MONDAY, 28 NOVEMBER • 1030 – 1200 • ROOM W311ABCD

CONGRESSIONAL MODELING AND SIMULATION CAUCUS

STRONG ADVOCACY FOR TRAINING AND READINESS

All attendees and exhibitors are invited to hear from the training and simulation leaders in Congress. It is also a great opportunity for you to interact with Congressional Members on issues of importance to you or your company and to impress upon them your priorities. With defense budgets constantly in flux, this forum provides you an opportunity to advocate for the value of training and simulation in support of national security. Attendees will hear from the leadership of the Modeling and Simulation Congressional Caucus on their perspective ofthe situation in Washington and have the opportunity to make their case for timely investments in modeling and simulation. With every budget dollar being scrutinized, strong advocacy for training and readiness has never been more important.

CONGRESSIONAL MODELING AND SIMULATION CAUCUS MEMBERS

BOBBY SCOTT
Caucus Co-Chair
Virginia 3rd District

JOHN RUTHERFORD
Caucus Co-Chair
Florida 4th District

STEPHANIE MURPHY
Caucus Co-Chair
Florida 7th District

JACK BERGMAN
Caucus Co-Chair
Michigan 1st District

ROBERT ADERHOLT
Alabama 4th District

GUS BILIRAKIS
Florida 12th District

MO BROOKS
Alabama 5th District

VERN BUCHANAN
Florida 16th District

KEN CALVERT
California 42nd District

JOHN CARTER
Texas 31st District

STEVE COHEN
Tennessee 9th District

VIRGINIA FOXX
North Carolina 5th District

DOUG LAMBORN
Colorado 5th District

ALAN LOWENTHAL
California 47th District

ELAINE LURIA
Virginia 2nd District

SCOTT PETERS
California 52nd District

BILL POSEY
Florida 8th District

LUCILLE ROYBAL-ALLARD
California 40th District

C.A. DUTCH RUPPERSBERGER
Maryland 2nd District

DARREN SOTO
Florida 9th District

MIKE TURNER
Ohio 10th District

JOE WILSON
South Carolina 2nd District

ROBERT WITTMAN
Virginia 1st District

MONDAY, 28 NOVEMBER • 1430 – 1545 • ROOM W300-THEATRE

THE NBT TALX – IMAGINING THE FUTURE FIGHT THROUGH EMERGING TECHNOLOGIES

NEXT GENERATION TECHNOLOGY AND THE FUTURE OF CONFLICT!

MODERATORS

LUKE SHABRO
Deputy Director, Army Mad Scientist Laboratory, U.S. Army Training and Doctrine Command

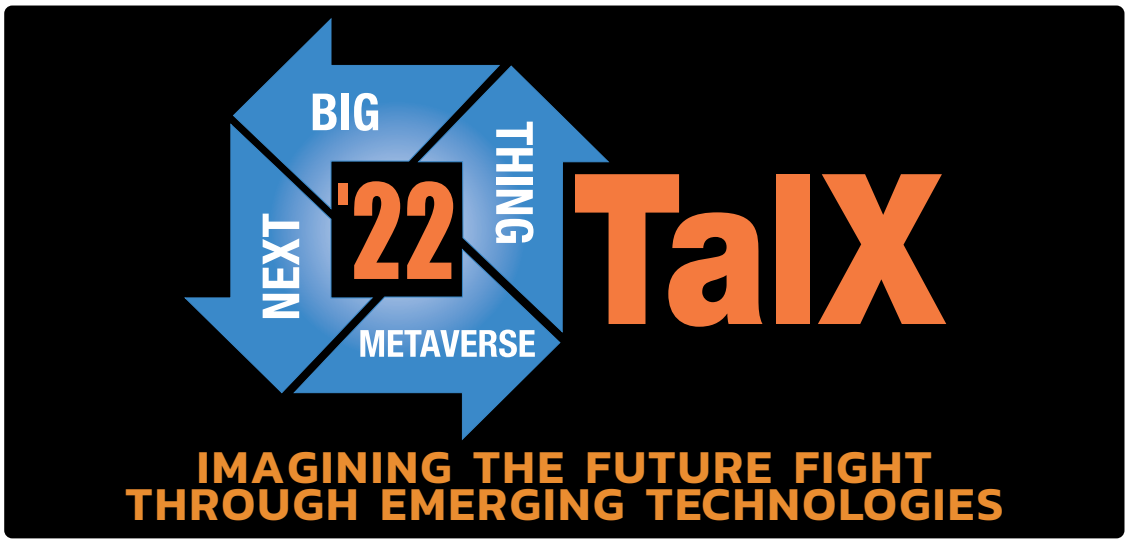
MATHEW SANTASPIRT
DEVCOM-AC Intelligence Representative to the TRADOC G2 U.S. Army DEVCOM Armaments Center

PANELISTS

WHITNEY McNAMARA
Associate Vice President, Beacon Global Strategies and Nonresident Senior Fellow, Center for Strategic and Budgetary Assessments

JENNIFER McARDLE, CMSP
Adjunct Senior Fellow, Center for a New American Security, Head of Research, Improbable U.S. Defense and Security

COMMANDER PAUL GROESTAD
Norwegian Navy, Deputy Branch Head, Concept Development, NATO Allied Command Transformation




MR. SHABRO


MR. SANTASPIRT


MS. McNAMARA


MS. McARDLE, CMSP


CDR GROESTAD

Technological change is fundamentally altering the future battlespace, with key implications for how the military may plan, train, and conduct operations. This panel discussion, which will result in a podcast released by the U.S. Army's Mad Scientist Laboratory, explores the emerging technologies that may radically reshape the future of competition and conflict — from extended reality interfaces, to artificial intelligence, and new means to empower the metaverse.

MONDAY, 28 NOVEMBER • 1600 – 1730 • ROOM W300-THEATRE

I/ITSEC FELLOW 2022

COME SEE THE I/ITSEC FELLOW PRESENTATION!

WARREN KATZ
I/TSEC 2022 Fellow

WHO IS THE I/ITSEC 2022 FELLOW

Warren Katz graduated from the Massachusetts Institute of Technology (MIT) with dual degrees in Mechanical and Electrical Engineering and started his career in Modeling and Simulation as an engineer at Bolt, Beranek and Newman (BBN), Inc. working on the Simulation Networking (SIMNET) program — the pioneering distributed simulation program sponsored by the Defense Advanced Research Projects Agency. The purpose of this ground-breaking program was to create a prototype research system to investigate the feasibility of creating a real-time distributed simulator for combat simulation. SIMNET, the resulting application, was to prove both the feasibility and effectiveness of distributed simulation for combined arms training. Warren's team at BBN developed the vehicle simulation and network software, as well as other software such as artillery, resupply, and semi-automated forces often used for opposing forces. After proving the feasibility of distributed simulation, the DoD sponsored the development of the Distributed Interactive Simulation (DIS) standard, and Warren left BBN to become the co-founder of MAK Technologies in 1990. Soon after, MAK released the first commercial distributed simulation toolkit — VR-link — a product that is still thriving over 30 years later! Warren continued to lead MAK as its visionary COO and CEO for more than two decades, and his "Dial-a-Tank" concept was a precursor to today's modern reconfigurable virtual simulators. He forged some of the earliest links between the defense M&S community and the gaming community — launching the "Spearhead" commercial tank simulation game through publisher Interactive Magic in 1998; and the first DIS/HLA plug-in for the Unreal game engine a few years later. Warren also helped to develop the concept and architecture for the DARPA "DARWARS" program in the early 2000's and leveraged funding from the U.S. Army, Marine Corps, Air Force, and other customers to develop the Battle Command line of low-overhead tactical trainers. By Warren's retirement from MAK in 2012, his company's product line had expanded to include a commercial Run-Time Interface for the High Level Architecture (HLA RTI); a market-leading Computer Generated Forces tool (VR-Forces); a streaming terrain server (VR-TheWorld Server); and one of the first 3D rendering engines that could generate visual terrain at run-time directly from GIS source data (VR-Vantage).

COME SEE THE I/ITSEC FELLOW PRESENTATION!

Warren Katz has focused his I/ITSEC Fellows paper on his many years of M&S experience in the training and acquisition domains, describing "a slow and fitful transformation" from a business model where all development of simulation software and technology was custom crafted for every new project, to an industry that consists today of a large number of vendors of finished commercial-off-the-shelf (COTS) items that can be purchased at a firm fixed price, are of commercial software quality, are well supported, and can be integrated, and adapted into finished systems quickly and easily. Warren discusses that to enable this market, open interoperability standards first needed to be created that would allow the exchange of data of various kinds emerged such that content (e.g., environmental data, entity state, scenario initial conditions, after-action review archives, etc.) can all be transmitted and received by products from different vendors and leveraged repeatedly without re-creation. Please join us as he recounts the trials, tribulations, successes, and failures of the conversion of this ecosystem into a free market of competing vendors!

TUESDAY, 29 NOVEMBER • 1015 – 1200 • HYATT WINDERMERE BALLROOM

SENIOR LEADER PANEL

IT'S TIME TO ACTT!

MODERATOR

REAR ADMIRAL JAMES A. ROBB, USN (RET.)
President, National Training and Simulation Association (NTSA)

PANELISTS

DIMITRI KUSNEZOV, PH.D.
Under Secretary for Science and Technology, Department of Homeland Security

LIEUTENANT GENERAL KEVIN M. IIAMS, USMC
Commanding General, Training and Education Command, USMC

VICE ADMIRAL FRANCIS MORLEY, USN
Principal Military Deputy Assistant Secretary of the Navy (Research, Development and Acquisition)

CAROLINE BAXTER
Deputy Assistant Secretary of Defense (DASD) for Force Education and Training, USD P&R

YOUNG J. BANG
Principal Deputy Assistant Secretary of the Army (Acquisition, Logistics & Technology)

KAREN D. H. SAUNDERS, SES
Program Executive Officer for Simulation, Training and Instrumentation, U.S. Army PEO STRI

LISA COSTA, SES, PH.D.
Chief Technology and Innovation Officer (CTIO), U.S. Space Force

KEVIN D. STAMEY, SES
Director for Information Dominance Programs, Office of the Assistant Secretary of the Air Force for Acquisition, Technology and Logistics

LIEUTENANT GENERAL MICHAEL CLAESSON
Chief of Joint Operations, Swedish Armed Forces


RADM ROBB, USN (RET.)


DR. KUSNEZOV


LTGEN IIAMS, USMC


VADM MORLEY, USN


DASD BAXTER


MR. BANG


MS. SAUNDERS, SES


DR. COSTA, SES


MR. STAMEY, SES


LTG CLAESSON

Global forces continue to be challenged by erratic budgets and complex threats. Services continue to prepare for a wide array of missions that range from disaster assistance to the return of great power competition. Additionally, Nations continue to deal with the opportunities and challenges of accelerating technology and cybersecurity. Our Senior Officer panel will address current and future environments within the context of this year's conference theme, *Accelerate Change by Transforming Training – "It's Time to ACTT!!"* This year's panel will include senior representatives from U.S. Military Services, DHS, OSD, and NATO. Following opening remarks, the audience will interact with the panel through a Q&A feature. All attendees will also have the chance to submit questions in advance. Do not miss the opportunity to hear from national leaders on the way ahead.

TUESDAY, 29 NOVEMBER • 1400 – 1530 • ROOM W311ABCD

DEPARTMENT OF THE AIR FORCE (DAF) SENIOR LEADER / GENERAL OFFICER PANEL

THE BIG PICTURE

MODERATOR

ROWAYNE A. "WAYNE" SCHATZ JR., SES
Director for Studies and Analysis, Office of the Secretary of the Air Force

PANELISTS

LIEUTENANT GENERAL RICHARD G. MOORE, JR., USAF
Deputy Chief of Staff for Plans and Programs, Headquarters U.S. Air Force

THOMAS J. LAWHEAD, SES
Assistant Deputy Chief of Staff, Strategy, Integration and Requirements, Headquarters

MAJOR GENERAL SHAWN N. BRATTON, USSF
Commander, Space Training and Readiness Command

MAJOR GENERAL ALBERT G. MILLER, USAF
Director of Training and Readiness, Deputy Chief of Staff for Operations at Headquarters, U.S. Air Force


MR. SCHATZ, JR. SES


LT GEN MOORE, JR., USAF


MR. LAWHEAD, SES


MAJ GEN BRATTON, USSF


MAJ GEN MILLER, USAF

In August of 2020, the Chief of Staff of the Air Force (CSAF) Gen Charles Q. Brown released a strategic approach called *Accelerate Change or Lose*. The U.S. Air Force seeks to ensure integration and acceleration of the changes necessary to explore new operational concepts and bring more rapidly the capabilities that will help Airmen in future fights. This strategic approach is highlighted in this year's I/ITSEC theme, *Accelerate Change by Transforming Training – "It's Time to ACTT!!"*

This panel brings together Air Force leaders and organizations to provide "The Big Picture." The Air Force leaders will provide insight from their acquisition, research and technology, and mission readiness perspectives into how accelerating and employing Modeling & Simulation technology across the enterprise will meet readiness and lethality challenges. This panel provides an opportunity for I/ITSEC participants to engage with AF leaders involved with accelerating the implementation of training technology across the Air Force enterprise to increase readiness and lethality.

If we are to succeed, the CSAF reminds us, "Urgent actions are required now to secure the U.S. Air Force's continued ability to deliver global effects on strategically-relevant timelines. Demonstrating strength, adaptability, and resilience to primary competitors is necessary to deterring future armed conflict. Should deterrence fail, the U.S. Air Force must be prepared to fight in defense of America's interests—and win."

DOWNLOAD MOBILE APP

SIGNATURE EVENTS

TUESDAY, 29 NOVEMBER • 1600 – 1730 • ROOM W304EF

VIRTUAL TRAINING FOR ACTUAL RESULTS

MODERATOR

SCOTT PULFORD
Deputy Project Manager Synthetic Environment, Program Executive Office Simulation, Training and Instrumentation

PANELISTS

BRIGADIER GENERAL WILLIAM GLASER, USA
Director, Synthetic Training Environment (STE) Cross Functional Team (CFT) Army Futures Command (AFC)

COLONEL SCOTT WOODWARD, USA
Deputy Commander, U.S. Army Combined Arms Center

DEVIN LYDERS
Senior Vice President Advanced Training Systems, Cole Engineering Services, Inc.

ROGER McNICHOLAS
Vice President Training, Testing & Efficiency Solutions, General Dynamics Mission Systems, Ground Systems


MR. PULFORD


BG GLASER, USA


COL WOODWARD, USA


MR. LYDERS


MR. McNICHOLAS

Virtual training (VT) is playing a key role in the transformation of the U.S. Army into a force capable of Multi-Domain Operations, particularly as it enables "fast" familiarization training for soldiers and units operating in unfamiliar terrain/populations.

The 90-minute discussion will focus on VT's versatility, as it:

- Can be tailored to mimic urban and rural areas, as well as a variety of terrain (ex: swamps, forests), as well as opposing and allied forces' tactics, techniques, and procedures.
- May be used to rapidly test and evaluate new equipment and tactics against opponents and systems; may also be used to test proposed capability improvements before development.
- Makes testing more effective/efficient (ex: info may be used to ensure that physical tests and evaluations are designed to provide maximum useful information).

TUESDAY, 29 NOVEMBER • 1600 – 1730 • ROOM W304AB

INDO-PACIFIC TRAINING CAPABILITY IMPROVEMENTS FOR MULTI-DOMAIN WARFIGHTING

MODERATOR

CAROLINE BAXTER
Deputy Assistant Secretary of Defense (DASD) for Force Education and Training, USD P&R

PANELISTS

LIEUTENANT GENERAL KEVIN M. IIAMS, USMC
Commanding General, Training and Education Command

VICE ADMIRAL SCOTT D. CONN, USN
Deputy Chief of Naval Operations for Warfighting Requirements and Capabilities, N9

MAJOR GENERAL ALBERT G. MILLER, USAF
Director Training and Readiness, A3, Headquarters

BRIGADIER GENERAL MICHAEL R. DROWLEY, USAF
Director, Joint Training and Exercises Directorate J7, INDOPACOM

BRIGADIER GENERAL CHARLES LOMBARDO, USA
Director of Training G-3/5/7, Headquarters


DASD BAXTER


LTGEN IIAMS, USMC


VADM CONN, USN


MAJ GEN MILLER, USAF


BRIG GEN DROWLEY, USAF


BG LOMBARDO, USA

This Senior Leadership Round Table event will be hosted by Deputy Assistant Secretary of Defense for Force Education & Training, Caroline Baxter, and will focus on implementing the DoD Joint Operational Training Infrastructure (JOTI) Strategy, which synchronizes efforts and "establishes a long-term oversight and management construct to modernize DoD operational training infrastructure over the next 10 years."

The event will be a high-level discussion with a question-and-answer session amongst DoD Senior Trainers. The discussion will center on how to successfully execute the strategy. Implementation depends on a unified vision and path to readiness, will require clear authorities for decision making, and consistent communication and coorperation among the DoD Components.

To support military training, the Defense industry must understand how the JOTI Strategy is taking the DoD in a new direction to train to fight a peer adversary so they can develop, modernize, and field innovative technologies, meeting the Department's current and future needs.

WEDNESDAY, 30 NOVEMBER • 0830 – 1000 • ROOM W304GH

ACCELERATING INNOVATION TO BRIDGE THE VALLEY OF DEATH

MODERATOR

RICHARD N. TEMPALSKI, HQE
Chief Modeling and Simulation Officer, Department of the Air Force (USAF and USSF)

PANELISTS

LIEUTENANT GENERAL SHAUN Q. MORRIS, USAF
Commander, Air Force Life Cycle Management Center

MAJOR GENERAL HEATHER PRINGLE, USAF
Commander, Air Force Research Laboratory

HONORABLE JAMES "HONDO" GEURTS
Former Service Acquisition Executive for the Navy, USMC, and USSOCOM

TYLER GATES
Chief Executive Officer / Managing Principal, Brightline Interactive

LAUREN BEDULA
Managing Director, Beacon Global Strategies


MR. TEMPALSKI


LT GEN MORRIS, USAF


MAJ GEN PRINGLE, USAF


HON. GEURTS


MR. GATES


MS. BEDULA

The Air Force, DoD, and training units are looking for and investing in innovative solutions. This event will focus on how organizations are bridging the innovative solutions "Valley of Death." This Valley of Death is the process of transitioning these technologies and devices from prototype to production and ultimately into the hands of the warfighter. Accelerating the timeline to get these technologies and devices from the prototype phase and into the fight can be challenging. This panel will provide an opportunity for I/ITSEC participants to engage with leaders from Department of Defense and industry experts who have successfully transitioned innovative solutions. The panel will describe how to leverage the acquisition process and sharpen the warfighters bite.

WEDNESDAY, 30 NOVEMBER • 0830 – 1000 • ROOM W311ABCD

THE NBT TALX – THE CONSUMER METAVERSE MEETS DEFENSE

MODERATOR

DANNY WILLIAMS
Unreal Engine Simulation Manager, Epic Games

PANELISTS

GASTAO DE FIGUEIREDO
Senior Vice President, Strategic Partnerships, Blackshark.ai

ALEXANDRE TEODORESCO
Director of Strategic Development and Innovation, The 7 Fingers

BRIAN VOGELSANG
Senior Director AR Products, Qualcomm

APURVA SHAH
Founder and Chief Executive Officer, Duality Robotics


MR. WILLIAMS


MR. DE FIGUEIREDO


MR. TEODORESCO


MR. VOGELSANG


MR. SHAH

The metaverse is a global and converging evolution of technology that is going further than the classic boundaries that exist within the Simulation & Training community. To view the metaverse only through our own lens limits our ability to understand its full potential. In recent years the innovation that we see coming from the simulation industry has started to converge with other industries. Nowhere is this more true than with the foundational technologies used to build the metaverse. Join us to hear from luminaries coming from several industries that advanced faster in their metaverse adoption and learn how advances being done there will benefit our industries' path into the future.

WEDNESDAY, 30 NOVEMBER • 1030 – 1200 • ROOM W304AB

NAVAL AVIATION FLAG OFFICER PANEL

DESIGNING U.S. NAVY'S AVIATION FORCES TO DETER CONFLICT AND WIN OUR NATION'S WARS

MODERATOR

REAR ADMIRAL JAMES A. ROBB, USN (RET.)
President, National Training and Simulation Association (NTSA)

PANELISTS

VICE ADMIRAL KENNETH WHITESELL, USN
Commander, Naval Air Forces/ Commander, Naval Air Force, U.S. Pacific Fleet

REAR ADMIRAL RICHARD T. BROPHY, USN
Chief of Naval Air Training

REAR ADMIRAL ANDREW LOISELLE, USN
Director, Air Warfare Division, N98, Office of the Chief of Naval Operations

REAR ADMIRAL MAX McCOY, USN
Commander, Naval Aviation Warfighting Development Center

REAR ADMIRAL JOSEPH B. HORNBUCKLE, USN
Commander, Fleet Readiness Centers, Naval Air Systems Command

REAR ADMIRAL KEITH A. HASH, USN
Commander, Naval Air Warfare Center Weapons Division/ Assistant Commander for Test and Evaluation, Naval Air Systems Command


RADM ROBB, USN (RET.)


VADM WHITESELL, USN


RADM BROPHY, USN


RADM LOISELLE, USN


RDML McCOY, USN


RDML HORNBUCKLE, USN


RDML HASH, USN

> "The U.S. Navy will build, maintain, train, and equip a combat- credible, dominant naval force to keep the sea lanes open and free, deter conflict, and when called upon, decisively win our Nation's wars."

These words from the CNO 2022 NAVPLAN highlights I/ITSEC 2022's theme: *Accelerate Change by Transforming Training – "It's Time to ACTT!!"* In this special event, senior Naval Aviation leadership will discuss how the U.S. Navy's aviation community plans to meet this unexpected future while deploying forward to engage our long-term competition for the freedom of the seas.

The U.S. Navy looks to ensure our Sailors can out-think and outfight any adversary while remaining the best trained and educated naval force. Deterrence is not merely in raw capability, we must demonstrate the skill and will to win the fight. Making sure that both lethality and readiness are maintained as part of our core training goals is critical to this ability. And we must do this while maintaining a responsible plan for funding and acquiring these capabilities.

The Sailors who serve today are the most well-trained naval force in history and are critical to the Navy's ability to meet its mission. This panel of senior Navy leaders will provide insight from acquisition, research and technology, and mission readiness perspectives into how to optimize the human performance of U.S. Navy Sailors so that they can be counted upon to succeed in the face of the unexpected future. ADM Michael Gilday, Chief of Naval Operations reminds us, "Decisive naval power is essential in this security environment; America cannot cede the competition for influence. This is a uniquely naval mission. A combat-credible U.S. Navy—forward deployed and integrated with all elements of national power—remains the Nation's most potent, flexible, and versatile instrument of military influence. As the United States responds to the security environment through integrated deterrence, our Navy must deploy forward and campaign with a ready, capable, combat-credible fleet."

WEDNESDAY, 30 NOVEMBER • 1030 – 1200 • ROOM W311ABCD

THE NBT TALX – BEYOND THE HYPE: PERSPECTIVES ON XR AND THE METAVERSE FOR TRAINING

XR TRAINING

MODERATOR

JENNIFER M. RILEY, PH.D.
Director, XR Enablers, Design Interactive, Inc.

PANELISTS

COLONEL THOMAS F. WEGNER
HQ AETC/A9 Director, Analysis and Innovation, Air Education and Training Command, Joint Base San Antonio-Randolph, Texas

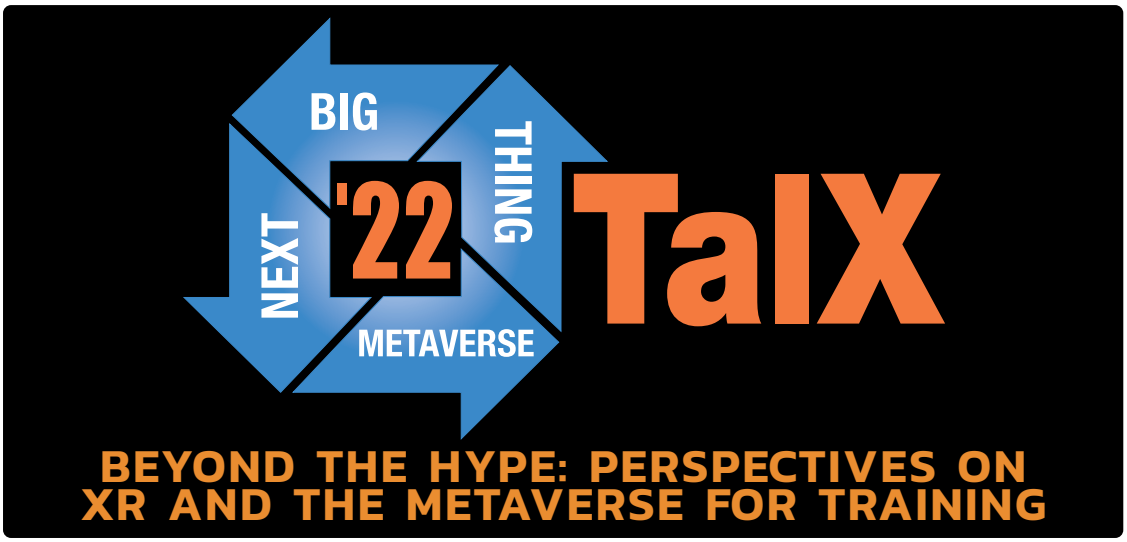
RANDY COATS, PH.D.
Department of Air Force, Executive Director, Analysis and Innovation, HQ AETC/A9

PETER SQUIRE, PH.D.
Program Officer - Human Performance, Training, & Education, Office of Naval Research, Code 34 – Warfighter Performance

RUBEN GARZA
Chief, Defense Medical Modeling & Simulation Office (DMMSO) Education & Training Directorate (J7), Defense Health Agency

JOE RUISI
Deputy Chief, Air Education Training Command, Medical Modernization Division, Air Force Medical Modeling and Simulation Training Program Office/DMMSO

DANIEL ROBINSON
Founder and Chief Executive Officer, Red 6




DR. RILEY


COL WEGNER


DR. COATS


DR. SQUIRE


MR. GARZA


MR. RUISI


MR. ROBINSON

General Charles Brown, Jr. challenged the Department of the Air Force (DAF) to accelerate change or lose. The DAF and other DoD organizations are tapping into the power of extended reality (XR) to rise to this challenge with respect to training and education. The goal — Transform training to develop warfighters that maintain superiority in mission capability, readiness, and lethality. XR experts and influencers from government and industry share stories at the Beyond the Hype: Perspectives on XR and the metaverse for Training Next Big Thing (NBT) Talx on what it means to change the training paradigm and how XR-powered immersive training is being adopted to prepare U.S. forces to dominate and win the high-end fight. Discussions include how XR will revolutionize training and enhance the U.S. military's competitive advantage and will highlight realized successes in application of XR to eliminate skill gaps and instructor shortages. Critical R&D for enhancing XR utility and application will be presented.

WEDNESDAY, 30 NOVEMBER • 1400 – 1530 • ROOM W311ABCD

THE NBT TALX – DEFENSE LEADERS PERSPECTIVES ON THE MILITARY METAVERSE

MODERATOR

ANTHONY ROBBINS
Vice President of Public Sector, NVIDIA

PANELISTS

LIEUTENANT GENERAL MARIA R. GERVAIS, USA
Deputy Commanding General/ Chief of Staff, U.S. Army Training and Doctrine Command

MAJOR GENERAL HEATHER L. PRINGLE, USAF
Commander, Air Force Research Laboratory, Air Force Materiel Command, Wright-Patterson Air Force Base, Ohio; Technology Executive Officer, supporting both the U.S. Air Force and U.S. Space Force

LISA COSTA, SES, PH.D.
Chief Technology and Innovation Officer (CTIO), U.S. Space Force


MR. ROBBINS


LTG GERVAIS, USA


MAJ GEN PRINGLE, USAF


DR. COSTA, SES

The metaverse is the next era in the evolution of the internet, a 3D spatial overlay of the web linking the digital world to our physical world. In this new iteration of the internet, websites will become interconnected 3D spaces akin to the world we live in and experience every day. Many of these virtual worlds will be reflections of the real world linked and synchronized in real time. Many of these virtual worlds will be designed for training, simulation, gaming, socializing, and even entertainment matching the real world's laws of physics in some cases, but often choosing to break them to make the experiences more engaging.

Simulators, XR devices, and robots will act as portals between our physical world and virtual worlds. Humans will portal into a virtual world with VR and AR devices while AIs will portal out to our world via physical robots. Just like in the infancy of the internet, no one can predict exactly how it will grow or how large it will become. But today, we know we can lay the foundations. The foundations of the metaverse requires two things. First, a standard, open and extensible way to describe all of the things in the virtual worlds of the metaverse similar to HTML's purpose in today's 2D world. Secondly, a computing platform designed for the creation and simulation of virtual worlds is the next era of the 3D internet.

Join senior defense leaders as they discuss their strategies for executing Digital Twins and enabling their metaverse visions.

WEDNESDAY, 30 NOVEMBER • 1400 – 1530 • ROOM W304AB

PRINCIPAL CYBER ADVISORS' PANEL

PREPARING THE SERVICES FOR THE FUTURE OF CYBER

MODERATOR

COLONEL CHAD T. BATES, PH.D., USA
U.S. Army War College,
Department of Strategic Wargaming

PANELISTS

COLONEL JUSTIN CONSIDINE, USA
Military Assistant to the Principal Cyber Advisor, Department of the Army

JOSHUA REITER, SL
Deputy Principal Cyber Advisor, Department of the Navy

BRADLEY O. THOMASON
Director, Threat Systems Management Office


COL BATES, USA


COL CONSIDINE, USA


MR. REITER, SL


MR. THOMASON

The U.S. Department of Defense's Cyberspace senior leaders, charged with developing and implementing policy, will provide insights about science and technology development, considerations regarding critical infrastructure and thoughts on innovation to advance knowledge and education of the workforce. Come to hear challenging statements such as, "It sure would be terrific to attend a future I/ITSEC and see the number of cyberspace domain simulations rival those of flight simulators."

Attendees seeking insights regarding training, training simulations, workforce education, technology development and models for cyberspace will find this panel of particular interest. They can expect that hearing the personal voice of cyberspace senior leaders, who engage the moderator and audience with questions and answers in a panel format, will provide cyberspace capability perspectives for:

- Technology development and investment.
- Workforce development and challenges.
- Operational understanding and education.

PLAN A VISIT TO THE CYBER PAVILION — EXHIBIT HALL #2870

MONDAY, 28 NOVEMBER — **EXHIBIT HOURS 1400–1800**

1430 U.S. Army Combat Capabilities Development Command – Soldier Center (DEVCOM SC) Simulation; Training Technology Center (STTC)
1530 Army Cyber Institute (ACI), United States Military Academy (USMA)
1600 Offerings – Industry Demos

TUESDAY, 29 NOVEMBER — **EXHIBIT HOURS 1200–1830**

1330 Offerings Panel (Cyber Pavilion Sponsors)
1430 Opportunities Panel (DoD PMs/PEOs; Capability Managers)
1530 Information Warfare Panel
1630 "Cyber Content is King: Training reality beyond the script" – Panel on Cyber, Electromagnetic Warfare, Information Operations

WEDNESDAY, 30 NOVEMBER — **EXHIBIT HOURS 0930–1800**

0930 International Panel
1100 "Tomorrow's Battlefield Today: The Persistent Cyber Training Environment (PCTE)"
1230 Hot Topic: Observations – Ukraine and Russia
1400 ATTEND SPECIAL EVENT: Principal Cyber Advisors; Panel (W304AB) – *No Pavilion activity during this Special Event*
1600 Research Updates (Cyber Intern Students)

THURSDAY, 1 DECEMBER — **EXHIBIT HOURS 0930–1500**

1000 Offerings Panel (Cyber Pavilion Sponsors)
1100 Academic Panel (University Participants)

WEDNESDAY, 30 NOVEMBER • 1400 – 1530 • ROOM W304EF

TRANSFORMING TRAINING WITH ALLIES AND PARTNERS TO CONFRONT AND DETER RUSSIAN AGGRESSION

MODERATOR

CAROLINE BAXTER
Deputy Assistant Secretary of Defense (DASD) for Force, Education and Training, USD P&R

PANELISTS

CELESTE WARD GVENTER, PH.D., SES
President, DoD Security Corporation University, U.S. Department of Defense

LIEUTENANT GENERAL (A) MICHAEL CLAESSON
Chief of Joint Operations, Swedish Armed Forces

LIEUTENANT GENERAL (A) JOHN S. KOLASHESKI
Commanding General, U.S. Army V Corps

MAJOR GENERAL (AF) JESSICA MEYERAAN
Director of Exercises and Assessments, US EUCOM CJ7

MAJOR GENERAL (A) SERHII SALKUTSAN
Military Representative to NATO, Ukraine


DASD BAXTER


DR. GVENTER


LT GEN CLAESSON


LTG KOLASHESKI


MAJ GEN MEYERAAN


MAJ GEN SALKUTSAN

This Senior Leadership Rount Table event will be hosted by Deputy Assistant Secretary of Defense for Force Education & Training, Caroline Baxter, and will focus on critical aspects of training interoperability in a transforming security environment.

Faced with Russian aggression, DoD, Allied, and Partner leaders have recognized the need to rapidly develop plans and to work together to build integrated deterrence, capaigning, and coalition force capabilities. The U.S. Department of Defense is revising its Joint Operational Training Infrastructure Strategy to better incorporate Allies and Partners, and build coalition training capacity, and other nations are revising their own strategies as well. Meeting the challenges of modern warfare requires updated approaches, new training methods, and collaboration with the Defense industry to help modernize existing capabilities and develop innovative technologies.

Participants will have the opportunity to engage directly with Senior Leaders in a question-and-answer session. The panel will include discussions on: developing Coalition Training, the effects of updated Defense policies, the expansion of NATO, the identification of strategic paths to overcome gaps in Combined and Joint Training with integrated deterrence, campaigning, and building enduring advantages, and transformations driven by the Russian war on Ukraine.

WEDNESDAY, 30 NOVEMBER • 1600 – 1730 • ROOM W304AB

GETTING REAL, GETTING BETTER – A NAVY FLAG OFFICER PANEL

MODERATOR

REAR ADMIRAL JAMES A. ROBB, USN (RET.)
President, National Training and Simulation Association (NTSA)

PANELISTS

VICE ADMIRAL ROY KITCHENER, USN
Commander, Naval Surface Forces/ Commander, Naval Surface Force, U.S. Pacific Fleet

REAR ADMIRAL PETER GARVIN, USN
Commander Naval Education and Training Command

REAR ADMIRAL DOUGLAS SMALL, USN
Commander, Naval Information Warfare Systems Command

REAR ADMIRAL ERIC VER HAGE, USN
Commander, Regional Maintenance Center

REAR ADMIRAL TRACY HINES, USN
Navy Cyber Security Division Director, Office of the Chief of Naval Operations


RADM ROBB, USN (RET.)


VADM KITCHENER, USN


RADM GARVIN, USN


RADM SMALL, USN


RDML VER HAGE, USN


RDML HINES, USN

> "Our Navy team is the most capable in the world. However, we have identified unacceptable variability in our performance—the gap between our best and worst performers is too great. History shows that the navy which adapts, learns, and improves the fastest gains an enduring warfighting advantage. The essential element is fostering a healthy ecosystem—a culture—that assesses, corrects, and innovates better than the opposition. This is the essence of our Get Real, Get Better call to action, aimed at advancing a culture of excellence and accelerating our warfighting advantage in this critical decade."

These words from the CNO 2022 NAVPLAN highlights I/ITSEC 2022's theme: *Accelerate Change by Transforming Training – "It's Time to ACTT!!"* In this special event, Navy Flag Officers will discuss the U.S. Navy plans for Getting Real and Getting Better while deploying forward to engage our long-term competition for the freedom of the seas.

The U.S. Navy looks to ensure our Sailors can outthink and outfight any adversary while remaining the best trained and educated naval force. Deterrence is not merely in raw capability, we must demonstrate the skill and will to win the fight. Making sure that both lethality and readiness are maintained as part of our core training goals is critical to this ability. And we must do this while maintaining a responsible plan for funding and acquiring these capabilities.

The Sailors who serve today are the most well-trained naval force in history and are critical to the Navy's ability to meet its mission. This panel of senior Navy leaders will provide insight into the changes we can expect within key acquisition, research and technology and mission readiness domains. ADM Michael Gilday, Chief of Naval Operations reminds us "Building enduring advantages in a complex, rapidly changing threat environment demands a warfighting culture focused on continuous improvement."

WEDNESDAY, 30 NOVEMBER • 1600 – 1730 • ROOM W311ABCD

THE NBT TALX – VISION OF THE MILITARY METAVERSE

CHALLENGING YOUR PERSPECTIVES VIA INDUSTRY AND GOVERNMENT EXECUTIVES

MODERATOR

ROBERT KLEINHAMPLE, CMSP
Strategic Account Executive, Improbable U.S. Defense and National Security

PANELISTS

LIEUTENANT COLONEL RYAN KENNY, USA, PH.D.
Commander, 112th Signal Battalion (SO)(A), USASOC

ROB WHITEHEAD
Co-Founder & Chief Product Officer, Improbable

MICHAEL PUTZ
Co-founder & Chief Executive Officer, BlackShark.ai

NADINE ALAMEH, PH.D.
Chief Executive Officer & President Open Geospatial Consortium (OGC)


MR. KLEINHAMPLE, CMSP


LTC KENNY, USA


MR. WHITEHEAD


MR. PUTZ


DR. ALAMEH

The final and culminating special event for the Next Big Thing series of The TalX. These speakers are sure to engage and provoke thought about the potential and power of the military metaverse.

We are at an inflection point as technology converges to move us beyond the limits of our legacy live, virtual, and constructive simulations. The military is poised to not only leverage the significant investment and advancements made in the commercial metaverse market, but it is also, and perhaps better poised culturally to harness the power of the metaverse to improve readiness for the complex warfight.

As a result of this session you will be inspired with a vision for how you or your organization can harness the metaverse and/or contribute to the metaverse.

Remain after this session for the Next Big Thing Social with refreshments and hors d'oeuvres. Meet all of The Next Big Thing speakers from throughout the day and have conversations with them. You must attend one of the Next Big Thing events in order to receive a ticket to the social.

THURSDAY, 1 DECEMBER • 1030 – 1200 • ROOM W304GH

VIRTUAL EVALUATION IN PROTOTYPING AND EXPERIMENTATION

MODERATOR

DANIEL HETTEMA
Director, Digital Engineering, Modeling & Simulation Office of the Secretary of Defense (Research & Engineering)

PANELISTS

THOMAS IRWIN, PH.D., SES
Executive Director, Joint Warfighting Development, Joint Staff J7

RYAN NORMAN
Chief Data Officer, Test Resource Management Agency OUSD(R&E)

AMY HENNINGER, PH.D., CMSP
Senior Advisor and Branch Chief, Advanced Computing, Department of Homeland Security Science & Technology

JOHN DIEM
Director, Innovation Proving Ground, Bush Combat Development Complex, Texas A&M

FAVIO LOPEZ, CMSP
President and Chief Operating Officer, Trideum Corporation


MR. HETTEMA


DR. IRWIN, SES


MR. NORMAN


DR. HENNINGER, CMSP


MR. DIEM


MR. LOPEZ, CMSP

With the increased understanding of models as an authoritative source of truth, there is a current discussion within DoD on the use of the virtual space in evaluation of ideas, prototypes, experimentation, and other areas. Virtual environments for training are well-developed and understood; can these then be leveraged to provide benefit? Likewise, simulation environments for test and evaluation of concepts, prototypes and experiments have a long history of success within the test community; can these also be leveraged to provide benefit to other users?

The Director, Digital Engineering, Modeling & Simulation, Office of the Under Secretary of Defense (Research & Engineering), will lead a panel of Defense leaders from government, industry and academia, with experience in prototyping, experimentation, training, testing, and concept evaluation in virtual environments. These panelists will provide some of their virtual capabilities, lessons learned, and their continuing technical needs.

This will be an interactive discussion, as this is also a challenge to the I/ITSEC audience to let the leadership know if there already exists virtual environments that can be leveraged to other uses. If you already work with virtual environments that could be utilized in other areas, the panelists encourage you to attend this special event.

MONDAY, 28 NOVEMBER • 1245 – 1415 • ROOM W300-THEATRE

CMSP 3.0 – REINVENTION!

CERTIFICATION

MODERATOR

IVAR OSWALT, PH.D., CMSP
Senior M&S Analyst, The MIL Corporation

PANELISTS

TAMMIE SMILEY, CMSP
Senior M&S Solutions Architect, Trideum Corporation

DAVID "FUZZY" WELLS, PH.D., CMSP
Principal Cyber Simulationist, The MITRE Corporation

GEORGE STONE, PH.D., CMSP
Army Portfolio Manager, Aptima, Inc.

GLENN HODGES, PH.D.
Research Assistant Professor, The MOVES Institute, Naval Postgraduate School

CMSP

CERTIFIED MODELING AND SIMULATION PROFESSIONAL


DR. OSWALT, CMSP


MS. SMILEY, CMSP


DR. WELLS, CMSP


DR. STONE, CMSP


DR. HODGES

Modeling and simulation is a vibrant and growing profession. Simulations bring digital engineering to life; they convert data and models into dynamic representations that allow users to better understand analyses, to visualize product changes, and to train more efficiently and effectively. This is true within traditional disciplines like science and engineering, but it is increasingly the case in areas like medicine, that now use simulation and simulators to practice surgery, navigate through virtual arteries, and practice advanced lifesaving skills. In a profession, what is the mark of true distinction? Certification! This Special Event provides personal insights from a diverse panel on M&S, Certification, and CMSP.

TUESDAY, 29 NOVEMBER • 1400 – 1530 • ROOM W309AB

THINKING ON YOUR FEET: AGILE ACQUISITION FOR A DYNAMIC WORLD

LEARN HOW PROGRAM MANAGEMENT TEAMS MAKE RAPID ACQUISITION DECISIONS!

MODERATOR

TARA KILCULLEN
Principal, ZYGOS Consulting

PANELISTS

STEVE EDSALL
Product Director, Future Training Systems, U.S. Army PEO STRI

GREGORY DOUGHERTY
Head of Procurement, NAWCTSD

JULIA E. SUERETH
Project Officer, TVCS
Naval Surface Warfare Center Panama City Division (NSWC PCD), Program Manager, Training Systems (PM TRASYS)

CHRIS GARRETT, SLS
Technical Advisor for Systems Engineering, Air Force, AFLCMC/EN-EZ

COLONEL COREY KLOPSTEIN, USSF
Senior Materiel Leader, Warfighter, Enterprise Division (SSC/SZY), Space Systems Command


MS. KILCULLEN


MR. EDSALL


MR. DOUGHERTY


MS. SUERETH


MR. GARRETT, SLS


COL KLOPSTIEN, USSF

Government Program teams are consistently faced with meeting challenges for faster acquisition, development, and or procurement times. When deciding what method will be best for rapid acquisition and development, the Government has several options to choose from. Have you wondered how the Government Program teams decide to take one acquisition path over another? Have you ever wondered what goes into making those decisions? This panel of Program Management and Acquisition experts will describe how they work with their respective teams, acquiring agencies, and contracting commands to determine the best agile acquisition approach. Hear directly from various program leads with experience across all branches of Defense. They will focus their discussion on the challenges they face to meet rapid acquisition requests and the factors they consider when determining best path forward.

TUESDAY, 29 NOVEMBER • 1600 – 1730 • ROOM W304GH

THE DATA IS THE THING!: SUCCESSES AND CHALLENGES IN MEASURING PERFORMANCE, PROFICIENCY AND EFFECTIVENESS OUTCOMES IN MULTINATIONAL REAL WORLD CONTEXTS

MODERATOR

WINK BENNETT, PH.D.
Air Force Research Laboratory (711 HPW/RHW)

PANELISTS

LIEUTENANT COMMANDER MICHAEL "TINDER" NATALI, PH.D., USN
Deputy, Air Warfare Training Development Integrated Project Team Lead for PMA-205, Naval Air Training Systems and Ranges

LIEUTENANT COMMANDER JOE GEESEMAN, USN
Naval Aerospace Experimental Psychologist, Smart Sensor Program Manager for the Chief Digital and Artificial Intelligence Office (CDAO)

MAJOR MARK "FORGE" HANSEN, USAF
4TS/ADO for Innovation, Seymour Johnson AFB, NC

JUR CRIJNEN
R&D engineer, Royal Netherlands Aerospace Laboratory NLR

EMILY MILLS
Portfolio Manager, Design Interactive, Inc.


DR. BENNETT


LCDR NATALI, USN


LCDR GEESEMAN, USN


MAJ HANSEN, USAF


MR. CRIJNEN


MS. MILLS

I/ITSEC represents a very broad community with interests in all aspects of training, education, and modeling and simulation. This session specifically highlights applied examples of innovation in performance, proficiency and effectiveness data, measurement, analytics, storage and data storage and access security across a range of specific contexts to include tactical, medical, maritime, maintenance and space as examples of more systematic field implementations and evaluations. This event will expose the community to some recent innovations in data sciences and uses of more precise and persistent data for decision making.

With the current interest and increasingly significant investments in high fidelity, low cost technologies for education and training, what are people doing in the data spaces today. Who is doing what, what successes are they having, where are the real data innovations happening, and what are the continuing challenges that we see across the various contexts that are things the community needs to try and get after.

Several SMEs who are actively involved in their organization/agency's advancement in data, metrics, measurement and assessment, analytics and user availability of the data and outcomes will describe what they are doing as well as to discuss their successes, challenges, and potential needs for innovation and additional advancement in the data and measurement areas of application now and in the future.

WEDNESDAY, 30 NOVEMBER • 0830 – 1000 • ROOM W310AB

SYNTHETIC ENVIRONMENTS TO ENABLE MULTI-DOMAIN OPERATIONS

TRAIN MDO

MODERATOR

ROBERT SIEGFRIED, PH.D.
Chair, NATO Modelling and Simulation Group
Chief Executive Officer, Aditerna

PANELISTS

TOM IRWIN, PH.D., SES
Executive Director, Joint Warfighting Development
U.S. Joint Staff J7

BIJAL MISTRY
Head of Defence Modelling & Simulation Office (DMSO), UK Strategic Command

BRIGADIER DAMIAN HILL
Director General Joint Collective Training / J7, Joint Operations Command, Australian Department of Defence

COLONEL ROBERT "EYEBALL" GRANT, PH.D., USAF
Chair, Airpower Innovation and Integration, Department of Military and Strategic Studies, U.S. Air Force Academy

BRIGADIER GENERAL DIDIER POLOMÉ
Digital Transformation FOGO and Special Advisor to Supreme Allied Command Transformation, NATO Allied Command Transformation

DR. SIEGFRIED

DR. IRWIN, SES

MS. MISTRY

BRIG HILL

COL GRANT, PH.D.

BGEN POLOMÉ

"We fight as we train," and "Warfare is teamwork." Everyone would agree, wouldn't you? Yet, although we will always execute missions as a coalition, we are severly lacking the capability to frequently train and exercise as a coalition.

This is even more true when it comes to Multi-Domain Operations (MDO)! MDO refers to the seamless integration of all domains of warfare to achieve superiority and success on the (hybrid) battlefield. However, MDO is inherently complex and requires an allied approach on all levels to be successful; MDO must be an integral part of training and exercises.

Synthetic environments are the only way for Allies to efficiently and effectively generate force readiness for MDO. Yet, we are lacking interoperability and suitable synthetic environments.

This Special Event discusses the challenges of MDO, the art-of-the-feasible when it comes to replicating MDO in synthetic environments, and emphasizes areas that need improvement.

The I/ITSEC community is best positioned to address the challenges ahead of us. The panel members represent key stakeholders and thought leaders in this domain, and will give attendees expert insight into current state of the art, open challenges and possible ways forward.

WEDNESDAY, 30 NOVEMBER • 0830 – 1000 • ROOM W300-THEATRE

ADAPTIVE TRAINING AT SCALE: READY FOR PRIMETIME?

MODERATOR

DANIEL SERFATY
Chief Executive Officer and Principal Founder, Aptima, Inc.

PANELISTS

LLOYD KLEINMAN
Chief Technologist, International Programs, Surface Combat Systems Training Command

ALICIA SANCHEZ
Director of Innovation, DAUx at Defense Acquisition University

JANET SPRUILL
Senior Vice President, Government Programs, Aptima, Inc.


MR. SERFATY


MR. KLEINMAN


DR. SANCHEZ


MS. SPRUILL

For years, the concept of 'adaptive training' has been held up as a model, a means to personalize training beyond standardized one-size-fits all approaches, yet it has been held back by the underlying capabilities and algorithms needed to enable it. Fast forward to 2022, and we are now poised to deploy technology that can tailor individualized instruction and training at scale, providing highly personalized learning experiences, much like an experienced teacher who tailors lessons to each student in the classroom. Through advances in AI and theories of learning, curriculums can be modeled, disassembled, and recomposed, customizing instruction according to a student's speed, style of learning, and level of competence. In this panel, we will explore breakthroughs in how more robust AI, machine learning, and advanced analytics are combining to unlock ever more data to enable adaptive learning at the individual level, and to optimize readiness across the enterprise. Moderated by Daniel Serfaty, this panel of senior leaders from defense and industry will address the advances, applications, and challenges of deploying adaptive training in the military, civil aviation, K-12 education, and other domains.

WEDNESDAY, 30 NOVEMBER • 1200 – 1700 • ROOM W110A

I/ITSEC CAREER FAIR

Job opportunities are on the rise for the defense industry – leading the way for developing cutting-edge solutions. The career fair welcomes you to be part of the fast-growing Simulation and Training community.

Meet with industry and government organizations with opportunities for new graduates and transitioning professionals on Wednesday, 30 November from 1200 – 1700 at the OCCC in Room W110A for the I/ITSEC Career Fair. Contact Carol Dwyer at cdwyer@NTSA.org to register in advance

This event provides:
- an opportunity to learn more about open jobs available from government and industry partners,
- networking for businesses with subcontracting needs,
- a space to learn about the government's perspective and process, and
- an environment to grow your network.

Career Fair attendees who didn't get a chance to register in advance are welcome to register onsite at Registration. Participating Organizations will be added as they are confirmed; please visit the I/ITSEC website for the most up-to-date information. If you have any questions while onsite, please visit the Career Fair in room W110A.

PARTICIPATING ORGANIZATIONS ARE LISTED ONLINE AT
https://www.iitsec.org/education/career-investment/career-fair and onsite at the Discovery Den Info Desk in Booth 3185.

WEDNESDAY, 30 NOVEMBER • 1400 – 1530 • ROOM W309AB

TRAINING, ANALYTICS, AND EXPERIMENTATION

WARGAMING PANEL

MODERATOR

LUIS E. VELAZQUEZ
Chief Technology Officer, Marine Corps Systems Command (MARCORSYSCOM)

PANELISTS

COLONEL GEORGE C. SCHREFFLER III, USMC
Director Wargame Division (WGD), Marine Corps Warfighting Laboratory (MCWL)

COLONEL TIMOTHY BARRICK, USMC (RET.)
Wargame Director, Marine Corps University (MCU)

LIEUTENANT COLONEL RAYMOND P. FELTHAM, USMC
Program Manager Wargame Capability (PM WGC), Marine Corps Systems Command (MARCORSYSCOM)

LIEUTENANT COLONEL MARCUS J. REYNOLDS, USMC
Program Manager Training Systems (PM TRASYS), Marine Corps Systems Command (MARCORSYSCOM)

LIEUTENANT COLONEL SCOTTY BLACK, USMC
Naval Postgraduate School (NPS) Modeling, Virtual Environments & Simulation (MOVES)

JOSEPH N. LOMANGINO
Training and Education Command (TECOM)


MR. VELAZQUEZ


COL SCHREFFLER III, USMC


COL BARRICK, USMC (RET.)


LTCOL FELTHAM, USMC


LTCOL REYNOLDS, USMC


LTCOL BLACK, USMC


MR. LOMANGINO

Wargaming facilitates the assessment of potential technological modernization capabilities, the conduct of tradeoff analysis, and the exploration of concepts that foster and better inform innovation. There are multiple pillars within the community that leverage wargaming from Force Design analysis, small unit training, collective training, staff level training, and operations analysis. In order for wargames to be successful, it is imperative that they are designed and purpose built to meet end state objectives regardless of the community executing wargames.

Moderated panel will introduce you to wargame leaders and decision-makers from across capabilities development, requirements sponsorship, program management, and wargame execution. This panel will provide valuable insight into their scope of work and vision for the future of wargaming.

- Inform the audience comprised of members from industry, academia, governmental, and international partners on the correlated efforts
- Bring complicated computer wargame tools, computing, models, visualization, and the creation of a specialized facility and skilled labor force necessary to support the full range of wargaming possibilities
- Discussing common approaches.

WEDNESDAY, 30 NOVEMBER • 1600 – 1730 • ROOM W310AB

SPACE WARFIGHTER TRAINING TRANSFORMATION: A VISUAL APPROACH

MODERATOR

COLONEL BILL WOOLF, USAF (RET.)
President and Founder, Space Force Association

PANELISTS

MIKE TORRES
Chief of Digital Infrastructure & SpaceVerse, U.S. Space Force/Chief Technology & Innovation Office

GREG A. PRESTGARD
Dean of Academics, USSF STARCOM 319 CTS

BRIGADIER GENERAL WILLIAM E. COLE, (RET.)
President/Chief Executive Officer, MAK Technologies

BRIGADIER GENERAL STEVE GARLAND, USAF (RET.)
Executive Vice President, Fusion Constructive, LLC

MELVIN J. FEREBEE
Director of Space Technology, DigiFlight, Inc.

TOM DICKSON
President, Boecore


COL WOOLF, USAF (RET.)


MR. TORRES


MR. PRESTGARD


BG COLE, USA (RET.)


BRIG GEN GARLAND, USAF, (RET.)


MR. DICKSON

Since we can't train in space, finding visually rich training environments is key to providing relevant high-fidelity training for space warfighters. This event will provide an opportunity for I/ITSEC participants to engage directly with senior leaders regarding current and planned activities related to the Space Force training needs. Participants in this panel include Government and Industry Leaders currently working towards assisting Space Force in implementing modeling and simulation within their new training organizations and operational units. This panel discussion will enable the speakers to share their perspectives on the conference theme of Accelerating Change to Transform Training relative to transforming space warfighter training through visualization.

WEDNESDAY, 30 NOVEMBER • 1600 – 1730 • ROOM W304GH

JOINT SERVICE INTEROPERABILITY AND MODELING AND SIMULATION IN THE DOD

M&S JOINT INTERSECTION

MODERATOR

LIEUTENANT COLONEL JASON CANNON, USA
Modeling & Simulation Officer
Program Executive Office, Simulation, Training, and Instrumentation

PANELISTS

COLONEL TIMOTHY E. BEERS, USAF
Commander of the Air Force Agency for Modeling and Simulation (AFAMS), a Field Operating Agency subordinate to Headquarters U.S. Air Force (HAF) A3T

COLONEL STEPHEN BANKS, USA
Chief, Environment Operations Division, Joint Staff J7

COLONEL CHAD T. BATES, PH.D., USA
U.S. Army War College, Department of Strategic Wargaming

LIEUTENANT COLONEL CHRIS JOHNES, USA
Chief of Training Analysis, Communication Support & Simulations (TACSS), Operations Group, Joint Readiness Training Center (JRTC)

MAJOR MATT MORSE, USMC
Interoperability Lead, USMC Project Tripoli

YARON "RON" KETER
Program Manager, Navy Continuous Training Environment

KEVIN GALVIN
Systems Capability Researcher for Advanced Architecture Concepts Thales Research, Technology & Innovation


LTC CANNON, USA


COL BEERS, USAF


COL BANKS, USA


COL BATES, USA


LTC JOHNES, USA


MAJ MORSE, USMC


MR. KETER

The technical advances that have increased the individual capabilities of ground, surface, and air platforms bring unique interoperability challenges to joint, allied and coalition forces. This panel will provide Joint and NATO Partner perspectives on the current state of the application of modeling and simulation for training within the multi-domain network. The panel will also discuss two levels of interoperability, specifically:

- How to integrate the Services/Partners in an M&S Environment.
- How M&S enables Interoperability Operationally.

Additionally, the Modeling and Simulation offices of each Service will discuss their unique perspective, along with future trends and challenges in the M&S domain. The moderated discussion topics will include JLVC, Data Services, Land/Sea/Air integration, Cyber, Partnership Integration, and Live Considerations.

WEDNESDAY, 30 NOVEMBER • 1600 – 1730 • ROOM W300-THEATRE

BACK TO THE FUTURE – A GREEN PLANET MAY REQUIRE NUCLEAR POWER

BLACK SWAN: EXPLORING THE POSSIBILITIES OF NUCLEAR FUSION

MODERATOR

RYAN McNEAL
Digital Transformation Lead, Agile Combat Support Directorate, U.S. Air Force

PANELISTS

THOMAS A. LOCKHART, SES
Director of Engineering, Air Force Nuclear Weapons Center, U.S. Air Force

JASON G. WILLIAMS
Vice President and General Manager Energy and Space Sectors, Information Systems Laboratories, Inc.

LAUREN REINERMAN-JONES, PH.D.
Senior Scientist, Soar Technology, Inc.

MR. McNEAL

MR. LOCKHART, SES

MR. WILLIAMS

DR. REINERMAN-JONES

With the emerging realization that Solar and Wind energy is only commercially viable for 20% of the habitable earth, another safe and clean energy source is required. Our Black Swan event this year explores the magical promise of Nuclear Fusion (including Cold Fusion) to power the earth's future energy needs. Michl Binderbauer of TAE Technologies stated that by using Hydrogen Boron as the fuel for nuclear fusion we could cover the earth's energy needs for the next 100,000 years.

We are bringing together nuclear energy experts and social acceptance professionals to inform our I/ITSEC audience on new nuclear fusion technologies and how we could accept these new nuclear technologies into our society and communities. Please join us for this engaging session!

The term Black Swan is used to describe a low probability/high impact event which could profoundly affect our future. The term comes from the 2007 book, *The Black Swan: The Impact of the Highly Improbable* by Nassim Nicholas Taleb, where he presents various world-changing events and advocates anti-fragility to not only survive but thrive during crises. We believe modeling and simulation can play a major part in exploring these events to find cures and better prepare us for similar crises in the future.

WEDNESDAY, 30 NOVEMBER • 1600 – 1730 • ROOM W304EF

BEST FROM AROUND THE GLOBE

IT²EC

KARTHIK V. SARMA, PH.D.
SimX, Inc.

MODSIM WORLD

KEVIN HULME, PH.D., CMSP
University at Buffalo

Best from Around the Globe features the Best Paper awardees of IT²EC and MODSIM World. Each winner was selected by a committee and criteria specific to the particular global conference focus and theme. Come hear the award winning presentations selected as "Best Paper" from IT²EC and MODSIM World 2022, offering their outstanding presentations from these prestigious international conferences.

IT²EC 2022 BEST PAPER

XR Medical Simulation Training for the Future of Warfare: The Virtual Advancement of Learning for Operational Readiness (VALOR) Program
Karthik V. Sarma, Ph.D., SimX, Inc.

In future combat operations against near-peer competitors, efforts to achieve the "Golden Hour" are likely to be overwhelmed by operational scale and denied capabilities. Thus, maximizing survivability and recovery of combat casualties will require training a significantly larger proportion of warfighters in more advanced medical techniques and protocols which will allow them to extend the "Golden Hour" for as long as possible. In this talk, we discuss the Virtual Advancement of Learning for Operational Readiness (VALOR) program, a USAF-funded partnership between industry, academic, and the Government which has produced a comprehensive XR medical simulation training capability now being fielded across the Special Warfare community. We will also discuss ongoing research efforts to evaluate the efficacy of XR medical simulation training, as well as ongoing efforts to expand the scope of fielded capabilities in order to achieve the program's goals of improved realism, increased flexibility, and reduced cost for simulation training.

MODSIM WORLD 2022 BEST PAPER

Implementation of Live-Virtual-Constructive (LVC) Workplace Setting to Enhance Occupational Success among Young Adults with ADHD
Kevin Hulme, Ph.D., CMSP

MOTIVATION: Persons with ADHD (attention-deficit/hyperactivity disorder) often experience an elevated likelihood of being unemployed and are frequently in the service industry with a high turnover rate. Therefore, it is critical to better understand interventions that can improve young adult knowledge transfer in a typical workplace setting.

PREVELANCE: ADHD is thought to impact nearly 15% of young adults between the ages of 12 and 17, and adult prevalence has been recently estimated between 3 to 5%, worldwide.

METHODOLOGY: The Laboratory Assessment of Behavior in Occupational Roles (LABOR) is a first-of-its-kind analog workplace (pizzeria!) training environment that implements the Live-Virtual-Constructive (LVC) taxonomy for Modeling & Simulation (M&S).

OUTCOMES: Males with ADHD tend to exhibit "positive emotions" associated with risky (aggressive) driving behaviors, as compared to females, who generally tend to be more inattentive. Young adults enjoyed the LVC workplace environment implementation (i.e., realism/authenticity/engagement).

THURSDAY, 1 DECEMBER • 0830 – 1000 • ROOM W304EF

INNOVATION MATCH GAME

HOST

MARGARET MERKLE, PMP
Innovation Technology Chief, Simulators Division, Agile Combat Support Directorate, Air Force Life Cycle Management Center – Simulator Division

CO-HOSTS

EMILY EDMISTON
Tangram Flex, Supporting Program Manager, Simulators Division, Agile Combat Support Directorate, Air Force Life Cycle Management Center

MARILYN EVANS
SAIC, Supporting Program Manager, Simulators Division, Agile Combat Support Directorate, Air Force Life Cycle Management Center

SIMS INNOVATION


MS. MERKLE


MS. EDMISTON


MS. EVANS

Over the past several years, Pitch Day and Shark Tank competitions have been the focus of much fanfare – but what happens next? How do we move beyond experimental uses and match successful prototypes with real world users? The Simulators Innovation team is once again hosting the Innovation Match Game, in this event we will match up USAF training units with three vendors in an exploration of possible solutions to real world training needs. Modeled after the TV show "House Hunters", each prototype vendor will present a successful past project that might be adapted to solve the USAF training unit's improvement request, and after a short Q&A, the audience can pick their favorite! As an added bonus this year the Sims team is going to be sharing information regarding the 2023 Sims SBIR Pitch Day and our efforts to transition prototypes to deployment.

THURSDAY, 1 DECEMBER • 0830 – 1000 • ROOM W309AB

ACCELERATING READINESS THROUGH DIGITAL ENGINEERING

STORIES FROM THE FRONTLINE — DIGITAL ENGINEERING IN THE REAL WORLD

MODERATOR

CHRIS FINLAY
Vice President of Innovation, Engineering Innovation Factory, SAIC

PANELISTS

LIEUTENANT COLONEL BEAU BRANTLEY, USAF
Program Manager, Digital Engineering Platform as a Service (DEPaaS), USAF

JEFF JASTER
Deputy Executive Director, Modeling, Simulation & Prototyping, U.S. Army Ground Vehicle Systems Center (GVSC)

PAMELA KOBRYN, PH.D.
Chief Engineer, Digital Transformation, Air Force Research Lab (AFRL)

MR. FINLAY

LT COL BRANTLEY, USAF

MR. JASTER

DR. KOBRYN

Today's systems are becoming more and more complex. Traditional document-centric engineering approaches are inherently "lossy," labor-intensive, and do not scale well to accurately represent these large, complex cyber-physical systems. Transforming to Digital Engineering (DE) methodologies allows us to digitally generate, curate, and share computable data. We can then exploit this data to visualize and test myriad mission scenarios to get operational truths that improve mission success and adapt in days, not months.

This panel is designed to help those starting their digital engineering transformation journey, already implementing digital engineering, or simply interested in learning more about digital engineering and best practices in action. Hear from practitioners across the DoD who provide tangible DE examples from theory to implementation to success.

Each of our panelists will discuss their digital engineering journey highlighting challenges, successes and their road forward. The panelists will provide representative demonstrations illustrating their approaches to digital engineering and are prepared to take on all questions to provide you with ideas and lessons learned to facilitate your digital engineering initiatives in whatever phase you are in. Recognizing the breadth and challenges of navigating the digital landscape, some key topics discussed will include:

- The challenges and benefits of a common digital engineering platform and how that can be leveraged to accelerate digital engineering objectives
- Cultural and other barriers faced to institutionalize DE; including understanding how industry and government organizations meet the staffing needs
- Understanding the "long tail" of the return on investment; how models are used to reduce defects, recognize obsolescence before it impacts the warfighter and ultimately improve readiness
- How intellectual property and data rights are managed; how to get disparate system information that is "owned" by other organizations

THURSDAY, 1 DECEMBER • 0830 – 1000 • ROOM W310AB

SPECIAL OPERATIONS FORCE BATTLESPACE PREVIEW

DÉJÀ VECU: THE SOF OPERATORS' PERSPECTIVE

MODERATOR

LEO VENCKUS
Senior Program Analyst, Training Development Branch, J3 Training and Education Division, Operations Directorate, U.S. Special Operations Command

PANELISTS

LIEUTENANT COLONEL HEATHER G. DEMIS, USAF
492 Special Operations Wing, U.S. Air Force Special Operations Command

MAJOR BRENT C. BIRCHUM, USMC
Operations Officer, 3rd Marine Raider Support Battalion, Marine Forces Special Operations Command

CAPTAIN JOSHUA RANDLES, USA
Surgical Physician Assistant, Special Operations Medical Detachment (SOMEDD), 528th Sustainment Brigade (Airborne), U.S. Army Special Operations Command

CHIEF PETTY OFFICER ORAN FEINER, USN
Special Warfare Boat Operator Force JTAC Program Manager (N32), Naval Special Warfare Command

STAFF SERGEANT BENJAMIN C. WICKERHAM, USA
Regimental Medical Training Noncommissioned Officer, 75th Ranger Regiment, U.S. Army Special Operations Command

CHIEF WARRANT OFFICER FIVE ROBERT "BUDDY" EPTING, USA
Standardization Pilot, Special Operations Aviation Training Battalion, U.S. Army Special Operations Aviation Command (USASOAC)

For nearly three decades, SOF's pursuit of virtually previewing the battlespace before physically occupying has ebbed and flowed. This is exemplified in Special Operations Aviation's use of TOPSCENE® mission rehearsal system during Operation Joint Endeavor (1996-1997). That capability permitted Special Operators to gained route and objective area situational awareness before mission launching. Now, the whole of SOF anticipates previewing the environment with all its complexities (weather, altitude, illumination, enemy capabilities, etc.) prior to entering the physical battlespace.

How has SOF met the challenges of integrating data, training, and mission planning systems? What are SOF's tactical needs in the synthetic sphere? What simulation capabilities would better assist SOF to dominate the environment of growing kinetic and non-kinetic threats?

Special Operators from USSOCOM's four Service Components will speak to their professional experiences in the synthetic battlespace before entering the physical battlespace, having understood many of the complexities before the forward operating base.

DOWNLOAD MOBILE APP

FOCUS EVENTS

THURSDAY, 1 DECEMBER • 1030 – 1200 • ROOM W309AB

INTERNATIONAL PERSPECTIVES ON CREATING AND SUSTAINING LEARNING ECOSYSTEMS IN THE WILD

MODERATOR

WINK BENNETT, PH.D.
Air Force Research Laboratory (711 HPW/RHW)

PANELISTS

LCDR MICHAEL "TINDER" NATALI, PH.D., USN
Deputy, Air Warfare Training Development Integrated Project Team Lead for PMA-205, Naval Air Training Systems and Ranges

LIEUTENANT NICK "TERROR" ARMENDARIZ, USN
Department Head, Operational Psychology Department, Naval Aerospace Medical Institute

ANNEKE NABBEN
Senior R&D Manager, Royal Netherlands Aerospace Laboratory NLR

CAROLINE SHAWL
Defence Science and Technology Laboratory, UK

MAYOWA OLONILUA
Defence Science and Technology Laboratory, UK

CHRISTINA PADRON
Vice President Partnerships and Growth, Dynepic, Inc.


DR. BENNETT


LCDR NATALI, USN


LT ARMENDARIZ, USN


MS. NABBEN


MS. SHAWL


MR. OLONILUA


MS. PADRON

Over the past few years, a number of commercial and government organizations have recognized the need to create a manageable learning enterprise for a number of efficiency and effectiveness reasons. This recognition has led to a number of innovative approaches and applications of integrated learning "ecosystems." While the components of learning ecosystems can vary in several key ways, the potential for a more integrated and managed approach to learning, at scale, appears to be substantial.

This Focus Event includes several panelists who have developed and are current using and growing learning ecosystems of their own. They will describe their drivers for creating their ecosystem and what were the criteria they used to determine the key aspects and emphases of people, content, technology, assessment, and management in their effort. Others might be considering such an endeavor and do not know where to start or what the key components of a functioning, sustainable ecosystem need to be.

Our SMEs will describe their development process, the aspects and features they wanted to include and what they see as their successes to date and lessons they have learned from the work so far. Finally, what are their recommendations for others who are thinking about creating their own organization's learning ecosystem?

THURSDAY, 1 DECEMBER • 1030 – 1200 • ROOM W310AB

EVOLVING DISTRIBUTED MISSION OPERATIONS JOINT DMO PANEL

MODERATOR

LIEUTENANT COLONEL ROSS UHLER, USAF
Chief, Distributed Training Systems
AFLCMC Simulator SPO

PANELISTS

COLONEL SCOTT KOECKRITZ, USAF
Chief, Test & Training Division, Headquarters Air Combat Command

COLONEL BENJAMIN CARROLL, USAF
Chief, Aircrew Tactics and Training Division, Headquarters Air Mobility Command

WING COMMANDER RUARI HENDERSON-BEGG
MA RAF SO1 Synthetics, Air Capability

WING COMMANDER MICK TULLY, CSC
SO1 Advanced Training and Test Environment - Air Warfare Centre Royal Australian Air Force

ROBERT SIEGFRIED, PH.D.
Chair, NATO Modelling and Simulation Group Chief Executive Officer, Aditerna

CHRISTOPHER BOYLE
Technical Director, Training Systems, United States Fleet Forces Command

SUSI DRAPER
Simulation Lead/Program Mgr, 32d Army Air and Missile Defense Joint Training Program – Air and Missile Defense


LT COL UHLER, USAF


COL KOECKRITZ, USAF


COL CARROLL, USAF


WGCDR HENDERSON-BEGG, RAF


WGCDR TULLY, RAAF


DR. SIEGFRIED


MR. BOYLE


MS. DRAPER

As the U.S. and our partner nations transitions from the Counterinsurgency (COIN) fight of the last 20 years to re-focus on preparing for a future peer-peer conflict, the demand for joint and coalition training is stronger than ever before. This event will provide an open forum to discuss what efforts the joint and coalition community have been working on in order to improve both the fidelity and frequency of distributed training among sister services and partner nations. This panel will also discuss current challenges and future opportunities to improve distributed training.

MONDAY, 28 NOVEMBER – THURSDAY, 1 DECEMBER • BOOTH 513

I/ITSECverse

MVTE ORGANIZERS

JENNIFER ARNOLD
NVIDIA Omniverse

TYLER GATES
Chief Futurist, The Glimpse Group
General Manager, Brightline Interactive, A Glimpse Group Company

VISIT ALL DEMOS

AT&T

BOHEMIA INTERACTIVE SIMULATION

BRIGHTLINE INTERACTIVE

CESIUM

DELL

EIGHT360

EMBRY-RIDDLE

EPIC GAMES

ERICSSON

HEWLETT-PACKARD

HTC

IMPROBABLE

LAMBDA

MICROSOFT

NVIDIA

PILOT TRAINING SYSTEM, LLC

UNITY

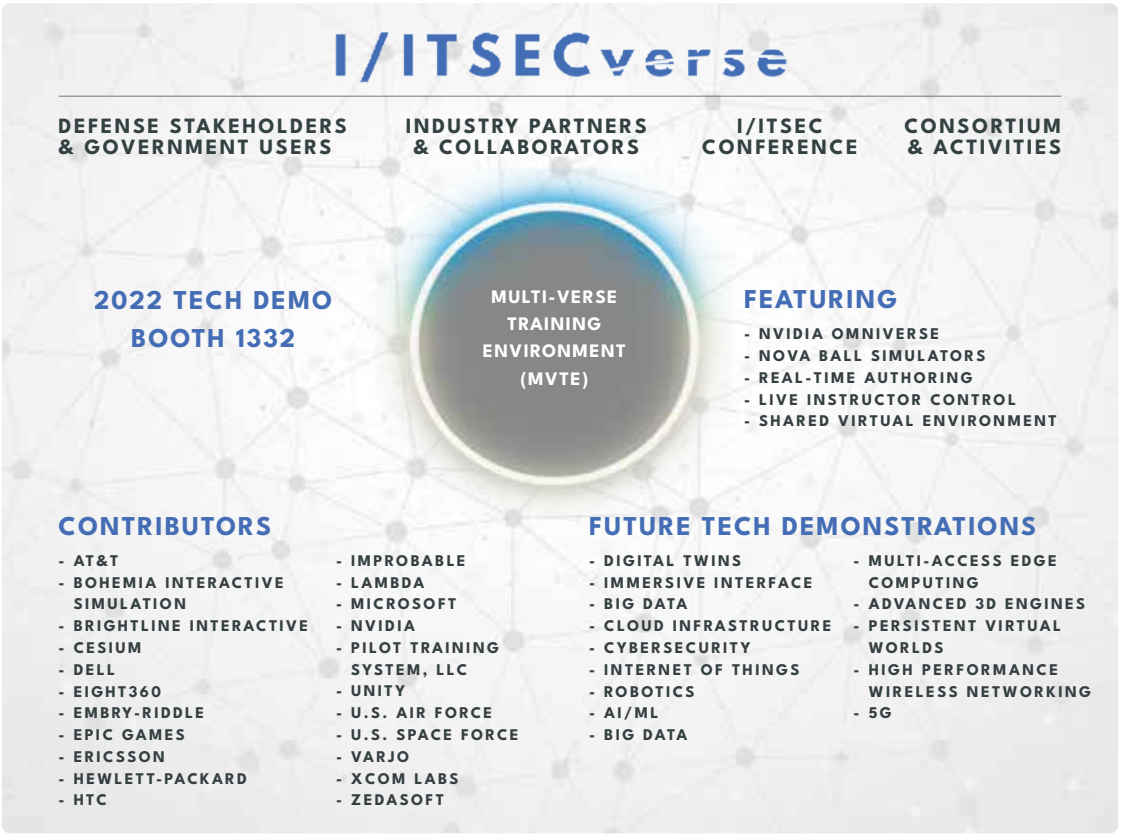
U.S. AIR FORCE

U.S. SPACE FORCE

VARJO

XCOM LABS

ZEDASOFT



I/ITSECverse is NTSA's new, advanced technology-centric ecosystem created to showcase innovative defense and mission capabilities in an immersive, collaborative space. It is an integration of next-generation government and industry solutions that transforms mission and warfighter readiness through the use of persistent virtual spaces that seamlessly integrate numerous types of reality.

The NTSA I/ITSECverse is stood up as an evolutionary, open ecosystem built on array of activities, stakeholders, technologies, and standards. Throughout the year, activities that reflect advancement in metaverse-style training, simulation and rehearsal will occur, with advancements and successes showcased at I/ITSEC. This year, I/ITSEC 2022 launches the I/ITSECverse by setting a metaverse-mentality with a series of collaborative demonstrations on different technical architectures and virtual spaces. For example, the Multi-Verse Training Environment (MVTE) showcases aspects of the I/ITSECverse by combining the powers of cloud, network, spatial technology, and advanced immersive full-motion simulation.

DEVELOPMENT ROOM • MONDAY – WEDNESDAY • W308D
AWARDS CEREMONY • THURSDAY, 1 DECEMBER • 1030 – 1200 • W308A

IRON DEV

MODERATOR

BRIAN VOGT, CMSP
Solutions Architect, SAIC

JUDGES

JOHN MEYERS, SES
Executive Director, Naval Air Warfare Center Training Systems Division

DAVID STARGEL, PH.D.
Deputy Commander, Air Force Agency for Modeling & Simulation

PAUL THURKETTLE
Education & Training Technologies Manager, NATO Allied Command Transformation

AMY PECK
Chief Executive Officer, EndeavorVR

MICHAEL ENLOE
Chief Technical Officer, Synthetic Training Environment Cross-Functional Team

Iron Dev is a team competition similar to competitive cooking shows, where teams will be given a challenge and "secret ingredient" to develop a training solution to improve warfighter readiness. Teams will consist of diverse members with skills in AR/VR development, simulation networking/distribution, graphic design, simulation development, and training development.

Come see the exciting Iron Dev competition show to see the innovative solutions developed and presented by the teams. See the engaging interaction between the teams and the judges, who are senior M&S leaders in DoD, NATO, and industry, as teams present their solutions.

Awards will be presented to the Best Overall Solution, the Most Innovative Solution, and the People's Choice award voted on by the audience at the conclusion of the Iron Dev show!

Be sure to join us for the annual Iron Dev Awards Ceremony, Room W308A, Thursday, 1 December, 1030 – 1200.

WEDNESDAY, 30 NOVEMBER • 1030 – 1200 • ROOM W308C

M&S EMERGING TECHNOLOGIES: INNOVATION OPPORTUNITIES AND CHALLENGES

MODERATOR

WIM HUISKAMP
Chief Scientist M&S, TNO Defence Research, The Netherlands
ETSA Vice-Chair

PANELISTS

ANDY SMITH
ETSA Chairman, Halldale Publications

AGATINO MURSIA
Research Coordinator, Investments & Technology Plan Governance Unit, Leonardo Company, Italy

LUIGI CAPONE, PH.D.
Senior Manager, Leonardo Labs, Italy

SIMON SKINNER
Product Line Manager for Simulation Capabilities and Digital Twins, Thales Training & Simulation UK

DAVID HEAD
Head of Strategic Partnerships and Customer Marketing for Training Solutions, Thales Training & Simulation UK


MR. HUISKAMP


MR. SMITH


MR. MURSIA


DR. CAPONE


MR. SKINNER


MR. HEAD

The European Training and Simulation Association ETSA ("The European Voice" of the Modelling, Simulation & Training community) has invited representatives from several European industries and organisations to discuss the vision on M&S innovation. The presenters will provide an overview of current developments and share examples of applications that leverage the advantages of emerging technologies. The evolution and mid-term plans will be discussed as well as the partnerships (NATO, EDA, R&D, Industry) that are in place or desired to further develop current capabilities and implement these innovations within our armed forces.

The ETSA special event panel session will engage with the audience on the way ahead towards bridging the innovation gap between new technology and applications and discuss how to engage with ETSA and leverage its partnership agreements with NTSA and Industry.

WEDNESDAY, 30 NOVEMBER • 1030 – 1200 • ROOM W309AB

JOINT WARGAMING INTEROPERABILITY SHOWCASE

MODERATOR

MATTHEW CAFFREY JR.
Senior Wargamer, HQ AFRL USAF

PANELISTS

CAPTAIN MICHAEL P. O'HARA, PH.D., USN
Chair, War Gaming Department (WGD), Center for Naval Warfare Studies, U.S. Naval War College

LIEUTENANT COLONEL DAVE BLAIR, PH.D., USAF
MORPHEUS Lead (Innovation Strategiest), CSAF Strategic Studies Group USAF

GEORGE BOYARKO, PH.D.
Technical Lead, Advanced Concept Development & Wargames, Space Security & Defense Program (SSDP)

THOMAS "SAM" SZVETECZ
Wargaming Lead, AF Futures, USAF

CHARLES "CHUCK" SANDERS, PH.D.
M&S Subject Matter Expert, Trideum Corporation

BRETT TELFORD
Director, Marine Corps M&S Office (MCMSO) USMC


MR. CAFFREY


CAPT O'HARA, USN


LT COL BLAIR, USAF


DR. BOYARKO


DR. SANDERS


MR. TELFORD

Wargaming is a key M&S enabler for assessing the Department's readiness, training commanders, strategic planning, and supplying analytical data to other simulations. Let us re-examine together how we perceive wargaming, the digital age, and how we bring it all together.

Join us for the Joint Wargaming Interoperability showcase where the nation's leaders in wargaming will share with us the cutting edge in wargaming tools, their insights on improving cross service wargame interoperability, and the impacts wargaming has on the M&S community.

In this event you will learn:

- The latest that wargaming has to offer the M&S community.
- How the tenets of commonality, reusability, and interoperability are impacting wargames.
- Initiatives the services are performing to improve wargaming across the services.

WEDNESDAY, 30 NOVEMBER • 1400 – 1530 • ROOM W310AB

THE NEW FRONTIER: TRAINING FOR THE SPACE MISSION

SPACE TRAINING ACROSS THE FORCES

MODERATOR

TARA KILCULLEN
Principal, ZYGOS Consulting

PANELISTS

CAPTAIN CORY BRUMMETT, USN
Navy Liaison to the U.S. Space Force's Space Education and Training Center (SETC), Naval Information Forces Colorado

COLONEL COREY KLOPSTEIN, USSF
Senior Materiel Leader, Warfighter, Enterprise Division (SSC/SZY), Space Systems Command

JEREMY T. LANMAN, PH.D.
Chief Technology Officer, U.S. Army PEO STRI

DAVID STARGEL, PH.D.
Technical Director, Air Force Agency for Modeling and Simulation


MS. KILCULLEN


CAPT BRUMMETT, USN


COL KLOPSTEIN, USSF


DR. LANMAN


DR. STARGEL

With the emergence of the Space Force, the Department of Defense understands that their mission cannot be successful without cross service cooperation. It is vital for the services to be able to support the space frontier approaching it from a variety of innovative and sophisticated aspects. Hear firsthand the Space Force describe their mission, how they envision training for the mission, and how cross functional partcipation is crucial in its success. Hear from each service how they will support the Space Force training mission and what that means for the future of their training approach and portfolio.

THURSDAY, 1 DECEMBER • 0830 – 1000 • ROOM W308C

SIMULATION STANDARDS: THE PATH TO SEAMLESS INTEROPERABILITY FOR MULTI-DOMAIN OPERATIONS

#GOSTANDARDS

MODERATOR

WIM HUISKAMP
Chief Scientist M&S
TNO Defence Research, The Netherlands
Scientific Advisor to NATO M&S Group (NMSG)

PANELISTS

PATRICK T. ROWE
Executive Director
Simulation Interoperability Standards Organization (SISO)

LIONEL KHIMECHE
Head of the M&S department
DGA (Direction Générale de l'Armement), France
Chair of NMSG M&S Standards Subgroup (MS3)

BJÖRN LÖFSTRAND
Senior Systems Architect in Modelling and Distributed Simulation Design, Pitch Technologies, Sweden

NICO DE REUS
Senior Scientist in the Modelling, Simulation and Gaming Department, TNO Defence Research, The Netherlands

SIMONE M. YOUNGBLOOD
Principal Professional Staff
Johns Hopkins Applied Physics Laboratory, USA


MR. HUISKAMP


MR. ROWE


MR. KHIMECHE


MR. LÖFSTRAND


MR. DE REUS


MS. YOUNGBLOOD

Standards provide interoperability and reduce time and cost to deliver effective solutions. This is especially true in areas like modeling, simulation, and training where a mix of existing and/or newly developed components often need to be integrated in a short timeframe.

M&S standardization leads from NATO Modelling and Simulation Group (NMSG) and the Simulation Interoperability Standards Organization (SISO) will describe their standardization processes. You will hear from leads and proponents of three NMSG/SISO standards at different points in the standardization process: concept exploration for a new standard, a recently published standard, and a well-established, supported standard.

You will gain renewed appreciation for the value of standards and more in-depth understanding of how they are developed, adopted, supported, and maintained. If you attended the NMSG-SISO session last year, plan to attend again this year to get an update of NATO and SISO standards program information.

S&T organization
Modelling and Simulation Group

SISO Simulation Interoperability Standards Organization
"Simulation Interoperability & Reuse through Standards"

THURSDAY, 1 DECEMBER • 0830 – 1000 • ROOM W304GH

EVOLVING MEDICAL TRAINING – BIG DATA, MULTI-DOMAIN OPERATIONS, AND PROLONGED CARE

MODERATOR

MATTHEW HACKETT, PH.D.
Science and Technology Manager, DEVCOM – Soldier Center

PANELISTS

COLONEL KATHLEEN SAMSEY, MD, MPH, MC(FS), USA
Director, Directorate of Simulation (DoS), U.S. Army Medical Center of Excellence

COLONEL PAUL O. KWON DO, MPH, MC, USA
Clinical Advisor, U.S. Army PEO STRI

LIEUTENANT COLONEL STERLING BRODNIAK DO, MBA, FAAFP, MC, USA
Medical Integrator/Director Synthetic Training Environment, Cross Functional Team

BETH PETTITT, PH.D.
Branch Chief, Medical Simulation Research, U.S. Army CCDC SC STTC


DR. HACKETT


COL SAMSEY, USA


COL KWON, USA


LTC BRODNIAK, USA


DR. PETTITT

In recent operations, the U.S. military was able to rapidly evacuate most casualties, allowing medical providers to focus on the 'golden hour' of patient care. Future conflicts with peer and near-peer adversaries will require providers to render care for as long as 72 hours, in a concept known as prolonged casualty care. Additionally, advanced medical capabilities at the point of injury, including the provision of whole blood and ultrasound, require providers to have knowledge and skills beyond current levels of training.

To address these challenges, the military medical community envisions an evolution of the training landscape, with shifting educational paradigms and vastly improved technical capabilities. This session will provide this vision with perspectives from the requirements, acquisition, and research and development communities, and will be appropriate for any audience interested in military or healthcare training.

This session will provide attendees with:

- An overview of current military medical simulation capabilities.
- A discussion of the next generation of medical simulation capabilities, including interfacing with the Synthetic Training Environment (STE).
- Capability gaps from the military medical community and current science and technology efforts addressing them.

THURSDAY, 1 DECEMBER • 1030 – 1200 • ROOM W308C

HUMAN-CENTERED ARTIFICIAL INTELLIGENCE IN TRAINING, SIMULATION, AND EDUCATION

HUMAN-CENTERED AI: RESPONSIBLE AND EFFECTIVE

MODERATOR

TIM WHALEN, PH.D.
Data Scientist / R&D Portfolio Manager, Design Interactive, Inc.

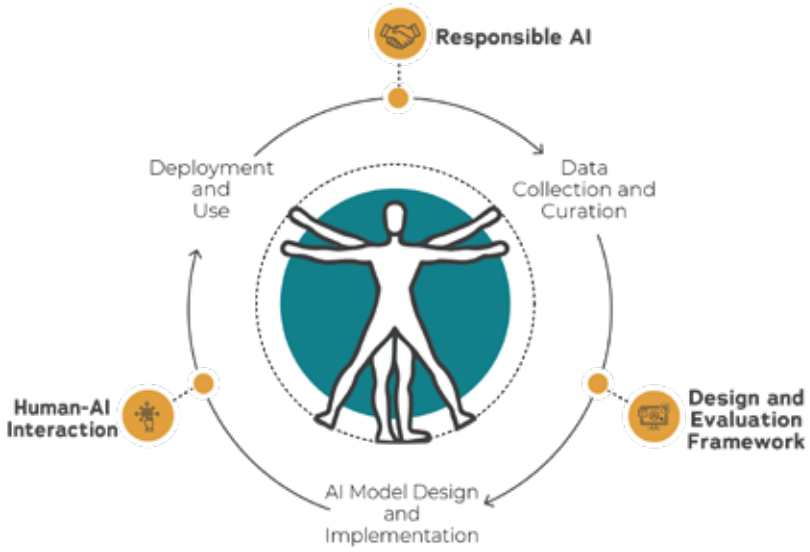
PANELISTS

OZLEM OZMEN GARIBAY, PH.D.
Assistant Professor, University of Central Florida

JOSEPH T. KIDER, JR., PH.D.
Associate Professor Institute for Simulation and Training, School of Modeling, Simulation, and Training, University of Central Florida

IVAN GARIBAY, PH.D.
Associate Professor, Industrial Engineering and Management Systems, University of Central Florida; Director, UCF Artificial Intelligence and Big Data Initiative

STEPHEN M. FIORE, PH.D.
Professor, Cognitive Sciences, Department of Philosophy
Director, Cognitive Sciences Laboratory, Institute for Simulation and Training, University of Central Florida




DR. WHALEN


DR. GARIBAY


DR. KIDER, JR.


DR. GARIBAY


DR. FIORE

Recent events from reinforcement learning algorithms beating humans in aerial dogfighting to AI copiloting the U-2 demonstrate the growing role of AI in defense. However, continuing high-profile problems have demonstrated the need to rethink AI development and implementation, from focusing on algorithm capabilities to repositioning humans at the center of AI systems, augmenting rather than replacing humans, and providing applications that are reliable, safe, and trustworthy.

While such human-centered AI (HCAI) principles have significantly improved AI systems at technology companies, governments, and defense policies, much remains to be done. At this session, attendees will gain a thorough understanding of the need for a human-centered approach to AI, practical implementation strategies, and an understanding of the benefits of HCAI.

Attendees will gain a thorough understanding of the current challenges in AI implementation across training, simulation, and education.

Attendees will have an introduction to the process of implementing HCAI, including:

- Responsible AI, which comprises aspects of explainability, fairness, and ethics.
- Effective AI software interfaces, allowing for high levels of user autonomy and automation.
- Guidance for effective human-machine teaming.
- The benefits of HCAI implementation.

THURSDAY, 1 DECEMBER • 1030 – 1200 • ROOM W304EF

FLYING IN THE METAVERSE: CERTIFYING EXTENDED REALITY

MODERATOR

DANIEL WILLSON
Air Force Global Strike Command Operational Test and Training Infrastructure Lead, Air Force Global Strike Command / Aircrew Training

PANELISTS

COLONEL R. JOE MOSCHELLA, USAF
19AF Pilot Training Transformation Lead, Air Education Training Command

LIEUTENANT COLONEL STEVE BRIONES, USAF
Commander, Detachment 24 (Pilot Training Next), 19th Air Force, Air Education and Training Command

MAJOR DAVID OPERCHAL, USAF
Rotary-Wing Weapons and Tactics Chief, Air Force Global Strike Command

MAJOR JONATHAN LEE, USAF
Det 3 29th Training Systems Squadron Commander, Air Combat Command


MR. WILLSON


COL MOSCHELLA, USAF


LT COL BRIONES, USAF


MAJ OPERCHAL, USAF


MAJ LEE, USAF

Digital Transformation is impacting almost all markets today. Extended Reality (XR) technologies play a crucial role in this transformation, with new communication channels and methods that allow users to be interconnected in real time. While the development over the years of Extended Reality flight training including hardware and digital content has continued to expand the certification regulations and process are following at a much slower rate.

This panel will be led by Mr. Daniel "Frasier" Willson, who will be asking the panelist questions regarding their expertise on the certification of extended reality flight training devices and content followed by a questions and answer session from the I/ITSEC attendees.

THURSDAY, 1 DECEMBER • 1330 – 1500 • ROOM W308C

INFORMATION WARFARE: COMBATING DISINFORMATION VIA INOCULATION TRAINING AND SOCIAL SIMULATIONS

MODELING FOR TARGETING DISINFORMATION

MODERATOR

ALEXANDER V. MANTZARIS, PH.D.
UCF Statistics and Data Science

PANELISTS

IVAN GARIBAY, PH.D.
Associate Professor, Industrial Engineering and Management Systems, University of Central Florida; Director, UCF Artificial Intelligence and Big Data Initiative

GITA SUKTHANKAR, PH.D.
Professor, Department of Computer Science, University of Central Florida

LISA DIEKER, PH.D.
Pegasus Professor and Lockheed Martin Eminent Scholars, College of Community Innovation and Education, University of Central Florida

OZLEM OZMEN GARIBAY, PH.D.
Assistant Professor, University of Central Florida

WILLIAM RAND, PH.D.
Executive Director of the Business Analytics Initiative and Associate Professor of Marketing, NC State University

UNA-MAY O'REILLY
Principal Research Scientist, Massachusetts Institute of Technology Computer Science & Artificial Intelligence Laboratory (MIT CSAIL)


DR. MANTZARIS


DR. GARIBAY


DR. SUKTHANKAR


DR. DIEKER


DR. GARIBAY


DR. RAND


MS. O'REILLY

The integrity of a society is of the most important points of stability which must be maintained. Developments of online social networks allow users to propagate content faster with new advancements. With the potential for disinformation to proliferate it is vital to be able to assess the impact that it can have since it would be a waste of resources to address every possible example of malicious information.

In the effort to model society and the ways which information can shape or direct it, simulations will be of the essence. Given that collections of individuals work together it is a nature choice to consider agent based simulations as a representation of citizens and after training the system it can be used to explore plausible scenarios. The program will showcase new approaches and the results that can be delivered. Challenges and new prospects will be discussed from experts in the field. Key techniques that have proven to be effective are integrating entropic measures, adaptive societal segmentation, and deep learning in an agent context. Agents can be used to simulate the activities on platforms such as Twitter, and also those of github where users can share programming code. An added benefit of the agent based model is the explainability of the model where the intelligence of the agent can be interpreted more easily than in monolithic stochastic models.

TUESDAY, 29 NOVEMBER • 1400 – 1530 • ROOM W308C

PM TRASYS PROGRAM BRIEF

MODERATOR

JOHN TAYLOR
Deputy Program Manager (DPM), Program Manager Training Systems (PM TRASYS) Marine Corps System Command (MARCORSYSCOM)

PANELISTS

LIEUTENANT COLONEL TROY PETERSON, USMC
Product Manager (PdM), Range Training Systems (RTS), Program Manager, Training Systems (PM TRASYS)

LIEUTENANT COLONEL MICHAEL DONALDSON, USMC
Synthetic Training Integration and Management Branch Head, Range and Training Programs Division (RTPD), Training and Education Command (TECOM)

TRACY HARPER
Contracting Specialist, Marine Corps System Command (MARCORSYSCOM)

ROBYN INGERHAM
Product Manager (PdM), Training Systems Sustainment & Support Services (TS4), Program Manager, Training Systems (PM TRASYS)

ELIZABETH TYGART
Product Manager (PdM), Synthetic Training Systems (STS), Program Manager, Training Systems (PM TRASYS)

ARCHIE WHITE
Range and Training Area Management (RTAM), Training and Education Command (TECOM)

This event will provide a brief overview of the acquisition projects managed at/by Program Manager, Training Systems (PM TRASYS) in Orlando, Florida. Our Product Managers (PdM) will provide an update to the projects within their respective portfolios and offer information regarding upcoming procurement activities. As an added bonus, each Product Manager will introduce some of the emerging training requirements being developed by Training and Education Command (TECOM), Range and Training Programs Division (RTPD), and Range and Training Area Management (RTAM) for considerations as new acquisition projects.

TUESDAY, 29 NOVEMBER • 1600 – 1730 • ROOM W308C

USAF ACQUISITION UPDATE

MODERATOR

HEATH MORTON
Training System Technical Advisor

PANELISTS

LEA T. KIRKWOOD
Air Force Program Executive Officer (PEO) for Agile Combat Support (ACS)

COLONEL CHARLES "MATT" RYAN, USAF
Senior Materiel Leader for the Simulators Division, Air Force Program Executive Officer (PEO) for Agile Combat Support (ACS)

This Special Event will provide the latest information from the U.S. Air Force regarding the acquisition initiatives, focus areas, and upcoming training systems acquisition actions. It will feature remarks from Ms. Lea Kirkwood, the Air Force Program Executive Officer (PEO) for Agile Combat Support (ACS). Ms. Kirkwood will share her perspective on the current state of the Air Force acquisition process along with ongoing initiatives that apply to the I/ITSEC community. Colonel Charles "Matt" Ryan, the Senior Materiel Leader for the Simulators Division, will follow the PEO's presentation. Col Ryan and his team will provide updates on Air Force simulator business processes and opportunities.

WEDNESDAY, 30 NOVEMBER • 0830 – 1000 • ROOM W309AB

NAVY TRAINING PROGRAMS' VISION – PLATFORMS, SAILORS, ENVIRONMENT

MODERATOR

MIKE MERRITT
Acquisition Director, Naval Air Warfare Center Training Systems Division (NAWCTSD)

PANELISTS

CAPTAIN JOHN SCHIAFFINO, USN
Program Manager, Training Systems and Simulations
F-35 Joint Program Office

CAPTAIN KHARY HEMBREE-BEY, USN
Program Manager, LCS Modernization and Sustainment (PMS-505)

CAPTAIN KEVIN SMITH, USN
Program Manager, CONSTELLATION Class Frigate Program (PMS-515)

DAVID S. KEMP
Ready Relevant Learning (RRL) Director, PEO MLB, Program Manager, Training Systems Program Office, Ready Relevant Learning (RRL)

YARON KETER
LVC Operational Director, Naval Surface Warfare Center, Coronado

Expanded at this year's I/ITSEC is a second panel of Navy Captains and senior civilian leaders representing key programs and capabilities pertinent to the Navy Training mission spanning weapons platforms, sailors, and the training environments the Navy uses. The panel members will discuss their program's highlights and share their strategic vision. I/ITSEC participants are welcome and encouraged to attend to hear about the state of the Navy's Training Systems.

THURSDAY, 1 DECEMBER • 1030 – 1200 • ROOM W304AB

NAVY VISION FROM TRAINING SYSTEMS PROGRAM MANAGERS

MODERATOR

MIKE MERRITT
Acquisition Director, Naval Air Warfare Center Training Systems Division (NAWCTSD)

PANELISTS

CAPTAIN KEVIN McGEE, USN
Program Manager, Naval Aviation Training Systems and Ranges (PMA-205)

CAPTAIN DAN COVELLI, USN
Commanding Officer, Naval Air Warfare Center Training Systems Division (NAWCTSD)

BOB KERNO
Program Manager, Surface Training Systems (PMS-339)

ARNOLD MALLORY
Manpower Personnel and Training Integration Lead, Naval Information Warfare Systems Command (NAVWAR)

Each year at I/ITSEC, a panel of Training Systems Program Managers consisting of Navy Captains and senior civilian leaders representing the Navy's training acquisition organizations convenes to discuss the year's highlights and share their strategic vision. I/ITSEC participants are welcome and encouraged to attend to hear about the state of the Navy's Training Systems.

THURSDAY, 1 DECEMBER • 0830 – 1200 • ROOM W311ABCD

PEO STRI TSIS PROGRAM BRIEF

MODERATOR

KAREN D. H. SAUNDERS, SES
Program Executive Officer, U.S. Army PEO STRI

PANELISTS

COLONEL CORY BERG, USA
Project Manager Soldier Training, U.S. Army PEO STRI

COLONEL NICKOLAS KIOUTAS, USA
Project Manager Synthetic Environment, U.S. Army PEO STRI

ELANOR "JEANNIE" WINCHESTER
Program Manager Cyber, Test, and Training, U.S. Army PEO STRI

DALE WHITTAKER
Project Lead International Programs Office, U.S. Army PEO STRI

BOB WOLFINGER
Project Lead Training Aids, Devices, Simulators, Simulation (TADSS) Support Operations, U.S. Army PEO STRI

The U.S. Army Program Executive Office Simulation, Training and Instrumentation (PEO STRI), Training and Simulation Industry Symposium (TSIS) updates at I/ITSEC will provide the latest information regarding current and future PEO STRI business opportunities. This will be an update from the June 2022 TSIS and will include presentations from the Project Managers and Project Leads, as well as the Army Contracting Command – Orlando and Program Manager Medical Simulation and Training, Defense Health Agency.

The event will be held in two 90 minute segments, with a 30 minute break.

0830 – 1000 TSIS Briefings
1000 – 1030 Break
1030 – 1200 TSIS Briefings

DOWNLOAD MOBILE APP

SPECIAL EVENTS
INTERNATIONAL

INTERNATIONAL ATTENDEES • INTERNATIONALE TEILNEHMER • LES PARTICIPANTS INTERNATIONAL • INTERNATIONAL DELTAKERE • INTERNATIONELL DELTAGARE • INTERNATIONAL DEELNEMERS

INTERNATIONAL PAVILION

ROOM W205ABC

International attendees can meet and connect with counterparts from around the world. Limited private meeting space is available on a first-come, first-served basis to our international participants and may be scheduled at the International Pavilion's Welcome Desk. Additional information about the many international activities throughout I/ITSEC is readily available in the International Pavilion.

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

INTERNATIONAL PAVILION HOURS OF OPERATION

Monday, 28 November	0800 – 1800
Tuesday, 29 November	1200 – 1800
Wednesday, 30 November	0800 – 1500
Thursday, 1 December	0800 – 1500

INTERNATIONAL PAVILIONS

Canada	2260

SPECIAL EVENTS

TUESDAY, 29 NOVEMBER • 1600 – 1730 • ROOM W304AB
SIGNATURE EVENT: Indo-Pacific Training Capability Improvements for Multi-Domain Warfighting

WEDNESDAY, 30 NOVEMBER • 1030 – 1200 • ROOM W308C
COMMUNITY OF INTEREST: M&S Emerging Technologies: Innovation Opportunities and Challenges

WEDNESDAY, 30 NOVEMBER • 1400 – 1530 • ROOM W304EF
SIGNATURE EVENT: Transforming Training with Allies and Partners to Confront and Deter Russian Aggression

WEDNESDAY, 30 NOVEMBER • 1600 – 1730 • ROOM W304EF
FOCUS EVENT: Best from Around the Globe

THURSDAY, 1 DECEMBER • 0830 – 1000 • ROOM W308C
COMMUNITY OF INTEREST: Simulation Standards: The Path to Seamless Interoperability for Multi-Domain Operations

THURSDAY, 1 DECEMBER • 1030 – 1200 • ROOM W309AB
FOCUS EVENT: International Perspectives on Creating and Sustaining Learning Ecosystems in the Wild

THURSDAY, 1 DECEMBER • 1030 – 1200 • ROOM W310AB
FOCUS EVENT: Evolving Distributed Mission Operations Joint DMO Panel

TUTORIALS

MONDAY, 28 NOVEMBER • 1245 – 1415 ROOM W305A
22T21 • Introduction to HLA

MONDAY, 28 NOVEMBER • 1430 – 1600 • ROOM W308C
22T32 • Sharing Environmental Data for LVC using RIEDP

PAPERS

22287 • TUESDAY, NOVEMBER 29 •1700 – 1730 • W307A
SIM 2: WE'RE ONLY HUMANS
Human Behavior Models for Adaptive Training in Mixed Human-Agent Training Environments

22190 • WEDNESDAY, 30 NOVEMBER • 1030 – 1100 • W300-THEATRE
BEST PAPER SESSION 1
ECIT: Building a World With Deepfake Content – Who Needs Real Data?

22325 • WEDNESDAY, 30 NOVEMBER • 1430 – 1500 • W300-THEATRE
BEST PAPER SESSION 2
TRAINING: VR Training System for Rehabilitation and Compensatory Analysis after Stroke

22180 • WEDNESDAY, 30 NOVEMBER • 1400 – 1430 • W307A
SIM 5: SAY DIGITAL TWINS: I DARE YOU
Geospatial Data Pipelines for Urban Digital Twin Applications

DOWNLOAD MOBILE APP

SPECIAL EVENTS

INTERNATIONAL/ EXHIBIT HALL

INTERNATIONAL CONTINUED

PAPERS (CONT.)

22137 • WEDNESDAY, 30 NOVEMBER • 1430 – 1500 • W307D
SIM 6: SIMULATION FOR TRANSFORMING TRAINING
Estimating Relative Combat Effectiveness Using Simulations

22166 • WEDNESDAY, 30 NOVEMBER • 1500 – 1530 • W307A
SIM 5: SAY DIGITAL TWINS: I DARE YOU
Drone Control to Major Tom: Anomaly Detection and Digital Twins

22189 • WEDNESDAY, 30 NOVEMBER • 1500 – 1530 • W307D
SIM 6: SIMULATION FOR TRANSFORMING TRAINING
Context-aware and Perceptually Realistic Synthetic Wrapping for Military Training and Exercises

22285 • WEDNESDAY, 30 NOVEMBER • 1630 – 1700 • W307C
TR 5: TRANSFORMING MILITARY TRAINING THROUGH IMMERSIVE TECHNOLOGIES
Transforming Team Training: The Influence of Virtual Environment Features

22106 • THURSDAY, 1 DECEMBER • 0830 – 0900 • W308A
ECIT 8: POTPOURRI
Recommendation System in an Integrated Digital Training Environment for the 5th Generation Air Force

22235 • THURSDAY, 1 DECEMBER • 0900 – 0930 • W307B
ECIT 9: PATTERNS OF LIFE: TOO HUMAN FOR AI?
Large-Scale Pattern of Life Simulation for Real Time Applications

22175 • THURSDAY, 1 DECEMBER • 0930 – 1000 • W307D
HPAE 6: TRAINING AGENTS INTO ALLIES
Social Media Synthesis using AI for Decision Support

22454 • THURSDAY, 1 DECEMBER • 1130 – 1200 • W307B
ECIT 10: THE THREE C'S: COLLABORATION, COMMUNICATION, AND CLOUD
Automated 3D Terrain Generation at Global Scale Based on Satellite Imagery and Cloud Computing

22282 • THURSDAY, 1 DECEMBER • 1330 – 1400 • W307B
ECIT 11: ENHANCED WARFIGHTING THROUGH AUTOMATED RENDERING, ASSESSMENT AND DATA FUSION
Innovation, It's in VR: How the Spanish Military Health School Is Revolutionizing Workforce Training with VR Immersive Rooms

22138 • THURSDAY, 1 DECEMBER • 1330 – 1400 • W307C
TR 8: DIGITAL THREADING THE NEEDLE
Data-Driven Behavioral Modelling of an Air Defence System

EXHIBIT HALL ACTIVITIES

CYBER PAVILION — BOOTH 2870

NTSA's I/ITSEC CYBER PAVILION is a physical gathering place for government, industry, academia, and international partners engaged in cyber domain and M&S efforts. The Pavilion features panel events and presentations spanning policy, operations, capability acquisition, and workforce development topics. The events highlight needs of the government, capabilities of industry, efforts of academia, research by interns, and collaboration with international partners. And it includes a panel on Information Warfare and an I/ITSEC Special Event for the Department of Defense's Service Principal Cyber Advisors outside of the Exhibit Hall.

- **LEARN:** Hear from Government and Industry leaders about policy, programs, and projects.
- **COMMUNICATE:** Discover opportunities for collaboration in fields such as Electromagnetic Warfare, Cyber Operations, and Information Warfare.
- **PROVIDE:** Demonstrate current capabilities, ongoing work in the pursuit of solutions to meet needs.
- **DEVELOP** – Make contacts to carry beyond I/ITSEC.

The Pavilion is our platform to communicate and cooperate on finding approaches to operate in the dynamic environment of cyberspace. Attendees from the U.S. Government, Department of Defense, Partner Nations, commercial organizations, and academia should come to collaborate at the **CYBER PAVILION**.

NOTABLE ATTENDEES • NETWORKING CONTACTS ALL AT THE CYBER PAVILION:

OUTLOOK – COMMENTS FROM DEFENSE LEADERS, PRINCIPAL CYBER ADVISORS
- NEW for 2022, an I/ITSEC SPECIAL EVENT: Service Principal Cyber Advisors' Panel

OPPORTUNITIES – DISCUSSION ON NEEDS FROM PROGRAMS/ PROJECTS, GOVERNMENT ACQUISITION
- Facilitated Panel – DoD PMs/PEOs & Capability Managers

OFFERINGS – INDUSTRY, GOVERNMENT & ACADEMIA – SOLUTIONS
- Facilitated Panel – Cyber Pavilion Sponsors from Industry
- Facilitated Panel – Information Warfare
- Facilitated Panel – Academia
- Research Updates – Government, Academic Interns

SPONSORED BY:

BAE SYSTEMS • BOEING • COMMAND POST TECHNOLOGIES • COLSA CORPORATION • I3 INTEGRATIONS INNOVATIONS INC. • LOCKHEED MARTIN • ORIGIN PC • SAIC • TRIDEUM • ULTIMATE KNOWLEDGE INSTITUTE (UKI) • VELOS SOLUTIONS

HEALTHCARE PAVILION

PAVILION LOCATION — **2181, 2281, 2283, 2380, 2382**

Recognizing that simulation represents a paradigm shift in health care education, SSH promotes improvements in simulation technology, educational methods, practitioner assessment, and patient safety that promote better patient care and can improve patient outcome.

INNOVATION SHOWCASE

EXHIBIT HALL – WEST HALL B • BOOTH 2588

Presentations within the Innovation Showcase are led by cutting-edge exhibiting companies and government agencies that are knowledgeable on the various subject matter within the M&S Industry. Be sure to stop by one of the 30-minute sessions to hear what is new and exciting in M&S! Check the onsite schedule for any changes or updates to the Innovation Showcase schedule.

The most up-to-date information will be available on the mobile app, website, and onsite during I/ITSEC.

MONDAY, 28 NOVEMBER – INTERNATIONAL SHOWCASE		
1400	Forces in Virtual Environment (FIVE)	Quantum3D/HAVELSAN
1440	Unleashing Fully Immersive Multi-user Wireless XR Experiences	XCOM Labs
1520	ISLE-LMS State of the Art Mixed Reality Trainor	Vrgineers
1600	Continuous Time-of-Day Visuals: Seamless Optical Blends	GBVI
1640	Hal S5301	Gaumard Scientific
1720	Metaverse	Microsoft Federal
TUESDAY, 29 NOVEMBER – INNOVATION SHOWCASE		
1230	Microsoft Project AirSim – AI first Simulation Platform to Build Aerial Autonomy	Microsoft Federal
1310	Galea: The Bridge Between Virtual Reality and Neural Interfaces	OpenBCI Inc.
1350	VR, XR and Metaverse Solutions for Defense and Aerospace	Varjo Technologies
1430	Viewpoint, 3D Cybersecurity Data Visualitzation	Ingalls Information Security
1510	Quantum3D Mixed Reality Flight Simulator	Quantum3D/HAVELSAN
1550	Deploying Secure Solutions for VR Training Simulations	HTC VIVE
1630	MASTER Project (M&S Architecture & Services for Training and Experimentation) – A Solution for M&S as a Service (MSaaS)	NATO
1710	Nobody Builds Just One: Leveraging Feature-based Product Line Engineering to Reduce Complexity	BigLever
1750	Augmented Reality Made Easy: Improve Warfighter Readiness with Immersive Technology	Bundlar
WEDNESDAY, 30 NOVEMBER		
1000	Cyber Resilient Training Systems Through Continuous Cyber Supply Chain Risk Management	Fortress Information Security
1040	Creating Unforgettable VR Training Experiences with Hand Tracking	Ultraleap
1120	Powering the Future of British Army Synthetic Training	Hadean Supercomputing LTD
1200	Free DoD Tools to Jumpstart Your Research	CSIAC
1240	M&S in support of CBRN	NATO
1320	CSAR, Your Best Hope for ATO Survival	Ingalls Information Security
1400	Serious Games Technologies for Training and Simulation	Quantum3D/HAVELSAN
1440	EMPACT In Action – Modernizing Critical Training with Virtual Reality Across Sheppard Air Force Base	HTX Labs
1520	Cognitive Performance and Decision Making: A Live Fire Training Approach	910 Factor, Inc.
1600	Trauma Training in a High Stress Environment Using Mixed Reality	Surgical Science
1640	Automated Content Generation for Technical Training Applications	CAE
1720	Building Immersive Apps with ArcGIS Maps SDKs for Game Engines	ESRI
THURSDAY, 1 DECEMBER		
0930	Addressing Zero Trust as the Multi-level Security (MLS) Imperative for Distributed Training	Air Force Agency for Modeling and Simulation
1010	ELMO – Electromagnetic Layer for Multi-domain Operations	NATO
1050	Accelerating Aerial Autonomy with Microsoft Project AirSim	Microsoft Federal
1130	Zero Trust Cloud Communication Solutions	Fognigma
1210	Enabling a Simulation Ecosystem to Simplify Solutions Development	Epic Games, Inc.
1300	Serious Games Showcase and Challenge Award Ceremony	