



TSDNews

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NAWCTSD DEMONSTRATES LATEST TRAINING TECH AT I/ITSEC

The Naval Air Warfare Center Training Systems Division (NAWCTSD) teamed up with other U.S. Navy technology organizations at the Interservice/Industry Training Simulation and Education Conference (I/ITSEC) to demonstrate some of the latest concepts and tools being developed to safely and efficiently train Sailors. The annual conference was held at the Orange County Convention Center, December 1-5.

NAWCTSD is the Navy's principal center for modeling, simulation, and training systems technologies. While NAWCTSD is a part of Naval Air Systems Command, it supports training systems development for the entire Navy including aircraft, surface ships, submarines, and specialized requirements.

One of the most versatile training systems demonstrated at the conference was the Multi-Purpose Reconfigurable Training System (MRTS). MRTS was originally developed at NAWCTSD to meet submarine radio room training requirements; the system has grown into family of trainers providing a virtual training environment simulating a variety of shipboard systems. MRTS uses pressure-sensitive touch screens and 3-D graphics that can be used to cost-effectively replicate a wide variety of different systems across the Navy.

Each MRTS trainer consists of government-owned simulation software running on a stand-alone network of commercial-off-the-shelf (COTS) hardware and software components. A single MRTS hardware trainer can shift between the multiple software simulation applications shown in the accompanying photos within minutes. This capability enables a training command to use one hardware device to give photo-realistic virtual training on several different systems in a single day. The MRTS trainers are used in both Sailor pipeline courses and in pre-deployment team training. An instructor sets up a training scenario and can insert faults at any stage. The student follows shipboard procedures, interacting with the simulation through touch screens.

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A "Human Surrogate" robot interacted with conference attendees to demonstrate its ability to change facial appearance and behavior to represent any ethnicity or demographic during live virtual training.

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Commander, Naval Air Systems Command, Vice Adm. David Dunaway (right) watches Executive Assistant, Capt. David Kindley, interact with a “Human Surrogate” robot. For this cross-cultural training demonstration, the robot presents cultural characteristics of an Afghani Tajik who behaves and appears in keeping with the culture. Over the course of the conference, the Human Surrogate robot changed appearance and behavior to represent different cultural training requirements.

Another technology demonstrated in partnership with the Human Performance Training and Education (HPT&E) thrust under Code 30 of the Office of Naval Research was a Human Surrogate Interaction system. Human surrogates are context-specific stand-ins for real humans. These surrogates can be virtual (2D/3D display), physical (animatronic robots), physical-virtual (robots with capabilities to alter appearance), and even real humans (role players). There have been many studies that have explored the effects of surrogate affordances such as appearance, physicality, and gesturing during interactions with real humans. The surrogate is a humanoid robot featuring human agency (human-in-the-loop control) allowing for very natural interaction and conversation with attendees. The surrogate is capable of changing facial expressions and body posture during conversations.

In addition to MRTS and COVE, the Navy had 14 other training systems available for demonstration at I/ITSEC. The training systems represented a wide range of warfare areas including Conning Officers Virtual Environment for the Littoral Combat Ship (LCS) and a Mariner Skills Simulator used to train NROTC Midshipmen, both used to train ship handling skills to their students.

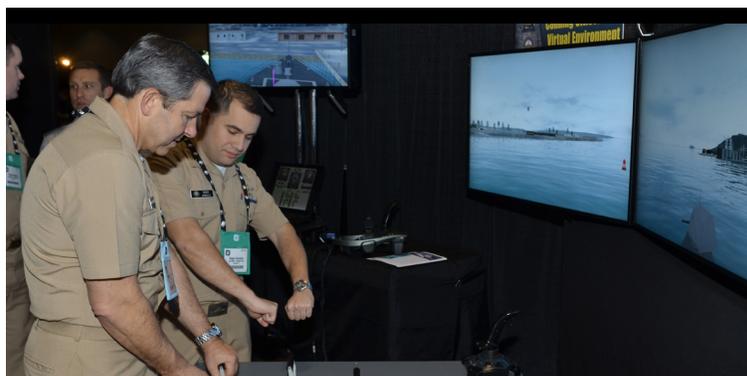
Other Navy training technology on display at I/ITSEC included:

- Spatial Disorientation Countermeasures Training System
- Network Effects Emulation System (NE2S)/Cyber Operational Architecture Training System (COATS)
- Next Generation Threat System
- Cognitive fidelity Synthetic Environment
- Virtual and Constructive Representation on Live Avionics Displays
- Tactical Semi-Autonomous Forces for LVC
- Adaptive Training for combat Information Center Teams
- Intelligent Tutoring
- Intelligent Aggressors
- Blood Typing Trainer

NAWCTSD awards an average of nearly \$1 billion in contracts to training technology companies each year. The command employs a highly-skilled group of Sailors, scientists, technicians, and support personnel, supporting Naval Aviation, Naval Surface & Undersea Warfare, Research, the Science of Learning, and more.



Commander, Naval Air Systems Command, Vice Adm. David Dunaway opens a virtual Emergency Diesel Generator (EDG) valve on a Multi-Purpose Reconfigurable Training System (MRTS). The MRTS 3D VIRGINIA EDG system provides a software simulation of the entire VIRGINIA class Auxiliary Machinery Room using advanced graphics with correct component locations. The system enables operator training on all EDG operating and casualty procedures.



Surface Warfare Officer's School Instructor, Lt. Roger Gonzalez, shows Commander, Naval Air Systems Command, Vice Adm. David Dunaway how to operate the controls of a Littoral Combat Ship using a Conning Officer Virtual Environment (COVE) simulator. The COVE family of trainers is a system of scalable, reconfigurable, PC-based simulators, offering an immersive virtual reality maritime training environment. They provide the full continuum of navigation, seamanship, ship handling, piloting, and tactical Anti-Terrorism/Force Protection (AT/FP) training for naval personnel.



Commander, Naval Air Systems Command, Vice Adm. David Dunaway opens a virtual Emergency Diesel Generator (EDG) valve on a Multi-Purpose Reconfigurable Training System (MRTS).

ANOTHER LOOK AT I/ITSEC 2014



TSD LEAD SYSTEMS ENGINEER WINS UCF PROVOST GRADUATE AWARD

Michael Ferrante, who works for the Naval Air Warfare Center Training Systems Division as a Lead Systems Engineer, was recently awarded the Provost's Graduate Merit Fellowship from the University of Central Florida. This award is a one-time fellowship from UCF offered to limited students.

Ferrante was chosen for the fellowship for being an outstanding master's student in an academic program that has been identified for strategic emphasis in the State University System as defined by the Florida Board of Governors. He gives credit to the NAWCTSD command for supporting his desire to complete his graduate degree. "It feels very good that the command allows me the opportunity to design my work schedule as much as possible around my classes. I've seen people from other organizations that don't get the same support that I do," said Ferrante. "I also do not see many companies giving these educational opportunities to their older engineers."

Since 1975, Michael Ferrante has served as a Lead Systems Engineer for the Naval Air Warfare Center Training Systems Division. During this period, he has worked on many projects and in various roles throughout the organization. "I've worked in every area of engineering at least once and was also the acting program manager for some of my projects. I have been tasked to assist the Army from time to time over my career working special projects. I have also been responsible for programs which were in trouble and I try to find the easiest and least stressful ways to solve problems," said

Ferrante. Michael's desire to be a problem solver is apparent; he also serves as the Union Vice President at NAWCTSD.

Being a role model for his four children (who are all UCF students) and maintaining an active lifestyle are Michael's top priorities. "I feel like I have completed most of my goals. Besides working at NAWCTSD and attending UCF, I serve the community as a Reserve Captain at the Orange County Sheriff's Office and I also enjoy playing guitar and writing music at church," said Ferrante. "While I could be retired as many of my friends are, I continue to work here because I enjoy being an engineer, I believe the work here is challenging and for a good cause, and I truly believe we have the most flexible work environment available in the Navy." Michael's wife, Pam, also attended UCF where she earned her Bachelor, Master's, and Specialist degrees in Education. Attending UCF is becoming a family tradition.

Ferrante's academic success, demonstrated by attaining a GPA of greater than 3.5, was a contributing factor for winning the award. Winners of the Provost's Graduate Merit Fellowship receive a \$4,000 cash award for their accomplishments.

“I BELIEVE THE WORK HERE IS CHALLENGING AND FOR A GOOD CAUSE.”
- Michael Ferrante



NAWCTSD Lead Systems Engineer, Michael Ferrante was selected by the University of Central Florida for Provost's Graduate Merit Fellowship.

NEW HOUSING WEBSITE HELPS PROPERTY MANAGERS, LANDLORDS, SERVICE MEMBERS AND DOD CIVILIANS CONNECT

The Navy, along with the other military branches, has announced a new website, HOMES.mil, that is dedicated to helping service members, Department of Defense (DoD) civilians and their families with home finding services.

The new DoD website provides a vehicle for community housing landlords and property managers to create and update their profiles and listings.

HOMES.mil is a secure website that allows property managers, landlords and service members a means to market their properties. Those using the website are able to control their listings, and upload photos and floor plans to the website.

"The Navy has worked alongside the other services to offer the best housing options to service members around the world," said Greg Wright, Navy Housing program director. "HOMES.mil modernizes the way Navy Housing provides information on local rental properties and improves the Housing Service Centers' customer service to Sailors and their families while helping to alleviate some of the burden and stress of PCS."

Landlords and property managers, who have worked with the Housing Service Centers (HSCs) in the past, can create a login for HOMES.mil and are able to

access their previously listed properties. Once a landlord or property manager creates a login, they can manage their property listing. These listings can include a list of amenities, photos and additional information to assist service members in making informed housing decisions.

"The Navy is focused on assisting Sailors and their families in finding safe, suitable and affordable housing wherever they choose to live. HOMES.mil, in conjunction with the HSC's professional housing staff, will provide an improved experience for our customers," said Wright.

HOMES.mil offers a secure site for landlords and property managers wishing to list their properties for DoD service members and government civilians stationed near military installations. HOMES.mil is integrated with the HSC's management software, allowing a streamlined experience for service members looking for community housing.

HOMES.mil is now available for landlords and property managers to begin uploading information on properties they want to list. On Dec. 29, the HOMES.mil website will be available to all service members and their families to find housing. The HOMES.mil website address is <https://www.homes.mil>.



NAWCAD COMMANDER AWARDS TSD TEAMS FOR INNOVATION

The NAWCAD Commander's Awards were established in 2000 to recognize outstanding teams and individuals within NAWCAD that support their goals and objectives. Award consideration is based on team or individual effort that represents an outstanding achievement of a breakthrough enabling mission accomplishment through technical, business, or leadership excellence. Congratulations to the Littoral Combat Ship (LCS) Immersive Virtual Ship Environment (IVSE) Prototype Team and the Adaptive Training for Combat Information Centers (ATCIC) Research and Development (R&D) Team. Both were recently recognized by the NAWCAD Commander, RDML Dean Peters.



UPCOMING EVENTS

25 FEBRUARY 2015
**TOWN HALL AT 9AM IN
WARFIGHTER PARK**

26 FEBRUARY 2015
**INDUSTRIES CAPABILITIES
DAY IN PARTNERSHIP 3**

FOR QUESTIONS ABOUT HOMES.MIL AND OTHER HOUSING INFORMATION, PLEASE VISIT THE NAVY HOUSING WEBSITE: WWW.CNIC.NAVY.MIL/HOUSING

FOR MORE NEWS FROM COMMANDER, NAVY INSTALLATIONS COMMAND, VISIT: WWW.NAVY.MIL/LOCAL/CNI