Tuesday, March 7, 2017

7:00 AM – 5:00 PM  Registration  
Foyer

7:00 AM – 8:00 AM  Continental Breakfast  
Foyer

8:00 AM – 8:15 AM  Welcome and Introductory Remarks  
Miller/Singleton Combo Ballroom  
•  Dr. Christopher Nemeth, Principal Scientist, Applied Research Associates; Chair, NDIA Human Systems Division

8:15 AM – 9:00 AM  Keynote Address  
Miller/Singleton Combo Ballroom  
•  Dr. Jason Matheny, Director, IARPA

9:00 AM – 9:15 AM  Networking Break  
Foyer

9:15 AM – 10:45 AM  Human Systems Response to a 3rd Offset Strategy from a DoD Perspective  
Miller/Singleton Combo Ballroom  
•  Moderator: Dr. John Tangney, Director, Human and Bioengineered Systems Division, ONR  
•  Dr. Elizabeth Bowman, Operations Research Analyst, ARL  
•  Dr. Glenn Gunzelmann, Senior Research Psychologist, AFRL, Cognitive Models and Agents Branch  
•  Dr. Mike LaFiandra, Chief Scientist (Acting), Human Research and Engineering Directorate, ARL  
•  Dr. Todd Nelson, Strategic Planning and Transformation Division, AFRL  
•  Dr. Peter Squire, Program Officer, ONR

10:45 AM – 12:00 PM  Facing the 3rd Offset’s Human Systems Challenges  
Miller/Singleton Combo Ballroom  
•  Moderator: Dr. Christopher Nemeth, Chair, NDIA Human Systems Division; Principal Scientist, Applied Research Associates  
•  Ms. Laura Major, Division Leader, Information and Cognition Division, Draper  
•  Ms. Charlotte Shabarekh, Division Director, Analytics, Modeling, and Simulation Division, Aptima, Inc.  
•  Dr. Ron Storm, UAS Futurist and Professor of UAS Studies, GCI  
•  Dr. Jim Tittle, Principal Scientist, Charles River Analytics

12:00 PM – 1:00 PM  Networking Lunch  
Von Sternberg/Hazel Combo Ballroom

1:00 PM – 2:30 PM  Poster Session  
Von Sternberg/Hazel Combo Ballroom
2:30 PM – 3:45 PM  Session #1: Protection, Sustainment, and Warfighter Performance (PS&WP)
Miller/Singleton Combo Ballroom

- Rim-to-Rim Wearables At The Canyon for Health (R2R WATCH)
  Dr. Glory Avina, Quantitative Psychologist, Sandia National Laboratories
  Presented by Dr. Clifford Anderson-Bergman, Statistician, Sandia National Laboratories

- Body Position Measurement System for Dynamic, Non-Line-of-Sight Applications
  Mr. Matthew Davis, Lead Research Engineer, Luna Innovations
  Presented by Ms. Emily Templeton, Senior Research Engineer, Luna Innovations

- Predictive Human Models and the Third Offset
  Dr. Tim Marler, Chief Research Officer, SantosHuman, Inc.

3:45 PM – 5:00 PM  Session #2: Human Aspects of Operations in the Military Environment (HAOME)
Miller/Singleton Combo Ballroom

- Human Aspects of Operations in the Military Environment (HAOME) — The Gray Zone
  Ms. Marjorie Greene, Research Analyst, CNA

- The Critical Role of Positive Incentives in Reducing Insider Threat
  Mr. Andrew Moore, Lead Insider Threat Researcher, Software Engineering Institute

- Extending Human Systems Integration Approaches to Support Human-Machine Teaming with Increasingly Autonomous Military Systems
  Dr. James Pharmer, Principal Scientist, Science of Learning, NAWCTSD

- Evaluation of the Marine Corps Combat Operations Center (COC) Intercom System
  Ms. Rachael Lund, HSI Engineer, NSWC Dahlgren

5:00 PM  Closing Remarks and Adjourn
Miller/Singleton Combo Ballroom
- Dr. Christopher Nemeth, Principal Scientist, Applied Research Associates; Chair, NDIA Human Systems Division

5:15 PM – 6:45 PM  Networking Reception
Korman Room
Wednesday, March 8, 2017

7:00 AM – 5:15 PM  Registration
                    Foyer

7:00 AM – 8:00 AM  Continental Breakfast
                    Foyer

8:00 AM – 8:15 AM  Welcome and Introductory Remarks
                    Miller/Singleton Combo Ballroom
                    • Dr. Christopher Nemeth, Principal Scientist, Applied Research Associates;
                      Chair, NDIA Human Systems Division

8:15 AM – 9:00 AM  Keynote Address
                    Miller/Singleton Combo Ballroom
                    • Dr. Thomas Russell, Deputy Assistant Secretary of the Army for S&T, Chief
                      Scientist of the Army

9:00 AM – 9:15 AM  Networking Break
                    Foyer

9:15 AM – 10:15 AM Joint Panel: Toward Establishment of Requirements for Using LVC Environments to
                    Train Operators
                    Miller/Singleton Combo Ballroom
                    Moderator: CDR Henry Phillips, PhD, Military Deputy for Research and Engineering,
                    NAWCTSD
                    • Dr. Gregory A. Goodwin, Senior Research Scientist, U.S. Army Research
                      Laboratory Human Research and Engineering Directorate
                    • Mr. John “Moses” Noah, Secure LVC Advanced Training Environment (SLATE)
                      Lead, AFRL
                    • Mr. Luis Velazquez, Deputy Director, Systems Engineering, Interoperability,
                      Architecture & Technology (SIAT), MCSC
                    • Ms. Melissa Walwanis, Applied Science and Technology Branch Head, NAWCTSD

10:15 AM – 11:30 AM Session #3: Personalized Assessment, Education and Training (PAE&T)
                    Miller/Singleton Combo Ballroom
                    • Developing Human Performance Through Perceptual–Cognitive Training
                      Dr. Thomas Romeas, Postdoctoral Researcher, CogniSens, Inc.
                      Presented by Dr. Eduardo Lugo, Researcher, CogniSens Applied Research Center

                    • The Total Learning Architecture (TLA): Learning Across Applications
                      Dr. Damon Regan, External Research Lead, The Tolliver Group, Inc.
                      Presented by Dr. Shane Gallagher, Senior Learning Scientist, Advanced
                      Distributed Learning Initiative

                    • Adaptive Flight Training Systems Using Physiological Based Feedback
                      Dr. Tom Schnell, Associate Professor and Director, Operator Performance
                      Laboratory (OPL) – University of Iowa

                    • Learner–Aware Constructive Entities for Scalable Adaptive, Personalized
                      Training
                      Dr. Robert Wray, Senior Scientist, Soar Technology, Inc.

11:30 AM – 12:30 PM  Networking Lunch
                    Von Sternberg/Hazel Combo Ballroom
12:30 PM – 1:45 PM  
**Session #4: HSI Metrics**  
*Miller/Singleton Combo Ballroom*  
- **Modeling of Human-System Interactive Effects in Systems of Systems**  
  Mr. Matthew Hoffman, *Principal Member of R&D Staff*, Sandia National Laboratories  
- **Analogs to Instill HSI Considerations into DOD Acquisition Programs**  
  Mr. John Plaga, *Supervisory Senior Research Aerospace Engineer*, USAF – 711 HPW/HPIF  
- **How Human Systems Integration (HSI) Contributes to System Architecture**  

1:45 PM – 2:00 PM  
**Networking Break**  
*Foyer*  

2:00 PM – 3:15 PM  
**Session #5: Systems Interface and Cognitive Processing (SI&CP)**  
*Miller/Singleton Combo Ballroom*  
- **Operator Traits and Adaptation Styles for a Co-Adaptive System**  
  Dr. Caroline Harriott, *Senior Member of Technical Staff*, Draper  
- **Neuroergonomics in the Real World: Differentiation Between Navigation Displays**  
  Dr. Ryan McKendrick, *Applied Cognitive Scientist*, Northrop Grumman Corporation  
- **Supporting Salience: Valid IT Improves Burn ICU Decision Making**  
  Dr. Christopher Nemeth, *Principal Scientist*, Applied Research Associates  
- **The Importance of Shared Awareness for Achieving Human-Machine Symbiosis**  
  Dr. Stephen Whitlow, *Principal R&D Scientist*, Honeywell Aerospace Advanced Technology  

3:15 PM – 5:15 PM  
**Roundtable Discussions**  
*Miller/Singleton Combo Ballroom*  
- Table 1: Systems Interface and Cognitive Processing (SI&CP)  
- Table 2: Protection, Sustainment, and Warfighter Performance (PS&WP)  
- Table 3: Personalized Assessment, Education, and Training (PAE&T)  
- Table 4: Human Aspects of Operations in Military Environments (HAOME)  
- Table 5: Human Systems Integration (HSI) Metrics  

5:15 PM – 5:30 PM  
**Closing Remarks**  
*Miller/Singleton Combo Ballroom*  
- Dr. Christopher Nemeth, *Principal Scientist*, Applied Research Associates; *Chair*, NDIA Human Systems Division  

5:30 PM  
**Conference Adjourns**
• Interactive Next-generation Testbed Environment for Retention and Assessment of Computer-based Training (INTERACT)
  Ms. Lisa Baraniecki, Program Director, AnthroTronix, Inc.

• Metrics of Operator Performance and Experience for Adaptive Human-System Interfaces
  Dr. Krysta Chauncey, Applied Cognition & Psychophysiology, Draper
  Presented by Dr. Zahar Prasov, Senior Research Engineer, Draper

• Human Systems Integration Assessment of Exoskeleton Technology
  Mr. Jeffrey Craig, Human Systems Integration Program Manager, Decypher Technologies, LTD

• Building Generalized Systems to Assess Human Cognitive Processing of Complex Scenes
  Dr. Stephen Gordon, Neurosciences Branch Manager, DCS Corporation

• Communicating Emerging Technology Concepts to Training Stakeholders Through Multimedia Narratives
  Dr. Raegan Hoeft, Director, Federal Solutions, Design Interactive

• Rapidly Reconfigurable, Intuitive Human Machine Interface Approach
  Mr. David Jakubek, Director, Advanced Technology, ENSCO, Inc.

• Augmenting Human Performance Abilities with a Sensory Feedback System
  Mr. Eduardo Lugo, Innovation Product Manager, Cognisens Applied Research Center

• Integrating Narrative into the Decision-Making Process
  Dr. Cameron MacKenzie, Research Associate, Ames Lab

• Predictive Models for PPE and Human Systems Integration
  Dr. Tim Marler, Chief Research Officer, SantosHuman, Inc.

• Reliable Objective Cognitive Assessment (ROCA)
  Dr. Neil McDonald, Senior Scientist, Quantum Applied Science and Research, Inc.

• Curvilinear Basis for Cognitive Load State Classification
  Dr. Ryan McKendrick, Applied Cognitive Scientist, Northrop Grumman Corporation

• The Human Centered Design Influence on Cyber Security Accreditation
  Dr. Dominique Noel, Chief, Cyber Security Innovation, DoD

• The Human Readiness GPS
  Dr. Kevin Oden, Senior Technical Staff, Lockheed Martin

• From Osseointegration to Human–Machine Fusion
  Dr. Liming Salvino, Program Manager, Office of Naval Research

• Communication in High Noise Environments – A Warfighter Performance Issue
  Mr. Kurt Yankaskas, NIHL Program Officer, Office of Naval Research