<table>
<thead>
<tr>
<th>ROOM</th>
<th>SESSION/CHAIR</th>
<th>1400</th>
<th>1430</th>
<th>1500</th>
</tr>
</thead>
<tbody>
<tr>
<td>S320A</td>
<td>P-1 Managing Resources at Home and Abroad Randy Allen, Ph.D.</td>
<td>Resource Implications of the Difference between Models and Simulations (14020)</td>
<td>COTS to Capability: Lessons Learnt from UK MOD Research Programme (14115)</td>
<td>Perspectives on Exportability and Program Protection in Virtual Training Systems (14265)</td>
</tr>
<tr>
<td>S320C</td>
<td>EC-1 Game On John Aughey</td>
<td>Considerations on Utilizing a Game Engine as an Image Generator (14274)</td>
<td>Towards Minimalist Serious Game Design (14348)</td>
<td>Human Motion Capture in Natural Environments (14116)</td>
</tr>
<tr>
<td>S320D</td>
<td>T-1 Keepin’ It Real with VR Susan Coleman, Ph.D.</td>
<td>Declarative Knowledge Acquisition in Virtual Learning Environments (14005)</td>
<td>Virtual World Room Clearing: A Study in Training Effectiveness (14045)</td>
<td>Simulating Participant Training Data to Test Mixed-reality Training Systems (14252)</td>
</tr>
<tr>
<td>S320E</td>
<td>ED-1 Designing Educational Games Brian Stensrud, Ph.D.</td>
<td>Transmedical and Paramedical Serious Game Deployment (14375)</td>
<td>Effectiveness of Embedded Game-based Instruction: A Guided Experiential Approach to Technology-based Training (14198)</td>
<td>An Experiment to Evaluate the Effect of Narrative Delivery in Military Training (14081)</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>ROOM</th>
<th>SESSION/CHAIR</th>
<th>1600</th>
<th>1630</th>
<th>1700</th>
</tr>
</thead>
<tbody>
<tr>
<td>S320A</td>
<td>P-2 Commonality and Data Sharing in the LVC Environment Robert Matthews</td>
<td>LVC, Translating DoD Policy into Action (14059)</td>
<td>Data Sharing: The Standard Specification is Just the Start (14130)</td>
<td>Establishing Sharing for Geospatial Environment Data (14255)</td>
</tr>
<tr>
<td>S320D</td>
<td>T-2 Nothing Here To See Brian Cairns</td>
<td>Enhancing the Utility and Effectiveness of Combat Medic Simulation (14075)</td>
<td>Training Effects for First-responder Competency in Cholinergic Crisis Management (14241)</td>
<td>Simulation Environments for Offshore Oil and Gas Emergency Training (14344)</td>
</tr>
<tr>
<td>S320E</td>
<td>ED-2 Inspire, Design, Execute: Simulation in Three Domains Nina Deibler</td>
<td>Modeling and Simulation Challenge Problems in High School Classrooms and Internships: Lessons Learned (14103)</td>
<td>Using Unity to Implement a Virtual Crash Site Investigation Laboratory in Support of Distance Learning Objectives (14050)</td>
<td>Developing the Simulator Instructor’s Pedagogical Competence (14043)</td>
</tr>
</tbody>
</table>

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- Nominated for Best Paper Award
- Honorable Mention for Best Paper Award
- Continuing Education Units (see pg. 12)
- International Author
- Medical-related Subject Matter
- Cyber Security
- Game-related Subject Matter
- Mobile

**THE WORLD’S LARGEST MODELING & SIMULATION EVENT**
**PAPER SESSIONS**

**WEDNESDAY, 3 DECEMBER**

<table>
<thead>
<tr>
<th>ROOM</th>
<th>SESSION/CHAIR</th>
<th>0830</th>
<th>0900</th>
<th>0930</th>
</tr>
</thead>
<tbody>
<tr>
<td>S320B</td>
<td>S-3 Simulated Movement Ron Dionne</td>
<td>Mission Integrated Simulation – A Case Study (14085)</td>
<td>An Instructor Operating System (IOS) Framework for Interactive Instructor-station (14112)</td>
<td>Development of a Microscopic Artificially Intelligent Traffic Model for Simulation (14003)</td>
</tr>
<tr>
<td>S320D</td>
<td>T-3 Comparative Analysis for Clinical Training Teresita Sotomayor, Ph.D.</td>
<td>Comparison of the Usability of Robotic Surgery Simulators (14168)</td>
<td>Forces Applied on Laryngoscope during Intubation: A Study on Airway Simulators (14203)</td>
<td>Outcomes from Two Forms of Pediatric and Neonatal Intubation Training (14240)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ROOM</th>
<th>SESSION/CHAIR</th>
<th>1030</th>
<th>1100</th>
<th>1130</th>
</tr>
</thead>
<tbody>
<tr>
<td>S320A</td>
<td>BP-1 Best Papers from HSE; PSMA; Training Karen Pogoloff</td>
<td>Measuring Visual Displays’ Effect on Novice Performance in Door Gunnery (14012) (HSE)</td>
<td>Proficiency Evaluation and Cost-avoidance Proof of Concept M1A1 Study (14055) (PSMA)</td>
<td>Missing: A Serious Game for the Mitigation of Cognitive Biases (14295) (Training)</td>
</tr>
<tr>
<td>S320F</td>
<td>H-4 Plane, Train and Automobile John Schloot</td>
<td>Leveraging Simulation to Augment Risky Driving Attitudes and Behaviors (14004)</td>
<td>Simulation-based Analysis of the Human Factors Related to Autonomous Driving (14006)</td>
<td>The Virtuous Circle and Contextualized Knowledge Elicitation: Application of a New Paradigm for Job Analysis (14347)</td>
</tr>
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## Paper Sessions

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<table>
<thead>
<tr>
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<th>1400</th>
<th>1430</th>
<th>1500</th>
</tr>
</thead>
<tbody>
<tr>
<td>S320B</td>
<td>S-6 Innovative Approaches to Environment and Behavior Simulation Scott Hooper</td>
<td>Creating a Re-useable Knowledge Repository for UK MoD CGF Behaviours (14080)</td>
<td>Improving Air-to-Air Combat Behavior Through Transparent Machine Learning (14298)</td>
<td>Improving Material Classification Quality with Elevation-derived Metrics (14380)</td>
</tr>
<tr>
<td>S320C</td>
<td>EC-5 Perspective on Data and Services Eric Weisel, Ph.D.</td>
<td>Future of LVC Simulation: Evolving Towards The MSaaS Concept (14072)</td>
<td>Rapid Data Generation: A Flexible Data Discovery and Access Architecture (14096)</td>
<td>Optimizing Supervised Learning for Pixel Labeling and Material Classification (14016)</td>
</tr>
<tr>
<td>S320E</td>
<td>ED-3 Building It Right Perry McDowell</td>
<td>An Instructional Media Selection Process for Virtual World Training Delivery (14369)</td>
<td>Developing the Human Dimension: Current Practices and Future Methods (14161)</td>
<td>Hey, Your E-learning Courses are Giving Me a Cognitive Overload (14008)</td>
</tr>
<tr>
<td>S320F</td>
<td>H-5 See, Hear and Speak – No Evil Assessments Jerry Stahl</td>
<td>Serious Game User Data Analysis and Visualization: Savoring the Breadcrumbs (14377)</td>
<td>Sonification: The Sound of Big Training Data (14261)</td>
<td>Creating a Learning Infrastructure Where Every Soldier Can Be an Instructor (14124)</td>
</tr>
</tbody>
</table>

### S320A

**ROOM SESSION/CHAIR**

**1600**

- S-7 Improving Healthcare with Simulation Gerald Dreggors
  - Improving and Proving Healthcare Quality and Value through Physical Simulation (14144)
  - Employing Modeling and Simulation to Improve Patient Care (14034)
  - The Effect of Difficulty Levels within a Virtual Medical Simulation (14228)

**1630**

- EC-6 Simulation: Supporting Experiment, Acquisition and Military Planning James (Josh) Jackson
  - Early Synthetic Prototyping: Exploring New Designs and Concepts Within Games (14133)
  - When Tradespace Analysis Met Combat Modeling and Simulation (14264)
  - Simulation in Support of Course of Action Development in Operations (14119)

**1700**

- T-6 Combating Stress: Performance Under Fire Elaine Raybourn, Ph.D.
  - Accelerating Unit Adaptability: A Principle-based Approach to Unit Communication (14038)
  - Inducing Stress in Warfighters during Simulation-based Training (14201)
  - Are They Mission Ready? Using the Modified Angoff Method to Set Cut Scores (14060)

- ED-4 Practice What You Preach Jan Brown
  - Rediscovering the Eightfold Path: Some Observations on Using Simulation for Training and Evaluation from Afghanistan (14196)
  - Mobile Instructional Strategy Templates for Guided Mobile Content Development (14194)

- P-3 Wave of the Future Chuck Secard
  - Agile Program Management on Software Intensive Training Systems (14311)
  - Simulations in the Cloud - A Manager’s Challenge (14104)
  - Continuous Monitoring of Cybersecurity in a Training System Environment (14121)

- T-11 Simulation & Game-based Training Fred Fleury
  - Research Directions for Future Simulation-based Training Design in Defence (14017)
  - Utilizing Simulation and Game-based Learning to Enhance Incident Commander Training (14148)

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<td>S320A</td>
<td>EC-7 What to Train</td>
<td>Fundamental Competency Sets (FCS) Definition to Support Technology Development for Pilot Training (14126)</td>
<td>Joint Terminal Attack Controller-Training Rehearsal System: Competency-based Research (14097)</td>
<td>Operator Qualification Differences between Manned and Unmanned Aerial System (UAS) (14287)</td>
</tr>
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<td>S320F</td>
<td>S-9 Emerging Visual Technologies</td>
<td>Integration of Low-cost HMD Devices in Existing Simulation Infrastructure (14190)</td>
<td>Simulating Realistic Light Levels in Next Generation Image Generators (14233)</td>
<td>Vergence and Accommodation in Simulation and Training with 3D Displays (14147)</td>
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<tr>
<td>S320A</td>
<td>EC-9 Medical Matters</td>
<td>Challenges to Upgrading a Mobile Web Application (14057)</td>
<td>Development and Evaluation of a Humeral Head Intraosseous Training System (14058)</td>
<td>Comparative Analysis of Holographic Display and Three-Dimensional Television (14230)</td>
</tr>
<tr>
<td>S320B</td>
<td>S-10 IG, Synthetic Environment and Scalable Simulation</td>
<td>A Distributed Scene Graph Approach to Scaled Simulation Based Training Applications (14033)</td>
<td>Pseudo-Specific High-resolution Data Boundary Techniques (14317)</td>
<td>Solving the Innovator’s Dilemma for Simulation and Training Image Generator Architectures (14373)</td>
</tr>
<tr>
<td>S320C</td>
<td>EC-10 Get a Grip on Reality</td>
<td>Live Augmented Reality Based Weapon Training for Dismounts (14093)</td>
<td>Augmented Reality Virtual Personal Assistant for Training, Maintenance, and Repair (14031)</td>
<td>PERLS: An Approach to Pervasive Assistance in Adult Learning (14335)</td>
</tr>
<tr>
<td>S320D</td>
<td>T-8 Aviation Training: The Ups and Downs!</td>
<td>Evolving Aviation Live Training in the Future (14078)</td>
<td>Training Fidelity of an Unmanned Aerial Systems Complementary Family of Trainers (14135)</td>
<td>ASOC Training Research: Joint Theater Air Ground Simulation System (14166)</td>
</tr>
<tr>
<td>S320F</td>
<td>S-11 Automation and Autonomy</td>
<td>A Framework for Enabling Virtual Observer Controllers in Synthetic Training (14268)</td>
<td>UAV Flight Control Software Development based on COTS Product (14206)</td>
<td>Lessons Learned in Creating an Autonomous Driver for OneSAF (14106)</td>
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- **Mobile**

**PAPER SESSIONS**

**THURSDAY, 4 DECEMBER**

**ROOM | SESSION/CHAIR | 0830 | 0900 | 0930**

**S320A | EC-7 What to Train**

**John Dzenutis**

Fundamental Competency Sets (FCS) Definition to Support Technology Development for Pilot Training (14126)

**Joint Terminal Attack Controller-Training Rehearsal System: Competency-based Research**

(14097)

**Operator Qualification Differences between Manned and Unmanned Aerial System (UAS)**

(14287)

**S320B | S-8 Synthetic Environment**

**Toni Hawkins-Scribner**

A Paradigm Shift in the Test and Evaluation of Terrain Databases (14200)

**Measuring the Impact of Natural Environment Representation on Combat Simulation Outcomes**

(14305)

**Implementation of Real-time Snow Layers in Game-based Simulation**

(14361)

**S320C | EC-8 More Braaiinss**

**Jennifer Murphy, Ph.D.**

Videogame Design for Cognitive Enhancement through Micro-puzzle Cognitive Profiling (14039)

**Game-based Training to Mitigate Three Forms of Cognitive Bias**

(14180)

**Enhancing Intuitive Decision Making Through Implicit Learning**

(14253)

**S320D | T-7 Intelligent Tutors: Just How Smart Are They?**

**Anne Little, Ph.D.**

Developing and Evaluating an Intelligent Tutoring System for Advanced Shiphandling (14014)

**Developing Models of Expert Performance for Support in an Adaptive Marksmanship Trainer**

(14214)

**A Digital Tutor for Accelerating Technical Expertise**

(14272)

**S320E | ED-5 Is Skill Development Your Specialty?**

**Liz Gehr**

Retention and Retraining of Integrated Cognitive and Psychomotor Skills (14220)

**An Individualized Approach to Remediating Skill Decay: Framework and Applications**

(14229)

**Assertiveness and Responsiveness in Teams: Essential for Mission Command**

(14197)

**S320F | S-9 Emerging Visual Technologies**

**Randy Crowe, Ph.D.**

Integration of Low-cost HMD Devices in Existing Simulation Infrastructure (14190)

**Simulating Realistic Light Levels in Next Generation Image Generators**

(14233)

**Vergence and Accommodation in Simulation and Training with 3D Displays**

(14147)

**S320A | EC-9 Medical Matters**

**Beth Pettitt**

Challenges to Upgrading a Mobile Web Application (14057)

**Development and Evaluation of a Humeral Head Intraosseous Training System**

(14058)

**Comparative Analysis of Holographic Display and Three-Dimensional Television**

(14230)

**S320B | S-10 IG, Synthetic Environment and Scalable Simulation**

**Carla Cropper**

A Distributed Scene Graph Approach to Scaled Simulation Based Training Applications (14033)

**Pseudo-Specific High-resolution Data Boundary Techniques**

(14317)

**Solving the Innovator’s Dilemma for Simulation and Training Image Generator Architectures**

(14373)

**S320C | EC-10 Get a Grip on Reality**

**Scott Ariotti**

Live Augmented Reality Based Weapon Training for Dismounts (14093)

**Augmented Reality Virtual Personal Assistant for Training, Maintenance, and Repair**

(14031)

**PERLS: An Approach to Pervasive Assistance in Adult Learning**

(14335)

**S320D | T-8 Aviation Training: The Ups and Downs!**

**Michael Motko**

Evolving Aviation Live Training in the Future (14078)

**Training Fidelity of an Unmanned Aerial Systems Complementary Family of Trainers**

(14135)

**ASOC Training Research: Joint Theater Air Ground Simulation System**

(14166)

**S320E | T-9 A Variety of Training Approaches**

**Cynthia Adams**

Fusing Self-Reported and Sensor Data from Mixed-reality Training (14138)

**A Competency Based Approach to Marine and Weapons Engineering Training**

(14224)

**Scenario-based Training for Development of Leader — Subordinate Mental Models and Cohesion**

(14333)

**S320F | S-11 Automation and Autonomy**

**Brent Terwilliger, Ph.D.**

A Framework for Enabling Virtual Observer Controllers in Synthetic Training (14268)

**UAV Flight Control Software Development based on COTS Product**

(14206)

**Lessons Learned in Creating an Autonomous Driver for OneSAF**

(14106)

**S330D | Future Leaders Presentations**

Future Leaders Pavilion participants present their projects during this special Paper Session.
## PAPER SESSIONS

**THURSDAY, 4 DECEMBER**

<table>
<thead>
<tr>
<th>ROOM</th>
<th>SESSION/CHAIR</th>
<th>1330</th>
<th>1400</th>
<th>1430</th>
</tr>
</thead>
<tbody>
<tr>
<td>S320B</td>
<td>S-12 Engineering-based Modeling Mark Soodeen</td>
<td>How the U.S. Navy is Migrating from Legacy/Large Footprint to Low Cost/Small Footprint Sonar Simulation Systems (14090)</td>
<td>Use of Automated Intelligent Entities in ASW Simulation (14109)</td>
<td>A Physics-based Approach to Simulate Jet Engines (14030)</td>
</tr>
<tr>
<td>S320E</td>
<td>ED-6 Automatic for the People: Content Alignment for Instructional Performance Mark Friedman</td>
<td>Tailoring Multimedia Instruction to Soldier Needs (14049)</td>
<td>Automated Content Alignment for Adaptive Personalized Learning (14068)</td>
<td>An Army Learning Model Implementation: Challenges, Successes, Future Directions (14153)</td>
</tr>
</tbody>
</table>

---

**THURSDAY EVENING**

**Reception & Awards Banquet**

**AT THE HYATT REGENCY**

(formerly Peabody Orlando)

BECAUSE OF LOW USAGE, WE WILL NOT PROVIDE SHUTTLE SERVICE TO/FROM THE CLOSING BANQUET. IF YOU HAVE A SPECIAL NEED PLEASE CONTACT BMCDANIEL@NDIA.ORG.

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ED-5 THURSDAY, DECEMBER 4 • 0830-1000 • S320E
Is Skill Development Your Specialty?
Session Chair: Liz Gehr, Ph.D., The Boeing Company
Session Deputy: JoAnn Wesley, MARCORSYSCOM PM TRASYS
Assertiveness and Responsiveness in Teams: Essential for Mission Command (14197)  Hilde T. A. van Ginkel, Rendel D. de Jong, Mandy G. van de Velde, Utrecht University; John W. van Buren, Richard G. Oppelaar, Royal Netherlands Navy

ED-6 THURSDAY, DECEMBER 4 • 1330-1500 • S320E
Automatic for the People: Content Alignment for Instructional Performance
Session Chair: Mark Friedman, Concurrent Technologies Corporation
Session Deputy: Jan Brown, CAE USA
Tailoring Multimedia Instruction to Soldier Needs (14049)  Thomas Rhett Graves, Ph.D., U.S. Army Research Institute; Paul N. Blankenbeckler, Richard L. Wampler, Northrop Grumman

EC-1 TUESDAY, DECEMBER 2 • 1400-1530 • S320C
Game On
Session Chair: John Aughey, The Boeing Company
Session Deputy: Susan Harkrider, U.S. Army NVESD
Considerations on Utilizing a Game Engine as an Image Generator (14274)  Kevin Bland, AVT Simulation; Stephen Lopez-Couto, U.S. Army PEO STRI; Jelani Vassally, TAPE, LLC
Towards Minimalist Serious Game Design (14348)  Peter A. Smith, Ph.D., University of Central Florida; Stuart Armstrong, QinetiQ Training and Simulation, Inc.
Human Motion Capture in Natural Environments (14116)  Zhiqing Cheng, Anthony Ligouri, Infoscitex Corporation; Timothy Webb, Huaining Cheng, Air Force Research Laboratory

EC-2 TUESDAY, DECEMBER 2 • 1600-1730 • S320C
Best Simulator Technologies Ever
Session Chair: Michael O’Connor, Trideum Corporation
Session Deputy: Jeff Grubb, NAVAIRSYSCOM
The Largest Field of View Collimated Display Ever Built (14322)  Justin Knaplund, Terry Linn, FlightSafety International-Visual Systems; Dave Fonkalsrud, FlightSafety International-Simulation
High Quality Visual Display Systems in Physically Constrained Environments (14248)  Reed Moody, Rockwell Collins

Design and Evaluation of Surprise Effects in Simulation – A Framework (14193)  Jelke van der Pal, Konstantinos Georgiadis, Dutch National Aerospace Laboratory NLR
Validated Development of Stress Inoculation through Cognitive and Biofeedback Training (14051)  Peter Squire, Ph.D., CDR Joseph Cohn, USN, Ph.D.; Elizabeth O’Neill, ONR; Gershon Weltman, Ph.D., Elan Freedy, Ewart van Der Visser, Ph.D., Perceptronics Solutions, Inc.; Rollin McCraty, Ph.D., Institute of HeartMath; Donald Chartrand, Ease Interactive, Inc.
Using Virtual Reality as Part of an Intensive Treatment Program for PTSD (14079)  Deborah C. Beidel, Ph.D., ABPP, Sandra M. Neer Ph.D., Clint Bowers, Ph.D., University of Central Florida; B. Christopher Frueh, Ph.D., University of Hawaii; Albert Rizzo, Ph.D., University of Southern California

ED-7 WEDNESDAY, DECEMBER 3 • 0830-1000 • S230A
Best Papers from Around the Globe
Session Chair: Robert “Buddha” Snyder, WBB, Inc.
SimTecT Best Paper
ITEC Best Paper
A Maintenance Simulator for AF Engineers: The RSAF Experience  ME5 Ryan Ng Woon Teck, Singapore Armed Forces Chief Instructor for Air Engineering Training Institute School
EC-4  WEDNESDAY, DECEMBER 3 • 1030-1200 • S320C
Training Hard to Train Skills: Perception, Sensemaking and Adaptability
Session Chair: Kent Gritton, JTIEC/NAWCTSD
Session Deputy: Jeff Grubb, NAVAIRSYSCOM


Beyond Socio-Cultural Sensemaking: Observing and Interpreting Patterns of Life (14101)  Tracy St. Benoit, University of Central Florida; Clarissa Grafeo, MESH Solutions, LLC

Developing Effective Adaptive Training Systems to Enhance Military Instruction (14140)  Fleet Davis, Sandro Scialzo, Jennifer M. Riley, SA Technologies, Inc.; Heather A. Priest, NAWCTSD

EC-5  WEDNESDAY, DECEMBER 3 • 1400-1530 • S320C
Perspective on Data and Services
Session Chair: Eric Weisel, Ph.D., Old Dominion University
Session Deputy: Constance Perry, U.S. Army PEO STRI

Future of LVC Simulation: Evolving Towards The MSaaS Concept (14072)  Jose-Ramon Martinez-Salio, Jose-Maria Lopez-Rodriguez, NADS Group

Rapid Data Generation: A Flexible Data Discovery and Access Architecture (14096)  Kevin T. Gupton, Bruce Carlton, Roy Scrudder, Applied Research Laboratories, The University of Texas; Rob Cox, Ph.D., U.S. Army PEO STRI; Ralph O’Connell, Joint Staff J6

Optimizing Supervised Learning for Pixel Labeling and Material Classification (14016)  Mark Rahmes, Ph.D., Morris Akbari, Mike McGonagle, Harris Corporation

EC-6  WEDNESDAY, DECEMBER 3 • 1600-1730 • S320C
Simulation: Supporting Experiment, Acquisition and Military Planning
Session Chair: James (Josh) Jackson, SAIC
Session Deputy: Luis E. Velazquez, MARCORSYSCOM

Early Synthetic Prototyping: Exploring New Designs and Concepts Within Games (14133)  Maj Kate Murray, USMC, Rudolph Darken, Naval Postgraduate School; LTC Brian Vogt, USA, Army Capabilities Integration Center; Simon Goerger, Army Corp of Engineers

When Tradespace Analysis Met Combat Modeling and Simulation (14264)  Chris Gaughan, Christopher J. Metevier, ARL HRED STTC; Simon R. Goerger, U.S. Army Corps of Engineers; Tommer R. Ender, L. Drew Pihera, Georgia Tech Research Institute; Scott Gallant, Effective Applications Corporation

Simulation in Support of Course of Action Development in Operations (14119)  Lt Col Jen Inge Hynod, Norwegian Army; Ole Martin Mervassvik, Karsten Brathen, FFI, Norwegian Defence Research Establishment

EC-7  THURSDAY, DECEMBER 4 • 0830-1000 • S320A
What to Train
Session Chair: John Dzenutis, The Boeing Company
Session Deputy: Stuart Armstrong, QinetiQ Training & Simulation, Inc.

Fundamental Competency Sets (FCS) Definition to Support Technology Development for Pilot Training (14126)  Amanda Avenoso, AFRL; Jamie Donsbach, The Group for Organizational Effectiveness

Joint Terminal Attack Controller-Training Rehearsal System: Competency-based Research (14097)  Lt. Sean A. Morris, Christine M. Covas-Smith, Ph.D., Leah J. Rowe, AFRL; Christina L. Kunkle, Keith W. Westheimer, Leidos, Inc.

Operator Qualification Differences between Manned and Unmanned Aerial System (UAS) (14287)  Jennifer Pagan, Randy Astwood, Henry Phillips, NAWCTSD

EC-8  THURSDAY, DECEMBER 4 • 0830-1000 • S320C
More Braaainss
Session Chair: Jennifer Murphy, Ph.D., Quantum Improvement Consulting, Inc.
Session Deputy: Paul Bogard, USAF Simulators Division

Videogame Design for Cognitive Enhancement through Micro-Puzzle Cognitive Profiling (14039)  Patrick S. Gallagher, Ph.D., Serco, Inc. in support of Advanced Distributed Learning; Shenan Prestwich, Katmai in support of Advanced Distributed Learning

Game-based Training to Mitigate Three Forms of Cognitive Bias (14180)  Benjamin A. Clegg, Ph.D., Rosa Mikeal Martey, Ph.D., James E. Folkestad, Ph.D., Colorado State University; Jennifer Stromer-Galley, Ph.D., Syracuse University; Kate Kenski, Ph.D., University of Arizona; Tobi Saulnier, Ph.D., Elizabeth McLaren, 1st Playable Productions; Adrienne Shaw, Ph.D., Temple University; Joanna E. Lewis, University of Central Florida; John D. Patterson, Binghamton University;

Enhancing Intuitive Decision Making Through Implicit Learning (14253)  Peter Squire Ph.D., CDR Joseph Cohn, USN, Ph.D., ONR; Denise Nicholson, Ph.D., Margaret Nolan, MESH Solutions, LLC; Paul J. Reber, Northwestern University; James Niehaus, Charles River Analytics; Alexandra Geyer, Aptima, Inc.; Liz O’Neill, Strategic Analysis, Inc.

EC-9  THURSDAY, DECEMBER 4 • 1030-1200 • S320A
Medical Matters
Session Chair: Beth Pettit, ARL HRED STTC
Session Deputy: Bob Heinlein, Simbionix USA Corporation

Challenges to Upgrading a Mobile Web Application (14057)  Howard Mall, Engineering & Computer Simulations, Inc.; Teresita Sotomayor, Ph.D., ARL HRED STTC

Development and Evaluation of a Humeral Head Intraosseous Training System (14058)  Angela M. Salva, Cheryl Ciofo, SIMETRI, Inc.; Teresita Sotomayor, Ph.D., ARL HRED STTC

Comparative Analysis of Holographic Display and Three-Dimensional Television (14230)  Matthew Hackett, MAJ Kevin Fefferman, USA, ARL HRED STTC

LEGEND (one or more of the following may appear on this page). The number in parentheses following Paper Title is the ID tracking number.

Honorable Mention for Best Paper Award
International Author
Nominated for Best Paper Award
Continuing Education Units (see pg. 72)
Medical-related Subject Matter
Game-related Subject Matter
Cyber Security
Mobile

2014 INTERSERVICE/INDUSTRY TRAINING, SIMULATION & EDUCATION CONFERENCE
EC-10 THURSDAY, DECEMBER 4 • 1030-1200 • S320C
Get a Grip on Reality
Session Chair: Scott Ariotti, The DiSTI Corporation
Session Deputy: Brian Overy, Diamond Visionics

Live Augmented Reality Based Weapon Training for Dismounts (14093) Supun Samarasekera, Rakesh Kumar, Ph.D., Zhiewi Zhu, Ph.D., Vlad Branzo, Nicholas Vitovitch, Ryan Vilamil, SRI International; Frank Dean, Pat Garrity, ARL HRED STTC

Augmented Reality Virtual Personal Assistant for Training, Maintenance, and Repair (14031) Rakesh Kumar, Supun Samarasekera, Girish Acharya, Louise Yarnall, Zhiewi Zhu, Michael Wolverton, Vlad Branzo, Glenn Murray, Nicholas Vitovitch, Ryan Villamil, Jim Carpenter, SRI International

PERLS: An Approach to Pervasive Assistance in Adult Learning (14335) Michael Freed, Louise Yarnall, Jason Dinger, Melinda Vitovitch, Ryan Villamil, SRI International

EC-11 THURSDAY, DECEMBER 4 • 1330-1500 • S320C
Networking Cross Domain Solutions: Cross Domain Solutions, Cloud, Social
Session Chair: Susan Sherman, NA WCTSD
Session Deputy: Luis Pineiro, AFRL

Implementing Stateless Cross Domain Solutions to Continuously Maintain Security Assurances (14301) Christopher Huey, Parsons Corporation; Kelly Djahandari, Charles Kristofek, Northrop Grumman

Cybersecurity Impacts of a Cloud Computing Architecture in Live Training (14120) Graham Fleener, U.S. Army PEO STRI; Cliff Zou, Ph.D., University of Central Florida; Jason Eddy, AIT Engineering

Using Social Network Analysis to Model the Spread of Misinformation in Simulated Environments (14205) Paul Cummings, ICF International; Chalinda Weerasinghe, Weerasinghe Research Group; Qiong Tian, Ph.D., Kraznow Institute, George Mason University

THE WORLD'S LARGEST MODELING & SIMULATION EVENT

PAPERS/AUTHORS

H-1 TUESDAY, DECEMBER 2 • 1400-1530 • S320F
The Body Speaks – Stress and Workload
Session Chair: Kelly Hale, Ph.D., Design Interactive, Inc.
Session Deputy: Phil Brown, D.M., U.S. NORTHCOM

Classifying Stress in a Mobile Environment (14195) Sara Dechmerowski, Brent Winslow, Ph.D., George Chadderdon, Tarah N. Schmidt-Daly, Design Interactive, Inc.

Investigation of the Sensitivity of Physiological, Performance, and Subjective Measures for Identifying Changes in Novice Intelligence Analyst Workflow (14035) Lisa Tripp, Ph.D., Robert Nelson, Elliott Humphrey, Chad Tossell, Ph.D., AFRL; Jennifer Winner, Jerred Holt, Lumir Research Institute


H-2 TUESDAY, DECEMBER 2 • 1600-1730 • S320F
Shooting for Effective Virtual Training
Session Chair: Martin Bink, Ph.D., U.S. Army Research Institute
Session Deputy: Kendy Vierling, Ph.D., USMC TECOM

A Novel Approach to Determine Integrated Training Environment Effectiveness (14011) LTC Glenn A. Hodges, USA, Ph.D., Naval Postgraduate School

Pistol Skill Acquisition and Retention: A 3-Year Longitudinal Study (14042) Gregory P. Krätzig, Royal Canadian Mounted Police

Effective Live, Virtual, and Constructive Training: Personnel Recovery’s Weeklong Experience with Integrated Sensor Technology (14216) Curtis Wray, Mark Speed, Timothy Rodabaugh, Ball Aerospace & Technologies Corp; Kristen Barrera, AFRL

H-3 WEDNESDAY, DECEMBER 3 • 0830-1000 • S320F
A Cornucopia of Human Behaviors
Session Chair: Robert Sottilare, Ph.D., ARL HRED STTC
Session Deputy: Todd Glenn, FAAC, Inc.

In Search of Interoperability Standards for Human Behavior Representations (14027) Glenn Gunzelmann, Ph.D., AFRL; Chris Gaughan, ARL HRED STTC; Wim Huiskamp, Ph.D., Karel van den Bosch, Steven de Jong, Ph.D., TNO; Thomas Alexander, FKIE Human Factors; Agostino G. Bruzzone, Ph.D., Alberto Tremori, Ph.D., DIME University of Genoa

Factors Impacting Performance in Competitive Cyber Exercises (14108) Austin Silva, Jonathan McClain, Theodore Reed, Benjamin Anderson, Kevin Nauer, Robert Abbott, Ph.D., Chris Forsythe, Ph.D., Sandia National Laboratories

Cognitive Processing Considerations of the Small Unmanned Ground Vehicle (14134) Victor J. Ingurgio, Ph.D., ARIFort Benning; Richard Catrambone, Ph.D., Georgia Institute of Technology; Richard L. Wampler, Northrop Grumman Corporation

H-4 WEDNESDAY, DECEMBER 3 • 1030-1200 • S320F
Plane, Train and Automobile
Session Chair: John Schrott, L-3 Communications Link Simulation & Training
Session Deputy: Randy Jensen, Stottler Henke Associates, Inc.

Leveraging Simulation to Augment Risky Driving Attitudes and Behaviors (14004) Karen L. Morris, Gregory A. Fabiano, Ph.D., Kevin F. Hulme, University at Buffalo

LEGEND (one or more of the following may appear on this page). The number in parentheses following Paper Title is the ID tracking number.

Nominated for Best Paper Award ☑ Honorable Mention for Best Paper Award ☐ Continuing Education Units (see pg. 12)
Game-related Subject Matter ☑ Medical-related Subject Matter ☐ Cyber Security ☑ Mobile
International Author ☑
Simulation-based Analysis of the Human Factors Related to Autonomous Driving (14006) Yunfei Hou Ph.D., Jingyan Wan, Ph.D., Yunjie Zhao, Ph.D., Changxu Wu, Ph.D., Adel Sadek, Ph.D., Chuming Qiao, Ph.D., Kevin F. Hulme, University at Buffalo

The Virtuous Circle and Contextualized Knowledge Elicitation: Application of a New Paradigm for Job Analysis (14347) Sterling Wiggins, Michael J. Keeney, Ph.D., Webb Stacy, Ph.D., Jeff M. Beaubien, Ph.D., Aptima, Inc.; Jennifer Pagan, ONR; Amy Bolton, Ph.D., ONR

See, Hear and Speak – No Evil Assessments
Session Chair: Jerry Stahl, Cypress International
Session Deputy: Ingrid Mellone, Camber Corporation

Serious Game User Data Analysis and Visualization: Savoring the Breadcrumbs (14377) Brandt Dargue, The Boeing Company; Dov Jacobson, GamesThatWork; John Sanders, Historical Online Learning Foundation

Creating a Learning Infrastructure Where Every Soldier Can Be an Instructor (14124) Ed Sims, Ph.D., Irene T. Boland, Ph.D., Dan Silvergate, Jeff Cashion, Vcom3D, Inc.; Rodney Long, Charles Amburn, ARL

Establishing Sharing for Geospatial Environment Data (14255) Mark Faulk, Cornerstone Software Solutions, Robert Cox, Ph.D., Bill Reese, U.S. Army PEO STRI

Commonality and Data Sharing in the LVC Environment
Session Chair: Robert Matthews, NAWCTSD
Session Deputy: Jeffery Raver, SAIC

LVC, Translating DoD Policy into Action (14059) LCDR Daniel Cain, USN, CAPT Robert Snyder, USN (Ret), OPNAV N980T

Data Sharing: The Standard Specification is Just the Start (14130) Robert F. Richbourg, Ph.D., George E. Lukes, Institute for Defense Analyses

P-6 THURSDAY, DECEMBER 4 • 1330-1500 • S320F
Shocking Medical Assessments
Session Chair: Jennifer Arnold, Booz|Allen|Hamilton, Inc.
Session Deputy: Matthew Hackett, ARL HRED STTC

Quantitative Assessment of Combat Casualty Skills (14191) Christine Allen, Ph.D., Mark Mazzeo, ARL HRED STTC; Brian Goldiez, Ph.D., Amanda Romeu, University of Central Florida; Thomas Pingel, Joint Base Lewis McComb (JBLM) Medical Simulation Training Center (MSTC)

Assessment Instrument Validation for Critical Clinical Competencies: Pediatric-neonatal Intubation and Cholinergic Crisis Management (14232) Pamela Andreatta, Ed.D., Ph.D., Jessica Klotz, University of Minnesota Medical School; COL James M. Madsen, USA, M.D., COL Charles G. Hurst, USA (Ret), M.D., U.S. Army Medical Research Institute for Chemical Defense (USAMRICD); Thomas B. Talbot, M.D., Telemedicine & Advanced Technology Research Center (TATRC)

A Decision Support System Predicting Imminent Cardiovascular Shock (14343) W. Andrew Pruett, Ph.D., Leland D. Husband, Robert Hester, Ph.D., University of Mississippi Medical Center

P-1 TUESDAY, DECEMBER 2 • 1400-1530 • S320A
Managing Resources at Home and Abroad
Session Chair: Randy Allen, Ph.D., Lone Star
Session Deputy: Richard Grohs, HQ Air Combat Command

Resource Implications of the Difference between Models and Simulations (14020) Thomas J. Yanoschik, SAIC - Maneuver Battle Lab

COTS to Capability: Lessons Learnt from UK MOD Research Programme (14115) John Kent, Amy Stafford, Al Nicholls, QinetiQ; Caroline Shawl, Dstl

Perspectives on Exportability and Program Protection in Virtual Training Systems (14265) Michael Coleman, Ricky Denny, NAWCTSD

P-3 WEDNESDAY, DECEMBER 3 • 1600-1730 • S320F
Wave of the Future
Session Chair: Chuck Secard, Lockheed Martin
Session Deputy: Robby Robson, Ph.D., Eduworks

Agile Program Management on Software Intensive Training Systems (14311) CDR Gregory Owens, USN (Ret), Petra Robinson, Barry Minchey, NAWCTSD

Simulations in the Cloud – A Manager’s Challenge (14104) Lawrence A. Rieger, CMSP, U.S. Army Capabilities Integration Center

Continuous Monitoring of Cybersecurity in a Training System Environment (14121) Graham Fleener, Marco Mayor, U.S. Army PEO STRI, Andrew Maxon, Cybernet Systems Corporation
S-1 TUESDAY, DECEMBER 2 • 1400-1530 • S320B
Leveraging Cloud and High Performance Computing Environments
Session Chair: Nick Giannias, CAE
Session Deputy: Mark Soodeen, CAE
Embracing The Cloud – Providing Simulation as a Service (14018) Lawrence A. Rieger, CMSP, U.S. Army Capabilities Integration Center; Daniel Lacks, Ph.D., Cole Engineering Services, Inc.
Cloud Terrain Generation and Visualization Using Open Geospatial Standards (14308) Samuel Chambers, Joint Staff J7 Environmental Development Division; Jay Freeman, CAE USA
Enabling External Player Connections To Kerberos-secured Systems (14202) Peter G. Raeth, Ph.D., Sean B. Ziegler, Ph.D., Rhonda Vickery, Ph.D., Engility Corporation

S-2 TUESDAY, DECEMBER 2 • 1600-1730 • S320B
LVC Interoperability
Session Chair: Bob Kleinhampl, SAIC
Session Deputy: Capt Jonathan Richardson, USMC, MARCORSYSOM PM TRASYS
Sensor Placement Optimization in LVC Environments for Training, Analysis, and Operational Applications (14314) Jennifer Lewis, Joyner Livingston, SAIC
Towards Interoperability of Simulations Systems of Ground Force: Progress and Challenges (14082) Sérgio Simas Lopes Peres, Jonathan Rosa Moreira, Brazilian Army
Integrating Distributed Virtual Command and Control Platforms into Live Training (14318) Ryan McLaughlin, Orlando Torres, Mike Aldinger, Northrop Grumman

S-3 WEDNESDAY, DECEMBER 3 • 0830-1000 • S320B
Simulated Movement
Session Chair: Ron Dionne, FLETC
Session Deputy: Long Nguyen, Ph.D., NA WCTSD
Mission Integrated Simulation – A Case Study (14085) Per Wikberg, Ph.D., Mirko Thorstensson, Lt, Army Res., Peter Hammer, Ph.D., Gustav Tolt, Ph.D., Swedish Defence Research Agency (FOI)
An Instructor Operating System (IOS) Framework for Interactive Instructor-station (14112) Kim Leng Koh, Shih Yeong Wah, Singapore Technologies Electronics Training & Simulation Systems Pte Ltd.
Development of a Microscopic Artificially Intelligent Traffic Model for Simulation (14003) Viral Raghuwanshi, Sarthak Salunke, Kevin F. Hulme, NYSCEDII, Yunfei Hou, Ph.D., Department of Computer Science and Engineering, University at Buffalo

S-4 WEDNESDAY, DECEMBER 3 • 1030-1200 • S320B
Culture, Reaction and Movement: Simulating Human Behavior
Session Chair: Pete Schrider
Session Deputy: Lisa Jean Bair, SAIC
Teaching Cross Cultural Social Competence in a Dynamic, Synthetic Environment (14289) William Ferguson, Bruce Roberts, David Diller, Ph.D., Raytheon BBN Technologies; Dan Shapiro, Ph.D., Michael Mateas, Ph.D., University of California Santa Cruz
Advanced Animation Techniques in a Dismounted Soldier System (14136) Scott M. Johnson, John Carswell, Intelligent Decisions; Pat Garrity, ARL HRED STTC
Game-based Simulation for Philippine Post-typhoon Stability Operations Training (14329) Marjorie Zielke, Ph.D., Djackangir Zakhidov, Gary Hardee, Michael Kaider, University of Texas at Dallas

S-5 WEDNESDAY, DECEMBER 3 • 1030-1200 • S320E
Decision Support Systems & Methods
Session Chair: Sandy Veautour, U.S. Army AMRDEC
Session Deputy: Maj Daniel Loth, USMC, MARCORSYSOM PM TRASYS
A Decision Aid for Optimizing Experimental Design Involving LVC Environments (14139) Sylvain Brun, Kenyon Riddle, Andres Ortiz, Ph.D., Danielle Dumond, Ph.D., Spencer Lynch, APTIMA, Inc.; Henry Marshall, Chris Gaughan, ARL HRED STTC; Jay Safdoff, Research Network, Inc.
A Practitioner’s Approach Using MBSE in Systems of Systems (14383) Richard Deakins, Doug Parsons, U.S. Army AMRDEC
Robotic Simulators: A Case for Return on Investment (14129) Roger D. Smith, Ph.D., Khara M. Simpson, M.D., Florida Hospital Nicholson Center

S-6 WEDNESDAY, DECEMBER 3 • 1400-1530 • S320B
Innovative Approaches to Environment and Behavior Simulation
Session Chair: Scott Hooper, Havok
Session Deputy: Greg Sidor, AFRL
Creating a Re-useable Knowledge Repository for UK MoD CGF Behaviours (14080) Mark Lewis, Cranfield University; Dan Allison, Discovery Machine, Inc.
Improving Air-to-Air Combat Behavior Through Transparent Machine Learning (14298) Armon Toubman, Ph.D., Jan Joris Roessingh, Ph.D., National Aerospace Laboratory (NLR); Pieter Spronck, Ph.D., Aske Platt, Ph.D., Tilburg University; Jaap van den Herik, Ph.D., Leiden University
Improving Material Classification Quality with Elevation-derived Metrics (14380) Christopher Fink, Ph.D., JRM Technologies, Inc.
S-7  WEDNESDAY, DECEMBER 3 • 1600-1730 • S320B
Improving Healthcare with Simulation
Session Chair: Gerald Dreggers, Northrop Grumman
Session Deputy: Leslie Dubow, Veterans Health Administration
SimLEARN
Improving and Proving Healthcare Quality and Value through Physical Simulation (14144) Timothy R. Brock, Ph.D., The Institute 4 Worthy Performance; Mary Holtschneider, RN-BC, US Department of Veterans Affairs
Employing Modeling and Simulation to Improve Patient Care (14034) James Thomas, Allen J. Giannakopoulos, Ph.D., Baptist Health South Florida
The Effect of Difficulty Levels within a Virtual Medical Simulation (14228) Matthew Hackett, MAJ Kevin Fefferman, USA, ARL HRED STTC; Steve McIlwain, Bradley Willson, Applied Research Associates, Inc.

S-8  THURSDAY, DECEMBER 4 • 0830-1000 • S320B
Synthetic Environment
Session Chair: Toni Hawkins-Scribner, Air University
Session Deputy: Bradley Ehrhardt, NAWCTSD
A Paradigm Shift in the Test and Evaluation of Terrain Databases (14200) Thomas Kehr, Trey Godwin, U.S. Army PEO STRI; Ryan McIntire, Leidos, Inc.
Measuring the Impact of Natural Environment Representation on Combat Simulation Outcomes (14305) Karl D. Pfeiffer, Atmospheric and Environmental Research; Theresa Tamash, Dignitas Technologies
Implementation of Real-time Snow Layers in Game-based Simulation (14361) Michael D. Woodman, Ph.D., Peter Morrison, Bohemia Interactive Simulations

S-9  THURSDAY, DECEMBER 4 • 0830-1000 • S320F
Emerging Visual Technologies
Session Chair: Randy Crowe, Ph.D., Lockheed Martin Mission Systems and Training
Session Deputy: Brent Terwilliger, Ph.D., Embry Riddle Aeronautical University
Integration of Low-cost HMD Devices in Existing Simulation Infrastructure (14190) Tomer J. Michael, Yaniv Minkov, Rami Rockah, IDF Ground Forces Command Battle-Lab
Simulating Realistic Light Levels in Next Generation Image Generators (14233) Brett Chladny, Kenny Hebert, Brad Colbert, Renaissance Sciences Corporation
Vergence and Accommodation in Simulation and Training with 3D Displays (14147) David L. Page, Ph.D., C.E. (Tommy) Thomas, Ph.D., Steve L. Kelley, Paul G. Jones, Third Dimension Technologies; David A. Miller, AYA Associates, Inc.

S-10  THURSDAY, DECEMBER 4 • 1030-1200 • S320B
IG, Synthetic Environment and Scalable Simulation
Session Chair: Carla Cropper, Rockwell Collins Simulation & Training Solutions
Session Deputy: Michael Aldinger, Northrop Grumman
A Distributed Scene Graph Approach to Scaled Simulation Based Training Applications (14033) Douglas B. Maxwell, ARL HRED STTC; Joe Geil, William Rivera, University of Central Florida; Huiyu Liu, Ph.D., Intel Research
Pseudo-Specific High-resolution Data Boundary Techniques (14317) Daniel J. Lowe, Michael A. Cosman, Rockwell Collins
Solving the Innovator’s Dilemma for Simulation and Training Image Generator Architectures (14373) Bob Grange Michael Cosman, Nephi Lewis, Brad Southwick, Rockwell Collins

S-11  THURSDAY, DECEMBER 4 • 1030-1200 • S320F
Automation and Autonomy
Session Chair: Brent Terwilliger, Ph.D., Embry Riddle Aeronautical University
Session Deputy: Randy Crowe, Ph.D., Lockheed Martin Mission Systems and Training
A Framework for Enabling Virtual Observer Controllers in Synthetic Training (14268) Mandira Hegde, Dan Allison, Todd W. Griffith, Ph.D., Discovery Machine, Inc.
UAV Flight Control Software Development based on COTS Product (14106) Jung-ho Moon, Da-hyoung Jeon, Korean Air, R&D Center; Yeong-cheol Kim, Agency for Defense Development
Lessons Learned in Creating an Autonomous Driver for OneSAF (14106) Jonathan Stevens, Ph.D., Latika Eifert, ARL HRED STTC; Dean Reed, Eugenio Diaz, Institute for Simulation and Training; Oleg Umanskiy, STILMAN Advanced Strategies

S-12  THURSDAY, DECEMBER 4 • 1330-1500 • S320B
Engineering-based Modeling
Session Chair: Mark Soodeen, CAE
Session Deputy: Ron Dionne, FLETC
How the U.S. Navy is Migrating from Legacy/Large Footprint to Low Cost/Small Footprint Sonar Simulation Systems (14090) Sean M. Reilly, The AEGIS Technologies Group, Inc.; Jonathan Glass, NAWCTSD
Use of Automated Intelligent Entities in ASW Simulation (14109) Morten Kolve, Kongsberg Defence Systems; Jared Snyder, Discovery Machine, Inc.; Geoff Tompson, Decisive Encounters Limited
A Physics-based Approach to Simulate Jet Engines (14030) Sami S. Mina, Rockwell Collins Simulation and Training Solutions
### T-1  
**Keepin’ It Real with VR**  
**TUESDAY, DECEMBER 2 • 1400-1530 • S320D**

**Session Chair:** Susan Coleman, Ph.D., Intelligent Decision Systems, Inc.  
**Session Deputy:** Anne Little, Ph.D., Addx Corporation  
**Declarative Knowledge Acquisition in Virtual Learning Environments (14005)** Rustin Webster, Ph.D., Intuitive Research and Technology Corporation  

**Virtual World Room Clearing: A Study in Training Effectiveness (14045)** Stephanie J. Lackey, Ph.D., Julie N. Salcedo, Gerald Matthews, Ph.D., Institute for Simulation & Training, University of Central Florida; Douglas B. Maxwell, ARL HRED STTC  
**Simulating Participant Training Data to Test Mixed-reality Training Systems (14452)** Ken Kopecky, Ph.D., Eliot Winer, Ph.D., Iowa State University; Julio de la Cruz, ARL HRED STTC

### T-2  
**Nothing Here To See**  
**TUESDAY, DECEMBER 2 • 1600-1730 • S320D**

**Session Chair:** Brian Cairns, Moulage Sciences & Training  
**Session Deputy:** Robert Wallace, USAF 29th Training Systems Squadron  

**Enhancing the Utility and Effectiveness of Combat Medic Simulation (14075)** Danielle Julian, John Killilea, Patricia Bockelman, Ph.D., Margaret Nolan, MESH Solutions; Teresita Sotomayor, Ph.D., ARL HRED STTC  
**Simulation Environments for Offshore Oil and Gas Emergency Training (14344)** Randy Billard, Virtual Marine Technology Inc.; Captain Anthony Patterson, Canadian Coast Guard (Ret), Virtual Marine Technology Inc.

### T-3  
**Comparative Analysis for Clinical Training**  
**WEDNESDAY, DECEMBER 3 • 0830-1000 • S320D**

**Session Chair:** Teresita Sotomayor, Ph.D., ARL HRED STTC  
**Session Deputy:** Kristy Murray, Ed.D.  

**Comparison of the Usability of Robotic Surgery Simulators (14168)** Alyssa D.S. Tanaka, Courtney Graddy, Roger Smith, Ph.D., Florida Hospital Nicholson Center; Haidar M. Abdul-Muhsin, M.D., Mayo Clinic  
**Forces Applied on Laryngoscope during Intubation: A Study on Airway Simulators (14203)** Matthew Mui, University of Central Florida; Christine Allen, Ph.D., ARL HRED STTC; Mojca R. Konia, M.D., Ph.D., University of Minnesota Department of Anesthesiology; Jack Stubbs, David Hananel, SimPORTAL & CREST University of Minnesota

### T-4  
**MISSING: A SERIOUS GAME FOR THE MITIGATION OF COGNITIVE BIASES (14295)**  
**WEDNESDAY, DECEMBER 3 • 1030-1200 • S320D**

**Session Chair:** Eliot Winer, Ph.D., Iowa State University  
**Session Deputy:** Gene Beauvais, Raytheon Company  

**Data & Analytics Tools for Agile Training & Readiness Assessment (14064)** Jared Freeman, Ph.D., Aptima, Inc.; Denise Nicholson, Ph.D., MESH Solutions, LLC; Peter Squire Ph.D., Amy Bolton, Ph.D., ONR  
**Lessons Learned Integrating Mobile Technology into Two Army Courses (14128)** Gregory A. Goodwin, Ph.D., ARL HRED STTC; Michael Prevou, Ph.D., Holly C. Baxter, Ph.D., Mike Hower, Strategic Knowledge Solutions; Heather Wolters, Ph.D., U.S. Army Research Institute; Linda McGurn, Engility Corporation  
**Experience API and Team Evaluation: Evolving Interoperable Performance Assessment (14157)** Michael Hruska, Problem Solutions; Charles Amburn, Rodney Long, ARL; Tara Kilcullen, Raydon; Tiffany R. Poeppelman

### T-5  
**Critical Flight Decisions**  
**WEDNESDAY, DECEMBER 3 • 1400-1530 • S320D**

**Session Chair:** Bob Johnson, McKean-Defense Group LLC  
**Session Deputy:** Michael Motko, QinetiQ Training & Simulation, Inc.  

**Developing and Evaluating Performance Measures for Manned-Unmanned Teaming (14024)** John E. Stewart, Ph.D., Scott E. Graham, Ph.D., Army Research Institute; Courtney R. Dean, Aptima, Inc.; Troy Zeidman, Imprimis, Inc.  
**Using Temporal Occlusion to Assess Carrier Landing Skills (14171)** Webb Stacy, Ph.D., Jeff Beaubien, Ph.D., Sterling Wiggins, Aptima, Inc.; Melissa Walwanis, NAWCTSD; Amy Bolton, Ph.D., ONR  
**Distributed Live/Virtual Environments to Improve Joint Fires Performance (14041)** Emilie A. Reitz, Kevin Seavey, Alion Science and Technology

### T-6  
**Combating Stress: Performance Under Fire**  
**WEDNESDAY, DECEMBER 3 • 1600-1730 • S320D**

**Session Chair:** Elaine Raybourn, Ph.D., Sandia National Laboratories, ADL Initiative  
**Session Deputy:** Mary Driskel, NAWCTSD  

**Accelerating Unit Adaptability: A Principle-based Approach to Unit Communication (14038)** Tara Rench, Zachary Horn, Ph.D., Alexander Walker, Ph.D., Aptima, Inc.; Steve Zaccaro, Ph.D., George Mason University

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**LEGEND**  
(one or more of the following may appear on this page). The number in parentheses following Paper Title is the ID tracking number.  

- Nominated for Best Paper Award  
- Game-related Subject Matter  
- International Author  
- Honorable Mention for Best Paper Award  
- Continuing Education Units (see pg. 12)  
- Medical-related Subject Matter  
- Cyber Security  
- Mobile
Inducing Stress in Warfighters during Simulation-based Training (14201) Meredith Carroll Ph.D., Brent Winslow, Ph.D., Christina Padron, Glenn Surpris, Jennifer Murphy, Ph.D., Design Interactive, Inc.; Jason H. Wong Ph.D., Peter Squire, Ph.D., ONR

T-11 WEDNESDAY, DECEMBER 3 • 1600-1730 • S320A
Simulation & Game-based Training
Session Chair: Fred Fleury, ZedaSoft, Inc.
Session Deputy: Felicia Douglas, FRD Solutions, LLC
Research Directions for Future Simulation-based Training Design in Defence (14017) Luke G. Thiele, Ph.D., Rheinmetall Simulations Australia Pty. Ltd. Utilizing Simulation and Game-based Learning to Enhance Incident Commander Training (14148) Ronald W. Tarr, Eileen Smith, Eric Totten, Michael Carney, Institute for Simulation and Training; Michael Wajda, Orange County (Florida) Fire and Rescue Department

T-7 THURSDAY, DECEMBER 4 • 0830-1000 • S320D
Intelligent Tutors: Just How Smart Are They?
Session Chair: Anne Little, Ph.D., Addx Corporation
Session Deputy: Javier “Jeff” Covelli, Ph.D., Computer Sciences Corporation
Developing and Evaluating an Intelligent Tutoring System for Advanced Shiphandling (14014) Jason H. Wong, Ph.D., Lauren Ogren, NUWC; Prof. Stanley Peters, Elizabeth O. Bratt, Ph.D., Stanford University
Developing Models of Expert Performance for Support in an Adaptive Marksmanship Trainer (14214) Benjamin Goldberg, Ph.D., Charles Amburn, Keith Brawner, Marko Westphal, ARL HRED STTC; Marko Westphal, German Federal Office of Bundeswehr Equipment
A Digital Tutor for Accelerating Technical Expertise (14272) J.D. Fletcher, Ph.D., Institute for Defense Analyses; William D. Casebeer, Ph.D., Lockheed Martin Advanced Technology Laboratories

T-8 THURSDAY, DECEMBER 4 • 1030-1200 • S320D
Aviation Training: The Ups and Downs!
Session Chair: Michael Motko, QinetiQ Training & Simulation, Inc.
Session Deputy: Bob Johnson, McKean-Defense Group, LLC
Training Fidelity of an Unmanned Aerial Systems Complementary Family of Trainers (14135) Sharon L. Conwell, Ed.D., Christine M. Covas-Smith, Ph.D., Leah J Rowe, AFRL; Andrew Shepard, Ph.D., Sinclair Community College; John B. Bridewell, Ph.D., University of North Dakota
ASOC Training Research: Joint Theater Air Ground Simulation System (14166) Leah Rowe, Sharon L Conwell, Ed.D., AFRL

T-9 THURSDAY, DECEMBER 4 • 1030-1200 • S320E
A Variety of Training Approaches
Session Chair: Cynthia Adams, Booz|Allen|Hamilton, Inc.
Session Deputy: Karen Cooper, Ph.D., NAWCAD
Fusing Self-Reported and Sensor Data from Mixed-reality Training (14158) Trevor Richardson, Stephen Gilbert, Ph.D., Joseph Holub, Frederick Thompson, Anastacia MacAllister, Rafael Radkowski, Eliot Winer Ph.D., Iowa State University; Paul Davies, Scott Terry, The Boeing Company
A Competency Based Approach to Marine and Weapons Engineering Training (14224) Commander Richard Clarke, Royal Navy MoD

T-10 THURSDAY, DECEMBER 4 • 1330-1500 • S320D
Evaluating Training Effectiveness
Session Chair: Paul Lyon, BARCO Simulation
Session Deputy: Luis Garcia, MARCORSYSCOM PM TRASY
Post-fielding Training Assessment of Dismounted Infantry Simulation (14022) Martin L. Bink, Ph.D., Victor J. Ingurgio, Ph.D., U.S. Army Research Institute; David James, Northrop Grumman
Evaluating the Impact of Individual Training on Units’ Operational Performance (14123) Jay Brimstin Ph.D., Toumnakone Annie Hester, U.S. Army Maneuver Center of Excellence
Using LMS Technology for Kirkpatrick Level 3 Evaluation of Human Trafficking Training (14162) Jill Shepherd, Lewis Harris, Casey O’Conor, Booz|Allen|Hamilton