

# NTSA Modeling and Simulation Awards

Each year, NTSA presents awards for outstanding achievement in the development or application of models and simulations. Awards are given for outstanding achievement in the following categories: Education and Human Performance, Training and Simulation and Training Systems Acquisition. Award nominees may come from government, industry or academia.

## Lifetime Achievement in Modeling & Simulation

Dr. Susan Numrich

INSTITUTE FOR DEFENSE ANALYSES

Susan K. Numrich, PhD, CMSP, has contributed to the science and technology of modeling and simulation for over 50 years. Dr. Numrich began her career as a Research Physicist at the US Naval Research Laboratory (NRL) at the engineering level of modeling and simulation and transitioned into parallel and distributed simulation. She was selected by NRL and their parent organization, the Office of Naval Research (ONR), to represent the Science and Technology (S&T) community as part of the Navy's Modeling and Simulation Management Office, a position that broadened her knowledge base to simulation used for training, acquisition, analysis and support to operations. When NATO elected to add simulation to their Studies and Analysis group, Dr. Numrich joined as the US representative for simulation, a position she held for a three-year term. During her final three years as a civil servant, Dr. Numrich served as the Director of Technology for the Defense Modeling and Simulation Office where she was exposed to simulation across the entire Department of Defense. Dr. Numrich has dedicated more than a half century of effort to advancing the role of women in national security. In 2018, she was nominated as an I/ITSEC Fellow – thus far, the only female to receive this prestigious designation. Throughout her career, Dr. Numrich has served as an intellectual leader and mentor to the broader research community.



## Lifetime of Service

RADM James Robb, USN (Ret.)

NATIONAL TRAINING AND SIMULATION ASSOCIATION

*Full Biography on page 1*

Receiving the award on Admiral Robb's behalf was his son, Justin Robb.

Appearing in the photo are RADM Frederick L. Lewis, USN (Ret.) (NTSA, past President), Courtney Chapman (daughter), Judy Robb (wife), Kendall Valenzuela (daughter), Debbie Langelier (NTSA, Vice President), Allison Lewis (NTSA) and Justin Robb (son).

# 2023 I/ITSEC AWARDS



## LIFETIME OF SERVICE AWARD

### **RADM James Robb, USN (Ret.)**

#### **NATIONAL TRAINING & SIMULATION ASSOCIATION**

Rear Admiral James Robb USN (ret) was selected as President of The National Training and Simulation Association (NTSA) in June 2012. A distinguished graduate of Rensselaer Polytechnic Institute, he retired from the United States Navy in February 2006 after a distinguished 34-year Naval career where he commanded a fighter squadron, a carrier air wing, the Navy Fighter Weapons School (TOPGUN) and a carrier strike group. Key staff billets included Chief of Plans for Operation during Iraqi Freedom.

Admiral Robb's exceptional expertise has impacted the direction of NTSA including increased emphasis on Gaming, Cyber Security, Artificial Intelligence, Advanced Integrated Live/Virtual & Constructive Architectures and Big Data.

He was committed to expanding NTSA's Science, Technology, Engineering and Mathematics (STEM) programs and established priorities to serve underrepresented students in STEM.

RADM Robb was a passionate advocate for the application of modeling and simulation to improve patient safety. In February 2020, he formed the NTSA Patient Safety Working Group, which remains actively engaged in educating Congress and the broader community on how modeling and simulation can minimize errors in medical treatment.

A keystone achievement during his presidency was the continued expansion of the NTSA Scholarship program. At I/ITSEC 2023, NTSA awarded \$180,000 to six Bachelor degree, nine Master's degree and ten Ph.D. scholars.

As President of NTSA, RADM Robb dealt with enormous administrative and operational challenges such as unpredictable changes to government regulations regarding conferences and the unique existential threat of the COVID pandemic. Throughout all of this and by using his outstanding leadership and managerial wisdom he preserved the health and wellbeing of the M&S community and again underscored the critical importance of I/ITSEC. His successful navigation of these complex challenges assured the continuation, growth and success of I/ITSEC as the world's premier M&S Conference and Exhibition.

RADM James Robb lived a lifetime of service and commitment in the Navy and in the private sector. He was a proven champion of I/ITSEC and even more so of the modeling, simulation, training and education community.



**Simulation and Training International**  
**General Santander Police Cadet School**  
**COLOMBIAN POLICE / ALLBREAKER**

Enhancing cadets' training with virtual reality has radically transformed the paradigm of police training at the General Santander Police Cadet School, benefiting 500 students annually, the first of its kind in Latin America. The implementation of this virtual reality training program aims to form the technical and tactical prevention competencies that allow the officer to assess situations and make the most accurate decisions for their intervention, minimizing risks and threats to the integrity of people and themselves. One of the notable conclusions was the remarkable improvement in students' confidence in their abilities. This initiative sets a new standard in police training, preparing cadets in a more realistic manner for the challenges they will face.



**Simulation and Training**  
**Training Operations**  
**HELP ME SEE, INC.**

HelpMeSee, a global nonprofit organization, has a mission to combat the widespread issue of cataract blindness and vision impairment. This debilitating condition affects over 100 million individuals, imposing significant hardships on their daily lives, and the number is expected to double by 2050. HelpMeSee employs a cutting-edge virtual reality eye surgery simulator, complemented by an in-house-developed standardized training curriculum. In 2022, they trained 1,529 ophthalmologists in Manual Small Incision Cataract Surgery, a cost-effective procedure for cataract care in resource constrained settings. HelpMeSee's innovative approach is making significant strides in addressing the critical shortage of eye care specialists in underserved regions.



**Training Systems Acquisition**  
**Gladiator Delivery Team**  
**ROYAL AIR FORCE CAPABILITY DELIVERY**

This award is given to the UK RAF Gladiator program in recognition of its M&S-based capability development and delivery; its use of technical, commercial and programmatic innovation; and its impact on the UK's ability to deliver effective synthetic multi-domain operations training while enhancing UK operational capability. Enabling UK Force Elements operating at different classifications to train together without risking disclosure of classified information required a novel approach to cross-domain security. Lessons identified from the Gladiator program are already being used within the Five Eyes and NATO communities to enhance delivery of synthetic training capabilities for joint, multinational operations with key partners and allies.



**Education and Human Performance**  
**Dynamic Altitude Breathing Threats**  
**Research & Development Team**  
**NAVAL AIR WARFARE CENTER TRAINING SYSTEMS**  
**DIVISION AND NAVAL SURVIVAL TRAINING INSTITUTE**

The Dynamic Altitude Breathing Threats R&D Team validated technology that significantly impacts aviation survival education and ultimately warfighter performance. Specifically, the team leveraged the emerging Flight Breathing Awareness Trainer (FBAT) to address a broader range of breathing experiences to prepare aviators to identify and mitigate adverse physiological conditions. As a result, the team has delivered a capability that improves operator performance and associated emergency procedures to avoid catastrophic consequences. This effort will have an immediate impact on approximately 13,500 total aircrew trained at Aviation Survival Training Centers.