Human Systems Community of Interest (HS CoI) Newsletter

Feb 2019

Senior Leader Perspective: The establishment of Army Futures Command (AFC) is the largest reorganization within the Army since 1973. As part of this undertaking by the Army, the Research, Development and Engineering Command has been renamed the Combat Capabilities Development Command, or CCDC, as it moved under AFC. The CCDC's Army Research Laboratory (ARL), the Army's corporate research laboratory, is also undergoing change as it becomes part of the AFC as the Army's Corporate Laboratory, focusing on three areas. First, ARL will drive disruptive research ensuring technical dominance beyond the immediate plans of Army Modernization over the next decade. Second, ARL will be the face of the Army to the academic community through both existing collaborations as well as partnering with AFC's newly created Army Application Laboratory to extend the Army's Open Campus initiative better connecting academic, industry and government scientists and engineers to solve tough challenges of interest to Defense. In the third thrust, ARL will shepherd the linkage between the science and technology community to influence the art of the possible in future Army concepts and requirements. To ensure the success of these roles, ARL is restructuring. Within Army Human Systems, both the development and engineering efforts as well as the human systems integration assessment mission are moving out of the corporate laboratory to synergize with the CCDC Soldier Center and a new organization focusing on Army analysis.

I look forward to discussing further these roles with the CoI members, and more importantly work with you throughout this exciting change within the Army. ***Dr. Corde Lane, HS CoI Army Lead***

Hails & Farewells

Hail/Farewell - Welcome to Dr. Robb Wilcox replacing Mr. Doug Tomilio as the new lead NSRDEC (Now US Army Combat Capabilities Development Command Soldier Center or CCDCSC) representative to the CoI Steering Group (SG). Dr. Wilcox is Director of the Soldier Performance and Optimization Directorate there, and he's been very active in planning the upcoming Army Lab Visit by the SG in February. Many thanks from the CoI to Mr. Tomilio for his insights and participation in the Steering Group!

Hail - Ms. Roxanne Constable is the new CoI Working Group Chair, replacing Dr. Todd Nelson. Roxanne is the Bio-Effects Product Line Lead in 711th HPW and was already an active participant in PSWP. We look forward to her leadership!

Hail - Dr. Mark Draper has replaced Dr. Todd Nelson as the SICP subarea Lead. Dr. Draper currently works in the 711th HPW as the Decision Making Core Technical Competency Lead in the Warfighter Interface Division. Welcome!

Farewell - Dr. Todd Nelson. As noted above, it took two people to replace him and we wish Todd well in his promotion to 711th HPW, Director of Plans and Programs. Dr. Nelson has been involved in the Human Systems CoI since its inception, providing vital technical expertise and leadership as the SICP Lead and CoI Working Group Chair!

HUMAN SYSTEMS CoI

https://defenseinnovationmarketplace.dtic.mil/communities-of-interest/human-systems/

Vision: Develop and deliver new human-centered technologies to select, train, design, quantify, protect, and operate for measurably improved mission effectiveness.

Mission: Enhance mission effectiveness through: 1) Integrated simulations for mission training and experimentation, 2) Human-machine designs for mission effectiveness, 3) Assessment of operator effectiveness, 4) Operating through battlespace stresses and 5) Mastering the PMESII battle space.

Key Products: Integrated service roadmaps; CoI taxonomy, budget & programs; seedling and tri-service ARAP proposals, collaboration opportunities; success stories.

Key Personnel	
OSD Chair: Dr. Ben Petro (acting)	OSD
COI Chair: Dr. Kevin Geiss	AFRL
Navy Lead: Dr. John Tangney	ONR
Army Lead: Dr. Michelle Zbylut	ARI
Army Lead: Dr. Corde Lane	ARL
Army Lead: Dr. Robb Wilcox	CCDCSC
WG Chair: Ms. Roxanne Constable	AFRL
PAE&T Lead: Dr. Glenn Gunzelmann	AFRL
SICP Lead: Dr. Mark Draper	AFRL
PSWP Lead: Dr. Peter Squire	ONR

Feedback: If you have content or suggestions please send to our Newsletter Editor: **Alan.Livada.ctr@us.af.mil**

Human Systems Community of Interest (HS CoI) Newsletter

Feb 2019

CoI HIGHLIGHTS - *Past Events*

HS CoI Steering Group Meeting and All Hands: The meeting was held Oct 24-25, 2018 at Advanced Distributive Learning's CoLab, Mark Center and successfully accomplished its objectives of reviewing FY18 accomplishments, discussing FY19 strategy, and looking for new collaboration opportunities. The Steering Group Panel outlined each Service's future plans and heard great presentations from partners and stakeholders such as ASBREM, NAWCTSD, Autonomy CoI, DARPA, C4I, and finally the Defense Language and the National Security Education Office. The meeting concluded with subarea updates and breakout sessions the following day to discuss key guidance from the Steering Group. POC: Katie Smith Stilling, Strategic Analysis, Inc. kstilling@sainc.com

Major Annual Events/Activities 2019	
Reliance 21 Annual Overview	Jan
NSRDEC Army Hosted Lab Visit by SG	Feb
NDIA Human Systems Conference and Human Factors Engineering TAG	Apr
NDIA S&ET Conference	Apr
DoD Lab Day/ARAP Winner Announced	Jun
Seedling Proposal Data Call	Jun
IR&D Technical Interchange	Jun
COI Steering Group/All Hands	Sep
COI Roadmap Review	Oct
I/ITSEC	Nov

Inter-service/Industry Training, Simulation and Education Conference (I/ITSEC): Held 26-30 November 2018 in Orlando, FL, the conference combines a technically rich scientific program with a large technology expo. This creates a fertile environment that increases awareness of the current state of the art in training technology, and encourages interactions spanning government, industry, and academia to continually advance training research and practice. The majority of the HS CoI Personalized Assessment, Education, and Training (PAET) subarea members attended and contributed to I/ITSEC. PAET members also gathered for a subarea meeting during the conference. POC: Dr. Carolyn Parish, MITRE, cparish@mitre.org

New Applied Research for the Advancement of S&T Priorities (ARAP) Update: Each CoI has already provided OSD with their white paper level nomination for consideration of an FY19 ARAP award. Our nomination was submitted by the SICP subarea and titled: "Optimal Warfighter Performance and Lethality: Leveraging AI and Big Data". The next step is for the Deputies Council to down-select to the top four papers in February, with final proposals in March. We still anticipate a public announcement of the winner (s) at 2019 DoD Lab Day. POC: Katie Smith Stilling, Strategic Analysis, Inc. kstilling@sainc.com

CoI HIGHLIGHTS - *" Next Up "*

Reliance 21 Yearly Overview - The three day event was held Jan 29-31 at the Office of Naval Research in Wash DC. All CoI Chairs presented their Annual Update to OSD, with Dr. Geiss successfully briefing our CoI. There were also briefings from the various Service S&T Reps along with COCOMs and other key partners and stakeholders. We have a few action items to work in the coming weeks. POC: Katie Smith Stilling, Strategic Analysis, Inc. kstilling@sainc.com

Army Hosting a Lab Familiarization Visit - Scheduled for Feb 20-21, the visit's purpose is to inform our SG of key Army - related research facilities and capabilities around NSRDEC, now named CCDCSC. Some of the key agenda activities are: An overview of CCDCSC, Soldier Performance Optimization, MASTR-E , Cognitive Laboratory, Exoskeleton discussion, Biomechanical Laboratory Biological Sciences Overview, Joint Clothing, Collaborative DoD Combat Feeding Overview, NSSC Doriot Climatic Chambers, Gut Microbiome Lab, USARIEM tour and TUFTS – Center for Applied Brain Cognitive Sciences. POC: Katie Smith Stilling, Strategic Analysis, Inc. kstilling@sainc.com

National Defense Industrial Association (NDIA) S&ET Conference and Poster Presentation - The event is scheduled for Apr 2-4 in San Diego CA with the theme "Enabling the National Defense Strategy through Science & Technology". Our CoI plans to give a presentation as well as participate in the poster session displayed during the Conference to focus on the impact of our CoI's efforts. POC: Katie Smith Stilling, Strategic Analysis, Inc. kstilling@sainc.com

NDIA Human Systems Conference and Human Factors Engineering Technical Advisory Group (HFE TAG): The NDIA Human Systems Division (HSD) and the DoD HFE TAG are co-locating their conferences at Aberdeen Proving Ground, MD during the week of 15 - 19 April 2019. The TAG spans the entire week, while the HS Conference is the 16 and 17th. The 16th will be a TAG/HSD integrated event where roadmaps will be presented. The HS Conference also plans to have both COI Panel and Roundtable discussions with industry. As an update, TAG abstracts are due the 25th of March and a call is also out for the HS Conference. POC: Katie Smith Stilling, Strategic Analysis, Inc. kstilling@sainc.com

DoD Lab Day - Scheduled for 25 April at the Pentagon Courtyard, this event is a showcase for innovative research and development going on at DoD's laboratories, warfare centers and engineering centers. The theme for the 2019 DoD Lab Day will be: "Rapidly Solving Tomorrow's Problems Today." POC: Katie Smith Stilling, Strategic Analysis, Inc. kstilling@sainc.com

Human Systems Community of Interest (HS CoI) Newsletter

Feb 2019

CoI HIGHLIGHTS - *" Next Up "*

HS CoI Independent Research & Development (IR&D) TIM: Scheduled for 24-28 Jun at Strategic Analysis Inc. in Arlington Virginia, the TIM's purpose is to jointly review industry IR&D efforts for potential collaboration with the government. This is a biennial event, and this year we're teaming with the ASBREM CoI as a way to work together more effectively. The formal FedBizOpps announcement to solicit nominations is now officially out to industry, with a deadline of mid-March. The next step for the subarea teams will be to select the companies they want to hear IR&D presentations from with the goal of providing real-time feedback at the TIM on the potential for future collaborations. POC: Al Livada, 711 HPW, alan.livada.ctr@us.af.mil

International Corner

Allied IMPACT and the TTCP Autonomy Strategic Challenge: An international cross-service 50+ person research team, led by 711HPW/RH researchers, conducted a series of live and virtual trials at HMAS Creswell Naval Station, Australia to support a detailed military utility assessment of several human-autonomy teaming (HAT) technologies within the Allied IMPACT (AIM) multi-domain, multi-UxV Command and Control (C2) testbed. These trials represented the capstone exercise of The Technical Cooperation Program (TTCP) Autonomy Strategic Challenge (ASC). The AIM testbed itself is a product of 2+ years of heavy integration in which AFRL's Intelligent Multi-UxV Planner with Adaptive Collaborative Control Technologies (IMPACT) C2 testbed was integrated with best-of-breed human-autonomy teaming technologies from the US (711 HPW/RH, AFRL/RI & SPAWAR), Australia, Canada, and the United Kingdom. HAT technologies under investigation included task delegation by "play calling", intelligent decision support and asset allocation, interactive task management assistance, a multi-media narration module, adversarial battlespace planning, policy checking/management tools, plan monitoring, a smart weapons engagement GUI, provenance tracking, and a novel HAT assessment capability. In addition, AIM was connected to the UK MAPLE digital information architecture which provided a comprehensive tactical picture of all tracks in the area of interest. Over the course of the 2-week trial period, AIM enabled a single operator to successfully manage 16 unmanned assets (5 of them live assets inclusive of air, sea, and ground unmanned platforms) across 3 operationally relevant scenarios. A selected team of 7 subject matter experts (SMEs) across 4 nations (US SMEs represented AFSOC and PACAF) extensively assessed the military value and usability of the capability/technologies as they observed live trials and also acted as "AIM operators" for synthetic trials. A novel method of real time data logging that promotes rapid interactive after-action reports allowed for immediate in-depth diagnostic reviews of operator performance in the trials (both live and synthetic). Extensive data were collected on mission effectiveness, human performance, and human-autonomy teaming performance. Initial feedback from the participating SMEs and senior leaders in attendance has been resoundingly positive. Senior military leaders from all TTCP nations witnessed the trails, with US representation including OUSD/R&E, AFSOC, US Army, and Navy SPAWAR. POC: Dr. Mark Draper, 711 HPW, mark.draper.2@us.af.mil.

AF 711 HPW/RHAC Workload Monitoring Project Agreement with UK. The Warfighter Readiness Research Division within the 711th Human Performance Wing at AFRL is currently in discussions with the Defense Science and Technology Laboratory (DSTL) in the UK to establish a project agreement on cognitive overload. The research group US/UK contacts were created from the Stocktake meeting led by OSD in Feb 2018. A project agreement is being discussed that focuses on three important operational aspects of cognitive workload, including: handling multidimensional data, human-machine teaming (including teams with multiple humans), and workload mitigation strategies. The US technical support planning document has been drafted and is currently under revision by the UK. Sister Service interest and technical participation is welcomed. POC: Dr. Christopher Stevens, christopher.stevens.28@us.af.mil.

International Corner (continued)

AF 711 HPW/RHCB Scientists Establishing a Data Exchange Agreement Between the US Department of Defense and The Netherlands Organization for Applied Scientific Research

Battlespace Acoustics Branch scientists visited The Netherlands Organization for Applied Scientific Research (TNO) to facilitate establishment of a broad Human Systems Data Exchange Agreement (DEA) between the US Department of Defense and the Netherlands Ministry of Defense focused on Human Performance. The agreement plan currently involves participants from the Air Force, Army, and Navy from the US and TNO and Naval Research Laboratory from the Netherlands. The goal of this agreement is to enable the exchange of research, development, test and evaluation information pertaining to all aspects of Human Performance between the two partner nations. The text will be written so that most all HS CoI research efforts could fall under this agreement. Please contact the POC below to add your organization as a DEA participant and assure your topics of interest are covered. POC: Dr. Brian Simpson, brian.simpson.4@us.af.mil.

AF 711 HPW Hosts Development of Improved Spinal Injury Criteria (DICE) Planning Workshop with UK MOD

The Aircrew Biodynamics and Protection (ABP) team hosted a 3-day workshop with the UK Ministry of Defense (MOD) to finalize plans for research and data exchange under the project agreement entitled "Development of Improved Spinal Injury Criteria (DICE)". Under the first phase of the plan, the team will conduct tests on the Vertical Deceleration Tower (VDT) with operational ejection seats to simulate the seat accelerations and lumbar loading seen during the upward ejection phase during ejections from British, US Navy and Air Force fighter jets. Jointly UK MOD and AFRL will provide analysis of the lumbar load data and attempt to establish and validate injury risk curves by comparing to injury data obtained from UK operational ejections with these seats as compared to US operational ejections and the respective seats. ABP will have access to the UK MOD ejection data for broadening their human subject ejection forces database. Development of lumbar injury risk curves will benefit both parties since they will be applicable to seats currently being installed in F-35 aircraft as well as legacy aircraft. POCs: Mr. John Buhrman, john.buhrman@us.af.mil or Dr. Casey Pirnstill, casey.pirnstill@us.af.mil.

AF 711 HPW International Collaboration Investigating JP-4/-8 Fuel Exposures to Flight Line Operators to determine Association with Accelerated Hearing Loss: Flight line fuel exposures are being investigated with Japan to address the participation of operational fuels exposure to produce an accelerated hearing loss. 711 HPW audiologists and toxicological researchers are working with the Aeromedical Laboratory, Japanese Air Self Defense Force (JASDF) team to collect data from flight line personnel. Sampling operator exposures at bases using JP-fuels included during shift vapor pump capture for jet fuel components and a sound level dosimeter to record personal noise exposure during a shift, with post-shift immediately captured including a blood draw, urine collection, audiometric test battery and questions concerning exposure conditions. Elements of exposure and loss of human operational performance concerns are being considered. Exposures to fuels are common in all warfighting activities, and hearing loss remains the number one most common military retirement disability. POC: David R. Mattie, PhD, 711 HPW/RHXJ, david.mattie@us.af.mil

New NATO Research Task Group "Cognitive Neuroenhancement: Techniques and Technology" (NATO RTO HFM-311) first Meeting Spring 2019: Emerging neuroscience research offers advancing techniques and approaches that may revolution-ize how the military expands human performance capabilities. Research involving state-of-the-art techniques such as cognitive training, cognitive or neurofeedback, and non-invasive brain stimulation have all provided evidence that aspects of cognition and cognitive performance can be enhanced or preserved. The subject research areas and surrounding technologies will be collated and examined for effective production of complex human cognitive neuro-enhancement. The Group will report findings on recent research and development efforts, lessons learned, strengths and weaknesses of each approach, and best practices among the NATO participants that are found to provide a critical strategic advantage to NATO counties in combat operations, thereby increasing the competitive advantage of allied forces. POC: RTG Chair R. Andy McKinley, 711 HPW/RHCPA, richard.mckinley.2@us.af.mil.

OTHER CoI ACCOMPLISHMENTS

Workload Assessment During Aerial Refueling - It is often difficult to know with certainty how a new technology or configuration affects pilot workload. Self-report assessments can depend upon the pilot's subjective feeling about their workload, which can be biased and may miss important events. Physiocognitive technologies offer an alternative that does not depend on subjective evaluation. The Multiscale Modeling Team, in collaboration with the Applied Neuroscience Branch and the Human Systems Integration Laboratory, are collaborating with the 418th Flight Test Squadron at Edwards Air Force Base to test a set of physiocognitive workload assessment technologies in the context of aerial refueling. These technologies include COGPack™, a multimodal physiological and behavioral data collection and integration architecture and Cognitive Metrics Profiling, a model-based technique for predicting operator workload and performance based on task demands. In August and September 2018, scientists from the above-mentioned teams joined C-17 pilots at Edwards Air Force Base for a series of aerial refueling missions. During the flights, the pilots' physiological state (neural activity, heart rate) and behavior (eye movements, control inputs) were recorded using state-of-the-art sensor technology. Researchers use a combination of Cognitive Metrics Profiling and machine learning to infer relative workload levels between various maneuvers and to identify moments of high workload within maneuvers. This work will serve as a proof-of-concept for future technology allowing objective assessment of pilot workload. Further test flights will take place during the week of 4 February 2019. POC: Dr. Christopher Stevens, 711th HPW/RHA, christopher.stevens.28@us.af.mil l

Biomechanical Modeling and Analysis in Collaboration with USAFSAM to Evaluate Pilot Flight Disqualification Standards - The current training requirements for a pilot costs the DoD millions of dollars. While operator safety is our highest institutional priority, it is vital to set accurate pilot disqualification standards that protect both the health and safety of the pilot and investment in that pilot. This results in a delicate balancing act that relies heavily on cutting edge scientific knowledge and biomedical expertise. The Aircrew Biodynamics and Protection (ABP) team conducted two research and analyses collaborations with the USAF School of Aerospace Medicine (USAFSAM) to determine the applicability of flight disqualification standards to non-waiverable pilot populations. The first collaboration was with the Aeromedical Consultation Service of the Aerospace Medicine Branch and consisted of a biomechanical analysis to determine the risk of spinal injury during aircraft ejection to a pilot with scoliosis. ABP analyzed lumbar injury curves recently developed with data collected under various degrees of torso flexion, conducted computer modeling simulations under ejection conditions, and compared the results to accepted spinal injury limits. This analysis was used by USAFSAM to determine if an Exemption to Policy could be applied to an individual with this condition for admission to pilot school. The second collaboration was with the USAFSAM Internal Medicine Branch, as part of a tasking by the Physical Standards Development Branch of the Air Force Medical Support Agency, and consisted of a biomechanical analysis to determine the implications and injury risk of pilot cervical arthroplasty disc replacement if exposed to an ejection. ABP conducted a review of related research in Finite Element (FE) spinal modeling, Post Mortem Human Subject testing, and medical arthroplasty studies, and expressed the following concerns: (1) lack of dynamic testing and simulations conducted at ejection acceleration levels which could expose the disc to high levels of rapidly-applied compressive force, (2) the FE models' failure to include the head-supported mass due to helmet-mounted systems and the resulting effects on neck loads, and (3) the increased range of motion and facet loading demonstrated in FE models which could increase the risk of ligament damage and/or neck pain in pilots. The results of this research collaboration could lead to a more comprehensive process for assessing larger groups of non-waiverable pilots and potentially alleviate the pilot shortage. POC: Dr. John Burman, 711 HPW/RH, john.buhrman@us.af.mil

Human Systems Community of Interest (HS CoI) Newsletter

Feb 2019

CoI Contact Information

Agency	Position	Name	E-mail
Human Systems CoI – STEERING GROUP MEMBERS			
AF (CoI Chair)	Director, Airman Systems Directorate 711th Human Performance Wing (711 HPW), Air Force Research Laboratory (AFRL)	Dr. Kevin Geiss	kevin.geiss@us.af.mil
Army (Lead)	Director, Human Research and Engineering Directorate (HRED)- Army Research Laboratory (ARL)	Dr. Corde Lane	Jason.c.lane8.civ@mail.mil
Navy (Lead)	Division Director, Human & Bioengineered Systems, Code 341, Office of Naval Research (ONR)	Dr. John Tangney	john.f.tangney@navy.mil
SOCOM	Director, SOF AT&L Science & Technology	Ms. Lisa Sanders	Lisa.Sanders@socom.mil
Navy	Dept Head, Warfighter Performance, Code 34, ONR	Dr. Patrick Mason	Patrick.mason@navy.mil
Army	Director, Army Research Institute (ARI)	Dr. Michelle Zbylut	michelle.l.zbylut.civ@mail.mil
Army	Director, Soldier Performance and Optimization Directorate, US Army Combat Capabilities Development Command Soldier Center (CCDCSC)	Dr. Robb Wilcox	Robb.c.wilcox.civ@mail.mil
OUSD(R&E)	Acting Director, Human Systems Directorate (HSD)	Dr. Ben Petro	james.b.petro.civ@mail.mil
Human Systems CoI – HSD SUPPORT			
OUSD(R&E)	Contractor Support (Strategic Analysis)	Dr. Cyan James	cyan.r.james.ctr@mail.mil
OUSD(R&E)	HSD Staff	Dr. Tamara Chelette	tamara.l.chelette.civ@mail.mil
OUSD(R&E)	Contractor Support (Strategic Analysis)	Dr. Liana Algarin	Liana.m.algarin.ctr@mail.mil
Human Systems CoI – WORKING GROUP MEMBERS			
AF - Chair	711HPW/RHD (Texas)	Ms. Roxanne Constable	winona.constable@us.af.mil
Army	Chief, Programs, Budget, and Strategy, ARI	Dr. Marty Bink	martin.l.bink2.civ@mail.mil
Navy	Naval Postgraduate School	Dr. Paul Chatelier	pchat@mindspring.com
OUSD(R&E)	Associate Director, Human Systems, HSD	CDR Jeffrey Alton	jeffrey.d.alton4.mil@mail.mil
Army	CCDCSC	Ms. Karen Gregorczyk	karen.n.gregorczyk.civ@mail.mil
Army	Senior Campaign Scientist, Human Sciences, ARL	Dr. Kelvin Oie	kelvin.s.oie.civ@mail.mil
Navy	ONR Code 34	Dr. Kristy Hentchel	Kristy.hentchel@navy.mil
Army	TAD, Office of the Director. HRED, ARL	Ms. Jody Wojciechowski	josephine.g.wojciechowski.civ@mail.mil
Human Systems CoI – Contractor Support			
OUSD(R&E)	Contractor Support (Strategic Analysis)	Ms. Katie Smith	ksmith@sainc.com
OUSD(R&E)	Contractor Support (MITRE Corp)	Dr. Carolyn Parish	cparish@mitre.org
AFRL	Contractor Support (Loch Harbour)	Mr. Al Livada	alan.livada.ctr@us.af.mil
AFRL	Contractor Support (Loch Harbour)	Dr. Jill McQuade	jill.mcquade.2.ctr@us.af.mil

Human Systems Community of Interest (HS CoI) Newsletter

Feb 2019

Human Systems COI – SUB-AREA LEADS & MEMBERS			
Personalized Assessment, Education, and Training (PAE&T)			
AF - Lead	711 HPW/RHA	Dr. Glenn Gunzelmann	glenn.gunzelmann@us.af.mil
Army	ARI (Ft Benning)	Dr. Marty Bink	martin.l.bink2.civ@mail.mil
Navy	Naval Research Laboratory	Dr. Mark Livingston	mark.livingston@nrl.navy.mil
Army	ARL (NSA Orlando)	Mr. Rodney Long	rodney.a.long3.civ@mail.mil
USD(R&E)	Associate Director, Human Systems Directorate	CDR Jeffrey Alton	jeffrey.d.alton4.mil@mail.mil
DLNSEO	Defense Language, Nat'l Security Education	Dr. Michael Nugent	michael.a.nugent22.civ@mail.mil
ADL	Advanced Distributive Learning	Dr. Sae Schatz	sae.schatz@adlnet.gov
USMC	Training and Education Command	Dr. Kendy Vierling	kendy.vierling@usmc.mil
Navy	Naval Air Warfare Command, Training Systems	Dr. Jim Pharmer	james.pharmer@navy.mil
DODHRA	DOD Human Resources Activity	Dr. Shannon Salyer	shannon.d.salyer.civ@mail.mil
CTTSO	Combatting Terrorism Technical Support Office	Dr. Eric Sikorski	eric.sikorski@cttso.gov
Protection, Sustainment and Warfighter Performance (PSWP)			
Navy - Lead	ONR Code 30	Dr. Peter Squire	peter.squire@navy.mil
Army - Lead	HRED ARL	Dr. Michael LaFiandra	michael.e.lafiandra.civ@mail.mil
Army	NSRDEC	Dr. John Ramsay	karen.n.gregorczyk.civ@mail.mil
AF	711 HPW/RH (OH)	Dr. John Schlager	john.schlager@us.af.mil
Navy	ONR Code 34	Dr. Kristy Hentchel	Kristy.hentchel@navy.mil
Navy	ONR Code 34	Dr. Sandra Chapman	Sandra.chapman@navy.mil
Navy	ONR Code 34	LCDR Josh Swift	Joshua.m.swift@navy.mil
Navy	Space and Naval Warfare Systems Command	Dr. Karl Van Orden	karl.vanorden@navy.mil
AF	711 HPW/XPT	Dr. Tom Lamkin	thomas.lamkin@us.af.mil
DARPA	Defense Sciences Office	Dr. Adam Russell	adam.russell@darpa.mil
AF	711 HPW/XPT	Mr. John Guillen	john.guillen.1@us.af.mil
AF	711 HPW/XPT	Dr. Morgan Schmidt	morgan.schmidt.1@us.af.mil
System Interfaces and Cognitive Processing (SICP)			
AF - Lead	711 HPW/RHC	Dr. Mark Draper	mark.draper.2@us.af.mil
AF	711 HPW/XPT	Dr. Jeff Palumbo	jeffrey.palumbo.1@us.af.mil
AF	711 HPW/XPT	Mr. Ed Davis	edgar.davis@us.af.mil
AF	711 HPW/RHC	Dr. Erica Johnson	erica.johnson.7@us.af.mil
Army	Research, Development and Engineering Command (RDECOM)	Dr. Caroline Mahoney	caroline.r.mahoney.civ@mail.mil
Navy	ONR Code 34	Dr. Tom McKenna	tom.mckenna@navy.mil
Navy	ONR Code 34	Dr. Jeff Morrison	Jeffrey.g.morrison@navy.mil
Navy	ONR Code 34	Dr. Amy Bolton	Amy.bolton@navy.mil
Army	ARL Computational & Information Sciences Dir	Dr. Elizabeth Bowman	elizabeth.k.bowman.civ@mail.mil
Navy	ONR Code 34	Dr. Rebecca Goolsby	rebecca.goolsby@navy.mil
AF	711 HPW/RHX	Mr. Eric Hansen	eric.hansen.5@us.af.mil
AF	711 HPW/RHX	Dr. Laurie Fenstermacher	laurie.fenstermacher@us.af.mil
Navy	Naval Air Warfare Center Training Systems Div	CDR Hank Phillips	henry.phillips@navy.mil
Army	Army Research Office (ARO)	Dr. Edward Palazzolo	edward.t.palazzolo.civ@mail.mil
Army	RDECOM	Dr. David Scribner	david.r.scribner.civ@mail.mil
Army	ARO	Dr. Lisa Troyer	lisa.l.troyer.civ@mail.mil