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WELCOME ATTENDEES OF I/ITSEC 2017



On behalf of the United States Army, this year's Lead Service, our sponsoring organization, the National Training and Simulation Association, the Service Executives and their Principals, and the 200-plus volunteers from the Army, Navy, Marine Corps, Air Force, Coast Guard, Office of the Secretary of Defense, Veteran's Health Administration, Federal Law Enforcement Training Center, Industry, and Academia, it is my distinct honor and great pleasure to welcome you to the 2017 Interservice/Industry Training, Simulation and Education Conference!

After celebrating the 50th Anniversary of the conference in 2016, it is only fitting that the theme selected for this year's conference, "Harnessing New Technologies to Win in a Complex World," emphasizes the need to embrace "non-traditional" technologies for training military and civilian personnel on the complex tasks enabled by today's technological advances that are not practical, or possible, in the real world. Building on the Conference's military-focused legacy, I/ITSEC has grown into the largest cross-industry forum for modeling, simulation and training, drawing an increasing number of attendees from a broad range of industries including healthcare, energy, transportation and manufacturing – all of whom are in search of new innovations to change the way people learn and perform, to drive down costs, and win more business in an increasingly competitive business environment.

The volunteer "army" consisting of our six Subcommittees, the Tutorial Board, and the Conference Committee has spent this year finding the best technical papers (129), tutorials (21), educationally-focused special events (26), and a range of special programs including our third annual Operation Blended Warrior event that will highlight emerging Live, Virtual, Constructive (LVC) integration capabilities. This year's Black Swan panel is called "A Blast to the Past", where Military and academic experts will discuss the scenario of earth being hit by a solar geomagnetic storm generated by our sun during a Coronal Mass Ejection. The panel will describe modeling the widespread electrical outages from electro-magnetic pulse (EMP) effects as well as the broad technical and societal challenges in dealing with this type of solar event.

Other special programs include the Future Leaders Pavilion, Serious Games Showcase and Challenge, and workshops designed to complement the other aspects of this year's conference - I am certain you will find the 2017 Program to be rich, diverse, and chock full of new technologies just waiting to be harnessed! All Monday tutorials, Friday workshops, and paper sessions are available for Continuing Education Credits (CEUs) and Continuous Learning Credits (CLCs). Additional information regarding CEU registration is available on the www.iitsec.org website. Don't forget to come to the awards banquet on Thursday night, where our Best Paper and Scholarship winners will be announced!

Coming to I/ITSEC wouldn't be complete without a visit to the exhibit hall, which hosts the largest display of training systems capabilities in the world with over 400 exhibitors presenting leading-edge technology and innovative concepts. This year, we also welcome continued growth in the number of international attendees. With over 2000 attendees from over 70 countries expected, we have created even more opportunities for networking to promote dialogue and idea exchange with international partners.

Finally, I want to express my sincere thanks and appreciation to our dedicated volunteers and their sponsors. Their commitment and support have made I/ITSEC 2017 a reality and ensured this conference remains the premier professional development event across the globe for the training and simulation professional. As you attend the events and walk the exhibit floor over the next few days, please take a moment to thank the authors and other volunteers who have helped make this program a success.

Sincerely,

Brian Holmes, 2017 Program Chair



General David G. Perkins, USA

Commanding General
U.S. Army Training
and Doctrine
Command

Service Keynote

GENERAL DAVID G. PERKINS, USA, commands the U.S. Army Training and Doctrine Command. He is responsible for selecting and recruiting every U.S. Army Soldier, training and educating Army professionals, and designing the future U.S. Army.

His numerous senior leadership positions include Special Assistant to the Speaker of the House, 104th U.S. Congress; Battalion Commander during Operation Able Sentry; Brigade Commander for the invasion of Iraq; Executive Assistant to the Vice Chairman of the Joint Chiefs of Staff; and Division Commander during the transition of U.S. Forces from Iraq in 2010-2011.

General Perkins commanded the U.S. Army's premier education and leader development institution at Fort Leavenworth. In this role, he was responsible for managing training development and support, developing U.S. Army doctrine, and synchronizing leader development.

A native of New Hampshire, he graduated from the U.S. Military Academy, holds a Masters degree in Mechanical Engineering as well as a Masters degree in National Security and Strategic Studies.



Don Ariel

Co-Founder and Chief
Executive Officer,
Raydon Corporation

Industry Keynote

DON ARIEL is Co-Founder and Chief Executive Officer of Raydon Corporation, a trailblazer in science-based virtual reality training used by soldiers in training locations globally. Over his long career, Mr. Ariel has been a staunch advocate for acquisition reforms that promote innovation and efficiency. By doing what is best for the soldier and taxpayer, Don consistently strives to disrupt the status quo and create thought-provoking, innovative solutions and resourcing for military training.

As a schooled engineer, Don possesses a rare blend and balance of deep technical understanding and an innovative business mindset. He was recruited straight out of college into the single largest and most boldly ambitious simulation program the U.S. Army had ever executed, the Conduct of Fire Trainer (COFT). Don's mission was to deploy, install, and maintain this complex infrastructure. His years at General Electric shaped his thinking about the purpose and value of simulation. Along with his partners, he built a market-aligned operation with an innovation pipeline. Mr. Ariel continues to shape discussions about how a holistic view of training infrastructures, combined with open standards and industry collaboration, impacts quality, cost and efficiency of military training for total force readiness.

Don's personal and professional interests center around understanding and improving human performance. His contagious enthusiasm and expertise on this subject is what fuels his passion as a tech visionary, futurist, thought leader, executive, trailblazer and entrepreneur. Mr. Ariel is passionate about helping to shape new standards, new breakthroughs, new frontiers and new ways to train humans – especially for those risking their lives for us.



Conference Chairs



Dave Hutchings
I/ITSEC 2017
Conference Chair

DAVID HUTCHINGS founded DDH and Associates, LLC in 2016 to provide strategic business development, business capture, proposal management, business operations, and mergers/acquisition consulting services to Government contractors and commercial businesses. He also joined the Coe & Naylor Group in 2016 as VP Business Development. From 2010-2015, Mr. Hutchings served as the SVP Strategic Business Development for Raydon Corporation. In this role, his primary responsibility was for the planning and execution of the strategic growth plan with primary focus on strategic pursuits, partnerships, and M&A. Mr. Hutchings has over 34 years of business development and operations management experience in DoD, commercial and other government agencies with a strong focus on custom training and simulation solutions. He has held senior level management positions in regional and national business development, operations, and sales for Raydon Corporation, Camber Corporation, Teledyne Brown Engineering, Interactive Media Corporation, APEX Technology, Simms Industries, and General Physics Corporations. Mr. Hutchings has served on the NDIA Central Florida Board of Directors since 2003. He has also served in numerous roles for I/ITSEC having served as the I/ITSEC 2015 Program Chair, the I/ITSEC STEM Student Tour Coordinator from 2009 - 2014 as well as other I/ITSEC subcommittees in prior years including the Training, Education, Best Paper and PSMA Subcommittees. He holds a B.S. degree in Business Management and Marketing. Mr. Hutchings also served six years in the U.S. Navy's Submarine Force.



Brian Holmes
I/ITSEC 2017
Program Chair

BRIAN HOLMES is the Vice President of Sales and Marketing at Nova Technologies, a small business that specializes in creating innovative solutions to ensure mission success for our nation's warfighters, and is the prime contractor on the U.S. Army's Call for Fire Trainer III (CFFT III), Special Operations Forces Training, Engineering and Maintenance Support II (SOFTEAMS II) and Special Operations Mission Planning and Environment (SOMPE) contracts. Prior to joining Nova, 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 29 years in the MS&T Industry. He currently serves as the Vice Chairman of the Board of Directors for the National Center for Simulation, and as a Board member for Fairways for Warriors and the Sunshine Chapter of the Association of the United States Army. Brian received his Masters of Science Degree in Industrial Engineering (with an emphasis on Simulation and Training) from the University of Central Florida in 1998, and an Executive Development Certificate in Business Excellence from Vanderbilt University in 2015. He has authored more than 10 papers for professional organizations and magazines, and has been a proud participant on I/ITSEC Subcommittees and Conference Committee for eight 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.



BG William E. Cole, USA

U.S. Army Program
Executive Officer for
Simulation, Training and
Instrumentation



CAPT Erik Etz, USN

Commanding Officer
Naval Air Warfare Center
Training Systems Division,
and Naval Support Activity



Col Walt Yates, USMC

Program Manager, Marine
Corps Systems Command
PM Training Systems



Col Philip E. Carpenter, USAF

Chief, Simulators Program
Office, Air Force Materiel
Command



Gregory Knapp

Senior Systems Engineer
& Program Manager/Acting
OSD Executive



Army Service Executive (Lead Service)

BG WILLIAM E. COLE, USA, is the Program Executive Officer for Simulation, Training and Instrumentation (PEO STRI) which executes an annual multi-billion dollar program staffed by more than 1,200 military, government civilian, and service support contractors. Prior to this assignment, he served as the Deputy Program Executive Officer, Missiles and Space, Redstone Arsenal, AL. He was responsible for the development, production, fielding, and life cycle management of the Army's missile and space related systems. Previously he served simultaneously as both the Deputy Commanding General of the Research, Development and Engineering Command, Aberdeen Proving Ground, Maryland, and senior commander of the Natick Soldier Systems Center, Natick, Massachusetts. Among other distinguished assignments during his career, BG Cole served with the 319th Airborne Field Artillery Regiment in Kuwait during Operations Desert Shield and Storm, and later in Afghanistan as the Director of Forward Operations for the Office of the Assistant Secretary of the Army for Acquisition, Logistics and Technology.

Navy Service Executive

CAPT ERIK "ROCK" ETZ commands the Naval Air Warfare Center Training Systems Division (NAWCTSD), 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. CAPT Etz leads a workforce of more than 1,000 scientists, evaluators, engineers, technicians, logisticians, contracting specialists, and support personnel. CAPT Etz was commissioned through the Naval ROTC program in 1990 upon earning a Bachelor of Science degree in Electrical Engineering from Stanford University. As a Naval Aviator, CAPT Etz logged over 3,500 flight hours in over 35 types of aircraft, including over 2,950 F/A-18 hours and over 840 carrier landings on 14 different aircraft carriers. He has commanded an F/A-18 squadron and served in acquisition and flight test positions. CAPT Etz served as the Executive Officer of NAWCTSD for two years prior to assuming command in April 2016.

His awards include the Bronze Star Medal, two Defense Meritorious Service Medals, two Meritorious Service Medals, three Air Medals (Strike/Flight), three Navy Commendation Medals, the Navy Achievement Medal, and various unit and service awards.

Marine Corps Service Executive

Col WALT YATES, USMC, 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 Yates graduated from Texas A&M University in 1990 with a B.S. in Mechanical Engineering Technology. He graduated from the Naval Postgraduate School in 2004 with an M.S. in the field of Modeling, Virtual Environments and Simulation. As a Field Artillery officer, he served ashore and deployed afloat in billets including Forward Observer, Platoon Commander, Fire Direction Officer, and Battery Commander. Col Yates served as the officer in charge of the Battle Simulation Center for MAGTF Training Command from 2004 to 2007. From 2007 to 2011, he served on the Program Manager for Training Systems staff, including a year as the Marine Corps Systems Command Liaison Officer to the Command Element of Multinational Force-West, Iraq. In 2011, Col Yates returned to Marine Corps Systems Command as the Deputy for Modeling and Simulation. He completed his assignment as a Secretary of Defense Corporate Fellow at Norfolk Southern Corporation prior to reporting for duty as PM TRASYS.

Air Force Service Executive

Col PHILIP E. CARPENTER, USAF, is the Chief, 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.

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



Traci Jones
Army (Lead Service)
G5, Plans & Strategy
U.S. Army Program Executive
Office, Simulation, Training and
Instrumentation
(PEO STRI)



Diana Teel
Navy
Industry Outreach Program
Manager
Naval Air Warfare Center Training
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Martin Bushika
Marine Corps
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)

OSD Principal



Shep Barge, Ph.D.
Director
Joint Assessment Enabling
Capability, Office of the Deputy
Assistant Secretary of Defense for
Force Education and Training

Education and Training Advisor



VADM Al Harms, USN (Ret.)