

John R. “Buck” Surdu, Ph.D.

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Curriculum Vitae

Job Objective

Lead a team of engineers and scientists in the development of new technologies or new applications of technology, particularly the development of next-generation immersive entertainment and training.

Highlights of Qualifications

- Successful, 26-year career in the Army, culminating as a colonel
- Visionary – able to conceive of long-term vision and *lead* an organization toward that vision
- Certified Program Manager
- Innovative
 - Able to combine seemingly disparate technologies to create novel solutions.
 - Demonstrated ability to thrive in unstructured, entrepreneurial environments.
 - Focus on “yes, if...” not “no, because...”
- Strong people skills
 - Deal effectively with personnel through all strata of the organization.
 - Have successfully led teams of technical and non-technical people in the accomplishment of complex tasks.
 - Have effectively managed large organizational change.
- Strong communications and conflict resolution skills
- Strong technical skills.

Recent Professional Accomplishments

Demonstrated Ability to Lead High-Tech Teams:

- As a PM in the Defense Advanced Research Projects Agency (DARPA), I conceived, developed, pitched and sold, and managed far-reaching research and development efforts.
- As the PM for the Army’s premier simulation technology software development program I delivered version 1.0 on time and on budget and met all requirements.
- As a PM, I acted as the prime contractor and led the efforts of a top-notch team of over 150 software developers from multiple companies to create a next-generation simulation capability for training, operations, analysis, and experimentation.
- I managed foreign partnerships with the U.K., Canada, Australia, New Zealand, Denmark, Slovakia, the Czech Republic, and Singapore.
- Level III certified in program management and also in information technology. This is the highest level of certification within the Department of Defense. Level II certified in systems planning, research, development, and engineering.

Innovative and visionary:

- At DARPA I created a \$63M project to develop new science in the area of command and control of military operations.
- I formulated research and development projects in mixed reality immersive training environments, software agent behavior, see-through contact lens computer displays for a variety of applications, and simulation technologies.
- Early adapter of innovative software development technologies, such as spiral development; agile methods; open-source and open-architecture; artificial intelligence; new simulation technologies; JAVA, C++, and heavy use of XML before these were commonplace; and distributed software.

Research Interests

- Novel applications of simulations and artificial intelligence to support command and control.
- Immersive training technologies, such as mixed reality, and the merging of live, virtual, and constructive simulation technologies to enable immersive training.
- Unique methods of tailoring training experiences to avoid one-size-fits-all regimes and increase training transfer.

Work History

25 years of active federal service in the Army, culminating at the rank of colonel. Assignments have included troop leading, logistics, human resources, strategic planning, analysis, research and development, software development, and high-level management of large organizations. Primary focus the last 12 years has been on research and development and leading groups of researchers, scientists, and engineers.

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| 2014 – present | Senior Scientist, Cole Engineering Services, Inc. |
| 2013 – 2014 | Project manager for a highly-classified technology development program within the National Security Agency (NSA). |
| 2011 – 2013 | Chief, Commander’s Action Group for both US Cyber Command and the NSA. Successfully formulated new concepts for cyberspace operations as well as executive-level policies and correspondence to members of Congress, the Joint Chiefs of Staff, and the Office of the President. |
| 2010 – 2011 | Principal Military Deputy Director, US Army Communications Electronics Research, Development, and Engineering Center. Effectively managed the day-to-day operations of a 6000-person laboratory with a \$1B budget. |
| 2010 (7 mos.) | Science and Technology Advisor, US Forces Iraq. This job called for strong team-building skills. I coordinated the efforts of scientists and engineers to accelerate the development and deployment of new technologies to address capability gaps. I worked with numerous organizations to look for new technologies, or new ways to use old technologies, to help US forces meet mission requirements. As I had little formal control of many of these organizations, my ability to influence them was key to success. |

Curriculum Vitae of John R. “Buck” Surdu

- 2008 – 2010 Chief of Staff, Research, Development, and Engineering Command. I led and coordinated the activities of a diverse 300-person professional staff (of a 15,000-person organization), including human resources, intelligence, operations, resource management, logistics, information technology, global operations and support, and program development and management. I launched several initiatives to provide better insight and control of the \$6B research and development budget. This job involved strong team building, leadership, communications, and conflict resolution skills. It also involved preparing and delivering presentations to the highest levels of the Army.
- 2006 – 2008 Program Manager at the Defense Advanced Research Projects Agency (DARPA). This is an entrepreneurial organization in which PMs are expected to conceive of new technologies that are 5 – 10 years in the future, develop the concepts, sell them to get funding, and execute the development. This involves coordinating the efforts of world-class researchers from across the United States to create leap-ahead, “game changing” technologies.
- 2003 – 2006 Product Manager of a large military simulation software development project, called One Semi-Automated Forces (OneSAF). While I led this team we won several software development awards. OneSAF is a next-generation constructive simulation system designed to meet the needs of the training, experimentation, and analysis communities; to that point, each domain had different, non-interoperable simulation systems. Not only was OneSAF itself cutting edge, but we used cutting-edge techniques in the development of the software, such as a unique blend of CMMI Level 5 process and agile software development methods. After three years of development, we delivered 3M lines of Enterprise Java, C++, and Visual Basic on time, on budget, meeting all requirements.
- 2000 – 2003 Assistant Professor, United States Military Academy (West Point) and Senior Research Scientist. In addition to teaching computer science courses in artificial intelligence and software engineering, I conducted or led more research efforts and cadet-executed projects than any other faculty member in the department. Among these projects were a pilot effort to use a PDA to call for indirect fire in combat, use of scanners and wireless networks for ID card checking, and early efforts in Bluetooth technologies.
- 1985 – 2000 Various Army assignments within the U.S. and overseas. These include acting as an operations officer within a mechanized infantry brigade (a 1500-man unit), commanding a company (130-man unit), acting as the HR manager and logistician within a 1200-man battalion, and leading a rifle platoon (40-man unit).

Detail of Military Experience

- Rifle Platoon Leader, 82d Airborne Division
- Rifle Platoon Leader, 3d Battalion (Airborne), 325th Infantry, Vicenza, Italy

Curriculum Vitae of John R. “Buck” Surdu

- Company Executive Officer, 3d Battalion (Airborne), 325th Infantry, Vicenza, Italy
- Support Platoon Leader, 3d Battalion (Airborne), 325th Infantry, Vicenza, Italy
- Assistant Adjutant, 3d Battalion (Airborne), 325th Infantry, Vicenza, Italy
- Platoon Trainer, 2d Battalion, 11th Infantry (Infantry Officer's Basic Course)
- Commander, HHC, 1st Battalion (Airborne), 507th Infantry (Airborne School)
- Assistant Operations Officer (Current Operations), 1st Brigade, 2d Infantry Division, Republic of Korea
- Computer Scientist and Team Leader, Virtual Sand Table Team, Army Research Laboratory
- Assistant Professor, Information Technology and Operations Center, Department of Electrical Engineering and Computer Science, United States Military Academy
- Product Manager, OneSAF (One Semi-Automated Forces), June 2003 - July 2006
- Project Manager, Defense Advanced Research Projects Agency, August 2006 – June 2008
- Chief of Staff, U.S. Army Research, Development and Engineering Command, July 2008 to 2010
- Science and Technology Advisor, US Forces, Iraq, 2010 (7 months)
- Principal Military Deputy, Communications Electronics Research, Development, and Engineering Center, 2010 to present

Education

Civilian Education

- **Ph.D. in Computer Science** from Texas A&M University in 2000. My GPA was 4.0. My dissertation work evolved into a multi-million dollar research effort at DARPA.
- **Master of Science in Computer Science** from Florida State University in 1995. My thesis work was distilled and presented at the SPIE conference in Orlando in 1995. My GPA was 3.93.
- **Master of Business Administration (MBA)** from Columbus State University in 1992. I got this degree going to school at night. My GPA was 3.63.
- **B.S. with a major in Computer Science** from the United States Military Academy (West Point) in 1985. Graduated 86 out of 1170. My GPA was 3.38.

Military Education

- Airborne School, 1983
- Infantry Officer's Basic Course, 1985
- Ranger School, 1985-6
- Jumpmaster School, 1986
- Infantry Mortar Platoon Leader's Course, 1986
- Infantry Officer's Advanced Course, 1989
- Pathfinder School, 1993

- Combined Arms and Services Staff School (CAS3), 1993
- Bradley Infantry Fighting Vehicle Commander's Course, 1993
- Command and General Staff College, 1995
- Intermediate Systems Acquisition Course, 1997
- Information Resources Management 101, 2001
- Information Resources Management 201, 2002
- Program Management Skills (PMT 352B), 2002
- Program Management Course (PMT 401), 2003
- Program Manager's Skills Course (ACAT III) (PMT 403), 2003
- Infantry Pre-Command Course, 2003
- Army Pre-Command Course, 2003

Professional Publications

- G. Conti and J.R. Surdu, "Army, Navy, Air Force, and Cyber? Is it Time for a Cyberwarfare Branch of Military?" *Information Assurance Newsletter*, Vol. 12, No. 1, pp. 14-18.
- J.R. Surdu, K. Kittka, "Deep Green: Commander's tool for COA's Concept," *Computing, Communications and Control Technologies: CCCT 2008*, 29 June - 2 July 2008, Orlando, Florida.
- J.R. Surdu, K. Kittka, "The Deep Green Concept," *Spring Simulation Multiconference 2008 (SpringSim'08), Military Modeling and Simulation Symposium (MMS)*, 14-18 April 2008, Ottawa, Canada.
- Pope, P. Selfridge, and J.R. Surdu, "Realistic Agent Populations for Large-Scale Virtual Training Environments," *Spring Simulation Multiconference 2008 (SpringSim'08), Military Modeling and Simulation Symposium (MMS)*, 14-18 April 2008, Ottawa, Canada.
- J.R. Surdu, K. Kittka, "The Deep Green Concept," *Huntsville Simulation Conference 2007*, October 30 - November 1, Huntsville, Alabama.
- J.R. Surdu, D. Parsons, "Army Simulation Program Balances Agile and Traditional Methods with Success," *Crosstalk: The Journal of Defense Software Engineering*, April 2006. Was one of the top four papers in PEO STRI for 2006.
- J.R. Surdu, R. Wittman, and J. Abbott, "Military Scenario Definition Language Study Group Final Report: 05F-SIW-017," *Simulation Interoperability Standards Organization*, 2005.
- D. Parsons, J.R. Surdu, and D. Franchescini, "OneSAF: A Case Study in Agile Methods and Extreme Programming," *I/ITSEC 2005*, Orlando, Florida, December 2005. Published. Received the PEO STRI Best Paper award for 2005.
- J.R. Surdu, D. Parsons, and O. Tran "The Three Block War in OneSAF," *I/ITSEC 2005*, Orlando, Florida, December 2005.
- D. Parsons, J.R. Surdu, "The U.S. Army's Next Generation Simulation Modeling the Response to the World's Future Threat," *Proceedings, 2005 NATO Modeling and Simulation Group Conference, The Effectiveness of Modeling and Simulation – From Anecdotal to Substantive Evidence*, Warsaw, Poland, October 2005. Published. Third place paper award.

- R. Wittman and J.R. Surdu, "OneSAF Objective System: Toolkit Supporting User and Developer Lifecycles within a Multi-Domain Modeling and Simulation Environment," *SimTecT 2005 Simulation Conference and Exhibition*, Sydney, Australia, 9-12 May 2005.
- J.R. Surdu, D. Parsons, O. Tran, "OneSAF Objective System: Modeling the Three-Block War," *SimTecT 2005 Simulation Conference and Exhibition*, Sydney, Australia, 9-12 May 2005.
- R. Wittman and J.R. Surdu, "OneSAF Objective System: A Simulation Toolbox," *Proceedings of the Spring Simulation Multiconference*, San Diego, CA, 3-7 April 2005, pp 201-206.
- D. Parsons, J.R. Surdu, B. Jordan, "OneSAF: A Next Generation Simulation Modeling the Contemporary Operating Environment," *Simulation Interoperability Workshop*, Orlando, FL, June 2005.
- J.R. Surdu, C. Gates, J. Sullivan, M. Rudak, N. Colvin, and K. Slocum, "Trafficability Analysis Engine," *Crosstalk: The Journal of Defense Software Engineering*, June 2003, Vol. 16 No. 6, page 28-30.
- J.R. Surdu, E. Watson, Z. Miller, A. Peplinski, A. Adas, P. Manz "Wireless Data Entry for Forward Observers," *Crosstalk: The Journal of Defense Software Engineering*, July 2003, Vol. 16 No. 7, page 31.
- J. M. D. Hill, J. R. Surdu, S. Lathrop, G. Conti, C. A. Carver, Jr., "MAADNET: Toward a Web-Distributed Tool for Teaching Networking and Information Assurance," *Educational Multimedia, Hypermedia and Telecommunications (ED-MEDIA 2003)*, Honolulu, Hawaii, June 23-28, 2003. pp. 773-776.
- S. Lathrop, J. M. D. Hill, and J. R. Surdu, "Modeling Network Attacks," *12th Conference On Behavior Representation In Modeling And Simulation (BRIMS 2003)*, Scottsdale, Arizona, May 12-15, 2003.
- A.E. Henninger, G. Taylor, J.R. Surdu, and C. Jacquet, "Using COTS Software to Capture Deliberate and Reactive Weapons Firing Behavior: Lessons Learned in Knowledge Acquisition" *12th Conference On Behavior Representation In Modeling And Simulation (BRIMS 2003)*, Scottsdale, Arizona, May 12-15, 2003.
- J. R. Surdu, J. M. D. Hill, R. Dodge, S. Lathrop, and C. A. Carver, Jr. "Military Academy Attack/Defense Network Simulation," *Advanced Simulation Technology Conference: Symposium on Military, Government, and Aerospace Simulation (MGA 2003)*, Orlando, Florida, March 30 - April 3, 2003, pp. 57-63.
- J.M.D. Hill, J. Surdu, "MAADNET NetBuilder: A Service/Demand Focused Network Simulator," *Communication Networks and Distributed Systems Modeling and Simulation Conference (CNDS 2003)*, Orlando, FL, 19-23 January
- F. Maymi, J. Surdu, A. Hall, R. Beltramini, "Modeling the Wireless Network Architecture of Land Warrior," *Winter Simulation Conference*, San Diego, CA, 8-11 December 2002.
- J.R. Surdu, C. Gates, J. Sullivan, M. Rudak, N. Colvin, and K. Slocum, "Trafficability Analysis Engine" Presented at *Army Science Conference*, Orlando, FL, 2-5 December 2002.
- K. Alford and J. Surdu, "Using In-Class Debates as a Teaching Tool" *Proc. Frontiers in Education Conference*, Boston, MA, 6-9 November 2002, S1F-10:15. Published.

- Carver, J. Surdu, J. Hill, D. Ragsdale, S. Lathrop, T. Presby, "Military Academy Attack/Defense Network," *3rd Annual IEEE Information Assurance Workshop*, West Point, NY, 17-19 June 2002, pp. 29-34.
- J. Surdu, K. Alford, F. Mabry, J. Rhyne, S. Patton, E. Hand, and F. Sperl, "XML Implementation of Variable Message Format in Army C4I Systems," *Software Technology Conference*, Salt Lake City, UT, 28 April - 2 May 2002.
- J. Sullivan, M. Rabkowski-Dudak, C. Gates, N. Colvin, and J. Surdu, "A Trafficability Analysis Engine Using Artificial Intelligence," *Software Technology Conference*, Salt Lake City, UT, 28 April - 2 May 2002.
- E. Watson, Z. Miller, A. Peplinski, A. Adas, and J. Surdu, "A Wireless Data Entry Device for Forward Observers," *Software Technology Conference*, Salt Lake City, UT, 28 April - 2 May 2002.
- K Huggins, T. Flowers, J. Hill, and J. Surdu, "Concept Level Anticipatory Planning," *Advanced Simulation Technology Conference*, San Diego, CA, 14-18 April 2002, pp. 87-92.
- J. Surdu and J.M.D. Hill, "Simulations in Commands Posts of the Future," *Advanced Simulation Technology Conference*, San Diego, CA, 14-18 April 2002, pp. 77-86.
- J. Surdu, A. Hall, and F. Maymi. "Network Simulation in Support of Land Warrior," *2002 Simulation Solutions Conference*, San Diego, CA, 7-10 April 2002.
- J. Surdu, K. Alford, G. Yu, W. Herrington, and C. Maranich. "Platform Independent Tactical Data Entry Devices," *CrossTalk: The Journal of Defense Software Engineering*, vol. 15, no. 8 (August 2002), pp. 29.
- Hall, J. Surdu, F. Maymi, A. Deb., and K. Freberg. "Modeling the Communications Capabilities of the Infantry Soldier," *Communication Networks and Distributed Systems Modeling and Simulation Conference (CNDS 2002)*, San Antonio, TX, 27-31. January 2002.
- J. Surdu, T. Wagner, P. Manz, and G. Ilaria, "Truly Platform-independent Data Entry Devices," *Proc. 2001 Interservice / Industry Training, Simulation and Education Conference (I/ITSEC'01)*, Orlando, FL, 26-29 November 2001.
- J.M.D. Hill, J.R. Surdu, C.A. Carver, J. Vaglia., "An Interactive Design, Visualization, and Analysis Tool for Information Flow Over a Tactical Data Network," *Simulation: The Journal of the Society of Modeling and Simulation, Special Issue on Simulation and Visualization*, vol. 77, no. 3-4, September/October 2001, pp. 104-113.
- P. Manz, J.R. Surdu, J. James, D. Ragsdale. "West Point Cadets, Faculty Partner with PM FATDS" *Project Manager*, no. 4 (July-August) 2001, pp. 50-53.
- Deb, K. Freberg, J.R. Surdu, F. Maymi, and A. Hall, "Modeling Communication Capabilities for Land Warrior 1.0" *Presented at the Military Operations Research Society Symposium (MORSS) 2001*, Anapolis, MD, 12-14 June 2001.
- James, J.R., Marin, J.A., Ragsdale, D., Surdu, J.R., Schepens, W., Presby, T., and Manz, P., "An Experiment for Estimating Database Latency for Mobile Systems," in *Proceedings of the 2nd Annual IEEE Systems, Man, and Cybernetics (SMC) Information Assurance Workshop (IAW'2001)*, West Point, NY, 5-6 June 2001, pp. 75-79.

- W.J. Schepens, D.J. Ragsdale, J.R. Surdu, and J. Schafer, "The Cyber Defense Exercise: An Evaluation of the Effectiveness of Information Assurance Education," in *Proceedings National Colloquium for Information System Security Education*, Washington, D.C. (George Mason University), 22-24 May 2001.
- Surdu, J.R. and U.W. Pooch, "Simulation During Operations," *Military Review: The Professional Journal of the U.S. Army*, March-April 2001. If you are interested in ONE paper which describes my research from a military, non-technical standpoint, this is the paper to read. Check out <http://www-cgsc.army.mil/milrev/> for this article and others relating to military doctrine and information operations.
- J.M.D. Hill and J.R. Surdu, "Agent Cooperation and Simulation in Dynamic Plan Building", in *Proceedings of the 5th World Multi-Conference on Systemics, Cybernetics and Informatics (SCI 2001)*, Orlando, Florida, 22-25 July, 2001, vol. XVI, pp. 45-51.
- J. Marin, D. Ragsdale, J.R. Surdu, "A Hybrid Approach to Profile Creation and Intrusion Detection," in *Proceedings of DARPA Information Survivability Conference and Exposition*, Anaheim, CA, 12-14 June 2001.
- J. Yu, C. Maranich, W. Herrington, J.R. Surdu, "Platform Independent Tactical Data Entry Devices" *The 13th Annual Software Technology Conference (STC'2001)*, Salt Lake City, UT, 29 April - 4 May 2001.
- J.H. Schafer, D.J. Ragsdale, J.R. Surdu, and C.A. Carver, Jr. "The IWAR Range: A Laboratory for Undergraduate Information Assurance Education," *The Journal of Computing in Small Colleges*, 16, no. 4 (May 2001): 223-232. (Runner-up in best paper competition.)
- J.M.D. Hill, J.R. Surdu, J. Vaglia, and U.W. Pooch, "Synchronized Simulations in Planning Systems", in *Proceedings Advanced Simulation Technologies Conference (ASTC'2001): Military, Government, and Aerospace Simulation Symposium*, Seattle, Washington, 22-26 April 2001, pp. 69-75.
- J.M.D. Hill, J.R. Surdu, and U.W. Pooch, "Implementation of the Anticipatory Planning Support System", in *Proceedings Advanced Simulation Technologies Conference (ASTC'2001): Military, Government, and Aerospace Simulation Symposium*, Seattle, Washington, 22-26 April 2001, pp. 76-81.
- Surdu, JR, JMD Hill, and UW Pooch. "Anticipatory Planning Support System" in *Proceedings of the 2000 Winter Simulation Conference*, Orlando, FL, 10-14 December 2000, pp. 950-957.
- Surdu, J.R., J.M.D. Hill, D.J. Ragsdale, and J.H. Schafer. "Anticipatory Planning in Information Operations," in *Proceedings of the IEEE Systems Man and Cybernetics 2000*, Nashville, TN, October 8-11, 2000, pp. 2350-2355.
- Hill, J.M.D., J.R. Surdu, and U.W. Pooch, "Anticipatory Planning Using Execution Monitoring and a Constrained Planning Frontier." in *Proceedings of the IASTED International Conference on Applied Simulation and Modeling (ASM 2000)*, Banff, Alberta, Canada. July 24-26, 2000, pp. 168-172.
- Surdu, J.R., J.M.D. Hill, D.J. Ragsdale, and J.H. Schafer. "Anticipatory Planning to Support Information Operations" in *Proceedings IEEE Systems, Man, and Cybernetics Information Assurance and Security Workshop*, West Point, NY. June 6-7, 2000, pp. 77-83.

- Carver, C.A., John M.D. Hill, John R. Surdu, and Udo W. Pooch. "A Methodology for Using Intelligent Agents to provide Automated Intrusion Response," in *Proceedings IEEE Systems, Man, and Cybernetics Information Assurance and Security Workshop*, West Point, NY. June 6-7, 2000, pp. 110-116.
- Surdu, J.R. and U.W. Pooch. "A Dynamic Hierarchy of Rational Agents to Link Simulation to the Operational Environment," in *Proceedings of the Military, Government, and Aerospace Simulation Conference*, Washington, DC, 16-20 April 2000, Society for Computer Simulation, pp. 29-34.
- Hill, J.M.D., Surdu, J.R., and U.W. Pooch. "A Methodology to Support Anticipatory Planning," in *Proceedings of the Military, Government, and Aerospace Simulation Conference*, Washington, DC, 16-20 April 2000, Society for Computer Simulation, pp. 22-28.
- Surdu, J.R. and U.W. Pooch. 2000. "Rational Agents, Simulation, and Military Operations," in *Proceedings of AI, Simulation, and Planning in High Autonomy Systems (AIS2000)*, Tucson, AZ, March 6-8, SCS and ACM SIGSIM, pp. 327-332.
- Surdu, J.R. 2000. Connecting Simulation to the Mission Operational Environment, Ph.D. Dissertation, Texas A&M University. Completed
- Surdu, J.R. and U.W. Pooch. 2000. "Simulation Technologies in the Mission Operational Environment." *Simulation, the Journal of the Society of Computer Simulation*, vol. 74, no. 3, pp. 138-161.
- Surdu, J.R. and U.W. Pooch. "Simulations During Operations." *RD&A: Professional Publication of the RD&A Community*. Ft. Belvoir, VA: U.S. Army, September - October, 34-35 1999.
- Surdu, J.R. and U.W. Pooch. "Connecting the Operational Environment to a Simulation." in *Proceedings of the Military, Government, and Aerospace Simulation Conference*, San Diego, CA, April 11-15 1999, Society for Computer Simulation, pp. 94-99.
- Surdu, J.R. and U.W. Pooch. "A Methodology for Using Intelligent Agents to Apply Simulation Technologies to the Mission Operational Environment." in *Proceedings of Enabling Technology for Simulation Science III*, Orlando, FL, April 5-9 1999, SPIE, Bellingham, WA, pp. 294-299.
- Surdu, J.R., G.D. Haines, and U.W. Pooch. "OpSim: A Purpose-Build Distributed Simulation for the Mission Operational Environment," in *Proceedings of the 1999 International Conference on Web-Based Modeling and Simulation*, San Francisco, CA, 17-20 January 1999, SCS, San Diego, CA, 69-74.
- Surdu, J.R. and U.W. Pooch. "A Methodology for Applying Simulation Technologies in the Mission Operational Environment," in *Proceedings of the 1998 IEEE Information Technology Conference*, Syracuse, NY, 1-3 September 1999, IEEE, Piscataway, NJ, pp. 45-48.
- Surdu, J.R., B.A. Cox, D.J. Ragsdale, J. Yen, and U.W. Pooch. "Implementing Military Units in Simulation as Intelligent Agents," in *Proceedings of the Military, Government, and Aerospace Simulation Conference*, Boston, MA, 5-9 April 1998, SCS, San Diego, CA, pp. 190-195.

- Decatrel, J.M. and J.R. Surdu. "Practical Recognition of Armored Vehicles in FLIR," in *Proceedings of Automatic Object Recognition V*, Orlando, FL, 19-21 April 1995, SPIE, Bellingham, WA, pp. 200-208.

Hobby Publications

My hobby involves the painting of model soldiers and the re-creation of historical and non-historical battles over model terrain. Over the years I've published a number of rule books for playing these games.

- Beer and Pretzels Urban Combat (Post-Modern), 1981
- Battles for Empire (Napoleonic Wars), 1990
- Napoleonic Scenarios (Napoleonic Wars), 1991
- Beer and Pretzels Skirmish (World War II), 1992
- Santa Anna Rules (Mexican American War), 1995
- Blood and Swash (Pirates), 2000
- Beer and Pretzels Ironclads (American Civil War Naval), 2000
- Glorious Adventures in Science Loosely Involving Generally Historical Times (G.A.S.L.I.G.H.T.) (Victorian Science Fiction), 2001
- Big Battles for Little Hands (Introductory Rules for Children), 2002
- Fire Team Vietnam, 2002
- Wellington Rules (Napoleonic Wars), 2002
- Battles by G.A.S.L.I.G.H.T. (Victorian Science Fiction), 2003
- To Be Continued... by G.A.S.L.I.G.H.T. (Pulp Era Adventure), 2005
- Skirmish Campaigns: Tanga (World War I in Africa), 2006
- Look, Sarge, No Charts: World War II, 2006
- A Union So Tested: Look, Sarge, No Charts: American Civil War, 2009
- The Quick and the Dead: Coastal Actions in World War II, 2009

Academic Activities

- Member ACM, IEEE, SCS.
- Texas A&M Distinguished Graduate, 2010.
- Chairman, Simulation Interoperability Standards Organization (organ of IEEE) working group for the standardization of the Military Scenario Definition Language, 2006-2009. MSDL was made a SISO (IEEE) standard in 2009.
- Reviewer for Crosstalk: The Journal of Defense Software Engineering, 2006 to present.
- Keynote speaker, Military Modeling and Simulation Symposium, SCS Spring Simulation Multiconference, Ottawa, Canada, 14-18 April, 2008
- Keynote speaker, the Eighth Annual Symposium on Human Interaction with Complex Systems (HICS) and the Second Topical Workshop on Sensemaking, 3-4 April, 2008.
- Invited speaker, Canadian conference on simulation support to operations, Ottawa, Canada, 2007.
- Reviewer for Simulation Journal, 1998 to 2004.
- Proposal Evaluator, 2006, High Performance Computing Office User Productivity Enhancement and Technology Transfer projects.

- Member, Engineer Research and Development Center's (ERDC) FY05 Basic Research (6.1) external review panel, 2004.
- Program committee, I/ITSEC 2004 and 2005.
- Co-author of invited presentation "Simulation Support for Mission Planning" at Mission Planning Conference, London, England, 17-18 March 2004.
- Reviewer for the SCS Summer Simulation Conference, July 2003.
- Program Chair, 2003 IEEE SMC Information Assurance Workshop, June 2003.
- Session Chair 2003 Advanced Simulation Technology Conference, March 2003.
- Charter Member Modeling and Simulation Professional Certification, 2002.
- Program Chair, 2002 IEEE SMC Information Assurance Workshop, June 2002.
- Invited speaker, "Simulations in Command Posts of the Future," U.S. Army War College, May 2002.
- Co-Chair for the Conference on Military, Government, & Aerospace Simulation, San Diego, CA, 14-18 April 2002.
- Invited speaker at Command Post of the Future, London, England, 14-15 November 2001, on the use of simulations in Command Posts of the future.
- Invited participant, Information Technology Symposium: Future of Citizen and Government Interaction in the Information Age, Texas A&M University, 7-9 October 2001.
- Session Chair, 5th International Conference on Systemics, Cybernetics, and Informatics, 22-25 July 2001, Orlando, Florida.
- Support Chair and Session Chair, IEEE SMC Information Assurance Workshop, 4-6 June 2001.
- Group and Session Chair, Advanced Simulation Technology Conference, 22-26 April, 2001, Seattle, Washington.
- Reviewer for DARPA Information Survivability Conference and Exposition, 2001.
- Reviewer for Proceedings of the IEEE SMC, 2000.
- Session Chair, Winter Simulation Conference, 11-14 December, 2000, Orlando, Florida.
- Session Chair, Advanced Simulation Technology Conference, 16-20 April, 2000, Washington DC.

Consulting and Other Activities

- 2007-2008 Odyssey of the Mind competition Judge for "spontaneous" problems
- 2005-present Work with local Cub Scout and Boy Scout troops helping organize camping trips and other activities.
- 1981-present Published numerous war gaming publications (see www.bucksurdu.com/Personal)
- 2001 Wholepoint Corporation Consulting about network security appliances under a non-disclosure agreement
- 2001-2002 PM Airborne Electronic Combat (AEC) Hardware selection for the Air Mission Planning System

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- 2001-2003 U.S. Army Topographic Engineering Center (TEC) Practical Trafficability Analysis Using Expert Systems and Artificial Neural Networks
- 2000-2002 PM Effects and Fires Command and Control System (EFCCS) Platform Independent Light-weight Forward Entry Device (LFED) Project
- 2000-2001 PM Field Artillery Tactical Data System (FATDS) Analysis of the impact of the Joint Common Database on AFATDS
- 2000-2002 PM Soldier Systems Dynamic Squad Data Network Modeling
- 1999-2000 Simulation Training and Instrumentation Command (STRICOM), University XXI Program Tactical Information Flow Manager