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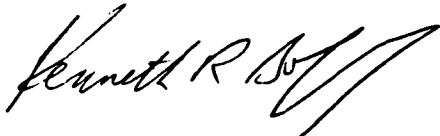
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FOR THE COMMANDER



KENNETH R. BOFF, Chief
Human Engineering Division
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REPORT DOCUMENTATION PAGE			Form Approved OMB No. 0704-0188	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.				
1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE March 1994	3. REPORT TYPE AND DATES COVERED January 1987 - December 1993	
4. TITLE AND SUBTITLE Bibliography of Research Reports and Publications Issued by the Human Engineering Division, January 1987 - December 1993 (U)			5. FUNDING NUMBERS 9983MISC	
6. AUTHOR(S) Compiled by Rebecca J. Green				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)			8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) Armstrong Laboratory, Crew Systems Directorate Human Engineering Division Human Systems Center Air Force Materiel Command Wright-Patterson AFB OH 45433-7022			10. SPONSORING/MONITORING AGENCY REPORT NUMBER AL/CF-SR-1994-0003	
11. SUPPLEMENTARY NOTES				
12a. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution is unlimited			12b. DISTRIBUTION CODE	
13. ABSTRACT (Maximum 200 words) This bibliography contains the titles, authors and publication/source information for the technical reports and articles published by the Human Engineering Division of Armstrong Laboratory between January 1987 and December 1993. The bibliography is divided into seven sections: I. Alphabetical Index II. Human Capabilities & Limitations III. Design Aiding Technologies IV. Advanced Displays, Controls & Computer Interfaces V. Crew System Integration, Test & Evaluation VI. Modeling & Simulation VII. Chemical Defense DTIC QUALITY INSPECTED 3				
14. SUBJECT TERMS			15. NUMBER OF PAGES 131	
			16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT UNCLASSIFIED	18. SECURITY CLASSIFICATION OF THIS PAGE UNCLASSIFIED	19. SECURITY CLASSIFICATION OF ABSTRACT UNCLASSIFIED	20. LIMITATION OF ABSTRACT UNLIMITED	

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FOREWORD

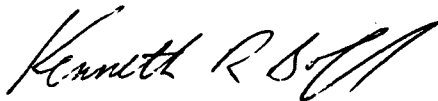
In Science, by a fiction as remarkable as any to be found in law, what has once been published, even though it be in the Russian Language, is spoken of as known, and it is too often forgotten that the rediscovery in the library may be a more difficult and uncertain process than the first discovery in the laboratory.

Lord Rayleigh, 1884

The data, models, guidance, technology demonstrations, and evaluations produced under laboratory research and development efforts are typically archived as technical reports, journal articles, or other professional communications. Ultimately, it is this scientific and technical documentation that is the enduring product of research and development. In the normal course of events, however, collections of these technical information products accumulate and all-too-often languish in libraries, data bases, and proprietary archives. Under these conditions, the value of R&D accomplishments and investments may either be diminished or never attained. Given that the value of information can only be realized through its use, it is, therefore vital, that responsible R&D managers make every effort to reduce the high costs of "rediscovery" of their research products by potential users.

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PREFACE

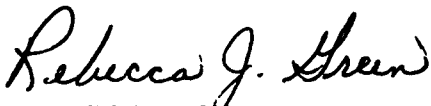
This bibliography contains information for the technical reports, proceedings and articles published by the Human Engineering Division of the Crew Systems Directorate, Armstrong Laboratory, between January 1987 and December 1993. The bibliography is divided into six technical areas: Human Capabilities and Limitations; Design Aiding Technologies; Advanced Displays, Controls, and Computer Interfaces; Crew System Integration, Test and Evaluation; Modeling and Simulation; and Chemical Defense.

All citations in the bibliography are in the American Psychological Association (APA) format¹. We have tried to adhere to this format, however, there are some minor deviations.

Most reports listed in this document should be available from the Defense Technical Information Center (DTIC), Cameron Station, Alexandria VA 22304-6145, or through local libraries. If further assistance is required, please contact Rebecca Green, AL/CFHA, Bldg. 248, 2255 H Street, Wright-Patterson AFB OH 45433-7022.

This was a major effort, requiring groundbreaking development of a new computer bibliographic data base, recovering existing bibliographic data, development of a standardized citation format, and requiring a thorough review of citations for accuracy and completeness.

I am grateful for the support provided by Susan Pfaadt, Logicon Technical Services, Inc. Without her technical expertise and sacrifice, this work could not have been accomplished. Also a special thank you to David Spangler and Rachel Porter of Logicon Technical Services, Inc. who spent countless hours researching and entering the data and Elizabeth Combs for assisting in the final editing of the bibliography. I would also like to acknowledge my Branch Chief, Walter Summers, for his continued encouragement and support. I am also extremely grateful to the Division Chief, Dr. Kenneth Boff, who had the vision for this project and was always available for guidance, encouragement, and decision making. Lastly, a heartfelt thank you to all of the many authors who provided the information for this project.



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Human Engineering Division

¹Publication Manual of the American Psychological Association (1983), Washington DC.

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- Abrams, T. S., Martin, C. D., Orr, C. E., & Hinson, T. A. (1991).** *Cockpit automation technology CSERIAC-CAT Jul 89 - Dec 90: Final report* (Report No. AL-TR-1991-0078). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A273124)
- Allen, D., Tsou, B., Gieske, G., Bien, J., Shipley, M., & Walker, J. L. (1987).** System performance of a servo-optical projection system (SOPS). *The 1987 IMAGE Conference IV* (pp. 121-127). Williams AFB, AZ: Air Force Human Resources Laboratory.
- Amell, J., Eggemeier F. T., & Acton, W. (1987).** The criterion task set: An updated battery. *Proceedings of the Human Factors Society 31st Annual Meeting, 1*, 405-409.
- Anderson, A. F., Crouch, D. A., Edwards, R. E., Kraushar, P. G., Leininger, W. E., McDonnell, J. N., Ostrand, R. A., Stollings, M. N., & White, R. W. (1991).** *Cockpit automation technology interim technical report 8* (Report No. AL-TR-1991-0100). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B161113)
- Andes, R. C., & Hunt, R. M. (1990).** *Adaptive aiding for human-computer control: Final report and future directions for research* (Report No. AAMRL-TR-90-055). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A236799)
- Andes, R. C., Hunt, R. M., Andriole, S. J., & Adelman, L. (1989).** *Cognitive engineering of advanced information technology for air force systems design & development* (Report No. AAMRL-TR-89-038). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A218558)
- Annis, J. F., McDaniel, J. W., & Krauskopf, P. J. (1991).** Male and female strength for performing common industrial tasks in difference postures. In W. Karwowski, & J. W. Yates (Eds.), *Advances in industrial ergonomics and safety III* (pp. 193-200). London: Taylor & Francis.
- Arbak, C., King, P., Jauer, R., & Adam, E. (1988).** *Helmet-mounted display/sight tactical utility study* (Report No. AAMRL-TR-88-022). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A240170)
- Arndt, C. M. (1991).** *Development of the expert system domain advisor and analysis tool* (Report No. AL-TR-1991-0150). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A255768)
- Arndt, C. M. (1992).** Applications for neural networks to landmark detection in three-dimensional surface data. *Proceedings of the Society of Photo-Optical Instrumentation Engineers (SPIE)*, 880-886.
- Arndt, C. M., & Gavern, J. M. (1993).** Mathematical models, and methodologies for measuring and improving human-machine interface in written language [Abstract]. *62nd MORS Symposium*.
- Aume, N. M. (1989).** Crew chief, a computer graphics simulation of an aircraft maintenance technician. In S. Griffin (Ed.), *Third Annual Workshop on Space Operations, Applications, and Research (SOAR '89)* (NASA CP-3059 pp. 139-141). Johnson Space Center, TX: National Aeronautics and Space Administration.
- Ayoub, M. M., Jiang, B. C., Smith, J. L., Selan, J. L., & McDaniel, J. W. (1987).** Establishing a physical criterion for assigning personnel to U.S. Air Force jobs. *American Industrial Hygiene Association Journal*, 48(5), 464-470.

I. ALPHABETICAL INDEX

- Badeau, A.** (1991). Task difficulty assessed using the correlation dimension of EEG [Poster]. In D. W. Duke, & W. S. Pritchard (Eds.), *EEG/Chaos Conference/Workshop* (pp. 60-63). River Edge, NJ: World Scientific.
- Barbato, M. H., Hausmann, M. A., Kama, W. N., Bridenbaugh, J. C., & Task, H. L.** (1993). *Definitions of terms relating to aircraft windscreens, canopies, and transparencies* (Report No. AL-TR-1993-0036). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A268403)
- Barrett, E. S., & Wilson, G. F.** (1987). *Topographic mapping of brain activity* (Report No. AAMRL-TR-87-069). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A204056)
- Bart, R. D., Dembeck, C. M., & Masak, J. R.** (1987). *SCPS-M processing study -- phase II* (Report No. AAMRL-TR-87-057). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B118552)
- Bartell, R. J., Unger, S. E., & Task, H. L.** (1993). *Backscatter haze device for measurement of haze in aircraft transparencies* (Report No. AL/CF-TR-1993-0102). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A275127)
- Beaton, R. J., & Farley, W. W.** (1992). *Comparative study of the MTFA, ICS, and SQRI image quality metrics for visual display systems* (Report No. AL-TR-1992-0001). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A252116)
- Beaudet, D. B., Price, D. L., Kuperman, G. G., & Wilson, D. L.** (1987). *Human factors report on information management requirements for next-generation manned bombers* (Report No. AAMRL-TR-87-042). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A195870)
- Beecroft, S. L., Perez, W. A., Kirtland, W. H., & Taylor, T. G.** (1988). *Strategic mission decomposition: III. Mission planning requirements and scenario implementation for advanced conceptual bomber simulation studies* (Report No. AAMRL-TR-88-072). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. C956971)
- Beer, J.** (1992). Mental models midst the optical flow [Abstract]. *Proceedings of the 33rd Annual Meeting of the Psychonomics Society*, 335.
- Beer, J.** (1993). Perceiving scene layout through an aperture during visually simulated self-motion. *Journal of Experimental Psychology: Human Perception and Performance*, 19(1), 1-16.
- Beer, J. M. A.** (in press). Optimizing projective deformation (motion parallax) may be useful in virtual displays for agile flight environments. *7th Interface/Industry Acceleration Colloquium*.
- Benedict, C. P., & Gunderman, R. G.** (1992). Helmet-mounted systems test and evaluation process. *Proceedings of the Society of Photo-Optical Instrumentation Engineers (SPIE): Helmet-Mounted Displays III*, 1695, 8-12.
- Berkstresser, G. W., Shmulovich, J., & Wittenberg, A. M.** (1987). *Single crystal phosphor development* (Report No. AAMRL-TR-87-041). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B122929)

- Biberman, L. M., & Tsou, B. H.** (1993). Image display technology and problems with emphasis on airborne systems. In W. D. Rogatto (Ed.), *The infrared and electro-optics systems handbook: Vol. 3. Electro-optical components* (pp. 437-506). Bellingham, WA: SPIE Optical Engineering Press.
- Billman, E. T.** (1987). *The role of adaptive supplemental visual cuing in flight simulation* (Report No. AAMRL-TR-87-070). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A185932)
- Billman, E. R.** (1989). Interactive, real-time formation flight concept trainer. In R. S. Jensen (Ed.), *Proceedings of the Fifth International Symposium on Aviation Psychology, 2*, 209-214.
- Blackwell, S. U., & Robinette, K. M.** (1993). *Human integration evaluation of three helmet systems* (Report No. AL-TR-1993-0028). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A271320)
- Blue, D. V., Flanagan, D. P., Giacaglia, R. A., Lenorovitz, D. R., & Stanke, E. C.** (1987). *Rapid intelligent prototyping laboratory (RIPL) architecture and use* (Report No. AAMRL-TR-87-004). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory.
- Boer, L., Farmer, E., & Wilson, G. F.** (1988). Standardized tests for research with environmental stressors: The AGARD Stress Battery. *AGARD Conference Proceedings 458: Human Behavior in High Stress Situations in Aerospace Operations* (pp. 23-1 - 23-16). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-CP-458)
- Boff, K. R.** (1987). Designing for design effectiveness of complex avionics systems. *AGARD Conference Proceedings No. 417: The Design, Development, and Testing of Complex Avionics Systems* (pp. 22-1 - 22-9). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-CP-417)
- Boff, K. R.** (1987). Matching crew system specifications to human performance capabilities. *AGARD Conference Proceedings No. 425: The Man-Machine Interface in Tactical Aircraft Design and Combat Automation* (pp. 29-1 - 29-9). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-CP-425)
- Boff, K. R.** (1987). The Tower of Babel revisited: Cross-disciplinary chokepoints in system design. In W. B. Rouse, & K. R. Boff (Eds.), *System design: Behavioral perspectives on designers, tools, and organizations* (pp. 1-13). New York: North Holland.
- Boff, K. R.** (1988). The value of research is in the eye of the beholder. *Human Factors Society Bulletin*, 31(6), 1-4.
- Boff, K. R.** (1990). Integrating ergonomics into system design. *CSERLAC Gateway*, 1(2), 1-2.
- Boff, K. R.** (1990). Meeting the challenge: Factors in the design & acquisition of human-engineered systems. In H. Booher (Ed.), *MANPRINT: An approach to systems integration* (pp. 551-572). New York: Von Nostrand Reinhold.
- Boff, K. R.** (1993). Advances in human prototyping: Implications for crew system integration and system safety. *Proceedings of the International Conference on Aircraft Flight Safety*. Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development.

I. ALPHABETICAL INDEX

- Boff, K. R.** (1993). The usability of behavioral research findings in system design. In Gartner, Widdel, & Ste (Eds.), *Mensch-Maschine-Systeme und Neue Informationstechnologien*. Dusseldorf: Carl Hansa Verlag Mur and VDI Verlag.
- Boff, K. R., & Lincoln, J. E.** (Eds.). (1988). *Engineering data compendium: Human perception and performance* (Vol. 1-4). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory.
- Boff, K. R., & Lincoln, J. E.** (Eds.). (1989). *Engineering data compendium: Human perception and performance (Compact Disk ed.)*. Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory.
- Boff, K. R., & Martin, E. A.** (1988). Human performance data in simulation design. *ALAA Flight Simulation Technologies Conference*, 1-5.
- Boff, K. R., & Monk, D. L.** (1992). Computer-aided systems human engineering: A hypermedia tool. *CSERIAC Gateway*, 3(2), 1-5.
- Boff, K. R., Monk, D. L., Swierenga, S. J., Brown, C. E., & Cody, W. J.** (1991). Computer-aided human factors for systems designers. *Proceedings of the Human Factors Society 35th Annual Meeting*, 1, 332-336.
- Boff, K. R., Polzella, D. J., & Morton, K.** (1990). Crew system ergonomics information analysis center: A gateway for technology transfer. In R. W. Harrison (Ed.), *Proceedings of the Technology Transfer Society 15th Annual Meeting, International Symposium and Exhibit: Technology Transfer in a Global Economy*, 277-282.
- Borah, J.** (1989). *Helmet-mounted eye tracking for virtual panoramic displays Volume I: Review of current eye movement measurement technology* (Report No. AAMRL-TR-89-019). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A273101)
- Borah, J.** (1989). *Helmet-mounted eye tracking for virtual panoramic displays Volume II: Eye tracker specification and design approach* (Report No. AAMRL-TR-89-019). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A273101)
- Bortolussi, M. R., & Vidulich, M. A.** (1989). The benefits and costs of automation in advanced helicopters: An empirical study. In R. S. Jensen (Ed.), *Proceedings of the Fifth International Symposium on Aviation Psychology*, 2, 594-599.
- Bortolussi, M. R., & Vidulich, M. A.** (1991). The effects of speech controls on performance in advanced helicopters in a double stimulation paradigm. *Proceedings of the Sixth International Symposium on Aviation Psychology*, 1, 216-221.
- Bortolussi, M. R., & Vidulich, M. A.** (1991). An evaluation of strategic behaviors in a high-fidelity simulated flight task: Comparing primary performance to a figure of merit. *Proceedings of the Sixth International Symposium on Aviation Psychology*, 2, 1101-1106.
- Brainard, L. F., Johnson, M. N., Perez, W. A., Taylor, T. G., & Kuperman, G. G.** (1987). *Strategic mission decomposition: II. Artificial intelligence frame-based workload analysis study* (Report No. AAMRL-TR-87-077). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B119938)

- Brown, C. E., Boff, K. R., & Swierenga, S. J. (1991).** Cockpit resource management: A social psychological perspective. *Proceedings of the Sixth International Symposium on Aviation Psychology*, 1, 398-403.
- Brown, C. E., Swierenga, S. J., & Wellens, A. R. (1991).** Social psychological metaphors for human-computer systems design. *Proceedings of The IEEE 1991 National Aerospace and Electronics Conference: NAECON 1991*, 793-799.
- Brown, R. W. (1987).** Preliminary design of an air cushion crash rescue vehicle. *Proceedings of Air Cushion Technology Conference*, 56-62.
- Brown, Y. J., Cardullo, F. M., & McMillan, G. R. (1990).** Advanced techniques for cuing the force and motion environment in the simulator of the future. *AIAA Flight Simulation Technologies Conference*, 115-122.
- Brown, Y. J., Cardullo, F. M., McMillan, G. R., Riccio, G. E., & Sinacori, J. B. (1992).** *New approaches to motion cuing in flight simulators* (Report No. AL-TR-1991-0139). Wright-Patterson AFB, OH: Armstrong Laboratory.
- Buchroeder, R. A., & Kocian, D. F. (1989).** *Display system analysis for the LHX helicopter application* (Report No. AAMRL-TR-89-001). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B134738)
- Busch, C., Wilson, G. F., Orr, C., & Papanicolaou, A. (1989).** Crossmodal interactions of auditory stimulus presentation on the visual evoked magnetic response. In S. J. Williamson, M. Hoke, G. Stroink, & M. Kotani (Eds.), *Advances in biomagnetism: Proceedings of the Seventh International Conference on Biomagnetism* (pp. 221-224). New York: Plenum Press.
- Busch, C., Wilson, G. F., & Ullsperger, P. (1993).** Influence of task difficulty and expectedness on the P300 elicited by a warning stimulus [Abstract]. *Society for Neuroscience: Abstracts*, 19(2), 1606.
- Caldwell, J., & Wilson, G. F. (in press).** *Psychophysiological Assessment Methods* (Report No. Report No. AGARD-AR-324). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-AR-324)
- Calhoun, C. S., & Post, D. L. (1990).** Heterochromatic brightness matches via Ware & Cowan's luminance correction equation. *1990 Society for Information Display International Symposium Digest of Technical Papers*, 21, 261-264.
- Calhoun, G. L. (1987).** *Eye and head response to an attention cue in a dual task paradigm* (Report No. AAMRL-TR-87-033). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A191052)
- Calhoun, G. L., & Janson, W. P. (1990).** Eye and head response as indicators of attention cue effectiveness. *Proceedings of the Human Factors Society 34th Annual Meeting*, 1, 1-5.
- Calhoun, G. L., & Janson, W. P. (1991).** Eye control interface considerations for aircrew station design [Abstract]. *Proceedings of the 6th European Conference on Eye Movements*, 85.
- Calhoun, G. L., & Janson, W. P. (1991).** *Eye line-of-sight control compared to manual selection of discrete switches* (Report No. AL-TR-1991-0015). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A273019)

I. ALPHABETICAL INDEX

- Calhoun, G. L., & Janson, W. P. (1992).** *Eye and head response as indicators of attention cue effectiveness* (Report No. AL-SR-1992-0022). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A275391)
- Calhoun, G. L., Janson, W. P., & Valencia, G. (1988).** Effectiveness of three-dimensional auditory directional cues. *Proceedings of the Human Factors Society 32nd Annual Meeting*, 1, 68-72.
- Calhoun, G. L., Valencia, G., & Furness, T. A. (1987).** Three-dimensional auditory cue simulation for crew station design/evaluation. *Proceedings of the Human Factors Society 31st Annual Meeting*, 2, 1398-1402.
- Cannon, M. W. (1989).** Attention uncertainty accounts for the thresholds of multiple Gabor patches. *Optical Society of America Annual Meeting Digest*, 18, 143.
- Cannon, M. W. (1990).** Spatial pattern processing in human vision. *Society for Information Display International Symposium Digest of Technical Papers*, 21, 452-455.
- Cannon, M. W. (1992).** A model for spatial interactions among contrast sensitive mechanisms. *Optical Society of America 1992 Annual Meeting Technical Digest*, 22, 130.
- Cannon, M. W. (1992).** A model of mechanisms mediating spatial pattern perception. *Proceedings of the Human Factors Society 36th Annual Meeting*, 2, 1430-1434.
- Cannon, M. W., & Fullenkamp, S. C. (1987).** Probability summation among spatially separated patterns is less than predicted. *Investigative Ophthalmology and Visual Science Annual Meeting Supplement*, 28, 357.
- Cannon, M. W., & Fullenkamp, S. C. (1987).** Spatial summation of non-contiguous stimuli [Abstract]. *Journal of the Optical Society of America*, A4, 124.
- Cannon, M. W., & Fullenkamp, S. C. (1988).** Multiple mechanism model for suprathreshold contrast perception [Abstract]. *Investigative Ophthalmology and Visual Science Annual Meeting Abstract Issue*, 29, 140.
- Cannon, M. W., & Fullenkamp, S. C. (1988).** Perceived contrast and stimulus size: Experiment and simulation. *Vision Research*, 28(6), 695-709.
- Cannon, M. W., & Fullenkamp, S. C. (1989).** A two dimensional model of contrast processing from threshold to high suprathreshold levels [Abstract]. *Investigative Ophthalmology and Visual Science Annual Meeting Abstract Issue*, 30, 504.
- Cannon, M. W., & Fullenkamp, S. C. (1990).** Inhibitory interactions in suprathreshold vision [Abstract]. *Investigative Ophthalmology and Visual Science Annual Meeting Abstract Issue*, 31, 323.
- Cannon, M. W., & Fullenkamp, S. C. (1991).** Lateral interactions among contrast sensitive mechanisms [Abstract]. *Optical Society of America Annual Meeting Digest*, 17, 164.
- Cannon, M. W., & Fullenkamp, S. C. (1991).** Spatial interactions in apparent contrast: Inhibitory effects among grating patterns of different spatial frequencies, spatial positions & orientations. *Vision Research*, 31(11), 1985-1998.

- Cannon, M. W., & Fullenkamp, S. C. (1991).** A transducer model for contrast perception. *Vision Research*, 31(6), 983-998.
- Cannon, M. W., & Fullenkamp, S. C. (1992).** A model for image sharpness estimates [Abstract]. *Investigative Ophthalmology and Visual Science Annual Meeting Abstract Issue*, 33, 1349.
- Cannon, M. W., & Fullenkamp, S. C. (1993).** Spatial interactions in apparent contrast: Individual differences in enhancement and suppression effects. *Vision Research*, 33(12), 1685-1695.
- Cardullo, F. M., Brown, Y. J., & McMillan, G. R. (1992).** Analysis and development of advanced techniques for cuing the force and motion environment in the simulator of the future. *Proceedings of the European Forum on Matching Technology to Training Requirements*, 16-1 - 16-12.
- Case, H., Ervin, C. A., & Robinette, K. M. (1989).** *Anthropometry of a fit test sample used in evaluating the current and improved MCU-2/P masks* (Report No. AAMRL-TR-89-009). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A215173)
- Chechile, R. A., Eggleston, R. G., Fleischman, R. N., & Sassville, A. M. (1989).** Modeling the cognitive complexity of displays. *Human Factors*, 31(1), 31-43.
- Chelen, W., Kabrisky, M., Hatsell, C., Morales, R., Fix, E. L., & Scott, M. (1990).** Use of phenytoin in the prevention of motion sickness. *Aviation, Space and Environmental Medicine*, 61, 1022-1025.
- Citera, M., Selvaraj, J. A., Zaff, B. S., Brown, C. E., & McNeese, M. D. (1993).** Development of a research paradigm to study collaboration in multidisciplinary design teams. In M. J. Smith, & G. Salvendy (Eds.), *Abridged proceedings of the 5th International Conference on Human-Computer Interactions*, 174.
- Coberly, V. J., & Wiederholt, B. J. (1989).** Knowledge representation for simulation. *Proceedings of the 1989 Summer Computer Simulation Conference*, 596-601.
- Cody, W. J. (1989).** Designers as users: Design supports based on crew system design practices. *Proceedings of the American Helicopter Society 45th Annual Forum*, 423-435.
- Cody, W. J., & Rouse, W. B. (1989).** A test of criteria used to select human performance models. In G. R. McMillan (Ed.), *Applications of human performance models to system design* (pp. 511-531). New York: Plenum.
- Cody, W. J., Rouse, W. B., & Boff, K. R. (1993).** *Functional requirements for computer-based associates that support access and use of technical information* (Report No. AL/CF-TR-1993-0069). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A274603)
- Cona, T. R., & Monk, D. L. (1993).** Bringing human performance data to the design table. *Proceedings of the Human Factors Society 37th Annual Meeting*, 2, 1087-1095.
- Cotton, C. T., Faklis, D., Bowen, J. P., & Morris, G. M. (1991).** *Application of surface-relief diffractive optics in helmet-mounted displays* (Report No. AL-TR-1991-0089). Wright-Patterson AFB, OH: Armstrong Laboratory.
- Crabtree, M. S., & Davis, S. A. (1991).** Criterion task set (CTS): Cognitive task battery development. *Proceedings of the Sixth International Symposium on Aviation Psychology*, 1154-1159.

I. ALPHABETICAL INDEX

- Crabtree, M. S., Marcelo, R. A. Q., McCoy, A. L., & Vidulich, M. A. (1993).** An examination of a subjective situational awareness measure during training on a tactical operations simulator. *Proceedings of the Seventh International Symposium on Aviation Psychology*, 2, 891-895.
- Craig, J. L. (1990).** AAMRL night vision goggle technology. *HSD Night Vision Goggle Conference* (pp. 61-88). Brooks AFB, TX: Human Systems Division.
- Craig, J. L. (1990).** Crew interface technologies. *Field Program Managers Conference* (pp. 15-32). Brooks AFB, TX: Human Systems Division.
- Craig, J. L. (1990).** Helmet mounted programs. *Air Force Night Vision Device Working Group*, 72-94.
- Craig, J. L. (1990).** Status of NVG activity at AAMRL. *5th Annual Joint Service Night Vision Conference*, 47-65.
- Craig, J. L. (1992).** Laboratory night vision goggle efforts. *Air Force Special Operations Command Acquisition Program Conference* (pp. 514-529). Hurlbert Field, FL: Air Force Special Operations Command.
- Craig, J. L., Anderson, M. L., & Simons, J. C. (1987).** *Night Vision Goggle (NVG) compatible lighting for MH-53H (PAVE LOW III) special operations* (Report No. AAMRL-TR-87-058). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B119227)
- Craig, J. L., Bartell, R. J., Hettinger, L. J., & Riegler, J. T. (1993).** *Assessment of interior modifications in C-130 and C-141 aircraft for night vision goggle operations* (Report No. AL/CF-TR-1993-0095). Wright-Patterson AFB, OH: Armstrong Laboratory.
- Craig, J. L., & Purvis, B. D. (1987).** Laboratory night vision goggle programs. *1st Strategic Air Command NVG Conference* (pp. 15-31). Offutt AFB, NE: Strategic Air Command.
- Craig, J. L., & Purvis, B. D. (1990).** B-52 night vision goggle head up display development. In H. M. Assenheim, & H. H. Bell (Eds.), *Proceedings of the Society of Photo-Optical Instrumentation Engineers (SPIE): Cockpit Displays and Visual Simulation*, 1289, 63-71.
- Craig, J. L., Purvis, B. D., & Reynolds, M. C. (1988).** *Night Vision Goggle (NVG) compatible cockpit lighting for B-52 special operations* (Report No. AAMRL-TR-88-028). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B127914)
- Craig, J. L., Purvis, B. D., & Simons, J. C. (1988).** *Formation lights for B-52 special operations: I. Design and test plan* (Report No. AAMRL-TR-88-051). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory.
- Crawford, R. L., Toms, M. L., & Wilson, D. L. (1991).** Effects of display luminance on the recognition of color symbols on similar color backgrounds. *Proceedings of the Human Factors Society 35th Annual Meeting*, 2, 1466-1470.
- Cress, J. D., McMillan, G. R., & Gilkey, M. J. (1989).** The dynamic seat as an angular cuing device: Control of roll & pitch vs the control of altitude & heading. *AIAA Flight Simulation Technologies Conference*, 94-100.

- Curry, D. G. (1992). *Handedness and motor programming aspects of manual control and movement* (Report No. AL-TR-1992-0127). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A264022)
- DeLucia, P. R. (1991). Object-motion, self-motion and object-motion during pictorial motion and motion-based information for depth perception. *Journal of Experimental Psychology: Human Perception and Performance*, 17(3), 738-748.
- Dembeck, C. M., & Masak, J. R. (1987). *SCPS-M processing study* (Report No. AAMRL 048). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B117565)
- Dembeck, C. M., Porter, C. D., & James, G. M. (1987). *Baseline analysis of SCPS-2 operations* (Report No. AAMRL-TR-87-056). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B119349)
- Dent, C., Klein, G., & Eggleston, R. G. (1987). *Metaphor casting of information--Display requirements* (Report No. KA-TR-868-87-01A). Yellow Springs, OH: Klein & Assoc.
- DeRego, P. (1989). Magnetoencephalographic data indicates separate component modeling is necessary in evaluating evoked responses. In S. Buus (Ed.), *15th Annual Northeast Bioengineering Conference*, 87-88.
- DeRego, P. (1989). Magnetoencephalographic localization of simulated evoked response sources affirms the importance of adequate modelling. *Proceedings of the 7th International Conference on Biomagnetism: Advances in Biomagnetism*, 551-554.
- Donohue-Perry, M. M. (1992). *Changes in visual acuity after night vision goggle exposure* (Report No. AL-SR-1992-0031). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B178591)
- Donohue-Perry, M. M., Hettinger, L. J., & Riegler, J. T. (1992). Human factors considerations for night vision system design: Preliminary results of NVG users' concerns survey [Abstract]. *Aerospace Medical Association 63rd Annual Scientific Meeting Program*, A6.
- Donohue-Perry, M. M., Hettinger, L. J., & Riegler, J. T. (1992). Human factors considerations for night vision system design: Preliminary results of NVG users' concerns survey. *7th Annual Joint Service Night Vision Device Conference*, 129-161.
- Donohue-Perry, M. M., Hettinger, L. J., & Riegler, J. T. (1992). *Night Vision Goggle (NVG) users' concerns survey site report: Hurlburt Field, FL* (Report No. AL-TR-1992-0089). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B171286)
- Donohue-Perry, M. M., Hettinger, L. J., Riegler, J. T., & Davis, S. A. (1992). *Night Vision Goggle (NVG) users' concerns survey site report: Charleston AFB, SC* (Report No. AL-TR-1992-0177). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B173525)
- Donohue-Perry, M. M., Hettinger, L. J., Riegler, J. T., & Davis, S. A. (1993). *Night Vision Goggle (NVG) users' concerns survey site report: Dover AFB, DE* (Report No. AL/CF-TR-1993-0075). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B178369)
- Donohue-Perry, M. M., Hettinger, L. J., Riegler, J. T., & Davis, S. A. (1993). *Night Vision Goggle (NVG) users' concerns survey site report: Pope AFB, NC* (Report No. AL/CF-TR-1993-0071). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B274471)

I. ALPHABETICAL INDEX

- Donohue-Perry, M. M., & Ramer, D. P. (1990).** A visual performance assessment of ANVIS compatible lighting categories. *5th Annual Joint Service Night Vision Conference*, 89-102.
- Donohue-Perry, M. M., & Ramer, D. P. (1990).** A visual performance assessment of ANVIS compatible lighting categories. *1990 Society for Information Display International Symposium Digest of Technical Papers*, 21, 130-132.
- Donohue-Perry, M. M., & Riegler, J. T. (1990).** A compatibility evaluation of the protective integrated hood mask with ANVIS night vision goggles. *Report of the 30th Meeting of Air Standardization Coordination Committee (ASCC) Working Party 61: Aerospace Medical and Life Support Systems Symposium: Aeromedical Aspects of Vision* (Vol. 4, pp. 102-109). Toronto: Defence and Civil Institute of Environmental Medicine.
- Donohue-Perry, M. M., & Riegler, J. T. (1991).** An evaluation of the protective integrated hood mask for ANVIS night vision goggle compatibility. *AGARD Conference Proceedings 517: Helmet Mounted Displays and Night Vision Goggles* (pp. 4-1 - 4-4). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-CP-517)
- Donohue-Perry, M. M., Riegler, J. T., & Hausmann, M. A. (1990).** A compatibility assessment of the protective integrated hood mask with ANVIS night vision goggles (Report No. AAMRL-TR-90-030). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A229956)
- Donohue-Perry, M. M., & Task, H. L. (1988).** An optical evaluation of laser protective visors (Report No. AAMRL-TR-88-053). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B133750)
- Doyal, J. A., Irvin, G. E., Donohue, T. R., & Dowler, M. G. (1992).** Flight simulation of infrared smoke obscuration using equivalent contrast reduction. *Proceedings of the Smoke/Obscurants Symposium*, 24.
- Duncan, P. C. (1989).** Aerospace technical training: The state of the art and forecast for the future. *Proceedings of the AIAA Computers in Aerospace VII Conference*, 420-428.
- Eggemeier, F. T., & Wilson, G. F. (1991).** Performance-based and subjective assessment of workload in multi-task environments. In D. L. Damos (Ed.), *Multiple task performance* (pp. 217-278). London: Taylor and Francis.
- Eggemeier, F. T., Wilson, G. F., Kramer, A. F., & Damos, D. L. (1991).** Workload assessment in multi-task environments. In D. L. Damos (Ed.), *Multiple task performance* (pp. 207-216). London: Taylor and Francis.
- Eggleston, R. G. (1987).** The changing nature of the human-machine design problem: Implications for system design and development. In W. J. Rouse, & K. R. Boff (Eds.), *System design: Behavior perspectives on designers, tools, and organizations* (pp. 113-125). New York: North Holland.
- Eggleston, R. G. (1987).** *Impact of future developments in electronic technology on cockpit engineering* (Report No. AGARD-R-757). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-R-757)
- Eggleston, R. G. (1988).** Machine intelligence and crew-vehicle interfaces. In E. Heer, & H. Lum (Eds.), *Progress in astronautics and aeronautics: Vol. 115. Machine intelligence and autonomy for aerospace systems* (pp. 51-84). Washington, DC: American Institute of Aeronautics.

- Eggleston, R. G. (1992). Cognitive interface considerations for intelligent cockpits. *AGARD Conference Proceedings No. 520: Flight Mechanics and Guidance and Control Panel Symposium* (pp. 21-1 - 21-16). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-CP-520)
- Eggleston, R. G., Janson, W., & Adapalli, S. (in press). Manual tracking performance using a virtual hand controller: A comparison study. *AGARD Aerospace Medical Panel Symposium*. Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development.
- Eimer, E. O. (1987). *Team problem solving: Effects of communication and function overlap* (Report No. AAMRL-TR-87-037). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A187010)
- Eimer, E. O. (1987). *When decision aids fail* (Report No. AAMRL-TR-87-035). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory.
- Endlsey, M. R., & Kiris, E. O. (1993). *Information presentation for expert systems in future fighter aircraft* (Report No. AL/CF-TR-1993-0164). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A275126)
- Endsley, M. R. (1991). *Situation awareness in an advanced strategic mission* (Report No. AL-TR-1991-0083). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B161348)
- Entin, E. E., James, R. M., & Serfaty, D. (1987). *Cognitive style and multi-stage decision making* (Report No. AAMRL-TR-87-024). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A183891)
- Ervin, C. A. (1987). *Annotated bibliography of psychomotor testing* (Report No. AAMRL-TR-87-019). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A181694)
- Ervin, C. A., & Robinette, K. M. (1987). *A manual for administering a standardized dexterity test battery* (Report No. AAMRL-TR-87-036). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A188718)
- Farley, W. W. (1987). *Design and testing of a luminance and chrominance stabilization system for a computer-controlled color display* (Report No. AAMRL-TR-87-027). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A955697)
- Farmer, E., Boer, L., Goeters, K., Grussett, J., Santucci, G., Schwartz, E., Wetherell, A., & Wilson, G. F. (1989). *AGARD Aerospace Medical Panel Working Group 16 AGARDograph 308: Human performance assessment methods*. Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-O-GRAPH 308)
- Filipovich, D. (1992). *Enhanced night vision goggle configuration* (Report No. AL-SR-1992-0017). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B172004)
- Fiorita, A. L., Middendorf, M. S., & McMillan, G. R. (1992). Maintaining subject motivation in long-term experiments using performance incentives and penalties. *Proceedings of the Human Factors Society 36th Annual Meeting*, 2, 1335-1339.
- Fix, E. L. (1988). Optimizing back propagation training. *Proceedings of the Fourth Annual Aerospace Applications of Artificial Intelligence Conference*, 1, 52-56.

I. ALPHABETICAL INDEX

- Fix, E. L.** (1990). Modeling human performance with neural networks. *Proceedings of the International Joint Conference on Neural Networks*, 1, 247-252.
- Fix, E. L.** (1990). Neural network based human performance modeling. *Proceedings of The IEEE 1990 National Aerospace and Electronics Conference: NAECON 1990*, 3, 1162-1165.
- Fix, E. L.** (1990). *Neural network based human performance modeling* (Report No. AAMRL-TR-90-042). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A229822)
- Fix, E. L., & Deer, B. C.** (1988). Extrapolation and interpolation capability of the back propagation algorithm. *Proceedings of the Fourth Annual Aerospace Applications of Artificial Intelligence Conference*, 1, 87-92.
- Fix, E. L., Marshak, W. P., & Burnside, D.** (1990). Advanced reference system cockpit display project. *Proceedings of The IEEE 1990 National Aerospace and Electronics Conference: NAECON 1990*, 1, 338-342.
- Fix, E. L., & Rolek, E. P.** (1991). *Modeling a human operated soviet SAM system using neural networks* (Report No. AL-TR-91-0016). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B167818)
- Flach, J. M., & Warren, R.** (in press). Active psychophysics: The relation between mind and what matters. In J. M. Flach, P. A. Hancock, J. Caird, & K. Vicente (Eds.), *The ecology of human-machine systems*. Hillsdale, NJ: Erlbaum.
- Flach, J. M., & Warren, R.** (in press). Low altitude flight. In J. M. Flach, P. A. Hancock, J. Caird, & K. Vicente (Eds.), *An ecological approach to human machine systems II: Local applications*. Hillsdale, NJ: Erlbaum.
- Fracker, M. L.** (1988). A theory of situation assessment: Implications for measuring situation awareness. *Proceedings of the Human Factors Society 32nd Annual Meeting*, 1, 102-106.
- Fracker, M. L.** (1989). Attention allocation in situation awareness. *Proceedings of the Human Factors Society 33rd Annual Meeting*, 2, 1396-1400.
- Fracker, M. L.** (1989). Attention gradients in situation awareness. *AGARD Conference Proceedings No. 478: Situation Awareness in Aerospace Operations Symposium*. Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-CP-478)
- Fracker, M. L.** (1991). *Measures of situation awareness: An experimental evaluation* (Report No. AL-TR-1991-0127). Wright-Patterson AFB, OH: Armstrong Laboratory.
- Fracker, M. L.** (1991). *Measures of situation awareness: Review and future directions* (Report No. AL-TR-1991-0128). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A262672)
- Fracker, M. L., & Davis, S. A.** (1991). *Explicit, implicit, and subjective rating measures of situation awareness in a monitoring task* (Report No. AL-TR-1991-0091). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A262702)
- Fracker, M. L., & Vidulich, M. A.** (1991). Measurement of situation awareness: A brief review. *Proceedings of the 11th Congress of the International Ergonomics Association*, 1, 795-797.

- Fracker, M. L., & Wickens, C. D. (1987). Resources, confusions, and compatibility in dual axis tracking: Displays, controls, and dynamics. *Proceedings of the Human Factors Society 31st Annual Meeting*, 2, 1211-1215.
- Fracker, M. L., & Wickens, C. D. (1989). Resources, confusions and compatibility in dual axis tracking: Displays, controls, and dynamics. *Journal of Experimental Psychology: Human Perception and Performance*, 15(1), 80-96.
- Franklin, H. (1993). *Miniature color display phase IV final report* (Report No. AL/CF-SR-1993-0009). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A272920)
- Fraser, N. M., Hipel, K. W., & Kilgour, D. M. (1987). *Human conflict resolution* (Report No. AAMRL-TR-87-013). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A182740)
- Fraser, N. M., Hipel, K. W., Kilgour, D. M., McNeese, M. D., & Snyder, D. E. (1989). An architecture for integrating expert systems. *Decision Support Systems*, 5, 263-276.
- Frazier, J., McDaniel, J. W., Skowronski, V., & Aume, N. M. (1988). *Body displacement measured during sustained +Gz, -Gz, and +/-Gy acceleration using a stereoscopic photographic system* (Report No. AAMRL-TR-88-015). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A197988)
- Freeman, J., Hesse, K., Sauerborn, J., & Sluzky, E. (1987). *Performance improvement of miniature cathode ray tubes* (Report No. AAMRL-TR-87-062). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B145068)
- Frick, R. K., Swinehart, R., & Taylor, M. (1987). *Functional requirements/systems architecture for relocatable target (RT) missions, Vol. II: User's guide to models* (Report No. AAMRL-TR-87-028). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B116589)
- Frick, R. K., Swinhardt, R., Taylor, M., Kuperman, G. G., & Wilson, D. L. (1987). *Functional requirements/systems architecture for relocatable target (RT) missions, Volume I: Methodology* (Report No. AAMRL-TR-87-068). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. C955978)
- Furness, T. A. (1988). Harnessing virtual space. *1988 Society for Information Display International Symposium Digest of Technical Papers*, 19, 4-7.
- Gallimore, J. J. (1992). *Review of psychophysically-based image quality metrics* (Report No. AL-TR-1991-0153). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A251053)
- Gawron, V. J., Bailey, R. E., Knotts, L. H., & McMillan, G. R. (1989). Comparison of time delay during in-flight and ground simulation. *Proceedings of the Human Factors Society 33rd Annual Meeting*, 1, 120-123.
- Geiselman, E. E., & Osgood, R. K. (1992). A comparison of three attitude display symbology structures during an attitude maintenance task. *Proceedings of the Human Factors Society 36th Annual Meeting*, 2, 1450-1454.

I. ALPHABETICAL INDEX

- Geiselman, E. E., & Osgood, R. K. (1993). *A comparison of three aircraft attitude display symbology structures* (Report No. AL/CF-TR-1993-0134). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A275172)
- Geiselman, E. E., & Osgood, R. K. (1993). Toward an empirically based helmet-mounted display symbology set. *Proceedings of the Human Factors Society 37th Annual Meeting*, 1, 93-97.
- Gibbons, L. E. (1990). *Summary of ergonomics research for the CREW CHIEF model development* (Report No. AAMRL-TR-90-038). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A236113)
- Gibson, C. P., & Martin, W. L. (1989). Designing the virtual cockpit man-machine interface. *Proceedings of the Society of Photo-Optical Instrumentation Engineers (SPIE): Display System Optics II*, 1117, 85-93.
- Gilliland, K., Schlegel, R. E., & Dannels, S. (1987). Relationship between criterion task set performance and the personality variables of sensation seeking and stimulus screening. *Proceedings of the Human Factors Society 31st Annual Meeting*, 1, 402-404.
- Gleason, G. A., Schor, C., Lunn, R., & Maxwell, J. (1993). Directionally selective short-term nonconjugate adaptation of vertical pursuits. *Vision Research*, 33(1), 65-71.
- Glushko, R. J., Weaver, M. D., Coonan, T. A., & Lincoln, J. E. (1988). Hypertext engineering: Practical methods for creating a compact disc encyclopedia. *Proceedings of the ACM Conference on Document Processing Systems*, 11-19.
- Goldman, Z. Z. (1988). *Human auditory and visual unimodal and bimodal continuous evoked potentials* (Report No. AAMRL-TR-88-016). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A198845)
- Gomes, M. E., Lind, S., & Snyder, D. E. (1992). *A human factors evaluation of the MH-53J helicopter using advanced acquisition and computer analysis techniques* (Report No. AL-TR-1992-0081). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B170365)
- Gonsalves, P. G., Kneller, E. W., Zacharias, G. L., St. John, R. J., & Purvis, B. D. (1989). *Model-based method for terrain-following display design* (Report No. AAMRL-TR-89-039). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A219302)
- Green, T. B., Purvis, B. D., & Marshak, W. P. (1989). Strategic aircraft engineering design simulation. *Proceedings of the IEEE 1989 National Aerospace and Electronics Conference: NAECON 1989*, 2, 742-745.
- Grigsby, S. S., & Tsou, B. H. (1993). Monocular and binocular grating and flicker sensitivity across the visual field [Abstract]. *Investigative Ophthalmology & Visual Science*, 34, 779.
- Grigsby, S. S., & Tsou, B. H. (1993). Visual factors in the design of partial overlap binocular helmet-mounted displays. *1993 Society for Information Display International Symposium Digest of Technical Papers*, 24, 185-187.
- Gundel, A., & Wilson, G. F. (1992). Topographical changes in the ongoing EEG related to the difficulty of mental tasks. *Brain Topography*, 5(1), 17-25.

- Gundel, A., & Wilson, G. F. (1993). Editorial: Psychophysiological measures in transport operations. [Special issue]. In A. Gundel, & G. F. Wilson (Ed.), *Ergonomics*, 36(9), 989.
- Haas, M. W. (in press). Fusion interfaces for tactical environments: An approach for applying virtual reality technology. *Seventh Annual Workshop on Space Operations, Applications and Research (SOAR '93)*. Johnson Space Center, TX: National Aeronautics and Space Administration.
- Haas, M. W. (1992). Multi-sensory virtual-interface technology. *AGARD 25th Anniversary Seminar*. Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development.
- Haas, M. W. (1993). Fusion interfaces for tactical environments: An approach for applying virtual reality technology. In L. Murray (Ed.), *Minutes of the 30th Meeting of the DOD Human Factors Engineering Technical Advisory Group* (pp. AA).
- Haas, M. W., & Hettinger, L. J. (1993). Applying virtual reality technology to cockpits of future fighter aircraft. *Virtual Reality Systems*, 1(2), 18-26.
- Haas, M. W., & Wells, M. J. (1990). Head movement during simulated air-to-air engagements. *Proceedings of the Society of Photo-Optical Instrumentation Engineers (SPIE): Helmet-Mounted Displays II*, 1290, 246-257.
- Hall, P. S., & Campbell, B. L. (1992). Helmet-mounted systems technology planning. *Proceedings of the Society of Photo-Optical Instrumentation Engineers (SPIE): Helmet-Mounted Displays III*, 1695, 2-7.
- Hammond, K. R. (1987). *Reducing disputes among experts* (Report No. AAMRL-TR-87-015). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A182602)
- Harmon, E. E., May, J. G., Love, A. C., Cannon, M. W., & Ellis, G. S. (1988). Infant preferences: Faces vs. a blooming buzzing confusion. *Proceedings of the Investigative Ophthalmology and Visual Science Annual Meeting*, 29, 25.
- Haskell, B. E., & Reid, G. B. (1987). The subjective perception of workload in low time private pilots. *Aviation, Space, and Environmental Medicine*, 1230-1232.
- Hettinger, L. J., Donohue-Perry, M. M., Riegler, J. T., & Davis, S. A. (1992). *Night Vision Goggle (NVG) users' concerns survey site report: Eglin AFB, FL* (Report No. AL-TR-1992-0144). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B174198)
- Hettinger, L. J., Donohue-Perry, M. M., Riegler, J. T., & Davis, S. A. (1993). *Night Vision Goggle (NVG) users' concerns survey site report: Fairchild AFB, WA* (Report No. AL/CF-TR-1993-0094). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B178368)
- Hettinger, L. J., Donohue-Perry, M. M., Riegler, J. T., & Davis, S. A. (1993). *Night Vision Goggle (NVG) users' concerns survey site report: Robins AFB, GA* (Report No. AL/CF-TR-1993-0070). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B178296)
- Horwitz, L. S., & Griffith, O. (1992). *Ocular vergence and accommodation sensor for helmet-mounted displays* (Report No. AL-SR-1992-0018). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B178051)

I. ALPHABETICAL INDEX

- Hunt, G., Armando, A., Brants, I. J. H., Haas, M. W., Leutwyler, R., Parus, R., Beaton, R. M., Deblon, F., Hulme, A., & Pagniz, P. (1992). *Mission planning systems for tactical aircraft (pre-flight and in-flight)* (Report No. AGARD-AR-313). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-AR-313)
- Hunt, G., Jones, T. N., Armando, A., Brants, I. J. H., Haas, M. W., Leutwyler, R., Beaton, R. M., Deblon, F., Hulme, A., & Parus, R. (1991). *Mission planning systems for tactical aircraft (pre-flight and in-flight)* (Report No. AGARD-AR-296). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-AR-296)
- Hunt, R. M. (1987). The difficulties of design problem formulation. In W. B. Rouse, & K. R. Boff (Eds.), *System design: Behavioral perspectives on designers, tools and organizations* (pp. 145-157). New York: North Holland.
- Ingling, C. R., Jr., & Tsou, B. H. (1988). Spectral sensitivity for flicker and acuity criteria. *Journal of the Optical Society of America A*, 5, 1374-1378.
- Irvin, G. E., & Dowler, M. G. (1992). Physiologically based computational approach to camouflage and masking patterns. *Proceedings of the Society of Photo-Optical Instrumentation Engineers (SPIE)*, 481-488.
- Irvin, G. E., & Kang, R. N. (1987). Perimetry measures of transient visual field loss in the presence of foveal laser exposures in humans. *Proceedings of the Sixth DOD Conference on Directed Energy Weapons: Vulnerability, Survivability and Effects*.
- Irvin, G. E., Kang, R. N., Spravka, J. J., & O'Neal, M. R. (1988). Correlational investigation of contrast sensitivity and visual acuity in the detection of approaching aircraft [Abstract]. *Aviation, Space, and Environmental Medicine*, 59(5), 463.
- Irvin, G. E., Keep, G. F., & Dowler, M. G. (1991). Two-dimensional aircraft decoys based on perspective rendition: Overview and experimental results. *Proceedings of the Aerospace Medical Association Convention*, 450.
- Janson, W. P. (1989). *Eye and head response to peripheral targets* (Report No. AAMRL-TR-89-033). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A234958)
- Janson, W. P., & Calhoun, G. L. (1988). Latencies of the eye & head to targets in the vertical & horizontal planes. *Proceedings of the Human Factors Society 32nd Annual Meeting*, 2, 1424-1428.
- Janson, W. P., Quam, D. L., & Calhoun, G. L. (1987). Eye & head displacement to targets fixated in the vertical & horizontal planes. *Proceedings of the Human Factors Society 31st Annual Meeting*, 1, 243-247.
- Jauer, R. A., Quinn, T. J., Hockenbeager, R. L., & Eggleston, R. G. (1987). *Radar-aided mission/aircrew capability exploration: Full task simulation study* (Report No. AAMRL-TR-86-015). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B107949)
- Jensen, J. G., Brunswick, E. A., & Replogle, C. R. (1993). *Analysis of theater missile defense intercept altitude and kill requirements against chemical and biological agent-filled tactical ballistic missiles* (Report No. AL/CF-TR-1993-0104). Wright-Patterson AFB, OH: Armstrong Laboratory.

- Johnson, K. L., Brisby, J. M., Prior, R. C., Blazer, D. R., Heaton, H. H., Finch, S. R., Hattershire, B. R., & Sharp, E. D. (1988). *Final report: Strategic avionics crew station design evaluation facility (SACDEF) systems integrator contract* (Report No. AAMRL-TR-88-071). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B131733)
- Johnson, S., Shaw, R. L., & Simons, J. C. (1989). *Fighter, bomber, airlift debriefings: I. Facilities and general guidelines* (Report No. AAMRL-TR-89-006). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory.
- Johnson, W. V., & Middendorf, M. S. (1988). Simulator transport delay measurement using steady-state techniques. *AIAA Flight Simulation Technologies Conference*, 250-254.
- Jones, M. R., & Skelly, J. J. (1993). The role of event time in attending. *Time and Society*, 2(1), 107-128.
- Junker, A. M. (1988). Loop closure of the visual cortical response. *Proceedings of The IEEE 1988 National Aerospace and Electronics Conference: NAECON 1988*, 1523-1529.
- Junker, A. M. (1988). A real time frequency analyses methodology for evoked potential loop-closure. *Proceedings of The IEEE 1988 National Aerospace and Electronics Conference: NAECON 1988*, 1530-1535.
- Junker, A. M. (1988). Resource measurement using a closed-loop EEG control system. *Proceedings of The IEEE 1988 National Aerospace and Electronics Conference: NAECON 1988*, 1519-1522.
- Junker, A. M., Levison, W. H., & Gill, R. T. (1987). *A systems engineering based methodology for analyzing human electrocortical responses* (Report No. AAMRL-TR-87-030). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A190809)
- Junker, A. M., Schnurer, J. H., Ingle, D. F., & Downey, C. W. (1988). *Loop-closure of the visual-cortical response* (Report No. AAMRL-TR-88-014). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A198348)
- Kama, W. N. (1988). *The effect of binocular rivalry on the performance of a simple target detection/recognition task* (Report No. AAMRL-TR-88-056). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A203512)
- Kama, W. N. (1989). Measures of distortion: Are they relevant? In S. A. Marolo (Ed.), *Conference on Aerospace Transparent Materials and Enclosures* (WRDC-TR-89-4044, Vol. 2, pp. 1072-1093). Wright-Patterson AFB, OH: Wright Research and Development Center.
- Kama, W. N., Bridenbaugh, J., & Task, H. L. (1987). *Flexible fiber optics bundle study: Effect of number of active fibers on symbol legibility* (Report No. AAMRL-TR-87-012). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory.
- Kama, W. N., & Kuperman, G. G. (1988). *The effect of HUD symbology size on operator performance under various luminance conditions* (Report No. AAMRL-TR-88-021). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A210460)
- Kama, W. N., Task, H. L., & Merkel, H. S. (1988). *Field and laboratory evaluation of the optical qualities of the B-1B windshield* (Report No. AAMRL-TR-88-050). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B147487)

I. ALPHABETICAL INDEX

- Kang, R. N., Marshak, W. P., Reigler, J. T., Irvin, G. E., & Rogers-Adams, B. M.** (1987). *The effect of internal contrast and simulated shadow on the deceptive effectiveness of aircraft silhouette paint pattern decoys* (Report No. AAMRL-TR-87-073). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B128218)
- Kang, R. N., Riegler, J. T., & Irvin, G. E.** (1987). *Tonedown guidelines for F-16 aircraft canopy shelter entrances* (Report No. AAMRL-TR-87-054). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B119227)
- Kang, R. N., Riegler, J. T., Irvin, G. E., & Katz, L.** (1987). *An evaluation of the deceptive effectiveness of 2-Dimensional aircraft silhouette patterns as a function of azimuth and contrast in a grouping context* (Report No. AAMRL-TR-87-023). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B111844)
- Kang, R. N., Susnik, R. M., Irvin, G. E., & Urban, K. E.** (1987). *Target masking-perimeter evaluation of target masking at 530.9 NM and 647.1 NM* (Report No. AAMRL-TR-87-061). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. C043778)
- Kang, R. N., Susnik, R. M., & Riegler, J. T.** (1987). *The evaluation of 2-Dimensional aircraft silhouette joint patterns as a countermeasure for target acquisition* (Report No. AAMRL-TR-87-022). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B112747)
- Kapasouris, P., Serfaty, D., Wohl, J. G., Deckert, J. C., & Pattipati, K.** (1989). *Mapping missions onto C3 organizations: Incorporating the goal dimension in IAT* (Report No. AAMRL-TR-89-048). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A225582)
- Katsuyama, R. M., McNeese, M. D., & Schertler, D.** (1987). The effects of stimulus familiarity upon lateral asymmetry in face recognition. In J. M. Flach (Ed.), *Proceedings of the Fourth Mid central Ergonomics/Human Factors Conference*, 306-312.
- Katsuyama, R. M., Monk, D. L., & Rolek, E. P.** (1989). Effects of visual display separation upon primary and secondary task performance. *Proceedings of The IEEE 1989 National Aerospace and Electronics Conference: NAECON 1989*, 2, 758-764.
- Katsuyama, R. M., Rolek, E. P., Johnson, S., & Monk, D. L.** (1989). *Effects of miniature CRT location upon primary and secondary task performances* (Report No. AAMRL-TR-89-018). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A210223)
- Keep, G. F., Irvin, G. E., & Dowler, M. G.** (1991). Aircraft masking patterns as a deception technique: Experimental results from laboratory and field evaluations. [Abstract]. *Proceedings of the Aerospace Medical Association Convention*, 450.
- Kelly, L., Flach, J. M., Garness, S., & Warren, R.** (1993). Altitude control effects of texture and optical flow. *Proceedings of the Seventh International Symposium on Aviation Psychology*, 1, 292-295.
- Kennedy, R. S., Jones, M. B., & Baltzley, D. R.** (1989). *Regions of isoperformance: An interactive software package for trading off training, personnel, and equipment* (Report No. AAMRL-TR-89-003). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B136770)

- Kimble, C. E., & McNeese, M. D. (1987). *Emergent leadership and team effectiveness on a team resource allocation task* (Report No. AAMRL-TR-87-064). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A192105)
- Klein, G. A., & Brezovic, C. (1987). *What do training device designers want to know about human performance characteristics?* (Report No. AAMRL-TR-87-010). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory.
- Klein, G. A., & Brezovic, C. P. (1987). *Human performance data needed for training device design decisions* (Report No. AAMRL-TR-87-010). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A185988)
- Klinger, D. W., Andriole, S. J., Militello, L. G., Adelman, L., Klein, G., & Gomes, M. E. (1993). *Designing for performance: A cognitive systems engineering approach to modifying an AWACS human-computer interface* (Report No. AL/CF-TR-1993-0093). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A275187)
- Kocian, D. F. (1988). Design considerations for virtual panoramic display (VPD) helmet systems. *AGARD Conference Proceedings No. 425: The Man-Machine Interface in Tactical Aircraft Design and Combat Automation* (pp. 22-1 - 22-32). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-CP-425)
- Kocian, D. F. (1988). Integrated helmet systems (IHS) for binocular helmet mounted displays. *Report of the 30th Meeting of Air Standardization Coordination Committee (ASCC) Working Party 61: Aerospace Medical and Life Support Systems Symposium: Head Protection Issues* (Vol. 4, pp. M-14-1 - M-14-24). Toronto: Defence and Civil Institute of Environmental Medicine.
- Kocian, D. F. (1989). Design considerations for visually coupled systems and their interface to sensor/computer generated cockpit imagery systems. In L. M. Biberman (Ed.), *Proceedings of the Sensor Display Workshop: Vol. 2 Display Technology* (IDA Document D-713 pp. 75-194). Alexandria, VA: Institute for Defense Analysis.
- Kocian, D. F. (1990). Visually coupled systems (VCS): Preparing the engineering research framework. *Eleventh Annual IEEE/AESS Dayton Chapter Symposium: The Cockpit of the 21st Century--Will High Tech Payoff?*, 28-38.
- Kocian, D. F. (1991). Visually coupled systems (VCS): The virtual panoramic display (VPD) "system". In K. Krishen (Ed.), *Fifth Annual Workshop on Space Operations, Applications, and Research (SOAR '91)* (NASA-CP-3127, Vol. 2, pp. 548-561). Johnson Space Center, TX: National Aeronautics and Space Administration.
- Kocian, D. F. (1993). Helmet mounted displays, miniature cathode-ray tubes, CRT interfaces and miniature color displays, a potpourri. *SID and IICS Symposium: Displays! The Key to Virtual Reality* (pp. 39-71). Playa del Rey, CA: Society of Information Display.
- Korna, M., Krauskopf, P. J., Haddox, D., Hardyal, S., Jones, M. W., Polzinetti, J., & McDaniel, J. W. (1988). *User's guide for CREW CHIEF: A computer graphics simulation of an aircraft maintenance technician (Version 1 - CD20)* (Report No. AAMRL-TR-88-034). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (NTIS No. AD A201 368)

I. ALPHABETICAL INDEX

- Korna, M., Krauskopf, P. J., Haddox, D., Hardy, S., Jones, M. W., Polzinetti, J., & McDaniel, J. W. (1990).** *User's guide for CREW CHIEF: A computer graphics simulation of an aircraft maintenance technician (Version 2 - CD21)* (Report No. AAMRL-TR-90-014). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A230654)
- Korna, M., Rothery, J., Jones, M. W., Krauskopf, P. J., Stump, W., Hardy, S., Haddox, D., Meeks, L., & McDaniel, J. W. (1988).** *User's guide for CREW CHIEF: A computer graphics simulation of an aircraft maintenance technician (Version 1 - CV4001)* (Report No. AAMRL-TR-88-045). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (NTIS No. AD A204 869)
- Krauskopf, P. J., Jones, M. W., Stump, W. J., & Quinn, J. W. (1990).** *CREW CHIEF CAD system interface guide (Version 2 - SI)* (Report No. AAMRL-TR-90-015). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A231433)
- Krauskopf, P. J., Quinn, J. W., Berlin, R., Stump, W. J., Gibbons, L. E., & McDaniel, J. W. (1989).** *User's guide for COMBIMAN programs (COMputerized BIomechanics MAN-model) Version 8* (Report No. AAMRL-TR-89-024). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A222735)
- Kulwicki, P. V., McDaniel, J. W., & Guadagna, L. M. (1987).** Advanced development of a cockpit automation design support system. *AGARD Conference Proceedings 417: The Design, Development, and Testing of Complex Avionics Systems* (pp. 19-1 - 19-15). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-CP-417)
- Kuperman, G. G. (1990).** Evaluation and integration of ATR crew aiding systems: A human factors approach. *Proceedings of the 1990 Automatic Target Recognizer System and Technology Conference* (GACIAC PR 90-04 pp. 473-479). Baltimore, MD: Guidance and Control Information Analysis Center.
- Kuperman, G. G. (1992).** *Information requirements analysis for transatmospheric vehicles* (Report No. AL-TR-1992-0082). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A261189)
- Kuperman, G. G. (1992).** *Operator interface assessment for the sensor fusion flight demonstration program* (Report No. AL-TR-1992-0117). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A260235)
- Kuperman, G. G., Bryant, M. L., & Clark, L. G. (1991).** Man-machine interfaces for automatic target recognition systems. *Proceedings of the 4th National Symposium on Sensor Fusion, 1*, 635-642.
- Kuperman, G. G., & Perez, W. A. (1988).** A frame based mission decomposition model. *Proceedings of the Human Factors Society 32nd Annual Meeting, 1*, 135-139.
- Kuperman, G. G., & Sobel, A. L. (1992).** Design of the man-machine interface for an automatic target cuer system. *Proceedings of the Institute of Electrical and Electronic Engineers (IEEE), 2*, 691-697.
- Kuperman, G. G., & Sobel, A. L. (1992).** Information requirements analysis for NASP derived vehicles. *4th International Aerospace Planes Conference*, (Paper No. AIAA-92-5078).
- Kuperman, G. G., & Sobel, A. L. (1992).** Training systems for TAV operations. *1992 Society of Automotive Engineers Aerospace Atlantic Conference and Exposition*, (SAE Technical Paper Series 921042).

- Kuperman, G. G., Spravka, J. J., Swonigan, T. T., & Sobel, A. (1993).** *Counter mobile missile avionics demonstration* (Report No. AL-TR-1993-0049). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. C959997)
- Kuperman, G. G., & Wilson, D. L. (1987).** *Abbreviated workload analysis for HAVE NAP* (Report No. AAMRL-TR-87-067). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. C042680)
- Kuperman, G. G., & Wilson, D. L. (1988).** The design of a tactical situation display. *Proceedings of the Human Factors Society 32nd Annual Meeting, 1*, 111-115.
- Kuperman, G. G., & Wilson, D. L. (1990).** *Demonstration of concept I avionics capability performance* (Report No. AAMRL-TR-90-059). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. C958373)
- Kuperman, G. G., & Wilson, D. L. (1991).** Objective and subjective assessment of image compression algorithms. *Society for Information Display 1991 International Symposium Digest of Technical Papers, 22*, 627-640.
- Kuperman, G. G., Wilson, D. L., & Crawford, R. L. (1989).** Discriminability of color symbols through PLZT goggles. *Proceedings of the Human Factors Society 33rd Annual Meeting, 2*, 1378-1382.
- Kuperman, G. G., Wilson, D. L., & Crawford, Y. R. (1989).** *Wide dynamic range synthetic aperture radar operator performance display study* (Report No. AAMRL-TR-89-020). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. C956972)
- Kuperman, G. G., Wilson, D. L., & Davis, I. (1993).** *High resolution radar demonstration program: Operator performance study* (Report No. AL-TR-1993-0032). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B176914)
- Kuperman, G. G., Wilson, D. L., & Perez, W. A. (1988).** *Relocatable target acquisition performance with simulated synthetic aperture radar* (Report No. AAMRL-TR-88-025). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B177485)
- Kuyk, T. K. (1988).** *Visual depth recovery in humans* (Report No. AAMRL-TR-88-035). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A201278)
- LaPuma, P. T., & Bridenbaugh, J. C. (1988).** *Specifications and measurement procedures for aircraft transparencies* (Report No. AAMRL-TR-88-058). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A209396)
- Licht, D. M., Polzella, D. J., & Boff, K. R. (1991).** *Human factors, ergonomics, and human factors engineering: An analysis of definitions* (Report No. 89-01). Wright-Patterson AFB, OH: CSERIAC Program Office.
- Lincoln, J. E., & Boff, K. R. (1988).** Making behavioral data useful for system design applications: Development of the engineering data compendium. *Proceedings of the Human Factors Society 32nd Annual Meeting, 2*, 1021-1025.
- Lintern, G., & McMillan, G. R. (1993).** Transfer for flight simulation. In R. A. Telfer (Ed.), *Aviation instruction and training* (pp. 130-162). Hants, England: Ashgate.

I. ALPHABETICAL INDEX

- Llinas, J., Neal, J., & Kuperman, G. G. (1991). Systematic & practical views on intelligent interfacing for data fusion applications. *Proceedings of the AIAA Computers in Aerospace VIII Conference*, 2, 623-644.
- Lovering, P. B., Noah, J. D., & Kuperman, G. G. (1988). *Infrared integration options for B-1B navigation and targeting* (Report No. AAMRL-TR-88-026). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B127695)
- Lusk, S. L., Martin, C. D., Whiteley, J. D., & Johnson, W. V. (1990). Time delay compensation using peripheral visual cues in an aircraft simulator. *AIAA Flight Simulation Technologies Conference*, 63-70.
- Marasco, P. L., & Dereniak, E. L. (1993). Uncooled infrared sensor performance. In B. F. Andresen, & F. D. Shepherd (Eds.), *Proceedings of the Society of Photo-Optical Instrumentation Engineers (SPIE): Infrared Technology XIX, 2020*, 363-378.
- Maresh, J. L. (1991). Development of a real-time visual flight simulator for tactical operations research and development. *Proceedings of the Sixth International Symposium on Aviation Psychology*, 841-846.
- Maresh, J. L., & Todd, R. E. (1989). Realtime graphic flight simulations using multiple minicomputers. In R. S. Jensen (Ed.), *Proceedings of the Fifth International Symposium on Aviation Psychology*, 2, 221-226.
- Marshak, W. P. (1992). Temporal frequency spectrum for describing and modeling motion perception. *Proceedings of the Society of Photo-Optical Instrumentation Engineers (SPIE): Automatic Object Recognition II, 1700*, 476-480.
- Marshak, W. P., Kang, R. N., Riegler, J. T., & Irvin, G. E. (1988). *Animated computer imagery in the evaluation of F-15 silhouette decoys* (Report No. AAMRL-TR-88-040). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A128216)
- Marshak, W. P., Kuperman, G. G., Ramsey, E. G., & Wilson, D. L. (1987). Situational awareness in map displays. *Proceedings of the Human Factors Society 31st Annual Meeting*, 1, 533-535.
- Marshak, W. P., Purvis, B. D., & Green, T. B. (1989). Integrating engineering with training simulation. *Proceedings of The IEEE 1989 National Aerospace and Electronics Conference: NAECON 1989*, 2, 754-756.
- Martin, W. L. (1992). Developing virtual cockpits. *AGARD Proceedings of the 63rd Avionics Panel Meeting: Advanced Aircraft Interfaces: The Machine Side of the Man-Machine Interface* (pp. 8-1 - 8-8). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-CP-521)
- Masters, R. M., Horn, P. M., & Kulwicki, P. V. (1987). *Situation awareness and the CAT air superiority missions* (Report No. AAMRL-TR-87-005). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. C042570)
- Mathews, C., & Johnson, D. (1992). *Combat air operations in the post-cold war world* (Report No. AL-TR-1992-0092). Wright-Patterson AFB, OH: Armstrong Laboratory.
- Matin, E., & Boff, K. R. (1988). Information transfer rate with serial and simultaneous visual display formats. *Human Factors*, 30(2), 171-180.

- Matin, E., & Boff, K. R. (1990).** An adaptive (tracking) procedure for measuring visual search. *Perceptual and Motor Skills*, 70, 243-253.
- Matin, E., & Boff, K. R. (1990).** Human-machine interaction with serial visual displays. *Proceedings of the Society for Information Display (SID) Conference*, 257-260.
- Matin, E., Boff, K. R., & Donovan, R. S. (1987).** Raising control/display efficiency with rapid communication display technology. *Proceedings of the Human Factors Society 31st Annual Meeting*, 1, 258-262.
- Matin, E., Shao, K. C., & Boff, K. R. (1993).** Saccadic overload: Information processing time with and without saccades. *Perception and Psychophysics*, 53(4), 372-380.
- May, J. G., Hartmann, E. E., Love, A. C., Cannon, M. W., & Ellis, G. S. (1987).** The 'Face' validity of teller visual acuity cards. *Investigative Ophthalmology and Visual Science Annual Meeting Supplement*, 28, 301.
- McBride, D. J., & Brown, C. E. (1989).** *Team performance in dynamic decision making: The importance of heuristics* (Report No. AAMRL-TR-89-010). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A209618)
- McCloskey, K. A., Morrow, M., & Perez, W. A. (1988).** *The use of psychophysiological measures in the SABER laboratories: Phase I* (Report No. AAMRL-TR-88-052). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A206825)
- McCloskey, K. A., Morrow, M., & Perez, W. A. (1989).** *Demonstration of physiological workload correlates in crew capability simulation* (Report No. AAMRL-TR-89-002). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A206824)
- McCloskey, K., Albery, W. B., Zehner, G., Bolia, S. D., Hundt, T. H., Martin E. J., & Blackwell, S. (1992).** *NASP re-entry profile: Effects of low-level +Gz on reaction time, keypad entry, and reach error* (Report No. AL-TR-1992-0130). Wright-Patterson AFB, OH: Armstrong Laboratory.
- McDaniel, J. W. (1988).** COMBIMAN and CREW CHIEF. In K. H. E. Kroemer, S. H. Snook, S. K. Meadows, & S. Deutsch (Eds.), *Ergonomic models of anthropometry human biomechanics and operator-equipment interfaces* (pp. 55-60). Washington, DC: National Academy Press.
- McDaniel, J. W. (1988).** CREW CHIEF: A computer graphics model of an aircraft maintenance technician. *Proceedings of the Sixth Annual Computer-Aided Engineering Program Users Meeting* (Report No. NWC TP 6910 pp. 601-603). China Lake, CA: Naval Weapons Center.
- McDaniel, J. W. (1988).** Rules for fighter cockpit automation. *Proceedings of The IEEE 1988 National Aerospace and Electronics Conference: NAECON 1988*, 3, 831-838.
- McDaniel, J. W. (1989).** Modeling strength data for crew chief. In S. Griffin (Ed.), *Third Annual Workshop on Space Operations, Applications, and Research (SOAR '89)* (NASA CP-3059 pp. 143-148). Johnson Space Center, TX: National Aeronautics and Space Administration.
- McDaniel, J. W. (1989).** Virtual mockup. *MANPRINT Bulletin*, 4(1), 4-7.

I. ALPHABETICAL INDEX

- McDaniel, J. W.** (1990). Models for ergonomic analysis and design COMBIMAN and CREW CHIEF. In W. Karwowski, A. M. Genaidy, & S. S. Asfour (Eds.), *Computer-aided ergonomics: A researcher's guide* (pp. 138-156). London: Taylor & Francis Inc.
- McDaniel, J. W.** (1991). The development of computer models for ergonomic accommodation. In A. Mital, & W. Karwowski (Eds.), *Workspace, equipment and tool design* (pp. 29-66). Amsterdam: Elsevier.
- McDaniel, J. W., Helfter, J., Aume, N. M., Haddox, D. L., & Unger R. A.** (1993). Available strength for transferring hospital patients between beds using a drawsheet. *Proceedings of the M. M. Ayoub Occupational Ergonomics Symposium* (pp. 1-7). Texas Tech University, TX: Institute for Ergonomics Research.
- McDaniel, J. W., & Hofmann, M. A.** (1990). Computer-aided ergonomics design tools. In H. R. Boohar (Ed.), *MANPRINT: An approach to system integration* (pp. 205-235). New York: Von Nostrand Reinhold.
- McDaniel, J. W., & Robbins, C. G.** (1992). The strength of women for activation of ejection seat controls. In S. Kumar (Ed.), *Advances in industrial ergonomics and safety IV* (pp. 1275-1282). Washington, DC: Taylor & Francis.
- McMillan, G. R.** (1989). An overview of human performance models & potential applications to combat simulation. *Human behavior and performance as essential ingredients in realistic modeling of combat - MORIMOC II*, 55-68.
- McMillan, G. R.** (1991). Effects of visual system transport delay on pilot performance. *Visual Issues in Training and Simulation* (pp. 1-10). Williams AFB, AZ: Armstrong Laboratory.
- McMillan, G. R., Beevis, D., Salas, E., Strub, M. H., Sutton, R., & Van Breda, L.** (Eds.). (1989). *Applications of human performance models to system design*. New York: Plenum.
- McMillan, G. R., Beevis, D., Stein, W., Strub, M. H., Salas, E., Sutton, R., & Reynolds, K. C.** (1991). *A directory of human performance models for system design* (Report No. AC/243 (Panel 8) TR/1). Brussels, Belgium: NATO Defense Research Group.
- McMillan, G. R., Cress, J. D., & Middendorf, M. S.** (1990). Dynamic seat cuing with wide versus narrow field-of-view visual displays. *AIAA Flight Simulation Technologies Conference*, 53-62.
- McNeese, M. D.** (1989). *The boundaries of hemispheric processing in visual pattern recognition* (Report No. AAMRL-TR-89-042). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A217675)
- McNeese, M. D.** (1989). *Cerebral weevil: A machine learning model for hemispheric categorization of faces* (Report No. AAMRL-TR-89-045). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A218143)
- McNeese, M. D.** (1989). *The role of chaos in hemispheric process and attention* (Report No. AAMRL-TR-89-043). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A217674)
- McNeese, M. D.** (1990). *Explorations in cooperative systems: Thinking collectively to learn, learning individually to think* (Report No. AAMRL-TR-90-004). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A218549)

I. ALPHABETICAL INDEX

- McNeese, M. D. (1993). Analogical transfer in situated cooperative learning (Doctoral dissertation, Vanderbilt University, 1992). *Dissertation Abstracts International*, 54, 528B.
- McNeese, M. D. (1993). Methods for sharing knowledge in engineering teams: Case studies involving user-centered design improvement. In L. Murray (Ed.), *Minutes of the 30th Meeting of the DOD Human Factors Engineering Technical Advisory Group* (pp. G-8 - G-9)
- McNeese, M. D. (1993). *Putting knowledge to use: The acquisition and transfer of knowledge in situated problem solving environments* (Report No. AL/CF-TR-1993-0052). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A269746)
- McNeese, M. D., & Katsuyama, R. M. (1987). Neuropsychology in the cockpit: An analysis of configurational processing, hemispheric asymmetry, and masking disturbance. *Proceedings of the Fourth International Symposium on Aviation Psychology*, 202-208.
- McNeese, M. D., & Katsuyama, R. M. (1989). *Lateral asymmetry in pattern recognition: Understanding the effects of familiarity, distinction, and perspective change* (Report No. AAMRL-TR-89-049). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A217739)
- McNeese, M. D., & Katz, L. (1987). Legibility evaluation of a large screen display system under medium ambient illumination. *Proceedings of the Society For Information Display*, 28(1), 59-65.
- McNeese, M. D., & Zaff, B. S. (1991). Knowledge as design: A methodology for overcoming knowledge acquisition bottlenecks in intelligent interface design. *Proceedings of the Human Factors Society 35th Annual Meeting*, 2, 1181-1185.
- McNeese, M. D., Zaff, B. S., & Brown, C. E. (1992). Computer supported collaborative work: A new agenda for human factors engineering. *Proceedings of The IEEE 1992 National Aerospace and Electronics Conference: NAECON 1992*, 2, 681-686.
- McNeese, M. D., Zaff, B. S., Brown, C. E., Citera, M., & Selvaraj, J. A. (1993). Understanding the context of multidisciplinary design: A case for establishing ecological validity in the study of design problem solving. *Proceedings of the Human Factors Society 37th Annual Meeting*, 2, 1082-1086.
- McNeese, M. D., Zaff, B. S., Brown, C. E., Citera, M., & Wellens, A. R. (1992). The role of a group-centered approach in the development of computer-supported collaborative design technologies. *Proceedings of the Human Factors Society 36th Annual Meeting*, 2, 867-871.
- McNeese, M. D., Zaff, B. S., Brown, C. E., Citera, M., & Whitaker, R. (in press). AKADAM: Eliciting user knowledge to support participatory ergonomics. *The International Journal of Industrial Ergonomics*.
- McNeese, M. D., Zaff, B. S., Peio, K. J., Snyder, D. E., Duncan, J. C., & McFarren, M. R. (1990). *An advanced knowledge and design acquisition methodology: Application for the pilot's associate* (Report No. AAMRL-TR-90-060). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A233700)
- Meindl, R. S., Zehner, G. F., & Hudson, J. A. (1993). *A multivariate anthropometric method for crew station design* (Report No. AL/CF-TR-1993-0054). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A270652)

I. ALPHABETICAL INDEX

- Mellian, S. A., Ervin, C. A., & Robinette, K. M. (1991). *Sizing evaluation of navy women's uniforms* (Report No. AL-TR-1991-0116). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A249782)
- Merkel, H. S. (1988). *Investigation of a linear systems model for human visual detection and spatial frequency discrimination* (Report No. AAMRL-TR-88-061). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A209397)
- Merkel, H. S., & Task, H. L. (1987). *Airborne direct-view optical system: Effects of target briefing on performance* (Report No. AAMRL-TR-87-026). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory.
- Merkel, H. S., & Task, H. L. (1989). *An illustrated guide of optical characteristics of aircraft transparencies* (Report No. AAMRL-TR-89-015). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A214565)
- Merkel, H. S., & Task, H. L. (1990). *Optical test of the space shuttle overhead windows* (Report No. AAMRL-TR-90-024). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A229919)
- Merkel, H. S., Task, H. L., Whiteley, J. D., LaPuma, P. T., Pinkus, A. R., & Block, M. G. (1990). *The development of the spaceborne direct-view optical system (SpaDVOS)* (Report No. AAMRL-TR-90-016). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B144518)
- Merriken, M. S., Johnson, W. V., Cress, J. D., & Riccio, G. E. (1988). Time delay compensation using supplementary cues in aircraft simulator systems. *Proceedings of The IEEE 1988 National Aerospace and Electronics Conference: NAECON 1988*, 295-303.
- Merriken, M. S., Riccio, G. E., & Johnson, W. V. (1987). Temporal fidelity in aircraft simulator visual systems. *Proceedings of The IEEE 1987 National Aerospace and Electronics Conference: NAECON 1987*, 50-54.
- Middendorf, M. S., Fiorita, A. L., & McMillan, G. R. (1991). The effects of simulator transport delay on performance, workload, and control activity during low-level flight. *AIAA Flight Simulation Technologies Conference*, 412-426.
- Middendorf, M. S., Johnson, W. V., Gilkey, M. J., & McClurg, T. D. (1989). A comprehensive collection of procedures for simulator verification. *Proceedings of The IEEE 1989 National Aerospace and Electronics Conference: NAECON 1989*, 1-7.
- Middendorf, M. S., Lusk, S. L., & Whiteley, J. D. (1990). Power spectral analysis to investigate the effects of simulator time delay on flight control activity. *AIAA Flight Simulation Technologies Conference*, 46-52.
- Middleton, V. E., Chevalier, J. R., Evans, J. B., Felt, J. E., Hayes, T. R., McIntyre, R. T., Porter, C. D., Rayle, M. E., Rudofski, D., Shelef, S., Shew, R. L., & James, G. M. (1987). *Evaluation of individual protective equipment improvement objectives* (Report No. AAMRL-TR-87-002). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. C040557)
- Miller, R. E., O'Neal, M. R., Woessner, W. M., Dennis, R. J., & Green, R. P. (1989). *The prevalence of spectacle wear and incidence of refractive error in USAF aircrew* (Report No. USAFSAM-TR-89-28). Brooks AFB, TX: USAF School of Aerospace Medicine. (DTIC No. AD-A220857)

- Miller, R. E., Woessner, W. M., Dennis, R. J., O'Neal, M. R., & Green, R. P. (1990). Survey of spectacle wear and refractive error prevalence in USAF pilots and navigators. *Optometry and Vision Science*, 67(11), 833-839.
- Mills, R. G. (1988). A user-assisted generic systems analyst workstation (GENSAW). *Proceedings of The IEEE 1988 National Aerospace and Electronics Conference: NAECON 1988*, 1065-1069.
- Mills, R. G. (1988). A user-assisted test & evaluation methodology assistant program (TEMAP). *Proceedings of The IEEE 1988 National Aerospace and Electronics Conference: NAECON 1988*, 1060-1064.
- Mills, R. G. (1989). Crew-centered bomber mission model. *Proceedings of The IEEE 1989 National Aerospace and Electronics Conference: NAECON 1989*, 765-771.
- Miyamoto, A., & Wilson, G. F. (1990). Mapping of evoked magnetic field with visual stimulation : A secondary projection and processing system. *Aviation, Space, and Environmental Medicine*, 61, 453.
- Miyamoto, A., & Wilson, G. F. (1991). Mapping of evoked magnetic field with visual stimulation: A secondary projection and processing area. *Aviation, Space and Environmental Medicine*, 62(7), 638-647.
- Monk, D. L., Swierenga, S. J., & Lincoln, J. E. (1992). Developing behavioral phenomena test benches. *Proceedings of the Human Factors Society 36th Annual Meeting*, 2, 1106-1109.
- Morris, N. M. (1987). Designing for user acceptance of design aids. In W. B. Rouse, & K. R. Boff (Eds.), *System design: Behavioral perspectives on designers, tools and organizations* (pp. 245-255). New York: North Holland.
- Morton, K., & Swierenga, S. J. (1990). Developing effective coding schemes for an advanced visual display technology. *Proceedings of the 12th Biennial Psychology in the DOD Symposium*, 328-332.
- Morton, K., & Zirkler, D. J. (1990). Using engineering models to compare paper and hypermedia-based displays of flight information. *Proceedings of The IEEE 1990 National Aerospace and Electronics Conference: NAECON 1990*, 770-774.
- Morton, P. E., Tumey, D. M., Ingle, D. F., Downey, C. W., & Schnurer, J. H. (1991). Neural network classification of EEG data generated through use of the audio oddball paradigm. *Proceedings of the IEEE 17th Annual Northeast Bioengineering Conference*, 7-8.
- Morton, P. E., & Wilson, G. F. (1988). Back propagation & EEG data. *Proceedings of the Fourth Annual Aerospace Applications of Artificial Intelligence Conference*, 2, 25-27.
- Nasman, V. T., Palmer, B., & Wilson, G. F. (1991). Effects of linguistic task difficulty on ERPs. *Psychophysiology*, 28(3A, Suppl.), S41.
- Neilsen, R. H., Rossen, M. L., & John, E. R. (1991). *Mental workload measurement using brainwave analysis* (Report No. AL-SR-1991-0003). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B154362)
- Nelson, M. A., Sauer, D. W., & Kelly, S. (1987). *Human factors evaluation of the COPE prototype workstation* (Report No. AAMRL-TR-87-008). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory.

I. ALPHABETICAL INDEX

- Ochs, J. (1992). *Automated custom-fit production* (Report No. AL-SR-1992-0007). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B164883)
- Oliver, C. G., & Wilson, G. F. (1989). A topographical comparison of visual and auditory discrimination processing [Abstract]. *Psychophysiology*, 26(4A, Suppl.), S47.
- Oliver, C. G., & Wilson, G. F. (1991). Hemispheric asymmetry in parietal but not occipital MEG during a mental rotation task. *Psychophysiology*, 28(3A, Suppl.), S42.
- Olson, J. L., Arbak, C. J., & Jauer, R. A. (1991). *Panoramic cockpit control and display system, Volume II: PCCADS 2000* (Report No. AL-TR-91-0017). Wright-Patterson AFB, OH: Armstrong Laboratory.
- O'Neal, M. R. (1987). *Effect of refractive error change on pilot classification at the United States Air Force Academy-Class of 1985* (Report No. AAMRL-TR-87-009). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory.
- O'Neal, M. R. (1988). Contact lenses. In J. G. Webster (Ed.), *Encyclopedia of medical devices and instrumentation* (Vol. 2, pp. 867-877). New York: John Wiley and Sons.
- O'Neal, M. R. (1990). Effect of aircraft cabin altitude and humidity on oxygen tension under soft and hard gas-permeable contact lenses. *AGARD Conference Proceedings 492: Ocular Hazards in Flight and Remedial Measures* (pp. 23-1 - 23-9). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-CP-492)
- O'Neal, M. R. (1991). Effect of aircraft cabin altitude and humidity on oxygen tension under soft and hard gas-permeable contact lenses. In P. E. Flattau (Ed.), *Considerations in Contact Lens Use Under Adverse Conditions: Proceedings of a Symposium* (pp. 106-118). Washington, DC: National Academy Press.
- O'Neal, M. R., & Bonanno, J. A. (1993). Effects of contact lenses on corneal physiology. In M. Ruben, & M. Guillon (Eds.), *Contact lens practice* (pp. 969-989). London: Chapman and Hall Medical.
- O'Neal, M. R., & Connor, T. R. (1987). Refractive error change at the United States Air Force Academy - Class of 1985. *American Journal of Optometry and Physiological Optics*, 64(5), 344-354.
- O'Neal, M. R., & Miller, R. E. (1987). Further investigation of contrast sensitivity and visual acuity in pilot detection of aircraft. *Proceedings of the Human Factors Society 31st Annual Meeting*, 2, 1189-1193.
- O'Neal, M. R., & Miller, R. E. (1988). *Further investigation of contrast sensitivity and visual acuity in pilot detection of aircraft* (Report No. AAMRL-TR-88-002). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A198434)
- O'Neal, M. R., Miller, R. E., Woessner, W. M., Dennis, R. J., & Treadaway, D. K. (1989). Refractive error change since college graduation [Abstract]. *Investigative Ophthalmology and Visual Science*, 30(3, Suppl.), 141.
- O'Neal, M. R., Task, H. L., & Genco, L. V. (1990). Effect of microgravity on several visual functions during STS shuttle missions. *41st Congress of the International Astronautical Federation (IAF/IAA-90-536 pp. 1-8)*. Paris: International Academy of Astronautics.

- Osgood, R. K., Geiselman, E. E., & Calhoun, C. S. (1991). Attitude maintenance using an off-boresight helmet-mounted virtual display. *AGARD Conference Proceedings 517: Helmet-Mounted Displays and Night Vision Goggles* (pp. 14-1 - 14-7). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-CP-517)
- Osgood, R. K., Taylor, K., & McClurg, T. D. (1988). The dynamic seat as an angular motion cuing device. *Proceedings of the Human Factors Society 32nd Annual Meeting, 1*, 25-29.
- Osgood, R. K., & Venturino, M. (1990). Information representations for aircraft attitude displays. *Proceedings of the Human Factors Society 34th Annual Meeting, 2*, 1542-1546.
- Osgood, R. K., & Wells, M. J. (1991). The effect of field-of-view size on performance of a simulated air-to-ground night attack. *AGARD Conference Proceedings 517: Helmet-Mounted Displays and Night Vision Goggles*, (pp. 10-1 - 10-7). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-CP-517)
- Osgood, S. S., Boff, K. R., & Donovan, R. S. (1988). Rapid communication display technology efficiency in a multi-task environment. *Proceedings of Human Factors Society 32nd Annual Meeting, 2*, 1395-1399.
- Owen, D. H., & Warren, R. (1987). Perception and control of self-motion: Implications for visual simulation of vehicular locomotion. In L. S. Mark, J. S. Warm, & R. L. Huston (Eds.), *Ergonomics and human factors: Recent research* (pp. 40-70). New York: Springer Verlag.
- Palmer, B., Nasman, V. T., & Wilson, G. F. (1991). A comparison of referenced and reference-independent methodologies on ERP evaluation. *Psychophysiology, 28*(3A, Suppl.), S43.
- Palmer, B., Nasman, V. T., Wilson, G. F., & Gundel, A. (1992). *A brain evoked potential study of task difficulty using verbal memory and mental rotation tasks* (Report No. AL-TR-1992-0079). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A263871)
- Pantle, A., McCarthy, J., & Pinkus, A. (1990). Detection of the spatial structure and motion of second-order stimuli [Abstract]. *Investigative Ophthalmology and Visual Science, 31*, 523.
- Pantle, A., Pinkus, A., & McCarthy, J. E. (1991). The puzzling influence of high spatial frequencies on motion perception [Abstract]. *Investigative Ophthalmology and Visual Science, 32*, 892.
- Pantle, A., Pinkus, A., & Strout, J. (1992). Motion signal interactions [Abstract]. *Investigative Ophthalmology and Visual Science, 33*, 973.
- Papanicolaou, A., Wilson, G. F., Busch, C., DeRego, P., Orr, C., Davis, I. E., & Eisenberg, H. M. (1988). Hemispheric asymmetries in phonological processing assessed with probe evoked magnetic fields. *International Journal of Neuroscience, 39*, 275-281.
- Patterson, R., & Martin, W. L. (1992). Human stereopsis. *Human Factors, 34*, 669-692.
- Peio, K. J., Crawford, R. L., & Kuperman, G. G. (1991). *Man-machine interface analyses for bomber flight management system* (Report No. AL-TR-1991-0018). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A245707)

I. ALPHABETICAL INDEX

- Penrod, T. D., & Kuperman, G. G. (1993).** *Image quality analysis of compressed synthetic aperture radar* (Report No. AL/CF-TR-1993-0156). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A273399)
- Perez, W. A., Masline, P. J., Ramsey, E. G., & Urban, K. E. (1987).** *Unified tri-services cognitive performance assessment battery: Review and methodology* (Report No. AAMRL-TR-87-007). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A181697)
- Pinkus, A. R. (1988).** Night lighting and night vision goggle compatibility. *AGARD Lecture Series 156: Visual Effects in the High Performance Aircraft Cockpit* (pp. 7-1 -7-16). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-LS-156)
- Pinkus, A. R., & Task, H. L. (1988).** Display system image quality. *AGARD Lecture Series 156: Visual Effects in the High Performance Aircraft Cockpit* (pp. 8-1 - 8-17). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-LS-156)
- Pollack, R. B. (1990).** *An investigation into techniques for landmarks identification on 3-D images of human subjects* (Report No. AAMRL-SR-90-0500). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A218614)
- Pollack, R. B. (1993).** *Neural network technologies* (Report No. AL-SR-1993-0002). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A262576)
- Polzella, D. J., Masline, P. J., Amell, J. R., Perez, W. A., & Ramsey, E. G. (1987).** The development of a spatial orientation task for inclusion in the criterion task set (CTS). *Proceedings of the Human Factors Society 31st Annual Meeting, 1*, 394-397.
- Polzella, D. J., & Reid, G. B. (1987).** A multi-dimensional scaling analysis of subjective workload assessment technique (SWAT) ratings of the criterion task set (CTS). *Proceedings of the Human Factors Society 31st Annual Meeting, 1*, 398-401.
- Polzella, D. J., & Reid, G. B. (1989).** Multi-dimensional scaling analysis of simulated air combat maneuvering performance data II: A follow-on study. In R. S. Jensen (Ed.), *Proceedings of the Fifth International Symposium on Aviation Psychology, 2*, 920-925.
- Polzella, D. J., & Reid, G. B. (1991).** A comparison of two statistical approaches to complex performance measurement. *Proceedings of the Sixth International Symposium on Aviation Psychology*, 841-846.
- Porter, C. D., Jensen, J. G., & Chevalier, J. R. (1987).** *Air base attack: Liquid agent challenge assessment--single versus multiple chemical munitions* (Report No. AAMRL-TR-87-025). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. C041709)
- Post, D. L. (1988).** Color specification and the CIE system of colorimetry. In K. R. Boff, & J. E. Lincoln (Eds.), *Engineering data compendium: Human perception and performance* (Vol. 1, pp. 374-381). New York: John Wiley and Sons.
- Post, D. L. (1989).** Basic approaches to color HMD. In L. M. Biberman (Ed.), *Proceedings of the Sensor Display Workshop: Vol. 1 Basic Principles* (IDA Document D-713 pp. 145-160). Alexandria, VA: Institute for Defense Analysis.
- Post, D. L. (1992).** Applied color-vision research. In H. Widdel, & D. L. Post (Eds.), *Color in electronic displays* (pp. 137-173). New York: Plenum Press.

- Post, D. L. (1992). Colorimetric measurement, calibration, and characterization of self-luminous displays. In H. Widdel, & D. L. Post (Eds.), *Color in electronic displays* (pp. 299-312). New York: Plenum Press.
- Post, D. L. (1993). A new color display for HMDs. *Insight*, 15(3), 8-10.
- Post, D. L., & Calhoun, C. S. (1987). An evaluation of methods for producing specific colors on CRTs. *Proceedings of the Human Factors Society 31st Annual Meeting*, 2, 1276-1280.
- Post, D. L., & Calhoun, C. S. (1988). Color-name boundaries for equally bright stimuli on a CRT: Phase II. 1988 Society for Information Display International Symposium Digest of Technical Papers, 19, 65-68.
- Post, D. L., & Calhoun, C. S. (1989). Color-name boundaries for color coding [Insert]. *Applied Vision 1989 Technical Digest Series* (Vol. 16). Washington, DC: Optical Society of America.
- Post, D. L., & Calhoun, C. S. (1989). Color-name boundaries for equally bright stimuli on a CRT: Phase III. 1989 Society for Information Display International Symposium Digest of Technical Papers, 20, 284-287.
- Post, D. L., & Calhoun, C. S. (1989). An evaluation of methods for producing desired colors on CRT monitors. *Color Research and Application*, 14(4), 172-186.
- Post, D. L., & Lloyd, C. J. (in press). Color display gamuts and ambient illumination. *Displays*.
- Purvis, B. D. (1992). *An evaluation of B-1B pilot performance during simulated instrument approaches with and without status information* (Report No. AL-TR-1992-0088). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A263874)
- Purvis, B. D., Craig, J. L., & Simons, J. C. (1988). *Night vision goggle head-up display for B-52 special operations* (Report No. AAMRL-TR-88-019). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B123860)
- Purvis, B. D., Evers, K., Hoyland, C., Hill, J., & Brioida, M. (1988). *Visual simulation system computer program product specification* (Report No. AAMRL-TR-88-049). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B131762)
- Purvis, B. D., Green, T. B., St. John, R. J., Reynolds, M. C., & Lovering, P. B. (1988). *B-1B instrument landing system (ILS) display format study* (Report No. AAMRL-TR-88-003). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B120771)
- Purvis, B. D., Skelly, J. J., Simons, J. C., & Detro, S. (1988). *B-52 emergency war order survivability: Pilot effectiveness performance* (Report No. AAMRL-TR-88-032). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory.
- Raab, F. H., & Brewster, C. C. (1988). *Magnetic-multipole technique for moveable scatterer compensation* (Report No. AAMRL-TR-88-054). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B133465)
- Raab, F. H., Brewster, C. C., Stone, F. L., & Mackin, W. F. (1993). *Algorithms for magnetic helmet-mounted sight* (Report No. AL/CF-TR-1993-0077). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B176447)

I. ALPHABETICAL INDEX

- Ramirez, T. L., Morthland, S. P., Soergel, C. D., Allread, G., & James, G. M. (1987).** *Pretreatment side effects data base development* (Report No. AAMRL-TR-87-006). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. C040555)
- Ramirez, T. L., Shew, R. L., Dembeck, C. M., Simons, J. C., Shogner, R. C., & James, G. M. (1987).** *Seymour Johnson chemical warfare exercise field study and data analysis* (Report No. AAMRL-TR-87-003). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. C040556)
- Ratino, D. A., Repperger, D. W., Goodyear, C. D., Potor, G., & Rodriguez, L. E. (1988).** Quantification of reaction time and time perception during space shuttle operations. *Aviation, Space, and Environmental Medicine*, 59(3), 220-224.
- Ratnaparkhi, M. V., Ratnaparkhi, M. M., & Robinette, K. M. (1992).** Size and shape analysis techniques for design. *Applied Ergonomics*, 23(3), 181-185.
- Reardon, K. A., Oliver, C. G., & Warren, R. (1987).** Flight simulation training using standard and non-standard tasks. *Proceedings of the Human Factors Society 31st Annual Meeting*, 2, 1291-1295.
- Reardon, K. A., & Warren, R. (1989).** Effect of emergent detail on descent-rate estimations in flight simulators. In R. S. Jensen (Ed.), *Proceedings of the Fifth International Symposium on Aviation Psychology*, 2, 714-719.
- Reeves, D. L., Stanny, R. R., Wilson, G. F., Herning, R. I., Pickworth, W., VanOrden, K. F., & Caldwell, J. A. (1991).** *The OMPAT level 1 neurophysiological performance assessment battery (NPPAB)* (NAMRL Monograph No. 43). Pensacola, FL: Naval Aerospace Medical Research Laboratory.
- Reick, A. M. (1993).** *Virtual image voltmeter for aircraft maintenance technicians* (Report No. AL-TR-1993-0019). Wright-Patterson AFB, OH: Armstrong Laboratory.
- Reid, G. B. (1988).** The subjective workload assessment technique: A scaling procedure for measuring mental workload. In P. A. Hancock, & N. Meshkati (Eds.), *Human mental workload* (pp. 185-218). Amsterdam: North-Holland.
- Reid, G. B., Potter, S. S., & Bressler, J. R. (1989).** *Subjective workload assessment technique (SWAT): A user's guide* (Report No. AAMRL-TR-89-023). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A215405)
- Reinhart, W. F., Glynn, C. D., Dye, C., Takahama, M., & Snyder, H. L. (1988).** *The role of short-term memory in operator workload* (Report No. AAMRL-TR-88-024). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A200252)
- Riccio, G. E., Cress, J. D., & Johnson, W. V. (1987).** The effects of simulator delays on the acquisition of flight control skills: Control of heading and altitude. *Proceedings of the Human Factors Society 31st Annual Meeting*, 2, 1286-1290.
- Rickles, W., Dunlosky, A., & Scott, B. (1991).** *Anti-satellite (ASAT) system timeline modeling* (Report No. AL-TR-1991-0092). Wright-Patterson AFB, OH: Armstrong Laboratory.
- Riegler, J. T., & Donohue-Perry, M. M. (1990).** *A field evaluation of the compatibility of the protective integrated hood mask with ANVIS night vision goggles* (Report No. AAMRL-TR-90-031). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A230237)

- Riegler, J. T., Whiteley, J. D., Task, H. L., & Schueren, J. (1991). *The effect of signal-to-noise ratio on visual acuity through night vision goggles* (Report No. AL-TR-1991-0011). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A260579)
- Rizzuto, A. P. (1988). *Diazepam and its effects on psychophysiological and behavioral measures of performance* (Report No. AAMRL-TR-87-074). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A198767)
- Robinette, K. M. (1992). Anthropometry for HMD design. *Proceedings of the Society of Photo-Optical Instrumentation Engineers (SPIE): Helmet-Mounted Displays III*, 1695, 138-145.
- Robinette, K. M. (1993). Fit testing as a helmet development tool. *Proceedings of the Human Factors Society 37th Annual Meeting*, 1, 69-73.
- Robinette, K. M., Ervin, C. A., & Zehner, G. F. (1987). *Development of a standard dexterity test battery* (Report No. AAMRL-TR-87-034). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A188314)
- Robinette, K. M., & Fowler, J. (1988). *An annotated bibliography of United States Air Force engineering anthropometry* (Report No. AAMRL-TR-88-013). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A198345)
- Robinette, K. M., Mellian, S. A., & Ervin, C. A. (1991). *Development of sizing systems for Navy women's uniforms* (Report No. AL-TR-1991-0117). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A250071)
- Robinette, K. M., & Whitestone, J. J. (in press). The need for improved anthropometric methods for the development of helmet systems. *Aviation, Space and Environmental Medicine*, 65(4, Suppl.).
- Robinette, K. M., & Whitestone, J. J. (1992). *Methods for characterizing the human head for the design of helmets* (Report No. AL-TR-1992-0061). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A263875)
- Robinson, J. C., Robinette, K. M., & Zehner, G. F. (1988). *User's guide to accessing the anthropometric data base at the center for anthropometric research data* (Report No. AAMRL-TR-88-012). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A198771)
- Robinson, J. C., Robinette, K. M., & Zehner, G. F. (1992). *User's guide to the anthropometric database at the computerized anthropometric research and design (CARD) laboratory second edition* (Report No. AL-TR-1992-0036). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A273002)
- Robinson, S. E., Kaufman, L., & Wilson, G. F. (in press). Testing cognitive models of attention with single-trial auditory evoked response. *Proceedings of the 9th International Symposium on Biomagnetism*.
- Rogers-Adams, B. M., Riegler, J. T., Irvin, G. E., & Dowler, M. G. (1988). *The effects of masking and shape disruptive patterns on the visual detection of ground parked aircraft* (Report No. AAMRL-TR-88-055). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B133684)
- Rolek, E. P., & Snyder, D. E. (1988). *Demonstration of improved survivability through the use of strategies against soviet sam crews* (Report No. AAMRL-TR-88-031). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. C956305)

1. ALPHABETICAL INDEX

- Ross, J. A., & Kocian, D. F. (1993). Hybrid video amplifier chip set for helmet-mounted visually coupled systems. *1993 Society for Information Display International Symposium Digest of Technical Papers*, 24, 437-440.
- Ross, J., & Ervin, C. A. (1987). *Chemical defense flight glove ensemble evaluation* (Report No. AAMRL-TR-87-047). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A118401)
- Rothey, J., Jones, M. W., Maute, K., Martinez, N., Krauskopf, P. J., Stump, W. J., Hardyal, S., Harper, W., Meeks, L., & McDaniel, J. W. (1990). *User's guide for CREW CHIEF: A computer graphics simulation of an aircraft maintenance Technician (Version 1.1 - CV CADD Station)* (Report No. AAMRL-TR-90-013). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory.
- Rouse, W. B. (1987). Designers, decision making, and decision support. In W. B. Rouse, & K. R. Boff (Eds.), *System design: Behavioral perspectives on designers, tools and organizations* (pp. 275-283). New York: North Holland.
- Rouse, W. B. (1987). On meaningful menus for measurement: Disentangling evaluative issues in system design. *Information Processing and Management*, 23(6), 593-604.
- Rouse, W. B., & Cody, W. J. (1989). Information systems for design support: An approach for establishing functional requirements. *Information and Decision Technologies*, 15(4), 281-289.
- Rouse, W. B., & Boff, K. R. (Eds.). (1987). *System design: Behavioral perspectives on designers, tools, and organizations*. New York: North Holland.
- Rouse, W. B., & Boff, K. R. (1987). Designers, tools, and environments: State of knowledge, unresolved issues and potential directions. In W. B. Rouse, & K. R. Boff (Eds.), *System design: Behavioral perspectives on designers, tools and organizations* (pp. 43-63). New York: North Holland.
- Rouse, W. B., & Boff, K. R. (1987). Workshop themes and issues: The psychology of system design. In W. B. Rouse, & K. R. Boff (Eds.), *System design: Behavioral perspectives on designers, tools and organization* (pp. 7-17). New York: North Holland.
- Rouse, W. B., & Cody, W. J. (1988). On the design of man-machine systems: Principles, practices, and prospects. *Automatica*, 24, 227-238.
- Rouse, W. B., & Cody, W. J. (1989). Designers' criteria for choosing human performance models. In G. R. McMillan (Ed.), *Applications of human performance models to system design* (pp. 7-14). New York: Plenum Press.
- Rouse, W. B., & Cody, W. J. (1989). A theory-based approach to supporting design decision making. *Information and Decision Technologies*, 15(4), 291-306.
- Rouse, W. B., Cody, W. J., & Boff, K. R. (1991). The human factors of system design: Understanding and enhancing the role of human factors engineering. *International Journal of Human Factors in Manufacturing*, 1, 87-104.
- Rouse, W. B., Cody, W. J., Boff, K. R., & Frey, P. R. (1990). Information systems for supporting design of complex human-machine systems. In C. T. Leondes (Ed.), *Advances in aeronautical systems* (Vol. 38, pp. 41-100). San Diego: Academic Press.

- Rouse, W. B., Cody, W. J., & Frey, P. R. (1992). Lessons learned in developing human-machine system design tools. *Information and Decision Technologies*, 18, 301-308.
- Rueb, J. D., Vidulich, M. A., & Hassoun, J. A. (in press). Use of workload redlines: A KC-135 crew-reduction application. *The International Journal of Aviation Psychology*.
- Rueb, J., Vidulich, M. A., & Hassoun, J. (1992). Establishing workload acceptability: An evaluation of a proposed KC-135 cockpit redesign. *Proceedings of the Human Factors Society 36th Annual Meeting*, 1, 17-21.
- Sanderson, P. M., McNeese, M. D., & Zaff, B. S. (in press). Handling complex real-world data with two cognitive engineering tools: COGENT and MacSHAPA. *Behavior Research Methods, Instrumentation & Computers*.
- Santoro, T. P., & Tsou, B. H. (1992). Trade-off between field-of-view and periscope scan rate in a target detection and bearing awareness study. *1992 Society for Information Display International Symposium Digest of Technical Papers*, 23, 298-300.
- Sarma, K. A., Trimmier, J. R., Heinze, W., Rogers, C., Ellis, R., Larson, B., Franklin, H., & Post, D. L. (1993). Miniature color display. In J. Morreale (Ed.), *1993 Society for Information Display International Symposium Digest of Technical Papers*, 24, 1005-1008.
- Schafer, E., & Bates, B. T. (1988). *Anthropometric comparisons between body measurements of men and women* (Report No. AAMRL-TR-88-020). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory.
- Schafer, E., & Bates, B. T. (1988). *Anthropometric comparisons between face measurements of men and women* (Report No. AAMRL-TR-88-027). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory.
- Schiffler, R. J., & Pinkus, A. R. (1987). Human factors research and development requirements for future aerospace cockpit systems. *IEEE Aerospace and Electronic Systems Magazine*, 2(9), 2-4.
- Schlegel, R. E., & Gilliland, K. (1990). *Evaluation of the criterion task set - part I appendices A and B - univariate summaries* (Report No. AAMRL-TR-90-008). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A225188)
- Schlegel, R. E., & Gilliland, K. (1990). *Evaluation of the criterion task set - part I CTS performance and swat data - baseline conditions* (Report No. AAMRL-TR-90-007). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A224331)
- Schlegel, R. E., Gilliland, K., & Crabtree, M. S. (1992). *Development of the UTC-PAB normative database* (Report No. AL-TR-1992-0145). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A271319)
- Schlegel, R. E., Gilliland, K., & Schlegel, B. (1987). Factor structure of the criterion task set. *Proceedings of the Human Factors Society 31st Annual Meeting*, 1, 389-393.
- Schnurer, J. H., Ingle, D. F., Downey, C. W., & Junker, A. M. (1992). *Brain actuated control of a roll axis tracking simulator* (Report No. AL-SR-1992-0025). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A275307)

I. ALPHABETICAL INDEX

- Schor, C. M., Gleason, G. A., & Lunn, R. (1993). Interactions between short-term vertical phoria adaptation and nonconjugate adaptation of vertical pursuits. *Vision Research*, 33(1), 55-63.
- Schor, C., Gleason, G., Maxwell, J., & Lunn, R. (1993). Spatial aspects of vertical phoria adaptation. *Vision Research*, 33(1), 73-84.
- Schuber, M., & O'Neal, M. R. (1988). Visual examination and performance during head-down-tilt (HDT) induced upper body fluid shift [Abstract]. *Aviation, Space, and Environmental Medicine*, 59(5), 486.
- Self, H. C. (1988). *Display size: A literature survey and a study with SLR imagery* (Report No. AAMRL-TR-88-001). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A200852)
- Self, H. C. (1989). *Tutorial on the angular positions and velocities of ground objects viewed from aircraft* (Report No. AAMRL-TR-89-047). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A231283)
- Self, H. C. (1992). *Optical displays: A tutorial on images and image formation* (Report No. AL-TR-1992-0178). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A266230)
- Self, H. C. (1993). *Stress and the ergonomic design and evaluation of person-machine systems* (Report No. AL/CF-SR-1993-0008). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A275156)
- Self, H. C. (1993). *A tutorial on exit pupils and eye rotation with virtual image optical displays* (Report No. AL-TR-1993-0010). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A262399)
- Shepherd, D. S., Middleton, V. E., & Masak, J. R. (1988). *Post-attack hazard monitoring systems analysis, phase I: Chemical detection, identification, and warning (CDIW) requirements* (Report No. AAMRL-TR-88-042). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. C043700)
- Shmulovich, J. (1989). *Thin film phosphor development* (Report No. AAMRL-TR-89-004). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A272921)
- Shmulovich, J., & Kocian, D. F. (1989). Thin-film phosphors for miniature CRTs used in helmet-mounted displays. *Proceedings of the Society for Information Display*, 30(4), 297-302.
- Simons, J. C., & Craig, J. L. (1989). Electroluminescent lights for formation flights. In R. S. Jensen (Ed.), *Proceedings of the Fifth International Symposium on Aviation Psychology*, 1, 251-256.
- Simons, J. C., Kirtland, W. H., Malmstrom, F. V., Normand, K. A., Perez, W. A., Taylor, T. G., & Kuperman, G. G. (1987). *Strategic mission decomposition: I. Planning materials for advanced bomber simulation studies* (Report No. AAMRL-TR-87-016). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B112312)
- Skelly, J. J. (1993). *Pacing visual attention: Temporal structure effects* (Report No. AL-TR-1993-0024). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A273859)
- Skelly, J. J., Irvin, J., Perez, W., Simons, J., Houchard, J., Marshak, W. P., & Eller, M. (1993). *Sensor preview imagery (SPI): Target preview from off-board sensor for strike aircraft* (Report No. AL/CF-TR-1993-0129). Wright-Patterson AFB, OH: Armstrong Laboratory.

- Skelly, J. J., Purvis, B. D., & Wilson, G. F. (1987). Fighter pilot performance during airborne & simulator mission: Physiological comparisons. *AGARD Conference Proceedings 432: Electric and Magnetic Activity of the Central Nervous System: Research and Clinical Applications in Aerospace Medicine* (pp. 23-1 - 23-16). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-CP-432)
- Smith, J. L., Ayoub, M. M., & McDaniel, J. W. (1992). Manual materials handling capabilities in non-standard postures. *Ergonomics*, 35(7/8), 807-831.
- Snyder, D. E., & McNeese, M. D. (1987). *Conflict resolution in cooperative systems* (Report No. AAMRL-TR-87-066). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A190351)
- Snyder, D. E., McNeese, M. D., & Zaff, B. S. (1991). Identifying design requirements using integrated analysis structures. *Proceedings of The IEEE 1991 National Aerospace and Electronics Conference: NAECON 1991*, 2, 786-791.
- Snyder, D. E., McNeese, M. D., Zaff, B. S., & Gomes, M. E. (1992). Knowledge acquisition of tactical air-to-ground mission information using concept mapping. *Proceedings of The IEEE 1992 National Aerospace and Electronics Conference: NAECON 1992*, 2, 668-674.
- Snyder, D. E., Wellens, A. R., Brown, C. E., & McNeese, M. D. (1989). Three paradigms for the study of multi-person and human-machine interaction. *Proceedings of the IEEE Systems, Man, & Cybernetics Conference*, 840-841.
- So, R. H. Y., & Griffin, M. J. (1993). *Effects of lags on human performance with head-coupled simulators* (Report No. AL/CF-TR-1993-0101). Wright-Patterson AFB, OH: Armstrong Laboratory.
- Spravka, J. J., Crawford, R. L., & Kuperman, G. G. (1990). *A human factors review of the synthetic aperture radar literature* (Report No. AAMRL-TR-90-022). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory.
- Spravka, J. J., Irvin, G. E., & Dowler, M. G. (1988). T-62 tank gunner tracking performance using a night vision display system of a function of background luminance, countermeasure power and countermeasure wavelength. *Proceedings of the 10th Annual Lasers on the Modern Battlefield Conference* (pp. 91-94).
- Spravka, J. J., & Kuperman, G. G. (1992). *Preliminary human factors evaluation of ISECC* (Report No. AL-TR-1992-0069). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. C049863)
- St. John, R. J., & Purvis, B. D. (1990). AIM SIGHT. *Proceedings of the Society of Photo-Optical Instrumentation Engineers (SPIE)*, 1289, 63-67.
- Stephens, B. R., Cannon, M. W., & Fullenkamp, S. C. (1992). Perception of image contrast and image profile of low frequency gratings [Abstract]. *Investigative Ophthalmology and Visual Science Annual Meeting Abstract Issue*, 33, 1350.
- Stern, J. A., Dunham, D. N., & Goldstein, R. (1988). *An evaluation of electrooculographic, head movement and steady state evoked response measures of workload in flight simulation* (Report No. AAMRL-TR-88-036). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A236505)

I. ALPHABETICAL INDEX

- Stiffler, J. A., & Wiley, L. (1992).** I-NIGHTS and beyond. In T. M. Lippert (Ed.), *Proceedings of the Society of Photo-Optical Instrumentation Engineers (SPIE): Helmet-Mounted Displays III, 1695*, 13-20.
- Stoffregen, T. A., & Riccio, G. E. (1988).** An ecological theory of orientation and the vestibular system. *Psychological Review*, 95(1), 3-14.
- Strayer, D. L., & Kramer, A. F. (1988).** *The retrieval of information from secondary memory: A review and new findings* (Report No. AAMRL-TR-88-041). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A222760)
- Swierenga, S. J., Boff, K. R., & Donovan, R. S. (1991).** Coding techniques for rapid communication displays. *Proceedings of the Sixth International Symposium on Aviation Psychology, 1*, 204-209.
- Swierenga, S. J., Boff, K. R., & Donovan, R. S. (1991).** Effectiveness of coding schemes in rapid communication displays. *Proceedings of the Human Factors Society 35th Annual Meeting, 2*, 1522-1526.
- Swierenga, S. J., Monk, D. L., & Brown, C. E. (1992).** Human performance data visualization for system design teams. *Proceedings of The IEEE 1992 National Aerospace and Electronics Conference: NAECON 1992, 2*, 675-680.
- Swierenga, S. J., Morton, K., & Boff, K. R. (1990).** Issues concerning the use of human engineering information: The system designers' perspective. *Proceedings of The IEEE 1990 National Aerospace and Electronics Conference: NAECON 1990*, 881-885.
- Task, H. L. (1988).** Vision through aircraft transparencies. *AGARD Lecture Series 156: Visual Effects in the High Performance Aircraft Cockpit* (pp. 4-1 - 4-14). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-LS-156)
- Task, H. L. (1989).** Vision through aircraft transparencies. In S. A. Marolo (Ed.), *Conference on Aerospace Transparent Materials and Enclosures* (WRDC-TR-89-4044, Vol. 2, pp. 1047-1071). Wright-Patterson AFB, OH: Wright Research and Development Center.
- Task, H. L. (1991).** Optical and visual considerations in the specification and design of helmet-mounted displays. *1991 Society for Information Display International Symposium Digest of Technical Papers, 22*, 297-300.
- Task, H. L. (1992).** Cockpit/NVG visual integration issues. *AGARD Lecture Series 187: Visual Problems in Night Operations* (pp. 8-1 - 8-6). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-LS-187)
- Task, H. L. (1992).** Night vision devices and characteristics. *AGARD Lecture Series 187: Visual Problems in Night Operations* (pp. 7-1 - 7-8). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-LS-187)
- Task, H. L., & Genco, L. V. (1987).** Effects of short-term space flight on several visual functions. In M. W. Bungo, T. M. Bagian, M. A. Bowman, & B. M. Levitan (Eds.), *Results of the life sciences DSOs conducted aboard the space shuttle 1981-1986* (pp. 173-178). Johnson Space Center, TX: National Aeronautics and Space Administration.
- Task, H. L., Hartman, R. T., Marasco, P. L., & Zobel, A. R. (1993).** *Methods for measuring characteristics of night vision goggles* (Report No. AL/CF-TR-1993-0177). Wright-Patterson AFB, OH: Armstrong Laboratory.

- Task, H. L., Hartman, R. T., & Zobel, A. R. (1990). New methods for night vision goggle test and evaluation. *Proceedings of Test Technology Symposium III* (pp. 259-268). Aberdeen Proving Ground, MD: U.S. Army Test and Evaluation Command.
- Task, H. L., & Merkel, H. S. (1989). *A new method for measuring the transmissivity of aircraft transparencies* (Report No. AAMRL-TR-89-044). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A216953)
- Task, H. L., & Pinkus, A. R. (1987). Contrast sensitivity and target recognition performance: A lack of correlation. *1987 Society for Information Display International Symposium Digest of Technical Papers, 18*, 127-129.
- Task, H. L., & Pinkus, A. R. (1987). The role of the contrast sensitivity function in display image quality metrics. *Electronic Imaging '87: International Electronic Imaging Exposition and Conference, 1*, 161-166.
- Tolcott, M. A., Lehner, P. E., & Mullen, T. M. (1989). *User interaction with self-learning systems* (Report No. AAMRL-TR-89-029). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A214280)
- Toms, M. L., & Kuperman, G. G. (1992). *Sensor fusion: A human factors perspective* (Report No. AL-TR-1991-0152). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B165851)
- Tsang, P. S., & Vidulich, M. A. (in press). The roles of immediacy and redundancy in relative subjective workload assessment. *Human Factors*.
- Tsang, P. S., & Vidulich, M. A. (1987). Time-sharing visual and auditory tracking tasks. *Proceedings of the Human Factors Society 31st Annual Meeting, 1*, 253-257.
- Tsang, P. S., & Vidulich, M. A. (1989). Cognitive demands of automation in aviation. In R. S. Jensen (Ed.), *Aviation psychology* (pp. 66-95). Essex, Great Britain: Gower.
- Tsou, B. H. (1989). Visual psychophysical considerations in the design of binocular helmet-mounted displays. In L. M. Biberman (Ed.), *Proceedings of the Sensor Display Workshop: Vol. 2 Display Technology* (IDA Document D-713 pp. 45-74). Alexandria, VA: Institute for Defense Analysis.
- Tsou, B. H. (1993). System design considerations for a visually-coupled system. In S. R. Robinson (Ed.), *The infrared and electro-optics systems handbook: Vol. 8. Emerging systems and technologies* (pp. 515-536). Bellingham, WA: SPIE Optical Engineering Press.
- Tsou, B. H., Allen, D. M., & Walker, J. L. (1987). Dynamic distortion correction for dome display. *The 1987 IMAGE Conference IV* (pp. 129-139). Williams AFB, AZ: Air Force Human Resources Laboratory.
- Tsou, B. H., & Grigsby, S. S. (1993). Visual field-of-view: A design factor for binocular helmet-mounted displays. *Proceedings of the 1993 Meeting of the IRIS Specialty Group on Passive Sensors* (IRIAC Report No. 213400-169-X(II), Vol. 2, pp. 107-109). Ann Arbor, MI: Infrared Information Analysis Center.
- Tsou, B. H., & Rogers-Adams, B. M. (1990). The effect of aspect ratio on helmet mounted display field of view. *Report of the 30th Meeting of Air Standardization Coordination Committee (ASCC) Working Party 61: Aerospace Medical and Life Support Systems Symposium: Aeromedical Aspects of Vision* (Vol. 4, pp. 136-146). Toronto: Defence and Civil Institute of Environmental Medicine.

I. ALPHABETICAL INDEX

- Tsou, B. H., Rogers-Adams, B. M., & Beard, M. (1991).** Distance perception and ocular accommodation in helmet-mounted displays. *1991 Society for Information Display International Symposium Digest of Technical Papers*, 22, 313.
- Tsou, B. H., Rogers-Adams, B. M., & Goodyear, C. D. (1991).** The evaluation of partial binocular overlap on car maneuverability: A pilot study. In K. Krishen (Ed.), *Fifth Annual Workshop on Space Operations, Applications, and Research (SOAR '91)* (NASA-CP-3127, Vol. 2, pp. 562-568). Johnson Space Center, TX: National Aeronautics and Space Administration.
- Tumey, D. M., Morton, P. E., Ingle, D. F., Downey, C. W., & Schnurer, J. H. (1991).** Neural network classification of EEG using chaotic preprocessing and phase space reconstruction. *Proceedings of the IEEE 17th Annual Northeast Bioengineering Conference*, 51-52.
- Urban, K. E., Irvin, G. E., & Dowler, M. G. (1989).** Detection of aircraft targets during laser-induced transient visual field loss: Effects of canopies and laser protective visors. *Proceedings of the Seventh DOD Conference of Directed Energy Weapons: Vulnerability, Survivability and Effects* (pp. 383-388).
- Valencia, G., & Agnew, J. R. (1990).** Evaluation of a directional audio display synthesizer. *Proceedings of the Human Factors Society 34th Annual Meeting*, 1, 6-10.
- Valencia, G., & Calhoun, G. L. (1989).** *Headphone localization with a single sound transducer and moveable manikin head* (Report No. AAMRL-TR-89-005). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B133510)
- Valencia, G., Calhoun, G. L., Ericson, M. A., & Agnew, J. R. (1990).** *Localization performance with synthesized directional audio* (Report No. AAMRL-TR-90-025). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A230316)
- Valencia, G., Ericson, M. A., & Agnew, J. R. (1990).** A comparison of localization performance with two auditory cue synthesizers. *Proceedings of The IEEE 1990 National Aerospace and Electronics Conference: NAECON 1990*, 749-754.
- Vargo, C. G., Brown, C. E., & Swierenga, S. J. (1992).** An evaluation of computer-supported backtracking in a hierarchical database. *Proceedings of the Human Factors Society 36th Annual Meeting*, 1, 356-360.
- Venturino, M. R. (1987).** Capacity limitations in human information processing: Theory & applications. *Proceedings of the Human Factors Society 31st Annual Meeting*, 1, 672-673.
- Venturino, M. R. (1987).** Concurrent memory search: The roles of automaticity and multiple resources [Abstract]. *Annual Meeting of the Eastern Psychological Association*, 58.
- Venturino, M. R. (1988).** Timesharing memory searches: The roles of automaticity & multiple resources [Abstract]. *Proceedings and Abstracts of the Annual Meeting of the Eastern Psychological Association*, 23.
- Venturino, M. R. (1989).** Performance-based measures of merit for tactical situation awareness. *AGARD Conference Proceedings 478: Situation Awareness in Aerospace Operations* (pp. 4-1 - 4-5). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-CP-478)

- Venturino, M. R. (1991). Timesharing memory searches: The roles of automatic processing & multiple resources theories. *Journal of Experimental Psychology: Learning, Memory & Cognition*, 17(3), 677-695.
- Venturino, M. R., & Geiselman, E. E. (1992). Quantifying the goodness of mental representations of spatial relationships. *Proceedings of the Human Factors Society 36th Annual Meeting*, 2, 1363-1367.
- Venturino, M. R., & Kunze, R. J. (1989). Spatial awareness with a helmet-mounted display. *Proceedings of the Human Factors Society 33rd Annual Meeting*, 2, 1388-1391.
- Venturino, M. R., & Wells, M. J. (1990). Head movements as a function of field-of-view size on helmet-mounted display. *Proceedings of the Human Factors Society 34th Annual Meeting*, 2, 1572-1576.
- Venturino, M., & Post, D. L. (Eds.). (1992). Visual displays [Special issue]. *Human Factors*, 34, 509-634.
- Vidulich, M. A. (1988). The cognitive psychology of subjective mental workload. In P. A. Hancock, & N. Meshkati (Eds.), *Human mental workload* (pp. 219-229). Amsterdam: Elsevier.
- Vidulich, M. A. (1988). Speech responses and dual-task performance: Better time-sharing or asymmetric transfer? *Human Factors*, 30(4), 517-529.
- Vidulich, M. A. (1989). Objective measures of workload: Should a secondary task be secondary? In R. S. Jensen (Ed.), *Proceedings of the Fifth International Symposium on Aviation Psychology*, 2, 802-807.
- Vidulich, M. A. (1989). The use of judgment matrices in subjective workload assessment: The subjective workload dominance(SWORD) technique. *Proceedings of the Human Factors Society 33rd Annual Meeting*, 2, 1406-1410.
- Vidulich, M. A. (1990). Performance-based workload assessment: Allocation strategy and added task sensitivity. In S. Griffin (Ed.), *Third Annual Workshop on Space Operations, Applications, and Research (SOAR '89)* (NASA-CP-3059 pp. 329-335). Johnson Space Center, TX: National Aeronautics and Space Administration.
- Vidulich, M. A. (1991). The Bedford scale: Does it measure spare capacity? *Proceedings of the Sixth International Symposium on Aviation Psychology*, 2, 1136-1141.
- Vidulich, M. A. (1992). Measuring situation awareness. *Proceedings of the Human Factors Society 36th Annual Meeting*, 1, 40-41.
- Vidulich, M. A., & Bortolussi, M. R. (1988). A dissociation of objective and subjective workload measures in assessing the impact of speech controls in advanced helicopters. *Proceedings of the Human Factors Society 32nd Annual Meeting*, 2, 1471-1475.
- Vidulich, M. A., & Bortolussi, M. R. (1988). Speech recognition in advanced rotor-craft: Using speech controls to reduce manual control overload. *Proceedings of the American Helicopter Society National Specialists' Meeting*, 1-10.
- Vidulich, M. A., Crabtree, M. S., & McCoy, A. L. (1993). Developing subjective and objective metrics of pilot situation awareness. *Proceedings of the Seventh International Symposium on Aviation Psychology*, 2, 896-900.

I. ALPHABETICAL INDEX

- Vidulich, M. A., & Hughes, E. R. (1991). Testing a subjective metric of situation awareness. *Proceedings Human Factors Society 35th Annual Meeting*, 2, 1307-1311.
- Vidulich, M. A., & Pandit, P. (1987). Individual differences and subjective workload assessment: Comparing pilots to nonpilots. *Proceedings of the Fourth International Symposium on Aviation Psychology*, 630-636.
- Vidulich, M. A., & Pandit, P. (1988). Consistent mapping and spatial consistency in target detection and response execution. In J. M. Flach (Ed.), *Proceedings of the Fourth Mid central Ergonomics/Human Factors Conference*, 39-45.
- Vidulich, M. A., Stratton, M. D., Crabtree, M. S., & Wilson, G. F. (in press). Performance-based and physiological measures of situation awareness. *Aviation, Space and Environmental Medicine*.
- Vidulich, M. A., & Tsang, P. S. (1987). Absolute magnitude estimation and relative judgment approaches to subjective workload assessment. *Proceedings of the Human Factors Society 31st Annual Meeting*, 2, 1057-1061.
- Vidulich, M. A., Ward, G. F., & Schueren, J. (1991). Using the subjective workload dominance (SWORD) technique for projective workload assessment. *Human Factors*, 33(6), 677-691.
- Vikmanis, M. M. (1987). Advances in workload measurement for cockpit design evaluation. *AGARD Conference Proceedings No. 425: The Man-Machine Interface in Tactical Aircraft Design and Combat Automation* (pp. 10-1 - 10-10). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-CP-425)
- Warren, R. (1988). Active psychophysics: Theory and practice. *Proceedings of the 4th Annual Meeting of the International Society for Psychophysics*, 47-52.
- Warren, R. (1988). Future cockpit displays. *Proceedings of the 11th Biennial Psychology in the DOD Symposium*, 91-96.
- Warren, R. (1988). Visual perception in high-speed low-altitude flight. *Aviation, Space, & Environmental Medicine*, 59(11, Suppl.), A116-124.
- Warren, R. (1990). Preliminary questions for the study of egomotion. In R. Warren, & A. H. Wertheim (Eds.), *Perception and control of self-motion* (pp. 3-32). Hillsdale, NJ: Erlbaum.
- Warren, R. (1991). Methodological problems in applied cognition & perceptual research: Theoretical implications. In R. R. Hoffman, & D. S. Palermo (Eds.), *Cognition and the symbolic processes: Applied & ecological perspectives* (pp. 507-518). Hillsdale, NJ: Erlbaum.
- Warren, R. (1992). Fidelity issues in flight simulation, self-motion, and virtual reality displays. *Insight: The Visual Performance Technical Group Newsletter*, 14(September), 1,3.
- Warren, R. (1993). Total visual scene information for flight. In E. Trautman (Ed.), *Vision Topics for Aviation: A new look at a traditional concern* (Report No. IST-DF-93-01 pp. 37-51). University of Central Florida, FL: Institute for Simulation and Training.
- Warren, R., & Beer, J. (1992). Perception of on- and off-screen self-motion heading [Abstract]. *Proceedings of the 33rd Annual Meeting of the Psychonomics Society*, 380.

- Warren, R., & Wertheim, A. H. (Eds.). (1990). *Perception & control of self-motion*. Hillsdale, NJ: Erlbaum.
- Wellens, A. R. (1989). Effects of telecommunication media upon information sharing and team performance: Some theoretical and empirical observations. *IEEE Aerospace and Electronic Systems Magazine*, 4, 13-19.
- Wellens, A. R. (1989). Effects of telecommunication media upon information sharing and team performance: Some theoretical and empirical observations. *Proceedings of The IEEE 1989 National Aerospace and Electronics Conference: NAECON 1989*, 2, 726-733.
- Wellens, A. R. (1990). *Assessing multi-person and person-machine distributed decision making using an extended psychological distancing model* (Report No. AAMRL-TR-90-006). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A235882)
- Wellens, A. R. (1991). Electronic collaboration: Some effects of telecommunication media and machine intelligence on team performance. *Fourth Annual Workshop on Space Operations, Applications, and Research (SOAR '90)* (NASA-CP-3127 pp. 606-611). Johnson Space Center, TX: National Aeronautics and Space Administration.
- Wellens, A. R., Brown, C. E., & McNeese, M. D. (1991). Assessing electronic team technologies using computer-based dynamic decision making tasks. In Y. Queinnec, & F. Daniellou (Eds.), *Designing for everyone* (Vol. 1, pp. 667-669). New York: Taylor and Francis.
- Wellens, A. R., Brown, C. E., & McNeese, M. D. (1992). Assessing electronic team technologies using computer-based dynamic decision making tasks. *Organizational Design and Management (ODAM) Bulletin*, 11(3), 9-11.
- Wellens, A. R., & Ergener, D. (1988). The C.I.T.I.E.S. game: A computer-based situation assessment task for studying distributed decision making. *Simulation and Games*, 19, 304-327.
- Wellens, A. R., & McNeese, M. D. (1987). A research agenda for the social psychology of intelligent machines. *Proceedings of The IEEE 1987 National Aerospace and Electronics Conference: NAECON 1987*, 3, 944-949.
- Wells, C. H., Collins, M. T., Vanderveer, D. E., & Replogle, C. R. (1992). *Standards for chemical and biological warfare hazard modeling. Volume I, Toxicity of nerve agents and mustard in humans* (Report No. AL-TR-1992-0071). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. C050548)
- Wells, C. H., Collins, M. T., Vanderveer, D. E., & Wells, W. (1993). *Standards for chemical and biological warfare hazard modeling Volume 1: Toxicity of nerve agents and mustard in humans abridged edition* (Report No. AL-TR-1993-0026). Wright-Patterson AFB, OH: Armstrong Laboratory.
- Wells, C. H., Jensen, J. G., Collins, M. T., & Replogle, C. R. (1992). *Mask protection assessment* (Report No. AL-TR-1992-0166). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. C959951)
- Wells, M. J., & Haas, M. W. (1992). The human factors of helmet-mounted displays and sights. In M. A. Karim (Ed.), *Electro-optical displays* (pp. 743-785). New York: Dekker, Marcel Inc.
- Wells, M. J., & Osgood, R. K. (1991). The effects of head and sensor movement on flight profiles during simulated dive bombing. *Proceedings of the Human Factors Society 35th Annual Meeting*, 1, 22-26.

I. ALPHABETICAL INDEX

- Wells, M. J., & Venturino, M. R. (1989). The effect of increasing task complexity on field-of-view requirements for a visually coupled system. *Proceedings of the Human Factors Society 33rd Annual Meeting*, 1, 91-95.
- Wells, M. J., Venturino, M., & Osgood, R. K. (1988). Using target replacement performance to measure spatial awareness in a helmet-mounted simulator. *Proceedings of the Human Factors Society 32nd Annual Meeting*, 2, 1429-1433.
- Wells, M. J., Venturino, M., & Osgood, R. K. (1989). The effect of field-of-view size on performance at a simple simulated air-to-air mission. In J. T. Carollo (Ed.), *Proceedings of the Society of Photo-Optical Instrumentation Engineers (SPIE): Helmet-Mounted Displays*, 1116, 126-137.
- Whiteley, J. D. (1989). *Military aircrew seating: A human factors engineering approach* (Report No. AAMRL-TR-89-046). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A218049)
- Whiteley, J. D., Lusk, S. L., & Middendorf, M. S. (1990). The effects of simulator time delays on a sidestep landing maneuver: A preliminary investigation. *Proceedings of the Human Factors Society 34th Annual Meeting*, 2, 1538-1541.
- Whitestone, J. J. (1993). Design and evaluation of helmet systems using 3D data. *Proceedings of the Human Factors Society 37th Annual Meeting*, 1, 64-68.
- Whitestone, J. J., & Robinette, K. M. (1992). High resolution human body surface data for the design of protective equipment. *Second Pan-Pacific Conference on Occupational Ergonomics*, 240-247.
- Wickens, C. D., Barnett, B. J., Davis, T., & Hyman, F. (1989). Expertise, stress, and pilot judgment. *AGARD Conference Proceedings 458: Human Behavior in High Stress Situations in Aerospace Operations* (pp. 10-1 - 10-8). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-CP-458)
- Wickens, C. D., Fracker, M. L., & Webb, J. M. (1987). Cross-modal interference and task integration: Resources or preemption switching? *Proceedings of the Human Factors Society 31st Annual Meeting*, 1, 679-683.
- Wickens, C. D., Stokes, A., Barnett, B., & Davis, T. (1988). *Componential analysis of pilot decision making* (Report No. AAMRL-TR-88-017). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A203711)
- Wickens, C. D., Stokes, A., Barnett, B., & Hyman, F. (1988). *The effects of stress on pilot judgment in a MIDIS simulator* (Report No. AAMRL-TR-88-057). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A210827)
- Widdel, H., & Post, D. L. (Eds.). (1992). *Color in electronic displays*. New York: Plenum Press.
- Wightman, F., & Kistler, D. J. (1990). *Field measurement of head related transfer functions* (Report No. AAMRL-TR-90-019). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A227850)
- Wilford, G. M., Wunsh, E., Zawodny, T. L., & Sharp, E. D. (1988). *Color coding the B-1B Threat situation format display of the AN/ALQ-161 electronic warfare system: The effect of color change, as both noise and signal, on target search performance* (Report No. AAMRL-TR-88-006). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B121929)

- Wilkinson, M. O., Thibos, L. N., & Cannon, M. W. (1990). Contrast constancy: Neural compensation for image attenuation [Abstract]. *Investigative Ophthalmology and Visual Science Annual Meeting Abstract Issue*, 31, 323.
- Wilson, D. L. (1989). Color contrast requirements for legibility of color symbology displayed against color backgrounds. *Proceedings of the Human Factors Society 33rd Annual Meeting*, 2, 1373-1377.
- Wilson, D. L. (1992). *Theory of signal detection and its application to visual target acquisition: A review of the literature* (Report No. AL-TR-1992-0083). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A262920)
- Wilson, D. L., & Kuperman, G. G. (1988). Strategic avionics battle-management evaluation & research/SABER. *Proceedings of The IEEE 1988 National Aerospace and Electronics Conference: NAECON 1988*, 3, 844-849.
- Wilson, D. L., & Kuperman, G. G. (1989). *Effects of ATARS image compression on image interpretability ratings* (Report No. AAMRL-TR-89-032). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B138023)
- Wilson, D. L., Kuperman, G. G., & Crawford R. L. (1992). *Effects of maximum allowed time on sustained operator performance in a counter-mobile target acquisition task* (Report No. AL-TR-1992-0070). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. C959947)
- Wilson, D. L., Kuperman, G. G., & Faust, M. (1992). Psychovisual data for sensor performance modeling. *Proceedings of the Ground Target Modeling and Validation Conference*, 257-265.
- Wilson, D. L., McNeese, M. D., & Brown, C. E. (1987). Team performance of a dynamic resource allocation task: Comparison of shared versus isolated work setting. *Proceedings of the Human Factors Society 31st Annual Meeting*, 2, 1345-1349.
- Wilson, D. L., McNeese, M. D., Brown, C. E., & Wellens, A. R. (1987). *Utility of shared versus isolated work setting for dynamic team decision making* (Report No. AAMRL-TR-87-072). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A192434)
- Wilson, G. F. (1988). Probe evoked magnetic & electrical responses during a spatial rotation task. *Psychophysiology*, 25(4, Suppl.), 490.
- Wilson, G. F. (1989). PATS: A new generation psychophysiological test battery. *Proceedings of the Human Factors Society 33rd Annual Meeting*, 2, 1173-1176.
- Wilson, G. F. (1991). The use of heart rate and heart rate variability to measure workload in F4 pilots and WSO's during training flights and a tracking task. *Aviation, Space, and Environmental Medicine*, 61, 450.
- Wilson, G. F. (1992). Applied use of cardiac and respiration measures: Practical considerations and precautions. *Biological Psychology*, 34(2-3), 163-178.
- Wilson, G. F. (Ed.). (1992). Cardiorespiratory measures and their role in studies of performance [Special issue]. *Biological Psychology*, 34(2-3).
- Wilson, G. F. (1992). *Progress in the psychophysiological assessment of workload* (Report No. AL-TR-1992-0007). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A263609)

I. ALPHABETICAL INDEX

- Wilson, G. F. (1993).** Air-to-ground training missions: A psychophysiological workload analysis. *Ergonomics*, 36(9), 1071-1088.
- Wilson, G. F. (1993).** Cardiorespiratory measures and their role in studies of performance. *CSERIAC Gateway*, 4(2), 18.
- Wilson, G. F., & Badeau, A. (1992).** Psychophysiological measures of cognitive workload in laboratory and flight. *Sixth Annual Workshop on Space Operations, Applications, and Research (SOAR '92)* (pp. 169-175). Johnson Space Center, TX: National Aeronautics and Space Administration.
- Wilson, G. F., Busch, C., Papanicolaou, A., Oliver, C. G., & Orr, C. (1989).** Cortical resource allocation during mental rotation determined by magneto and electro encephalography. In S. J. Williamson, M. Hoke, G. Stroink, & M. Kotani (Eds.), *Advances in biomagnetism: Proceedings of the Seventh International Conference on Biomagnetism* (Vol. 2, pp. 233-236). New York: Plenum Press.
- Wilson, G. F., & DeRego, P. (1987).** Hemispheric asymmetries in phonetic processing assessed with probe evoked magnetic fields. In K. Atsumi, M. Kotani, S. Ueno, T. Katila, & S. J. Williamson (Eds.), *Advances in biomagnetism: Biomagnetism 87* (pp. 210-216). Tokyo: Tokyo & Denki University Press.
- Wilson, G. F., & Eggemeier, F. T. (1991).** Psychophysiological assessment of workload in multi-task environments. In D. L. Damos (Ed.), *Multiple task performance* (pp. 329-360). London: Taylor and Francis.
- Wilson, G. F., & Fisher, F. (1990).** Classification of flight segment using pilot & WSO physiological data. *Proceedings of the Human Factors Society 34th Annual Meeting*, 1, 109-111.
- Wilson, G. F., & Fisher, F. (1990).** The use of multiple physiological measures to determine flight segment in F4 pilots. *Proceedings of The IEEE 1990 National Aerospace and Electronics Conference: NAECON 1990*, 2, 859-861.
- Wilson, G. F., & Fisher, F. (1991).** Cognitive task classification using EEG spectra [Poster]. *Psychophysiology*, 28(3A, Suppl.), S62.
- Wilson, G. F., & Fisher, F. (1991).** The use of cardiac and eye blink measures to determine flight segment in F4 crew. *Aviation, Space, and Environmental Medicine*, 62, 959-961.
- Wilson, G. F., & Fullenkamp, P. A. (1989).** A comparison of pilot and WSO workload during training missions using psychophysiological data. In E. Farmer (Ed.), *Stress and error in aviation: Proceedings of the XVIII Western European Association for Aviation Psychology Conference* (Vol. 2, pp. 27-34). Worcester, Great Britain: Billing & Sons.
- Wilson, G. F., Fullenkamp, P., & Davis, I. E. (in press).** Evoked potential, cardiac, blink & respiration measures of workload article in air-to-ground missions. *Aviation, Space, and Environmental Medicine*.
- Wilson, G. F., Fullenkamp, S. C., & Davis, I. E. (1990).** Physiological measures of pilot and WSO workload during air-to-ground missions. *Aviation, Space, and Environmental Medicine*, 61, 454.
- Wilson, G. F., Fullenkamp, S. C., Sullivan, C., Gundel, A., & Davis, I. E. (1989).** Evoked brain potentials recorded during airborne and ground tasks. *Aviation, Space, and Environmental Medicine*, 60, 495.

- Wilson, G. F., Hughes, E., & Hassoun, J. A. (1990). Physiological & subjective evaluation of a new aircraft display. *Proceedings of the Human Factors Society 34th Annual Meeting*, 2, 1441-1443.
- Wilson, G. F., Luciani, R. J., & Ratino, D. A. (1987). Motion evoked vestibular potential. *AGARD Conference Proceedings 432: Electrical & Magnetic Activity on the Central Nervous System: Research and Clinical Applications in Aerospace Medicine* (pp. 32-1 - 32-8). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-CP-432)
- Wilson, G. F., & McCloskey, K. A. (1988). Using probe evoked potentials to determine information processing demands. *Proceedings of the Human Factors Society 32nd Annual Meeting*, 2, 1400-1403.
- Wilson, G. F., & McCloskey, K. A. (1989). Task and adaptation effects upon cardiac and respiration measures. *Psychophysiology*, 26(4A, Suppl.), S66.
- Wilson, G. F., McCloskey, K., & Davis, I. (1987). Evoked response, performance and subjective measures in a linguistic processing task. *Proceedings of the Fourth International Symposium on Aviation Psychology*, 623-629.
- Wilson, G. F., & Mulford, L. L. (in press). *Register of psychophysicologists*. Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development.
- Wilson, G. F., & O'Donnell, R. D. (1987). Cortical evoked response and eyeblink measures in the workload evaluation of alternative landing system displays. In A. Roscoe (Ed.), *AGARD Aerospace Medical Panel Working Group 16 AGARDograph No. 282: The practical assessment of pilot workload* (pp. 8-52 - 8-55). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-O-GRAPH 282)
- Wilson, G. F., & O'Donnell, R. D. (1988). Measurement of operator workload with the neuropsychological workload test battery. In P. A. Hancock, & N. Meshkati (Eds.), *Advances in psychology: Vol. 52. Human mental workload* (pp. 63-100). New York: North Holland.
- Wilson, G. F., & Oliver, C. G. (1989). PATS: Psychophysiological assessment test system. In E. Farmer (Ed.), *Stress and error in aviation: Proceedings of XVIII Western European Association for Aviation Psychology Conference* (Vol. 2, pp. 15-26). Worcester, Great Britain: Billing & Sons.
- Wilson, G. F., & Oliver, C. G. (1992). PATS: Psychophysiological assessment test system, goals and description. *Aviation, Space, and Environmental Medicine*, 63, 403.
- Wilson, G. F., Palmer, B., Oliver, C. G., & Swain, R. (1991). Topographical analysis of cognitive task difficulty. *Proceedings of the Second International Congress on Brain Electromagnetic Topography*, 326.
- Wilson, G. F., Purvis, B. D., & Skelly, J. J. (1987). Physiological data used to measure pilot workload in actual flight & simulator conditions. *Proceedings of the Human Factors Society 31st Annual Meeting*, 2, 779-783.
- Wilson, G. F., Ratino, D. A., Floyd, L. L., Luciani, R. J., & Rodriguez, L. E. (1989). *Brain stem evoked responses in altered environments* (Report No. AAMRL-TR-89-016). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A220097)

I. ALPHABETICAL INDEX

- Wilson, G. F., Skelly, J. J., & Purvis, B. D. (1988). Reactions to emergency situations in actual and simulated flight. *AGARD Conference Proceedings 458: Human Behavior in High Stress Situations in Aerospace Operations* (pp. 9-1 - 9-13). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-CP-458)
- Wilson, G. F., Swain, R. A., & Davis, I. E. (in press). Topographical analysis of cortical evoked activity during a variable demand spatial processing task. *Aviation, Space and Environmental Medicine*.
- Wilson, G. F., Swain, R., & Davis, I. E. (1988). Human event related potentials during spatial processing: A topographical distribution. *Society for Neuroscience Abstracts*, 14(2), 1014.
- Wilson, G. F., Ullsperger, P., & Busch, C. (1993). Influence of difficulty level on ERP components elicited in response to warning stimuli. *Psychophysiology*, 30(Suppl. 1), S71.
- Wohl, J. G., & Tenney, R. R. (1987). *Integrated analysis techniques for command, control, and communications systems; Vol. I: Methodology* (Report No. AAMRL-TR-87-040). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A197126)
- Wohl, J. G., & Tenney, R. R. (1987). *Integrated analysis techniques for command, control, and communications systems; Vol. II: Applications* (Report No. AAMRL-TR-87-040). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A197126)
- Wolpert, L., Reardon, K. A., & Warren, R. (1989). The effect of changes in edge and flow rates on altitude control. In R. S. Jensen (Ed.), *Proceedings of the Fifth International Symposium on Aviation Psychology*, 2, 749-754.
- Yolton, R. L., Wilson, G. F., Davis, I., & McCloskey, K. A. (1987). Physiological correlates of behavioral performance on the mathematical processing subtest of the CTS battery. *Proceedings of the Human Factors Society 31st Annual Meeting*, 2, 770-773.
- Young, M. F., & McNeese, M. D. (in press). A situated cognition approach to problem solving. In J. M. Flach, P. A. Hancock, J. Caird, & K. Vincente (Eds.), *The ecology of human-machine systems* (Vol. 2). Hillsdale, NJ: Erlbaum.
- Young, M. F., & McNeese, M. D. (1993). A situated cognition approach to problem solving with implications for computer-based learning and assessment. In G. Salvendy, & M. J. Smith (Eds.), *Human-computer interaction: Software and hardware interfaces* (Vol. 2, pp. 825-830). Amsterdam: Elsevier Science Publ. B.V.
- Zacharias, G. L., Miao, A. X., Riley, E. W., & Osgood, R. K. (1993). *Situation awareness metric for cockpit configuration evaluation* (Report No. AL-TR-1993-0042). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B176582)
- Zacharias, G. L., Miao, A. X., & Warren R. (1993). Multistage integration model for human egomotion perception. *Proceedings of the AIAA Flight Simulation Technologies Conference*, 103-113.
- Zaff, B. S., Hughes, E. R., McNeese, M. D., Brown, C. E., & Citera, M. (1993). Diagnosing macro-ergonomic problems: A case study in the use of concept mapping for TQM initiatives. *Proceedings of the Human Factors Society 37th Annual Meeting*, 2, 873-877.
- Zaff, B. S., & McNeese, M. D. (1991). Design acquisition: Translating user knowledge into design solutions. *Proceedings of Interface '91*, 42-49.

- Zaff, B. S., & McNeese, M. D. (1991). An integrated methodology for knowledge and design acquisition. *Proceedings of The IEEE 1991 National Aerospace and Electronics Conference: NAECON 1991*, 2, 779-785.
- Zaff, B. S., McNeese, M. D., Brown, C. E., Citera, M., & Selvaraj, J. A. (1993). Empowering designers with user-centered knowledge: Issues, methods, and solutions. *Proceedings of the Interface '93*, 231-235.
- Zaff, B. S., McNeese, M. D., & Snyder, D. E. (1993). Capturing multiple perspectives: A user-centered approach to knowledge acquisition. *Knowledge Acquisition*, 5(1), 79-116.
- Zaff, B. S., McNeese, M. D., Snyder, D. E., & Lizza, C. S. (1991). An integrated knowledge representation: Developing a large scale knowledge base for the pilot's associate. *Proceedings of the Associate Technology Symposium*, 244-255.
- Zehner, G. F. (in press). Anthropometric Accommodation in USAF Cockpits. *Seventh Annual Workshop on Space Operations, Applications and Research (SOAR '93)*. Johnson Space Center, TX: National Aeronautics and Space Administration.
- Zehner, G. F., Deason, V. B., Ervin, C. A., & Daziens, P. (1987). *A photographic device for the collection of anthropometric data on the hand* (Report No. NATICK-TR-87-044). Natick, MA: U.S. ARMY Natick Research Development and Engineering Center.
- Zehner, G. F., Ervin, C. A., Robinette, K. M., & Daziens, P. (1987). *Fit evaluation of female body armor* (Report No. AAMRL-TR-87-046). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A188721)
- Zehner, G. F., Meindl, R. S., & Hudson, J. A. (1992). *A multivariate anthropometric method for crew station design: Abridged* (Report No. AL-TR-1992-0164). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A274588)

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- Annis, J. F., McDaniel, J. W., & Krauskopf, P. J. (1991). Male and female strength for performing common industrial tasks in difference postures. In W. Karwowski, & J. W. Yates (Eds.), *Advances in industrial ergonomics and safety III* (pp. 193-200). London: Taylor & Francis.
- Arndt, C. M. (1992). Applications for neural networks to landmark detection in three-dimensional surface data. *Proceedings of the Society of Photo-Optical Instrumentation Engineers (SPIE)*, 880-886.
- Arnell, J. Eggemeier, F. T., & Acton, W. (1978). The criterion task set: An updated battery, *Proceedings of the Human Factors Society 31st Annual Meeting*, 1, 405-409.
- Ayoub, M. M., Jiang, B. C., Smith, J. L., Selan, J. L., & McDaniel, J. W. (1987). Establishing a physical criterion for assigning personnel to U.S. Air Force jobs. *American Industrial Hygiene Association Journal*, 48(5), 464-470.
- Badeau, A. (1991). Task difficulty assessed using the correlation dimension of EEG [Poster]. In D. W. Duke, & W. S. Pritchard (Eds.), *EEG/Chaos Conference/Workshop* (pp. 60-63). River Edge, NJ: World Scientific.
- Barrett, E. S., & Wilson, G. F. (1987). *Topographic mapping of brain activity* (Report No. AAMRL-TR-87-069). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A204056)
- Beer, J. (1992). Mental models midst the optical flow [Abstract]. *Proceedings of the 33rd Annual Meeting of the Psychonomics Society*, 335.
- Beer, J. (1993). Perceiving scene layout through an aperture during visually simulated self-motion. *Journal of Experimental Psychology: Human Perception and Performance*, 19(1), 1-16.
- Boer, L., Farmer, E., & Wilson, G. F. (1988). Standardized tests for research with environmental stressors: The AGARD Stress Battery. *AGARD Conference Proceedings 458: Human Behavior in High Stress Situations in Aerospace Operations* (pp. 23-1 - 23-16). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-CP-458)
- Boff, K. R., & Lincoln, J. E. (Eds.). (1988). *Engineering data compendium: Human perception and performance* (Vol. 1-4). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory.
- Boff, K. R., & Lincoln, J. E. (Eds.). (1989). *Engineering data compendium: Human perception and performance* (Compact Disk ed.). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory.
- Borah, J. (1989). *Helmet-mounted eye tracking for virtual panoramic displays Volume I: Review of current eye movement measurement technology* (Report No. AAMRL-TR-89-019). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A273101)
- Borah, J. (1989). *Helmet-mounted eye tracking for virtual panoramic displays Volume II: Eye tracker specification and design approach* (Report No. AAMRL-TR-89-019). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A273101)
- Bortolussi, M. R., & Vidulich, M. A. (1991). An evaluation of strategic behaviors in a high-fidelity simulated flight task: Comparing primary performance to a figure of merit. *Proceedings of the Sixth International Symposium on Aviation Psychology*, 2, 1101-1106.

II. HUMAN CAPABILITIES & LIMITATIONS

- Brainard, L. F., Johnson, M. N., Perez, W. A., Taylor, T. G., & Kuperman, G. G. (1987). *Strategic mission decomposition: II. Artificial intelligence frame-based workload analysis study* (Report No. AAMRL-TR-87-077). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B119938)
- Busch, C., Wilson, G. F., Orr, C., & Papanicolaou, A. (1989). Crossmodal interactions of auditory stimulus presentation on the visual evoked magnetic response. In S. J. Williamson, M. Hoke, G. Stroink, & M. Kotani (Eds.), *Advances in biomagnetism: Proceedings of the Seventh International Conference on Biomagnetism* (pp. 221-224). New York: Plenum Press.
- Busch, C., Wilson, G. F., & Ullsperger, P. (1993). Influence of task difficulty and expectedness on the P300 elicited by a warning stimulus [Abstract]. *Society for Neuroscience: Abstracts*, 19(2), 1606.
- Caldwell, J., & Wilson, G. F. (in press). *Psychophysiological Assessment Methods* (Report No. Report No. AGARD-AR-324). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-AR-324)
- Calhoun, C. S., & Post, D. L. (1990). Heterochromatic brightness matches via Ware & Cowan's luminance correction equation. *1990 Society for Information Display International Symposium Digest of Technical Papers*, 21, 261-264.
- Calhoun, G. L. (1987). *Eye and head response to an attention cue in a dual task paradigm* (Report No. AAMRL-TR-87-033). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A191052)
- Calhoun, G. L., & Janson, W. P. (1990). Eye and head response as indicators of attention cue effectiveness. *Proceedings of the Human Factors Society 34th Annual Meeting*, 1, 1-5.
- Calhoun, G. L., & Janson, W. P. (1992). *Eye and head response as indicators of attention cue effectiveness* (Report No. AL-SR-1992-0022). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A275391)
- Calhoun, G. L., Janson, W. P., & Valencia, G. (1988). Effectiveness of three-dimensional auditory directional cues. *Proceedings of the Human Factors Society 32nd Annual Meeting*, 1, 68-72.
- Cannon, M. W. (1989). Attention uncertainty accounts for the thresholds of multiple gabor patches. *Optical Society of America Annual Meeting Digest*, 18, 143.
- Cannon, M. W. (1990). Spatial pattern processing in human vision. *Society for Information Display International Symposium Digest of Technical Papers*, 21, 452-455.
- Cannon, M. W. (1992). A model for spatial interactions among contrast sensitive mechanisms. *Optical Society of America 1992 Annual Meeting Technical Digest*, 22, 130.
- Cannon, M. W. (1992). A model of mechanisms mediating spatial pattern perception. *Proceedings of the Human Factors Society 36th Annual Meeting*, 2, 1430-1434.
- Cannon, M. W., & Fullenkamp, S. C. (1987). Probability summation among spatially separated patterns is less than predicted. *Investigative Ophthalmology and Visual Science Annual Meeting Supplement*, 28, 357.
- Cannon, M. W., & Fullenkamp, S. C. (1987). Spatial summation of non-contiguous stimuli [Abstract]. *Journal of the Optical Society of America*, A4, 124.

II. HUMAN CAPABILITIES & LIMITATIONS

- Cannon, M. W., & Fullenkamp, S. C. (1988). Multiple mechanism model for suprathreshold contrast perception [Abstract]. *Investigative Ophthalmology and Visual Science Annual Meeting Abstract Issue*, 29, 140.
- Cannon, M. W., & Fullenkamp, S. C. (1988). Perceived contrast and stimulus size: Experiment and simulation. *Vision Research*, 28(6), 695-709.
- Cannon, M. W., & Fullenkamp, S. C. (1989). A two dimensional model of contrast processing from threshold to high suprathreshold levels [Abstract]. *Investigative Ophthalmology and Visual Science Annual Meeting Abstract Issue*, 30, 504.
- Cannon, M. W., & Fullenkamp, S. C. (1990). Inhibitory interactions in suprathreshold vision [Abstract]. *Investigative Ophthalmology and Visual Science Annual Meeting Abstract Issue*, 31, 323.
- Cannon, M. W., & Fullenkamp, S. C. (1991). Lateral interactions among contrast sensitive mechanisms [Abstract]. *Optical Society of America Annual Meeting Digest*, 17, 164.
- Cannon, M. W., & Fullenkamp, S. C. (1991). Spatial interactions in apparent contrast: Inhibitory effects among grating patterns of different spatial frequencies, spatial positions & orientations. *Vision Research*, 31(11), 1985-1998.
- Cannon, M. W., & Fullenkamp, S. C. (1991). A transducer model for contrast perception. *Vision Research*, 31(6), 983-998.
- Cannon, M. W., & Fullenkamp, S. C. (1992). A model for image sharpness estimates [Abstract]. *Investigative Ophthalmology and Visual Science Annual Meeting Abstract Issue*, 33, 1349.
- Cannon, M. W., & Fullenkamp, S. C. (1993). Spatial interactions in apparent contrast: Individual differences in enhancement and suppression effects. *Vision Research*, 33(12), 1685-1695.
- Chelen, W., Kabrisky, M., Hatsell, C., Morales, R., Fix, E. L., & Scott, M. (1990). Use of phenytoin in the prevention of motion sickness. *Aviation, Space and Environmental Medicine*, 61, 1022-1025.
- Crabtree, M. S., & Davis, S. A. (1991). Criterion task set (CTS): Cognitive task battery development. *Proceedings of the Sixth International Symposium on Aviation Psychology*, 1154-1159.
- Crabtree, M. S., Marcelo, R. A. Q., McCoy, A. L., & Vidulich, M. A. (1993). An examination of a subjective situational awareness measure during training on a tactical operations simulator. *Proceedings of the Seventh International Symposium on Aviation Psychology*, 2, 891-895.
- Curry, D. G. (1992). *Handedness and motor programming aspects of manual control and movement* (Report No. AL-TR-1992-0127). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A264022)
- DeLucia, P. R. (1991). Object-motion, self-motion and object-motion during pictorial motion and motion-based information for depth perception. *Journal of Experimental Psychology: Human Perception and Performance*, 17(3), 738-748.
- DeRego, P. (1989). Magnetoencephalographic data indicates separate component modeling is necessary in evaluating evoked responses. In S. Buus (Ed.), *15th Annual Northeast Bioengineering Conference*, 87-88.

II. HUMAN CAPABILITIES & LIMITATIONS

- DeRego, P.** (1989). Magnetoencephalographic localization of simulated evoked response sources affirms the importance of adequate modelling. *Proceedings of the 7th International Conference on Biomagnetism: Advances in Biomagnetism*, 551-554.
- Donohue-Perry, M. M.** (1992). *Changes in visual acuity after night vision goggle exposure* (Report No. AL-SR-1992-0031). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B178591)
- Eggemeier, F. T., & Wilson, G. F.** (1991). Performance-based and subjective assessment of workload in multi-task environments. In D. L. Damos (Ed.), *Multiple task performance* (pp. 217-278). London: Taylor and Francis.
- Eggemeier, F. T., Wilson, G. F., Kramer, A. F., & Damos, D. L.** (1991). Workload assessment in multi-task environments. In D. L. Damos (Ed.), *Multiple task performance* (pp. 207-216). London: Taylor and Francis.
- Eggleston, R. G., Janson, W., & Adapalli, S.** (in press). Manual tracking performance using a virtual hand controller: A comparison study. *AGARD Aerospace Medical Panel Symposium*. Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development.
- Eimer, E. O.** (1987). *Team problem solving: Effects of communication and function overlap* (Report No. AAMRL-TR-87-037). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A187010)
- Eimer, E. O.** (1987). *When decision aids fail* (Report No. AAMRL-TR-87-035). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory.
- Endsley, M. R.** (1991). *Situation awareness in an advanced strategic mission* (Report No. AL-TR-1991-0083). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B161348)
- Entin, E. E., James, R. M., & Serfaty, D.** (1987). *Cognitive style and multi-stage decision making* (Report No. AAMRL-TR-87-024). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A183891)
- Ervin, C. A.** (1987). *Annotated bibliography of psychomotor testing* (Report No. AAMRL-TR-87-019). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A181694)
- Ervin, C. A., & Robinette, K. M.** (1987). *A manual for administering a standardized dexterity test battery* (Report No. AAMRL-TR-87-036). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A188718)
- Farmer, E., Boer, L., Goeters, K., Grussett, J., Santucci, G., Schwartz, E., Wetherell, A., & Wilson, G. F.** (1989). *AGARD Aerospace Medical Panel Working Group 16 AGARDograph 308: Human performance assessment methods*. Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-O-GRAPH 308)
- Fiorita, A. L., Middendorf, M. S., & McMillan, G. R.** (1992). Maintaining subject motivation in long-term experiments using performance incentives and penalties. *Proceedings of the Human Factors Society 36th Annual Meeting*, 2, 1335-1339.
- Fix, E. L.** (1990). Neural network based human performance modeling. *Proceedings of The IEEE 1990 National Aerospace and Electronics Conference: NAECON 1990*, 3, 1162-1165.

II. HUMAN CAPABILITIES & LIMITATIONS

- Fix, E. L. (1990). *Neural network based human performance modeling* (Report No. AAMRL-TR-90-042). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A229822)
- Flach, J. M., & Warren, R. (in press). Active psychophysics: The relation between mind and what matters. In J. M. Flach, P. A. Hancock, J. Caird, & K. Vicente (Eds.), *The ecology of human-machine systems*. Hillsdale, NJ: Erlbaum.
- Flach, J. M., & Warren, R. (in press). Low altitude flight. In J. M. Flach, P. A. Hancock, J. Caird, & K. Vicente (Eds.), *An ecological approach to human machine systems II: Local applications*. Hillsdale, NJ: Erlbaum.
- Fracker, M. L. (1988). A theory of situation assessment: Implications for measuring situation awareness. *Proceedings of the Human Factors Society 32nd Annual Meeting, 1*, 102-106.
- Fracker, M. L. (1989). Attention allocation in situation awareness. *Proceedings of the Human Factors Society 33rd Annual Meeting, 2*, 1396-1400.
- Fracker, M. L. (1989). Attention gradients in situation awareness. *AGARD Conference Proceedings No. 478: Situation Awareness in Aerospace Operations Symposium*. Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-CP-478)
- Fracker, M. L. (1991). *Measures of situation awareness: An experimental evaluation* (Report No. AL-TR-1991-0127). Wright-Patterson AFB, OH: Armstrong Laboratory.
- Fracker, M. L. (1991). *Measures of situation awareness: Review and future directions* (Report No. AL-TR-1991-0128). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A262672)
- Fracker, M. L., & Davis, S. A. (1991). *Explicit, implicit, and subjective rating measures of situation awareness in a monitoring task* (Report No. AL-TR-1991-0091). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A262702)
- Fracker, M. L., & Vidulich, M. A. (1991). Measurement of situation awareness: A brief review. *Proceedings of the 11th Congress of the International Ergonomics Association, 1*, 795-797.
- Fracker, M. L., & Wickens, C. D. (1987). Resources, confusions, and compatibility in dual axis tracking: Displays, controls, and dynamics. *Proceedings of the Human Factors Society 31st Annual Meeting, 2*, 1211-1215.
- Fracker, M. L., & Wickens, C. D. (1989). Resources, confusions and compatibility in dual axis tracking: Displays, controls, and dynamics. *Journal of Experimental Psychology: Human Perception and Performance, 15*(1), 80-96.
- Fraser, N. M., Hipel, K. W., & Kilgour, D. M. (1987). *Human conflict resolution* (Report No. AAMRL-TR-87-013). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A182740)
- Frazier, J., McDaniel, J. W., Skowronski, V., & Aume, N. M. (1988). *Body displacement measured during sustained +Gz, -Gz, and +/-Gy acceleration using a stereoscopic photographic system* (Report No. AAMRL-TR-88-015). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A197988)

II. HUMAN CAPABILITIES & LIMITATIONS

- Gallimore, J. J. (1992). *Review of psychophysically-based image quality metrics* (Report No. AL-TR-1991-0153). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A251053)
- Gawron, V. J., Bailey, R. E., Knotts, L. H., & McMillan, G. R. (1989). Comparison of time delay during in-flight and ground simulation. *Proceedings of the Human Factors Society 33rd Annual Meeting, 1*, 120-123.
- Gibbons, L. E. (1990). *Summary of ergonomics research for the CREW CHIEF model development* (Report No. AAMRL-TR-90-038). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A236113)
- Gilliland, K., Schlegel, R. E., & Dannels, S. (1987). Relationship between criterion task set performance and the personality variables of sensation seeking and stimulus screening. *Proceedings of the Human Factors Society 31st Annual Meeting, 1*, 402-404.
- Gleason, G. A., Schor, C., Lunn, R., & Maxwell, J. (1993). Directionally selective short-term nonconjugate adaptation of vertical pursuits. *Vision Research, 33*(1), 65-71.
- Goldman, Z. Z. (1988). *Human auditory and visual unimodal and bimodal continuous evoked potentials* (Report No. AAMRL-TR-88-016). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A198845)
- Grigsby, S. S., & Tsou, B. H. (1993). Visual factors in the design of partial overlap binocular helmet-mounted displays. *1993 Society for Information Display International Symposium Digest of Technical Papers, 24*, 185-187.
- Gundel, A., & Wilson, G. F. (1992). Topographical changes in the ongoing EEG related to the difficulty of mental tasks. *Brain Topography, 5*(1), 17-25.
- Gundel, A., & Wilson, G. F. (1993). Editorial: Psychophysiological measures in transport operations. [Special issue]. In A. Gundel, & G. F. Wilson (Ed.), *Ergonomics, 36*(9), 989.
- Harmon, E. E., May, J. G., Love, A. C., Cannon, M. W., & Ellis, G. S. (1988). Infant preferences: Faces vs. a blooming buzzing confusion. *Proceedings of the Investigative Ophthalmology and Visual Science Annual Meeting, 29*, 25.
- Haskell, B. E., & Reid, G. B. (1987). The subjective perception of workload in low time private pilots. *Aviation, Space, and Environmental Medicine, 58*, 1230-1232.
- Ingling, C. R., Jr., & Tsou, B. H. (1988). Spectral sensitivity for flicker and acuity criteria. *Journal of the Optical Society of America A, 5*, 1374-1378.
- Irvin, G. E., & Dowler, M. G. (1992). Physiologically based computational approach to camouflage and masking patterns. *Proceedings of the Society of Photo-Optical Instrumentation Engineers (SPIE)*, 481-488.
- Irvin, G. E., & Kang, R. N. (1987). Perimetry measures of transient visual field loss in the presence of foveal laser exposures in humans. *Proceedings of the Sixth DOD Conference on Directed Energy Weapons: Vulnerability, Survivability and Effects*.
- Irvin, G. E., Kang, R. N., Spravka, J. J., & O'Neal, M. R. (1988). Correlational investigation of contrast sensitivity and visual acuity in the detection of approaching aircraft [Abstract]. *Aviation, Space, and Environmental Medicine, 59*(5), 463.

II. HUMAN CAPABILITIES & LIMITATIONS

- Janson, W. P. (1989). *Eye and head response to peripheral targets* (Report No. AAMRL-TR-89-033). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A234958)
- Janson, W. P., & Calhoun, G. L. (1988). Latencies of the eye & head to targets in the vertical & horizontal planes. *Proceedings of the Human Factors Society 32nd Annual Meeting*, 2, 1424-1428.
- Janson, W. P., Quam, D. L., & Calhoun, G. L. (1987). Eye & head displacement to targets fixated in the vertical & horizontal planes. *Proceedings of the Human Factors Society 31st Annual Meeting*, 1, 243-247.
- Jones, M. R., & Skelly, J. J. (1993). The role of event time in attending. *Time and Society*, 2(1), 107-128.
- Junker, A. M. (1988). Loop closure of the visual cortical response. *Proceedings of The IEEE 1988 National Aerospace and Electronics Conference: NAECON 1988*, 1523-1529.
- Junker, A. M., Levison, W. H., & Gill, R. T. (1987). *A systems engineering based methodology for analyzing human electrocortical responses* (Report No. AAMRL-TR-87-030). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A190809)
- Junker, A. M., Schnurer, J. H., Ingle, D. F., & Downey, C. W. (1988). *Loop-closure of the visual-cortical response* (Report No. AAMRL-TR-88-014). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A198348)
- Kama, W. N. (1988). *The effect of binocular rivalry on the performance of a simple target detection/recognition task* (Report No. AAMRL-TR-88-056). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A203512)
- Kama, W. N., & Kuperman, G. G. (1988). *The effect of HUD symbology size on operator performance under various luminance conditions* (Report No. AAMRL-TR-88-021). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A210460)
- Kang, R. N., Marshak, W. P., Reigler, J. T., Irvin, G. E., & Rogers-Adams, B. M. (1987). *The effect of internal contrast and simulated shadow on the deceptive effectiveness of aircraft silhouette paint pattern decoys* (Report No. AAMRL-TR-87-073). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B128218)
- Kang, R. N., Riegler, J. T., & Irvin, G. E. (1987). *Tonedown guidelines for F-16 aircraft canopy shelter entrances* (Report No. AAMRL-TR-87-054). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B119227)
- Kang, R. N., Riegler, J. T., Irvin, G. E., & Katz, L. (1987). *An evaluation of the deceptive effectiveness of 2-Dimensional aircraft silhouette patterns as a function of azimuth and contrast in a grouping context* (Report No. AAMRL-TR-87-023). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B111844)
- Kang, R. N., Susnik, R. M., Irvin, G. E., & Urban, K. E. (1987). *Target masking-perimeter evaluation of target masking at 530.9 NM and 647.1 NM* (Report No. AAMRL-TR-87-061). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. C043778)
- Kang, R. N., Susnik, R. M., & Riegler, J. T. (1987). *The evaluation of 2-Dimensional aircraft silhouette joint patterns as a countermeasure for target acquisition* (Report No. AAMRL-TR-87-022). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B112747)

II. HUMAN CAPABILITIES & LIMITATIONS

- Katsuyama, R. M., McNeese, M. D., & Schertler, D. (1987).** The effects of stimulus familiarity upon lateral asymmetry in face recognition. In J. M. Flach (Ed.), *Proceedings of the Fourth Midcentral Ergonomics/Human Factors Conference*, 306-312.
- Katsuyama, R. M., Monk, D. L., & Rolek, E. P. (1989).** Effects of visual display separation upon primary and secondary task performance. *Proceedings of The IEEE 1989 National Aerospace and Electronics Conference: NAECON 1989*, 2, 758-764.
- Keep, G. F., Irvin, G. E., & Dowler, M. G. (1991).** Aircraft masking patterns as a deception technique: Experimental results from laboratory and field evaluations. [Abstract]. *Proceedings of the Aerospace Medical Association Convention*, 450.
- Kelly, L., Flach, J. M., Garness, S., & Warren, R. (1993).** Altitude control effects of texture and optical flow. *Proceedings of the Seventh International Symposium on Aviation Psychology*, 1, 292-295.
- Kennedy, R. S., Jones, M. B., & Baltzley, D. R. (1989).** *Regions of isoperformance: An interactive software package for trading off training, personnel, and equipment* (Report No. AAMRL-TR-89-003). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B136770)
- Kimble, C. E., & McNeese, M. D. (1987).** *Emergent leadership and team effectiveness on a team resource allocation task* (Report No. AAMRL-TR-87-064). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A192105)
- Kuyk, T. K. (1988).** *Visual depth recovery in humans* (Report No. AAMRL-TR-88-035). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A201278)
- Lusk, S. L., Martin, C. D., Whiteley, J. D., & Johnson, W. V. (1990).** Time delay compensation using peripheral visual cues in an aircraft simulator. *AIAA Flight Simulation Technologies Conference*, 63-70.
- Marshak, W. P. (1992).** Temporal frequency spectrum for describing and modeling motion perception. *Proceedings of the Society of Photo-Optical Instrumentation Engineers (SPIE): Automatic Object Recognition II*, 1700, 476-480.
- Marshak, W. P., Kuperman, G. G., Ramsey, E. G., & Wilson, D. L. (1987).** Situational awareness in map displays. *Proceedings of the Human Factors Society 31st Annual Meeting*, 1, 533-535.
- Matin, E., & Boff, K. R. (1988).** Information transfer rate with serial and simultaneous visual display formats. *Human Factors*, 30(2), 171-180.
- Matin, E., & Boff, K. R. (1990).** An adaptive (tracking) procedure for measuring visual search. *Perceptual and Motor Skills*, 70, 243-253.
- Matin, E., & Boff, K. R. (1990).** Human-machine interaction with serial visual displays. *Proceedings of the Society for Information Display (SID) Conference*, 257-260.
- Matin, E., Boff, K. R., & Donovan, R. S. (1987).** Raising control/display efficiency with rapid communication display technology. *Proceedings of the Human Factors Society 31st Annual Meeting*, 1, 258-262.
- Matin, E., Shao, K. C., & Boff, K. R. (1993).** Saccadic overload: Information processing time with and without saccades. *Perception and Psychophysics*, 53(4), 372-380.

II. HUMAN CAPABILITIES & LIMITATIONS

- May, J. G., Hartmann, E. E., Love, A. C., Cannon, M. W., & Ellis, G. S. (1987). The 'Face' validity of teller visual acuity cards. *Investigative Ophthalmology and Visual Science Annual Meeting Supplement*, 28, 301.
- McBride, D. J., & Brown, C. E. (1989). *Team performance in dynamic decision making: The importance of heuristics* (Report No. AAMRL-TR-89-010). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A209618)
- McCloskey, K. A., Morrow, M., & Perez, W. A. (1988). *The use of psychophysiological measures in the SABER laboratories: Phase I* (Report No. AAMRL-TR-88-052). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A206825)
- McCloskey, K. A., Morrow, M., & Perez, W. A. (1989). *Demonstration of physiological workload correlates in crew capability simulation* (Report No. AAMRL-TR-89-002). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A206824)
- McCloskey, K., Albery, W. B., Zehner, G., Bolia, S. D., Hundt, T. H., Martin E. J., & Blackwell, S. (1992). *NASP re-entry profile: Effects of low-level +Gz on reaction time, keypad entry, and reach error* (Report No. AL-TR-1992-0130). Wright-Patterson AFB, OH: Armstrong Laboratory.
- McDaniel, J. W. (1989). Modeling strength data for crew chief. In S. Griffin (Ed.), *Third Annual Workshop on Space Operations, Applications, and Research (SOAR '89)* (NASA CP-3059 pp. 143-148). Johnson Space Center, TX: National Aeronautics and Space Administration.
- McDaniel, J. W., Helfter, J., Aume, N. M., Haddox, D. L., & Unger R. A. (1993). Available strength for transferring hospital patients between beds using a drawsheet. *Proceedings of the M. M. Ayoub Occupational Ergonomics Symposium* (pp. 1-7). Texas Tech University, TX: Institute for Ergonomics Research.
- McDaniel, J. W., & Robbins, C. G. (1992). The strength of women for activation of ejection seat controls. In S. Kumar (Ed.), *Advances in industrial ergonomics and safety IV* (pp. 1275-1282). Washington, DC: Taylor & Francis.
- McMillan, G. R. (1989). An overview of human performance models & potential applications to combat simulation. *Human behavior and performance as essential ingredients in realistic modeling of combat - MORIMOC II*, 55-68.
- McMillan, G. R. (1991). Effects of visual system transport delay on pilot performance. *Visual Issues in Training and Simulation* (pp. 1-10). Williams AFB, AZ: Armstrong Laboratory.
- McMillan, G. R., Beevis, D., Stein, W., Strub, M. H., Salas, E., Sutton, R., & Reynolds, K. C. (1991). *A directory of human performance models for system design* (Report No. AC/243 (Panel 8) TR/1). Brussels, Belgium: NATO Defense Research Group.
- McNeese, M. D. (1989). *The boundaries of hemispheric processing in visual pattern recognition* (Report No. AAMRL-TR-89-042). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A217675)
- McNeese, M. D. (1989). *Cerebral weevil: A machine learning model for hemispheric categorization of faces* (Report No. AAMRL-TR-89-045). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A218143)

II. HUMAN CAPABILITIES & LIMITATIONS

- McNeese, M. D. (1989). *The role of chaos in hemispheric process and attention* (Report No. AAMRL-TR-89-043). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A217674)
- McNeese, M. D. (1990). *Explorations in cooperative systems: Thinking collectively to learn, learning individually to think* (Report No. AAMRL-TR-90-004). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A218549)
- McNeese, M. D. (1993). Analogical transfer in situated cooperative learning (Doctoral dissertation, Vanderbilt University, 1992). *Dissertation Abstracts International*, 54, 528B.
- McNeese, M. D. (1993). Methods for sharing knowledge in engineering teams: Case studies involving user-centered design improvement. In L. Murray (Ed.), *Minutes of the 30th Meeting of the DOD Human Factors Engineering Technical Advisory Group* (pp. G-8 - G-9)
- McNeese, M. D., & Katsuyama, R. M. (1987). Neuropsychology in the cockpit: An analysis of configurational processing, hemispheric asymmetry, and masking disturbance. *Proceedings of the Fourth International Symposium on Aviation Psychology*, 202-208.
- McNeese, M. D., & Katsuyama, R. M. (1989). *Lateral asymmetry in pattern recognition: Understanding the effects of familiarity, distinction, and perspective change* (Report No. AAMRL-TR-89-049). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A217739)
- McNeese, M. D., & Katz, L. (1987). Legibility evaluation of a large screen display system under medium ambient illumination. *Proceedings of the Society For Information Display*, 28(1), 59-65.
- Merkel, H. S. (1988). *Investigation of a linear systems model for human visual detection and spatial frequency discrimination* (Report No. AAMRL-TR-88-061). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A209397)
- Merriken, M. S., Johnson, W. V., Cress, J. D., & Riccio, G. E. (1988). Time delay compensation using supplementary cues in aircraft simulator systems. *Proceedings of The IEEE 1988 National Aerospace and Electronics Conference: NAECON 1988*, 295-303.
- Middendorf, M. S., Fiorita, A. L., & McMillan, G. R. (1991). The effects of simulator transport delay on performance, workload, and control activity during low-level flight. *ALAA Flight Simulation Technologies Conference*, 412-426.
- Middendorf, M. S., Lusk, S. L., & Whiteley, J. D. (1990). Power spectral analysis to investigate the effects of simulator time delay on flight control activity. *ALAA Flight Simulation Technologies Conference*, 46-52.
- Miller, R. E., O'Neal, M. R., Woessner, W. M., Dennis, R. J., & Green, R. P. (1989). *The prevalence of spectacle wear and incidence of refractive error in USAF aircrew* (Report No. USAFSAM-TR-89-28). Brooks AFB, TX: USAF School of Aerospace Medicine. (DTIC No. AD-A220857)
- Miller, R. E., Woessner, W. M., Dennis, R. J., O'Neal, M. R., & Green, R. P. (1990). Survey of spectacle wear and refractive error prevalence in USAF pilots and navigators. *Optometry and Vision Science*, 67(11), 833-839.
- Miyamoto, A., & Wilson, G. F. (1990). Mapping of evoked magnetic field with visual stimulation : A secondary projection and processing system. *Aviation, Space, and Environmental Medicine*, 61, 453.

- Miyamoto, A., & Wilson, G. F. (1991). Mapping of evoked magnetic field with visual stimulation: A secondary projection and processing area. *Aviation, Space and Environmental Medicine*, 62(7), 638-647.
- Morton, P. E., Tumey, D. M., Ingle, D. F., Downey, C. W., & Schnurer, J. H. (1991). Neural network classification of EEG data generated through use of the audio oddball paradigm. *Proceedings of the IEEE 17th Annual Northeast Bioengineering Conference*, 7-8.
- Morton, P. E., & Wilson, G. F. (1988). Back propagation & EEG data. *Proceedings of the Fourth Annual Aerospace Applications of Artificial Intelligence Conference*, 2, 25-27.
- Nasman, V. T., Palmer, B., & Wilson, G. F. (1991). Effects of linguistic task difficulty on ERPs. *Psychophysiology*, 28(3A, Suppl.), S41.
- Neilsen, R. H., Rossen, M. L., & John, E. R. (1991). *Mental workload measurement using brainwave analysis* (Report No. AL-SR-1991-0003). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B154362)
- Oliver, C. G., & Wilson, G. F. (1989). A topographical comparison of visual and auditory discrimination processing [Abstract]. *Psychophysiology*, 26(4A, Suppl.), S47.
- Oliver, C. G., & Wilson, G. F. (1991). Hemispheric asymmetry in parietal but not occipital MEG during a mental rotation task. *Psychophysiology*, 28(3A, Suppl.), S42.
- O'Neal, M. R. (1987). *Effect of refractive error change on pilot classification at the United States Air Force Academy-Class of 1985* (Report No. AAMRL-TR-87-009). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory.
- O'Neal, M. R. (1990). Effect of aircraft cabin altitude and humidity on oxygen tension under soft and hard gas-permeable contact lenses. *AGARD Conference Proceedings 492: Ocular Hazards in Flight and Remedial Measures* (pp. 23-1 - 23-9). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-CP-492)
- O'Neal, M. R. (1991). Effect of aircraft cabin altitude and humidity on oxygen tension under soft and hard gas-permeable contact lenses. In P. E. Flattau (Ed.), *Considerations in Contact Lens Use Under Adverse Conditions: Proceedings of a Symposium* (pp. 106-118). Washington, DC: National Academy Press.
- O'Neal, M. R., & Bonanno, J. A. (1993). Effects of contact lenses on corneal physiology. In M. Ruben, & M. Guillon (Eds.), *Contact lens practice* (pp. 969-989). London: Chapman and Hall Medical.
- O'Neal, M. R., & Connor, T. R. (1987). Refractive error change at the United States Air Force Academy - Class of 1985. *American Journal of Optometry and Physiological Optics*, 64(5), 344-354.
- O'Neal, M. R., & Miller, R. E. (1988). *Further investigation of contrast sensitivity and visual acuity in pilot detection of aircraft* (Report No. AAMRL-TR-88-002). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A198434)
- O'Neal, M. R., Miller, R. E., Woessner, W. M., Dennis, R. J., & Treadaway, D. K. (1989). Refractive error change since college graduation [Abstract]. *Investigative Ophthalmology and Visual Science*, 30(3, Suppl.), 141.

II. HUMAN CAPABILITIES & LIMITATIONS

- O'Neal, M. R., Task, H. L., & Genco, L. V. (1990). Effect of microgravity on several visual functions during STS shuttle missions. *41st Congress of the International Astronautical Federation (IAF/IAA-90-536 pp. 1-8)*. Paris: International Academy of Astronautics.
- Osgood, R. K., & Wells, M. J. (1991). The effect of field-of-view size on performance of a simulated air-to-ground night attack. *AGARD Conference Proceedings 517: Helmet-Mounted Displays and Night Vision Goggles*, (pp. 10-1 - 10-7). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-CP-517)
- Owen, D. H., & Warren, R. (1987). Perception and control of self-motion: Implications for visual simulation of vehicular locomotion. In L. S. Mark, J. S. Warm, & R. L. Huston (Eds.), *Ergonomics and human factors: Recent research* (pp. 40-70). New York: Springer Verlag.
- Palmer, B., Nasman, V. T., & Wilson, G. F. (1991). A comparison of referenced and reference-independent methodologies on ERP evaluation. *Psychophysiology*, 28(3A, Suppl.), S43.
- Palmer, B., Nasman, V. T., Wilson, G. F., & Gundel, A. (1992). *A brain evoked potential study of task difficulty using verbal memory and mental rotation tasks* (Report No. AL-TR-1992-0079). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A263871)
- Pantle, A., McCarthy, J., & Pinkus, A. (1990). Detection of the spatial structure and motion of second-order stimuli [Abstract]. *Investigative Ophthalmology and Visual Science*, 31, 523.
- Pantle, A., Pinkus, A., & McCarthy, J. E. (1991). The puzzling influence of high spatial frequencies on motion perception [Abstract]. *Investigative Ophthalmology and Visual Science*, 32, 892.
- Pantle, A., Pinkus, A., & Strout, J. (1992). Motion signal interactions [Abstract]. *Investigative Ophthalmology and Visual Science*, 33, 973.
- Papanicolaou, A., Wilson, G. F., Busch, C., DeRego, P., Orr, C., Davis, I. E., & Eisenberg, H. M. (1988). Hemispheric asymmetries in phonological processing assessed with probe evoked magnetic fields. *International Journal of Neuroscience*, 39, 275-281.
- Patterson, R., & Martin, W. L. (1992). Human stereopsis. *Human Factors*, 34, 669-692.
- Perez, W. A., Masline, P. J., Ramsey, E. G., & Urban, K. E. (1987). *Unified tri-services cognitive performance assessment battery: Review and methodology* (Report No. AAMRL-TR-87-007). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A181697)
- Polzella, D. J., Masline, P. J., Amell, J. R., Perez, W. A., & Ramsey, E. G. (1987). The development of a spatial orientation task for inclusion in the criterion task set (CTS). *Proceedings of the Human Factors Society 31st Annual Meeting*, 1, 394-397.
- Polzella, D. J., & Reid, G. B. (1987). A multi-dimensional scaling analysis of subjective workload assessment technique (SWAT) ratings of the criterion task set (CTS). *Proceedings of the Human Factors Society 31st Annual Meeting*, 1, 398-401.
- Polzella, D. J., & Reid, G. B. (1989). Multi-dimensional scaling analysis of simulated air combat maneuvering performance data II: A follow-on study. In R. S. Jensen (Ed.), *Proceedings of the Fifth International Symposium on Aviation Psychology*, 2, 920-925.

- Polzella, D. J., & Reid, G. B. (1991). A comparison of two statistical approaches to complex performance measurement. *Proceedings of the Sixth International Symposium on Aviation Psychology*, 841-846.
- Post, D. L. (1988). Color specification and the CIE system of colorimetry. In K. R. Boff, & J. E. Lincoln (Eds.), *Engineering data compendium: Human perception and performance* (Vol. 1, pp. 374-381). New York: John Wiley and Sons.
- Post, D. L. (1992). Applied color-vision research. In H. Widdel, & D. L. Post (Eds.), *Color in electronic displays* (pp. 137-173). New York: Plenum Press.
- Post, D. L., & Calhoun, C. S. (1988). Color-name boundaries for equally bright stimuli on a CRT: Phase II. *1988 Society for Information Display International Symposium Digest of Technical Papers*, 19, 65-68.
- Post, D. L., & Calhoun, C. S. (1989). Color-name boundaries for color coding [Insert]. *Applied Vision 1989 Technical Digest Series* (Vol. 16). Washington, DC: Optical Society of America.
- Post, D. L., & Calhoun, C. S. (1989). Color-name boundaries for equally bright stimuli on a CRT: Phase III. *1989 Society for Information Display International Symposium Digest of Technical Papers*, 20, 284-287.
- Ratino, D. A., Repperger, D. W., Goodyear, C. D., Potor, G., & Rodriguez, L. E. (1988). Quantification of reaction time and time perception during space shuttle operations. *Aviation, Space, and Environmental Medicine*, 59(3), 220-224.
- Reardon, K. A., & Warren, R. (1989). Effect of emergent detail on descent-rate estimations in flight simulators. In R. S. Jensen (Ed.), *Proceedings of the Fifth International Symposium on Aviation Psychology*, 2, 714-719.
- Reeves, D. L., Stanny, R. R., Wilson, G. F., Herning, R. I., Pickworth, W., VanOrden, K. F., & Caldwell, J. A. (1991). *The OMPAT level 1 neurophysiological performance assessment battery (NPPAB)* (NAMRL Monograph No. 43). Pensacola, FL: Naval Aerospace Medical Research Laboratory.
- Reid, G. B. (1988). The subjective workload assessment technique: A scaling procedure for measuring mental workload. In P. A. Hancock, & N. Meshkati (Eds.), *Human mental workload* (pp. 185-218). Amsterdam: North-Holland.
- Reid, G. B., Potter, S. S., & Bressler, J. R. (1989). *Subjective workload assessment technique (SWAT): A user's guide* (Report No. AAMRL-TR-89-023). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A215405)
- Reinhart, W. F., Glynn, C. D., Dye, C., Takahama, M., & Snyder, H. L. (1988). *The role of short-term memory in operator workload* (Report No. AAMRL-TR-88-024). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A200252)
- Riccio, G. E., Cress, J. D., & Johnson, W. V. (1987). The effects of simulator delays on the acquisition of flight control skills: Control of heading and altitude. *Proceedings of the Human Factors Society 31st Annual Meeting*, 2, 1286-1290.
- Riegler, J. T., Whiteley, J. D., Task, H. L., & Schueren, J. (1991). *The effect of signal-to-noise ratio on visual acuity through night vision goggles* (Report No. AL-TR-1991-0011). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A260579)

II. HUMAN CAPABILITIES & LIMITATIONS

- Rizzuto, A. P. (1988). *Diazepam and its effects on psychophysiological and behavioral measures of performance* (Report No. AAMRL-TR-87-074). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A198767)
- Robinette, K. M., Ervin, C. A., & Zehner, G. F. (1987). *Development of a standard dexterity test battery* (Report No. AAMRL-TR-87-034). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A188314)
- Robinette, K. M., & Fowler, J. (1988). *An annotated bibliography of United States Air Force engineering anthropometry* (Report No. AAMRL-TR-88-013). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A198345)
- Robinson, S. E., Kaufman, L., & Wilson, G. F. (in press). Testing cognitive models of attention with single-trial auditory evoked response. *Proceedings of the 9th International Symposium on Biomagnetism*.
- Rogers-Adams, B. M., Riegler, J. T., Irvin, G. E., & Dowler, M. G. (1988). *The effects of masking and shape disruptive patterns on the visual detection of ground parked aircraft* (Report No. AAMRL-TR-88-055). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B133684)
- Rueb, J. D., Vidulich, M. A., & Hassoun, J. A. (in press). Use of workload redlines: A KC-135 crew-reduction application. *The International Journal of Aviation Psychology*.
- Rueb, J., Vidulich, M. A., & Hassoun, J. (1992). Establishing workload acceptability: An evaluation of a proposed KC-135 cockpit redesign. *Proceedings of the Human Factors Society 36th Annual Meeting, 1*, 17-21.
- Santoro, T. P., & Tsou, B. H. (1992). Trade-off between field-of-view and periscope scan rate in a target detection and bearing awareness study. *1992 Society for Information Display International Symposium Digest of Technical Papers, 23*, 298-300.
- Schafer, E., & Bates, B. T. (1988). *Anthropometric comparisons between body measurements of men and women* (Report No. AAMRL-TR-88-020). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory.
- Schafer, E., & Bates, B. T. (1988). *Anthropometric comparisons between face measurements of men and women* (Report No. AAMRL-TR-88-027). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory.
- Schlegel, R. E., & Gilliland, K. (1990). *Evaluation of the criterion task set - part I appendices A and B - univariate summaries* (Report No. AAMRL-TR-90-008). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A225188)
- Schlegel, R. E., & Gilliland, K. (1990). *Evaluation of the criterion task set - part I CTS performance and swat data - baseline conditions* (Report No. AAMRL-TR-90-007). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A224331)
- Schlegel, R. E., Gilliland, K., & Crabtree, M. S. (1992). *Development of the UTC-PAB normative database* (Report No. AL-TR-1992-0145). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A271319)
- Schlegel, R. E., Gilliland, K., & Schlegel, B. (1987). Factor structure of the criterion task set. *Proceedings of the Human Factors Society 31st Annual Meeting, 1*, 389-393.

- Schor, C. M., Gleason, G. A., & Lunn, R. (1993). Interactions between short-term vertical phoria adaptation and nonconjugate adaptation of vertical pursuits. *Vision Research*, 33(1), 55-63.
- Schor, C., Gleason, G., Maxwell, J., & Lunn, R. (1993). Spatial aspects of vertical phoria adaptation. *Vision Research*, 33(1), 73-84.
- Schuber, M., & O'Neal, M. R. (1988). Visual examination and performance during head-down-tilt (HDT) induced upper body fluid shift [Abstract]. *Aviation, Space, and Environmental Medicine*, 59(5), 486.
- Self, H. C. (1988). *Display size: A literature survey and a study with SLR imagery* (Report No. AAMRL-TR-88-001). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A200852)
- Self, H. C. (1989). *Tutorial on the angular positions and velocities of ground objects viewed from aircraft* (Report No. AAMRL-TR-89-047). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A231283)
- Self, H. C. (1993). *A tutorial on exit pupils and eye rotation with virtual image optical displays* (Report No. AL-TR-1993-0010). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A262399)
- Skelly, J. J. (1993). *Pacing visual attention: Temporal structure effects* (Report No. AL-TR-1993-0024). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A273859)
- Skelly, J. J., Purvis, B. D., & Wilson, G. F. (1987). Fighter pilot performance during airborne & simulator mission: Physiological comparisons. *AGARD Conference Proceedings 432: Electric and Magnetic Activity of the Central Nervous System: Research and Clinical Applications in Aerospace Medicine* (pp. 23-1 - 23-16). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-CP-432)
- Smith, J. L., Ayoub, M. M., & McDaniel, J. W. (1992). Manual materials handling capabilities in non-standard postures. *Ergonomics*, 35(7/8), 807-831.
- Snyder, D. E., & McNeese, M. D. (1987). *Conflict resolution in cooperative systems* (Report No. AAMRL-TR-87-066). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A190351)
- So, R. H. Y., & Griffin, M. J. (1993). *Effects of lags on human performance with head-coupled simulators* (Report No. AL/CF-TR-1993-0101). Wright-Patterson AFB, OH: Armstrong Laboratory.
- Spravka, J. J., Irvin, G. E., & Dowler, M. G. (1988). T-62 tank gunner tracking performance using a night vision display system of a function of background luminance, countermeasure power and countermeasure wavelength. *Proceedings of the 10th Annual Lasers on the Modern Battlefield Conference* (pp. 91-94).
- Stephens, B. R., Cannon, M. W., & Fullenkamp, S. C. (1992). Perception of image contrast and image profile of low frequency gratings [Abstract]. *Investigative Ophthalmology and Visual Science Annual Meeting Abstract Issue*, 33, 1350.
- Stern, J. A., Dunham, D. N., & Goldstein, R. (1988). *An evaluation of electrooculographic, head movement and steady state evoked response measures of workload in flight simulation* (Report No. AAMRL-TR-88-036). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A236505)

II. HUMAN CAPABILITIES & LIMITATIONS

- Stoffregen, T. A., & Riccio, G. E. (1988). An ecological theory of orientation and the vestibular system. *Psychological Review*, 95(1), 3-14.
- Strayer, D. L., & Kramer, A. F. (1988). *The retrieval of information from secondary memory: A review and new findings* (Report No. AAMRL-TR-88-041). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A222760)
- Task, H. L. (1988). Vision through aircraft transparencies. *AGARD Lecture Series 156: Visual Effects in the High Performance Aircraft Cockpit* (pp. 4-1 - 4-14). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-LS-156)
- Task, H. L. (1989). Vision through aircraft transparencies. In S. A. Marolo (Ed.), *Conference on Aerospace Transparent Materials and Enclosures* (WRDC-TR-89-4044, Vol. 2, pp. 1047-1071). Wright-Patterson AFB, OH: Wright Research and Development Center.
- Task, H. L., & Genco, L. V. (1987). Effects of short-term space flight on several visual functions. In M. W. Bungo, T. M. Bagian, M. A. Bowman, & B. M. Levitan (Eds.), *Results of the life sciences DSOs conducted aboard the space shuttle 1981-1986* (pp. 173-178). Johnson Space Center, TX: National Aeronautics and Space Administration.
- Task, H. L., & Pinkus, A. R. (1987). Contrast sensitivity and target recognition performance: A lack of correlation. *1987 Society for Information Display International Symposium Digest of Technical Papers*, 18, 127-129.
- Task, H. L., & Pinkus, A. R. (1987). The role of the contrast sensitivity function in display image quality metrics. *Electronic Imaging '87: International Electronic Imaging Exposition and Conference*, 1, 161-166.
- Tsang, P. S., & Vidulich, M. A. (in press). The roles of immediacy and redundancy in relative subjective workload assessment. *Human Factors*.
- Tsang, P. S., & Vidulich, M. A. (1987). Time-sharing visual and auditory tracking tasks. *Proceedings of the Human Factors Society 31st Annual Meeting*, 1, 253-257.
- Tsang, P. S., & Vidulich, M. A. (1989). Cognitive demands of automation in aviation. In R. S. Jensen (Ed.), *Aviation psychology* (pp. 66-95). Essex, Great Britain: Gower.
- Tsou, B. H. (1989). Visual psychophysical considerations in the design of binocular helmet-mounted displays. In L. M. Biberman (Ed.), *Proceedings of the Sensor Display Workshop: Vol. 2 Display Technology* (IDA Document D-713 pp. 45-74). Alexandria, VA: Institute for Defense Analysis.
- Tsou, B. H., & Grigsby, S. S. (1993). Visual field-of-view: A design factor for binocular helmet-mounted displays. *Proceedings of the 1993 Meeting of the IRIS Specialty Group on Passive Sensors* (IRIAC Report No. 213400-169-X(II), Vol. 2, pp. 107-109). Ann Arbor, MI: Infrared Information Analysis Center.
- Tsou, B. H., & Rogers-Adams, B. M. (1990). The effect of aspect ratio on helmet mounted display field of view. *Report of the 30th Meeting of Air Standardization Coordination Committee (ASCC) Working Party 61: Aerospace Medical and Life Support Systems Symposium: Aeromedical Aspects of Vision* (Vol. 4, pp. 136-146). Toronto: Defence and Civil Institute of Environmental Medicine.
- Tsou, B. H., Rogers-Adams, B. M., & Beard, M. (1991). Distance perception and ocular accommodation in helmet-mounted displays. *1991 Society for Information Display International Symposium Digest of Technical Papers*, 22, 313.

- Tsou, B. H., Rogers-Adams, B. M., & Goodyear, C. D. (1991).** The evaluation of partial binocular overlap on car maneuverability: A pilot study. In K. Krishen (Ed.), *Fifth Annual Workshop on Space Operations, Applications, and Research (SOAR '91)* (NASA-CP-3127, Vol. 2, pp. 562-568). Johnson Space Center, TX: National Aeronautics and Space Administration.
- Tumey, D. M., Morton, P. E., Ingle, D. F., Downey, C. W., & Schnurer, J. H. (1991).** Neural network classification of EEG using chaotic preprocessing and phase space reconstruction. *Proceedings of the IEEE 17th Annual Northeast Bioengineering Conference*, 51-52.
- Urban, K. E., Irvin, G. E., & Dowler, M. G. (1989).** Detection of aircraft targets during laser-induced transient visual field loss: Effects of canopies and laser protective visors. *Proceedings of the Seventh DOD Conference of Directed Energy Weapons: Vulnerability, Survivability and Effects* (pp. 383-388).
- Venturino, M. R. (1987).** Capacity limitations in human information processing: Theory & applications. *Proceedings of the Human Factors Society 31st Annual Meeting*, 1, 672-673.
- Venturino, M. R. (1987).** Concurrent memory search: The roles of automaticity and multiple resources [Abstract]. *Annual Meeting of the Eastern Psychological Association*, 58.
- Venturino, M. R. (1988).** Timesharing memory searches: The roles of automaticity & multiple resources [Abstract]. *Proceedings and Abstracts of the Annual Meeting of the Eastern Psychological Association*, 23.
- Venturino, M. R. (1989).** Performance-based measures of merit for tactical situation awareness. *AGARD Conference Proceedings 478: Situation Awareness in Aerospace Operations* (pp. 4-1 - 4-5). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-CP-478)
- Venturino, M. R. (1991).** Timesharing memory searches: The roles of automatic processing & multiple resources theories. *Journal of Experimental Psychology: Learning, Memory & Cognition*, 17(3), 677-695.
- Venturino, M. R., & Geiselman, E. E. (1992).** Quantifying the goodness of mental representations of spatial relationships. *Proceedings of the Human Factors Society 36th Annual Meeting*, 2, 1363-1367.
- Venturino, M. R., & Kunze, K. J. (1989).** Spatial awareness with a helmet-mounted display. *Proceedings of the Human Factors Society 33rd Annual Meeting*, 2, 1388-1391.
- Venturino, M. R., & Wells, M. J. (1990).** Head movements as a function of field-of-view size on helmet-mounted display. *Proceedings of the Human Factors Society 34th Annual Meeting*, 2, 1572-1576.
- Venturino, M., & Post, D. L. (Eds.). (1992).** Visual displays [Special issue]. *Human Factors*, 34, 509-634.
- Vidulich, M. A. (1988).** The cognitive psychology of subjective mental workload. In P. A. Hancock, & N. Meshkati (Eds.), *Human mental workload* (pp. 219-229). Amsterdam: Elsevier.
- Vidulich, M. A. (1988).** Speech responses and dual-task performance: Better time-sharing or asymmetric transfer? *Human Factors*, 30(4), 517-529.
- Vidulich, M. A. (1989).** Objective measures of workload: Should a secondary task be secondary? In R. S. Jensen (Ed.), *Proceedings of the Fifth International Symposium on Aviation Psychology*, 2, 802-807.
- Vidulich, M. A. (1989).** The use of judgment matrices in subjective workload assessment: The subjective workload dominance (SWORD) technique. *Proceedings of the Human Factors Society 33rd Annual Meeting*, 2, 1406-1410.

II. HUMAN CAPABILITIES & LIMITATIONS

- Vidulich, M. A. (1990). Performance-based workload assessment: Allocation strategy and added task sensitivity. In S. Griffin (Ed.), *Third Annual Workshop on Space Operations, Applications, and Research (SOAR '89)* (NASA-CP-3059 pp. 329-335). Johnson Space Center, TX: National Aeronautics and Space Administration.
- Vidulich, M. A. (1991). The Bedford scale: Does it measure spare capacity? *Proceedings of the Sixth International Symposium on Aviation Psychology*, 2, 1136-1141.
- Vidulich, M. A. (1992). Measuring situation awareness. *Proceedings of the Human Factors Society 36th Annual Meeting*, 1, 40-41.
- Vidulich, M. A., & Bortolussi, M. R. (1988). A dissociation of objective and subjective workload measures in assessing the impact of speech controls in advanced helicopters. *Proceedings of the Human Factors Society 32nd Annual Meeting*, 2, 1471-1475.
- Vidulich, M. A., & Bortolussi, M. R. (1988). Speech recognition in advanced rotor-craft: Using speech controls to reduce manual control overload. *Proceedings of the American Helicopter Society National Specialists' Meeting*, 1-10.
- Vidulich, M. A., Crabtree, M. S., & McCoy, A. L. (1993). Developing subjective and objective metrics of pilot situation awareness. *Proceedings of the Seventh International Symposium on Aviation Psychology*, 2, 896-900.
- Vidulich, M. A., & Hughes, E. R. (1991). Testing a subjective metric of situation awareness. *Proceedings Human Factors Society 35th Annual Meeting*, 2, 1307-1311.
- Vidulich, M. A., & Pandit, P. (1987). Individual differences and subjective workload assessment: Comparing pilots to nonpilots. *Proceedings of the Fourth International Symposium on Aviation Psychology*, 630-636.
- Vidulich, M. A., & Pandit, P. (1988). Consistent mapping and spatial consistency in target detection and response execution. In J. M. Flach (Ed.), *Proceedings of the Fourth Midcentral Ergonomics/Human Factors Conference*, 39-45.
- Vidulich, M. A., Stratton, M. D., Crabtree, M. S., & Wilson, G. F. (in press). Performance-based and physiological measures of situation awareness. *Aviation, Space and Environmental Medicine*.
- Vidulich, M. A., & Tsang, P. S. (1987). Absolute magnitude estimation and relative judgment approaches to subjective workload assessment. *Proceedings of the Human Factors Society 31st Annual Meeting*, 2, 1057-1061.
- Vidulich, M. A., Ward, G. F., & Schueren, J. (1991). Using the subjective workload dominance (SWORD) technique for projective workload assessment. *Human Factors*, 33(6), 677-691.
- Vikmanis, M. M. (1987). Advances in workload measurement for cockpit design evaluation. *AGARD Conference Proceedings No. 425: The Man-Machine Interface in Tactical Aircraft Design and Combat Automation* (pp. 10-1 - 10-10). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-CP-425)
- Warren, R. (1988). Active psychophysics: Theory and practice. *Proceedings of the 4th Annual Meeting of the International Society for Psychophysics*, 47-52.

- Warren, R. (1988). Visual perception in high-speed low-altitude flight. *Aviation, Space, & Environmental Medicine*, 59(11, Suppl.), A116-124.
- Warren, R. (1990). Preliminary questions for the study of egomotion. In R. Warren, & A. H. Wertheim (Eds.), *Perception and control of self-motion* (pp. 3-32). Hillsdale, NJ: Erlbaum.
- Warren, R. (1991). Methodological problems in applied cognition & perceptual research: Theoretical implications. In R. R. Hoffman, & D. S. Palermo (Eds.), *Cognition and the symbolic processes: Applied & ecological perspectives* (pp. 507-518). Hillsdale, NJ: Erlbaum.
- Warren, R. (1992). Fidelity issues in flight simulation, self-motion, and virtual reality displays. *Insight: The Visual Performance Technical Group Newsletter*, 14(September), 1,3.
- Warren, R. (1993). Total visual scene information for flight. In E. Trautman (Ed.), *Vision Topics for Aviation: A new look at a traditional concern* (Report No. IST-DF-93-01 pp. 37-51). University of Central Florida, FL: Institute for Simulation and Training.
- Warren, R., & Beer, J. (1992). Perception of on- and off-screen self-motion leading [Abstract]. *Proceedings of the 33rd Annual Meeting of the Psychonomics Society*, 380.
- Warren, R., & Wertheim, A. H. (Eds.). (1990). *Perception & control of self-motion*. Hillsdale, NJ: Erlbaum.
- Wellens, A. R. (1989). Effects of telecommunication media upon information sharing and team performance: Some theoretical and empirical observations. *IEEE Aerospace and Electronic Systems Magazine*, 4, 13-19.
- Wellens, A. R. (1989). Effects of telecommunication media upon information sharing and team performance: Some theoretical and empirical observations. *Proceedings of The IEEE 1989 National Aerospace and Electronics Conference: NAECON 1989*, 2, 726-733.
- Wellens, A. R. (1990). *Assessing multi-person and person-machine distributed decision making using an extended psychological distancing model* (Report No. AAMRL-TR-90-006). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A235882)
- Wellens, A. R. (1991). Electronic collaboration: Some effects of telecommunication media and machine intelligence on team performance. *Fourth Annual Workshop on Space Operations, Applications, and Research (SOAR '90)* (NASA-CP-3127 pp. 606-611). Johnson Space Center, TX: National Aeronautics and Space Administration.
- Wellens, A. R., Brown, C. E., & McNeese, M. D. (1991). Assessing electronic team technologies using computer-based dynamic decision making tasks. In Y. Queinnec, & F. Daniellou (Eds.), *Designing for everyone* (Vol. 1, pp. 667-669). New York: Taylor and Francis.
- Wellens, A. R., Brown, C. E., & McNeese, M. D. (1992). Assessing electronic team technologies using computer-based dynamic decision making tasks. *Organizational Design and Management (ODAM) Bulletin*, 11(3), 9-11.
- Wellens, A. R., & Ergener, D. (1988). The C.I.T.I.E.S. game: A computer-based situation assessment task for studying distributed decision making. *Simulation and Games*, 19, 304-327.
- Wells, M. J., & Osgood, R. K. (1991). The effects of head and sensor movement on flight profiles during simulated dive bombing. *Proceedings of the Human Factors Society 35th Annual Meeting*, 1, 22-26.

II. HUMAN CAPABILITIES & LIMITATIONS

- Wells, M. J., & Venturino, M. R. (1989). The effect of increasing task complexity on field-of-view requirements for a visually coupled system. *Proceedings of the Human Factors Society 33rd Annual Meeting*, 1, 91-95.
- Wells, M. J., Venturino, M., & Osgood, R. K. (1988). Using target replacement performance to measure spatial awareness in a helmet-mounted simulator. *Proceedings of the Human Factors Society 32nd Annual Meeting*, 2, 1429-1433.
- Wells, M. J., Venturino, M., & Osgood, R. K. (1989). The effect of field-of-view size on performance at a simple simulated air-to-air mission. In J. T. Carollo (Ed.), *Proceedings of the Society of Photo-Optical Instrumentation Engineers (SPIE): Helmet-Mounted Displays*, 1116, 126-137.
- Whiteley, J. D., Lusk, S. L., & Middendorf, M. S. (1990). The effects of simulator time delays on a sidestep landing maneuver: A preliminary investigation. *Proceedings of the Human Factors Society 34th Annual Meeting*, 2, 1538-1541.
- Wickens, C. D., Barnett, B. J., Davis, T., & Hyman, F. (1989). Expertise, stress, and pilot judgment. *AGARD Conference Proceedings 458: Human Behavior in High Stress Situations in Aerospace Operations* (pp. 10-1 - 10-8). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-CP-458)
- Wickens, C. D., Fracker, M. L., & Webb, J. M. (1987). Cross-modal interference and task integration: Resources or preemption switching? *Proceedings of the Human Factors Society 31st Annual Meeting*, 1, 679-683.
- Wickens, C. D., Stokes, A., Barnett, B., & Davis, T. (1988). *Componential analysis of pilot decision making* (Report No. AAMRL-TR-88-017). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A203711)
- Wickens, C. D., Stokes, A., Barnett, B., & Hyman, F. (1988). *The effects of stress on pilot judgment in a MIDIS simulator* (Report No. AAMRL-TR-88-057). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A210827)
- Wightman, F., & Kistler, D. J. (1990). *Field measurement of head related transfer functions* (Report No. AAMRL-TR-90-019). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A227850)
- Wilkinson, M. O., Thibos, L. N., & Cannon, M. W. (1990). Contrast constancy: Neural compensation for image attenuation [Abstract]. *Investigative Ophthalmology and Visual Science Annual Meeting Abstract Issue*, 31, 323.
- Wilson, D. L. (1992). *Theory of signal detection and its application to visual target acquisition: A review of the literature* (Report No. AL-TR-1992-0083). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A262920)
- Wilson, D. L., Kuperman, G. G., & Crawford R. L. (1992). *Effects of maximum allowed time on sustained operator performance in a counter-mobile target acquisition task* (Report No. AL-TR-1992-0070). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. C959947)
- Wilson, D. L., McNeese, M. D., & Brown, C. E. (1987). Team performance of a dynamic resource allocation task: Comparison of shared versus isolated work setting. *Proceedings of the Human Factors Society 31st Annual Meeting*, 2, 1345-1349.

II. HUMAN CAPABILITIES & LIMITATIONS

- Wilson, D. L., McNeese, M. D., Brown, C. E., & Wellens, A. R. (1987). *Utility of shared versus isolated work setting for dynamic team decision making* (Report No. AAMRL-TR-87-072). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A192434)
- Wilson, G. F. (1988). Probe evoked magnetic & electrical responses during a spatial rotation task. *Psychophysiology*, 25(4, Suppl.), 490.
- Wilson, G. F. (1989). PATS: A new generation psychophysiological test battery. *Proceedings of the Human Factors Society 33rd Annual Meeting*, 2, 1173-1176.
- Wilson, G. F. (1991). The use of heart rate and heart rate variability to measure workload in F4 pilots and WSO's during training flights and a tracking task. *Aviation, Space, and Environmental Medicine*, 61, 450.
- Wilson, G. F. (1992). Applied use of cardiac and respiration measures: Practical considerations and precautions. *Biological Psychology*, 34(2-3), 163-178.
- Wilson, G. F. (Ed.). (1992). Cardiorespiratory measures and their role in studies of performance [Special issue]. *Biological Psychology*, 34(2-3).
- Wilson, G. F. (1992). *Progress in the psychophysiological assessment of workload* (Report No. AL-TR-1992-0007). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A263609)
- Wilson, G. F. (1993). Air-to-ground training missions: A psychophysiological workload analysis. *Ergonomics*, 36(9), 1071-1088.
- Wilson, G. F. (1993). Cardiorespiratory measures and their role in studies of performance. *CSERIAC Gateway*, 4(2), 18.
- Wilson, G. F., & Badeau, A. (1992). Psychophysiological measures of cognitive workload in laboratory and flight. *Sixth Annual Workshop on Space Operations, Applications, and Research (SOAR '92)* (pp. 169-175). Johnson Space Center, TX: National Aeronautics and Space Administration.
- Wilson, G. F., Busch, C., Papanicolaou, A., Oliver, C. G., & Orr, C. (1989). Cortical resource allocation during mental rotation determined by magneto and electro encephalography. In S. J. Williamson, M. Hoke, G. Stroink, & M. Kotani (Eds.), *Advances in biomagnetism: Proceedings of the Seventh International Conference on Biomagnetism* (Vol. 2, pp. 233-236). New York: Plenum Press.
- Wilson, G. F., & DeRego, P. (1987). Hemispheric asymmetries in phonetic processing assessed with probe evoked magnetic fields. In K. Atsumi, M. Kotani, S. Ueno, T. Katila, & S. J. Williamson (Eds.), *Advances in biomagnetism: Biomagnetism 87* (pp. 210-216). Tokyo: Tokyo & Denki University Press.
- Wilson, G. F., & Eggemeier, F. T. (1991). Psychophysiological assessment of workload in multi-task environments. In D. L. Damos (Ed.), *Multiple task performance* (pp. 329-360). London: Taylor and Francis.
- Wilson, G. F., & Fisher, F. (1990). Classification of flight segment using pilot & WSO physiological data. *Proceedings of the Human Factors Society 34th Annual Meeting*, 1, 109-111.
- Wilson, G. F., & Fisher, F. (1990). The use of multiple physiological measures to determine flight segment in F4 pilots. *Proceedings of The IEEE 1990 National Aerospace and Electronics Conference: NAECON 1990*, 2, 859-861.

II. HUMAN CAPABILITIES & LIMITATIONS

- Wilson, G. F., & Fisher, F. (1991). Cognitive task classification using EEG spectra [Poster]. *Psychophysiology*, 28(3A, Suppl.), S62.
- Wilson, G. F., & Fisher, F. (1991). The use of cardiac and eye blink measures to determine flight segment in F4 crew. *Aviation, Space, and Environmental Medicine*, 62, 959-961.
- Wilson, G. F., & Fullenkamp, P. A. (1989). A comparison of pilot and WSO workload during training missions using psychophysiological data. In E. Farmer (Ed.), *Stress and error in aviation: Proceedings of the XVIII Western European Association for Aviation Psychology Conference* (Vol. 2, pp. 27-34). Worcester, Great Britain: Billing & Sons.
- Wilson, G. F., Fullenkamp, P., & Davis, I. E. (in press). Evoked potential, cardiac, blink & respiration measures of workload article in air-to-ground missions. *Aviation, Space, and Environmental Medicine*.
- Wilson, G. F., Fullenkamp, S. C., & Davis, I. E. (1990). Physiological measures of pilot and WSO workload during air-to-ground missions. *Aviation, Space, and Environmental Medicine*, 61, 454.
- Wilson, G. F., Fullenkamp, S. C., Sullivan, C., Gundel, A., & Davis, I. E. (1989). Evoked brain potentials recorded during airborne and ground tasks. *Aviation, Space, and Environmental Medicine*, 60, 495.
- Wilson, G. F., Luciani, R. J., & Ratino, D. A. (1987). Motion evoked vestibular potential. *AGARD Conference Proceedings 432: Electrical & Magnetic Activity on the Central Nervous System: Research and Clinical Applications in Aerospace Medicine* (pp. 32-1 - 32-8). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-CP-432)
- Wilson, G. F., & McCloskey, K. A. (1988). Using probe evoked potentials to determine information processing demands. *Proceedings of the Human Factors Society 32nd Annual Meeting*, 2, 1400-1403.
- Wilson, G. F., & McCloskey, K. A. (1989). Task and adaptation effects upon cardiac and respiration measures. *Psychophysiology*, 26(4A, Suppl.), S66.
- Wilson, G. F., McCloskey, K., & Davis, I. (1987). Evoked response, performance and subjective measures in a linguistic processing task. *Proceedings of the Fourth International Symposium on Aviation Psychology*, 623-629.
- Wilson, G. F., & Mulford, L. L. (in press). *Register of psychophysiologicalists*. Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development.
- Wilson, G. F., & O'Donnell, R. D. (1987). Cortical evoked response and eyeblink measures in the workload evaluation of alternative landing system displays. In A. Roscoe (Ed.), *AGARD Aerospace Medical Panel Working Group 16 AGARDograph No. 282: The practical assessment of pilot workload* (pp. 8-52 - 8-55). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-O-GRAPH 282)
- Wilson, G. F., & O'Donnell, R. D. (1988). Measurement of operator workload with the neuropsychological workload test battery. In P. A. Hancock, & N. Meshkati (Eds.), *Advances in psychology: Vol. 52. Human mental workload* (pp. 63-100). New York: North Holland.
- Wilson, G. F., & Oliver, C. G. (1992). PATS: Psychophysiological assessment test system, goals and description. *Aviation, Space, and Environmental Medicine*, 63, 403.

II. HUMAN CAPABILITIES & LIMITATIONS

- Wilson, G. F., Palmer, B., Oliver, C. G., & Swain, R. (1991). Topographical analysis of cognitive task difficulty. *Proceedings of the Second International Congress on Brain Electromagnetic Topography*, 326.
- Wilson, G. F., Purvis, B. D., & Skelly, J. J. (1987). Physiological data used to measure pilot workload in actual flight & simulator conditions. *Proceedings of the Human Factors Society 31st Annual Meeting*, 2, 779-783.
- Wilson, G. F., Ratino, D. A., Floyd, L. L., Luciani, R. J., & Rodriguez, L. E. (1989). *Brain stem evoked responses in altered environments* (Report No. AAMRL-TR-89-016). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A220097)
- Wilson, G. F., Skelly, J. J., & Purvis, B. D. (1988). Reactions to emergency situations in actual and simulated flight. *AGARD Conference Proceedings 458: Human Behavior in High Stress Situations in Aerospace Operations* (pp. 9-1 - 9-13). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-CP-458)
- Wilson, G. F., Swain, R. A., & Davis, I. E. (in press). Topographical analysis of cortical evoked activity during a variable demand spatial processing task. *Aviation, Space and Environmental Medicine*.
- Wilson, G. F., Swain, R., & Davis, I. E. (1988). Human event related potentials during spatial processing: A topographical distribution. *Society for Neuroscience Abstracts*, 14(2), 1014.
- Wilson, G. F., Ullsperger, P., & Busch, C. (1993). Influence of difficulty level on ERP components elicited in response to warning stimuli. *Psychophysiology*, 30(Suppl. 1), S71.
- Wolpert, L., Reardon, K. A., & Warren, R. (1989). The effect of changes in edge and flow rates on altitude control. In R. S. Jensen (Ed.), *Proceedings of the Fifth International Symposium on Aviation Psychology*, 2, 749-754.
- Yolton, R. L., Wilson, G. F., Davis, I., & McCloskey, K. A. (1987). Physiological correlates of behavioral performance on the mathematical processing subtest of the CTS battery. *Proceedings of the Human Factors Society 31st Annual Meeting*, 2, 770-773.
- Young, M. F., & McNeese, M. D. (in press). A situated cognition approach to problem solving. In J. M. Flach, P. A. Hancock, J. Caird, & K. Vincente (Eds.), *The ecology of human-machine systems* (Vol. 2). Hillsdale, NJ: Erlbaum.
- Young, M. F., & McNeese, M. D. (1993). A situated cognition approach to problem solving with implications for computer-based learning and assessment. In G. Salvendy, & M. J. Smith (Eds.), *Human-computer interaction: Software and hardware interfaces* (Vol. 2, pp. 825-830). Amsterdam: Elsevier Science Publ. B.V.
- Zacharias, G. L., Miao, A. X., & Warren R. (1993). Multistage integration model for human egomotion perception. *Proceedings of the AIAA Flight Simulation Technologies Conference*, 103-113.

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- Abrams, T. S., Martin, C. D., Orr, C. E., & Hinson, T. A. (1991). *Cockpit automation technology CSERIAC-CAT Jul 89 - Dec 90: Final report* (Report No. AL-TR-1991-0078). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A273124)
- Anderson, A. F., Crouch, D. A., Edwards, R. E., Kraushar, P. G., Leininger, W. E., McDonnell, J. N., Ostrand, R. A., Stollings, M. N., & White, R. W. (1991). *Cockpit automation technology interim technical report 8* (Report No. AL-TR-1991-0100). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B161113)
- Andes, R. C., Hunt, R. M., Andriole, S. J., & Adelman, L. (1989). *Cognitive engineering of advanced information technology for air force systems design & development* (Report No. AAMRL-TR-89-038). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A218558)
- Annis, J. F., McDaniel, J. W., & Krauskopf, P. J. (1991). Male and female strength for performing common industrial tasks in difference postures. In W. Karwowski, & J. W. Yates (Eds.), *Advances in industrial ergonomics and safety III* (pp. 193-200). London: Taylor & Francis.
- Arndt, C. M. (1991). *Development of the expert system domain advisor and analysis tool* (Report No. AL-TR-1991-0150). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A255768)
- Arndt, C. M., & Gavern, J. M. (1993). Mathematical models, and methodologies for measuring and improving human-machine interface in written language [Abstract]. *62nd MORS Symposium*.
- Aume, N. M. (1989). Crew chief, a computer graphics simulation of an aircraft maintenance technician. In S. Griffin (Ed.), *Third Annual Workshop on Space Operations, Applications, and Research (SOAR '89)* (NASA CP-3059 pp. 139-141). Johnson Space Center, TX: National Aeronautics and Space Administration.
- Ayoub, M. M., Jiang, B. C., Smith, J. L., Selan, J. L., & McDaniel, J. W. (1987). Establishing a physical criterion for assigning personnel to U.S. Air Force jobs. *American Industrial Hygiene Association Journal*, 48(5), 464-470.
- Beaudet, D. B., Price, D. L., Kuperman, G. G., & Wilson, D. L. (1987). *Human factors report on information management requirements for next-generation manned bombers* (Report No. AAMRL-TR-87-042). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A195870)
- Beecroft, S. L., Perez, W. A., Kirtland, W. H., & Taylor, T. G. (1988). *Strategic mission decomposition: III. Mission planning requirements and scenario implementation for advanced conceptual bomber simulation studies* (Report No. AAMRL-TR-88-072). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. C956971)
- Blue, D. V., Flanagan, D. P., Giacaglia, R. A., Lenorovitz, D. R., & Stanke, E. C. (1987). *Rapid intelligent prototyping laboratory (RIPL) architecture and use* (Report No. AAMRL-TR-87-004). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory.
- Boff, K. R. (1987). Designing for design effectiveness of complex avionics systems. *AGARD Conference Proceedings No. 417: The Design, Development, and Testing of Complex Avionics Systems* (pp. 22-1 - 22-9). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-CP-417)
- Boff, K. R. (1987). Matching crew system specifications to human performance capabilities. *AGARD Conference Proceedings No. 425: The Man-Machine Interface in Tactical Aircraft Design and Combat Automation* (pp. 29-1 - 29-9). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-CP-425)

III. DESIGN AIDING TECHNOLOGIES

- Boff, K. R. (1987). The Tower of Babel revisited: Cross-disciplinary chokepoints in system design. In W. B. Rouse, & K. R. Boff (Eds.), *System design: Behavioral perspectives on designers, tools, and organizations* (pp. 1-13). New York: North Holland.
- Boff, K. R. (1988). The value of research is in the eye of the beholder. *Human Factors Society Bulletin*, 31(6), 1-4.
- Boff, K. R. (1990). Integrating ergonomics into system design. *CSERIAC Gateway*, 1(2), 1-2.
- Boff, K. R. (1990). Meeting the challenge: Factors in the design & acquisition of human-engineered systems. In H. Booher (Ed.), *MANPRINT: An approach to systems integration* (pp. 551-572). New York: Von Nostrand Reinhold.
- Boff, K. R. (1993). Advances in human prototyping: Implications for crew system integration and system safety. *Proceedings of the International Conference on Aircraft Flight Safety*. Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development.
- Boff, K. R. (1993). The usability of behavioral research findings in system design. In Gartner, Widdel, & Ste (Eds.), *Mensch-Maschine-Systeme und Neue Informationstechnologien*. Dusseldorf: Carl Hansa Verlag Mur and VDI Verlag.
- Boff, K. R., & Lincoln, J. E. (Eds.). (1988). *Engineering data compendium: Human perception and performance* (Vol. 1-4). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory.
- Boff, K. R., & Lincoln, J. E. (Eds.). (1989). *Engineering data compendium: Human perception and performance* (Compact Disk ed.). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory.
- Boff, K. R., & Martin, E. A. (1988). Human performance data in simulation design. *AIAA Flight Simulation Technologies Conference*, 1-5.
- Boff, K. R., & Monk, D. L. (1992). Computer-aided systems human engineering: A hypermedia tool. *CSERIAC Gateway*, 3(2), 1-5.
- Boff, K. R., Monk, D. L., Swierenga, S. J., Brown, C. E., & Cody, W. J. (1991). Computer-aided human factors for systems designers. *Proceedings of the Human Factors Society 35th Annual Meeting*, 1, 332-336.
- Boff, K. R., Polzella, D. J., & Morton, K. (1990). Crew system ergonomics information analysis center: A gateway for technology transfer. In R. W. Harrison (Ed.), *Proceedings of the Technology Transfer Society 15th Annual Meeting, International Symposium and Exhibit: Technology Transfer in a Global Economy*, 277-282.
- Brainard, L. F., Johnson, M. N., Perez, W. A., Taylor, T. G., & Kuperman, G. G. (1987). *Strategic mission decomposition: II. Artificial intelligence frame-based workload analysis study* (Report No. AAMRL-TR-87-077). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B119938)
- Brown, C. E., Swierenga, S. J., & Wellens, A. R. (1991). Social psychological metaphors for human-computer systems design. *Proceedings of The IEEE 1991 National Aerospace and Electronics Conference: NAECON 1991*, 793-799.

- Caldwell, J., & Wilson, G. F. (in press). *Psychophysiological Assessment Methods* (Report No. Report No. AGARD-AR-324). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-AR-324)
- Case, H., Ervin, C. A., & Robinette, K. M. (1989). *Anthropometry of a fit test sample used in evaluating the current and improved MCU-2/P masks* (Report No. AAMRL-TR-89-009). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A215173)
- Chechile, R. A., Eggleston, R. G., Fleischman, R. N., & Sassville, A. M. (1989). Modeling the cognitive complexity of displays. *Human Factors*, 31(1), 31-43.
- Citera, M., Selvaraj, J. A., Zaff, B. S., Brown, C. E., & McNeese, M. D. (1993). Development of a research paradigm to study collaboration in multidisciplinary design teams. In M. J. Smith, & G. Salvendy (Eds.), *Abridged proceedings of the 5th International Conference on Human-Computer Interactions*, 174.
- Coberly, V. J., & Wiederholt, B. J. (1989). Knowledge representation for simulation. *Proceedings of the 1989 Summer Computer Simulation Conference*, 596-601.
- Cody, W. J. (1989). Designers as users: Design supports based on crew system design practices. *Proceedings of the American Helicopter Society 45th Annual Forum*, 423-435.
- Cody, W. J., & Rouse, W. B. (1989). A test of criteria used to select human performance models. In G. R. McMillan (Ed.), *Applications of human performance models to system design* (pp. 511-531). New York: Plenum.
- Cody, W. J., Rouse, W. B., & Boff, K. R. (1993). *Functional requirements for computer-based associates that support access and use of technical information* (Report No. AL/CF-TR-1993-0069). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A274603)
- Cona, T. R., & Monk, D. L. (1993). Bringing human performance data to the design table. *Proceedings of the Human Factors Society 37th Annual Meeting*, 2, 1087-1095.
- Dent, C., Klein, G., & Eggleston, R. G. (1987). *Metaphor casting of information--Display requirements* (Report No. KA-TR-868-87-01A). Yellow Springs, OH: Klein & Assoc.
- Duncan, P. C. (1989). Aerospace technical training: The state of the art and forecast for the future. *Proceedings of the AIAA Computers in Aerospace VII Conference*, 420-428.
- Eggleston, R. G. (1987). The changing nature of the human-machine design problem: Implications for system design and development. In W. J. Rouse, & K. R. Boff (Eds.), *System design: Behavior perspectives on designers, tools, and organizations* (pp. 113-125). New York: North Holland.
- Eggleston, R. G. (1987). *Impact of future developments in electronic technology on cockpit engineering* (Report No. AGARD-R-757). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-R-757)
- Eggleston, R. G. (1988). Machine intelligence and crew-vehicle interfaces. In E. Heer, & H. Lum (Eds.), *Progress in astronautics and aeronautics: Vol. 115. Machine intelligence and autonomy for aerospace systems* (pp. 51-84). Washington, DC: American Institute of Aeronautics.

III. DESIGN AIDING TECHNOLOGIES

- Eimer, E. O. (1987). *Team problem solving: Effects of communication and function overlap* (Report No. AAMRL-TR-87-037). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A187010)
- Eimer, E. O. (1987). *When decision aids fail* (Report No. AAMRL-TR-87-035). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory.
- Farley, W. W. (1987). *Design and testing of a luminance and chrominance stabilization system for a computer-controlled color display* (Report No. AAMRL-TR-87-027). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A955697)
- Fraser, N. M., Hipel, K. W., Kilgour, D. M., McNeese, M. D., & Snyder, D. E. (1989). An architecture for integrating expert systems. *Decision Support Systems*, 5, 263-276.
- Gibbons, L. E. (1990). *Summary of ergonomics research for the CREW CHIEF model development* (Report No. AAMRL-TR-90-038). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A236113)
- Glushko, R. J., Weaver, M. D., Coonan, T. A., & Lincoln, J. E. (1988). Hypertext engineering: Practical methods for creating a compact disc encyclopedia. *Proceedings of the ACM Conference on Document Processing Systems*, 11-19.
- Gomes, M. E., Lind, S., & Snyder, D. E. (1992). *A human factors evaluation of the MH-53J helicopter using advanced acquisition and computer analysis techniques* (Report No. AL-TR-1992-0081). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B170365)
- Gonsalves, P. G., Kneller, E. W., Zacharias, G. L., St. John, R. J., & Purvis, B. D. (1989). *Model-based method for terrain-following display design* (Report No. AAMRL-TR-89-039). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A219302)
- Green, T. B., Purvis, B. D., & Marshak, W. P. (1989). Strategic aircraft engineering design simulation. *Proceedings of the IEEE 1989 National Aerospace and Electronics Conference: NAECON 1989*, 2, 742-745.
- Haas, M. W. (in press). Fusion interfaces for tactical environments: An approach for applying virtual reality technology. *Seventh Annual Workshop on Space Operations, Applications and Research (SOAR '93)*. Johnson Space Center, TX: National Aeronautics and Space Administration.
- Haas, M. W. (1993). Fusion interfaces for tactical environments: An approach for applying virtual reality technology. In L. Murray (Ed.), *Minutes of the 30th Meeting of the DOD Human Factors Engineering Technical Advisory Group* (pp. AA).
- Hammond, K. R. (1987). *Reducing disputes among experts* (Report No. AAMRL-TR-87-015). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A182602)
- Hunt, R. M. (1987). The difficulties of design problem formulation. In W. B. Rouse, & K. R. Boff (Eds.), *System design: Behavioral perspectives on designers, tools and organizations* (pp. 145-157). New York: North Holland.
- Johnson, K. L., Brisby, J. M., Prior, R. C., Blazer, D. R., Heaton, H. H., Finch, S. R., Hattershire, B. R., & Sharp, E. D. (1988). *Final report: Strategic avionics crew station design evaluation facility (SACDEF) systems integrator contract* (Report No. AAMRL-TR-88-071). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B131733)

- Kapasouris, P., Serfaty, D., Wohl, J. G., Deckert, J. C., & Pattipati, K. (1989). *Mapping missions onto C3 organizations: Incorporating the goal dimension in IAT* (Report No. AAMRL-TR-89-048). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A225582)
- Klein, G. A., & Brezovic, C. (1987). *What do training device designers want to know about human performance characteristics?* (Report No. AAMRL-TR-87-010). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory.
- Klein, G. A., & Brezovic, C. P. (1987). *Human performance data needed for training device design decisions* (Report No. AAMRL-TR-87-010). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A185988)
- Kocian, D. F. (1988). Design considerations for virtual panoramic display (VPD) helmet systems. *AGARD Conference Proceedings No. 425: The Man-Machine Interface in Tactical Aircraft Design and Combat Automation* (pp. 22-1 - 22-32). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-CP-425)
- Kocian, D. F. (1989). Design considerations for visually coupled systems and their interface to sensor/computer generated cockpit imagery systems. In L. M. Biberian (Ed.), *Proceedings of the Sensor Display Workshop: Vol. 2 Display Technology* (IDA Document D-713 pp. 75-194). Alexandria, VA: Institute for Defense Analysis.
- Korna, M., Krauskopf, P. J., Haddox, D., Hardy, S., Jones, M. W., Polzinetti, J., & McDaniel, J. W. (1988). *User's guide for CREW CHIEF: A computer graphics simulation of an aircraft maintenance technician (Version 1 - CD20)* (Report No. AAMRL-TR-88-034). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (NTIS No. AD A201 368)
- Korna, M., Krauskopf, P. J., Haddox, D., Hardy, S., Jones, M. W., Polzinetti, J., & McDaniel, J. W. (1990). *User's guide for CREW CHIEF: A computer graphics simulation of an aircraft maintenance technician (Version 2 - CD21)* (Report No. AAMRL-TR-90-014). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A230654)
- Korna, M., Rothery, J., Jones, M. W., Krauskopf, P. J., Stump, W., Hardy, S., Haddox, D., Meeks, L., & McDaniel, J. W. (1988). *User's guide for CREW CHIEF: A computer graphics simulation of an aircraft maintenance technician (Version 1 - CV4001)* (Report No. AAMRL-TR-88-045). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (NTIS No. AD A204 869)
- Krauskopf, P. J., Jones, M. W., Stump, W. J., & Quinn, J. W. (1990). *CREW CHIEF CAD system interface guide (Version 2 - SI)* (Report No. AAMRL-TR-90-015). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A231433)
- Krauskopf, P. J., Quinn, J. W., Berlin, R., Stump, W. J., Gibbons, L. E., & McDaniel, J. W. (1989). *User's guide for COMBIMAN programs (COMputerized BIomechanics MAN-model) Version 8* (Report No. AAMRL-TR-89-024). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A222735)
- Kulwicki, P. V., McDaniel, J. W., & Guadagna, L. M. (1987). Advanced development of a cockpit automation design support system. *AGARD Conference Proceedings 417: The Design, Development, and Testing of Complex Avionics Systems* (pp. 19-1 - 19-15). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-CP-417)
- Kuperman, G. G. (1992). *Information requirements analysis for transatmospheric vehicles* (Report No. AL-TR-1992-0082). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A261189)

III. DESIGN AIDING TECHNOLOGIES

- Kuperman, G. G., & Perez, W. A. (1988). A frame based mission decomposition model. *Proceedings of the Human Factors Society 32nd Annual Meeting, 1*, 135-139.
- Kuperman, G. G., & Wilson, D. L. (1988). The design of a tactical situation display. *Proceedings of the Human Factors Society 32nd Annual Meeting, 1*, 111-115.
- Kuperman, G. G., & Wilson, D. L. (1990). *Demonstration of concept I avionics capability performance* (Report No. AAMRL-TR-90-059). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. C958373)
- Licht, D. M., Polzella, D. J., & Boff, K. R. (1991). *Human factors, ergonomics, and human factors engineering: An analysis of definitions* (Report No. 89-01). Wright-Patterson AFB, OH: CSERLAC Program Office.
- Lincoln, J. E., & Boff, K. R. (1988). Making behavioral data useful for system design applications: Development of the engineering data compendium. *Proceedings of the Human Factors Society 32nd Annual Meeting, 2*, 1021-1025.
- Marshak, W. P., Purvis, B. D., & Green, T. B. (1989). Integrating engineering with training simulation. *Proceedings of The IEEE 1989 National Aerospace and Electronics Conference: NAECON 1989, 2*, 754-756.
- McCloskey, K., Albery, W. B., Zehner, G., Bolia, S. D., Hundt, T. H., Martin E. J., & Blackwell, S. (1992). *NASP re-entry profile: Effects of low-level +Gz on reaction time, keypad entry, and reach error* (Report No. AL-TR-1992-0130). Wright-Patterson AFB, OH: Armstrong Laboratory.
- McDaniel, J. W. (1988). COMBIMAN and CREW CHIEF. In K. H. E. Kroemer, S. H. Snook, S. K. Meadows, & S. Deutsch (Eds.), *Ergonomic models of anthropometry human biomechanics and operator-equipment interfaces* (pp. 55-60). Washington, DC: National Academy Press.
- McDaniel, J. W. (1988). CREW CHIEF: A computer graphics model of an aircraft maintenance technician. *Proceedings of the Sixth Annual Computer-Aided Engineering Program Users Meeting* (Report No. NWC TP 6910 pp. 601-603). China Lake, CA: Naval Weapons Center.
- McDaniel, J. W. (1988). Rules for fighter cockpit automation. *Proceedings of The IEEE 1988 National Aerospace and Electronics Conference: NAECON 1988, 3*, 831-838.
- McDaniel, J. W. (1989). Virtual mockup. *MANPRINT Bulletin, 4*(1), 4-7.
- McDaniel, J. W. (1990). Models for ergonomic analysis and design COMBIMAN and CREW CHIEF. In W. Karwowski, A. M. Genaidy, & S. S. Asfour (Eds.), *Computer-aided ergonomics: A researcher's guide* (pp. 138-156). London: Taylor & Francis Inc.
- McDaniel, J. W. (1991). The development of computer models for ergonomic accommodation. In A. Mital, & W. Karwowski (Eds.), *Workspace, equipment and tool design* (pp. 29-66). Amsterdam: Elsevier.
- McDaniel, J. W., & Hofmann, M. A. (1990). Computer-aided ergonomics design tools. In H. R. Boohar (Ed.), *MANPRINT: An approach to system integration* (pp. 205-235). New York: Von Nostrand Reinhold.
- McMillan, G. R., Beevis, D., Salas, E., Strub, M. H., Sutton, R., & Van Breda, L. (Eds.). (1989). *Applications of human performance models to system design*. New York: Plenum.

- McMillan, G. R., Beevis, D., Stein, W., Strub, M. H., Salas, E., Sutton, R., & Reynolds, K. C. (1991). *A directory of human performance models for system design* (Report No. AC/243 (Panel 8) TR/1). Brussels, Belgium: NATO Defense Research Group.
- McNeese, M. D. (1993). Methods for sharing knowledge in engineering teams: Case studies involving user-centered design improvement. In L. Murray (Ed.), *Minutes of the 30th Meeting of the DOD Human Factors Engineering Technical Advisory Group* (pp. G-8 - G-9).
- McNeese, M. D. (1993). *Putting knowledge to use: The acquisition and transfer of knowledge in situated problem solving environments* (Report No. AL/CF-TR-1993-0052). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A269746)
- McNeese, M. D., & Zaff, B. S. (1991). Knowledge as design: A methodology for overcoming knowledge acquisition bottlenecks in intelligent interface design. *Proceedings of the Human Factors Society 35th Annual Meeting*, 2, 1181-1185.
- McNeese, M. D., Zaff, B. S., & Brown, C. E. (1992). Computer supported collaborative work: A new agenda for human factors engineering. *Proceedings of The IEEE 1992 National Aerospace and Electronics Conference: NAECON 1992*, 2, 681-686.
- McNeese, M. D., Zaff, B. S., Brown, C. E., Citera, M., & Selvaraj, J. A. (1993). Understanding the context of multidisciplinary design: A case for establishing ecological validity in the study of design problem solving. *Proceedings of the Human Factors Society 37th Annual Meeting*, 2, 1082-1086.
- McNeese, M. D., Zaff, B. S., Brown, C. E., Citera, M., & Wellens, A. R. (1992). The role of a group-centered approach in the development of computer-supported collaborative design technologies. *Proceedings of the Human Factors Society 36th Annual Meeting*, 2, 867-871.
- McNeese, M. D., Zaff, B. S., Brown, C. E., Citera, M., & Whitaker, R. (in press). AKADAM: Eliciting user knowledge to support participatory ergonomics. *The International Journal of Industrial Ergonomics*.
- McNeese, M. D., Zaff, B. S., Peio, K. J., Snyder, D. E., Duncan, J. C., & McFarren, M. R. (1990). *An advanced knowledge and design acquisition methodology: Application for the pilot's associate* (Report No. AAMRL-TR-90-060). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A233700)
- Meindl, R. S., Zehner, G. F., & Hudson, J. A. (1993). *A multivariate anthropometric method for crew station design* (Report No. AL/CF-TR-1993-0054). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A270652)
- Mellian, S. A., Ervin, C. A., & Robinette, K. M. (1991). *Sizing evaluation of navy women's uniforms* (Report No. AL-TR-1991-0116). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A249782)
- Middleton, V. E., Chevalier, J. R., Evans, J. B., Felt, J. E., Hayes, T. R., McIntyre, R. T., Porter, C. D., Rayle, M. E., Rudofski, D., Shelef, S., Shew, R. L., & James, G. M. (1987). *Evaluation of individual protective equipment improvement objectives* (Report No. AAMRL-TR-87-002). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. C040557)
- Mills, R. G. (1988). A user-assisted generic systems analyst workstation (GENSAW). *Proceedings of The IEEE 1988 National Aerospace and Electronics Conference: NAECON 1988*, 1065-1069.
- Mills, R. G. (1988). A user-assisted test & evaluation methodology assistant program (TEMAP). *Proceedings of The IEEE 1988 National Aerospace and Electronics Conference: NAECON 1988*, 1060-1064.

III. DESIGN AIDING TECHNOLOGIES

- Monk, D. L., Swierenga, S. J., & Lincoln, J. E. (1992). Developing behavioral phenomena test benches. *Proceedings of the Human Factors Society 36th Annual Meeting*, 2, 1106-1109.
- Morris, N. M. (1987). Designing for user acceptance of design aids. In W. B. Rouse, & K. R. Boff (Eds.), *System design: Behavioral perspectives on designers, tools and organizations* (pp. 245-255). New York: North Holland.
- Ochs, J. (1992). *Automated custom-fit production* (Report No. AL-SR-1992-0007). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B164883)
- Pinkus, A. R. (1988). Night lighting and night vision goggle compatibility. *AGARD Lecture Series 156: Visual Effects in the High Performance Aircraft Cockpit* (pp. 7-1 -7-16). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-LS-156)
- Pollack, R. B. (1990). *An investigation into techniques for landmarks identification on 3-D images of human subjects* (Report No. AAMRL-SR-90-0500). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A218614)
- Post, D. L. (1988). Color specification and the CIE system of colorimetry. In K. R. Boff, & J. E. Lincoln (Eds.), *Engineering data compendium: Human perception and performance* (Vol. 1, pp. 374-381). New York: John Wiley and Sons.
- Post, D. L. (1992). Colorimetric measurement, calibration, and characterization of self-luminous displays. In H. Widdel, & D. L. Post (Eds.), *Color in electronic displays* (pp. 299-312). New York: Plenum Press.
- Post, D. L., & Calhoun, C. S. (1987). An evaluation of methods for producing specific colors on CRTs. *Proceedings of the Human Factors Society 31st Annual Meeting*, 2, 1276-1280.
- Post, D. L., & Calhoun, C. S. (1989). An evaluation of methods for producing desired colors on CRT monitors. *Color Research and Application*, 14(4), 172-186.
- Ratnaparkhi, M. V., Ratnaparkhi, M. M., & Robinette, K. M. (1992). Size and shape analysis techniques for design. *Applied Ergonomics*, 23(3), 181-185.
- Reeves, D. L., Stanny, R. R., Wilson, G. F., Herning, R. I., Pickworth, W., VanOrden, K. F., & Caldwell, J. A. (1991). *The OMPAT level 1 neurophysiological performance assessment battery (NPPAB)* (NAMRL Monograph No. 43). Pensacola, FL: Naval Aerospace Medical Research Laboratory.
- Robinette, K. M. (1992). Anthropometry for HMD design. *Proceedings of the Society of Photo-Optical Instrumentation Engineers (SPIE): Helmet-Mounted Displays III*, 1695, 138-145.
- Robinette, K. M. (1993). Fit testing as a helmet development tool. *Proceedings of the Human Factors Society 37th Annual Meeting*, 1, 69-73.
- Robinette, K. M., & Fowler, J. (1988). *An annotated bibliography of United States Air Force engineering anthropometry* (Report No. AAMRL-TR-88-013). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A198345)
- Robinette, K. M., Mellian, S. A., & Ervin, C. A. (1991). *Development of sizing systems for Navy women's uniforms* (Report No. AL-TR-1991-0117). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A250071)

- Robinette, K. M., & Whitestone, J. J. (in press). The need for improved anthropometric methods for the development of helmet systems. *Aviation, Space and Environmental Medicine*, 65(4, Suppl.).
- Robinette, K. M., & Whitestone, J. J. (1992). *Methods for characterizing the human head for the design of helmets* (Report No. AL-TR-1992-0061). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A263875)
- Robinson, J. C., Robinette, K. M., & Zehner, G. F. (1988). *User's guide to accessing the anthropometric data base at the center for anthropometric research data* (Report No. AAMRL-TR-88-012). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A198771)
- Robinson, J. C., Robinette, K. M., & Zehner, G. F. (1992). *User's guide to the anthropometric database at the computerized anthropometric research and design (CARD) laboratory second edition* (Report No. AL-TR-1992-0036). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A273002)
- Rothey, J., Jones, M. W., Maute, K., Martinez, N., Krauskopf, P. J., Stump, W. J., Hardyal, S., Harper, W., Meeks, L., & McDaniel, J. W. (1990). *User's guide for CREW CHIEF: A computer graphics simulation of an aircraft maintenance Technician (Version 1.1 - CV CADDStation)* (Report No. AAMRL-TR-90-013). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory.
- Rouse, W. B. (1987). Designers, decision making, and decision support. In W. B. Rouse, & K. R. Boff (Eds.), *System design: Behavioral perspectives on designers, tools and organizations* (pp. 275-283). New York: North Holland.
- Rouse, W. B. (1987). On meaningful menus for measurement: Disentangling evaluative issues in system design. *Information Processing and Management*, 23(6), 593-604.
- Rouse, W. B., & Cody, W. J. (1989). Information systems for design support: An approach for establishing functional requirements. *Information and Decision Technologies*, 15(4), 281-289.
- Rouse, W. B., & Boff, K. R. (Eds.). (1987). *System design: Behavioral perspectives on designers, tools, and organizations*. New York: North Holland.
- Rouse, W. B., & Boff, K. R. (1987). Designers, tools, and environments: State of knowledge, unresolved issues and potential directions. In W. B. Rouse, & K. R. Boff (Eds.), *System design: Behavioral perspectives on designers, tools and organizations* (pp. 43-63). New York: North Holland.
- Rouse, W. B., & Boff, K. R. (1987). Workshop themes and issues: The psychology of system design. In W. B. Rouse, & K. R. Boff (Eds.), *System design: Behavioral perspectives on designers, tools and organization* (pp. 7-17). New York: North Holland.
- Rouse, W. B., & Cody, W. J. (1988). On the design of man-machine systems: Principles, practices, and prospects. *Automatica*, 24, 227-238.
- Rouse, W. B., & Cody, W. J. (1989). Designers' criteria for choosing human performance models. In G. R. McMillan (Ed.), *Applications of human performance models to system design* (pp. 7-14). New York: Plenum Press.
- Rouse, W. B., & Cody, W. J. (1989). A theory-based approach to supporting design decision making. *Information and Decision Technologies*, 15(4), 291-306.

III. DESIGN AIDING TECHNOLOGIES

- Rouse, W. B., Cody, W. J., & Boff, K. R. (1991). The human factors of system design: Understanding and enhancing the role of human factors engineering. *International Journal of Human Factors in Manufacturing*, 1, 87-104.
- Rouse, W. B., Cody, W. J., Boff, K. R., & Frey, P. R. (1990). Information systems for supporting design of complex human-machine systems. In C. T. Leondes (Ed.), *Advances in aeronautical systems* (Vol. 38, pp. 41-100). San Diego: Academic Press.
- Rouse, W. B., Cody, W. J., & Frey, P. R. (1992). Lessons learned in developing human-machine system design tools. *Information and Decision Technologies*, 18, 301-308.
- Sanderson, P. M., McNeese, M. D., & Zaff, B. S. (in press). Handling complex real-world data with two cognitive engineering tools: COGENT and MacSHAPA. *Behavior Research Methods, Instrumentation & Computers*.
- Schafer, E., & Bates, B. T. (1988). *Anthropometric comparisons between body measurements of men and women* (Report No. AAMRL-TR-88-020). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory.
- Schafer, E., & Bates, B. T. (1988). *Anthropometric comparisons between face measurements of men and women* (Report No. AAMRL-TR-88-027). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory.
- Self, H. C. (1993). *Stress and the ergonomic design and evaluation of person-machine systems* (Report No. AL/CF-SR-1993-0008). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A275156)
- Smith, J. L., Ayoub, M. M., & McDaniel, J. W. (1992). Manual materials handling capabilities in non-standard postures. *Ergonomics*, 35(7/8), 807-831.
- Snyder, D. E., McNeese, M. D., & Zaff, B. S. (1991). Identifying design requirements using integrated analysis structures. *Proceedings of The IEEE 1991 National Aerospace and Electronics Conference: NAECON 1991*, 2, 786-791.
- Snyder, D. E., McNeese, M. D., Zaff, B. S., & Gomes, M. E. (1992). Knowledge acquisition of tactical air-to-ground mission information using concept mapping. *Proceedings of The IEEE 1992 National Aerospace and Electronics Conference: NAECON 1992*, 2, 668-674.
- Snyder, D. E., Wellens, A. R., Brown, C. E., & McNeese, M. D. (1989). Three paradigms for the study of multi-person and human-machine interaction. *Proceedings of the IEEE Systems, Man, & Cybernetics Conference*, 840-841.
- Swierenga, S. J., Monk, D. L., & Brown, C. E. (1992). Human performance data visualization for system design teams. *Proceedings of The IEEE 1992 National Aerospace and Electronics Conference: NAECON 1992*, 2, 675-680.
- Swierenga, S. J., Morton, K., & Boff, K. R. (1990). Issues concerning the use of human engineering information: The system designers' perspective. *Proceedings of The IEEE 1990 National Aerospace and Electronics Conference: NAECON 1990*, 881-885.
- Task, H. L. (1991). Optical and visual considerations in the specification and design of helmet-mounted displays. *1991 Society for Information Display International Symposium Digest of Technical Papers*, 22, 297-300.

- Tolcott, M. A., Lehner, P. E., & Mullen, T. M. (1989). *User interaction with self-learning systems* (Report No. AAMRL-TR-89-029). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A214280)
- Tsou, B. H. (1993). System design considerations for a visually-coupled system. In S. R. Robinson (Ed.), *The infrared and electro-optics systems handbook: Vol. 8. Emerging systems and technologies* (pp. 515-536). Bellingham, WA: SPIE Optical Engineering Press.
- Vargo, C. G., Brown, C. E., & Swierenga, S. J. (1992). An evaluation of computer-supported backtracking in a hierarchical database. *Proceedings of the Human Factors Society 36th Annual Meeting*, 1, 356-360.
- Venturino, M., & Post, D. L. (Eds.). (1992). Visual displays [Special issue]. *Human Factors*, 34, 509-634.
- Wellens, A. R. (1989). Effects of telecommunication media upon information sharing and team performance: Some theoretical and empirical observations. *IEEE Aerospace and Electronic Systems Magazine*, 4, 13-19.
- Wellens, A. R. (1989). Effects of telecommunication media upon information sharing and team performance: Some theoretical and empirical observations. *Proceedings of The IEEE 1989 National Aerospace and Electronics Conference: NAECON 1989*, 2, 726-733.
- Wellens, A. R. (1990). *Assessing multi-person and person-machine distributed decision making using an extended psychological distancing model* (Report No. AAMRL-TR-90-006). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A235882)
- Wellens, A. R., Brown, C. E., & McNeese, M. D. (1991). Assessing electronic team technologies using computer-based dynamic decision making tasks. In Y. Queinnec, & F. Daniellou (Eds.), *Designing for everyone* (Vol. 1, pp. 667-669). New York: Taylor and Francis.
- Wellens, A. R., Brown, C. E., & McNeese, M. D. (1992). Assessing electronic team technologies using computer-based dynamic decision making tasks. *Organizational Design and Management (ODAM) Bulletin*, 11(3), 9-11.
- Wellens, A. R., & Ergener, D. (1988). The C.I.T.I.E.S. game: A computer-based situation assessment task for studying distributed decision making. *Simulation and Games*, 19, 304-327.
- Whiteley, J. D. (1989). *Military aircrew seating: A human factors engineering approach* (Report No. AAMRL-TR-89-046). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A218049)
- Whitestone, J. J. (1993). Design and evaluation of helmet systems using 3D data. *Proceedings of the Human Factors Society 37th Annual Meeting*, 1, 64-68.
- Whitestone, J. J., & Robinette, K. M. (1992). High resolution human body surface data for the design of protective equipment. *Second Pan-Pacific Conference on Occupational Ergonomics*, 240-247.
- Widdel, H., & Post, D. L. (Eds.). (1992). *Color in electronic displays*. New York: Plenum Press.
- Wilson, G. F. (1989). PATS: A new generation psychophysiological test battery. *Proceedings of the Human Factors Society 33rd Annual Meeting*, 2, 1173-1176.
- Wilson, G. F., Hughes, E., & Hassoun, J. A. (1990). Physiological & subjective evaluation of a new aircraft display. *Proceedings of the Human Factors Society 34th Annual Meeting*, 2, 1441-1443.

III. DESIGN AIDING TECHNOLOGIES

- Wilson, G. F., & Oliver, C. G. (1989). PATS: Psychophysiological assessment test system. In E. Farmer (Ed.), *Stress and error in aviation: Proceedings of XVIII Western European Association for Aviation Psychology Conference* (Vol. 2, pp. 15-26). Worcester, Great Britain: Billing & Sons.
- Young, M. F., & McNeese, M. D. (in press). A situated cognition approach to problem solving. In J. M. Flach, P. A. Hancock, J. Caird, & K. Vicente (Eds.), *The ecology of human-machine systems* (Vol. 2). Hillsdale, NJ: Erlbaum.
- Young, M. F., & McNeese, M. D. (1993). A situated cognition approach to problem solving with implications for computer-based learning and assessment. In G. Salvendy, & M. J. Smith (Eds.), *Human-computer interaction: Software and hardware interfaces* (Vol. 2, pp. 825-830). Amsterdam: Elsevier Science Publ. B.V.
- Zacharias, G. L., Miao, A. X., Riley, E. W., & Osgood, R. K. (1993). *Situation awareness metric for cockpit configuration evaluation* (Report No. AL-TR-1993-0042). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B176582)
- Zaff, B. S., Hughes, E. R., McNeese, M. D., Brown, C. E., & Citera, M. (1993). Diagnosing macro-ergonomic problems: A case study in the use of concept mapping for TQM initiatives. *Proceedings of the Human Factors Society 37th Annual Meeting*, 2, 873-877.
- Zaff, B. S., & McNeese, M. D. (1991). Design acquisition: Translating user knowledge into design solutions. *Proceedings of Interface '91*, 42-49.
- Zaff, B. S., & McNeese, M. D. (1991). An integrated methodology for knowledge and design acquisition. *Proceedings of The IEEE 1991 National Aerospace and Electronics Conference: NAECON 1991*, 2, 779-785.
- Zaff, B. S., McNeese, M. D., Brown, C. E., Citera, M., & Selvaraj, J. A. (1993). Empowering designers with user-centered knowledge: Issues, methods, and solutions. *Proceedings of the Interface '93*, 231-235.
- Zaff, B. S., McNeese, M. D., & Snyder, D. E. (1993). Capturing multiple perspectives: A user-centered approach to knowledge acquisition. *Knowledge Acquisition*, 5(1), 79-116.
- Zaff, B. S., McNeese, M. D., Snyder, D. E., & Lizza, C. S. (1991). An integrated knowledge representation: Developing a large scale knowledge base for the pilot's associate. *Proceedings of the Associate Technology Symposium*, 244-255.
- Zehner, G. F. (in press). Anthropometric Accommodation in USAF Cockpits. *Seventh Annual Workshop on Space Operations, Applications and Research (SOAR '93)*. Johnson Space Center, TX: National Aeronautics and Space Administration.
- Zehner, G. F., Deason, V. B., Ervin, C. A., & Daziens, P. (1987). *A photographic device for the collection of anthropometric data on the hand* (Report No. NATICK-TR-87-044). Natick, MA: U.S. ARMY Natick Research Development and Engineering Center.
- Zehner, G. F., Meindl, R. S., & Hudson, J. A. (1992). *A multivariate anthropometric method for crew station design: Abridged* (Report No. AL-TR-1992-0164). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A274588)

IV. ADVANCED DISPLAYS, CONTROLS & COMPUTER INTERFACES

- Allen, D., Tsou, B., Gieske, G., Bien, J., Shipley, M., & Walker, J. L. (1987). System performance of a servo-optical projection system (SOPS). *The 1987 IMAGE Conference IV* (pp. 121-127). Williams AFB, AZ: Air Force Human Resources Laboratory.
- Andes, R. C., & Hunt, R. M. (1990). *Adaptive aiding for human-computer control: Final report and future directions for research* (Report No. AAMRL-TR-90-055). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A236799)
- Arbak, C., King, P., Jauer, R., & Adam, E. (1988). *Helmet-mounted display/sight tactical utility study* (Report No. AAMRL-TR-88-022). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A240170)
- Barbato, M. H., Hausmann, M. A., Kama, W. N., Bridenbaugh, J. C., & Task, H. L. (1993). *Definitions of terms relating to aircraft windscreens, canopies, and transparencies* (Report No. AL-TR-1993-0036). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A268403)
- Bartell, R. J., Unger, S. E., & Task, H. L. (1993). *Backscatter haze device for measurement of haze in aircraft transparencies* (Report No. AL/CF-TR-1993-0102). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A275127)
- Beaton, R. J., & Farley, W. W. (1992). *Comparative study of the MTF, ICS, and SQRI image quality metrics for visual display systems* (Report No. AL-TR-1992-0001). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A252116)
- Beer, J. M. A. (in press). Optimizing projective deformation (motion parallax) may be useful in virtual displays for agile flight environments. *7th Interface/Industry Acceleration Colloquium*.
- Benedict, C. P., & Gunderman, R. G. (1992). Helmet-mounted systems test and evaluation process. *Proceedings of the Society of Photo-Optical Instrumentation Engineers (SPIE): Helmet-Mounted Displays III, 1695*, 8-12.
- Berkstresser, G. W., Shmulovich, J., & Wittenberg, A. M. (1987). *Single crystal phosphor development* (Report No. AAMRL-TR-87-041). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B122929)
- Biberman, L. M., & Tsou, B. H. (1993). Image display technology and problems with emphasis on airborne systems. In W. D. Rogatto (Ed.), *The infrared and electro-optics systems handbook: Vol. 3. Electro-optical components* (pp. 437-506). Bellingham, WA: SPIE Optical Engineering Press.
- Billman, E. R. (1987). *The role of adaptive supplemental visual cuing in flight simulation* (Report No. AAMRL-TR-87-070). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A185932)
- Blackwell, S. U., & Robinette, K. M. (1993). *Human integration evaluation of three helmet systems* (Report No. AL-TR-1993-0028). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A271320)
- Borah, J. (1989). *Helmet-mounted eye tracking for virtual panoramic displays Volume I: Review of current eye movement measurement technology* (Report No. AAMRL-TR-89-019). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A273101)
- Borah, J. (1989). *Helmet-mounted eye tracking for virtual panoramic displays Volume II: Eye tracker specification and design approach* (Report No. AAMRL-TR-89-019). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A273101)

IV. ADVANCED DISPLAYS, CONTROLS & COMPUTER INTERFACES

- Bortolussi, M. R., & Vidulich, M. A. (1989).** The benefits and costs of automation in advanced helicopters: An empirical study. In R. S. Jensen (Ed.), *Proceedings of the Fifth International Symposium on Aviation Psychology*, 2, 594-599.
- Bortolussi, M. R., & Vidulich, M. A. (1991).** The effects of speech controls on performance in advanced helicopters in a double stimulation paradigm. *Proceedings of the Sixth International Symposium on Aviation Psychology*, 1, 216-221.
- Brown, Y. J., Cardullo, F. M., & McMillan, G. R. (1990).** Advanced techniques for cuing the force and motion environment in the simulator of the future. *AIAA Flight Simulation Technologies Conference*, 115-122.
- Brown, Y. J., Cardullo, F. M., McMillan, G. R., Riccio, G. E., & Sinacori, J. B. (1992).** *New approaches to motion cuing in flight simulators* (Report No. AL-TR-1991-0139). Wright-Patterson AFB, OH: Armstrong Laboratory.
- Buchroeder, R. A., & Kocian, D. F. (1989).** *Display system analysis for the LHX helicopter application* (Report No. AAMRL-TR-89-001). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B134738)
- Calhoun, C. S., & Post, D. L. (1990).** Heterochromatic brightness matches via Ware & Cowan's luminance correction equation. *1990 Society for Information Display International Symposium Digest of Technical Papers*, 21, 261-264.
- Calhoun, G. L., & Janson, W. P. (1991).** Eye control interface considerations for aircrew station design [Abstract]. *Proceedings of the 6th European Conference on Eye Movements*, 85.
- Calhoun, G. L., & Janson, W. P. (1991).** *Eye line-of-sight control compared to manual selection of discrete switches* (Report No. AL-TR-1991-0015). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A273019)
- Calhoun, G. L., & Janson, W. P. (1992).** *Eye and head response as indicators of attention cue effectiveness* (Report No. AL-SR-1992-0022). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A275391)
- Calhoun, G. L., Janson, W. P., & Valencia, G. (1988).** Effectiveness of three-dimensional auditory directional cues. *Proceedings of the Human Factors Society 32nd Annual Meeting*, 1, 68-72.
- Calhoun, G. L., Valencia, G., & Furness, T. A. (1987).** Three-dimensional auditory cue simulation for crew station design/evaluation. *Proceedings of the Human Factors Society 31st Annual Meeting*, 2, 1398-1402.
- Cardullo, F. M., Brown, Y. J., & McMillan, G. R. (1992).** Analysis and development of advanced techniques for cuing the force and motion environment in the simulator of the future. *Proceedings of the European Forum on Matching Technology to Training Requirements*, 16-1 - 16-12.
- Chechile, R. A., Eggleston, R. G., Fleischman, R. N., & Sassville, A. M. (1989).** Modeling the cognitive complexity of displays. *Human Factors*, 31(1), 31-43.
- Cotton, C. T., Faklis, D., Bowen, J. P., & Morris, G. M. (1991).** *Application of surface-relief diffractive optics in helmet-mounted displays* (Report No. AL-TR-1991-0089). Wright-Patterson AFB, OH: Armstrong Laboratory.
- Craig, J. L. (1990).** AAMRL night vision goggle technology. *HSD Night Vision Goggle Conference* (pp. 61-88). Brooks AFB, TX: Human Systems Division.

IV. ADVANCED DISPLAYS, CONTROLS & COMPUTER INTERFACES

- Craig, J. L. (1990). Crew interface technologies. *Field Program Managers Conference* (pp. 15-32). Brooks AFB, TX: Human Systems Division.
- Craig, J. L. (1990). Helmet mounted programs. *Air Force Night Vision Device Working Group*, 72-94.
- Craig, J. L. (1990). Status of NVG activity at AAMRL. *5th Annual Joint Service Night Vision Conference*, 47-65.
- Craig, J. L. (1992). Laboratory night vision goggle efforts. *Air Force Special Operations Command Acquisition Program Conference* (pp. 514-529). Hurlburt Field, FL: Air Force Special Operations Command.
- Craig, J. L., Anderson, M. L., & Simons, J. C. (1987). *Night Vision Goggle (NVG) compatible lighting for MH-53H (PAVE LOW III) special operations* (Report No. AAMRL-TR-87-058). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B119227)
- Craig, J. L., Bartell, R. J., Hettinger, L. J., & Riegler, J. T. (1993). *Assessment of interior modifications in C-130 and C-141 aircraft for night vision goggle operations* (Report No. AL/CF-TR-1993-0095). Wright-Patterson AFB, OH: Armstrong Laboratory.
- Craig, J. L., & Purvis, B. D. (1987). Laboratory night vision goggle programs. *1st Strategic Air Command NVG Conference* (pp. 15-31). Offutt AFB, NE: Strategic Air Command.
- Craig, J. L., & Purvis, B. D. (1990). B-52 night vision goggle head up display development. In H. M. Assenheim, & H. H. Bell (Eds.), *Proceedings of the Society of Photo-Optical Instrumentation Engineers (SPIE): Cockpit Displays and Visual Simulation*, 1289, 63-71.
- Craig, J. L., Purvis, B. D., & Reynolds, M. C. (1988). *Night Vision Goggle (NVG) compatible cockpit lighting for B-52 special operations* (Report No. AAMRL-TR-88-028). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B127914)
- Crawford, R. L., Toms, M. L., & Wilson, D. L. (1991). Effects of display luminance on the recognition of color symbols on similar color backgrounds. *Proceedings of the Human Factors Society 35th Annual Meeting*, 2, 1466-1470.
- Cress, J. D., McMillan, G. R., & Gilkey, M. J. (1989). The dynamic seat as an angular cuing device: Control of roll & pitch vs the control of altitude & heading. *AIAA Flight Simulation Technologies Conference*, 94-100.
- Dent, C., Klein, G., & Eggleston, R. G. (1987). *Metaphor casting of information--Display requirements* (Report No. KA-TR-868-87-01A). Yellow Springs, OH: Klein & Assoc.
- Donohue-Perry, M. M. (1992). *Changes in visual acuity after night vision goggle exposure* (Report No. AL-SR-1992-0031). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B178591)
- Donohue-Perry, M. M., Hettinger, L. J., & Riegler, J. T. (1992). Human factors considerations for night vision system design: Preliminary results of NVG users' concerns survey [Abstract]. *Aerospace Medical Association 63rd Annual Scientific Meeting Program*, A6.
- Donohue-Perry, M. M., Hettinger, L. J., & Riegler, J. T. (1992). Human factors considerations for night vision system design: Preliminary results of NVG users' concerns survey. *7th Annual Joint Service Night Vision Device Conference*, 129-161.

IV. ADVANCED DISPLAYS, CONTROLS & COMPUTER INTERFACES

- Donohue-Perry, M. M., Hettinger, L. J., & Riegler, J. T. (1992). *Night Vision Goggle (NVG) users' concerns survey site report: Hurlburt Field, FL* (Report No. AL-TR-1992-0089). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B171286)
- Donohue-Perry, M. M., Hettinger, L. J., Riegler, J. T., & Davis, S. A. (1992). *Night Vision Goggle (NVG) users' concerns survey site report: Charleston AFB, SC* (Report No. AL-TR-1992-0177). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B173525)
- Donohue-Perry, M. M., Hettinger, L. J., Riegler, J. T., & Davis, S. A. (1993). *Night Vision Goggle (NVG) users' concerns survey site report: Dover AFB, DE* (Report No. AL/CF-TR-1993-0075). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B178369)
- Donohue-Perry, M. M., Hettinger, L. J., Riegler, J. T., & Davis, S. A. (1993). *Night Vision Goggle (NVG) users' concerns survey site report: Pope AFB, NC* (Report No. AL/CF-TR-1993-0071). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B274471)
- Donohue-Perry, M. M., & Ramer, D. P. (1990). A visual performance assessment of ANVIS compatible lighting categories. *5th Annual Joint Service Night Vision Conference*, 89-102.
- Donohue-Perry, M. M., & Ramer, D. P. (1990). A visual performance assessment of ANVIS compatible lighting categories. *1990 Society for Information Display International Symposium Digest of Technical Papers*, 21, 130-132.
- Donohue-Perry, M. M., & Riegler, J. T. (1990). A compatibility evaluation of the protective integrated hood mask with ANVIS night vision goggles. *Report of the 30th Meeting of Air Standardization Coordination Committee (ASCC) Working Party 61: Aerospace Medical and Life Support Systems Symposium: Aeromedical Aspects of Vision* (Vol. 4, pp. 102-109). Toronto: Defence and Civil Institute of Environmental Medicine.
- Donohue-Perry, M. M., & Riegler, J. T. (1991). An evaluation of the protective integrated hood mask for ANVIS night vision goggle compatibility. *AGARD Conference Proceedings 517: Helmet Mounted Displays and Night Vision Goggles* (pp. 4-1 - 4-4). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-CP-517)
- Donohue-Perry, M. M., Riegler, J. T., & Hausmann, M. A. (1990). *A compatibility assessment of the protective integrated hood mask with ANVIS night vision goggles* (Report No. AAMRL-TR-90-030). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A229956)
- Donohue-Perry, M. M., & Task, H. L. (1988). *An optical evaluation of laser protective visors* (Report No. AAMRL-TR-88-053). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B133750)
- Eggleston, R. G. (1988). Machine intelligence and crew-vehicle interfaces. In E. Heer, & H. Lum (Eds.), *Progress in astronautics and aeronautics: Vol. 115. Machine intelligence and autonomy for aerospace systems* (pp. 51-84). Washington, DC: American Institute of Aeronautics.
- Eggleston, R. G. (1992). Cognitive interface considerations for intelligent cockpits. *AGARD Conference Proceedings No. 520: Flight Mechanics and Guidance and Control Panel Symposium* (pp. 21-1 - 21-16). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-CP-520)

IV. ADVANCED DISPLAYS, CONTROLS & COMPUTER INTERFACES

- Eggleston, R. G., Janson, W., & Adapalli, S. (in press). Manual tracking performance using a virtual hand controller: A comparison study. *AGARD Aerospace Medical Panel Symposium*. Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development.
- Endsley, M. R., & Kiris, E. O. (1993). *Information presentation for expert systems in future fighter aircraft* (Report No. AL/CF-TR-1993-0164). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A275126)
- Farley, W. W. (1987). *Design and testing of a luminance and chrominance stabilization system for a computer-controlled color display* (Report No. AAMRL-TR-87-027). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A955697)
- Filipovich, D. (1992). *Enhanced night vision goggle configuration* (Report No. AL-SR-1992-0017). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B172004)
- Flach, J. M., & Warren, R. (in press). Low altitude flight. In J. M. Flach, P. A. Hancock, J. Caird, & K. Vicente (Eds.), *An ecological approach to human machine systems II: Local applications*. Hillsdale, NJ: Erlbaum.
- Franklin, H. (1993). *Miniature color display phase IV final report* (Report No. AL/CF-SR-1993-0009). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A272920)
- Freeman, J., Hesse, K., Sauerborn, J., & Sluzky, E. (1987). *Performance improvement of miniature cathode ray tubes* (Report No. AAMRL-TR-87-062). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B145068)
- Furness, T. A. (1988). Harnessing virtual space. 1988 *Society for Information Display International Symposium Digest of Technical Papers*, 19, 4-7.
- Gallimore, J. J. (1992). *Review of psychophysically-based image quality metrics* (Report No. AL-TR-1991-0153). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A251053)
- Geiselman, E. E., & Osgood, R. K. (1992). A comparison of three attitude display symbology structures during an attitude maintenance task. *Proceedings of the Human Factors Society 36th Annual Meeting*, 2, 1450-1454.
- Geiselman, E. E., & Osgood, R. K. (1993). *A comparison of three aircraft attitude display symbology structures* (Report No. AL/CF-TR-1993-0134). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A275172)
- Geiselman, E. E., & Osgood, R. K. (1993). Toward an empirically based helmet-mounted display symbology set. *Proceedings of the Human Factors Society 37th Annual Meeting*, 1, 93-97.
- Gibson, C. P., & Martin, W. L. (1989). Designing the virtual cockpit man-machine interface. *Proceedings of the Society of Photo-Optical Instrumentation Engineers (SPIE): Display System Optics II*, 1117, 85-93.
- Grigsby, S. S., & Tsou, B. H. (1993). Monocular and binocular grating and flicker sensitivity across the visual field [Abstract]. *Investigative Ophthalmology & Visual Science*, 34, 779.
- Grigsby, S. S., & Tsou, B. H. (1993). Visual factors in the design of partial overlap binocular helmet-mounted displays. 1993 *Society for Information Display International Symposium Digest of Technical Papers*, 24, 185-187.

IV. ADVANCED DISPLAYS, CONTROLS & COMPUTER INTERFACES

- Haas, M. W. (in press). Fusion interfaces for tactical environments: An approach for applying virtual reality technology. *Seventh Annual Workshop on Space Operations, Applications and Research (SOAR '93)*. Johnson Space Center, TX: National Aeronautics and Space Administration.
- Haas, M. W. (1992). Multi-sensory virtual-interface technology. *AGARD 25th Anniversary Seminar*. Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development.
- Haas, M. W. (1993). Fusion interfaces for tactical environments: An approach for applying virtual reality technology. In L. Murray (Ed.), *Minutes of the 30th Meeting of the DOD Human Factors Engineering Technical Advisory Group* (pp. AA).
- Haas, M. W., & Hettinger, L. J. (1993). Applying virtual reality technology to cockpits of future fighter aircraft. *Virtual Reality Systems*, 1(2), 18-26.
- Haas, M. W., & Wells, M. J. (1990). Head movement during simulated air-to-air engagements. *Proceedings of the Society of Photo-Optical Instrumentation Engineers (SPIE): Helmet-Mounted Displays II*, 1290, 246-257.
- Hall, P. S., & Campbell, B. L. (1992). Helmet-mounted systems technology planning. *Proceedings of the Society of Photo-Optical Instrumentation Engineers (SPIE): Helmet-Mounted Displays III*, 1695, 2-7.
- Hettinger, L. J., Donohue-Perry, M. M., Riegler, J. T., & Davis, S. A. (1992). *Night Vision Goggle (NVG) users' concerns survey site report: Eglin AFB, FL* (Report No. AL-TR-1992-0144). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B174198)
- Hettinger, L. J., Donohue-Perry, M. M., Riegler, J. T., & Davis, S. A. (1993). *Night Vision Goggle (NVG) users' concerns survey site report: Fairchild AFB, WA* (Report No. AL/CF-TR-1993-0094). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B178368)
- Hettinger, L. J., Donohue-Perry, M. M., Riegler, J. T., & Davis, S. A. (1993). *Night Vision Goggle (NVG) users' concerns survey site report: Robins AFB, GA* (Report No. AL/CF-TR-1993-0070). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B178296)
- Horwitz, L. S., & Griffith, O. (1992). *Ocular vergence and accommodation sensor for helmet-mounted displays* (Report No. AL-SR-1992-0018). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B178051)
- Irvin, G. E., & Kang, R. N. (1987). Perimetry measures of transient visual field loss in the presence of foveal laser exposures in humans. *Proceedings of the Sixth DOD Conference on Directed Energy Weapons: Vulnerability, Survivability and Effects*.
- Janson, W. P. (1989). *Eye and head response to peripheral targets* (Report No. AAMRL-TR-89-033). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A234958)
- Johnson, W. V., & Middendorf, M. S. (1988). Simulator transport delay measurement using steady-state techniques. *AIAA Flight Simulation Technologies Conference*, 250-254.
- Junker, A. M. (1988). Loop closure of the visual cortical response. *Proceedings of The IEEE 1988 National Aerospace and Electronics Conference: NAECON 1988*, 1523-1529.
- Junker, A. M. (1988). A real time frequency analyses methodology for evoked potential loop-closure. *Proceedings of The IEEE 1988 National Aerospace and Electronics Conference: NAECON 1988*, 1530-1535.

- Junker, A. M.** (1988). Resource measurement using a closed-loop EEG control system. *Proceedings of The IEEE 1988 National Aerospace and Electronics Conference: NAECON 1988*, 1519-1522.
- Kama, W. N.** (1989). Measures of distortion: Are they relevant? In S. A. Marolo (Ed.), *Conference on Aerospace Transparent Materials and Enclosures* (WRDC-TR-89-4044, Vol. 2, pp. 1072-1093). Wright-Patterson AFB, OH: Wright Research and Development Center.
- Kama, W. N., Bridenbaugh, J., & Task, H. L.** (1987). *Flexible fiber optics bundle study: Effect of number of active fibers on symbol legibility* (Report No. AAMRL-TR-87-012). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory.
- Kama, W. N., & Kuperman, G. G.** (1988). *The effect of HUD symbology size on operator performance under various luminance conditions* (Report No. AAMRL-TR-88-021). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A210460)
- Kama, W. N., Task, H. L., & Merkel, H. S.** (1988). *Field and laboratory evaluation of the optical qualities of the B-1B windshield* (Report No. AAMRL-TR-88-050). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B147487)
- Katsuyama, R. M., Rolek, E. P., Johnson, S., & Monk, D. L.** (1989). *Effects of miniature CRT location upon primary and secondary task performances* (Report No. AAMRL-TR-89-018). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A210223)
- Klinger, D. W., Andriole, S. J., Militello, L. G., Adelman, L., Klein, G., & Gomes, M. E.** (1993). *Designing for performance: A cognitive systems engineering approach to modifying an AWACS human-computer interface* (Report No. AL/CF-TR-1993-0093). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A275187)
- Kocian, D. F.** (1988). Design considerations for virtual panoramic display (VPD) helmet systems. *AGARD Conference Proceedings No. 425: The Man-Machine Interface in Tactical Aircraft Design and Combat Automation* (pp. 22-1 - 22-32). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-CP-425)
- Kocian, D. F.** (1988). Integrated helmet systems (IHS) for binocular helmet mounted displays. *Report of the 30th Meeting of Air Standardization Coordination Committee (ASCC) Working Party 61: Aerospace Medical and Life Support Systems Symposium: Head Protection Issues* (Vol. 4, pp. M-14-1 - M-14-24). Toronto: Defence and Civil Institute of Environmental Medicine.
- Kocian, D. F.** (1989). Design considerations for visually coupled systems and their interface to sensor/computer generated cockpit imagery systems. In L. M. Biberman (Ed.), *Proceedings of the Sensor Display Workshop: Vol. 2 Display Technology* (IDA Document D-713 pp. 75-194). Alexandria, VA: Institute for Defense Analysis.
- Kocian, D. F.** (1990). Visually coupled systems (VCS): Preparing the engineering research framework. *Eleventh Annual IEEE/AESS Dayton Chapter Symposium: The Cockpit of the 21st Century--Will High Tech Payoff?*, 28-38.
- Kocian, D. F.** (1991). Visually coupled systems (VCS): The virtual panoramic display (VPD) "system". In K. Krishen (Ed.), *Fifth Annual Workshop on Space Operations, Applications, and Research (SOAR '91)* (NASA-CP-3127, Vol. 2, pp. 548-561). Johnson Space Center, TX: National Aeronautics and Space Administration.

IV. ADVANCED DISPLAYS, CONTROLS & COMPUTER INTERFACES

- Kocian, D. F.** (1993). Helmet mounted displays, miniature cathode-ray tubes, crt interfaces and miniature color displays, a potpourri. *SID and IICS Symposium: Displays! The Key to Virtual Reality* (pp. 39-71). Playa del Rey, CA: Society of Information Display.
- Kuperman, G. G.** (1992). *Operator interface assessment for the sensor fusion flight demonstration program* (Report No. AL-TR-1992-0117). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A260235)
- Kuperman, G. G., Bryant, M. L., & Clark, L. G.** (1991). Man-machine interfaces for automatic target recognition systems. *Proceedings of the 4th National Symposium on Sensor Fusion, 1*, 635-642.
- Kuperman, G. G., & Sobel, A. L.** (1992). Design of the man-machine interface for an automatic target cuer system. *Proceedings of the Institute of Electrical and Electronic Engineers (IEEE), 2*, 691-697.
- Kuperman, G. G., & Wilson, D. L.** (1988). The design of a tactical situation display. *Proceedings of the Human Factors Society 32nd Annual Meeting, 1*, 111-115.
- Kuperman, G. G., & Wilson, D. L.** (1991). Objective and subjective assessment of image compression algorithms. *Society for Information Display 1991 International Symposium Digest of Technical Papers, 22*, 627-640.
- Kuperman, G. G., Wilson, D. L., & Crawford, R. L.** (1989). Discriminability of color symbols through PLZT goggles. *Proceedings of the Human Factors Society 33rd Annual Meeting, 2*, 1378-1382.
- LaPuma, P. T., & Bridenbaugh, J. C.** (1988). *Specifications and measurement procedures for aircraft transparencies* (Report No. AAMRL-TR-88-058). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A209396)
- Llinas, J., Neal, J., & Kuperman, G. G.** (1991). Systematic & practical views on intelligent interfacing for data fusion applications. *Proceedings of the AIAA Computers in Aerospace VIII Conference, 2*, 623-644.
- Marasco, P. L., & Dereniak, E. L.** (1993). Uncooled infrared sensor performance. In B. F. Andresen, & F. D. Shepherd (Eds.), *Proceedings of the Society of Photo-Optical Instrumentation Engineers (SPIE): Infrared Technology XIX, 2020*, 363-378.
- Martin, W. L.** (1992). Developing virtual cockpits. *AGARD Proceedings of the 63rd Avionics Panel Meeting: Advanced Aircraft Interfaces: The Machine Side of the Man-Machine Interface* (pp. 8-1 - 8-8). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-CP-521)
- Matin, E., & Boff, K. R.** (1988). Information transfer rate with serial and simultaneous visual display formats. *Human Factors, 30*(2), 171-180.
- Matin, E., & Boff, K. R.** (1990). Human-machine interaction with serial visual displays. *Proceedings of the Society for Information Display (SID) Conference*, 257-260.
- Matin, E., Boff, K. R., & Donovan, R. S.** (1987). Raising control/display efficiency with rapid communication display technology. *Proceedings of the Human Factors Society 31st Annual Meeting, 1*, 258-262.
- McCloskey, K. A., Morrow, M., & Perez, W. A.** (1988). *The use of psychophysiological measures in the SABER laboratories: Phase I* (Report No. AAMRL-TR-88-052). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A206825)

- McMillan, G. R., Cress, J. D., & Middendorf, M. S. (1990). Dynamic seat cuing with wide versus narrow field-of-view visual displays. *AIAA Flight Simulation Technologies Conference*, 53-62.
- McNeese, M. D., & Katz, L. (1987). Legibility evaluation of a large screen display system under medium ambient illumination. *Proceedings of the Society For Information Display*, 28(1), 59-65.
- Merkel, H. S., & Task, H. L. (1987). Airborne direct-view optical system: Effects of target briefing on performance (Report No. AAMRL-TR-87-026). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory.
- Merkel, H. S., & Task, H. L. (1989). An illustrated guide of optical characteristics of aircraft transparencies (Report No. AAMRL-TR-89-015). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A214565)
- Merkel, H. S., & Task, H. L. (1990). Optical test of the space shuttle overhead windows (Report No. AAMRL-TR-90-024). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A229919)
- Merkel, H. S., Task, H. L., Whiteley, J. D., LaPuma, P. T., Pinkus, A. R., & Block, M. G. (1990). The development of the spaceborne direct-view optical system (SpaDVOS) (Report No. AAMRL-TR-90-016). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B144518)
- Merriken, M. S., Johnson, W. V., Cress, J. D., & Riccio, G. E. (1988). Time delay compensation using supplementary cues in aircraft simulator systems. *Proceedings of The IEEE 1988 National Aerospace and Electronics Conference: NAECON 1988*, 295-303.
- Merriken, M. S., Riccio, G. E., & Johnson, W. V. (1987). Temporal fidelity in aircraft simulator visual systems. *Proceedings of The IEEE 1987 National Aerospace and Electronics Conference: NAECON 1987*, 50-54.
- Morton, K., & Swierenga, S. J. (1990). Developing effective coding schemes for an advanced visual display technology. *Proceedings of the 12th Biennial Psychology in the DOD Symposium*, 328-332.
- Olson, J. L., Arbak, C. J., & Jauer, R. A. (1991). Panoramic cockpit control and display system, Volume II: PCCADS 2000 (Report No. AL-TR-91-0017). Wright-Patterson AFB, OH: Armstrong Laboratory.
- O'Neal, M. R. (1988). Contact lenses. In J. G. Webster (Ed.), *Encyclopedia of medical devices and instrumentation* (Vol. 2, pp. 867-877). New York: John Wiley and Sons.
- Osgood, R. K., Geiselman, E. E., & Calhoun, C. S. (1991). Attitude maintenance using an off-boresight helmet-mounted virtual display. *AGARD Conference Proceedings 517: Helmet-Mounted Displays and Night Vision Goggles* (pp. 14-1 - 14-7). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-CP-517)
- Osgood, R. K., Taylor, K., & McClurg, T. D. (1988). The dynamic seat as an angular motion cueing device. *Proceedings of the Human Factors Society 32nd Annual Meeting*, 1, 25-29.
- Osgood, R. K., & Venturino, M. (1990). Information representations for aircraft attitude displays. *Proceedings of the Human Factors Society 34th Annual Meeting*, 2, 1542-1546.

IV. ADVANCED DISPLAYS, CONTROLS & COMPUTER INTERFACES

- Osgood, R. K., & Wells, M. J. (1991). The effect of field-of-view size on performance of a simulated air-to-ground night attack. *AGARD Conference Proceedings 517: Helmet-Mounted Displays and Night Vision Goggles*, (pp. 10-1 - 10-7). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-CP-517)
- Osgood, S. S., Boff, K. R., & Donovan, R. S. (1988). Rapid communication display technology efficiency in a multi-task environment. *Proceedings of Human Factors Society 32nd Annual Meeting*, 2, 1395-1399.
- Owen, D. H., & Warren, R. (1987). Perception and control of self-motion: Implications for visual simulation of vehicular locomotion. In L. S. Mark, J. S. Warm, & R. L. Huston (Eds.), *Ergonomics and human factors: Recent research* (pp. 40-70). New York: Springer Verlag.
- Penrod, T. D., & Kuperman, G. G. (1993). *Image quality analysis of compressed synthetic aperture radar* (Report No. AL/CF-TR-1993-0156). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A273399)
- Pinkus, A. R. (1988). Night lighting and night vision goggle compatibility. *AGARD Lecture Series 156: Visual Effects in the High Performance Aircraft Cockpit* (pp. 7-1 - 7-16). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-LS-156)
- Pinkus, A. R., & Task, H. L. (1988). Display system image quality. *AGARD Lecture Series 156: Visual Effects in the High Performance Aircraft Cockpit* (pp. 8-1 - 8-17). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-LS-156)
- Post, D. L. (1988). Color specification and the CIE system of colorimetry. In K. R. Boff, & J. E. Lincoln (Eds.), *Engineering data compendium: Human perception and performance* (Vol. 1, pp. 374-381). New York: John Wiley and Sons.
- Post, D. L. (1989). Basic approaches to color HMD. In L. M. Biberman (Ed.), *Proceedings of the Sensor Display Workshop: Vol. 1 Basic Principles* (IDA Document D-713 pp. 145-160). Alexandria, VA: Institute for Defense Analysis.
- Post, D. L. (1992). Colorimetric measurement, calibration, and characterization of self-luminous displays. In H. Widdel, & D. L. Post (Eds.), *Color in electronic displays* (pp. 299-312). New York: Plenum Press.
- Post, D. L. (1993). A new color display for HMDs. *Insight*, 15(3), 8-10.
- Post, D. L., & Calhoun, C. S. (1987). An evaluation of methods for producing specific colors on CRTs. *Proceedings of the Human Factors Society 31st Annual Meeting*, 2, 1276-1280.
- Post, D. L., & Calhoun, C. S. (1988). Color-name boundaries for equally bright stimuli on a CRT: Phase II. *1988 Society for Information Display International Symposium Digest of Technical Papers*, 19, 65-68.
- Post, D. L., & Calhoun, C. S. (1989). Color-name boundaries for color coding [Insert]. *Applied Vision 1989 Technical Digest Series* (Vol. 16). Washington, DC: Optical Society of America.
- Post, D. L., & Calhoun, C. S. (1989). Color-name boundaries for equally bright stimuli on a CRT: Phase III. *1989 Society for Information Display International Symposium Digest of Technical Papers*, 20, 284-287.
- Post, D. L., & Calhoun, C. S. (1989). An evaluation of methods for producing desired colors on CRT monitors. *Color Research and Application*, 14(4), 172-186.

- Post, D. L., & Lloyd, C. J. (in press). Color display gamuts and ambient illumination. *Displays*.
- Raab, F. H., & Brewster, C. C. (1988). *Magnetic-multipole technique for moveable scatterer compensation* (Report No. AAMRL-TR-88-054). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B133465)
- Raab, F. H., Brewster, C. C., Stone, F. L., & Mackin, W. F. (1993). *Algorithms for magnetic helmet-mounted sight* (Report No. AL/CF-TR-1993-0077). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B176447)
- Riegler, J. T., & Donohue-Perry, M. M. (1990). *A field evaluation of the compatibility of the protective integrated hood mask with ANVIS night vision goggles* (Report No. AAMRL-TR-90-031). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A230237)
- Riegler, J. T., Whiteley, J. D., Task, H. L., & Schueren, J. (1991). *The effect of signal-to-noise ratio on visual acuity through night vision goggles* (Report No. AL-TR-1991-0011). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A260579)
- Robinette, K. M. (1992). Anthropometry for HMD design. *Proceedings of the Society of Photo-Optical Instrumentation Engineers (SPIE): Helmet-Mounted Displays III*, 1695, 138-145.
- Ross, J. A., & Kocian, D. F. (1993). Hybrid video amplifier chip set for helmet-mounted visually coupled systems. *1993 Society for Information Display International Symposium Digest of Technical Papers*, 24, 437-440.
- Sarma, K. A., Trimmier, J. R., Heinze, W., Rogers, C., Ellis, R., Larson, B., Franklin, H., & Post, D. L. (1993). Miniature color display. In J. Morreale (Ed.), *1993 Society for Information Display International Symposium Digest of Technical Papers*, 24, 1005-1008.
- Schnurer, J. H., Ingle, D. F., Downey, C. W., & Junker, A. M. (1992). *Brain actuated control of a roll axis tracking simulator* (Report No. AL-SR-1992-0025). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A275307)
- Self, H. C. (1992). *Optical displays: A tutorial on images and image formation* (Report No. AL-TR-1992-0178). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A266230)
- Self, H. C. (1993). *A tutorial on exit pupils and eye rotation with virtual image optical displays* (Report No. AL-TR-1993-0010). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A262399)
- Shmulovich, J. (1989). *Thin film phosphor development* (Report No. AAMRL-TR-89-004). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A272921)
- Shmulovich, J., & Kocian, D. F. (1989). Thin-film phosphors for miniature CRTs used in helmet-mounted displays. *Proceedings of the Society for Information Display*, 30(4), 297-302.
- Simons, J. C., & Craig, J. L. (1989). Electroluminescent lights for formation flights. In R. S. Jensen (Ed.), *Proceedings of the Fifth International Symposium on Aviation Psychology*, 1, 251-256.
- Skelly, J. J., Irvin, J., Perez, W., Simons, J., Houchard, J., Marshak, W. P., & Eller, M. (1993). *Sensor preview imagery (SPI): Target preview from off-board sensor for strike aircraft* (Report No. AL/CF-TR-1993-0129). Wright-Patterson AFB, OH: Armstrong Laboratory.

IV. ADVANCED DISPLAYS, CONTROLS & COMPUTER INTERFACES

- So, R. H. Y., & Griffin, M. J.** (1993). *Effects of lags on human performance with head-coupled simulators* (Report No. AL/CF-TR-1993-0101). Wright-Patterson AFB, OH: Armstrong Laboratory.
- Stiffler, J. A., & Wiley, L.** (1992). I-NIGHTS and beyond. In T. M. Lippert (Ed.), *Proceedings of the Society of Photo-Optical Instrumentation Engineers (SPIE): Helmet-Mounted Displays III*, 1695, 13-20.
- Swierenga, S. J., Boff, K. R., & Donovan, R. S.** (1991). Coding techniques for rapid communication displays. *Proceedings of the Sixth International Symposium on Aviation Psychology*, 1, 204-209.
- Swierenga, S. J., Boff, K. R., & Donovan, R. S.** (1991). Effectiveness of coding schemes in rapid communication displays. *Proceedings of the Human Factors Society 35th Annual Meeting*, 2, 1522-1526.
- Task, H. L.** (1988). Vision through aircraft transparencies. *AGARD Lecture Series 156: Visual Effects in the High Performance Aircraft Cockpit* (pp. 4-1 - 4-14). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-LS-156)
- Task, H. L.** (1989). Vision through aircraft transparencies. In S. A. Marolo (Ed.), *Conference on Aerospace Transparent Materials and Enclosures* (WRDC-TR-89-4044, Vol. 2, pp. 1047-1071). Wright-Patterson AFB, OH: Wright Research and Development Center.
- Task, H. L.** (1991). Optical and visual considerations in the specification and design of helmet-mounted displays. *1991 Society for Information Display International Symposium Digest of Technical Papers*, 22, 297-300.
- Task, H. L.** (1992). Cockpit/NVG visual integration issues. *AGARD Lecture Series 187: Visual Problems in Night Operations* (pp. 8-1 - 8-6). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-LS-187)
- Task, H. L.** (1992). Night vision devices and characteristics. *AGARD Lecture Series 187: Visual Problems in Night Operations* (pp. 7-1 - 7-8). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-LS-187)
- Task, H. L., Hartman, R. T., Marasco, P. L., & Zobel, A. R.** (1993). *Methods for measuring characteristics of night vision goggles* (Report No. AL/CF-TR-1993-0177). Wright-Patterson AFB, OH: Armstrong Laboratory.
- Task, H. L., Hartman, R. T., & Zobel, A. R.** (1990). New methods for night vision goggle test and evaluation. *Proceedings of Test Technology Symposium III* (pp. 259-268). Aberdeen Proving Ground, MD: U.S. Army Test and Evaluation Command.
- Task, H. L., & Merkel, H. S.** (1989). *A new method for measuring the transmissivity of aircraft transparencies* (Report No. AAMRL-TR-89-044). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A216953)
- Task, H. L., & Pinkus, A. R.** (1987). Contrast sensitivity and target recognition performance: A lack of correlation. *1987 Society for Information Display International Symposium Digest of Technical Papers*, 18, 127-129.
- Task, H. L., & Pinkus, A. R.** (1987). The role of the contrast sensitivity function in display image quality metrics. *Electronic Imaging '87: International Electronic Imaging Exposition and Conference*, 1, 161-166.

IV. ADVANCED DISPLAYS, CONTROLS & COMPUTER INTERFACES

- Tolcott, M. A., Lehner, P. E., & Mullen, T. M. (1989). *User interaction with self-learning systems* (Report No. AAMRL-TR-89-029). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A214280)
- Toms, M. L., & Kuperman, G. G. (1992). *Sensor fusion: A human factors perspective* (Report No. AL-TR-1991-0152). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B165851)
- Tsou, B. H. (1989). Visual psychophysical considerations in the design of binocular helmet-mounted displays. In L. M. Biberman (Ed.), *Proceedings of the Sensor Display Workshop: Vol. 2 Display Technology* (IDA Document D-713 pp. 45-74). Alexandria, VA: Institute for Defense Analysis.
- Tsou, B. H. (1993). System design considerations for a visually-coupled system. In S. R. Robinson (Ed.), *The infrared and electro-optics systems handbook: Vol. 8. Emerging systems and technologies* (pp. 515-536). Bellingham, WA: SPIE Optical Engineering Press.
- Tsou, B. H., Allen, D. M., & Walker, J. L. (1987). Dynamic distortion correction for dome display. *The 1987 IMAGE Conference IV* (pp. 129-139). Williams AFB, AZ: Air Force Human Resources Laboratory.
- Tsou, B. H., & Grigsby, S. S. (1993). Visual field-of-view: A design factor for binocular helmet-mounted displays. *Proceedings of the 1993 Meeting of the IRIS Specialty Group on Passive Sensors* (IRIAC Report No. 213400-169-X(II), Vol. 2, pp. 107-109). Ann Arbor, MI: Infrared Information Analysis Center.
- Tsou, B. H., & Rogers-Adams, B. M. (1990). The effect of aspect ratio on helmet mounted display field of view. *Report of the 30th Meeting of Air Standardization Coordination Committee (ASCC) Working Party 61: Aerospace Medical and Life Support Systems Symposium: Aeromedical Aspects of Vision* (Vol. 4, pp. 136-146). Toronto: Defence and Civil Institute of Environmental Medicine.
- Tsou, B. H., Rogers-Adams, B. M., & Beard, M. (1991). Distance perception and ocular accommodation in helmet-mounted displays. *1991 Society for Information Display International Symposium Digest of Technical Papers*, 22, 313.
- Tsou, B. H., Rogers-Adams, B. M., & Goodyear, C. D. (1991). The evaluation of partial binocular overlap on car maneuverability: A pilot study. In K. Krishen (Ed.), *Fifth Annual Workshop on Space Operations, Applications, and Research (SOAR '91)* (NASA-CP-3127, Vol. 2, pp. 562-568). Johnson Space Center, TX: National Aeronautics and Space Administration.
- Urban, K. E., Irvin, G. E., & Dowler, M. G. (1989). Detection of aircraft targets during laser-induced transient visual field loss: Effects of canopies and laser protective visors. *Proceedings of the Seventh DOD Conference of Directed Energy Weapons: Vulnerability, Survivability and Effects* (pp. 383-388).
- Valencia, G., & Agnew, J. R. (1990). Evaluation of a directional audio display synthesizer. *Proceedings of the Human Factors Society 34th Annual Meeting*, 1, 6-10.
- Valencia, G., & Calhoun, G. L. (1989). *Headphone localization with a single sound transducer and moveable manikin head* (Report No. AAMRL-TR-89-005). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B133510)
- Valencia, G., Calhoun, G. L., Ericson, M. A., & Agnew, J. R. (1990). *Localization performance with synthesized directional audio* (Report No. AAMRL-TR-90-025). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A230316)

IV. ADVANCED DISPLAYS, CONTROLS & COMPUTER INTERFACES

- Valencia, G., Ericson, M. A., & Agnew, J. R.** (1990). A comparison of localization performance with two auditory cue synthesizers. *Proceedings of The IEEE 1990 National Aerospace and Electronics Conference: NAECON 1990*, 749-754.
- Venturino, M. R., & Kunze, R. J.** (1989). Spatial awareness with a helmet-mounted display. *Proceedings of the Human Factors Society 33rd Annual Meeting*, 2, 1388-1391.
- Venturino, M. R., & Wells, M. J.** (1990). Head movements as a function of field-of-view size on helmet-mounted display. *Proceedings of the Human Factors Society 34th Annual Meeting*, 2, 1572-1576.
- Venturino, M., & Post, D. L.** (Eds.). (1992). Visual displays [Special issue]. *Human Factors*, 34, 509-634.
- Warren, R.** (1988). Future cockpit displays. *Proceedings of the 11th Biennial Psychology in the DOD Symposium*, 91-96.
- Warren, R.** (1993). Total visual scene information for flight. In E. Trautman (Ed.), *Vision Topics for Aviation: A new look at a traditional concern* (Report No. IST-DF-93-01 pp. 37-51). University of Central Florida, FL: Institute for Simulation and Training.
- Wellens, A. R.** (1991). Electronic collaboration: Some effects of telecommunication media and machine intelligence on team performance. *Fourth Annual Workshop on Space Operations, Applications, and Research (SOAR '90)* (NASA-CP-3127 pp. 606-611). Johnson Space Center, TX: National Aeronautics and Space Administration.
- Wellens, A. R., & McNeese, M. D.** (1987). A research agenda for the social psychology of intelligent machines. *Proceedings of The IEEE 1987 National Aerospace and Electronics Conference: NAECON 1987*, 3, 944-949.
- Wells, M. J., & Haas, M. W.** (1992). The human factors of helmet-mounted displays and sights. In M. A. Karim (Ed.), *Electro-optical displays* (pp. 743-785). New York: Dekker, Marcel Inc.
- Wells, M. J., & Osgood, R. K.** (1991). The effects of head and sensor movement on flight profiles during simulated dive bombing. *Proceedings of the Human Factors Society 35th Annual Meeting*, 1, 22-26.
- Wells, M. J., & Venturino, M. R.** (1989). The effect of increasing task complexity on field-of-view requirements for a visually coupled system. *Proceedings of the Human Factors Society 33rd Annual Meeting*, 1, 91-95.
- Wells, M. J., Venturino, M., & Osgood, R. K.** (1988). Using target replacement performance to measure spatial awareness in a helmet-mounted simulator. *Proceedings of the Human Factors Society 32nd Annual Meeting*, 2, 1429-1433.
- Wells, M. J., Venturino, M., & Osgood, R. K.** (1989). The effect of field-of-view size on performance at a simple simulated air-to-air mission. In J. T. Carollo (Ed.), *Proceedings of the Society of Photo-Optical Instrumentation Engineers (SPIE): Helmet-Mounted Displays*, 1116, 126-137.
- Widdel, H., & Post, D. L.** (Eds.). (1992). *Color in electronic displays*. New York: Plenum Press.
- Wilford, G. M., Wunsh, E., Zawodny, T. L., & Sharp, E. D.** (1988). *Color coding the B-1B Threat situation format display of the AN/ALQ-161 electronic warfare system: The effect of color change, as both noise and signal, on target search performance* (Report No. AAMRL-TR-88-006). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B121929)

IV. ADVANCED DISPLAYS, CONTROLS & COMPUTER INTERFACES

- Wilson, D. L. (1989).** Color contrast requirements for legibility of color symbology displayed against color backgrounds. *Proceedings of the Human Factors Society 33rd Annual Meeting*, 2, 1373-1377.
- Wilson, D. L. (1992).** *Theory of signal detection and its application to visual target acquisition: A review of the literature* (Report No. AL-TR-1992-0083). Wright-Patterson AFB, OH: Armstrong Laboratory (DTIC No. A262920)
- Wilson, D. L., & Kuperman, G. G. (1989).** *Effects of ATARS image compression on image interpretability ratings* (Report No. AAMRL-TR-89-032). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B138023)

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- Abrams, T. S., Martin, C. D., Orr, C. E., & Hinson, T. A. (1991). *Cockpit automation technology CSERIAC-CAT Jul 89 - Dec 90: Final report* (Report No. AL-TR-1991-0078). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A273124)
- Anderson, A. F., Crouch, D. A., Edwards, R. E., Kraushar, P. G., Leininger, W. E., McDonnell, J. N., Ostrand, R. A., Stollings, M. N., & White, R. W. (1991). *Cockpit automation technology interim technical report 8* (Report No. AL-TR-1991-0100). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B161113)
- Barbato, M. H., Hausmann, M. A., Kama, W. N., Bridenbaugh, J. C., & Task, H. L. (1993). *Definitions of terms relating to aircraft windscreens, canopies, and transparencies* (Report No. AL-TR-1993-0036). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A268403)
- Beaudet, D. B., Price, D. L., Kuperman, G. G., & Wilson, D. L. (1987). *Human factors report on information management requirements for next-generation manned bombers* (Report No. AAMRL-TR-87-042). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A195870)
- Beecroft, S. L., Perez, W. A., Kirtland, W. H., & Taylor, T. G. (1988). *Strategic mission decomposition: III. Mission planning requirements and scenario implementation for advanced conceptual bomber simulation studies* (Report No. AAMRL-TR-88-072). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. C956971)
- Billman, E. R. (1989). Interactive, real-time formation flight concept trainer. In R. S. Jensen (Ed.), *Proceedings of the Fifth International Symposium on Aviation Psychology*, 2, 209-214.
- Blackwell, S. U., & Robinette, K. M. (1993). *Human integration evaluation of three helmet systems* (Report No. AL-TR-1993-0028). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A271320)
- Bortolussi, M. R., & Vidulich, M. A. (1989). The benefits and costs of automation in advanced helicopters: An empirical study. In R. S. Jensen (Ed.), *Proceedings of the Fifth International Symposium on Aviation Psychology*, 2, 594-599.
- Bortolussi, M. R., & Vidulich, M. A. (1991). The effects of speech controls on performance in advanced helicopters in a double stimulation paradigm. *Proceedings of the Sixth International Symposium on Aviation Psychology*, 1, 216-221.
- Bortolussi, M. R., & Vidulich, M. A. (1991). An evaluation of strategic behaviors in a high-fidelity simulated flight task: Comparing primary performance to a figure of merit. *Proceedings of the Sixth International Symposium on Aviation Psychology*, 2, 1101-1106.
- Brown, C. E., Boff, K. R., & Swierenga, S. J. (1991). Cockpit resource management: A social psychological perspective. *Proceedings of the Sixth International Symposium on Aviation Psychology*, 1, 398-403.
- Brown, R. W. (1987). Preliminary design of an air cushion crash rescue vehicle. *Proceedings of Air Cushion Technology Conference*, 56-62.
- Buchroeder, R. A., & Kocian, D. F. (1989). *Display system analysis for the LHX helicopter application* (Report No. AAMRL-TR-89-001). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B134738)
- Calhoun, G. L., & Janson, W. P. (1990). Eye and head response as indicators of attention cue effectiveness. *Proceedings of the Human Factors Society 34th Annual Meeting*, 1, 1-5.

V. CREW SYSTEM INTEGRATION, TEST & EVALUATION

- Case, H., Ervin, C. A., & Robinette, K. M. (1989). *Anthropometry of a fit test sample used in evaluating the current and improved MCU-2/P masks* (Report No. AAMRL-TR-89-009). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A215173)
- Crabtree, M. S., Marcelo, R. A. Q., McCoy, A. L., & Vidulich, M. A. (1993). An examination of a subjective situational awareness measure during training on a tactical operations simulator. *Proceedings of the Seventh International Symposium on Aviation Psychology*, 2, 891-895.
- Craig, J. L. (1990). Crew interface technologies. *Field Program Managers Conference* (pp. 15-32). Brooks AFB, TX: Human Systems Division.
- Craig, J. L. (1990). Helmet mounted programs. *Air Force Night Vision Device Working Group*, 72-94.
- Craig, J. L., Anderson, M. L., & Simons, J. C. (1987). *Night Vision Goggle (NVG) compatible lighting for MH-53H (PAVE LOW III) special operations* (Report No. AAMRL-TR-87-058). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B119227)
- Craig, J. L., Bartell, R. J., Hettinger, L. J., & Riegler, J. T. (1993). *Assessment of interior modifications in C-130 and C-141 aircraft for night vision goggle operations* (Report No. AL/CF-TR-1993-0095). Wright-Patterson AFB, OH: Armstrong Laboratory.
- Craig, J. L., & Purvis, B. D. (1987). Laboratory night vision goggle programs. *1st Strategic Air Command NVG Conference* (pp. 15-31). Offutt AFB, NE: Strategic Air Command.
- Craig, J. L., & Purvis, B. D. (1990). B-52 night vision goggle head up display development. In H. M. Assenheim, & H. H. Bell (Eds.), *Proceedings of the Society of Photo-Optical Instrumentation Engineers (SPIE): Cockpit Displays and Visual Simulation*, 1289, 63-71.
- Craig, J. L., Purvis, B. D., & Reynolds, M. C. (1988). *Night Vision Goggle (NVG) compatible cockpit lighting for B-52 special operations* (Report No. AAMRL-TR-88-028). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B127914)
- Craig, J. L., Purvis, B. D., & Simons, J. C. (1988). *Formation lights for B-52 special operations: I. Design and test plan* (Report No. AAMRL-TR-88-051). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory.
- Donohue-Perry, M. M., Hettinger, L. J., & Riegler, J. T. (1992). Human factors considerations for night vision system design: Preliminary results of NVG users' concerns survey [Abstract]. *Aerospace Medical Association 63rd Annual Scientific Meeting Program*, A6.
- Donohue-Perry, M. M., Hettinger, L. J., & Riegler, J. T. (1992). Human factors considerations for night vision system design: Preliminary results of NVG users' concerns survey. *7th Annual Joint Service Night Vision Device Conference*, 129-161.
- Donohue-Perry, M. M., Hettinger, L. J., & Riegler, J. T. (1992). *Night Vision Goggle (NVG) users' concerns survey site report: Hurlburt Field, FL* (Report No. AL-TR-1992-0089). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B171286)
- Donohue-Perry, M. M., Hettinger, L. J., Riegler, J. T., & Davis, S. A. (1992). *Night Vision Goggle (NVG) users' concerns survey site report: Charleston AFB, SC* (Report No. AL-TR-1992-0177). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B173525)

- Donohue-Perry, M. M., Hettinger, L. J., Riegler, J. T., & Davis, S. A. (1993). *Night Vision Goggle (NVG) users' concerns survey site report: Dover AFB, DE* (Report No. AL/CF-TR-1993-0075). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B178369)
- Donohue-Perry, M. M., Hettinger, L. J., Riegler, J. T., & Davis, S. A. (1993). *Night Vision Goggle (NVG) users' concerns survey site report: Pope AFB, NC* (Report No. AL/CF-TR-1993-0071). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B274471)
- Donohue-Perry, M. M., & Riegler, J. T. (1990). A compatibility evaluation of the protective integrated hood mask with ANVIS night vision goggles. *Report of the 30th Meeting of Air Standardization Coordination Committee (ASCC) Working Party 61: Aerospace Medical and Life Support Systems Symposium: Aeromedical Aspects of Vision* (Vol. 4, pp. 102-109). Toronto: Defence and Civil Institute of Environmental Medicine.
- Donohue-Perry, M. M., & Riegler, J. T. (1991). An evaluation of the protective integrated hood mask for ANVIS night vision goggle compatibility. *AGARD Conference Proceedings 517: Helmet Mounted Displays and Night Vision Goggles* (pp. 4-1 - 4-4). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-CP-517)
- Donohue-Perry, M. M., Riegler, J. T., & Hausmann, M. A. (1990). *A compatibility assessment of the protective integrated hood mask with ANVIS night vision goggles* (Report No. AAMRL-TR-90-030). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A229956)
- Eggleston, R. G. (1987). *Impact of future developments in electronic technology on cockpit engineering* (Report No. AGARD-R-757). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-R-757)
- Eggleston, R. G. (1988). Machine intelligence and crew-vehicle interfaces. In E. Heer, & H. Lum (Eds.), *Progress in astronautics and aeronautics: Vol. 115. Machine intelligence and autonomy for aerospace systems* (pp. 51-84). Washington, DC: American Institute of Aeronautics.
- Eggleston, R. G. (1992). Cognitive interface considerations for intelligent cockpits. *AGARD Conference Proceedings No. 520: Flight Mechanics and Guidance and Control Panel Symposium* (pp. 21-1 - 21-16). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-CP-520)
- Endlsey, M. R., & Kiris, E. O. (1993). *Information presentation for expert systems in future fighter aircraft* (Report No. AL/CF-TR-1993-0164). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A275126)
- Endsley, M. R. (1991). *Situation awareness in an advanced strategic mission* (Report No. AL-TR-1991-0083). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B161348)
- Filipovich, D. (1992). *Enhanced night vision goggle configuration* (Report No. AL-SR-1992-0017). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B172004)
- Fiorita, A. L., Middendorf, M. S., & McMillan, G. R. (1992). Maintaining subject motivation in long-term experiments using performance incentives and penalties. *Proceedings of the Human Factors Society 36th Annual Meeting*, 2, 1335-1339.
- Fix, E. L., Marshak, W. P., & Burnside, D. (1990). Advanced reference system cockpit display project. *Proceedings of The IEEE 1990 National Aerospace and Electronics Conference: NAECON 1990*, 1, 338-342.

V. CREW SYSTEM INTEGRATION, TEST & EVALUATION

- Fracker, M. L., & Davis, S. A. (1991). *Explicit, implicit, and subjective rating measures of situation awareness in a monitoring task* (Report No. AL-TR-1991-0091). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A262702)
- Frick, R. K., Swinehart, R., & Taylor, M. (1987). *Functional requirements/systems architecture for relocatable target (RT) missions, Vol. II: User's guide to models* (Report No. AAMRL-TR-87-028). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B116589)
- Frick, R. K., Swinehart, R., Taylor, M., Kuperman, G. G., & Wilson, D. L. (1987). *Functional requirements/systems architecture for relocatable target (RT) missions, Volume I: Methodology* (Report No. AAMRL-TR-87-068). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. C955978)
- Geiselman, E. E., & Osgood, R. K. (1992). A comparison of three attitude display symbology structures during an attitude maintenance task. *Proceedings of the Human Factors Society 36th Annual Meeting*, 2, 1450-1454.
- Geiselman, E. E., & Osgood, R. K. (1993). *A comparison of three aircraft attitude display symbology structures* (Report No. AL/CF-TR-1993-0134). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A275172)
- Gomes, M. E., Lind, S., & Snyder, D. E. (1992). *A human factors evaluation of the MH-53J helicopter using advanced acquisition and computer analysis techniques* (Report No. AL-TR-1992-0081). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B170365)
- Green, T. B., Purvis, B. D., & Marshak, W. P. (1989). Strategic aircraft engineering design simulation. *Proceedings of the IEEE 1989 National Aerospace and Electronics Conference: NAECON 1989*, 2, 742-745.
- Gundel, A., & Wilson, G. F. (1993). Editorial: Psychophysiological measures in transport operations. [Special issue]. In A. Gundel, & G. F. Wilson (Ed.), *Ergonomics*, 36(9), 989.
- Haas, M. W. (1992). Multi-sensory virtual-interface technology. *AGARD 25th Anniversary Seminar*. Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development.
- Haas, M. W., & Hettinger, L. J. (1993). Applying virtual reality technology to cockpits of future fighter aircraft. *Virtual Reality Systems*, 1(2), 18-26.
- Hettinger, L. J., Donohue-Perry, M. M., Riegler, J. T., & Davis, S. A. (1992). *Night Vision Goggle (NVG) users' concerns survey site report: Eglin AFB, FL* (Report No. AL-TR-1992-0144). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B174198)
- Hettinger, L. J., Donohue-Perry, M. M., Riegler, J. T., & Davis, S. A. (1993). *Night Vision Goggle (NVG) users' concerns survey site report: Fairchild AFB, WA* (Report No. AL/CF-TR-1993-0094). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B178368)
- Hettinger, L. J., Donohue-Perry, M. M., Riegler, J. T., & Davis, S. A. (1993). *Night Vision Goggle (NVG) users' concerns survey site report: Robins AFB, GA* (Report No. AL/CF-TR-1993-0070). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B178296)
- Hunt, G., Armando, A., Brants, I. J. H., Haas, M. W., Leutwyler, R., Parus, R., Beaton, R. M., Deblon, F., Hulme, A., & Pagniz, P. (1992). *Mission planning systems for tactical aircraft (pre-flight and in-flight)* (Report No. AGARD-AR-313). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-AR-313)

- Hunt, G., Jones, T. N., Armando, A., Brants, I. J. H., Haas, M. W., Leutwyler, R., Beaton, R. M., Deblon, F., Hulme, A., & Parus, R. (1991). *Mission planning systems for tactical aircraft (pre-flight and in-flight)* (Report No. AGARD-AR-296). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-AR-296)
- Jauer, R. A., Quinn, T. J., Hockenbeager, R. L., & Eggleston, R. G. (1987). *Radar-aided mission/aircrew capability exploration: Full task simulation study* (Report No. AAMRL-TR-86-015). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B107949)
- Johnson, K. L., Brisby, J. M., Prior, R. C., Blazer, D. R., Heaton, H. H., Finch, S. R., Hattershire, B. R., & Sharp, E. D. (1988). *Final report: Strategic avionics crew station design evaluation facility (SACDEF) systems integrator contract* (Report No. AAMRL-TR-88-071). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B131733)
- Johnson, S., Shaw, R. L., & Simons, J. C. (1989). *Fighter, bomber, airlift debriefings: I. Facilities and general guidelines* (Report No. AAMRL-TR-89-006). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory.
- Klinger, D. W., Andriole, S. J., Militello, L. G., Adelman, L., Klein, G., & Gomes, M. E. (1993). *Designing for performance: A cognitive systems engineering approach to modifying an AWACS human-computer interface* (Report No. AL/CF-TR-1993-0093). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A275187)
- Kocian, D. F. (1991). Visually coupled systems (VCS): The virtual panoramic display (VPD) "system". In K. Krishen (Ed.), *Fifth Annual Workshop on Space Operations, Applications, and Research (SOAR '91)* (NASA-CP-3127, Vol. 2, pp. 548-561). Johnson Space Center, TX: National Aeronautics and Space Administration.
- Kulwicki, P. V., McDaniel, J. W., & Guadagna, L. M. (1987). Advanced development of a cockpit automation design support system. *AGARD Conference Proceedings 417: The Design, Development, and Testing of Complex Avionics Systems* (pp. 19-1 - 19-15). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-CP-417)
- Kuperman, G. G. (1990). Evaluation and integration of ATR crew aiding systems: A human factors approach. *Proceedings of the 1990 Automatic Target Recognizer System and Technology Conference* (GACIAC PR 90-04 pp. 473-479). Baltimore, MD: Guidance and Control Information Analysis Center.
- Kuperman, G. G. (1992). *Information requirements analysis for transatmospheric vehicles* (Report No. AL-TR-1992-0082). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A261189)
- Kuperman, G. G. (1992). *Operator interface assessment for the sensor fusion flight demonstration program* (Report No. AL-TR-1992-0117). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A260235)
- Kuperman, G. G., Bryant, M. L., & Clark, L. G. (1991). Man-machine interfaces for automatic target recognition systems. *Proceedings of the 4th National Symposium on Sensor Fusion, 1*, 635-642.
- Kuperman, G. G., & Perez, W. A. (1988). A frame based mission decomposition model. *Proceedings of the Human Factors Society 32nd Annual Meeting, 1*, 135-139.
- Kuperman, G. G., & Sobel, A. L. (1992). Design of the man-machine interface for an automatic target cuer system. *Proceedings of the Institute of Electrical and Electronic Engineers (IEEE), 2*, 691-697.
- Kuperman, G. G., & Sobel, A. L. (1992). Information requirements analysis for NASP derived vehicles. *4th International Aerospace Planes Conference*, (Paper No. AIAA-92-5078).

V. CREW SYSTEM INTEGRATION, TEST & EVALUATION

- Kuperman, G. G., & Sobel, A. L. (1992).** Training systems for TAV operations. *1992 Society of Automotive Engineers Aerospace Atlantic Conference and Exposition*, (SAE Technical Paper Series 921042).
- Kuperman, G. G., Spravka, J. J., Swonigan, T. T., & Sobel, A. (1993).** *Counter mobile missile avionics demonstration* (Report No. AL-TR-1993-0049). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. C959997)
- Kuperman, G. G., & Wilson, D. L. (1987).** *Abbreviated workload analysis for HAVE NAP* (Report No. AAMRL-TR-87-067). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. C042680)
- Kuperman, G. G., & Wilson, D. L. (1988).** The design of a tactical situation display. *Proceedings of the Human Factors Society 32nd Annual Meeting, 1*, 111-115.
- Kuperman, G. G., & Wilson, D. L. (1990).** *Demonstration of concept I avionics capability performance* (Report No. AAMRL-TR-90-059). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. C958373)
- Kuperman, G. G., Wilson, D. L., & Crawford, R. L. (1989).** Discriminability of color symbols through PLZT goggles. *Proceedings of the Human Factors Society 33rd Annual Meeting, 2*, 1378-1382.
- Kuperman, G. G., Wilson, D. L., & Crawford, Y. R. (1989).** *Wide dynamic range synthetic aperture radar operator performance display study* (Report No. AAMRL-TR-89-020). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. C956972)
- Kuperman, G. G., Wilson, D. L., & Davis, I. (1993).** *High resolution radar demonstration program: Operator performance study* (Report No. AL-TR-1993-0032). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B176914)
- Kuperman, G. G., Wilson, D. L., & Perez, W. A. (1988).** *Relocatable target acquisition performance with simulated synthetic aperture radar* (Report No. AAMRL-TR-88-025). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B177485)
- Lintern, G., & McMillan, G. R. (1993).** Transfer for flight simulation. In R. A. Telfer (Ed.), *Aviation instruction and training* (pp. 130-162). Hants, England: Ashgate.
- Lovering, P. B., Noah, J. D., & Kuperman, G. G. (1988).** *Infrared integration options for B-1B navigation and targeting* (Report No. AAMRL-TR-88-026). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B127695)
- Martin, W. L. (1992).** Developing virtual cockpits. *AGARD Proceedings of the 63rd Avionics Panel Meeting: Advanced Aircraft Interfaces: The Machine Side of the Man-Machine Interface* (pp. 8-1 - 8-8). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-CP-521)
- Masters, R. M., Horn, P. M., & Kulwicki, P. V. (1987).** *Situation awareness and the CAT air superiority missions* (Report No. AAMRL-TR-87-005). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. C042570)
- Mathews, C., & Johnson, D. (1992).** *Combat air operations in the post-cold war world* (Report No. AL-TR-1992-0092). Wright-Patterson AFB, OH: Armstrong Laboratory.

- Mellian, S. A., Ervin, C. A., & Robinette, K. M. (1991). *Sizing evaluation of navy women's uniforms* (Report No. AL-TR-1991-0116). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A249782)
- Merkel, H. S., & Task, H. L. (1987). *Airborne direct-view optical system: Effects of target briefing on performance* (Report No. AAMRL-TR-87-026). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory.
- Merkel, H. S., & Task, H. L. (1990). *Optical test of the space shuttle overhead windows* (Report No. AAMRL-TR-90-024). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A229919)
- Merkel, H. S., Task, H. L., Whiteley, J. D., LaPuma, P. T., Pinkus, A. R., & Block, M. G. (1990). *The development of the spaceborne direct-view optical system (SpaDVOS)* (Report No. AAMRL-TR-90-016). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B144518)
- Mills, R. G. (1989). Crew-centered bomber mission model. *Proceedings of The IEEE 1989 National Aerospace and Electronics Conference: NAECON 1989*, 765-771.
- Morton, K., & Zirkler, D. J. (1990). Using engineering models to compare paper and hypermedia-based displays of flight information. *Proceedings of The IEEE 1990 National Aerospace and Electronics Conference: NAECON 1990*, 770-774.
- Nelson, M. A., Sauer, D. W., & Kelly, S. (1987). *Human factors evaluation of the COPE prototype workstation* (Report No. AAMRL-TR-87-008). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory.
- Olson, J. L., Arbak, C. J., & Jauer, R. A. (1991). *Panoramic cockpit control and display system, Volume II: PCCADS 2000* (Report No. AL-TR-91-0017). Wright-Patterson AFB, OH: Armstrong Laboratory.
- O'Neal, M. R. (1990). Effect of aircraft cabin altitude and humidity on oxygen tension under soft and hard gas-permeable contact lenses. *AGARD Conference Proceedings 492: Ocular Hazards in Flight and Remedial Measures* (pp. 23-1 - 23-9). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-CP-492)
- O'Neal, M. R. (1991). Effect of aircraft cabin altitude and humidity on oxygen tension under soft and hard gas-permeable contact lenses. In P. E. Flattau (Ed.), *Considerations in Contact Lens Use Under Adverse Conditions: Proceedings of a Symposium* (pp. 106-118). Washington, DC: National Academy Press.
- Peio, K. J., Crawford, R. L., & Kuperman, G. G. (1991). *Man-machine interface analyses for bomber flight management system* (Report No. AL-TR-1991-0018). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A245707)
- Purvis, B. D. (1992). *An evaluation of B-1B pilot performance during simulated instrument approaches with and without status information* (Report No. AL-TR-1992-0088). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A263874)
- Purvis, B. D., Craig, J. L., & Simons, J. C. (1988). *Night vision goggle head-up display for B-52 special operations* (Report No. AAMRL-TR-88-019). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B123860)
- Purvis, B. D., Evers, K., Hoyland, C., Hill, J., & Brioida, M. (1988). *Visual simulation system computer program product specification* (Report No. AAMRL-TR-88-049). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B131762)

V. CREW SYSTEM INTEGRATION, TEST & EVALUATION

- Purvis, B. D., Green, T. B., St. John, R. J., Reynolds, M. C., & Lovering, P. B. (1988). *B-1B instrument landing system (ILS) display format study* (Report No. AAMRL-TR-88-003). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B120771)
- Purvis, B. D., Skelly, J. J., Simons, J. C., & Detro, S. (1988). *B-52 emergency war order survivability: Pilot effectiveness performance* (Report No. AAMRL-TR-88-032). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory.
- Reardon, K. A., Oliver, C. G., & Warren, R. (1987). Flight simulation training using standard and non-standard tasks. *Proceedings of the Human Factors Society 31st Annual Meeting*, 2, 1291-1295.
- Reick, A. M. (1993). *Virtual image voltmeter for aircraft maintenance technicians* (Report No. AL-TR-1993-0019). Wright-Patterson AFB, OH: Armstrong Laboratory.
- Rickles, W., Dunlosky, A., & Scott, B. (1991). *Anti-satellite (ASAT) system timeline modeling* (Report No. AL-TR-1991-0092). Wright-Patterson AFB, OH: Armstrong Laboratory.
- Riegler, J. T., & Donohue-Perry, M. M. (1990). *A field evaluation of the compatibility of the protective integrated hood mask with ANVIS night vision goggles* (Report No. AAMRL-TR-90-031). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A230237)
- Robinette, K. M. (1993). Fit testing as a helmet development tool. *Proceedings of the Human Factors Society 37th Annual Meeting*, 1, 69-73.
- Robinette, K. M., & Whitestone, J. J. (in press). The need for improved anthropometric methods for the development of helmet systems. *Aviation, Space and Environmental Medicine*, 65(4, Suppl.).
- Rolek, E. P., & Snyder, D. E. (1988). *Demonstration of improved survivability through the use of strategies against soviet sam crews* (Report No. AAMRL-TR-88-031). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. C956305)
- Ross, J. A., & Kocian, D. F. (1993). Hybrid video amplifier chip set for helmet-mounted visually coupled systems. *1993 Society for Information Display International Symposium Digest of Technical Papers*, 24, 437-440.
- Ross, J., & Ervin, C. A. (1987). *Chemical defense flight glove ensemble evaluation* (Report No. AAMRL-TR-87-047). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A118401)
- Rueb, J. D., Vidulich, M. A., & Hassoun, J. A. (in press). Use of workload redlines: A KC-135 crew-reduction application. *The International Journal of Aviation Psychology*.
- Rueb, J., Vidulich, M. A., & Hassoun, J. (1992). Establishing workload acceptability: An evaluation of a proposed KC-135 cockpit redesign. *Proceedings of the Human Factors Society 36th Annual Meeting*, 1, 17-21.
- Schiffler, R. J., & Pinkus, A. R. (1987). Human factors research and development requirements for future aerospace cockpit systems. *IEEE Aerospace and Electronic Systems Magazine*, 2(9), 2-4.
- Simons, J. C., & Craig, J. L. (1989). Electroluminescent lights for formation flights. In R. S. Jensen (Ed.), *Proceedings of the Fifth International Symposium on Aviation Psychology*, 1, 251-256.

- Simons, J. C., Kirtland, W. H., Malmstrom, F. V., Normand, K. A., Perez, W. A., Taylor, T. G., & Kuperman, G. G. (1987). *Strategic mission decomposition: I. Planning materials for advanced bomber simulation studies* (Report No. AAMRL-TR-87-016). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B112312)
- Snyder, D. E., McNeese, M. D., Zaff, B. S., & Gomes, M. E. (1992). Knowledge acquisition of tactical air-to-ground mission information using concept mapping. *Proceedings of The IEEE 1992 National Aerospace and Electronics Conference: NAECON 1992*, 2, 668-674.
- Snyder, D. E., Wellens, A. R., Brown, C. E., & McNeese, M. D. (1989). Three paradigms for the study of multi-person and human-machine interaction. *Proceedings of the IEEE Systems, Man, & Cybernetics Conference*, 840-841.
- Spravka, J. J., Crawford, R. L., & Kuperman, G. G. (1990). *A human factors review of the synthetic aperture radar literature* (Report No. AAMRL-TR-90-022). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory.
- Spravka, J. J., Irvin, G. E., & Dowler, M. G. (1988). T-62 tank gunner tracking performance using a night vision display system of a function of background luminance, countermeasure power and countermeasure wavelength. *Proceedings of the 10th Annual Lasers on the Modern Battlefield Conference* (pp. 91-94).
- Spravka, J. J., & Kuperman, G. G. (1992). *Preliminary human factors evaluation of ISECC* (Report No. AL-TR-1992-0069). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. C049863)
- St. John, R. J., & Purvis, B. D. (1990). AIM SIGHT. *Proceedings of the Society of Photo-Optical Instrumentation Engineers (SPIE)*, 1289, 63-67.
- Task, H. L. (1992). Cockpit/NVG visual integration issues. *AGARD Lecture Series 187: Visual Problems in Night Operations* (pp. 8-1 - 8-6). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-LS-187)
- Task, H. L., Hartman, R. T., Marasco, P. L., & Zobel, A. R. (1993). *Methods for measuring characteristics of night vision goggles* (Report No. AL/CF-TR-1993-0177). Wright-Patterson AFB, OH: Armstrong Laboratory.
- Task, H. L., Hartman, R. T., & Zobel, A. R. (1990). New methods for night vision goggle test and evaluation. *Proceedings of Test Technology Symposium III* (pp. 259-268). Aberdeen Proving Ground, MD: U.S. Army Test and Evaluation Command.
- Task, H. L., & Merkel, H. S. (1989). *A new method for measuring the transmissivity of aircraft transparencies* (Report No. AAMRL-TR-89-044). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A216953)
- Toms, M. L., & Kuperman, G. G. (1992). *Sensor fusion: A human factors perspective* (Report No. AL-TR-1991-0152). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B165851)
- Tsang, P. S., & Vidulich, M. A. (1989). Cognitive demands of automation in aviation. In R. S. Jensen (Ed.), *Aviation psychology* (pp. 66-95). Essex, Great Britain: Gower.
- Vidulich, M. A. (1989). Objective measures of workload: Should a secondary task be secondary? In R. S. Jensen (Ed.), *Proceedings of the Fifth International Symposium on Aviation Psychology*, 2, 802-807.

V. CREW SYSTEM INTEGRATION, TEST & EVALUATION

- Vidulich, M. A. (1991). The Bedford scale: Does it measure spare capacity? *Proceedings of the Sixth International Symposium on Aviation Psychology*, 2, 1136-1141.
- Vidulich, M. A., & Bortolussi, M. R. (1988). A dissociation of objective and subjective workload measures in assessing the impact of speech controls in advanced helicopters. *Proceedings of the Human Factors Society 32nd Annual Meeting*, 2, 1471-1475.
- Vidulich, M. A., & Bortolussi, M. R. (1988). Speech recognition in advanced rotor-craft: Using speech controls to reduce manual control overload. *Proceedings of the American Helicopter Society National Specialists' Meeting*, 1-10.
- Vikmanis, M. M. (1987). Advances in workload measurement for cockpit design evaluation. *AGARD Conference Proceedings No. 425: The Man-Machine Interface in Tactical Aircraft Design and Combat Automation* (pp. 10-1 - 10-10). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-CP-425)
- Wells, C. H., Jensen, J. G., Collins, M. T., & Replogle, C. R. (1992). *Mask protection assessment* (Report No. AL-TR-1992-0166). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. C959951)
- Whiteley, J. D. (1989). *Military aircrew seating: A human factors engineering approach* (Report No. AAMRL-TR-89-046). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A218049)
- Wickens, C. D., Barnett, B. J., Davis, T., & Hyman, F. (1989). Expertise, stress, and pilot judgment. *AGARD Conference Proceedings 458: Human Behavior in High Stress Situations in Aerospace Operations* (pp. 10-1 - 10-8). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-CP-458)
- Wickens, C. D., Stokes, A., Barnett, B., & Hyman, F. (1988). *The effects of stress on pilot judgment in a MIDIS simulator* (Report No. AAMRL-TR-88-057). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A210827)
- Widdel, H., & Post, D. L. (Eds.). (1992). *Color in electronic displays*. New York: Plenum Press.
- Wilford, G. M., Wunsh, E., Zawodny, T. L., & Sharp, E. D. (1988). *Color coding the B-1B Threat situation format display of the AN/ALQ-161 electronic warfare system: The effect of color change, as both noise and signal, on target search performance* (Report No. AAMRL-TR-88-006). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B121929)
- Wilson, D. L., & Kuperman, G. G. (1988). Strategic avionics battle-management evaluation & research/SABER. *Proceedings of The IEEE 1988 National Aerospace and Electronics Conference: NAECON 1988*, 3, 844-849.
- Wilson, D. L., & Kuperman, G. G. (1989). *Effects of ATARS image compression on image interpretability ratings* (Report No. AAMRL-TR-89-032). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B138023)
- Wilson, D. L., Kuperman, G. G., & Crawford R. L. (1992). *Effects of maximum allowed time on sustained operator performance in a counter-mobile target acquisition task* (Report No. AL-TR-1992-0070). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. C959947)
- Wilson, G. F., Hughes, E., & Hassoun, J. A. (1990). Physiological & subjective evaluation of a new aircraft display. *Proceedings of the Human Factors Society 34th Annual Meeting*, 2, 1441-1443.

V. CREW SYSTEM INTEGRATION, TEST & EVALUATION

Zacharias, G. L., Miao, A. X., Riley, E. W., & Osgood, R. K. (1993). *Situation awareness metric for cockpit configuration evaluation* (Report No. AL-TR-1993-0042). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B176582)

Zehner, G. F. (in press). Anthropometric Accommodation in USAF Cockpits. *Seventh Annual Workshop on Space Operations, Applications and Research (SOAR '93)*. Johnson Space Center, TX: National Aeronautics and Space Administration.

Zehner, G. F., Ervin, C. A., Robinette, K. M., & Daziens, P. (1987). *Fit evaluation of female body armor* (Report No. AAMRL-TR-87-046). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A188721)

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- Arndt, C. M. (1992). Applications for neural networks to landmark detection in three-dimensional surface data. *Proceedings of the Society of Photo-Optical Instrumentation Engineers (SPIE)*, 880-886.
- Arndt, C. M., & Gavern, J. M. (1993). Mathematical models, and methodologies for measuring and improving human-machine interface in written language [Abstract]. *62nd MORS Symposium*.
- Aume, N. M. (1989). Crew chief, a computer graphics simulation of an aircraft maintenance technician. In S. Griffin (Ed.), *Third Annual Workshop on Space Operations, Applications, and Research (SOAR '89)* (NASA CP-3059 pp. 139-141). Johnson Space Center, TX: National Aeronautics and Space Administration.
- Beer, J. M. A. (in press). Optimizing projective deformation (motion parallax) may be useful in virtual displays for agile flight environments. *7th Interface/Industry Acceleration Colloquium*.
- Billman, E. R. (1987). *The role of adaptive supplemental visual cuing in flight simulation* (Report No. AAMRL-TR-87-070). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A185932)
- Blue, D. V., Flanagan, D. P., Giacaglia, R. A., Lenorovitz, D. R., & Stanke, E. C. (1987). *Rapid intelligent prototyping laboratory (RIPL) architecture and use* (Report No. AAMRL-TR-87-004). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory.
- Boff, K. R., & Martin, E. A. (1988). Human performance data in simulation design. *AIAA Flight Simulation Technologies Conference*, 1-5.
- Boff, K. R., & Monk, D. L. (1992). Computer-aided systems human engineering: A hypermedia tool. *CSERIAC Gateway*, 3(2), 1-5.
- Boff, K. R., Monk, D. L., Swierenga, S. J., Brown, C. E., & Cody, W. J. (1991). Computer-aided human factors for systems designers. *Proceedings of the Human Factors Society 35th Annual Meeting*, 1, 332-336.
- Brown, Y. J., Cardullo, F. M., & McMillan, G. R. (1990). Advanced techniques for cuing the force and motion environment in the simulator of the future. *AIAA Flight Simulation Technologies Conference*, 115-122.
- Brown, Y. J., Cardullo, F. M., McMillan, G. R., Riccio, G. E., & Sinacori, J. B. (1992). *New approaches to motion cuing in flight simulators* (Report No. AL-TR-1991-0139). Wright-Patterson AFB, OH: Armstrong Laboratory.
- Cardullo, F. M., Brown, Y. J., & McMillan, G. R. (1992). Analysis and development of advanced techniques for cuing the force and motion environment in the simulator of the future. *Proceedings of the European Forum on Matching Technology to Training Requirements*, 16-1 - 16-12.
- Cress, J. D., McMillan, G. R., & Gilkey, M. J. (1989). The dynamic seat as an angular cuing device: Control of roll & pitch vs the control of altitude & heading. *AIAA Flight Simulation Technologies Conference*, 94-100.
- DeLucia, P. R. (1991). Object-motion, self-motion and object-motion during pictorial motion and motion-based information for depth perception. *Journal of Experimental Psychology: Human Perception and Performance*, 17(3), 738-748.
- Doyal, J. A., Irvin, G. E., Donohue, T. R., & Dowler, M. G. (1992). Flight simulation of infrared smoke obscuration using equivalent contrast reduction. *Proceedings of the Smoke/Obscurants Symposium*, 24.

VI. MODELING & SIMULATION

- Fix, E. L. (1988). Optimizing back propagation training. *Proceedings of the Fourth Annual Aerospace Applications of Artificial Intelligence Conference*, 1, 52-56.
- Fix, E. L. (1990). Modeling human performance with neural networks. *Proceedings of the International Joint Conference on Neural Networks*, 1, 247-252.
- Fix, E. L. (1990). Neural network based human performance modeling. *Proceedings of The IEEE 1990 National Aerospace and Electronics Conference: NAECON 1990*, 3, 1162-1165.
- Fix, E. L. (1990). *Neural network based human performance modeling* (Report No. AAMRL-TR-90-042). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A229822)
- Fix, E. L., & Deer, B. C. (1988). Extrapolation and interpolation capability of the back propagation algorithm. *Proceedings of the Fourth Annual Aerospace Applications of Artificial Intelligence Conference*, 1, 87-92.
- Fix, E. L., & Rolek, E. P. (1991). *Modeling a human operated soviet SAM system using neural networks* (Report No. AL-TR-91-0016). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B167818)
- Fraser, N. M., Hipel, K. W., Kilgour, D. M., McNeese, M. D., & Snyder, D. E. (1989). An architecture for integrating expert systems. *Decision Support Systems*, 5, 263-276.
- Frick, R. K., Swinehart, R., & Taylor, M. (1987). *Functional requirements/systems architecture for relocatable target (RT) missions, Vol. II: User's guide to models* (Report No. AAMRL-TR-87-028). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B116589)
- Frick, R. K., Swinehart, R., Taylor, M., Kuperman, G. G., & Wilson, D. L. (1987). *Functional requirements/systems architecture for relocatable target (RT) missions, Volume I: Methodology* (Report No. AAMRL-TR-87-068). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. C955978)
- Furness, T. A. (1988). Harnessing virtual space. *1988 Society for Information Display International Symposium Digest of Technical Papers*, 19, 4-7.
- Gawron, V. J., Bailey, R. E., Knotts, L. H., & McMillan, G. R. (1989). Comparison of time delay during in-flight and ground simulation. *Proceedings of the Human Factors Society 33rd Annual Meeting*, 1, 120-123.
- Gonsalves, P. G., Kneller, E. W., Zacharias, G. L., St. John, R. J., & Purvis, B. D. (1989). *Model-based method for terrain-following display design* (Report No. AAMRL-TR-89-039). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A219302)
- Green, T. B., Purvis, B. D., & Marshak, W. P. (1989). Strategic aircraft engineering design simulation. *Proceedings of the IEEE 1989 National Aerospace and Electronics Conference: NAECON 1989*, 2, 742-745.
- Haas, M. W. (in press). Fusion interfaces for tactical environments: An approach for applying virtual reality technology. *Seventh Annual Workshop on Space Operations, Applications and Research (SOAR '93)*. Johnson Space Center, TX: National Aeronautics and Space Administration.
- Haas, M. W. (1992). Multi-sensory virtual-interface technology. *AGARD 25th Anniversary Seminar*. Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development.

- Haas, M. W. (1993). Fusion interfaces for tactical environments: An approach for applying virtual reality technology. In L. Murray (Ed.), *Minutes of the 30th Meeting of the DOD Human Factors Engineering Technical Advisory Group* (pp. AA).
- Haas, M. W., & Hettinger, L. J. (1993). Applying virtual reality technology to cockpits of future fighter aircraft. *Virtual Reality Systems*, 1(2), 18-26.
- Hunt, G., Armando, A., Brants, I. J. H., Haas, M. W., Leutwyler, R., Parus, R., Beaton, R. M., Deblon, F., Hulme, A., & Pagniz, P. (1992). *Mission planning systems for tactical aircraft (pre-flight and in-flight)* (Report No. AGARD-AR-313). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-AR-313)
- Hunt, G., Jones, T. N., Armando, A., Brants, I. J. H., Haas, M. W., Leutwyler, R., Beaton, R. M., Deblon, F., Hulme, A., & Parus, R. (1991). *Mission planning systems for tactical aircraft (pre-flight and in-flight)* (Report No. AGARD-AR-296). Neuilly sur Seine, France: NATO Advisory Group for Aerospace Research and Development. (NTIS No. AGARD-AR-296)
- Irvin, G. E., & Dowler, M. G. (1992). Physiologically based computational approach to camouflage and masking patterns. *Proceedings of the Society of Photo-Optical Instrumentation Engineers (SPIE)*, 481-488.
- Irvin, G. E., Keep, G. F., & Dowler, M. G. (1991). Two-dimensional aircraft decoys based on perspective rendition: Overview and experimental results. *Proceedings of the Aerospace Medical Association Convention*, 450.
- Jauer, R. A., Quinn, T. J., Hockenbeager, R. L., & Eggleston, R. G. (1987). *Radar-aided mission/aircrew capability exploration: Full task simulation study* (Report No. AAMRL-TR-86-015). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B107949)
- Johnson, K. L., Brisby, J. M., Prior, R. C., Blazer, D. R., Heaton, H. H., Finch, S. R., Hattershire, B. R., & Sharp, E. D. (1988). *Final report: Strategic avionics crew station design evaluation facility (SACDEF) systems integrator contract* (Report No. AAMRL-TR-88-071). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B131733)
- Johnson, W. V., & Middendorf, M. S. (1988). Simulator transport delay measurement using steady-state techniques. *AIAA Flight Simulation Technologies Conference*, 250-254.
- Kang, R. N., Marshak, W. P., Reigler, J. T., Irvin, G. E., & Rogers-Adams, B. M. (1987). *The effect of internal contrast and simulated shadow on the deceptive effectiveness of aircraft silhouette paint pattern decoys* (Report No. AAMRL-TR-87-073). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B128218)
- Kang, R. N., Riegler, J. T., & Irvin, G. E. (1987). *Tonedown guidelines for F-16 aircraft canopy shelter entrances* (Report No. AAMRL-TR-87-054). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B119227)
- Kang, R. N., Riegler, J. T., Irvin, G. E., & Katz, L. (1987). *An evaluation of the deceptive effectiveness of 2-Dimensional aircraft silhouette patterns as a function of azimuth and contrast in a grouping context* (Report No. AAMRL-TR-87-023). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B111844)
- Kang, R. N., Susnik, R. M., Irvin, G. E., & Urban, K. E. (1987). *Target masking-perimeter evaluation of target masking at 530.9 NM and 647.1 NM* (Report No. AAMRL-TR-87-061). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. C043778)

VI. MODELING & SIMULATION

- Kang, R. N., Susnik, R. M., & Riegler, J. T. (1987). *The evaluation of 2-Dimensional aircraft silhouette joint patterns as a countermeasure for target acquisition* (Report No. AAMRL-TR-87-022). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B112747)
- Keep, G. F., Irvin, G. E., & Dowler, M. G. (1991). Aircraft masking patterns as a deception technique: Experimental results from laboratory and field evaluations. [Abstract]. *Proceedings of the Aerospace Medical Association Convention*, 450.
- Kelly, L., Flach, J. M., Garness, S., & Warren, R. (1993). Altitude control effects of texture and optical flow. *Proceedings of the Seventh International Symposium on Aviation Psychology*, 1, 292-295.
- Kennedy, R. S., Jones, M. B., & Baltzley, D. R. (1989). *Regions of isoperformance: An interactive software package for trading off training, personnel, and equipment* (Report No. AAMRL-TR-89-003). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B136770)
- Korna, M., Krauskopf, P. J., Haddox, D., Hardy, S., Jones, M. W., Polzinetti, J., & McDaniel, J. W. (1988). *User's guide for CREW CHIEF: A computer graphics simulation of an aircraft maintenance technician (Version 1 - CD20)* (Report No. AAMRL-TR-88-034). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (NTIS No. AD A201 368)
- Korna, M., Krauskopf, P. J., Haddox, D., Hardy, S., Jones, M. W., Polzinetti, J., & McDaniel, J. W. (1990). *User's guide for CREW CHIEF: A computer graphics simulation of an aircraft maintenance technician (Version 2 - CD21)* (Report No. AAMRL-TR-90-014). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A230654)
- Korna, M., Rothey, J., Jones, M. W., Krauskopf, P. J., Stump, W., Hardy, S., Haddox, D., Meeks, L., & McDaniel, J. W. (1988). *User's guide for CREW CHIEF: A computer graphics simulation of an aircraft maintenance technician (Version 1 - CV4001)* (Report No. AAMRL-TR-88-045). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (NTIS No. AD A204 869)
- Krauskopf, P. J., Jones, M. W., Stump, W. J., & Quinn, J. W. (1990). *CREW CHIEF CAD system interface guide (Version 2 - SI)* (Report No. AAMRL-TR-90-015). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A231433)
- Krauskopf, P. J., Quinn, J. W., Berlin, R., Stump, W. J., Gibbons, L. E., & McDaniel, J. W. (1989). *User's guide for COMBIMAN programs (COMputerized Blomechanics MAN-model) Version 8* (Report No. AAMRL-TR-89-024). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A222735)
- Kuperman, G. G., & Wilson, D. L. (1991). Objective and subjective assessment of image compression algorithms. *Society for Information Display 1991 International Symposium Digest of Technical Papers*, 22, 627-640.
- Kuperman, G. G., Wilson, D. L., & Crawford, Y. R. (1989). *Wide dynamic range synthetic aperture radar operator performance display study* (Report No. AAMRL-TR-89-020). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. C956972)
- Kuperman, G. G., Wilson, D. L., & Perez, W. A. (1988). *Relocatable target acquisition performance with simulated synthetic aperture radar* (Report No. AAMRL-TR-88-025). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B177485)
- Lintern, G., & McMillan, G. R. (1993). Transfer for flight simulation. In R. A. Telfer (Ed.), *Aviation instruction and training* (pp. 130-162). Hants, England: Ashgate.

- Lusk, S. L., Martin, C. D., Whiteley, J. D., & Johnson, W. V. (1990). Time delay compensation using peripheral visual cues in an aircraft simulator. *AIAA Flight Simulation Technologies Conference*, 63-70.
- Maresh, J. L. (1991). Development of a real-time visual flight simulator for tactical operations research and development. *Proceedings of the Sixth International Symposium on Aviation Psychology*, 841-846.
- Maresh, J. L., & Todd, R. E. (1989). Realtime graphic flight simulations using multiple minicomputers. In R. S. Jensen (Ed.), *Proceedings of the Fifth International Symposium on Aviation Psychology*, 2, 221-226.
- Marshak, W. P. (1992). Temporal frequency spectrum for describing and modeling motion perception. *Proceedings of the Society of Photo-Optical Instrumentation Engineers (SPIE): Automatic Object Recognition II*, 1700, 476-480.
- Marshak, W. P., Kang, R. N., Riegler, J. T., & Irvin, G. E. (1988). *Animated computer imagery in the evaluation of F-15 silhouette decoys* (Report No. AAMRL-TR-88-040). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A128216)
- Marshak, W. P., Purvis, B. D., & Green, T. B. (1989). Integrating engineering with training simulation. *Proceedings of The IEEE 1989 National Aerospace and Electronics Conference: NAECON 1989*, 2, 754-756.
- McDaniel, J. W. (1988). COMBIMAN and CREW CHIEF. In K. H. E. Kroemer, S. H. Snook, S. K. Meadows, & S. Deutsch (Eds.), *Ergonomic models of anthropometry human biomechanics and operator-equipment interfaces* (pp. 55-60). Washington, DC: National Academy Press.
- McDaniel, J. W. (1988). CREW CHIEF: A computer graphics model of an aircraft maintenance technician. *Proceedings of the Sixth Annual Computer-Aided Engineering Program Users Meeting* (Report No. NWC TP 6910 pp. 601-603). China Lake, CA: Naval Weapons Center.
- McDaniel, J. W. (1989). Modeling strength data for crew chief. In S. Griffin (Ed.), *Third Annual Workshop on Space Operations, Applications, and Research (SOAR '89)* (NASA CP-3059 pp. 143-148). Johnson Space Center, TX: National Aeronautics and Space Administration.
- McDaniel, J. W. (1989). Virtual mockup. *MANPRINT Bulletin*, 4(1), 4-7.
- McDaniel, J. W. (1990). Models for ergonomic analysis and design COMBIMAN and CREW CHIEF. In W. Karwowski, A. M. Genaidy, & S. S. Asfour (Eds.), *Computer-aided ergonomics: A researcher's guide* (pp. 138-156). London: Taylor & Francis Inc.
- McDaniel, J. W. (1991). The development of computer models for ergonomic accommodation. In A. Mital, & W. Karwowski (Eds.), *Workspace, equipment and tool design* (pp. 29-66). Amsterdam: Elsevier.
- McDaniel, J. W., & Hofmann, M. A. (1990). Computer-aided ergonomics design tools. In H. R. Boohar (Ed.), *MANPRINT: An approach to system integration* (pp. 205-235). New York: Von Nostrand Reinhold.
- McMillan, G. R. (1989). An overview of human performance models & potential applications to combat simulation. *Human behavior and performance as essential ingredients in realistic modeling of combat - MORIMOC II*, 55-68.
- McMillan, G. R. (1991). Effects of visual system transport delay on pilot performance. *Visual Issues in Training and Simulation* (pp. 1-10). Williams AFB, AZ: Armstrong Laboratory.

VI. MODELING & SIMULATION

- McMillan, G. R., Beevis, D., Salas, E., Strub, M. H., Sutton, R., & Van Breda, L. (Eds.). (1989). *Applications of human performance models to system design*. New York: Plenum.
- McMillan, G. R., Beevis, D., Stein, W., Strub, M. H., Salas, E., Sutton, R., & Reynolds, K. C. (1991). *A directory of human performance models for system design* (Report No. AC/243 (Panel 8) TR/1). Brussels, Belgium: NATO Defense Research Group.
- McMillan, G. R., Cress, J. D., & Middendorf, M. S. (1990). Dynamic seat cuing with wide versus narrow field-of-view visual displays. *AIAA Flight Simulation Technologies Conference*, 53-62.
- McNeese, M. D. (1989). *Cerebral weevil: A machine learning model for hemispheric categorization of faces* (Report No. AAMRL-TR-89-045). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A218143)
- Merkel, H. S. (1988). *Investigation of a linear systems model for human visual detection and spatial frequency discrimination* (Report No. AAMRL-TR-88-061). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A209397)
- Merriken, M. S., Johnson, W. V., Cress, J. D., & Riccio, G. E. (1988). Time delay compensation using supplementary cues in aircraft simulator systems. *Proceedings of The IEEE 1988 National Aerospace and Electronics Conference: NAECON 1988*, 295-303.
- Merriken, M. S., Riccio, G. E., & Johnson, W. V. (1987). Temporal fidelity in aircraft simulator visual systems. *Proceedings of The IEEE 1987 National Aerospace and Electronics Conference: NAECON 1987*, 50-54.
- Middendorf, M. S., Fiorita, A. L., & McMillan, G. R. (1991). The effects of simulator transport delay on performance, workload, and control activity during low-level flight. *AIAA Flight Simulation Technologies Conference*, 412-426.
- Middendorf, M. S., Johnson, W. V., Gilkey, M. J., & McClurg, T. D. (1989). A comprehensive collection of procedures for simulator verification. *Proceedings of The IEEE 1989 National Aerospace and Electronics Conference: NAECON 1989*, 1-7.
- Middendorf, M. S., Lusk, S. L., & Whiteley, J. D. (1990). Power spectral analysis to investigate the effects of simulator time delay on flight control activity. *AIAA Flight Simulation Technologies Conference*, 46-52.
- Mills, R. G. (1988). A user-assisted generic systems analyst workstation (GENSAW). *Proceedings of The IEEE 1988 National Aerospace and Electronics Conference: NAECON 1988*, 1065-1069.
- Mills, R. G. (1988). A user-assisted test & evaluation methodology assistant program (TEMAP). *Proceedings of The IEEE 1988 National Aerospace and Electronics Conference: NAECON 1988*, 1060-1064.
- Mills, R. G. (1989). Crew-centered bomber mission model. *Proceedings of The IEEE 1989 National Aerospace and Electronics Conference: NAECON 1989*, 765-771.
- Monk, D. L., Swierenga, S. J., & Lincoln, J. E. (1992). Developing behavioral phenomena test benches. *Proceedings of the Human Factors Society 36th Annual Meeting*, 2, 1106-1109.
- Morton, P. E., Tumey, D. M., Ingle, D. F., Downey, C. W., & Schnurer, J. H. (1991). Neural network classification of EEG data generated through use of the audio oddball paradigm. *Proceedings of the IEEE 17th Annual Northeast Bioengineering Conference*, 7-8.

- Osgood, R. K., Taylor, K., & McClurg, T. D. (1988). *The dynamic seat as an angular motion cueing device. Proceedings of the Human Factors Society 32nd Annual Meeting, 1*, 25-29.
- Penrod, T. D., & Kuperman, G. G. (1993). *Image quality analysis of compressed synthetic aperture radar* (Report No. AL/CF-TR-1993-0156). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A273399)
- Pollack, R. B. (1990). *An investigation into techniques for landmarks identification on 3-D images of human subjects* (Report No. AAMRL-SR-90-0500). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A218614)
- Pollack, R. B. (1993). *Neural network technologies* (Report No. AL-SR-1993-0002). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A262576)
- Purvis, B. D., Evers, K., Hoyland, C., Hill, J., & Brioida, M. (1988). *Visual simulation system computer program product specification* (Report No. AAMRL-TR-88-049). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B131762)
- Raab, F. H., & Brewster, C. C. (1988). *Magnetic-multipole technique for moveable scatterer compensation* (Report No. AAMRL-TR-88-054). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B133465)
- Raab, F. H., Brewster, C. C., Stone, F. L., & Mackin, W. F. (1993). *Algorithms for magnetic helmet-mounted sight* (Report No. AL/CF-TR-1993-0077). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. B176447)
- Ratnaparkhi, M. V., Ratnaparkhi, M. M., & Robinette, K. M. (1992). Size and shape analysis techniques for design. *Applied Ergonomics*, 23(3), 181-185.
- Reardon, K. A., Oliver, C. G., & Warren, R. (1987). Flight simulation training using standard and non-standard tasks. *Proceedings of the Human Factors Society 31st Annual Meeting, 2*, 1291-1295.
- Reardon, K. A., & Warren, R. (1989). Effect of emergent detail on descent-rate estimations in flight simulators. In R. S. Jensen (Ed.), *Proceedings of the Fifth International Symposium on Aviation Psychology*, 2, 714-719.
- Riccio, G. E., Cress, J. D., & Johnson, W. V. (1987). The effects of simulator delays on the acquisition of flight control skills: Control of heading and altitude. *Proceedings of the Human Factors Society 31st Annual Meeting, 2*, 1286-1290.
- Rickles, W., Dunlosky, A., & Scott, B. (1991). *Anti-satellite (ASAT) system timeline modeling* (Report No. AL-TR-1991-0092). Wright-Patterson AFB, OH: Armstrong Laboratory.
- Robinette, K. M., & Whitestone, J. J. (1992). *Methods for characterizing the human head for the design of helmets* (Report No. AL-TR-1992-0061). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. A263875)
- Rogers-Adams, B. M., Riegler, J. T., Irvin, G. E., & Dowler, M. G. (1988). *The effects of masking and shape disruptive patterns on the visual detection of ground parked aircraft* (Report No. AAMRL-TR-88-055). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B133684)

VI. MODELING & SIMULATION

- Rolek, E. P., & Snyder, D. E. (1988).** *Demonstration of improved survivability through the use of strategies against soviet sam crews* (Report No. AAMRL-TR-88-031). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. C956305)
- Rothey, J., Jones, M. W., Maute, K., Martinez, N., Krauskopf, P. J., Stump, W. J., Hardy, S., Harper, W., Meeks, L., & McDaniel, J. W. (1990).** *User's guide for CREW CHIEF: A computer graphics simulation of an aircraft maintenance Technician (Version 1.1 - CV CADDStation)* (Report No. AAMRL-TR-90-013). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory.
- Simons, J. C., Kirtland, W. H., Malmstrom, F. V., Normand, K. A., Perez, W. A., Taylor, T. G., & Kuperman, G. G. (1987).** *Strategic mission decomposition: I. Planning materials for advanced bomber simulation studies* (Report No. AAMRL-TR-87-016). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B112312)
- So, R. H. Y., & Griffin, M. J. (1993).** *Effects of lags on human performance with head-coupled simulators* (Report No. AL/CF-TR-1993-0101). Wright-Patterson AFB, OH: Armstrong Laboratory.
- Swierenga, S. J., Monk, D. L., & Brown, C. E. (1992).** Human performance data visualization for system design teams. *Proceedings of The IEEE 1992 National Aerospace and Electronics Conference: NAECON 1992*, 2, 675-680.
- Tumey, D. M., Morton, P. E., Ingle, D. F., Downey, C. W., & Schnurer, J. H. (1991).** Neural network classification of EEG using chaotic preprocessing and phase space reconstruction. *Proceedings of the IEEE 17th Annual Northeast Bioengineering Conference*, 51-52.
- Warren, R. (1992).** Fidelity issues in flight simulation, self-motion, and virtual reality displays. *Insight: The Visual Performance Technical Group Newsletter*, 14(September), 1,3.
- Warren, R. (1993).** Total visual scene information for flight. In E. Trautman (Ed.), *Vision Topics for Aviation: A new look at a traditional concern* (Report No. IST-DF-93-01 pp. 37-51). University of Central Florida, FL: Institute for Simulation and Training.
- Wellens, A. R., & Ergener, D. (1988).** The C.I.T.I.E.S. game: A computer-based situation assessment task for studying distributed decision making. *Simulation and Games*, 19, 304-327.
- Wellens, A. R., & McNeese, M. D. (1987).** A research agenda for the social psychology of intelligent machines. *Proceedings of The IEEE 1987 National Aerospace and Electronics Conference: NAECON 1987*, 3, 944-949.
- Whiteley, J. D., Lusk, S. L., & Middendorf, M. S. (1990).** The effects of simulator time delays on a sidestep landing maneuver: A preliminary investigation. *Proceedings of the Human Factors Society 34th Annual Meeting*, 2, 1538-1541.
- Whitestone, J. J. (1993).** Design and evaluation of helmet systems using 3D data. *Proceedings of the Human Factors Society 37th Annual Meeting*, 1, 64-68.
- Whitestone, J. J., & Robinette, K. M. (1992).** High resolution human body surface data for the design of protective equipment. *Second Pan-Pacific Conference on Occupational Ergonomics*, 240-247.
- Wilson, D. L., & Kuperman, G. G. (1988).** Strategic avionics battle-management evaluation & research/SABER. *Proceedings of The IEEE 1988 National Aerospace and Electronics Conference: NAECON 1988*, 3, 844-849.

- Wilson, D. L., Kuperman, G. G., & Faust, M. (1992). Psychovisual data for sensor performance modeling. *Proceedings of the Ground Target Modeling and Validation Conference*, 257-265.
- Wohl, J. G., & Tenney, R. R. (1987). *Integrated analysis techniques for command, control, and communications systems; Vol. I: Methodology* (Report No. AAMRL-TR-87-040). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A197126)
- Wohl, J. G., & Tenney, R. R. (1987). *Integrated analysis techniques for command, control, and communications systems; Vol. II: Applications* (Report No. AAMRL-TR-87-040). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A197126)
- Wolpert, L., Reardon, K. A., & Warren, R. (1989). The effect of changes in edge and flow rates on altitude control. In R. S. Jensen (Ed.), *Proceedings of the Fifth International Symposium on Aviation Psychology*, 2, 749-754.
- Zacharias, G. L., Miao, A. X., & Warren R. (1993). Multistage integration model for human egomotion perception. *Proceedings of the AIAA Flight Simulation Technologies Conference*, 103-113.

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- Bart, R. D., Dembeck, C. M., & Masak, J. R. (1987). *SCPS-M processing study -- phase II* (Report No. AAMRL-TR-87-057). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B118552)
- Dembeck, C. M., & Masak, J. R. (1987). *SCPS-M processing study* (Report No. AAMRL-TR-87-048). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B117565)
- Dembeck, C. M., Porter, C. D., & James, G. M. (1987). *Baseline analysis of SCPS-2 operations* (Report No. AAMRL-TR-87-056). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. B119349)
- Jensen, J. G., Brunswick, E. A., & Replogle, C. R. (1993). *Analysis of theater missile defense intercept altitude and kill requirements against chemical and biological agent-filled tactical ballistic missiles* (Report No. AL/CF-TR-1993-0104). Wright-Patterson AFB, OH: Armstrong Laboratory.
- Porter, C. D., Jensen, J. G., & Chevalier, J. R. (1987). *Air base attack: Liquid agent challenge assessment--single versus multiple chemical munitions* (Report No. AAMRL-TR-87-025). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. C041709)
- Ramirez, T. L., Morthland, S. P., Soergel, C. D., Allread, G., & James, G. M. (1987). *Pretreatment side effects data base development* (Report No. AAMRL-TR-87-006). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. C040555)
- Ramirez, T. L., Shew, R. L., Dembeck, C. M., Simons, J. C., Shogner, R. C., & James, G. M. (1987). *Seymour Johnson chemical warfare exercise field study and data analysis* (Report No. AAMRL-TR-87-003). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. C040556)
- Ross, J., & Ervin, C. A. (1987). *Chemical defense flight glove ensemble evaluation* (Report No. AAMRL-TR-87-047). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A118401)
- Shepherd, D. S., Middleton, V. E., & Masak, J. R. (1988). *Post-attack hazard monitoring systems analysis, phase I: Chemical detection, identification, and warning (CDIW) requirements* (Report No. AAMRL-TR-88-042). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. C043700)
- Wells, C. H., Collins, M. T., Vanderveer, D. E., & Replogle, C. R. (1992). *Standards for chemical and biological warfare hazard modeling. Volume I, Toxicity of nerve agents and mustard in humans* (Report No. AL-TR-1992-0071). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. C050548)
- Wells, C. H., Collins, M. T., Vanderveer, D. E., & Wells, W. (1993). *Standards for chemical and biological warfare hazard modeling volume 1: Toxicity of nerve agents and mustard in humans abridged edition* (Report No. AL-TR-1993-0026). Wright-Patterson AFB, OH: Armstrong Laboratory.
- Wells, C. H., Jensen, J. G., Collins, M. T., & Replogle, C. R. (1992). *Mask protection assessment* (Report No. AL-TR-1992-0166). Wright-Patterson AFB, OH: Armstrong Laboratory. (DTIC No. C959951)