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I/ITSEC 2019

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WELCOME ATTENDEES OF I/ITSEC 2018



On behalf of the United States Navy and the Marine Corps, this year's Lead Services; our sponsoring organization, the National Training and Simulation Association; the Service Executives and their Principals; and the 200-plus volunteers from the military, government, industry, and academia, it is my distinct honor and great pleasure to welcome you to the 2018 Interservice/Industry Training, Simulation, and Education Conference (I/ITSEC)!

The theme selected for this year's conference, "Launching Innovation in Learning: Ready, Set, Disrupt," called on the training, education, and simulation community of practice to bring their latest capabilities and innovations; principally, their disruptive and game-changing technologies which enhance a user's ability to learn. Our community answered the call with our program and tradeshow floor providing many venues for attendees to explore, discuss, and witness these technological advancements in our industry. This year, we introduced a new venue: Launch Pad. Featured participants were selected through a competitive submittal and review process. The result is a showcase of the most significant, progressive solutions displayed on the show floor for all to experience. At Launch Pad, you will see advancements in AI, AR/VR, education, interoperability, LVC, and performance measurement to name a few.

I/ITSEC 2018 features content-rich professional development and informational activities including tutorials, paper presentations, and workshops in which attendees will receive understanding in the latest learning and simulation trends, practices, and technologies. The volunteer members of our six Subcommittees, Tutorial Board, and Conference Committee have spent this year assembling a great program consisting of 142 technical papers, 26 special events, and 26 tutorials. Look to engage with our future leaders in our many STEM activities, from the Future Leaders Pavilion, Student Tours, and the Serious Games Showcase and Challenge. Interaction with these young leaders will help expose them to their future careers as well as add to your personal engagement with our community. Our Black Swan event, which explores challenging issues and their consequences, will focus on Artificial Intelligence (AI) in a conversation called "AI Run Amok." Black Swan attendees will observe AI from perspectives which will be sure to test their perception. All Monday tutorials, Friday workshops, and paper sessions are available for continuing education and continuous learning credits. Additional information regarding CEU registration is available on the www.iitsec.org website.

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. This year, we also welcome continued growth in the number of international attendees. With over 1,800 attendees from over 50 countries expected, we can expect 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 thanks and appreciation to them, as their commitment and support ensures I/ITSEC remains the world's premier professional development event for the training, simulation, and education professional.

I/ITSEC 2018 will enable you to launch and improve your program, your offerings, and yourself. Whether you are an engineer, educator, trainer, system developer, or business developer, I/ITSEC 2018 will fulfill your professional needs. Join us to Launch Innovation in Learning: Ready, Set, Disrupt!

Sincerely,



Bob Kleinhample



**Admiral Christopher
W. Grady**

Commander, U.S. Fleet
Forces Command

Commander, U.S.
Naval Forces Northern
Command
(Invited)

Service Keynote

ADMIRAL CHRISTOPHER GRADY is a native of Newport, Rhode Island. He is a graduate of the University of Notre Dame and was commissioned an ensign through the Naval Reserve Officers Training Corps program. Grady is a distinguished graduate of Georgetown University where he earned a Master of Arts in National Security Studies while concurrently participating as a fellow in Foreign Service at the Edmund A. Walsh School of Foreign Service. He is also a distinguished graduate of the National War College earning a Master of Science in National Security Affairs. He assumed command of U.S. Fleet Forces Command/U.S. Naval Forces Northern Command on May 4, 2018. In his most recent assignment, he was the commander, U.S. 6th Fleet and the commander, Naval Striking and Support Forces NATO, while simultaneously serving as the deputy commander, U.S. Naval Forces Europe and U.S. Naval Forces Africa. Additional flag assignments include director of the Maritime Operations Center (N2/3/5/7), Commander, U.S. Pacific Fleet; commander, Carrier Strike Group (CSG) 1/Carl Vinson Carrier Strike Group where he deployed for nearly 10 months to the Western Pacific and the Arabian Gulf conducting combat operations in support of Operation Inherent Resolve; and commander, Naval Surface Force Atlantic. At sea, Grady's initial tour was aboard USS Moosbrugger (DD 980) as combat information center officer and antisubmarine warfare officer. As a department head, he served as weapons control officer and combat systems officer aboard USS Princeton (CG 59). He was commanding officer of Mine Countermeasures Rotational Crew Echo aboard USS Chief (MCM 14), and deployed to the Arabian Gulf in command of USS Ardent (MCM 12). Grady then commanded USS Cole (DDG 67), deploying as part of NATO's Standing Naval Forces Mediterranean. As commander, Destroyer Squadron (DESRON) 22, he deployed to the Arabian Gulf as sea combat commander for the Theodore Roosevelt Carrier Strike Group (TRCSG) in support of Operations Enduring Freedom and Iraqi Freedom. Ashore, Grady first served on the staff of the Joint Chiefs of Staff and then as naval aide to the chief of naval operations. He also served on the staff of the chief of naval operations as assistant branch head, Europe and Eurasia Politico-Military Affairs Branch (OPNAV N524). He then served as executive assistant to the Navy's Chief of Legislative Affairs. Next, he served as the deputy executive secretary of the National Security Council in the White House. He then went on to serve as the executive assistant to the chief of naval operations. His personal awards include the Distinguished Service Medal, Defense Superior Service Medal, Legion of Merit with four gold stars, Meritorious Service Medal with four gold stars, Joint Service Commendation Medal, Navy and Marine Corps Commendation Medal with three gold stars, and the Combat "V", and Joint Service Achievement Medal. Grady is a joint specialty officer.



Stanley (Stan) A. Deal

Executive Vice
President
The Boeing Company
President and Chief
Executive Officer,
Boeing Global Services

Industry Keynote

STAN DEAL is Executive Vice President of The Boeing Company and President and Chief Executive Officer of Boeing Global Services. He is a member of Boeing's Executive Council. Deal was named to this position in November 2016 when Boeing announced the establishment of Boeing Global Services as a third business unit of the company, bringing together services capabilities that span the defense, space and commercial sectors. Deal oversaw the formal stand up of Global Services and led its transition into a fully-operational business unit on July 1, 2017. Deal is responsible for defining and implementing a new aerospace services development and delivery model for commercial and government customers worldwide focused on four capability areas: supply chain; engineering, modifications and maintenance; digital aviation and analytics; and training and professional services. Resulting customized aftermarket services solutions are offered to customers, regardless of platform manufacturer, while reducing costs and accelerating delivery schedules. Global Services has more than 300 locations worldwide in more than 70 countries. Previously, Deal was Senior Vice President of Commercial Aviation Services, including Boeing subsidiaries Aviall and Jeppesen. In this role, he led a team in providing customer support and services to airlines and leasing companies around the globe. Under his leadership, Commercial Aviation Services generated record performance in 2014 and 2015. Formerly the services division of Boeing Commercial Airplanes (BCA), Commercial Aviation Services is included in the Boeing Global Services portfolio. From 2011 to 2014, Deal was Vice President and General Manager of Supply Chain Management and Operations for BCA. Prior to that, he served as Vice President and General Manager of the BCA Supplier Management organization, where he was responsible for the strategy, contracting, daily management and development of the supply chain. Deal has held a variety of leadership roles in BCA Sales and Marketing, including Vice President of Asia Pacific Sales and Vice President of BCA Sales and Marketing Operations. He was also Vice President of Global Network Sales, during which time he helped to launch Connexion by Boeing. After joining Boeing in 1986, Deal held various leadership positions, including leading integrated product teams for propulsion systems and structures on the 717 program. He was also program manager for the MD-11 Japan Airlines program. Deal serves on the board of directors for the Smithsonian's National Air and Space Museum, supporting its mission to commemorate the past and educate and inspire an appreciation for the importance of flight to humanity. Deal holds a Bachelor of Science degree in aerospace engineering from the University of Illinois and a Master of Business Administration from Pepperdine University.

Conference Chairs



Elizabeth Biddle, Ph.D.
I/ITSEC 2018
Conference Chair

ELIZABETH “BETH” BIDDLE, Ph.D., is a Boeing Technical Fellow in Human Performance Engineering and has 14 years’ service with The Boeing Company. She currently provides technical leadership in the Boeing Research & Technology (BR&T) Advanced Learning organization to support the development of innovative training capabilities. Other Boeing positions supported were in the Boeing Training Systems & Government Services business unit and include Live Training Lead (Future Combat Systems/Brigade Combat Team Modernization), Capture Team Leader, Manager for Live-Virtual-Constructive Technology Research & Development, and Principal Investigator for several advanced instructional and training internally and externally funded projects. Beth was awarded with a Ph.D. in Industrial Engineering and Management Systems, with an emphasis in Interactive Training Simulations, from the University of Central Florida in 2001. She holds a M.S. in Counseling and Human Development from Troy State University and a B.A. in Psychology from Florida State University. She was awarded the Modeling & Simulation Award in Training by the Defense Modeling & Simulation Office (DMSO) in 2001 and nominated as a Charter Member by the National Training and Simulation Association (NTSA) to receive the Certified Modeling & Simulation Professional (CMSP) certification in 2002. She currently serves on the Board of Directors for the Women in Defense Central Florida Chapter as Executive Vice President. Beth was a recipient of the I/ITSEC Scholarship in 1999.



Robert Kleinhample
I/ITSEC 2018
Program Chair

ROBERT KLEINHAMPLE is SAIC’s Solutions Vice President for Training within the Training Submarket Segment. Bob is responsible for setting the strategic vision and leadership of SAIC’s training solutions and go to market strategies. In 12 years with SAIC, Bob has worked as a Program Manager and Service Line Director. He has led programs ranging from test and evaluation, experimentation, simulation, analysis and training. His significant initiatives include technical leadership in the use of distributed live, virtual, constructive and gaming simulation environments, and game, simulations and instructional systems development. Prior to joining SAIC, Bob served in the United States Army in the Field Artillery and retired in 2006 at the rank of Lieutenant Colonel. His functional assignments were in Operations Research and Simulation Operations. Bob holds a bachelor’s degree in engineering management from the United States Military Academy and a master’s degree in operations research from Old Dominion University. Bob has served as an active member on I/ITSEC Subcommittees and Conference Committee for 11 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.



**Gen 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.



Navy Service Executive (Lead Service)

CAPT Timothy M. Hill, USN, is the Commanding Officer, Naval Air Warfare Center Training Systems Division (NAWCTSD), and Naval Support Activity (NSA), Orlando. The Naval Air Warfare Center Training Systems Division (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 & 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.

tion 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) and 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 Terminal 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 (Lead Service)

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.



Air Force Service Executive

Col PHILIP E. CARPENTER, USAF, is the Senior Materiel Leader, Simulators Program Office. He leads a 430-member team, executes a \$5.8B portfolio, and is responsible for developing and maintaining 50+ 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-bil-

lion 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) and 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 Terminal 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.



Senior Advisor for Readiness and Training

GREGORY KNAPP supports the U.S. Army AMRDEC and the Office of the Deputy Assistant Secretary of Defense (Force Education and Training) performing program management, technology and acquisition functions in a wide-variety of training and technology areas. He recently 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 currently supports coalition training, industry engagement, simulation innovation, spectrum training management and cyber programs. Recent supported projects include development of the Defense Readiness Reporting System, SECDEF Nuclear Review, and joint development of: ballistic missile defense; cyber; command and control; cloud computing; Intelligence, Surveillance & Reconnaissance; logistics; automated systems; interagency cooperation; and space capability. He supported the development of the Joint Operational Access Concept, Capstone Concept for Joint Operations, dozens of studies including the Mali study and the Decade of War analysis. He managed over 50 projects affecting all Combatant Commands, Services, Interagency and Coalition partners.



Service Principals



Diana Teel
Navy (Lead Service)
Industry Outreach Program
Manager
Naval Air Warfare Center Training
Systems Division (NAWCTSD)



Martin Bushika
Marine Corps (Lead Service)
Director, Program Integration
Marine Corps Systems Command
(MARCORSYSCOM)
Program Manager, Training
Systems (PM TRASYS)



Tony DalSasso
Air Force
Chief Engineer
Simulators Program Office, Air
Force Materiel Command (AFMC)



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

OSD Principal



Shep Barge, Ph.D.
Director
Joint Assessment and Enabling
Capability, 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