees will have an opportunity to learn about the benefits and risks of emerging technologies in a "Black Swan" Focus Event titled "The Singularity Paradox: Navigating the Unintended Consequences of Technology" [1415-1545, Room W330ABCD].

"A 'Black Swan' event is an event that has low probability of happening, but if it does happen, it will have extremely high impact," explained Marryam Chaudhry, who leads the Black Swan team at I/ITSEC 2024.

Chaudhry, who is also President & Chief Executive Officer of XR-2 LEAD, is Co-Moderator for a panel that will include: Co-Moderator and Scene Narrator, Colonel Raymond Compton, USA (Ret.) Fellow, LMI; Ms. Cindy Bedell, SES, Director, Army Research Directorate, U.S. Army DEVCOM, Army Research Laboratory; Dr. Robert Sadowski, PhD, Army Chief Roboticist, Army Futures Command (AFC)/ DEVCOM; Dr. Jeremy Lanman, PhD, APEO, Project Support, U.S. Army PEO STRI; and Mr. Marwane Bahbaz, Chief Technology Officer, U.S. Army PEO STRI.

This year's event will take the audience into a world where the boundaries between human and machine have blurred, leading to unintended consequences that present both incredible possibilities and profound challenges.

"We're going to take the audience about 30 to 60 years into the future and show them what's going to happen if technology goes and advances unchecked at the rampant pace that it is currently advancing," Chaudhry explained.

She said that the immersive experience will highlight the potential paradox of unbridled progress in artificial intelligence, robotics and Extended Reality (XR) by transporting the audience to a city where holographic advertisements flicker through the air, autonomous vehicles navigate the streets and XR displays create captivating digital illusions.

"Our panelists will tie it back to modeling and simulation and how that can bring it back from doom and gloom," Chaudhry said. "Along the way, we are just going to show what can happen when you let some things go without guardrails."

She said that last year's Black Swan event, which focused on human body augmentation and "Dawn of the Super Soldier," was extremely well received, noting, "There were more than 300 people. The house was full, and we had to close the doors because we didn't have any more capacity."

She added that Black Swan's growing popularity has been recognized with a larger room for greater audience capacity this year. However, for those who still miss the event for any reason, recordings are available online.

"If you go on NTSA's YouTube channel you can see the entire hour and a half of the 2023 Super Soldier event," she said. "And we are going to be doing the same full recording this year as well."

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**909**

# Congressional Caucus Takes Morning Spotlight

**As the first Signature Event of I/ITSEC 2024, members of the Congressional Modeling and Simulation Caucus will share their thoughts and key messages on Monday morning [1030-1200, Room 330 ABCD].**

"Compared to past years, the Congressional Caucus has really grown," observed NTSA Strategic Planning Director and Congressional Liaison, Linda Brent, EdD, CMSP, CEO of The ASTA Group, LLC. "We now have close to 30 members of the Caucus, and they have been very active in the patient safety simulation realm, with legislation supporting some of what we call 'pilot projects' in patient safety and simulation. They are looking at how to minimize risk and maximize safety of patients through procedures and using simulation, particularly in rural and underserved areas."

She said that Caucus support can be seen in their sponsorship of related legislation that was written into law as part of the last budget.

"We're looking forward to getting funding assigned and moving forward with that," she added.

Although attendance by Caucus members can change, Brent pointed to confirmed attendance by a bipartisan group including Congressman Bobby Scott (VA-03) and Congressman Jack Bergman (MI-01).

"The Congressional Caucus members will participate in a 'Fireside Chat' type of event moderated by Vice Admiral Buck," she explained. "And the Caucus members will take questions from the audience. If you recall, last year at this session they were very responsive and fairly outspoken about things. So people should not be afraid to ask questions."

Brent speculated that possible new aspects of the long-running Signature Event might include an increased focus on the responsibilities that constituents have to communicate to their Representatives about their needs in modeling, simulation and training.

"We provide opportunities through the year for the industry to do that, such as with the Leadership Summit that we have in February. It'll be February 10th this coming year in Jacksonville and the theme will be artificial intelligence in modeling, simulation and training. And that was at the request of the Caucus members. I query them about what they want as a topic and they all spoke about AI and the need for innovation, but also the need for guardrails, and how we balance that with legislation to be able to help support the community."

She pointed to the July Capitol Hill Modeling & Simulation Expo as another opportunity for communications and messaging.

"That's been a very successful event," she said. "We had probably 350 people through the Expo up on the Hill this past summer. Again, it's an opportunity for constituents to communicate to their Congressional representatives and participate in the legislative process."

She continued, "We also are looking to establish a working group that is legislative in nature, that really highlights the needs of the M&S community at large and can support legislation going forward and work with the Modeling & Simulation Caucus to support that legislation."

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## Monday Tutorial Program at I/ITSEC 2024

Among the myriad professional development opportunities presented at I/ITSEC 2024 is a selection of 33 tutorial presentations covering a broad spectrum of modeling and simulation topics. These tutorials are presented today only during three time periods: 0830-1000; 1030-1200; and 1245-1445.

According to Michael O'Connor, CMSP, Chief Technologist for Trideum and Chair of the Tutorials Subcommittee, the tutorials are "somewhat related" to the I/ITSEC Paper Presentations.

"However, whereas papers are all about informing people about what's going on, what people have done and things they have learned, the tutorials are really focused on imparting some level of a skill. That's the real fundamental difference between the two," he said.

He noted that the tutorials are selected through a process "similar to paper selection," explaining, "Authors submit a proposal, like an abstract. We review the proposals and one of the main things we're looking for is to find those that are actually imparting a skill."

O'Connor said that the process looks for two different kinds of tutorials: foundational and innovative.

"The foundational tutorials are ones that provide some skill that is relevant to the audience year after year," he offered. "Some of them are on the more basic side but they are actually some of our highest attended tutorials. So we repeat those. They might be given for many years in a row. One example is called 'LVC 101' and it covers the basics of live, virtual and constructive simulation techniques. Because we have so many new attendees every year and people who are looking for basic knowledge, that's one of our best-attended tutorials."

He said that approximately two thirds of the tutorial program are focused on innovative topics.

"These change from year to year and it's probably no surprise that one of the biggest innovative topic areas right now is artificial intelligence and machine learning. So we have a couple different tutorials on that," he said.

He said that once a tutorial is approved, presenters provide their full slide deck, which is reviewed by the subcommittee to ensure that they are meeting the learning objectives that they proposed and that people are going to walk out with some level of a new or enhanced skill that they can apply.

He summarized, "This year we have 33 tutorials spread over three time slots on Monday morning. So we'll be presenting 11 concurrent tutorials in at each time slot. Attendees can attend a total of three, so they can look at our list and select what they want to attend."

One representative example of today's tutorials addresses the category of "Digital Engineering, Digital Twins and the Return on Investment." Under the tutorial title Digital Twins: KISS, it will take place beginning at 1030 in Room 320A.

"Our focus is on digital twins and how digital twins are playing an increasingly major role, especially within the Department of Defense and similar sectors," offered co-presenter Ryan Thomas from Allen3D. "The term 'digital twin' means one thing to one person and another thing to another person. To be honest with you, it really depends on what industry you're in as to how the term is getting tossed around. But for us, in the DoD sector specifically, the term and meaning of digital twin really derives from how you're using that model."

"There's a plethora of different information that can be tossed into it," he added. "It's really taking your current existing world and your current assets, and then flipping them and really making them usable, more efficient and more effective."

Noting that he will be joined by co-panelists from industry partner Gafcon Digital, Thomas said, "The beauty is that participants at this presentation are going to get an understanding of what a digital twin is from the very beginning of its inception, which is capturing the data first. The data is the commodity. So for us, that's on the Allen3D front. It's basically getting an understanding of what the project needs and the future ramifications of the data, and then capturing it appropriately from the very beginning. That's using a plethora of different sensor technologies, whether it's drones, satellites, mobile LIDAR scanning or other technologies. It just depends on what's needed. And then we hand it off and let it go through its digital twin process."

In terms of learning objectives, O'Connor suggested that this example could involve what a digital twin is and how it can be used in your different solutions.

He went on to highlight a number of other representative tutorials, adding, "A real benefit that NTSA provides is that, unlike the papers, people who hold exhibitor badges can attend the tutorials. This is a real benefit to the exhibiting companies because tutorials all happen before the exhibit hall opens. So exhibit staff can attend tutorials in the morning and catch up on training."

| | |
|---|---|
| Best Tutorials | **Room 330EF** |
| TUT 1: M&S and LVC Basics | **Room 310AB** |
| TUT 2: All About the Base - ICS | **Room 310CD** |
| TUT 3: Digital Engineering, Digital Twins, and the Return on Investment | **Room 320A** |
| TUT 4: It Starts with You (The Human) | **Room 320B** |
| TUT 5: Lifecycle of M&S Confidence | **Room 320C** |
| TUT 6: Accessibility and the Human Elements of Training – From Acorn to Tree | **Room 320D** |
| TUT 7: XR MR VR – Get Real ^3 | **Room 320E** |
| TUT 8: Navigating Global Partnerships | **Room 320F** |
| TUT 9: Lagniappe | **Room 320G** |
| TUT 10: AI & You | **Room 330GH** |

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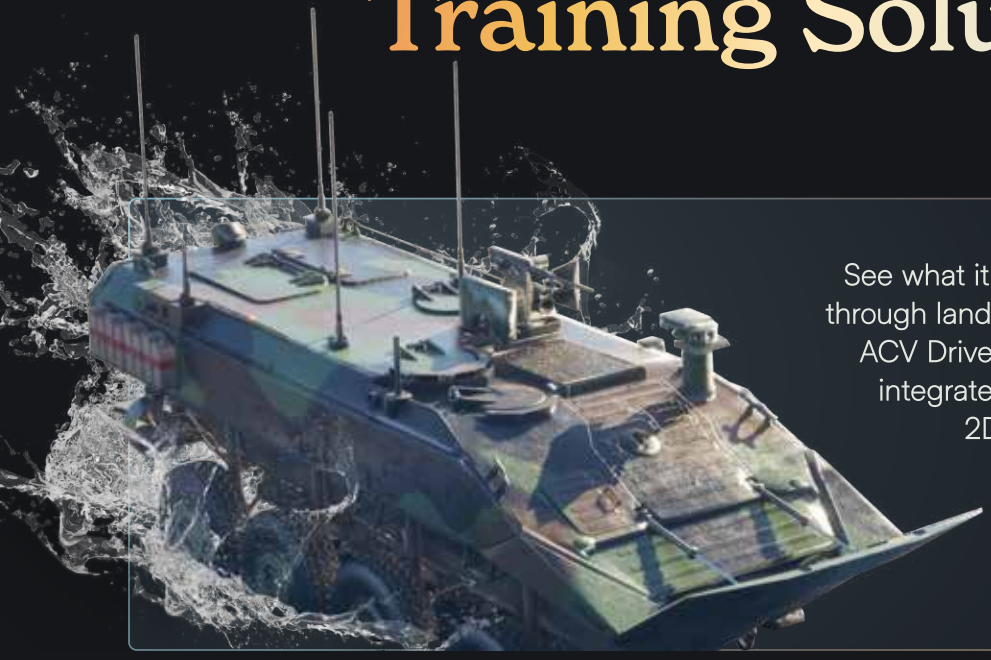

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## Marines Prepare ...continued from page 1

military construction training complexes come to completion," he said. "One is the Mason Live Fire Range Complex on Guam, and it includes several different ranges, including a KD [known distance] range, pistol range and unknown distance firing range. We also have a joint project that comes with Japanese funding, which is the Skaggs Urban Training Complex. We are outfitting that with training systems as we speak, and that is a training capability that will be available to the Fleet early in 2025 for actual training."

Reynolds added, "We also have another military construction training facility coming online with an official availability date in December. That's our new Multi-Purpose Machine Gun Range that is part of the Mason Live Fire Complex, and that will bring additional capabilities for training on the Island of Guam that was not there previously. Again, I want to emphasize that this is not just for Marine Corps capabilities. This is for a joint force and with our coalition partners. It will help us to become more adaptive and cohesive as a fighting force to help deter our near-peer threats in a particular region."

He noted that these regional activities are taking place in parallel with continued progress on the Defense Policy Review Initiative (DPRI) that, among other things, reduces the U.S. footprint on Okinawa, while increasing presence on Guam.

"DPRI force flow is beginning this year," Reynolds stated. "It starts in December and throughout the year we will have the first increment take place. That's pretty exciting, as one who was on the ground back in 2015, when we got the record of decision from the environmental impact study. And to see these capabilities on the Island of Guam just 10 years later is very impressive. We're moving Marines there under the original agreement. That really is exciting."

Emphasizing how these activities help to illustrate "a changing environment" in the U.S. Indo-Pacific Command area, he added, "There is a lot going on out there every day. You may have seen the news about Missile Defense Agency putting a capability out there on Guam. The Navy is also growing their footprint and the Air Force has multiple capabilities there as well. It's really becoming a very busy island to say the least. And, as I mentioned earlier, when you go there you see all the services working together on the same page and leveraging joint tools to collaborate in the training environment."

Looking out toward the horizon, Reynolds identified additional military construction capabilities that will be available for warfighter training. Specifically, he identified a planned June 2026 availability for a new Battle Staff Training Facility and Underwater Egress Trainer as well as November 2026 availability of a new Simulation Center.

He observed that many of these new projects and capabilities will also be outlined during the PM TRASYS Acquisition Update that will be held later today [Monday, 1430-1545, Room 330EF], adding, "To maximize the benefit, I would suggest that, prior to attending the

acquisition update, the audience members should visit our booth. They can see who is partnering and that would be beneficial. And that will also help them to come to the update armed with the type of question they would like to get answered."

Reynolds offered several of his own key messages for I/ITSEC attendees, beginning, "What we are doing at PM TRASYS is focusing on realistic training scenarios. We're committed to continuously improving our products for the Marines and helping enhance their training capabilities, as well as joint force and coalition warfighters. We're investing in our future capabilities, looking at new technologies, looking at what can help us get to more realistic training, so that whenever they're actually out there doing live fire training, they've already seen that scenario several times. That really makes it a safer and more effective training event."

He stressed the need to be fully prepared for the challenges of modern warfare by focusing on essential skills and associated training and tactics.

"We're not just talking about Indo-Pacom," he said. "As we look at Ukraine and Israel, we're talking about adapting to evolving and emerging threats. We're looking at lessons learned in all those different operational areas and how we need to change our training to adapt to those new environments. Consider underground training, for example. Nobody was looking at it two years ago. We haven't looked at it much since the Vietnam War. And that was really the last time we considered the tactics, techniques and procedures to counter it.

"So now we have to look harder at what's going on out there. We have to be aware of that for the future. Because it's not just us. Those lessons are also being studied by our adversaries who may want to do us harm in the future. They are looking at those same engagements and they are going to use whatever they see to be working. And when we change our tactics, techniques and procedures to meet that new threat, the enemy might adjust again. We continuously have to learn and adapt to get out ahead of these evolving threats."

Reynolds said that his time at I/ITSEC would include a focus on "Where is AI?" in the sense of "working with industry and acadmia to better understand this new technology."

He concluded, "I'll be looking at tools that could help a warfighter leverage AI or machine learning to help them make that critical decision faster, because that's really where the future fight is going to be. There will be so much data available to go through. What's important for us is to make a decision, because the enemy is going to have all the data as well. So really, when everybody has the same data, the ones who can get it to a decision-maker to make that decision faster is going to be the one who is basically driving the battle. That's really what I'm going to be focusing on."

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4. The first person camera view shows munition nose and UAV rotor blades for heightened realism.

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# New STEM Initiatives at I/ITSEC 2024

## The EcosySTEM of Learning focuses on strategically and tactically building interest and educational momentum through a wide breadth of Science, Technology, Engineering and Mathematics (STEM) Initiatives.

"This year in STEM we have some ongoing initiatives as well as introducing a lot of new initiatives," explained STEM Committee Director and NTSA strategic planning director, Linda Brent, EdD, CMSP.

As an example, she pointed to a continuation of training for approximately 50 teachers from the Orlando regional area on Monday and Tuesday of I/ITSEC as well as training for about 40 teachers and directors from the DoD Starbase program on Tuesday and Wednesday.

"This is the third year that we've offered the Starbase training, and we hope to make it an annual offering at I/ITSEC," she said. "And we're working with the Department of Defense to be able to support that."

From a student perspective, she noted approximately 100 ROTC students participating in student tours of I/ITSEC on Wednesday and another 500 students anticipated on Thursday.

"We also have a program called the Student Problem Challenge," she added. "That's for high school students and we are expanding it this year to a national program. This year we are bringing four teams of students and their teachers to the conference. We support all their lodging, their travel expenses and their time at the conference. They're presented with a problem consistent with the theme of I/ITSEC and they have a day and a half to solve that problem, to write their recommendations in terms of how to solve that problem, and then they make a presentation before a panel of judges. The presentation ceremony will be on Wednesday at 1600 in the Discovery Den [Booth 2395] at the EcosySTEM of learning. The judges will deliberate and then award the winner of the competition for this year."

Another activity is the Career Fair, with Brent observing that 17 organizations are coming to interview potential employees.

"Last year we had over 300 people attending the Career Fair and we're expecting even a larger number this year," she said. "We're trying to really get the word out to colleges and universities in the area to send their students, and we're excited about providing that benefit to the organizations that participate. Whether they talk to a candidate or not, we provide them with all the resumes that are submitted from all the attendees."

Noting that exhibit booths will be full at this year's EcosySTEM of Learning Pavilion, Brent shifted to some of the new STEM activities that will take place at I/ITSEC 2024.

"As part of that pavilion this year we are welcoming Shenandoah University," she said. "They will be bringing a team of students to present their current research as undergraduates and will have poster sessions in the pavilion. They'll also be doing presentations in the Discovery Den through the week and there will be opportunities to talk with the community about their simulation research. We are very excited about this new addition and we're hoping to maybe eventually turn this into a competition where multiple universities are invited to come and bring their students to participate. In fact, if it works as well as we think it will, we plan to extend it to other universities to come and perhaps eventually have a whole section in the exhibit hall of poster sessions of undergraduate students. That would be great."

Along with these myriad educational events and opportunities across the exhibit hall Brent noted the expansion of the annual University Cohort Meeting at I/ITSEC 2024.

"This year it's going to be on Wednesday morning from 0830 to 1130 in Room 210C (NTSA Meeting Room), and all universities' faculty and researchers are welcome to show up," she said. "We're going to start with a sharing session where they will introduce themselves, share what research they're doing and make connections with other faculty. This is an important opportunity, because, when you think about it in the hall at I/ITSEC, unless you run across someone with another university name tag, you may have no idea what other universities are here. So this provides them an opportunity to come together for a few hours and share what they're doing, develop collaboration and cooperative kind of agreements."

This year's meeting has also been expanded to three hours to include a panel discussion.

"I've been meeting with the university folks from last year once a month to figure out what their needs are, what their desires are and plan an event that is going to meet their needs. So we're going to have presentations from three OTAs, other transactional authorities, who are going to talk with them about how they work with universities and opportunities for universities. And then we'll have an hour where they'll stay around and just do informal roundtable discussions with whoever wants to stay and talk."

## CMSP Program Seeks Input

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# Maximize Your I/ITSEC Experience

In the buildup to I/ITSEC 2024, one recent webinar presented tips, strategies and insights for getting the most out of attending I/ITSEC, whether it's your first I/ITSEC experience or you've attended multiple times. The webinar, presented by Central Florida Tech Grove and hosted by the National Training and Simulation Association (NTSA), titled Tech Grove Connect – Maximize Your ROI From I/ITSEC 2024, focused on topics including pre- and early-conference planning and optimizing networking opportunities.

Moderator Carol Ann Logue, Director, Central Florida Tech Grove, was joined by Leslie Faircloth, Small Business Officer, Naval Air Warfare Center Training Systems Division (NAWCTSD) and Daniel Ketchen, Technology Associates & Products, National Center for Simulation.

A recurring emphasis among the speakers was the importance of preparation and planning ahead. Reviewing and familiarizing yourself with the full conference program, Faircloth said, "will help you to identify areas of interest you may not even have been aware of, such as certain papers, or speakers that you really want to hear. So, pay attention to that. Read that upfront, early. Make a plan. Don't come into the I/ITSEC conference with a haphazard approach. Know why you're there, what you are looking to get out of it, and make a plan to target those people, those companies, those entities and events."

But flexibility is also important, Faircloth added, "because things are going to change," she said. "Maybe you get a text or call from that customer you were trying to reach, and maybe you didn't have them on your schedule, and now you've got to reconsider. So, make a plan, but be flexible."

> **"This a business development conference. Your ROI is in meaningful contacts that are going to lead to meaningful conversation.**

Faircloth began by identifying what she called the importance of "creature comforts," including comfortable shoes. "Really, it's a massive conference," she said. "Wear your sneakers. Bring comfortable shoes."

She also stressed the importance of bringing water and snacks, "because you will be running from one booth, one meeting, to the next, and you're not going to necessarily have time to stop. And sometimes if you do have time to stop, the [concession] line is really long because everybody else has the same idea."

Faircloth added that if you do find yourself in a line, talk to the people you're standing next to. "Always look for those opportunities to network," she said.

Faircloth recommended downloading the I/ITSEC 2024 mobile app which is helpful, she said, "because you're not fumbling around through papers, and you get real time updates if something has changed. You don't have to be on the lookout or hear something through the grapevine; you're going to get those notifications on the app. So, using the app is a great tool."

Ketchen echoed the preparation theme. "Would you walk through the gates of Disney World and say, 'I wonder what I should do today?' No, you're going to be looking at maps, descriptions of rides, where the food is, and all of these things," he said, adding that that level of preparation for I/ITSEC is critical "because there's so much to see."

A webinar participant questioned the panel about strategies for managing the myriad business cards obtained during I/ITSEC. "What I encourage you to do is, after you have a meeting with somebody and you have that card, find a quiet spot, get out your phone, and start a voice recording," Ketchen said. "Record 30 seconds of what you talked about with this person, and what the next steps that the two of you agreed on are." He added that if you keep adding to one continuous recording, "you can upload that to your AI-based translator and get back a single document with your entire week of contacts laid out." This, he said, can serve as a trip report to justify your ROI.

Ketchen emphasized that ROI is not measured in dollars at this conference. "This a business development conference. Your ROI is in meaningful contacts that are going to lead to meaningful conversations," he said.

In addition, the panelists provided numerous suggestions for networking opportunities, including attending the Exhibitor Networking Event on Tuesday afternoon or a company-hosted event in the evening.

"Don't be shy. That's a big one for some folks," Faircloth said. "Sometimes that does require you to move outside of your comfort zone. There are opportunities to network all day and into the evening. Whenever you find yourself next to others, just get curious. Ask questions. 'What do you do? Here's what I do. Are you attending any events? What would you recommend?'"

Ketchen added that the lunchtime meal is another great way to meet people, adding, "I always sit at a table where I don't know anyone."

Attend events and areas of interest that occur throughout the week. For example, Ketchen said, "If you're interested in cyber, there's a Cyber Pavilion [Booth 2369] on the exhibit floor where people give talks. What better way to find other people in your space if your focus is cyber. Get there a little early, stay a little late and meet some people, whether it's the speaker or others in the audience."

And, Ketchen added, "I do need to validate the point about comfortable shoes, because I checked last year and every day at the conference I had 12,000 to 16,000 steps."

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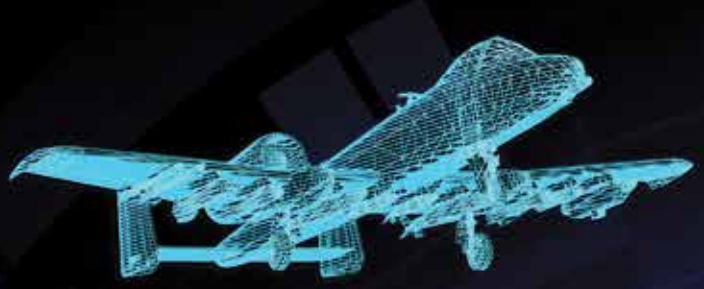

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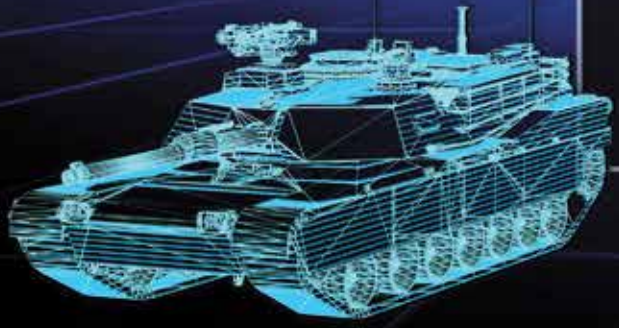

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## EXHIBIT HALL | BOOTH 2909

### MONDAY, 2 DECEMBER

1500 – 1530 **Hololight USA, Inc.** – Hololight Hub: Revolutionizing Defense with XR - Explore the Tactical Advantages

1545 – 1615 **HTC VIVE** – Scaling Secure XR Training Deployments

1630 – 1700 **Concurrent Real-Time** – From Soft to Hard Real-Time: Integrating AI Across the Aerospace and Defense Spectrum

1715 – 1745 **AVRT - Adaptive VR Training** – AVRT - Adaptive Virtual Reality Training: The Application of Human-Centric Design to Dismounted Combat Simulation Training

### TUESDAY, 3 DECEMBER

1230 – 1300 **The Weather Company** – Weather Affects Outcomes: To be Mission Ready is to be Weather Ready

1315 – 1345 **Bohemia Interactive Simulations** – A Wind of Change: Bohemia Interactive Simulations Vision of the Future

1400 – 1430 **Vrgineers, Inc.** – Next-Gen Pilot Training: Mixed Reality Generic Cockpit Simulation

1445 – 1515 **HTX Labs** – Warfighter Readiness: AI and XR Training Solutions

1530 – 1600 **Ruddy Nice** – The Identification, Recruitment and Development of Talent in Professional Wargaming: An Analysis of Women, Gen Z, and Gen Alpha Wargaming Practices

1615 – 1645 **Nutanix, Inc.** – Generating Readiness with Generative AI

1700 – 1730 **Avalon Holographics** – Holographic Display for a New Mission Planning Experience

### WEDNESDAY, 4 DECEMBER

1000 – 1030 **Loft Dynamics AG** – Future of Pilot Training

1045 – 1115 **Lone Star Analysis** – The Alchemy of Innovation: Exploring Lone Star's Emerging Technologies

1130 – 1200 **Air Force Agency for Modeling and Simulation (AFAMS)** – Air Force Air Operations Center (AOC) Training Modernization

1215 – 1245 **Panasonic Connect North America** – Innovations in Rugged Mobile Technology for Military Training and Readiness

1300 – 1330 **Bluemont Technology & Research, Inc.** – Improving SOP Training Retention with Digital Twin Experiences

1400 – 1530 **Best from Around the Globe** – IT²EC 2024 Best Presenter: Optimization of Virtual Reality Medical Simulation Scenarios for Operational Competency and Multi-Disciplinary Team Training; IT²EC 2024 Best Paper: On-Board Synthetic Training – Why is it So Hard?; MODSIM World 2024 Best Paper: Creating Virtual World Environments for Ocean Vehicles

1600 – 1630 **SIMTHETIQ, Inc.** – Digital Twins and the Digital Twin Framework: Uses and Applications for Training

1645 – 1715 **Radiation Emergency Services** – Use of Digital Twin Simulations to Prepare the U.S. Disaster Assistance Response Team for Environments Complicated by Radiological Contamination

1730 – 1800 **Deloitte Consulting, LLP** – Beyond the Battlefield: How Deloitte is Using M&S Tools for Business and Enterprise Innovation

### THURSDAY, 5 DECEMBER

1000 – 1030 **Scaled Foundations** – GRID: General Robot Intelligence Development Developing, Validating and Integrating New Autonomous AI Skills with Human-on-the-Loop Operator Training

1045 – 1115 **Anthology** – Leveraging Artificial Intelligence for Training Delivery in a COTS Based IL4 SaaS Environment

1130 – 1200 **STM** – Understanding Complexity: Tactical/Operational Decision Support

1215 – 1245 **FedLearn** – Advancing Warfighter Readiness with Adaptive Learning Enabled by AI

1300 – 1400 **Serious Games Showcase & Challenge Awards**

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# International Opportunities at I/ITSEC

## International attendees can meet, connect with counterparts and share their perspectives from around the world through a range of international programs and opportunities at I/ITSEC 2024.

"Our International Programs are back again this year," enthused Denise Threlfall, PhD, Director of International Programs for the National Training and Simulation Association. "In fact, the program has grown exponentially over the last few years."

Threlfall said that the I/ITSEC International Program Team first emerged as a concept in the 2015-2016 timeframe, noting "We tried it out and identified a few areas where we needed to expand our focus, and that successful effort led to a resurgence of interest. Of course we had a COVID year, but the general trend over the years has been growth and growth and growth."

Much of that growth is mirrored by this year's International Program Team, which now consists of 17 volunteers: a director, two deputies and 14 members representing various subcommittees.

Threlfall outlined a number of international activities and opportunities at I/ITSEC, beginning with the International Pavilion [Room S310E-H].

"The International Pavilion will have the same sponsor that we have had for the last couple of years: A. Harold + Associates (AHA)," she said. "We're really excited that Andy and his team felt value in the last few years of being our pavilion sponsor and being able to provide the demos and the discussions that they do throughout the week. So this year we'll have five meeting rooms in the space, with daily refreshments."

She said that the original vision for the pavilion, as expressed by former NTSA President RADM Frederick L. Lewis, USN (Ret.), was to provide international attendees with "a home away from home."

She continued, "We try to do that with our International Program Team members, to really provide a welcoming atmosphere, advice on where to go, what to see and who they might want to interact with if they have questions. We have very knowledgeable people from the industry and government that sit on the IPT, so we're just hoping to provide the over 2,000 international attendees we are expecting to get with hospitality and a great experience."

In addition to the International Pavilion, Threlfall noted more than 20 papers that will be presented from international authors during the week as well as eight internationally themed special events.

"We have a different format this year," she said. "For example, we're really excited for 'Best From Around The Globe,' which will feature the Best Paper awardees from MODSIM World and IT$^2$EC, with each of the winners selected by a committee with criteria specific to the particular global conference focus and theme [see P28]. We're going to be doing that in the Innovation Showcase in the exhibit hall this year, instead of in a presentation room, so that exhibitors that are interested in the topic can also attend. It will be open to everyone."

Asked to elaborate on the anticipated 2,000 international visitors to I/ITSEC 2024, Threlfall said that they usually come from approximately 60 different countries, adding, "We might have more than 2,000 international attendees this year, because a lot of countries send members of their military every other year, and I believe this to be a rotational year, so we may have well over 2,000 between exhibitors and military."

Separate from the International Pavilion, she said that I/ITSEC 2024 marks the return of international pavilions from Canada [Booth 1969] and Australia [Booth 1961].

International registrants should register at the dedicated international check-in station positioned near the main registration desk in the lower level of the South Concourse. International conference attendees' meeting bags will be available for pick-up at the main registration desk this year.

Once they get checked in and receive their purple "International" ribbon, Threlfall suggests that international registrants should "take advantage of some of the high level tutorials that have some international flavor to them, all the way through the Professional Development Workshops on Friday."

She concluded, "If they have questions or it's their first I/ITSEC, come and ask the experts. That's one of the main reasons we are there, not only to give them a welcoming environment, but also advice. If they have things that they would like to see, or are torn between going to different sessions, we can help them make a good plan, because without a plan, I/ITSEC can be quite overwhelming. So let us help get that plan together at the beginning of the week. And being able to talk to our seasoned professionals that have been a part of this group for so long can really provide value to their experience at the conference."

### INTERNATIONAL PAVILION HOURS OF OPERATION

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**0800-1500**
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International registrants should register at the dedicated international check-in station positioned near the main registration desk in the lower level of the South Concourse. International conference attendees' meeting bags will be available for pick-up at the main registration desk this year.

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# Program Chair Outlines I/ITSEC 2024

In a recent conversation with the I/ITSEC *Show Daily*, Fred Fleury, I/ITSEC 2024 Program Chair, described the development process of the I/ITSEC program, emphasized the value of the hundreds of volunteer professionals in executing the program and highlighted features and content of this year's conference.

Fleury described the planning process for I/ITSEC 2024 as beginning about a year-and-a-half before the event.

"I started working with our Conference Chair, Jim Threlfall, in the summer of 2023, and we engaged this year's lead services, the Navy and the Marine Corps, to develop the conference theme. So, planning actually starts long before the actual conference," Fleury said. "We asked the lead services about their priorities and the new technologies that they're following, and based upon their responses, we developed a call for presentations and started building the program outline.

"Recruiting a strong roster of volunteer professionals is also the key in executing on a good program theme and bringing the technologies to support it," Fleury continued. "I use the phrase 'volunteer professionals' because every person who supports our efforts is really a focused professional, donating their time and committing to make sure that our warfighters and our responders have the sharpest tools in their kit. These volunteer professionals then spend most of the year working with us to develop the technical program, the special events and help us develop this world-class I/ITSEC program."

Asked about the roles of program chair and conference chair, Fleury explained that they work as a team. The conference chair engages in strategic planning, working with the services and NTSA President VADM Sean Buck "to make sure that the correct messages and the priorities are presented," he said. The program chair carries out the tactical execution of their strategy. "I work with Debbie Langelier, Senior Vice President of NTSA, the service principals, who are the technical representatives, and our subcommittees," he continued, "to ensure the technical content supports those strategic messages and priorities."

Fleury emphasized the crucial role of the subcommittees doing "all the heavy lifting" in peer review and selecting the best technical content for the conference. "I couldn't begin to develop this conference without their help, and I'm very thankful for the great team of volunteer professionals that we've put forward," he said.

This year's theme, *Assuring Deterrence Through Integrated Training and Readiness – The Need is Now!* was built by the services, Fleury said, based upon the challenges from international aggressors. "When I first read the theme, I thought there's a lot of common sense in using this strong defense posture as a deterrence to the aggression we're seeing, so therefore, through the better integration of our platform systems and training of our service members, we can hopefully deter a lot of this aggression. For example, our services stated that the small drone technology advances can help us better track those bad actors who may want to disturb the world peace, so we made sure to bring those drone technology papers and training demonstrations to our I/ITSEC program."

"We also see the continuation of AR and XR technologies as key enablers to this deterrence," Fleury continued. "We're really seeing those mature, and we now have some hard data and experience to see how we might be able to use those to either save money or expedite training. This then helps us inform our modeling and simulation com-

*Continued on p32*

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**Program Chair** ...continued from page 30

munity for better requirements in our system approaches. So, I think our attendees will see a lot of emphasis on those AR and XR technologies' maturation."

"I also emphasized including M&S content for our testing communities, as that has made up most of my professional experience," Fleury said. "We're now seeing the combination of operational testing and joint training with the building of the joint synthetic environment, JSE, so this has certainly presented some timing and data challenges to the M&S industry, and they're ours to solve at this point. I think it's important that we continue to support better physics-based models for testing and training to make sure our systems are accurate when using XR displays, and, most importantly, effective when we start using AI decision aids."

Along with Monday's tutorials focusing on these and other technologies, Fleury said, "there are special events throughout the week, in addition to our technical papers, that are focused on these new, relevant issues." He added that there is a record number of 55 special events at this year's I/ITSEC.

Fleury identified one of the challenges in developing the program is "having up-to-date, relevant content in a world that's just changing so quickly. We've continued our Black Swan and our Next Big Thing special events to keep a fresh perspective on world events. Black Swan continues to have strong interest in our community for developing new ideas on how M&S can solve these pop-up world problems [Black Swan: The Singularity Paradox, today, 1415-1545, Room 330ABCD]."

The Next Big Thing initiative, Fleury continued, "really helps us track new technology influences and how we can apply those technologies." This year's I/ITSEC features multiple Next Big Thing presentations occurring over several days in an area called the Destination Lounge, providing "a great setting for focusing on how these technologies can be better used for testing and training techniques."

Asked about strategies for how attendees can maximize their experience at I/ITSEC 2024, Fleury acknowledged that the conference can be overwhelming. "But, first of all," he said, "study the entire program, because we have a vast array of opportunities, whether it's getting up to speed on the latest use of technologies for training through the paper sessions, or better understanding our defense leadership's views by attending some of the senior leader panels. We have really worked hard to make sure all this is first class content."

"We have continued the use of our 'personas' from last year to help attendees build their schedules for the week. These are good starting points to help navigate the breadth of I/ITSEC and make the most of their time focused on their specific interests," he said, adding, "The I/ITSEC 2024 app is also great for researching and scheduling event reminders and finding exhibitors."

And, Fleury concluded, "use the week to network with your M&S colleagues to build new technical and business relationships. It is these relationships that have helped me in my career and led me to support service members and first responders through the I/ITSEC community."

# Service Leaders Identify I/ITSEC Interests

CAPTAIN TIM JAMES, USN

COLONEL MARCUS REYNOLDS, USMC

COLONEL COREY KLOPSTEIN, USSF

COLONEL CARLOS QUINONES, USAF

BRIGADIER GENERAL CHRISTINE BEELER, USA

In the buildup to this year's I/ITSEC, one NTSA Webinar provided participants with an early opportunity to interact with the I/ITSEC service executives. Titled "Deterrence Through Training and Readiness: How M&S is Protecting Our World," the webinar highlighted the services' thoughts on the future of training, the technologies that are drawing them to the exhibit hall and their priority issues for exploration during I/ITSEC 2024.

Captain Tim James, Commander of the Naval Air Warfare Center Training Systems Division (NAWCTSD), opened the presentations by outlining his command's anticipated focus on three areas during this year's I/ITSEC.

"Let me start with the Navy's big problem in training right now," he began. "As highlighted by the Chief of Naval Operations in the rollout of 'Project 33,' in training like we fight, LVC (live / virtual / constructive) is the number one thing on our ticket. But in order to get there, I'm looking for three very specific technology areas."

He identified those three areas as: Artificial Intelligence, applied not only to LVC and simulation but also in what he termed "the business of business"; the second is mixed or extended reality devices capitalizing on Moore's Law to collapse the cost and footprint of simulators; and third, support to the infrastructure behind all of this.

"We've got all kinds of operational plans with these 'magic lightning bolts' that make all these simulators work," he said. "But nobody really focuses on that. They always glom onto the devices. So I'm interested in anything that helps us with our bandwidth problems, our cyber problems and areas like that."

Colonel Marcus Reynolds provided his perspective as Marine Corps Systems Command's Program Manager for Training Systems (PM TRASYS).

"We are on a brink of a transformation in military training and simulation, particularly within the Marine Corps, as outlined from the Commandant's planning guidance called Force Design," he said. "We're challenged to modernize warfare through innovations and solutions in our training systems that are continually evolving. It's hard to keep up with how fast technology changes. So I'm very excited about this year's I/ITSEC and the opportunities for us to get out there and see the changes that have happened just over the last year."

He added, "Having that opportunity to get out there and engage with industry really helps us 'move the needle' for getting after and solving some of our hardest problems." The Marine Corps has always been at the forefront of military innovation, and our training systems are no exception, from live training exercises, to advanced simulations, to technologies that we're committed to enhancing for the readiness and effectiveness of our Marines and a joint warfighting force."

Some of the identified focus areas of interest at I/ITSEC 2024 ranged from synthetic training environments to adaptive learning technologies to integration with joint forces.

Colonel Corey Klopstein, Program Executive Officer for Operational Test and Training Infrastructure for Space Systems Command, provided an early glimpse of the advanced systems that provide the foundation for the high end, advanced testing, training and tactics development for all U.S. Space Force Guardians.

"The space domain has really changed from a benign to a contested environment," he said. "Our training previously was focused on proficiency in operating a system and ensuring that that system can be capable at all times. But as we change from benign to a contested environment that has changed. What we need from a training standpoint, is to provide combat credible forces. And as that environment has changed, our standards for readiness have changed, and the CSO [U.S. Space Force Chief of Space Operations] has emphasized this across the board since he's been in the seat. Readiness is his top priority. We've got to have Guardians who can gain and maintain space superiority, and control the domain, not just operate in the domain."

Colonel Carlos Quinones is the Acting Program Executive Officer for Training for the U.S. Air Force.

In his webinar overview, Quinones pointed to "a significant transformation with regard to how we look at training," explaining that service leadership "is telling us that we need to be ready for a near peer type of scenario where some of the capabilities and the systems that we will be using, and some of the assumptions that we have been operating under, are not going to be present in this environment."

He said that this new reality had contributed to the recent creation of the Air Force Program Executive Office for Training, highlighting how that new office will be able to better leverage new technologies to ensure that training systems are ready to provide those capabilities necessary to operate in a potentially new environment.

As the U.S. Army's Program Executive Officer for Simulation, Training and Instrumentation, Brigadier General Christine Beeler presented a brief overview of Army training perspectives and I/ITSEC goals, emphasizing that "The human is the critical constituent that's going to bring all of this great kit to bear on the battlefield."

She noted that Army priorities include areas like wireless intelligence networks, instrumentation of autonomous platforms, optics, AI enabled simulation and non-kinetic modeling.

"I look forward to the exhibit hall at I/ITSEC and really getting a chance to see what's out there and what we can take advantage of," she said.

# I/ITSEC Fellow Challenges a New Generation

One of today's I/ITSEC Focus Events is the presentation by 2024 I/ITSEC Fellow, Dr. Winston "Wink" Bennett [Monday, 1600-1730, Room 330 ABCD].

Dr. Bennett was selected for this honor in recognition of his outstanding contributions in the fields of training, education and modeling and simulation spanning four decades.

Talking to the I/ITSEC *Show Daily*, Bennett began, "It really takes a village to do any of the things that I have been able to do over the last 40 years. And, I've really been blessed over those years to work with some really great people and some really great teams. Nothing happens in isolation or by a single person. It really comes from collective thinking through a problem and working with people to solve it."

Reflecting on some of those early teams, he cited the start of his modeling and simulation activities in the early to mid 1980s, when he was attending Saint Mary's in San Antonio for a master's degree in Human Factors Psychology.

"At that time, there was a research lab in San Antonio called the Human Resources Laboratory," he said. "And one of my professors suggested that I should interview for a summer student program to see if I might like working in that field. So I applied for and received a summer internship that was only supposed to last three months."

He noted that the early work involved some task analysis and data analysis to try to better match military personnel to careers, especially those with high endurance requirements, ranging from special operations to firefighting.

"And I really dug the work," he enthused. "It was really great and I was pretty fascinated by all of it. And at the end of the summer, they said, 'Hey, we'd like you to stick around and we've got this position that makes a little more money and would have you involved with a couple of interesting projects.' So I took the gig and I continued to work for them in San Antonio, increasing my involvement in a whole lot of modeling and simulation related work, mostly tied to developing what was called at the time multimedia instruction; things like laser discs and interactive courseware on early PCs and doing evaluations of those kind of technologies."

Bennett said that those evaluations included expanded field work, explaining, "Some of my early mentors were all about doing good science and technology in the context of where you expect it to be applied, which was pretty novel at the time. At that time, not a lot of people in the research community wanted to do that kind of stuff, because working in the real world is messy and operational. People have lots of opinions and ideas and the environments are constraining. But I found that to be very exciting and useful, and that philosophy of trying to do science and technology in the context of an operational need, with the operational people as stakeholders right from the start, stayed with me and the teams I got to work with over the years."

He said he stayed involved with the education, training, modeling and simulation-related technologies through time in San Antonio, where he was able to work with what was once called Air Training Command, then Air Education and Training Command, and soon to be designated as Airman Development Command.

"We did a lot of work with the educational community there, where they did technical training for enlisted folks and officer training for officer candidates," he said. "And it was a really good opportunity to apply some of our tools of the trade with that community."

After earning his PhD, Bennett subsequently moved to a modeling and simulation facility in Arizona, where he was involved in interactive courseware and training development for a wide range of critical skills.

Noting that he left the Air Force after more than 39 years in March 2024, he soon found himself focusing on a "wish list" of projects at SAIC.

For his Monday afternoon presentation, Bennett said he will include the need to do good science, but to do it in the context of supporting an operational requirement.

"Make sure you listen to the people who are supposed to use the technology to ensure that it's right, so that you don't build something that they can't use," he said. "And I'll also sprinkle the presentation with some examples of the things that the teams and I have been involved in over the years. I'll talk about how some of those things came about."

Bennett added, "I was fortunate enough to have good mentors and good leaders who supported me and the teams that I was working with. Then, when I became one of those leaders and mentors, I had the same philosophy."

He concluded, "It's been a great career for me, but there's still plenty to do. There are still tons of things that need to be done, and I'm planning to leave everyone with some examples of where I think the opportunities are for the future in modeling and simulation, because it's never done. There are always more things to get after. And it's up to the next generation coming along to embrace those things and get after them."

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