

CURRICULUM VITAE

NANCY J. COOKE

July 2016

Office: 480-727-5158

Fax: 480-988-3162

Email: ncooke@asu.edu and ncooke@cerici.org

Web Sites:

<https://webapp4.asu.edu/directory/person/559491>

www.cerici.org

Arizona State University

Human Systems Engineering

The Polytechnic School

Ira A. Fulton Schools of Engineering

Santa Catalina Hall 150B

7271 E. Sonoran Arroyo Mall

Mesa, AZ 85212

Cognitive Engineering Research Institute

7565 E. Eagle Crest Dr. #100

Mesa, AZ 85207-1053

EDUCATION

Ph.D., Cognitive Psychology, 1987, New Mexico State University, Las Cruces, NM

M.A., Experimental Psychology, 1983, New Mexico State University, Las Cruces, NM

B.A., Psychology, 1981, George Mason University, Fairfax, VA

PRIMARY PROFESSIONAL POSITIONS

- 2003-present Professor, Human Systems Engineering, The Polytechnic School, Ira A. Fulton Schools of Engineering, Arizona State University
- 2014-2016 Program Chair, Human Systems Engineering, The Polytechnic School, Ira A. Fulton Schools of Engineering, Arizona State University
- 2003-present Science Director and board member, Cognitive Engineering Research Institute, Mesa, AZ
- 1992-2002 Assistant/Associate ('94)/Full Professor ('99), Department of Psychology, New Mexico State University, Las Cruces, NM.
- 1987-1992 Assistant Professor, Department of Psychology, Rice University, Houston, TX.
- 1981-1987 Graduate Research Assistant, Department of Psychology and Computing Research Laboratory, New Mexico State University, Las Cruces, NM. (Roger Schvaneveldt, advisor)

OTHER PROFESSIONAL POSITIONS

- 2015-present President Elect, Human Factors and Ergonomics Society
- 2015-present Participant, National Academies, Intelligence Science and Technology Experts Group
- 2014-present Associate Editor, *Human Factors*
- 2014-present Chair, William C. Howell Young Investigator Award for HFES
- 2013-2015 Chair, National Academies Committee on the Science of Team Science
- 2013-2015 Member, Human Factors and Ergonomics Society Blue Ribbon Task Force
- 2010-2014 Member, National Research Council, Panel on Human Factors Science at the ARL
- 2010-2013 Cognitive Track Editor, *Human Factors*
- 2011-2015 *Human Factors* Prize Board of Referees (chair 2011-2013)
- 2008-present Affiliate Professor, Biomedical Informatics Arizona State University
- 2007-present Member (Chair since 2012), National Academies of Sciences National Research Council Board on Human Systems Integration (prior to 2010, Committee on Human Systems Integration)
- 2007-2013 Human Factors and Ergonomics Society, Executive Council Member-at-Large

(Accreditation Taskforce chair and Federal Spending Taskforce chair)
 2008-2012 Member, US Air Force Scientific Advisory Board
 2011-2012 Advisory Board, Center for the Evaluation of Human Factors in Reprocessing Safety (CEHFRS), VISN 18 Patient Safety Center of Inquiry (PSCI), Phoenix VA Healthcare System
 2005-2009 Editor, *Human Factors*
 2003-2004 National Research Council Research Associateship, AFRL, Mesa, AZ
 1992 Summer Faculty, Armstrong Lab, Brooks AFB, San Antonio, TX.
 1987-1992 Research Consultant, Lockheed Engineering and Sciences Corp. and NASA Johnson Space Center, Houston, TX.

PROFESSIONAL ACTIVITIES

Member of

American Psychological Association (Fellow since 2009)
 Association for Psychological Science
 Cognitive Science Society
 Human Factors and Ergonomics Society (Fellow since 2000)
 Fellow Selection Committee (2006 – 2009)
 HFES Cognitive Engineering and Decision Making Technical group (program chair 2001-02)

Editorial Boards

Erlbaum Series - *Expertise: Research and Applications*
 JAI Press Series - *Advances in Human Performance and Cognitive Engineering Research*

Recent Consulting

Charles River Associates, SA Technologies, Knowledge Based Systems, Inc., Embry Riddle University, MIT, Aptima

Honors and Awards

Appointed to the National Academies of Sciences Panel on Human Factors Science at the ARL (2010)
 Elected Fellow of the American Psychological Association (2009)
 Appointed to National Academies of Sciences National Research Council Committee on Human Systems Integration (now Board on Human Systems Integration, January 2007 – present)
 Appointed Chair National Academies of Sciences National Research Council Board on Human Systems Integration (January 2012 - present)
 Recipient of the 2006 Human Factors and Ergonomics Society's O. Keith Hansen Outreach Award.
 Appointed to National Academies of Sciences National Research Council Committee on Human-System Design Support for Changing Technology (May 2005 – March 2007)
 Appointed to National Academies of Sciences National Research Council Committee on the Safety and Security of Spent Nuclear Fuel Storage (March 2004 – January 2005)
 Elected Fellow of the Human Factors and Ergonomics Society in 2000
 On short list for AFRL Chief Technologist position (2011)
 Recipient of Jerome H. Ely Award for the most outstanding article in the *Human Factors* journal in 2010. Gorman, Cooke, & Amazeen, "Training Adaptive Teams."
 Medal for exemplary service to the Department of the Air Force for Scientific Advisory Board work (2008-12)
 Received the George Mason University, Psychology Department's Distinguished Alumna Award for 2012.
 Recipient of the Human Factors and Ergonomics Society's Arnold M. Small President's Distinguished Service Award that recognizes individuals whose career-long contributions have brought honor to the profession and the Society (2014).
 ASU SUN Award for participation in OKED's Funding Success Skills Series (fs3).
 Selected "Star" by NMSU Psychology Department for "A Starry Night" program on February 7, 2015.
 Salute to Service Award, Arizona State University, October 29, 2015.
 Appointed to The National Academies of Sciences, Engineering, and Medicine new Intelligence Science

and Technology Experts Group (ISTEG)
 FAI Air Sport Medal for efforts on the Two Eagles flight, February 5, 2016.
 Designated a National Associate of the National Research Council of the National Academies of Sciences, Engineering, and Medicine, June 2016.
 Cooke designated Ira A. Fulton School of Engineering Exemplar Faculty, August 2016

Review Panels

National Science Foundation, Information Technology Research (ITR) Program review panel (June 2005).

Ad Hoc reviewer for Air Force Office of Scientific Research

Invited by University of North Dakota President, Robert O. Kelley to participate in a program review Unmanned Aerial System research at the University of North Dakota (1/18/12-1/19/12).

PhD Program Reviewer, Wright State University, Human factors and Industrial/Organizational Psychology (3/14/13)

USAF Scientific Advisory Board Consultant for Review of AFRL-RH November, 2013
 Board of Referees, *Human Factors Prize* (2014)

Arizona State University Committees

HSE Search Committee 2015-16

Deans Faculty Advisory Committee – 2015-16

IAFSE Dean's Search Committee – 2015-16

Personnel Committee, The Polytechnic School, Ira A. Fulton Schools of Engineering, 2014-present

Fulton Associate Dean of Research Search Committee, 2014

Fulton School 6 Director Search Committee, 2014

University Librarian Search Committee, 2014

College P&T Committee, 2014-present

University Research and Creative Activities Committee member, 2013-2015

Data Archiving Taskforce of University RCA, 2013 – 2014

Advisor, Student Chapter of the Human Factors and Ergonomics Society, 2012-present

Graduate Council Representative, CTI Executive Committee, Fall 2010-2012

Chair, Executive Committee, PhD in Simulation, Modeling, and Applied Cognitive Science, Fall 2010 – present

University Graduate Council - Fall 2007 – 2012

Chair, Cognitive Science and Engineering Search Committee, Fall 2012

Member, TEIM Chair Search Committee, Fall 2010

Chair, Cognitive Science and Engineering Search Committee, Fall 2010

Program Director, Cognitive Science and Engineering Program, Fall 2010

University Promotion and Tenure Committee – Fall 2008 – Spring 2011

Applied Arts and Sciences Personnel Committee Fall 2005 – Spring 2009

Applied Arts and Sciences Dean Search Committee Fall 2007 – Spring 2008

Applied Psychology Program Review Committee – Fall 2007-Spring 2008

EXPERTISE

Courses Taught: capstone course in applied psychology, cognitive psychology, experimental methods, memory, thinking, engineering psychology, human-computer interaction, expertise and expert systems, expertise and skill acquisition, introduction to psychology (honors level), industrial-organizational psychology, cognitive engineering and advanced technologies, team cognition.

ASU Graduate Faculty: Psychology, Computer Science and Engineering, Simulation, Modeling and Applied Cognitive Science

Research Areas: cognitive engineering, knowledge elicitation, cognitive task analysis, team cognition, team situation awareness, team training, mental models, expertise, human-computer interaction, command-and-control of unmanned aerial vehicles, emergency response systems, healthcare, cyber security

GRANTS & CONTRACTS

Computing Research Laboratory, NMSU: *The User Interface in Computer Systems*, 7/1/83-6/30/85, \$127,463, with R.W. Schvaneveldt.

Sperry Corporation, Albuquerque, NM: *The Acquisition and Representation of Knowledge for Expert Systems*, 9/85-8/86, \$24,000, with J. McDonald, D. Partridge, & P. Lopez.

Rice University Faculty Research Grant: *Chess Expertise and Chess Knowledge*, 9/87-9/88, \$945.00.

Rice University Faculty Research Grant: *Expert Conceptual Representations*, 9/88-9/89, \$1000.00.

Rice University Faculty Research Grant: *The Development of Expertise*, 9/89-9/90, \$1000.00.

New Mexico State University Minigrant, *A Comparative Evaluation of Knowledge Elicitation Techniques*, 5/93-12/93, \$1709.00.

AFOSR Research Initiation Proposal, *An Approach to On-line Assessment and Diagnosis of Student Troubleshooting Knowledge*, 1/93-12/93, \$20,000.00.

XSOFT contract, *Tabworks Usability Project*, 4/94-5/94, \$7521, with D. Gillan.

INTEL gift in support of research, 9/95-11/95, \$6500.

Microsoft Corporation, *Making Usability Data More Usable*, 1/96-7/96, \$24,323, with D. Gillan.

AFOSR, *Assessing Structural Knowledge: An Analysis of Knowledge Referents*, 1/97-10/97, \$23,073.

DOD DURIP (Defense University Research Instrumentation Program) grant, CERTT: *Facility for Cognitive Engineering Research on Team Tasks*, 4/97-12/97, \$296,104.

AFOSR, *Shared Knowledge and Team Performance: A Cognitive Engineering Approach to Measurement* 2/98-12/00, \$447,000.

AFOSR, *CERTT Laboratory System Improvements*, 6/00-12/00, \$67,621.

ONR, *Methods for the Analysis of Team Communication*, 6/00-3/03, \$470,430 with P. Foltz.

AFOSR, *Team Cognition in Distributed Mission Environments*, 2/01-12/02, \$408,644. (Year 3 at ASU)

ARI, *Understanding Aspects of Individual and Collaborative Skill Acquisition in Face-to-Face and Distance Training Situations*, 9/01-8/04, \$418,341 co-pi with A. Lee and D. Gillan. (at NMSU)

ONR, *Toward a Universal Metric of Human Performance*, 11/01-12/04, \$310,797, with A. Lee (PI) (At NMSU).

NASA. *Toward a Model of Organizational Risk: Critical Factors at the Team Level* 6/02-8/02, \$39,709.

ONR, *Using Team Communication to Understand Team Cognition in Distributed vs. Co-located Mission Environments*, 3/24/03-9/30/05, \$437,351. [grant to ASU]

AFOSR, *The Role of Individual and Team Cognition in Uninhabited Air Vehicle Command-and-Control*, 2/15/03-12/31/03, \$250,127. [grant to ASU]

AFOSR, *Acquisition and Retention of Coordination in Command-and-Control*, 3/15/04-12/31/06, \$449,640. [grant to CERI]

AFRL, *Acquisition and Retention of Coordination in Command-and-Control*, 3/11/04-12/31/06, \$224,990. [grant to CERI and subcontract to ASU]

AFRL, AFOSR, NASA: *Human Factors of UAVs Workshop: Manning the Unmanned*, 5/24-25, 2004 CERI workshop, \$27,000. [funds to CERI]

AFRL, AFOSR, FAA, Microanalysis and Design: *Second Annual Human Factors of UAVs Workshop: Manning the Unmanned*, 5/25-26, 2005 CERI workshop, \$28,000. [funds to CERI]

ONR, *Automatic Tagging of Macrocognitive Collaborative Processes through Communication Analysis*, 6/1/05-9/30/08, \$564,546, co-pi with P. Kiekel, CERI. [grant to ASU and subcontract to CERI]

ONR, *IMAGES: Instrument for Measuring and Advancing Group Environmental Situation Awareness*, \$49,799, 9/1/05 – 3/1/07. [Aptima subcontract to CERI on Phase II STTR].

Northrop Grumman/AFRL, *Team-Based Assessment of Socio-Technical Logistics (TASL)*, \$58,861 6/1/2005 – 11/30/2005 [awarded to CERI]

AFRL, AFOSR, FAA, Research Integrations: *Third Annual Human Factors of UAVs Workshop: Manning the Unmanned*, 5/24-26, 2006 CERI workshop, \$21,000. [funds to CERI]

ARI SBIR, *Shared Understanding Across Levels of Command*: \$129,605, 1/3/06-12/21/07. [Aptima subcontract to ASU on Phase II SBIR]

CA Space Grant Foundation, *UAV Alliance, Research, and Development Curriculum Project*, \$54,899, 11/21/05-8/30/06. [grant to ASU]

ONR MURI, (grant to ASU, UCF Prime) *Cognition and Collaboration in Network Centric Operations: Understanding & Measuring Macrocognition in Teams*, \$1,155,182.00, 5/1/06-9/30/11.

AFRL SBIR, *Intelligent Decluttering of UAV Displays*, \$19,503, 5/1/06-1/30/07. [Kutta Consulting subcontract to CERI on SBIR Phase I]

AFOSR STTR, *Communication Analysis for Enhanced Team Performance in the AOC*, \$41,451, 8/1/06-4/30/07. [Aptima subcontract to CERl on STTR Phase I]

AFOSR, AFRL *Cognitive Coordination on the Network Centric Battlefield*, \$545,105, FA9550-07-1-0081, 1/1/07-11/30/09 [grant to CERl].

ONR STTR, *MIMIC: Human-Directed Learning for Unmanned Air Vehicle Systems in Expeditionary Operations*, \$30,117, 8/1/07-5/31/08. [Aptima subcontract to CERl on STTR Phase I]

ONR STTR, *Dynamical Modeling of Discourse for Team Performance Analysis and Enhancement*, \$44,480, 8/1/07-5/31/08. [Sandia Research subcontract to ASU Phase I]

AFOSR STTR, *CIFTS: Communications and Information Flow Tracking System*, \$230,000, 8/1/07 – 7/31/09. [Aptima subcontract to CERl on STTR Phase II]

Leonard Wood Institute, *Harnessing Human IED Emplacement Detection Expertise*, \$224,176, 9/30/2008-10/1/2009. [Subcontracted to ASU by Carnegie Mellon/Batelle]

ONR STTR, *MIMIC (Mixed Initiative Machine for Instructed Computing) Operations*, \$149,980, 10/1/2008 – 12/31/2009, [Aptima subcontract to CERl on STTR Phase II].

ONR, *Developing a Synthetic Teammate*, \$179,740, 12/1/2008-11/30/2009. [co-pi with Christopher Myers]

Army Research Office MURI, *Computer-aided Human Centric Cyber Situation Awareness*, \$593,592, 6/01/09-5/31/14. [Subcontracted to ASU by Penn State University]

Veterans Health Administration Systems Redesign Veterans Engineering Resource Centers, Mid-West Mountain VERC, 2010-2011, consortium [funds Cooke IPA and multiple task orders totaling \$159,110].

ONR STTR, *CRA PUMA*, \$241,205, 11/18/2009-11/30/2010, [Charles River Analytics subcontract to CERl on STTR Phase II].

ONR DURIP, *Next Generation CERTT Laboratory*, \$702,794, 6/2010-6/ 2011.

Science Foundation AZ, Aerospace Defense Initiative: *Human Systems Integration of Remotely Piloted Aircraft (RPA)*. \$130,000, 10/1/2010-9/30/2011.

Office of Naval Research, *Synthetic Teammates as Team Players: Coordination of Human and Synthetic Teammates* (CERl \$714, 264, 3.5 years), 2011-2016.

Air Force Research Laboratory, Unmanned Aerial Systems (UAS) Phase I Training Analysis (to CERl through L3, \$100K for 1 year)

ONR SBIR, *Smart Interaction Device for VTOL UAS*. \$66, 738, 9/6/12-1/31/14. [SoarTech contract to CERl]

ONR, *Planning for Peer-to-Peer Human Robot Teaming in Open Worlds*, 6/2013-6/2016, \$450,000.[PI: Subbarao Kambhampati, ASU]

ARO SBIR Phase I *Cyber Warfare Simulation Environment*, \$30,035, 5/1/13-10/31/13 [Subcontract to ASU from Sandia Research].]

ARO SBIR Phase II *Effective Cyber Situation Awareness (CSA) Assessment and Training*, \$359,782.75, 10/15/14-06/30/15 [Subcontract to ASU from Sandia Research].]

AFRL SBIR Phase II *ADAPTER II*, \$58,870, 8/26/14-8/25/15 [Subcontract to ASU from Charles River Analytics].]

AFRL SBIR Phase II *Monitoring Extracting and Decoding Indicators of Cognitive Load (MEDIC II) (Co-PI)*, \$103,455.00, 6/12/2015 – 12/11/2016 [Subcontract to ASU from Charles River Analytics].]

NGA Foresight Initiative, \$20M [Nadia Bliss PI; Cooke one of 11 Co-Is; 2014-15]

Center for the Science of Healthcare Delivery – Mayo Clinic, *A Human Factors Approach to Building High-Performance Multi-Professional Cardiac Arrest Teams: Innovative Simulations to Real Life and Back*, \$20,000, 2/13/15-2/12/16 [PI: Ayan Sen, MD]

DOE NEUP Project 15-8121 *Automatic Imagery Data Analysis for Proactive Computer-Based Workflow Management during Nuclear Power Plant Outages*, \$778,531, 10/1/2015-9/30/2018 [PI: Pingbo Tang]

PUBLICATIONS

Journal Articles (refereed)

- 1) Schvaneveldt, R. W., Durso, F. T., Goldsmith, T. E., Breen, T. J., Cooke, N. M., Tucker, R. G., & DeMaio, J. C. (1985). Measuring the structure of expertise. *International Journal of Man-Machine Studies*, 23, 699-728.
- 2) Cooke, N.M., & McDonald, J.E. (1986). A formal methodology for acquiring and representing expert

- knowledge. *Proceedings of the IEEE: Special Issue on Knowledge Representation*, 74, 1422-1430. (Reprinted in *Expert Systems: A Software Methodology for Models and Applications*, (1990) P. Raeth (Ed.). Los Alamos, CA: IEEE Computer Society Press.)
- 3) Cooke, N.M, Durso, F.T., & Schvaneveldt, R.W. (1986). Recall and measures of memory organization. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 12 (4), 538-549.
 - 4) Durso, F.T., Cooke, N.M., Breen, T.J., & Schvaneveldt, R.W. (1987). Is consistent mapping necessary for high-speed search? *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 13 (2), 223-229.
 - 5) Cooke, N.M., & McDonald, J. E. (1987). The application of psychological scaling techniques to knowledge elicitation for knowledge-based systems. *International Journal of Man-Machine Studies*, 26, 533-550.
 - 6) Cooke, N. J. & Schvaneveldt, R. W. (1988). Effects of computer programming experience on network representations of abstract programming concepts. *International Journal of Man-Machine Studies*, 29, 407-427.
 - 7) Cooke, N. J. (1990). Practice makes perfect -- or does it? (Review of *The Nature of Expertise* by Chi, Glaser, and Farr) *Journal of Contemporary Psychology*, 35, 251-253.
 - 8) Gillan, D. J., Breedin, S. D., & Cooke, N. J. (1992). Network and multidimensional representations of the declarative knowledge of human-computer interface design experts. *International Journal of Man-Machine Studies*, 36, 587-615.
 - 9) Cooke, N. J. (1992). Predicting judgment time from measures of psychological proximity. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 18, 640-653.
 - 10) Cooke, N. J., & Bartha, M. C. (1992). An empirical study of psychological metaphor. *Journal of Metaphor and Symbolic Activity: Special Issue*, 7, 215-235.
 - 11) Cooke, N. J. (1992). Eliciting semantic relations for empirically derived networks. *International Journal of Man-Machine Studies*, 37, 721-750.
 - 12) Halgren, S. L. and Cooke, N. J. (1993). Towards ecological validity in menu research. *International Journal of Man-Machine Studies*, 39, 51-70.
 - 13) Cooke, N. J., Atlas, R.S., Lane, D. M., & Berger, R. C. (1993). The role of high-level knowledge in memory for chess positions. *The American Journal of Psychology*, 106, 321-351.
 - 14) Cooke, N. J., & Breedin, S. D. (1994). Constructing naive theories of motion on-the-fly. *Memory and Cognition*, 22, 474-493.
 - 15) Cooke, N. J. & Breedin, S. D. (1994). Naive misconceptions of Cooke and Breedin's research: Response to Ranney. *Memory and Cognition*, 22, 503 - 507.
 - 16) Cooke, N. J., Durso, F. T., & Schvaneveldt, R. W. (1994). Retention of skilled search after nine years. *Human Factors*, 36, 597-605.
 - 17) Cooke, N. J. (1994). Varieties of knowledge elicitation techniques. *International Journal of Human-Computer Studies*, 41, 801-849.
 - 18) Rowe, A. L., & Cooke, N. J. (1995). Measuring mental models: Choosing the right tools for the job. *Human Resource Development Quarterly*, 6, 243-255.
 - 19) Cooke, N. J., & Neville, K. J., & Rowe, A. L. (1996) Procedural network representations of sequential data. *Human-Computer Interaction*, 11, 29-68.
 - 20) Rowe, A. L., Cooke, N. J., Hall, E. P., & Halgren, T. L. (1996). Toward an on-line knowledge assessment methodology: Building on the relationship between knowing and doing. *Journal of Experimental Psychology: Applied*, 2, 31-47.
 - 21) Cooke, N. J., & Rowe, A. L. (1997). Measures of mental models: A synthesis of evaluative data. *Training Research Journal*, 3, 185-207.
 - 22) Cooke, N. J., Salas, E., Cannon-Bowers, J. A., & Stout, R. (2000). Measuring team knowledge. *Human Factors*, 42, 151-173.
 - 23) Cooke, N. J., Kiekel, P. A., & Helm E. (2001). Measuring team knowledge during skill acquisition of a complex task. *International Journal of Cognitive Ergonomics: Special Section on Knowledge Acquisition*, 5, 297-315.
 - 24) Cooke, N. J., Kiekel, P.A., Salas, E., Stout, R.J., Bowers, C., Cannon-Bowers, J. (2003). Measuring Team Knowledge: A Window to the Cognitive Underpinnings of Team Performance. *Group Dynamics: Theory, Research and Practice*, 7, 179-199.

- 25) Gorman, J.C., Cooke, N. J., & Winner, J.L. (2006). Measuring team situation awareness in decentralized command and control systems. *Ergonomics*, *49*, 1312-1325.
- 26) Pedersen, H. K., & Cooke, N. J. (2006). From Battle Plans to Football Plays: Extending Military Team Cognition to Football. *International Journal of Sport and Exercise Psychology*, *4*, 422-446.
- 27) Cooke, N. J., Gorman, J. C., Duran, J. L., & Taylor, A. R. (2007). Team Cognition in Experienced Command-and-Control Teams. *Journal of Experimental Psychology: Applied, Special Issue on Capturing Expertise across Domains*, *13*, 146-157.
- 28) Salas, E., Cooke, N. J., Rosen, M.A. (2008). On Teams, Teamwork and Team Performance: Discoveries and Developments. *Human Factors: Golden Anniversary Special Issue*, *50*, 540-547.
- 29) Cooke, N. J. (2008). Preface to the Special 50th Anniversary Issue of *Human Factors*. *Human Factors: Golden Anniversary Special Issue*, *50*, 347-350.
- 30) Cooke, N. J. & Gorman, J. C. (2009). Interaction-Based Measures of Cognitive Systems. *Journal of Cognitive Engineering and Decision Making: Special Section on: Integrating Cognitive Engineering in the Systems Engineering Process: Opportunities, Challenges and Emerging Approaches* *3*, 27-46.
- 31) Gorman, J. C., Amazeen, P. G., & Cooke, N. J. (2010). Team Coordination Dynamics. *Nonlinear Dynamics Psychology and Life Sciences*, *14*, 265-289.
- 32) Gorman, J. C., Cooke, N. J., & Amazeen, P. G. (2010). Training adaptive teams. *Human Factors*, *52*, 295-307. [Winner of HFES 2010 Jerome Ely Award]
- 33) Ball, J. Myers, C., Heiberg, A. Cooke, N. J., Matessa, M., Freiman, M., & Rodgers, S. (2010). The synthetic teammate project. *Computational and Mathematical Organization Theory*, *16*, 271-299. DOI 10.1007/s10588-010-9065-3
- 34) Gorman, J. S., & Cooke, N. J. (2010). Preface to the Special Issue on Collaboration, Coordination, and Adaptation in Complex Sociotechnical Systems, *Human Factors*, *52*, 143-146.
- 35) Gorman, J. C., & Cooke, N. J. (2011). Changes in team cognition after a retention interval: The benefits of mixing it up. *Journal of Experimental Psychology: Applied*, *17*, 303-319.
- 36) McNeese, M. D., Cooke, N. J., & Champion, M. (2011). Situating Cyber Situation Awareness. *Cognitive Technology*, *16*, 5-9.
- 37) Gorman, J.C., Cooke, N. J., Amazeen, P. G., & Fouse, S. (2012). Measuring patterns in team interaction sequences using a discrete recurrence approach. *Human Factors*, *54*, 503-517.
- 38) Cooke, N. J., Duchon, A., Gorman, J. C., Keyton, J., & Miller, A. (2012). Preface to the special section on Methods for the Analysis of Communication. *Human Factors*, *54*, 485-488.
- 39) Cooke, N. J., Gorman, J. C., Myers, C. W., & Duran, J.L. (2013). Interactive Team Cognition, *Cognitive Science*, *37*, 255-285, DOI: 10.1111/cogs.12009.
- 40) Gorman, J. C., Hessler, E. E., Amazeen, P. G., Cooke, N. J., & Shope, S. M. (2012). Dynamical analysis in real time: Detecting perturbations to team communication. *Ergonomics*, *55*, 825-839. <http://dx.doi.org/10.1080/00140139.2012.679317>
- 41) Cooke, N. J., Champion, M., Rajivan, P., & Jariwala, S. (2013). Cyber Situation Awareness and Teamwork. *EAI Endorsed Transactions on Security and Safety*. Special Section on: The Cognitive Science of Cyber Defense, 13.
- 42) Cooke, N. J. & McNeese, M. (2013). Preface to special issue on the cognitive science of cyber defense analysis. *EAI Endorsed Transactions on Security and Safety*. Special Section on: The Cognitive Science of Cyber Defense, 13.
- 43) Keel, P., Cooke, N. J., & Sither, M. (2013) Improving Cognitive Interaction through Computational Collaboration Agents, *Theoretical Issues in Ergonomic Science*, *1-17*, DOI:10.1080/1463922X.2012.751636
- 44) Waterson, P., Robertson, M. M., Cooke, N. J., Militello, L., Roth, E. & Stanton, N. A. (2015). Defining the methodological challenges and opportunities for an effective science of sociotechnical systems and safety. *Ergonomics*, *58*, 565-599. <http://dx.doi.org/10.1080/00140139.2015.1015622>
- 45) Cooke, N. J. (2015). Team cognition as interaction. *Current Directions in Psychological Science*, *34*, 415-419.
- 46) McNeese, N. J., Khera, N., Wordingham, S. E., Arring, N., Nyquist, S. Gentry, A., Tomlinson, B. Cooke, N. J., & Sen, A. (in press). Teams in cancer care delivery. *Journal of Oncology Practice*.

Books and Book Chapters (refereed)

- 44) Schvaneveldt, R.W., Cooke, N.M., Durso, F. T., Onorato, L. A., & Bailey, G. (1984). A taxonomy of

- human-computer interactions: Toward a modular user interface. In G. Salvendy (Ed.), *Human-Computer Interaction*. Amsterdam: Elsevier, 121-124.
- 45) Cooke, N.M. (1989). The elicitation of domain-related ideas: Stage one of the knowledge acquisition process. In C. Ellis (Ed.), *Expert Knowledge and Explanation*: England: Ellis Horwood Limited, 58-75.
 - 46) Howell, W. C., & Cooke, N. J. (1989). Training the human information processor: A look at cognitive models. In I. L. Goldstein and Associates (Eds.), *Training and development in organizations* (pp. 121-182). New York: Jossey Bass.
 - 47) Cooke, N. J. (1990). Using Pathfinder as a knowledge elicitation tool: Link interpretation. In R. Schvaneveldt (Ed.), *Pathfinder Associative Networks: Studies in Knowledge Organization*. Norwood, NJ: Ablex, 227-239.
 - 48) Cooke, N. J. (1990). Empirically-defined semantic relatedness and category judgment time. In R. Schvaneveldt (Ed.), *Pathfinder Associative Networks: Studies in Knowledge Organization*. Norwood, NJ: Ablex, 101-110.
 - 49) Cooke, N. J. (1992). Modeling human expertise in expert systems. In R. Hoffman (Ed.), *The Psychology of Expertise: Cognitive Research and Empirical AI*. New York: Springer-Verlag, 29-60.
 - 50) Paap, K. R. & Cooke, N. J. (1997). Design of menus. In M. Helander, T. Landauer, & P. Prabhu (Eds.), *Handbook of Human-Computer Interaction*, pp. 533-572 Amsterdam: North-Holland.
 - 51) Cooke, N. J. (1999). Knowledge elicitation. In F.T. Durso, (Ed.), *Handbook of Applied Cognition*, pp. 479-509. UK: Wiley.
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- 62) Demir, M., McNeese, N., Cooke, N., Ball, J., Myers, C. (2015). Synthetic Teammate Communication and Coordination with Humans. *Proceedings of the 59th Annual Conference of the Human Factors and Ergonomics Society*, Santa Monica, CA: Human Factors and Ergonomics Society (pp. 951-955).
- 63) McNeese, N., Buchanan, V., & Cooke, N. (2015). The Cognitive Science of Intelligence Analysis. *Proceedings of the 59th Annual Conference of the Human Factors and Ergonomics Society*, Santa Monica, CA: Human Factors and Ergonomics Society (pp. 826-830).
- 64) McNeese, N., Cooke, N., & Buchanan, V. (2015). Human Factors Guidelines for Developing Collaborative Intelligence Analysis Technologies. *Proceedings of the 59th Annual Conference of the Human Factors and Ergonomics Society*, Santa Monica, CA: Human Factors and Ergonomics Society (pp. 821-825).
- 65) McNeese, N., Hoffman, R. R., McNeese, M. D., Patterson, E. S., Cooke, N. J., & Klein, G. (2015). The Human Factors of Intelligence Analysis. *Proceedings of the 59th Annual Conference of the Human Factors and Ergonomics Society*, Santa Monica, CA: Human Factors and Ergonomics Society (pp. 130-134).
- 66) McNeese, N. & Cooke, N. (2016). Team Cognition as a Mechanism For Developing Collaborative and Proactive Decision Support in Unmanned Aerial Systems. 18th International Conference on Human- Computer Interaction. Toronto, CA.
- 67) Best, J., McNeese, N., & Cooke, N. (2016). Developing a Predictive Model for Remotely Piloted Aircraft Mission Performance. 7th International Conference on Applied Human Factors and Ergonomics (AHFE 2016) and the Affiliated Conferences. Orlando, FL.
- 68) McNeese, N., Cooke, N., Gray, R., & Fedele, M. (2016). A Taxonomy of Knowledge Elicitation Methods for Developing Insights into Team Cognition During Team Sports. 7th International Conference on Applied Human Factors and Ergonomics (AHFE 2016) and the Affiliated Conferences. Orlando, FL.
- 69) McNeese, N., Cooke, N., & Sen, A., (2016). Considerations for Developing Collaborative Healthcare Technologies to Support Team Cognition. 7th International Conference on Applied Human Factors and Ergonomics (AHFE 2016) and the Affiliated Conferences. Orlando, FL.
- 70) Demir, M., McNeese, N. J., & Cooke, N. J. (2016). Team Communication Behaviors of the Human Automation Teaming. *Proceedings of the 2016 IEEE International Multi-Disciplinary Conference on Cognitive Methods in Situation Awareness and Decision Support*. Winner of best paper award.

National Research Council Reports

(written by committee)

- 1) National Research Council (2006). Safety and Security of Commercial Spent Nuclear Fuel Storage. Washington, DC: National Academies Press.
- 2) Pew, R. W., & Mavor, A. S. (Eds.). (2007). Human-System Integration in the System Development Process: A New Look. Washington, DC: National Academies Press.
- 4) National Research Council (2013). *2011-2012 Assessment of the Army Research Laboratory*. Army Research Laboratory Technical Assessment Board. Washington, DC: The National Academies Press.
- 5) National Research Council (2015). *2013-2014 Assessment of the Army Research Laboratory*. Army Research Laboratory Technical Assessment Board. Washington, DC: The National Academies Press.
- 6) National Research Council (2015). *Enhancing the Effectiveness of Team Science*, Committee on the Science of Team Science, N.J. Cooke and M.L. Hilton (Eds.), Board on Behavioral, Cognitive, and Sensory Sciences, Division of Behavioral and Social Sciences and Education, Washington, DC: The National Academies Press

US Air Force Scientific Advisory Board Reports

(written by committee)

- 3) USAF SAB. *Virtual Training Technologies*. (2009). Report of the USAF Scientific Advisory Board.
- 4) USAF SAB. *Operating Next-Generation Remotely Piloted Aircraft for Irregular Warfare*. (2010). Report of the USAF Scientific Advisory Board.
- 5) USAF SAB. *Sensor Data Exploitation*. (2011). Report of the USAF Scientific Advisory Board.
- 5) USAF SAB. *Cyber Situation Awareness*. (2012). Report of the USAF Scientific Advisory Board.

Technical Reports

- 1) Schvaneveldt, R.W., Anderson, M., Breen, T.J., Cooke, N.M., Goldsmith, T.E., Durso, F.T., DeMaio, J.C., & Tucker, R.G. (1983). Conceptual Structures in Fighter Pilots. AFHRL-TP-83-2, Flying Training Division, Air Force Human Resources Laboratory.
- 2) Schvaneveldt, R.W., Durso, F.T., Goldsmith, T.E., Breen, T.J., Cooke, N.M., Tucker, R.G., & DeMaio, J.C. (1984). Cognitive Organization as a Function of Flying Experience. AFHRL-TP-83-64, Flying Training Division, Air Force Human Resources Laboratory.
- 3) Schvaneveldt, R.W., McDonald, J., & Cooke, N.M. (1985). Towards a Modular User Interface. Memorandum in Computer and Cognitive Science, MCCS-85-10, Computing Research Laboratory, New Mexico State University.
- 4) Cooke, N.M., Durso, F.T., & Schvaneveldt, R.W. (1985). Measures of Memory Organization and Recall. Memorandum in Computer and Cognitive Science, MCCS-85-11, Computing Research Laboratory, New Mexico State University.
- 5) Cooke, N.M. (1985). Modeling Human Expertise in Expert Systems. Memorandum in Computer and Cognitive Science, MCCS-85-12, Computing Research Laboratory, New Mexico State University.
- 6) Schvaneveldt, R.W., Durso, F.T., Goldsmith, T.E., Breen, T.J., Cooke, N.M., Tucker, R., & DeMaio, J. (1985). Measuring the Structure of Expertise. Memorandum in Computer and Cognitive Science, MCCS-85-32, Computing Research Laboratory, New Mexico State University.
- 7) Cooke, N. J., & Breedin, S. D. (1990). Implicit and Explicit Knowledge About Motion. NASA/JSC Technical Report, JSC-24521, Lyndon B. Johnson Space Center, Houston, TX.
- 8) Gillan, D. J., & Cooke, N.J. (1990). Cognitive Models. NASA/JSC Technical Report, JSC-24452, Lyndon B. Johnson Space Center, Houston, TX.
- 9) Cooke, N. J. (1992). The implications of cognitive task analyses for the revision of the Dictionary of Occupational Titles. Report for APA-sponsored symposium for the Department of Labor.
- 10) Cooke, N. J. & Rowe, A. L. (1993). An Approach to On-line Assessment and Diagnosis of Student Troubleshooting Knowledge. Air Force Technical Report, AL-TP-1993-0004, Armstrong Lab, Brooks AFB, TX.
- 11) Brisaboa, N. R., Cooke, N., & Blanco-Ferro, A. (1994). Enhancing the Repertory Grid Technique using Multidimensional Scaling. Memorandum in Computer and Cognitive Science, MCCS-94-274, Computing Research Laboratory, New Mexico State University.
- 12) Cooke, N. J., Rowe, A. L., Halgren, T.L., & Bauhs, J. A. (1995). Evaluative Comparison of Techniques for Measuring Student System Knowledge of Avionics Troubleshooting. Air Force Technical Report, AL/HR-TP-1995-0016, Armstrong Lab, Brooks AFB, TX.
- 13) Cooke, N. J. (1998). Measures of Team Knowledge. Report for Purchase Order No. N61339-97-M-0507, submitted to Naval Air Warfare Center Training Systems Division, Orlando, FL.
- 14) Cooke, N. J. & Shope, S. M. (1998). Facility for Cognitive Engineering Research on Team Tasks. Report for Grant No. F49620-97-1-0149, submitted to AFOSR, Bolling AFB, Washington, DC.
- 15) Cooke, N. J., Kiekel, P. A., & Rivera, K. (2000). Conceptual Cross Training for Teams: Improving Interpositional Knowledge. Technical Report submitted to U.S. Army Research Office, TCN 98020, Contract DAAH04-96-C-0086.
- 16) Cooke, N. J., Shope, S. M., & Kiekel, P.A. (2001). Shared-Knowledge and Team Performance: A Cognitive Engineering Approach to Measurement. Technical Report for AFOSR Grant No. F49620-98-1-0287.
- 17) Cooke, N. J., Gorman, J., & Pedersen, H. (2002). Toward a Model of Organizational Risk: Critical Factors at the Team Level. Technical Report on NASA Award No. NAG2-1562.
- 18) Kiekel, P. A., Cooke, N. J., Foltz, P. W., Gorman, J., & Martin, M. (2003). Methods for the Analysis of Team Communication. Technical Report for ONR Grant No. N00014-00-1-0818.

- 19) Cooke, N. J., DeJoode, J. A., Pedersen, H. K., Gorman, J. C., Connor, O. O., & Kiekel, P. A. (2004). The Role of Individual and Team Cognition in Uninhabited Air Vehicle Command-and-Control. Technical Report for AFOSR Grant Nos. F49620-01-1-0261 and F49620-03-1-0024.
- 20) Cooke, N.J., Gorman, J. C., Kiekel, P. A., Foltz, P., & Martin, M. (2005). Using Team Communication to Understand Team Cognition in Distributed vs. Co-Located Mission Environments. Technical Report for ONR Grant no. N00014-03-1-0580
- 21) Cooke, N.J., Gesell, L., Pedersen, H., Hartman, J., Pack, W., Skinner, M., Andrews, D. & Fitzgerald, P. (2006). Inventory of UAV Operator Training Activities and Programs. Technical Report for NASA sponsored Unmanned Aerial Vehicles Alliance, Research and Curriculum (UAV-ARC) Development Partnership Project.
- 22) Cooke, N. J., Gesell, L.E., Hartman, J., Pack, W., Pederson, H., & Skinner, M. (2006). Human Factors in Unmanned System Training. Technical Report for NASA sponsored Unmanned Aerial Vehicles Alliance, Research and Curriculum (UAV-ARC) Development Partnership Project.
- 23) Cooke, N. J., Gorman, J. C., Pedersen, H. K., Winner, J. L., Duran, J., Taylor, A., Amazeen, P. G., & Andrews, D. (2007). Acquisition and retention of team coordination in command-and-control. Technical Report for AFOSR Grant FA9550-04-1-0234 and AFRL Award No. FA8650-04-6442.
- 24) Cooke, N. J. & Myers, C.W. (2009). Cognitive coordination on the network centric battlefield. Technical Report for AFOSR Grant FA9550-07-0081.
- 25) Gorman, J. C., Cooke, N. J., Amazeen, P., Hessler, E., & Rowe, L. (2009) Automatic tagging of macrocognitive collaborative processes through communication analysis. Technical Report for ONR Grant N00014-05-1-0625.
- 26) Myers, C.W. & Cooke, N. J. (2010). Developing and validating a synthetic teammate. Technical Report for ONR grant N000140910201.
- 27) Cooke, N. J., Hall, D., McNeese, M., Champion, M., Branaghan, T. (2011). A Cyber Situation Awareness Workshop. Report on workshop February 8-11, 2011, Gilbert, AZ. ARO Grant W911NF-09-1-0525.
- 28) Cooke, N. C., & Branaghan, R. (2011). Human Systems Integration of Remotely Piloted Aircraft. AZ Science Foundation technical report.

Other Media

- Cooke, N. J., & Shope, S. M. (1999). *CERTT Lab Video*. Produced by NMSU's Instructional Video Services. Funded by NMSU Department of Psychology, NMSU College of Arts and Sciences Research Center, and Sandia Research Corporation.
- Cooke, N. J., & Rivera, K. (1999). *CERTT Lab Brochure*. Funded by NMSU Department of Psychology, NMSU College of Arts and Sciences Research Center, and Sandia Research Corporation.

THESES SUPERVISED

- Berger, B. (1989). Cognitive organization in chess: Beyond chunking. Master's thesis, Rice University.
- Jones, S. J. (1990). Teaching reasoning. Master's Thesis, Rice University.
- Halgren, S. L. (1991). Information displays: The effect of organization and category distinctiveness on user performance. Master's Thesis, Rice University.
- Atlas, R. S. (1992). Computer knowledge representation of users of command language-based interfaces and graphical user interfaces. Master's Thesis, Rice University.
- Neville, K. J. (1993). The measurement of complex knowledge development. Master's Thesis, Rice University.
- Halgren, S. L. (1993). In search of optimal human-expert system explanations: Empirical studies of human-human and human-expert system interactions. Ph.D. Thesis, Rice University.
- Bauhs, J. A. (1994). The role of system information in the calibration of users' trust in expert systems. Master's Thesis, New Mexico State University.
- Rowe, A. L. (1994). Mental models of physical systems: Examining the relationship between knowing and doing. Ph.D. Thesis, Rice University. Winner of the 1994 Bullock Dissertation Award in Human Resource Development.
- Flowers, K. A. (1995). On-line Catalog Interfaces: Knowledge Structure and Subject Access. Master's Thesis, Rice University.
- Kozak, K. A. (1994). Effects of implicit instruction on complex system performance. Master's Thesis,

- New Mexico State University.
- Melton, J. S., (1995). Empirically-derived associative networks and subclinical depression: Implications for theory, research, and assessment. Master's Thesis, New Mexico State University.
- Halgren, T. L. (1996). Travel through hyperspace or the failure to boldly go where no one has gone before. Master's Thesis, New Mexico State University.
- La Salle, S. M. (1999). The effects of expanded realism of interface metaphor on performance and understanding of the system. Master's Thesis, New Mexico State University.
- Kiekel, P.A. (2000). Communication of emotion in remote collaborative writing with rich versus lean groupware environments. Master's Thesis, New Mexico State University.
- Lassiter, Honore' (2002). Interpersonal trust in small work groups. Master's Thesis, New Mexico State University.
- Gorman, Jamie C. (2003). A Latent Semantic Analysis-based metric of team communications efficiency. Master's Thesis, New Mexico State University.
- Rivera, K. (2003). Effects of computer-mediated communication on shared knowledge of team members. Master's Thesis, New Mexico State University.
- Kiekel, P.A. (2004). Developing automatic measures of team cognition using communication data. Ph.D. Thesis, New Mexico State University.
- DeJooode, J. A. (2004). Understanding failure to attach. M.A. Thesis, New Mexico State University.
- Connor, O. O. (2005). Assessing clinical expertise in anesthesiology. M.A. Thesis, New Mexico State University.
- Gorman, J. C. (2006). Team coordination dynamics in cognitively demanding environments. Ph.D. Thesis, New Mexico State University.
- Rowe, L. (2007). Effects of Distributed Mission Operations (DMO) on Knowledge Acquisition of Fighter Pilots Utilizing the Air Superiority Knowledge Assessment System, M.S. Thesis, Arizona State University.
- Winner, J. (2007). Measuring the Shared Interpretation of Commander's Intent, M.S. Thesis, Arizona State University.
- Duran, J. (2010). Are Teams Equal to the Sum of Their Members? An Empirical Test. M.S. Thesis, Arizona State University.
- Covas- Smith, C. M. (2011). The development of robust intuitive decision making in simulated real-world environments, PhD thesis, Psychology, Arizona State University.
- Rajivan, P. (2011). CyberCog: A Synthetic Task Environment for Measuring Cyber Situation Awareness. M.S. Thesis, Arizona State University.
- Fouse, S. (2012). Understanding Team Cognition through Communication Analysis: Measuring Team Interaction Patterns Using Recurrence Plots. M.S. Thesis, Arizona State University.
- Champion, M. (2012). Geographically distributed teams in a collaborative problem solving task. M.S. Thesis, Arizona State University.
- Gomez-Herbert, M. E. (2014). The effects of stress and mood on cognitive performance. M.S. Thesis, Arizona State University.
- Rajivan, P. (2014). Information pooling bias in collaborative cyber forensics. PhD thesis, Simulation, Modeling, and Applied Cognitive Science, Arizona State University.
- Bartlett, C. (2015). Communication between teammates in urban search and rescue. M.S. Thesis, Arizona State University.

EXTERNAL DISSERTATION REVIEWER

- Mumtaz, Muhammad Khan. (2009) Implicit Coordination Behaviors: Team Process for Effective Management. M.Phil./Ph.D. Dissertation, National College of Business Administration and Economics, Pakistan
- Taber, Michael, J. (2010). Human Systems Integration and Situation Awareness in Microworlds: An Examination of Emergency Response Within the Offshore Command and Control Training System. PhD Dissertation, Dalhousie University.
- .Steiner, Lisa (2013). Reducing Underground Coal Roof Bolting Injury Risks Through Equipment Design. PhD Dissertation, The University of Queensland.

PHD RESEARCH PRACTICUM ADVISOR

Dube, Genevieve (2012). Université Laval, Québec

PAPERS PRESENTED

- 1) Cooke, N.M., & Smith, R. (1984). Evidence for networks from recall. In K. Paap (chair), Link-weighted Networks. Paper presented at the meetings of the Rocky Mountain Psychological Association, Las Vegas, NV.
- 2) Schvaneveldt, R. W., Cooke, N.M., Durso, F. T., Onorato, L., & Bailey, G. (1984). A Taxonomy of Human-Computer Interactions: Toward a Modular User Interface. Paper presented at the First USA-Japan Conference on Human-Computer Interaction, Honolulu, HI.
- 3) Cooke, N.M. (1985). Computer programming expertise: Variations in cognitive structures. In F. Durso (chair), Human Expertise: Papers in Honor of William Chase. Paper presented at the meetings of the Southwestern Psychological Association, Austin, TX.
- 4) Durso, F.T., Cooke, N.M., Breen, T.B., & Schvaneveldt, R.W. (1985). Practice Effects Without Consistent Mapping. Paper presented at the meetings of the Southwestern Psychological Association, Austin, TX.
- 5) Cooke, N.M. & Schvaneveldt, R.W. (1986). The Evolution of Cognitive Networks with Computer Programming Experience. Paper presented at the workshop on Empirical Studies of Programmers, June 5-6, 1986, Washington, D.C.
- 6) Cooke, N.M. & McDonald, J. E. (1986). The Application of Psychological Scaling Techniques to Knowledge Elicitation for Knowledge-based Systems. Paper presented at the Knowledge Acquisition for Knowledge-based Systems workshop, November 2-7, 1986, Banff, Alberta, Canada.
- 7) Cooke, N.M., & Schvaneveldt, R.W. (1987). The application of empirically derived semantic networks to knowledge engineering. In F. Durso (chair), Knowledge structures: What are they good for? Paper presented at the meetings of the Southwestern Psychological Association, April 16-18, New Orleans, LA.
- 8) Cooke, N. J. (1988). A methodology for capturing the elusive mental model. Paper presented at User System Interface Conference, February 1988, Austin, TX
- 9) Cooke, N. J. (1988). Spatial vs. network scaling and category judgment time. Paper presented at Southwestern Psychological Association, April 13, 1988, Houston, TX.
- 10) Gillan, D. & Cooke, N. J. (1989). Cognitive modeling in human-computer interaction. Paper presented at Human Factors Symposium, NASA/JSC, September 19, 1989.
- 11) Halgren, S.L. & Cooke, N. J. (1990). Information displays: The effect of organization and category distinctiveness on user performance. Poster presented at the CHI' 90 - Human factors in computing systems conference, April 1-5, 1990, Seattle, WA.
- 12) Breedin, S. D., Cooke, N. J., Rudisill, M., & Gillan, D. (1990) Effects of knowledge elicitation techniques on naive models of physics. Paper presented Southwestern Psychological Association, April 12-14, 1990, Dallas, TX.
- 13) Cooke, N. J., Berger, R. C., & Lane, D. L. (1990). Conceptual chunking in chess: Beyond perception. Paper presented Southwestern Psychological Association, April 12-14, 1990, Dallas, TX.
- 14) Cooke, N. J., & Breedin, S. D. (1990). Implicit knowledge about object motion. Paper presented at the Texas Cognition Conference, May 25-26, San Antonio, TX.
- 15) Jones, S. F., & Cooke, N. J. (1990). The effects of training on statistical reasoning. Paper presented at the 34th annual meeting of the Human Factors Society, October 8-12, Orlando, FL.
- 16) Cooke, N. J., & Breedin, S. D. Implicit knowledge about motion. Poster presented at the 31st annual meeting of the Psychonomic Society, November 16-18, New Orleans, LA.
- 17) Atlas, R. S., & Cooke, N. J. (1991). Chess expertise and capacity for immediate recall of visually presented positions. Paper presented Southwestern Psychological Association, April 11-13, 1991, New Orleans, LA.
- 18) Halgren, S. L. & Cooke, N. J. (1991). Toward ecological validity in menu research. Poster presented at the CHI' 91 - Human factors in computing systems conference, April 29-May 2, 1991, New Orleans, LA.
- 19) Halgren, S. L., Flowers, K. A., & Cooke, N. J. (1991). The effect of explanation type on human-expert system interactions. Poster presented at the 35th annual meeting of the Human Factors Society, September 2-6, San Francisco, CA.
- 20) procedural knowledge development during skill acquisition. Paper presented at the South Texas

- Symposium on Human Factors and Ergonomics, November 15, San Antonio, TX.
- 21) Rowe-Hallbert, A. L., Neville, K. J., & Cooke, N. J. (1991). Measuring the elusive mental model. Paper presented at the South Texas Symposium on Human Factors and Ergonomics, November 15, San Antonio, TX.
 - 22) Cooke, N. J. (1992). Mental models of metal models. Paper presented at the Southwestern Psychological Association Meeting: Symposium on Empirical Epistemology (F. T. Durso chair), April 16-18, 1992.
 - 23) Neville, K. J., & Cooke, N. J. (1992). A methodology for assessing procedural knowledge. Paper presented at the Southwestern Psychological Association Meeting, April 16-18, 1992.
 - 24) Cooke, N. J. (1992). Structural modeling techniques and sequential analysis. Paper presented at CHI '92 - Human factors in computing systems conference, Workshop on Exploratory Sequential Data Analysis, May 3 -May 7, 1992, Monterey, CA.
 - 25) Flowers, K. A., & Cooke, N. J. (1992). Knowledge structures and subject access. Poster presented at CHI '92 - Human factors in computing systems conference, May 3-May 7, 1992, Monterey, CA.
 - 26) Rowe, A. L., Cooke, N. J., Neville, K. J., Schacherer, C. W. (1992). Mental models of metal models: A comparison of mental model measurement techniques. Paper presented at the 36th annual meeting of the Human Factors Society, October 12-16, Atlanta, GA.
 - 27) Rowe, A. L., & Cooke, N. J. (1993). An approach to identifying meaningful action patterns in student-tutor interactions. Paper presented at the 37th annual meeting of the Human Factors and Ergonomics Society, October 11-15, Seattle, WA.
 - 28) Cooke, N. J., Durso, F. T., & Schvaneveldt, R. W. (1993). Retention of skilled search after nearly a decade. Paper presented at the 34th annual meeting of the Psychonomic Society, November 5-7, Washington, D.C.
 - 29) Bauhs, J. A., & Cooke, N. J. (1994). Is knowing more really better? Effects of system development information in human-expert system interactions. Poster presented at CHI '94 - Human factors in computing systems conference, April 24-April 28, 1994, Boston, MA.
 - 30) Rivera, K., Cooke, N. J., Rowe, A. L., & Bauhs, J. A. (1994). Conveying emotion in remote computer-mediated communication. Poster presented at CHI '94 - Human factors in computing systems conference, April 24-April 28, 1994, Boston, MA.
 - 31) Rowe, A. L., Lowry, T., Halgren, S. L., & Cooke, N. J. (1994). A comparison of usability evaluations conducted by different teams. Poster presented at CHI '94 - Human factors in computing systems conference, April 24-April 28, 1994, Boston, MA.
 - 32) Cooke, N. J., & Rowe, A. L. (1994). Mapping avionics troubleshooting actions onto mental models. Paper presented at the Practical Aspects of Memory Conference, July 31-August 5, College Park, MD.
 - 33) Cooke, N. J., & Rowe, A. L. (1994). Evaluating mental model elicitation methods. Paper presented at the 38th annual meeting of the Human Factors and Ergonomics Society, October 24-28, Nashville, TN.
 - 34) Cooke, N. J. (1995). Pathfinder network scaling: Potential Applications for modeling instructional developers. Evaluating mental model elicitation methods. Paper presented at 39th annual meeting of the Human Factors and Ergonomics Society, October 9-13, San Diego, CA.
 - 35) Rivera, K, Cooke, N. J., & Bauhs, J. A. (1996). Effects of emotional icons on remote communication. Poster presented at CHI '96 - Human factors in computing systems conference, April 13-April 18, Vancouver, British Columbia, Canada.
 - 36) Cooke, N. J., & Rowe, A. L. (1996). Evaluating measures of mental models. Paper presented the 104th Convention of the American Psychological Association, August 9-13, Toronto, Canada.
 - 37) Cooke, N. J., Stout, R. J., & Salas, E. (1996). Methods for eliciting and assessing the shared cognitions underlying team situation awareness. Paper presented in the Colloquium on Multi-Operator Performance in Complex Military Systems, Human Factors and Ergonomics Society Conference, September 2-6, Philadelphia, PA.
 - 38) Cooke, N. J., Stout, R., & Salas, E. (1997) Expanding the measurement of situation awareness through cognitive engineering methods. Paper presented at the 41st annual meeting of the Human Factors and Ergonomics Society, September 22-26, Albuquerque, NM.
 - 39) Cooke, N.J., Rivera, K., LaSalle, M., Rice, S., & Schmidt, B. (1997). The role of cognitive engineering in the design of advanced technology. Poster presented at the 41st annual meeting of the Human Factors and Ergonomics Society, September 22-26, Albuquerque, NM.

- 40) Cooke, N. J., Stout, R., & Salas, E. (1997). Cognitive task analysis for team tasks. Paper presented at the ONR/NATO Workshop on Cognitive Task Analysis, October 30-November 1, 1997, Washington, D. C.
- 41) Cooke, N. J., Stout, R., Rivera, K., & Salas, E. (1998). Exploring measures of team knowledge. Paper presented at the 42nd annual meeting of the Human Factors and Ergonomics Society, October 5-9, Chicago, IL.
- 42) Rowe, A. L., Cooke, N. J., & Rivera, K. (1998). Assessing knowledge structures: An analysis of knowledge standards. Poster presented at the 42nd annual meeting of the Human Factors and Ergonomics Society, October 5-9, Chicago, IL.
- 43) Cooke, N. J. (1999). Knowledge metrics for teams. Paper presented at Meeting of the Southwestern Psychological Association, April 1-3, Albuquerque, NM.
- 44) Cooke, N. J., Rivera, K., Shope, S.M., & Caukwell, S. (1999). A synthetic task environment for team cognition research. Paper presented at the 43rd annual meeting of the Human Factors and Ergonomics Society, September 27-October 1, Houston, TX.
- 45) Cooke, N. J. (1999). CERTT Lab. Poster presented at the technical group meeting of the Cognitive Engineering and Decision Making technical group at the 43rd annual meeting of the Human Factors and Ergonomics Society, September 27-October 1, Houston, TX.
- 46) Cooke, N. J., Cannon-Bowers, J. A., Kiekkel, P. A., Rivera, K., Stout, R., and Salas, E. (2000). Improving team's interpositional knowledge through cross training. Paper presented at 44th annual meeting of the Human Factors and Ergonomics Society and International Ergonomics Association, July 30-August 4, San Diego, CA.
- 47) Cooke, N. J., Shope, S.M., & Rivera, K. (2000). Control of an uninhabited air vehicle: A synthetic task environment for teams. Demonstration presented at the 44th annual meeting of the Human Factors and Ergonomics Society and International Ergonomics Association, July 30-August 4, San Diego, CA.
- 48) Kiekkel, P. A., & Cooke, N. J. (2001). A clustering approach to determining discrete pattern shifts in sequential data. Talk and abstract presented at the meeting of the Psychometric Society, June 25, King of Prussia, PA.
- 49) Foltz, P. W., Cooke, N. J., Kiekkel, P. & Shope, S. M. (2001) Automating the measurement of team cognition through an analysis of team communication. Talk presented at the Society for Text and Discourse, July, Santa Barbara, CA.
- 50) Cooke, N. J., Kiekkel, P. A., & Helm E. (2001). Comparing and validating measures of team knowledge. Paper presented at 45th annual meeting of the Human Factors and Ergonomics Society, October 8-12, Minneapolis, MN.
- 51) Hottman, S.B., Jackson, J., Sortland, K., Witt, G., and Cooke, N.J. (2001). UAVs and air traffic controllers: Interface considerations. Paper presented at the AUVSI 2001 Annual Symposium of the Association for Unmanned Vehicle Systems International, July 31-August 2, Arlington, VA.
- 52) Kiekkel, P. A., Cooke, N. J., Foltz, P. W., & Shope, S. M. (2001). Automating measurement of team cognition through analysis of communication data. Paper presented at Human Computer Interaction International, August 8, New Orleans, LA.
- 53) Cooke, N. J., & Bell, B. (2001) The CERTT Lab: Cognitive Engineering Research on Team Tasks. Poster presented at the first annual NMSU Research and Creative Activities Fair, September 27, Las Cruces, NM.
- 54) Cooke, N. J., & Shope, S. M. (2002). The CERTT-UAV Task: A Synthetic Task Environment to Facilitate Team Research. Paper presented at the Advanced Simulations Technologies Conference, April 14-18, San Diego, CA.
- 55) Cooke, N. J., Kiekkel, P. A., & Bell, B., & Salas, E. (2002). Addressing limitations of the measurement of team cognition. Paper presented at 46th annual meeting of the Human Factors and Ergonomics Society, September 30-October 4, Baltimore, MD.
- 56) Cooke, N. J. (2002). Team communication analysis: Exploiting the wealth. Symposium overview presented at 46th annual meeting of the Human Factors and Ergonomics Society, September 30-October 4, Baltimore, MD.
- 57) Kiekkel, P. A., Cooke, N.J., Foltz, P.W., Gorman, J. C., & Martin, M.J. (2002). Some promising results of communication-based automatic measures of team cognition. Paper presented at 46th annual meeting of the Human Factors and Ergonomics Society, September 30-October 4, Baltimore, MD.
- 58) Cooke, N. K., DeJoode, J. D., Gorman, J., Keith, Rebecca, Lee, S., & Pedersen, H. (2002). Team cognition and homeland defense. Poster presented at 46th annual meeting of the Human Factors and Ergonomics Society, Special poster session on Cognitive Engineering and Decision Making Applied to

- Homeland Defense, September 30-October 4, Baltimore, MD.
- 59) Foltz, P.W., Martin, M., Kiekel, P. A., Gorman, J., & Cooke, N.J. (2003). Automated Team communication analysis with latent semantic analysis. Paper presented at CTA Symposium, April 29-May 1, College Park, MD.
 - 60) DeJoode, J., Cooke, N. J., & Shope, S.M. (2003). Naturalistic observations of an airport mass casualty exercise. Poster presented at 47th annual meeting of the Human Factors and Ergonomics Society, October 13-17, Denver, CO.
 - 61) Bell, B. G., & Cooke, N. J. (2003). Cognitive ability correlates of performance on a team task. Poster presented at 47th annual meeting of the Human Factors and Ergonomics Society, October 13-17, Denver, CO.
 - 62) Gorman, J.C., Foltz, P.W., Kiekel, P.A., Martin, M. J., & Cooke, N. J. (2003). Evaluation of Latent-Semantic Analysis-based measures of team communications. Paper presented at 47th annual meeting of the Human Factors and Ergonomics Society, October 13-17, Denver, CO.
 - 63) Cooke, N. J. (2003) Knowledge modeling and design for the aging. Panel paper presented at 47th annual meeting of the Human Factors and Ergonomics Society, October 13-17, Denver, CO.
 - 64) Connor, O., Cooke, N. J., Slagle, J., and Weinger, M. (2004). Pilot Study of the Measurement of Context-Dependent Concept Relatedness to Assess Anesthesiology Expertise. Paper presented at annual meeting of the Society for Technology in Anesthesia, January 15, Albuquerque, NM.
 - 65) DeJoode, J. A., Cooke, N.J., & Shope, S. M. (2004). Naturalistic observation of airport incident command. Poster presented at Human Performance, Situation Awareness and Automation Technology Conference, March 22 – 25, Daytona Beach, FL.
 - 66) Cooke, N. J. (2004). Team Cognition: Why, What, and How? Paper presented at the annual convention of the American Psychological Association, July 29, Honolulu, HI.
 - 67) Cooke, N. J., Kiekel, P. A., & Gorman, J. C. (2005). Team Communication as a Team Cognition Barometer. Paper presented at the Society of Industrial Organizational Psychologists, April 16, Los Angeles, CA.
 - 68) Pedersen, H. K., & Cooke, N. J. (2005). Team Coordination in UAV Operations. Paper presented at the International Symposium on Aviation Psychology, April 18-21, Oklahoma City, OK.
 - 69) Cooke, N. J., Connor, O., & Cooke, N. J. (2005). Augmented Team Cognition. Paper presented and session chaired at Augmented Cognition International, HCII, July 22-27, Las Vegas, NV
 - 70) Gorman, J. C., Cooke, N. J., Pedersen, H. K., Connor, O.O., & DeJoode, J. A. (2005). Coordinated awareness of situation by teams (CAST): Measuring team situation awareness of a communication glitch. Paper presented at 49th annual meeting of the Human Factors and Ergonomics Society, September 26-30, Orlando, FL.
 - 71) Gorman, J. C., Cooke, N. J., Pedersen, H. K., Winner, J. L., Andrews, D., Amazeen, P. G. (2006). Changes in Team Composition After a break: Building adaptive command-and-control teams. Paper presented at 50th annual meeting of the Human Factors and Ergonomics Society, October 16-20, San Francisco, CA.
 - 72) Cooke, N. J. (2006). Human Factors of Remotely Operated Vehicles. Panel chaired at 50th annual meeting of the Human Factors and Ergonomics Society, October 16-20, San Francisco, CA.
 - 73) Cooke, N. J. (2006). Cross Cultural Interactions: Methods and Motivations for Study. In C. A. Miller, panel position paper presented at 50th annual meeting of the Human Factors and Ergonomics Society, October 16-20, San Francisco, CA.
 - 74) Gorman, J.C., Amazeen, P.G., & Cooke, N.J. (2007). Team coordination dynamics. Poster presented at Coordination Dynamics 2007. February 22-25. Boca Raton, FL.
 - 75) Cooke, N. J., Gorman, J. C., Pedersen, H. K., Myers, C. W., Duran, J., and Andrews, D. (2007). Retention of team coordination skill. Presentation at the Distributed Mission Operations Workshop, September 3, Mesa, AZ.
 - 76) Myers, C. W., Cooke, N. J., Robinson, F. E., Heiberg, A., Ball, J., & Gluck, K. (2007). Collaborating with synthetic teammates. Presentation at the Distributed Mission Operations Workshop, September 6, Mesa, AZ.
 - 77) Cooke, N., Amazeen, N., Andrews, D., Duran, J., Gorman, J., Pedersen, H., Rowe, L., Taylor, A., & Winner, J. (2007). Acquisition and retention of team UAV Coordination Skill. Paper presented at the Fourth Annual Human Factors of UAVs Workshop, May 21-23, Chandler, AZ.
 - 78) Gorman, J. C., Cooke, N. J., Warner, N., Wroblewski, E. (2007). Tagging Macrocognitive Processes Using Communication Flow Patterns, paper presented at the Annual Meeting of the Human Factors and Ergonomics Society, October 2007, Baltimore, MD.

- 79) Cooke, N. J. (2007). Panel presentation on Multiple Perspectives on the Macro-Cognition Construct. Paper position presented at Naturalistic Decision Making VIII, June 5, Monterey, CA.
- 80) Cooke, N. J. (2007). Communication-Based Metrics of Macrocognition. In E. Salas & S. Fiore, Panel position presented at the 51st annual meeting of the Human Factors and Ergonomics Society, October 1-5, Baltimore, MD.
- 81) Cooke, N. J. (2007). Design Specs for a Cognitive Engineering Textbook. In A. Kirlik, Panel position presented at the 51st annual meeting of the Human Factors and Ergonomics Society, October 1-5, Baltimore, MD.
- 82) Cooke, N. J., & Durso, F. T. (2007). Modern technology failures, Cognitive engineering successes, panel chaired at the Annual Meeting of the Human Factors and Ergonomics Society, October 2007, Baltimore, MD.
- 83) Duran, J. L., Robinson, F. E., Cooke, N. J., & Gorman J. C. (2008) A synthetic task environment for the study of macrocognition in teams. Poster presented at the Annual meeting of the Interdisciplinary Network for Group Research, July 2008, Kansas City, MO.
- 84) Winner, J. L., Cooke, N. J., Freeman, J., Sager, L., & Goodwin, G. F. (2008). Rank Order Procedure: Measuring the Shared Interpretation of Commander's Intent. American Psychological Association, August 16, 2008, Boston, MA.
- 85) Cooke, N. J. (2008). The Real Deal: Essential Lessons Learned from Human Factors Leaders. In C. Nemeth, Panel position presented at the 52nd annual meeting of the Human Factors and Ergonomics Society, September 22-26, New York, NY.
- 86) Gorman, J. C., Hessler, E. E., Cooke, N. J., & Amazeen, P.G. (2009). Dynamics of Team Coordination and Adaptive Performance. Paper presented at the International Conference on Perception and Action 15, July 13, 2009, Minneapolis, MN.
- 87) Durso, F. T., & Cooke, N. J. (2009). Modern Technology Failures and Cognitive Engineering Successes. Panel at the 2009 American Psychological Association Annual Convention, August 8, 2009, Toronto, Ontario, CA.
- 88) Ball, J, Myers, C., Hieberg, A., Cooke, N., Matessa, M. & Freiman, M. (2009). The Synthetic Teammate Project. Paper presented at the *Behavior Representation in Modeling and Simulation Conference*.
- 89) Cooke, N. J. (2009). Synthetic Agents as Team Players. Panel position at the 53rd annual meeting of the Human Factors and Ergonomics Society, October 22, San Antonio, TX.
- 90) Duran, J. L., Goolsbee, Z., Cooke, N. J., & Gorman, J. C. (2009). Embedded collaboration metrics in the MacroCog synthetic task environment. Poster presented at the 53rd annual meeting of the Human Factors and Ergonomics Society, October 21, San Antonio, TX.
- 91) Gorman, J. C., Cooke, N. J., Duran, J. L., McGrane, K., & Rima, N. (2009). Representing Workflow within the Air Operations Center: The Lifecycle of a Dynamic Target. Poster presented at the 53rd annual meeting of the Human Factors and Ergonomics Society, October 21, San Antonio, TX.
- 92) Cooke, N. J., Hosch, C., Banas, S., Hunn, B. P., Staszewski, J., & Fensterer, J. (2010). Expert detection of Improvised Explosive Device behavior. Poster presented at the 54th Annual Conference of the Human Factors and Ergonomics Society. Santa Monica, CA: Human Factors and Ergonomics Society.
- 93) Cooke, N. J. (2011). Synthetic Task Environments. Presentation at A Cyber Situation Awareness Workshop, February 10, 2011, Gilbert, AZ.
- 94) Cooke, N. J., Rajivan, P., Champion, M., & Shankaranarayanan V.(2011). CyberCog: A Synthetic Task Environment for Studies of Cyber Situation Awareness. Poster presented at ASU's Fourth Annual Workshop on Information Assurance Research and Education, May 4, 2011, Tempe, AZ.
- 95) Cooke, N. J., Rajivan, P., Champion, M., & Shankaranarayanan V.(2011). CyberCog: A Synthetic Task Environment for Studies of Cyber Situation Awareness. Poster presented at ASU's Innovation Showcase, May 4, 2011, Mesa, AZ.
- 96) Cooke, N. J., Hosch, C., Banas, S., Hunn, B. P., Staszewski, J., & Fensterer, J. (2011). Expert detection of Improvised Explosive Device behavior. Poster presented at ASU's Innovation Showcase, May 4, 2011, Mesa, AZ.
- 97) Fouse, S., Cooke, N. J., Gorman, J. C., Murray, I., Uribe, M., & Bradbury, A. (2011). Effects of Role and Location Switching on Team Performance in a Collaborative Planning Environment. Poster presented at the 55th annual meeting of the Human Factors and Ergonomics Society, September 21, Las Vegas, NV.
- 98) Bruni, S., Schurr, N., Cooke, N., Riordan, B., & Freeman, J. (2011). Designing a Mixed-Initiative Decision-

- Support System for Multi-UAS Mission Planning, Paper presented at the 55th annual meeting of the Human Factors and Ergonomics Society, September 20, Las Vegas, NV.
- 99) Champion, M., Rajivan, P., Cooke, N. J., & Jariwala, S. (2012). Team-Based Cyber Defense Analysis. *2012 IEEE International Multi-Disciplinary Conference on Cognitive Methods in Situation Awareness and Decision Support*. March 6-8. New Orleans, LA.
 - 100) Cooke, N. J., Jariwala, S. (2012). CyberCog: A Synthetic Task Environment for Studies of Cyber Situation Awareness. Poster presented at ASU's Fifth Annual Workshop on Information Assurance, April 25, 2012, Tempe, AZ.
 - 101) Champion, M., Rajivan, R., Jariwala, S., Cooke, N. J., & Buchanan, V. Understanding the cyber security task. Poster presented at ASU's Sixth Annual Workshop on Information Assurance, May 1, 2013, Tempe, AZ.
 - 102) Cooke, N.J. & Myers, C. W. (2013). Issues relevant for synthetic teammate-human teammate interactions in operations of a synthetic unmanned aerial system. Paper presented at the 17th International Symposium on Aviation Psychology. May 6-9, Dayton, OH: Wright State University.
 - 103) Cooke, N. J. (2013). Synthetic Task Environments: Challenges and Opportunities. Paper presented at the 17th International Symposium on Aviation Psychology. May 6-9, 2013, Dayton, OH: Wright State University.
 - 104) Cooke, N., Shope, S., Bradbury, A., and Champion, M. (2014). DEXTAR: A Cyber Security Testbed. Poster presented at the Symposium on Information Assurance Research and Education. October 16, 2014, Arizona State University.
 - 105) Ben-Asher, N., Rajivan, P., Cooke, N., & Gonzalez, C. (2014). Studying the dynamics of cyber-war through instance-base learning and multi-agent modeling. Paper presented at the fourth annual Midwestern cognitive science conference, May 30-31, 2014.
 - 106) Cooke, N. J., Champion, M, Bradbury, A.,& Shope, S. M. (2014). DEXTAR: A Cyber Security Testbed. ASU's Symposium on Information Assurance Research and Education, October 16, 2014, Tempe, AZ
 - 107) McNeese, N.J., Fedele, M., Buchanan, V., & Cooke, N. J. (2015). Human Factors Guidance for Intelligence Analysis. Poster presented at the Foresight Partner Meeting, February 19, 2015.
 - 108) Buchanan, V., Lu, Y., Wang, F., Cooke, N. J., Maciejewski, R., & McNeese, N. J. (2015). An Empirical Testbed for Human-in-the-Loop Studies of Collaboration with Visualization, Poster presented at the Foresight Partner Meeting, February 19, 2015.
 - 109) Buchanan, V., Cooke, N. J., & McNeese, N. J. (2015). The Cognitive Science of Intelligence Analysis, Poster presented at the Foresight Partner Meeting, February 19, 2015.
 - 110) Salas, E., Stevens, R., Gorman, J., Cooke, N. J., Guastello, S., & von Davier, A. (2015). What Will Quantitative Measures of Teamwork Look Like in 10 Years? Panel talk presented at the *59th Annual Conference of the Human Factors and Ergonomics Society*, Santa Monica, CA: Human Factors and Ergonomics Society (pp. 235-239).
 - 111) Hinski, S., Cooke, N. J., McNeese, N., & Sen, A. (2016). A Human Factors Approach to Building High-Performance Multi-Professional Cardiac Arrest Teams: Developing a Code Blue Team Performance Metric. Poster presented at the 2016 HFES Health Care Symposium, April 15.
 - 112) Demir, M., McNeese, N. J., & Cooke, N. J. (2016). Team Communication Behaviors of the Human Automation Teaming. Paper presented at the 2016 IEEE International Multi-Disciplinary Conference on Cognitive Methods in Situation Awareness and Decision Support, March 2016.
 - 113) Cooke, N. J., Sen, A., McNeese, N. J., Khera, N., Wordingham, S. E., Arring, N., Nyquist, S. Gentry, A., Tomlinson, B. (2016), Improving Cancer Care Coordination through Team Science. Paper presented at the 2016 Science of Team Science (SciTS) Conference, May 2016.

INVITED TALKS AND WORKSHOPS

- 1) Cooke, N. J. (1992). Do people know what they're doing? Investigating the relationship between knowledge and performance. Colloquium given as Henry Jones Invited Speaker, North Carolina State University, November, Raleigh, NC.
- 2) Cooke, N. J. (1994). Cognitive task analysis and its role in job analysis. Workshop given to the Peace Officer Standards and Training Commission, State of California, July 14 and 15, Sacramento, CA.

- 3) Gillan, D. J., & Cooke, N. J. (1994). Methods of perceptual and cognitive research applied to interface design and testing. Tutorial presented at CHI '94 - Human factors in computing systems conference, April 24-April 28, 1994, Boston, MA.
- 4) Cooke, N. J., & Gillan, D. J. (1994). Cognitive methods applied to human factors. Workshop presented at the 38th annual meeting of the Human Factors and Ergonomics Society, October 24-28, Nashville, TN.
- 5) Cooke, N. J., & Gillan, D. J. (1995). Psychological scaling methods. Workshop given to Microsoft's Usability Group, January 27, Redmond, WA.
- 6) Gillan, D. J., & Cooke, N. J. (1995). Methods of cognitive analysis for HCI. Tutorial presented at CHI '95 - Human Factors in Computing Systems Conference, May 7-11, 1995, Denver, CO.
- 7) Cooke, N. J. (1996). Knowledge elicitation and assessment methods. Workshop presented to Naval Air Warfare Center, Training Systems Division, March 6, Orlando, FL.
- 8) Cooke, N. J. (1998). KNOT: A tool for representing conceptual structure. Invited talk presented at Sun Break '98: Conference on Organizations, February 6-8, 1998, Department of Management, New Mexico State University, Las Cruces, NM.
- 9) Schoenfeld, V. S., Shapiro, R. G., Brown, M. L., Jahns, D. W., Andre, A. D., Lund, A. M., Eggemeier, F. T., & Cooke, N. J. (1998). To Ph.D. or not to Ph.D.? That is the question. Panel presentation at the 42nd annual meeting of the Human Factors and Ergonomics Society, October 5-9, Chicago, IL.
- 10) Cooke, N. J. & Shope, S. M. (1999). CERTT-UAV Task. Invited talk and demonstration presented at the Scaled Worlds Symposium, June 24-27, Athens, GA.
- 11) Cooke, N. J. (1999). Lessons learned from the trenches: A panel on the application of knowledge methods to training evaluation. Panel presentation with Sward, D., Foltz, P., Gillan, D., Goldsmith, T., & Schvaneveldt, R. at Schvanfest '99, Festschrift in Honor of Roger W. Schvaneveldt, September 10-12, Las Cruces, NM.
- 12) Cooke, N. J., & Shope, S. M. (2001). The CERTT-UAV Synthetic Task: Validity, Flexibility, Availability. Paper presented at the Air Force Office of Scientific Research Workshop on Team Performance, October 16-17, Fairfax, VA.
- 13) Cooke, N. J. Eliciting the Knowledge of Individuals and Teams. Invited talk San Diego Center for Patient Safety, Visiting Professor Series, December 12, 2001.
- 14) Cooke, N. J. (2001). Team Cognition: What Have We Learned? Paper presented at the Air Force Office of Scientific Research Workshop on Team Performance, October 16-17, Fairfax, VA.
- 15) Cooke, N. J., Gorman, J., & Pedersen, H. (2002). Toward a Model of Organizational Risk. Paper presented at NASA HORM Workshop, June 13-14, Moffett Field, CA.
- 16) Cooke, N. J. (2002). Cognitive Task Analysis for Teams. On-line CTA Resource Seminar sponsored by Aptima and Office of Naval Research, October 11, US Positioning, Las Cruces, NM.
- 17) Cooke, N. J. (2002). Diagnosing Team Performance Through Team Cognition, Paper presented at ONR-NMSU Workshop on New Directions in Cognitive Science, October 25-26, New Mexico State University, Las Cruces, NM.
- 18) Cooke, N. J., Gorman, J., & Pedersen, H. (2002). My Favorite Ways to Measure Team Stuff. Paper presented at NASA HORM Workshop, November 13-14, Moffett Field, CA.
- 19) Cooke, N.J. (2003). Measuring Collaborative Cognition. ONR Workshop on Collaborative Knowledge Management, January 14-16, College Park, MD.
- 20) Cooke, N.J. (2003). Assessing Team Cognition. Invited Talk, Los Alamos National Laboratory, June 2, Los Alamos.
- 21) Cooke, N.J., & Kiekel, P. A. (2003). Team Cognition. AFRL-Rome sponsored seminar on Cognitive Systems Engineering. August 5-7, Hamilton, NY.
- 22) Cooke, N.J. (2003). Assessing Team Cognition. Invited talk to the Air Force Research Lab. August 28, Mesa, AZ.
- 23) Cooke, N.J. (2003). Assessing Team Cognition. Invited talks to Arizona State University's Cognition and Behavior Seminar. September 22, 2003.
- 24) Cooke, N. J. (2003). Types of academic institutions and why you might want to work in one. Paper presented at the APA sponsored workshop on Entering the Academic Marketplace: Advice from Experts at 47th annual meeting of the Human Factors and Ergonomics Society, October 13, Denver, CO.
- 25) Cooke, N. J. (2003). Playing well with others: Emotional intelligence meets team performance. Paper presented at ETS Workshop: Emotional Intelligence: Knowns and Unknowns, November 15, Princeton, NJ.

- 26) Cooke, N.J. (2003). Command-and-Control Teams: The Outcome of Cognitive Engineering. Journeys of the Mind Series, November 18, Arizona State University East, Mesa, AZ.
- 27) Cooke, N.J., & Gorman, J. (2004). Team Communication and Cognition. Invited talk to ONR's Collaboration and Knowledge Management Workshop, January 13-15, San Diego, CA.
- 28) Cooke, N. J. (2004). Team cognition in distributed command-and-control. Paper presented at AFOSR Cognitive Decision Making Program Review Workshop, March 9-10, Chandler, AZ.
- 29) Cooke, N. J. (2004). Command-and-Control Coordination: Cognitive Processing at the Team Level. Paper presented at Human-Technology Integration Colloquium Series, Air Force Research Laboratory, Human Effectiveness Directorate, May 19, WPAFB, Ohio.
- 30) Cooke, N. J. (2004). Opening Session Overview. Human Factors of UAVs: Manning the Unmanned Workshop, May 24-25, Chandler, AZ.
- 31) Cooke, N. J. (2004). Team Coordination and UAV Operations. Human Factors of UAVs: Manning the Unmanned Workshop, May 24-25, Chandler, AZ.
- 32) Cooke, N. J. (2004). Team Cognition, Coordination, and Communication: Effects of Distributed Versus Co-located Environments. Invited Symposium. American Psychological Society 16th Annual Convention, May 28, Chicago, IL.
- 33) Cooke, N. J. (2004) Design for Coordination and Control. National Academies of Science workshop on Scalable Interfaces for Air and Ground Military Robots, November 11-12, Washington, DC.
- 34) Cooke, N. J. (2004). Where's the Sharing in Shared Mental Models? Invited talk presented at ARI/UCF team workshop, December 16, Orlando, FL.
- 35) Cooke, N.J. (2005). Communication in Team Cognition. Invited talk to ONR's Collaboration and Knowledge Management Workshop, January 13-15, San Diego, CA.
- 36) Cooke, N.J. (2005). Emergent Team Cognition or What Was Wrong With The US Olympic Basketball Team? Colloquium presented at Texas Tech University, February 7, Lubbock, TX.
- 37) Cooke, N.J. (2005). Emergent Team Cognition or What Was Wrong With The US Olympic Basketball Team? Colloquium presented at Georgia Tech University, March 30, Atlanta, GA.
- 38) Cooke, N. J. (2005). Acquisition and Retention of Team Coordination in Command-and-Control: Data, Metrics, and Models. Paper presented at AFOSR Cognitive Decision Making Program Review Workshop, April 18-19, St. Augustine, FL.
- 39) Cooke, N.J. (2005). Emergent Team Cognition or What Was Wrong With The US Olympic Basketball Team? Colloquium presented at North Dakota State University, April 22, Fargo, ND.
- 40) Cooke, N. J., Connor, O., & Pedersen, H. (2005). Acquisition and Retention of Team UAV Skills. Paper presented at the Second Annual Human Factors of UAVs Workshop, May 25-26, Mesa, AZ.
- 41) Cooke, N. J. (2005). Lessons Learned from My Career. Presented at Student Professional Development Day at the 49th annual meeting of the Human Factors and Ergonomics Society, September 26-30, Orlando, FL.
- 42) Cooke, N.J. (2005). Human Factors of Homeland Security. Overview talk given at the Homeland Security Science Forum sponsored by Human Factors and Ergonomics Society and the Federation of Behavioral, Psychological, and Cognitive Sciences. November 17, Washington, DC.
- 43) Cooke, N. J. (2006). Cognitive Engineering Research. Invited Talk to ASU Discovery Tours, January 18, 2006.
- 44) Cooke, N. J. (2006). Automatic Tagging of Macrocognitive Processes Through Communication Analysis. Invited talk to ONR's Collaboration and Knowledge Management Workshop, January 24-26, Cambridge, MA.
- 45) Cooke, N. J. (2006). Designing for Collaboration. Invited talk at MIT's Humans and Technology Symposium, January 27, Cambridge, MA.
- 46) Cooke, N. J. (2006). When mixed up teams are good teams: The Development of Coordination in Command and Control Teams. Paper presented at AFOSR Cognitive Decision Making Program Review Workshop, April 21-22, Dayton, OH.
- 47) Cooke, N. J. (2006). Designing for Collaboration. Invited talk at Ohio State University, Department of Industrial, Welding and Systems Engineering, June 6, Columbus, OH.
- 48) Cooke, N. J. (2006). Talk to Preparing Future Faculty group at Arizona State University at the Polytechnic Campus, October 7, Mesa, AZ.
- 49) Cooke, N. J. (2007). Panel Participant for Barbara Ainsworth's Physical Activity, Nutrition, and Wellness doctoral program seminar.

- 50) Cooke, N. J. & Gorman, J. C. (2007). Automatic Tagging of Macrocognitive Collaborative Processes through Communication Analysis. Invited talk to ONR's Collaboration and Knowledge Management Workshop, January 23, Orlando, FL.
- 51) Cooke, N. J. (2007). Measuring Team Cognition. Invited talk to the National Research Council Committee on Human Factors, February, 26, Irvine, CA.
- 52) Cooke, N. J. & Gorman, J. C. (2007). Measuring and Modeling Team Coordination Dynamics. Paper presented at AFOSR Cognitive Decision Making Program Review Workshop, March 22-23, Dayton, OH.
- 53) Cooke, N. J. (2007). Invited participant of the Macrocognitive Metrics Conference, June 14, Columbus, OH.
- 54) Cooke, N. J. (2007). Team Cognition. Invited Colloquium, Biomedical Informatics, ASU, November 8, Phoenix, AZ.
- 55) Cooke, N. J. (2007). Technology for Collaboration: Solution or Problem? Keynote Speaker, World Usability Day Phoenix, November 8, Mesa, AZ.
- 56) Cooke, N. J. (2007). UAV Podcast hosted by Texas Tech Psychology Department, November 12.
- 57) Cooke, N. J. (2007). Teams and Coordination. ASU Polytechnic Faculty Brown Bag Series, November 28.
- 58) Cooke, N. J. & Gorman, J. C. (2008). Automatic Tagging of Macrocognitive Collaborative Processes through Communication Analysis. Invited talk to ONR's Collaboration and Knowledge Management Workshop, January 15, Orlando, FL.
- 59) Cooke, N. J. & Shope, S. M. (2008). Systems for Understanding & Measuring Macrocognition in Teams: Task Environment Development (SUMMIT-TED). Invited talk to ONR's Collaboration and Knowledge Management Workshop, January 16, Orlando, FL.
- 60) Cooke, N. J. (2008). Unmanned Aircraft Systems: Human Factors Issues. NTSB Forum on the Safety of Unmanned Aircraft Systems, April 30, 2008, Washington, DC.
- 61) Cooke, N. J. (2008). Team Cognition. Invited lecture for ASU's Biomedical Informatics Foundation class, April 1 & 3, 2008, Phoenix, AZ.
- 62) Cooke, N. J., & Myers, C. (2008). Agent-Based Approaches to Macrocognition II: An ACT-R Model of a Synthetic Teammate, June 3, Havre de Grace, MD.
- 63) Cooke, N. J. (2008). The Wizards of US (Unmanned Systems): Pay Attention to the Humans "Behind the Curtain," September 3, Brest France.
- 64) Cooke, N. J. & Gorman, J. C. (2008). Measuring Interaction. Invited lecture for ASU's Biomedical Informatics Foundation class, November 18, 2008, Phoenix, AZ.
- 65) Cooke, N. J. (2008). Measures of Team Cognition in the Context of Unmanned Aerial Systems Ground Crews, December 16, MIT Colloquium, Cambridge, MA.
- 66) Cooke, N. J. (2009). A Tale of Two SEAs: Lessons Learned from Building Synthetic Environments for Team Research, January 30, 2009. ONR Synthetic Environments for Assessment Workshop, Arlington, VA.
- 67) Cooke, N. J. (2009). Coal Mining Safety: Failures in Human Systems Integration, Presentation to the Committee on Human Systems Integration, National Research Council, February 12, Washington, DC.
- 68) Cooke, N. J. (2009). Coordination of unmanned aerial systems ground crews, March 9, 2009. Heterogeneous Unmanned Networked Teams Workshop, Tempe, AZ.
- 69) Cooke, N. J. (2009). Team Cognition in Unmanned Aerial Vehicles. Invited lecture presented at the 2009 American Psychological Association Annual Convention, August 6, 2009, Toronto, Ontario, CA.
- 70) Cooke, N. J. (2009). UASs from a Human Factors Perspective. Human Factors of UAVs workshop: AUVSI North America Conference, August 11, 2009, Washington, DC.
- 71) Cooke, N. J. (2009). Interactive Team Cognition. Keynote at the Cognitive Research Exchange (CoRE) Workshop, Annual Meeting of the Association of Information Systems (AIS), December 15, 2009, Phoenix, AZ.
- 72) Cooke, N. J. & Hallbeck, S. (2009). Human Factors. Presentation at the Veterans Engineering Resource Center Learning Event, September 17, 2009, Omaha, NE.
- 73) Cooke, N. J. (2009). Interactive Team Cognition. Board of Behavioral, Cognitive, and Social Sciences, National Research Council, National Academy of Science, October 8, 2009, Woods Hole, MA.
- 74) Cooke, N. J. (2009). Unmanned Aerial Systems: Pay Attention to the Humans "Behind the Curtain." Presentation to the Good Ol' Boys (retirement community), October 15, 2009, Scottsdale, AZ.
- 75) Cooke, N. J. (2009). The Art of Getting Published. Presentation at Student Development Day, Annual Meeting of the Human Factors and Ergonomics Society, October 19, 2009, San Antonio, TX.

- 76) Cooke, N. J. (2009). Human Factors of Unmanned Aerial Systems. Presentation at the Stakeholders Workshop for the Proposed Unmanned Aerial System Center for Simulation and Training in Mesa, AZ. October 23, 2009, Chandler, AZ.
- 77) Cooke, N. J. (2009). The Science of Psychology, Presentation to SRP Student Group, November 4, 2009, Mesa, AZ.
- 78) Cooke, N. J. (2009). Applied Cognitive Psychology, Presentation to Gilbert High School Career Development Class, November 13, 2009, Gilbert, AZ.
- 79) Cooke, N. J. (2009). Interactive Team Cognition. Keynote at the Cognitive Research Exchange (CoRE) Workshop, Annual Meeting of the Association of Information Systems (AIS), December 15, 2009, Phoenix, AZ.
- 80) Cooke, N. J. (2010). Interactive Team Cognition. Invited lecture at Charles River Analytics, March 29, 2010, Cambridge, MA.
- 81) Cooke, N. J. (2010). Interactive Team Cognition. Invited lecture at MIT Lincoln Labs, March 30, 2010, Cambridge, MA.
- 82) Cooke, N. J. (2010). Human Systems Integration, Team Cognition, and Designing for Collaboration. Biomedical Informatics class lecture, April 22, 2010, Phoenix, AZ.
- 83) Cooke, N. J., Rajivan, P., Venkatanarayanan, S. (2010). A Testbed for Studies of Team Cognition in the Cyber Security Domain. Invited panel lecture at ASU's Third Annual Workshop on Information Assurance Research and Information, May 5, 2010, Tempe, AZ.
- 84) Cooke, N. J., Rajivan, P., Venkatanarayanan, S. (2010). A Testbed for Studies of Team Cognition in the Cyber Security Domain. Invited talk at ARO-MURI on Cyber Situation Awareness Review Meeting, August 23-24, 2010, UCSB, Santa Barbara, CA.
- 85) Cooke, N. J. (2010). The Case of Bored Teams. Invited panel presentation at 54th Annual Meeting of the Human Factors and Ergonomics Society, September 28, 2010, San Francisco, CA.
- 86) Cooke, N. J. (2011). Human Factors and Healthcare. Invited panelist for Continuing Quality in Parallel Circuits: HSR&D and VERC Collaboration, HSR&D National Meeting, National Harbor, MD.
- 87) Cooke, N. J. (2011). A Human Systems Integration Approach to Integrating "Unmanned" Systems into the National Airspace. Presented at Human Factors UAS in the NAS workshop, May 23, 2011, Washington, DC.
- 88) Cooke, N. J. (2011). Interactive Team Cognition. Presented at SMACS Brown Bag, August 31, 2011, Arizona State University, Mesa, AZ.
- 89) Cooke, N. J., Rajivan, P., Champion, M., & Jariwala, S. (2011). Applying cognitive engineering to cyber situation awareness. Presented at ARO MURI Review, September 8, 2011, George Mason University, Fairfax, VA.
- 90) Cooke, N. J. (2011). A Panel Session on Human-Automation Challenges for the Control of Unmanned Aerial Systems. Invited panelist for the 55th annual meeting of the Human Factors and Ergonomics Society, September 22, 2011, Las Vegas, NV.
- 91) Cooke, N. J. (2012). Combining teams with technology to solve global challenges. ASU President's Community Enrichment Program, ASU Poly, March 27, 2012.
- 92) Cooke, N. J. (2012). Lightening the Information Load through Team Cognition. Naval Research Advisory Committee on Lightening the Information Load, July 26, 2012, San Jose, CA.
- 93) Cooke, N.J., (2014). HFES Fellows Panel. *At the 58th Annual Conference of the Human Factors and Ergonomics Society*, Santa Monica, CA: Human Factors and Ergonomics Society.
- 94) Cooke, N. J. (2014). Simulations as research testbeds. Modeling and Simulation Conference, March 12-13, 2014, Scottsdale, AZ.
- 95) Cooke, N. J. (2014). Five out of five stars: Writing to the Reviewer. Panelist, Arizona State University, March 28.
- 96) Cooke, N. J. (2015). How the Science of Teams Can Inform Team Science. Invited Lecture, Team Science Retreat, Wake Forest School of Medicine of Wake Forest Baptist Medical Center, March 13, Wake Forest, NC.
- 97) Cooke, N. J. (2015). Enhancing the Effectiveness of Team Science. Briefing at the National Science Foundation, April 22, Washington, DC.
- 98) Cooke, N. J., Cummings, J, Fiore, F., Hall, K., Jackson, J., Kozlowski, S., Olson, J., Stokols, D., and Hilton, M. (2015). Featured Panel: National Academy of Sciences Report: SciTS. Science of Team

Science Meeting, National Institutes of Health, June 3, Bethesda, MD.

- 99) Cooke, N. J. (2015). Keynote Lecture: Interactive Team Cognition: Focusing on Team Dynamics, 14th European Congress of Sport Psychology, July 18, Bern Switzerland.
- 100) Cooke, N. J. (2015). What is Human Systems Integration and How It Does and Does Not Relate to Human Factors and Ergonomics? Keynote Address. Meeting of the Houston Chapter of the Human Factors and Ergonomics Society, May 29, Houston, TX.
- 101) Cooke, N. J. (2015). Enhancing the Effectiveness of Team Science. Briefing at the National Academies, September 18, Washington, DC.
- 102) Cooke, N. J. (2015). SciTS NRC Report Review: Key Challenges Facing Team Science, Team Science Summit, Arizona State University, September 25, Tempe, AZ.
- 103) Cooke, N. J. (2015). Tackling Difficult Research Problems via Application of Transdisciplinary Methods. Panel presentation at APLU Annual Meeting, November 15, Indianapolis, IN
- 104) Cooke, N. J. (2016). Growth of Team Science: Challenges and Opportunities. Panel Presentation at AAAS 2016, February 12, Washington, DC.
- 105) Cooke, N. J. (2016). Interactive Team Cognition: From Remotely Piloted Aircraft Systems Control to Healthcare. Invited Seminar talk at University of Wisconsin-Madison, March 4, 2016.
- 106) Cooke, N. J. (2016). Measuring Team Performance. Invited talk to the National Academies of Sciences, Engineering, and Medicine's Board on Human System Integration, April 20, 2016.

WORKSHOPS ORGANIZED

- Cooke, N. J. & Pringle, H. (2004). Human Factors of UAVs Workshop: Manning the Unmanned. CERI hosted workshop, sponsored by AFRL, AFOSR, NASA, and US Positioning, May 24-25, Chandler, AZ.
- Cooke, N. J. & Pringle, H. (2005). Second Annual Human Factors of UAVs Workshop: Manning the Unmanned. CERI hosted workshop, sponsored by AFRL, AFOSR, FAA, and Microanalysis and Design, May 25-26, Mesa, AZ.
- Chair of Team Cognition session for DARPA Augmented Cognition workshop, July, 2005, Las Vegas, NV.
- Cooke, N. J. & Andrews, D. (2006). Third Annual Human Factors of UAVs Workshop: Manning the Unmanned. CERI hosted workshop, sponsored by AFRL, AFOSR, FAA, & Research Integrations, May 24-26, Mesa, AZ.
- Cooke, N. J., Pedersen, H.K., & Winner, J. L. (2007). Fourth Annual Human Factors of UAVs Workshop: Manning the Unmanned. CERI hosted workshop, sponsored by AFRL, AFOSR, L3 Link, & Research Integrations, May 21-23, Chandler, AZ.
- Cooke, N. J. (2008). Fifth Annual Human Factors of UAVs Workshop: Manning the Unmanned; Human Factors Issues in Imagery Analysis Using Unmanned Aerial Vehicles, CERI hosted workshop, sponsored by AFRL, May 15, 2008, Apache Junction, AZ.
- Cooke, N. J. (2009). Sixth Annual Human Factors of UAVs Workshop: AUVSI North America Conference, August 11, 2009, Washington, DC
- Cooke, N. J., & Gorman, J. C. (2009). Communications Analysis for Assessing Collaboration. Workshop at the 53rd Annual Meeting of the Human Factors and Ergonomics Society, October 19, 2009, San Antonio, TX.
- Cooke, N. J. & Shope, S. S. (2009). UAS Simulation and Training Center Stakeholders Workshop, October 23, 2009, Chandler, AZ.
- Cooke, N. J. (2010). Communication Analysis Workshop. February 16-18, Tempe, AZ.
- Cooke, N. J., & Gorman, J. C. (2010). Communications Analysis for Assessing Collaboration. Workshop at the 54th Annual Meeting of the Human Factors and Ergonomics Society, September 27, 2010, San Francisco, CA.
- Cooke, N. J., McNeese, M., & Hall, D. (2011). A Cyber Situation Awareness Workshop. February 8-11, Gilbert, AZ.
- Cooke, N. J. (2013). ARO Cyber Situation Awareness MURI Review, October 2013.
- Cooke, N. J. (2014). Remotely Piloted Aerial Systems: A Summit, August 4-5, 2014, Dayton, OH.

SCIENCE ADVOCACY

- APA Science Advocacy Training Workshop, Human Factors and Aviation Safety Research, July 18-19, 1999, Washington, D.C.

APA Science Advocacy Training Workshop, Psychological Science and the Military, September 27-29, 2003, Washington, D.C.

Homeland Security Science Forum sponsored by Human Factors and Ergonomics Society and the Federation of Behavioral, Psychological, and Cognitive Sciences. November 17, 2005, Washington, DC.

White House Office of Science and Technology Policy Briefing on Human Factors of UAVs, April 6, 2006.

APA 2007 Science Leadership Conference: Adventures in Advocacy: Training the Civic Scientist, October 13-15, 2007, Washington, DC.

American Psychological Association facilitated Congressional meetings on Unmanned Aerial Systems in the National Airspace and human systems integration, August 13, 19, 2014, Washington, DC.

Visit to Congressman Matt Salmon's Office on behalf of the American Psychological Association's *Stand for Science* program., April 22, 2016, Gilbert, AZ.

Congressional Briefing speaker on Autonomous Systems and the Role of the Human, May 31, 2016, Washington, DC.