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WELCOME ATTENDEES OF I/ITSEC 2019



On behalf of the United States Air Force, this year's Lead Service; our sponsoring organization, the National Training and Simulation Association; the Service Executives and their Principals; and the 200+ military, government, industry, and academia volunteers, it is my distinct honor and great pleasure to welcome you to the 2019 Interservice/Industry Training, Simulation, and Education Conference (I/ITSEC)!

This year's theme, Winning the War of Cognition by Pushing Readiness and Lethality Boundaries, emphasizes the need to improve, enable, and quickly acquire technological advancements to better protect our Armed Forces, better prepare our warfighters, and save the lives of our military and first responders in an increasingly complex threat environment. In order to reap the readiness and performance benefits of a technological transformation of unprecedented magnitude, we must embrace new technology, overcome stagnation, deploy assets quickly, and address the ethical implications of our new resources. The I/ITSEC community has answered the call as evidenced by the innovative and diverse venues in this year's program and on the tradeshow exhibit floor, facilitating information and idea sharing to enable attendees to explore, discuss, interact and acquire technologies across industries like cyber, medical, transportation, energy, and more. The new Air Force Pitch Day, a first for I/ITSEC, is a novel approach to award small businesses with contracts to rapidly develop innovative solutions to evolving training needs, through the application of emerging technologies.

I/ITSEC 2019 features content-rich professional development and educational activities including tutorials, paper presentations, and workshops in which attendees will have the opportunity to learn about the latest training and simulation trends, practices, and technologies. The volunteer members of our six Subcommittees, Tutorial Board, and Conference Committee spent this past year assembling a great program consisting of 125 technical papers, 41 special events, and 18 tutorials. I/ITSEC also provides fantastic opportunities to engage with our future leaders via the many STEM activities, the Future Leaders Pavilion, Student Tours, and the Serious Games Showcase and Challenge. Interaction with these young leaders will not only help expose them to future possible careers, but also enhance your personal engagement with our community. The Black Swan event, which explores challenging issues and their consequences, will focus on Artificial Intelligence (AI) in a conversation called "Deep Fake Videos and the Insider Threat." Black Swan attendees will observe AI from perspectives which are guaranteed to test their perception of what is real and what is not. All Monday tutorials, Friday workshops, and paper sessions are available for continuing education and continuous learning credits. Additional information regarding registration for these credits is available at www.iitsec.org.

Make time to explore the I/ITSEC exhibit hall, which hosts the largest display of training systems capabilities in the world. Over 500 exhibitors will present leading-edge technology and innovative concepts. With continued growth in the number of international attendees, over 1,800 attendees from over 50 countries are expected, providing an audience with diverse ideas and perspectives. Be sure to take advantage of the many opportunities to network and exchange ideas.

This conference is a reality because of our many volunteers and sponsors. I want to express my sincere appreciation to the I/ITSEC family, as their commitment and support ensures I/ITSEC remains the world's premier professional development event for the training, simulation, and education professional.

With the theme, Winning the War of Cognition by Pushing Readiness and Lethality Boundaries, I/ITSEC is the premier venue to observe, learn, and discuss the application of innovative technologies in training and learning environments. Whether you are an engineer, educator, trainer, system developer, or business developer, I know you will enjoy experiencing the most advanced, cutting-edge technologies and best practices in the field and leave with the inspiration to transform the world.

Sincerely,

Jennifer Arnold



General Stephen W. Wilson
Vice Chief of Staff of
the United States
Air Force

Service Keynote

GENERAL STEPHEN W. “SEVE” WILSON is Vice Chief of Staff of the U.S. Air Force, Arlington, Virginia. As Vice Chief, he presides over the Air Staff and serves as a member of the Joint Chiefs of Staff Requirements Oversight Council and Deputy Advisory Working Group. He assists the Chief of Staff with organizing, training and equipping of 685,000 active-duty, Guard, Reserve and civilian forces serving in the United States and overseas.

Gen. Wilson received his commission from Texas A&M University in 1981. He’s had multiple flying tours and led bomber, intelligence, surveillance and reconnaissance, mobility, aeromedical evacuation and airborne command and control operations supporting operations Iraqi Freedom, Enduring Freedom and Combined Joint Task Force-Horn of Africa. General Wilson has also held numerous command positions, including the Joint Functional Component Commander for Global Strike and Air Force Global Strike Command.

General Wilson is a command pilot with more than 4,500 flying hours and 680 combat hours. Prior to his current assignment, the General was Deputy Commander, U.S. Strategic Command, Offutt Air Force Base, Nebraska.



Mark Matthews
President, Quantum3D
Government Systems

Industry Keynote

MARK MATTHEWS is the President of Quantum3D Government Systems (GS), responsible for leading the military-focused business area to define and implement new strategies to grow the U.S. Government and International business. Quantum3D Government Systems, together with its sister company Quantum3D Inc., has built a reputation of providing training and simulation technologies, integrated solutions, systems engineering services, specialized R&D, system integration and custom solutions to meet the rigorous demands for both government and commercial customers worldwide. Both business areas bring the “Power of Prepared” thru Quantum3D’s MANTIS training simulation software and Image Generator (IG) products, which have been distributed worldwide for over 20 years.

Prior to his current role, Mr. Matthews had program management and business area responsibility for Boeing’s P-8 Acoustics Programs from 2009 – 2018, where he led a large multi-functional team to design, manufacture, test and deliver an acoustic processing system to the U.S. Navy for the new P-8 submarine hunting platform. In addition, he managed a large portfolio of both domestic and international programs using acoustic detection capabilities.

From 2004 to 2009, Mark was the Deputy Director for International Programs at BAE Systems, where he was responsible for development, manufacturing, test, training and technical support for various avionics, control sticks, mission computers, flight displays and test equipment as well as all aspects of program management including strategy, customer relationships, cost, schedule, policies and procedures.

Mr. Matthews has also held program management and operations management roles with Space Vector, Rockwell International and Ford Aerospace. In these leadership roles, he was responsible for design, development, manufacturing, test and field tests for major platforms such as ICBM, Rail Garrison, Sidewinder missile systems and the U.S. Army HERA target systems.

Opening Ceremonies

0830-1000

- Call to Order
- Presentation of Colors
- National Anthem
- Invocation
- Opening Remarks
- Brian Holmes, 2019 Conference Chair*
- Service and Industry Keynotes

Senior Leader Panel

1030-1200

- Vice Admiral Luke McCollum, USN
- Major General James A. Jacobson, USAF
- Major General William F. Mullen, USMC
- Brigadier General Stephen Michael, USA
- Fred Drummond, SES
- Brigadier General Ilamrs Lejins, NATO

Conference Chairs



Brian Holmes
I/ITSEC 2019
Conference Chair

BRIAN J. HOLMES is Quantum3D Government Systems' Vice President of Business Development, where he leverages his extensive experience in a wide range of disciplines to develop innovative solutions for both his military and commercial clients. Brian's experience includes working with entire departments, teams, small groups and individuals, at every level in an organization, from Boards of Directors and upper management to support staff. Brian has held positions as Project Engineer, Systems Engineer, Lead Engineer, Project/Program Manager, Capture Manager, Proposal Manager, Director of Operations and Vice President during his 31+ years in the Modeling, Simulation and Training (MS&T) Industry. Brian's journey in MS&T began at the University of Central Florida where he graduated with a Bachelor of Science degree in Electrical Engineering in 1988 and accepted a position with the Naval Training Systems Center (NTSC, now NAWCTSD). After 5 years at NTSC, Brian accepted a position as a Lead Systems Engineer at the former Simulation and Instrumentation Command (now the Program Executive Office for Simulation, Training and Instrumentation). During his time within the government acquisition commands, he also pursued and completed a Master of Science degree in Industrial Engineering from the University of Central Florida, with an emphasis in simulation and training. Brian has been an active participant on I/ITSEC Subcommittees since 2010, including Chairman of the Simulation Subcommittee in 2014. Brian currently serves as the Treasurer and member of the Board of Directors of Fairways for Warriors.



Jennifer Arnold
I/ITSEC 2019
Program Chair

JENNIFER ARNOLD is a Principal with Booz Allen Hamilton with over 25 years of experience in the Simulation and Training industry and has been recognized for her award-winning contributions to Defense, Intelligence, Federal, and Commercial clients. She is the business development lead for the Firm's Strategic Innovation Group focused on driving Immersive, Data Science and Machine Intelligence (DS&MI), Cyber, and Digital technologies to support strategic planning, pipeline/portfolio development, and strategic level captures. Prior to joining the Firm, she built and managed a Performance Improvement organization with specialized expertise in mission-related systems integration, training, education, and strategic organizational transformation. She holds an M.A. in Industrial Organizational Psychology from St. Mary's University and a B.A. in Psychology from Texas Tech University. She currently serves on the Board of Directors for the Camaraderie Foundation, an organization committed to helping our Veterans and First responders battling post-traumatic stress and other "invisible" wounds of war. Jennifer has served as an active member on I/ITSEC Subcommittees and Conference Committee for 15 years.

Conference Sponsor



RADM James Robb,
USN (Ret.)
President National
Training and
Simulation
Association

Following graduation from Rensselaer Polytechnic Institute, designation as a Naval Aviator and training in the F-14 Tomcat, Admiral Robb deployed nine times across the globe accumulating over 5,000 hours and 1,000 carrier landings. Following a tour flying Russian fighters in the Nevada desert, he commanded Fighter Squadron Fifty One, Carrier Air Wing Nine, the Navy Fighter Weapons School (TOPGUN) and Carrier Strike Group Seven. As a Flag Officer he managed all Naval Aviation Programs (N980) and was the Director of Navy Readiness (N43). Following 9/11, he joined USCENTCOM as the Director of Plans (J5), deploying to the Middle East in support of combat operations. Retiring in 2006, he built a successful small consulting business before joining the National Training and Simulation Association as President in June 2012.



General Herbert J.
Carlisle, USAF (Ret.)
President and
Chief Executive
Officer
National Defense
Industrial
Association

Herbert J. "Hawk" Carlisle became president and chief executive officer of the National Defense Industrial Association (NDIA) June 15, 2017. Gen. Carlisle came to NDIA after a 39-year career in the Air Force, from which he retired as a four-star General in March 2017. His last assignment was as Commander, Air Combat Command at Langley Air Force Base in Virginia. Before that, Gen. Carlisle was the commander of Pacific Air Forces; the air component commander for U.S. Pacific Command; and executive director of Pacific Air Combat Operations staff, Joint Base Pearl Harbor in Hawaii. Gen. Carlisle has served in various operational and staff assignments throughout the Air Force and commanded a fighter squadron, an operations group, two wings and a Numbered Air Force. He was a joint service officer and served as Chief of Air Operations, U.S. Central Command Forward in Riyadh, Saudi Arabia. During that time, he participated in Operation Restore Hope in Somalia.



Air Force Service Executive (Lead Service)



COL. PHILIP E. CARPENTER, USAF, is the Senior Materiel Leader, Simulators Program Office. He leads a 500+ member team, executes a \$5.8B portfolio and is responsible for developing and maintaining 60+ training systems for

ACC, AMC, AETC, AFSOC, AFGSC and multiple FMS partner nations. He enlisted in the Air Force in 1986 and served as an avionics technician on the SR-71 and a communications systems operator on EC-130 and EC-135 aircraft. He was commissioned in 1995 through Air Force Officer Training School and has held a variety of program management positions in space, intelligence, command and control, cyber and weapons. As a company grade officer, he served as a C-5 and KC-10 aircraft maintenance officer. He deployed in support of Operation Iraqi Freedom and was named the 60th Air Mobility Wing Maintenance Support Officer of the Year. Col. Carpenter served as the Chief of Acquisition Officer Assignments at the Air Force Personnel Center and completed a joint tour with U.S. Forces, Japan. During this assignment, he served as an Operations Officer, Combat Ops and Exercises; Chief, Integrated Air and Missile Defense; and Executive Officer to the Commander. He also participated in Operation Tomodachi following the devastating 9.0 earthquake and tsunami. Col. Carpenter was the Materiel Leader for AIM-120 development and, most recently, he was the Chief, F-16 Foreign Military Sales, where he managed a \$23B portfolio to produce and modify over 750 aircraft for 10 nations. Col. Carpenter holds an APDP Level III in Program Management and is a Level II Credentialed Space Professional.

Army Service Executive



BG MICHAEL E. SLOANE, USA, is the Program Executive Officer, Simulation, Training and Instrumentation (PEO STRI) in Orlando, Florida. PEO STRI is responsible for a multi-billion dollar program annually. Previously, he served

as the Assistant Program Executive Officer Enterprise Information Systems as well as the Chief of Staff to the Acting Assistant Secretary of the Army (Acquisition, Logistics and Technology). His operational assignments include platoon leader and company executive officer in the 24th Infantry Division (Mechanized), deploying for Operations Desert Shield and Desert Storm, as well as to Honduras for Joint Task Force 105 and to support Hurricane Andrew relief operations. After a break in active duty service, he served in the 10th Mountain Division (Light Infantry) as the Division Support Command S4 and as a company commander, deploying to the Balkans with the NATO-led multinational peacekeeping force. His subsequent assignments included Future Readiness and Assignment Officer, Human Resources Command; the Missile Defense Agency's Ter-

restrial High Altitude Area Defense (THAAD) System Project Office as the Assistant Product Manager for Missile Development and later as Assistant Product Manager for THAAD System Test and Evaluation; the Office of the Deputy Chief of Staff, G-1 as the lead Personnel Policy Integrator for the Acquisition, Chaplain and Judge Advocate General Corps; PEO Soldier as the Product Manager for Soldier Clothing and Individual Equipment and as the Project Manager for Soldier Sensors and Lasers.

Navy Service Executive



CAPT TIMOTHY M. HILL, USN, is the Commanding Officer, Naval Air Warfare Center Training Systems Division (NAWCTSD) and Naval Support Activity (NSA), Orlando. NAWCTSD is the Navy's principal center for modeling, simulation and training systems technologies. The command provides training solutions and research for a wide spectrum of military programs, including aviation, surface and undersea warfare and other specialized requirements. Captain Hill leads a workforce of 1,200 scientists, evaluators, engineers, technicians, logisticians, contracting specialists and support personnel. Captain Hill was commissioned with the U.S. Naval Academy Class of 1992 after earning a Bachelor of Science degree in Systems Engineering. As a Naval Flight Officer, Captain Hill has logged over 3,200 flight hours and 750 carrier arrested landings in 32 different aircraft models, with operational flying tours in the S-3B Viking and the F/A-18F Super Hornet. He also served various staff and acquisition program management roles. Captain Hill served as the Executive Officer for NAWCTSD for two and a half years prior to assuming command in November 2018. His awards include the Legion of Merit, Bronze Star Medal, 2 Defense Meritorious Service Medals, Meritorious Service Medal, 2 Strike Flight Air Medals, along with other personal awards and numerous campaign medals and unit citations.

minal High Altitude Area Defense (THAAD) System Project Office as the Assistant Product Manager for Missile Development and later as Assistant Product Manager for THAAD System Test and Evaluation; the Office of the Deputy Chief of Staff, G-1 as the lead Personnel Policy Integrator for the Acquisition, Chaplain and Judge Advocate General Corps; PEO Soldier as the Product Manager for Soldier Clothing and Individual Equipment and as the Project Manager for Soldier Sensors and Lasers.

Marine Corps Service Executive



COL "LOU" LARA is the Marine Corps Systems Command Program Manager, Training Systems (PM TRASYS). He is responsible for managing a workforce of over 150 personnel in the acquisition and sustainment of training systems used throughout the Marine Corps. Col Lara graduated from Embry Riddle Aeronautical University in 1993 with a B.S. in Aviation Maintenance Management. He also holds M.S. Degrees in Acquisition and Contract Management from the Naval Post-Graduate School and Military Studies from the Marine Corps University. He earned a commission in 1995 and subsequently became a Logistics Officer and a Contracting Officer. In 1999, he deployed on a Western Pacific deployment as a

member of the 11th Marine Expeditionary Unit. Additionally, in support of the Global War on Terror, he deployed three times to Kuwait/Iraq, twice as a Contingency Contracting Officer and once as the Regimental Combat Team - 5 Logistics Officer in support of combat operations in Fallujah. Prior to his selection as Program Manager Training Systems, Col Lara served as the Deputy Program Manager for Training Systems, and completed a fellowship as a Secretary of Defense Executive Fellow at Georgia Power Company. Other key Acquisition Officer assignments include, Acquisition Command as Product Manager for Anti-Armor Systems, Deputy Director for the Amphibious Combat Vehicle (ACV), Assistant-Program Manager Logistics for the Expeditionary Fighting Vehicle (EFV), Team Leader for the Body Armor and Load Bearing team and Director of Contracts at Marine Corps Support Facility, Blount Island Command. His personal decorations include the Bronze Star, the Meritorious Service Medal with three gold stars in lieu of fourth award, the Navy and Marine Corps Commendation Medal and the Navy and Marine Corps Achievement Medal. Additionally, he is a recipient of the Combat Action Ribbon.

Senior Advisor for Readiness and Training



GREGORY KNAPP supports the U.S. Army Threat Systems Management Office (TSMO), the Office of the Under Secretary of Defense for Research and Engineering and the Office of the Under Secretary of Defense for Personnel and

Readiness performing program management, technology and acquisition functions. He provides leadership and expertise in DoD 5G implementation, spectrum research and EW programs, coalition training programs, training infrastructure, and a wide variety of DoD training and technology issues including the air combat training system (ACTS). He provided critical support for the fielding of the Defense Readiness Reporting System and the conduct of the SecDef Nuclear Review. He served as the Vice Deputy Director for Future Joint Force Development, J7, Joint Staff, overseeing Operational Analysis, Chairman's Wargaming, Doctrine Development, Joint Concepts and Experimentation. He was also the Executive Director of the Joint Warfighting Center supporting USJFCOM and was instrumental in establishing the Joint National Training Capability and the Combatant Command Engagement and Training Transformation Program. Mr. Knapp has been a leader in training and technology for over 30 years, leading the development of numerous combat systems, combat system training systems and Navy test programs and is widely recognized as a leader in distributed simulation training technology implementation. He has managed over 50 programs affecting all Combatant Commands, Services, Interagency and Coalition partners.

Service Principals



Tony DalSasso
Air Force (Lead Service)
Engineering Technical Advisor
Simulators Program Office, Air
Force Materiel Command (AFMC)



Diana Teel
Navy
Outreach Director / Chief
Evangelist
Naval Air Warfare Center Training
Systems Division (NAWCTSD)



Jesse Campos
Army
PM Cyber, Test, and Training,
Chief Engineer
U.S. Army Program Executive
Office, Simulation, Training and
Instrumentation
(PEO STRI)



Koren L. Odermann
Marine Corps
Team Lead for Collective Training,
Marine Corps Systems Command
(MARCORSYSCOM) Program
Manager, Training Systems (PM
TRASYS)

OSD Principal



Walter (Shep) Barge, Ph.D.
Director
Joint Integrated Operations and
Training, Office of the Deputy
Assistant Secretary of Defense for
Force Education and Training

Education and Training Advisor



VADM Al Harms, USN (Ret.)
President
Lake Highland Preparatory School