

2

NBDL-90R005

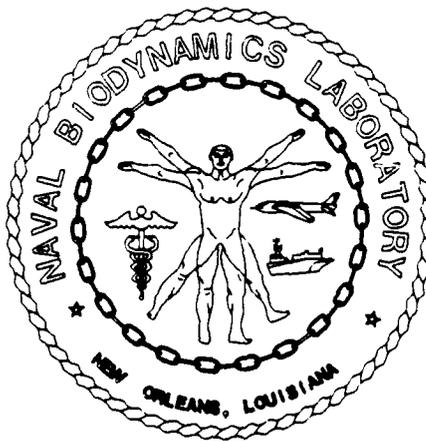
~~DTIC FILE COPY~~

AD-A229 030

**BIBLIOGRAPHY OF SCIENTIFIC PUBLICATIONS
OF THE NAVAL BIODYNAMICS LABORATORY: 1980-1990**

DTIC
S **ELECTE** **D**
NOV 15 1990
D CS

NAVAL BIODYNAMICS LABORATORY
Box 29407
NEW ORLEANS, LA 70189-0407



Approved for public release; distribution is unlimited.

Prepared for

Naval Medical Research and Development Command
Bethesda, MD 20889-5044

51

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 4 Sept 1990	3. REPORT TYPE AND DATES COVERED interim: 1 Jan 1980 - 31 Aug 1990	
4. TITLE AND SUBTITLE Bibliography of Scientific Publications of the Naval Biodynamics Laboratory: 1980 - 1990			5. FUNDING NUMBERS	
6. AUTHOR(S)				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Naval Biodynamics Laboratory 13800 Old Gentilly Road New Orleans LA 70189-0407			8. PERFORMING ORGANIZATION REPORT NUMBER NBDL-90R005	
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) Naval Medical Research and Development Command National Naval Medical Center Building 1, Tower 12 Bethesda, MD 20889-5044			10. SPONSORING / MONITORING AGENCY REPORT NUMBER	
11. SUPPLEMENTARY NOTES				
12a. DISTRIBUTION / AVAILABILITY STATEMENT Approved for public release; distribution is unlimited.			12b. DISTRIBUTION CODE	
13. ABSTRACT (Maximum 200 words) This report lists all research reports, special reports, monographs, technical memoranda, joint reports, research information bulletins, journal articles, and conference proceedings published by the Naval Biodynamics Laboratory between January 1980 and August 1990.				
14. SUBJECT TERMS Bibliography; impact acceleration; ship motion; motion sickness; evoked potentials; human factors (33) <i>JS</i>			15. NUMBER OF PAGES 27	
			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	

FOREWORD

The mission of the Naval Biodynamics Laboratory is to conduct biomedical research on the effects of mechanical forces encountered by Naval personnel in ships and aircraft (motion, vibration, and impact), to establish human tolerance limits to these forces, and to develop methods to protect against these stresses.

This report lists all research reports, special reports, monographs, technical memoranda, joint reports, research information bulletins, journal articles, and conference proceedings published by the Naval Biodynamics Laboratory during the calendar years 1980 through August 1990.

To obtain copies of literature having AD numbers, registered DTIC users may order from:

Defense Technical Information Center
 Cameron Station
 Alexandria, VA 22304
 (AUTOVON 284-7633, commercial 202-274-7633).

All others should order from:

National Technical Information Service
 Springfield VA 22161
 (703-487-4650, FAX 703-321-8547).

Requests for literature not having AD numbers may be addressed to:

Librarian
 Naval Biodynamics Laboratory
 P. O. Box 29407
 New Orleans LA 70189-0407.

Accession For	
NTIS CRA&I	<input checked="" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification:	
By	
Distribution /	
Availability Codes	
Dist	Avail and/or Special
A-1	

Douglas W. Call
 DOUGLAS W. CALL
 Captain, Medical Service Corps
 U.S. Navy
 Commanding Officer.



BIBLIOGRAPHY OF SCIENTIFIC PUBLICATIONS OF THE NAVAL BIODYNAMICS LABORATORY: 1980-1990

NAVBIODYNLAB PUBLICATIONS 1980

- Becker, E. B., "Cutting Pipe Intersections." *Machine Design*, pp. 133-134, April 1980.
- Becker, E. B., *Head and Neck Kinematics for Frontal Oblique and Lateral Crash Impact*, Report No. NBDL-80R009 (NTIS No. AD A131956), Naval Biodynamics Laboratory, New Orleans, LA, August 1980.
- Bittner, A. C., Jr. and Chatfield, D. C., "A Signal Detection Theory Function for Relating Sensitivity (d') to Standard and Comparison Magnitudes." *Proceedings of the Human-Machine Systems Symposium IEEE International Conference on Cybernetics and Society*, The Institute of Electrical and Electronics Engineers, Inc., New York, NY, pp. 978-984, October 1980.
- Bittner, A. C., Jr., Kennedy, R. S., and McCauley, M. E., "Time Estimation: Repeated Measures Testing and Drug Effects." *Proceedings of the Seventh Symposium Psychology in the Department of Defense, Department of Behavioral Sciences and Leadership, United States Air Force Academy, Colorado Springs, CO*, pp. 445-450, 1980.
- Carter, R. C., "Physiological and Performance Measurements: A Time-Series Model." *Preprints of 1980 Annual Scientific Meeting, Aerospace Medical Association, Washington, D.C.*, pp. 161-162, May 1980.
- Carter, R. C., *Visual Search with Color*, Monograph No. NBDL-M005 (NTIS No. AD A100351), Naval Biodynamics Laboratory, New Orleans, LA, October 1980.
- Carter, R. C., Kennedy, R. S., and Bittner, A. C., Jr., "Selection of Performance Evaluation Tests for Environmental Research." *Proceedings of the Human Factors Society 24th Annual Meeting, Human Factors Society, Inc., Santa Monica, CA*, pp. 320-324, 1980.
- Carter, R. C., Kennedy, R. S., Bittner, A. C., Jr., and Krause, M., "Item Recognition as a Performance Evaluation Test for Environmental Research." *Proceedings of the Human Factors Society 24th Annual Meeting, Human Factors Society, Inc., Santa Monica, CA*, pp. 340-344, 1980.
- Damos, D. L. and Smist, T. E., *Individual Differences in Dual-Task Performance*, Monograph No. NBDL-M006 (NTIS No. AD A099977), Naval Biodynamics Laboratory, New Orleans, LA, November 1980.
- Dixon, D. J., Copeland, M. G., and Halcomb, C. G., *Psychomotor Battery Approaches to Performance Prediction and Evaluation in Hyperbaric, Thermal and Vibratory Environments*, Monograph No. NBDL-M002 (NTIS No. AD A09981), Naval Biodynamics Laboratory, New Orleans, LA, October 1980.

BIBLIOGRAPHY OF SCIENTIFIC PUBLICATIONS

- Frisch, G. D. and D'Aulerio, L. A., "Bioman: An Improved Occupational-Crew Station Compliance Modeling System." *Aviation, Space, and Environmental Medicine*, Vol. 51, pp. 160-167, 1980.
- Frisch, G. D., D'Aulerio, L. A., and Schultz, M., "Crew Station Assessment Using the Bioman Modeling System." *AGARD Conference Proceedings No. 267*, North Atlantic Treaty Organization Advisory Group for Aerospace Research and Development, Neuilly-sur-Seine, France, pp. 24:1-16, 1980.
- Frisch, G. D., D'Aulerio, L. A., and Schultz, M., *Simulation of Emergency Egress from Aircraft Crew Stations*, Report No. NBDL-80R001 (NADC-80059-60), Naval Biodynamics Laboratory, New Orleans, LA, March 1980.
- Guignard, J. C., Bittner, A. C., Jr., Einbender, S. W., and Kennedy, R. S., "Performance Evaluation Tests for Environmental Research (PETER) Landolt C. Reading Test." *Proceedings of the Human Factors Society 24th Annual Meeting*, Human Factors Society, Inc., Santa Monica, CA, pp. 355-339, 1980.
- Guignard, J. C., Ewing, C. L., Willems, G. C., Anderson, W. R., Muzzy, W. H., III, Thomas, D. J., and Majewski, P. L., "A Method for Studying Human Biodynamic Responses to Whole-Body Z-Axis Vibration." *AGARD Conference Proceedings No. 267*, North Atlantic Treaty Organization Advisory Group for Aerospace Research and Development, Neuilly-sur-Seine, France, 9:1-7, 1980.
- Guignard, J. C., Majewski, P. L., and Muzzy, W. H., III, "Determining Thresholds of Human Response to Vibration Using Acceleration Sweeps at Constant Velocity." In D. J. Osborne and J. A. Levis (Eds.), *Human Factors in Transport Research*, Academic Press, New York, NY, Vol. 2, pp. 149-157, 1980.
- Harbeson, M. M., Krause, M., and Kennedy, R. S., "Comparison of Memory Tests for Environmental Research." *Proceedings of the Human Factors Society 24th Annual Meeting*, Human Factors Society, Inc., Santa Monica, CA, pp. 349-353, 1980.
- Jones, M. B., "Convergence-Divergence with Extended Practice: Three Applications." *Proceedings of the Human Factors Society 24th Annual Meeting*, Human Factors Society, Inc., Santa Monica, CA, pp. 359-362, 1980.
- Jones, M. B., *Stabilization and Task Definition in A Performance Test Battery*, Monograph No. NBDL-M001 (NTIS No. AD A099987), Naval Biodynamics Laboratory, New Orleans, LA, October 1980.
- Jones, M. B., Kennedy, R. S., and Bittner, A. C., Jr., "Video Games and Convergence or Divergence with Practice." *Proceedings of the Seventh Symposium Psychology in the Department of Defense*, Department of Behavioral Sciences and Leadership, United States Air Force Academy, Colorado Springs, CO, pp. 465-469, 1980.

THE NAVAL BIODYNAMICS LABORATORY: 1980-1990

- Kennedy, R. S., Bittner, A. C., Jr., and Jones, M. B., "The Utility of Commercially Available Television-Computer Games for Assessing Performance and Other Applications." *Preprints of 1980 Annual Scientific Meeting*, Aerospace Medical Association, Washington, D.C., pp. 163-164, 1980.
- Kennedy, R. S., Bittner, A. C., Jr., and Jones, M. B., "Video-Game and Conventional Tracking." *Perceptual and Motor Skills*, Vol. 53, p. 310, 1981.
- Kennedy, R. S., Carter, R. C., and Bittner, A. C., Jr., "A Catalogue of Performance Evaluation Tests for Environmental Research." *Proceedings of the Human Factors Society 24th Annual Meeting*, Human Factors Society, Inc., Santa Monica, CA, pp. 334-348, 1980.
- Kennedy, R. S., Jones, M. B., Harbeson, M. M., "Assessing Productivity and Well-Being in Navy Workplaces." *Human Factors Association of Canada 13th Annual Meeting Proceedings*, Human Factors Association of Canada, Ontario, Canada, pp. 108-113, 1980.
- Krause, M. and Kennedy, R. S., "Performance Evaluation Tests for Environmental Research (PETER): Interference Susceptibility Test (IST)." *Proceedings of the Seventh Symposium Psychology in the Department of Defense*, Department of Behavioral Sciences and Leadership, United States Air Force Academy, Colorado Springs, CO, pp. 459-464, 1980.
- Lustick, L. S., Williamson, G. H., Seemann, M. R., and Bartholomew, J. M., "Problems of Measurement in Human Analog Research." *Eighth International Workshop on Human Subjects for Biomechanical Research*, U. S. Department of Transportation, National Highway Traffic Safety Administration, Washington, D.C., 1980.
- McCafferty, D. B., Bittner, A. C., Jr., and Carter, R. C., "Performance Evaluation Tests for Environmental Research (PETER): Auditory Digit Span Task." *Proceedings of the Human Factors Society 24th Annual Meeting*, Human Factors Society, Inc., Santa Monica, CA, pp. 330-334, 1980.
- McCauley, M. E., Kennedy, R. S., and Bittner, A. C., Jr., "Development of a Performance Evaluation Test for Environmental Research (PETER): Time Estimation Test." *Perceptual and Motor Skills*, Vol. 51, pp. 655-665, 1980. Also published as Report No. NBDL-80R007 (NTIS No. AD A113948), Naval Biodynamics Laboratory, New Orleans, LA, December 1980.
- Pepper, R. L., Kennedy, R. S., Bittner, A. C., Jr., and Wiker, S. F., "Performance Evaluation Tests for Environmental Research (PETER): Code Substitution Test." *Proceedings of the Seventh Symposium Psychology in the Department of Defense*, Department of Behavioral Sciences and Leadership, United States Air Force Academy, Colorado Springs, CO, pp. 451-457, 1980.
- Sances, A., Jr., Weber, R., Myklebust, J. B., Cusick, J. F., Larson, S. J., Walsh, P. R., Christoffel, T., Houterman, C., Ewing, C. L., Thomas D. J., and Saltzberg, B., "The Evoked Potential: An Experimental Method for Biomechanical Analysis of Brain and Spinal Injury." *Proceedings of the 24th Stapp Car Crash Conference*, Society of Automotive Engineers, Warrendale, PA, pp. 63-100, 1980.

BIBLIOGRAPHY OF SCIENTIFIC PUBLICATIONS

- Seales, D. M., Kennedy, R. S., and Bittner, A. C., Jr., "Performance Evaluation Test for Environmental Research (PETER): Arithmetic Computation." *Perceptual and Motor Skills*, Vol. 51, pp. 1023-1031, 1980.
- Shannon, R. H., *Determination of Efficient Methods of Lift by Comparing Trained and Untrained Male and Female Lifters*, Monograph No. NBDL-M004 (NTIS No. AD A100349), Naval Biodynamics Laboratory, New Orleans, LA, October 1980.
- Shannon, R. H., "A Factor Analytic Approach to Determining Stability of Human Performance." *Human Factors Association of Canada 13th Annual Meeting Proceedings*, Human Factors Association of Canada, Ontario, Canada, pp. 114-116, 1980.
- Shannon, R. H., "Task Analytic Approach to Human Performance Battery Development." *Proceedings of the Human Factors Society 24th Annual Meeting*, Human Factors Society, Inc., Santa Monica, CA, pp. 354-358, 1980.
- Shannon, R. H., "The Utility of Task Analytic Techniques to Research in Unusual Environments." *Preprints of 1980 Annual Scientific Meeting*, Aerospace Medical Association, Washington, D.C., pp. 165-166, May 1980.
- Shannon, R. H., "The Validity of Task Analytic Information to Human Performance Research in Unusual Environments." *Proceedings of the Human Factors Society 24th Annual Meeting*, Human Factors Society, Inc., Santa Monica, CA, pp. 325-334, 1980.
- Thomas, D. J., Ewing, C. L., Majewski, P. L., and Gilbert, N. S., "Clinical Medical Effects of Head and Neck Response During Biodynamic Stress Experiments." *AGARD Conference Proceedings No. 267*, North Atlantic Treaty Organization Advisory Group for Aerospace Research and Development, Neuilly-sur-Seine, France, pp. 15:1-15, 1980.
- Tyburski, J. J., Frisch, G. D., and D'Aulerio, L. A., "Low Level, Adverse Attitude Escape Using a Vertical Seeking Ejection Seat." *AGARD Conference Proceedings No. 267*, North Atlantic Treaty Organization Advisory Group for Aerospace Research and Development, Neuilly-sur-Seine, France, 28:1-10, 1980.
- Wickens, C. D., Mountford, S. J., and Schreiner, W., *Task Dependent and Individual Differences in Dual Task Performance*, Monograph No. NBDL-M003 (NTIS No. AD A099986), Naval Biodynamics Laboratory, New Orleans, LA, October 1980.
- Willems, G. C., *Some Useful Filter Forms*, Report No. NBDL-80R005 (NTIS No. AD A100452), Naval Biodynamics Laboratory, New Orleans, LA, June 1980.

NAVBIODYNLAB PUBLICATIONS 1981

- Anderson, W. R. and Martin, R., "Design of a Digital Filter to Eliminate High Frequency Noise from Noncontiguous Film Coordinate Data." *Second International Symposium of Biomechanics, Cinematography, and High Speed Photography*, The International Society for Optical Engineering, San Diego, CA, Vol. 291, pp. 110-118, 1981.
- Bittner, A. C., Jr., "Use of Proportion-of-Base-Line Measures in Stress Research." In Gavriel Salvendy and M. J. Smith (Eds.), *Machine Pacing and Occupational Stress*, Taylor & Francis Ltd, London, pp. 177-183, 1981.
- Bittner, A. C., Jr. and Carter, R. C., *Repeated Measures of Human Performance: A Bag of Research Tools*, Report No. NBDL-81R001 (NTIS No. AD A113954), Naval Biodynamics Laboratory, New Orleans, LA, 1981.
- Bittner, A. C., Jr., Carter, R. C., and Krause, M., *Performance Tests for Repeated Measures: Moran and Computer Batteries*, Report No. NBDL-81R012 (NTIS No. AD A115068), Naval Biodynamics Laboratory, New Orleans, LA, November 1981.
- Bittner, A. C., Jr., Jones, M. B., Carter, R. C., Shannon, R. H., Chatfield, D. C., and Kennedy, R. S., *Statistical Issues in Performance Testing: Collected Papers*, Report No. NBDL-81R010 (NTIS No. AD A111086), Naval Biodynamics Laboratory, New Orleans, LA, September 1981.
- Carter, E. C. and Carter, R. C., "Color and Conspicuousness." *Journal of the Optical Society of America*, Vol. 71, pp. 729-732, June 1981.
- Carter, R. C., Kennedy, R. S., and Bittner, A. C., Jr., "Grammatical Reasoning: A Stable Performance Yardstick." *Human Factors*, Vol. 23, pp. 587-591, 1981.
- Damos, D. L., Kennedy, R. S., Bittner, A. C., Jr., and Harbeson, M. M., "Effects of Extended Practice on Dual Task Tracking Performance." *Human Factors*, Vol. 23, pp. 627-631, 1981.
- Frisch, G. D., "Mathematical Simulation of Adverse Attitude and High Speed Escape From Stricken Aircraft." *Sciences and Engineering Symposium*, Dayton, OH, Vol. 7, pp. 217-229, October 1981.
- Frisch, G. D., *Occupant Ejection Response Analysis of Front vs. Rear Crew Station in TF-18 Aircraft*, Report No. NBDL-81R004, Naval Biodynamics Laboratory, New Orleans, LA, 1981.
- Frisch, G. D., *Simulation of Emergency Egress from AV-8A and AV-8B Crew Stations*, Report No. NBDL-80R002 (NADC 81184-60), Naval Biodynamics Laboratory, New Orleans, LA, January 1981.

BIBLIOGRAPHY OF SCIENTIFIC PUBLICATIONS

- Frisch, G. D., "Simulation of Occupant-Crew Station Interaction During Impact." Report No. NBDL-81R005, Naval Biodynamics Laboratory, New Orleans, LA, 1981.
- Guignard, J. C., Bittner, A. C., Jr., and Carter, R. C., "Methodological Investigation of Vibration Effects on Performance of Three Tasks." *Proceedings of the Human Factors Society 25th Annual Meeting*, Human Factors Society, Inc., Santa Monica, CA, pp. 342-346, 1981.
- Jones, M. B., Kennedy, R. S., and Bittner, A. C., Jr., "A Video Game for Performance Testing." *American Journal of Psychology*, Vol. 94, pp. 143-152, 1981.
- Kennedy, R. S., Andrews, D. A., and Carter, R. C., "Performance Evaluation Tests for Environmental Research (PETER): A Microcomputer Game as a Memory Test." *Preprints of 1981 Annual Scientific Meeting*, Aerospace Medical Association, Washington, D.C., pp. 240-241, 1981.
- Kennedy, R. S., Bittner, A. C., Jr., Carter, R. C., Krause, M., Harbeson, M. M., McCafferty, D. B., Pepper, R. L., and Wiker, S. F., *Performance Evaluation Tests for Environmental Research (PETER): Collected Papers*, Report No. NBDL-80R008 (NTIS NO. AD A111296), Naval Biodynamics Laboratory, New Orleans, LA, July 1981.
- Kennedy, R. S., Bittner, A. C., Jr., Harbeson, M. M., and Jones, M. B., *Perspectives in Performance Evaluation Tests for Environmental Research: Collected Papers*, Report No. NBDL-80R004 (NTIS No. AD A111180), Naval Biodynamics Laboratory, New Orleans, LA, November 1981.
- Lustick, L. S. and Seemann, M. R., "Determination of Sensitivity to Error Sources and Target Configuration on Kinematic Variables Derived from Cinephotography." *Second International Symposium of Biomechanics, Cinematography, and High Speed Photography*, The International Society for Optical Engineering, San Diego, CA, Vol. 291, pp. 170-177, 1981.
- Lustick, L. S. and Williamson, G. H., "Editing of Cinephotographic Data." *Second International Symposium of Biomechanics, Cinematography, and High Speed Photography*, The International Society for Optical Engineering, San Diego, CA, Vol. 291, pp. 153-160, 1981.
- Mackaman, S. M., Bittner, A. C., Jr., Harbeson, M. M., Kennedy, R. S., and Stone, D. A., "Performance Evaluation Tests for Environmental Research (PETER): Wonderlic Personnel Inventory." *Psychological Reports*, Vol. 51, pp. 635-644, 1982.
- Muzzy, W. H., III, and Prell, A. M., "Targets for Three-Dimensional (3-D) Tracking of Human Impact Test Subjects." *Second International Symposium of Biomechanics, Cinematography, and High Speed Photography*, The International Society for Optical Engineering, San Diego, CA, Vol. 291, pp. 106-109, 1981.
- Muzzy, W. H., III, Prell, A. M., and Shimp, P. B., "Camera and Site Calibration for Three-Dimensional (3-D) Target Acquisition." *Second International Symposium of Biomechanics, Cinematography, and High Speed Photography*, The International Society for Optical Engineering, San Diego, CA, Vol. 291, pp. 161-169, 1981.

THE NAVAL BIODYNAMICS LABORATORY: 1980-1990

- Patsfall, M., *Implications of Dual-Task Performance Variables for Design of Generic Workstations: Literature Review*, Report No. NBDL-81R014 (NTIS No. AD A114421), Naval Biodynamics Laboratory, New Orleans, LA, November 1981.
- Sances, A., Jr., Myklebust, J. B., Cusick, J. F., Weber, R., Houterman, C., Larson, S. J., Walsh, P. R., Chilbert, M., Prieto, T., Saltzberg, B., Zyvolski, M., Thomas, D. J., and Ewing, C. L., "Experimental Studies of Brain and Neck Injury." *25th Stapp Car Crash Conference*, Society of Automotive Engineers, Warrendale, PA, pp. 149-194, 1981.
- Seales, D. M., Torkelson, R. D., Shuman, R. M., Rossiter, V. S., and Spencer, J. D., "Abnormal Brainstem Auditory Evoked Potentials and Neuropathology in 'Locked-in' Syndrome." *Neurology*, Vol. 31, No. 7, pp. 893-896, July 1981.
- Seemann, M. R. and Lustick, L. S., "Combination of Accelerometer and Photographically Derived Kinematic Variables Defining Three-Dimensional Rigid Body Motion." *Biomechanics Cinematography*, Vol. 291, pp. 133-140, 1981.
- Sekuler R., Tynan, P. D., and Kennedy, R. S., *Source Book of Temporal Factors Affecting Information Transfer from Visual Display*, Report No. NBDL-81R007, Naval Biodynamics Laboratory, New Orleans, LA, June 1981.
- Shannon, R. H. and Carter, R. C., "A Comparison of Tactical Naval Work Stations Within the Air and Sea Environments." *Preprints of 1981 Annual Scientific Meeting*, Aerospace Medical Association, Washington, D.C., pp. 238-239, 1981.
- Shannon, R. H. and Carter, R. C., *Task Analysis and the Ability Requirements of Tasks: Collected Papers*, Report No. NBDL-81R009 (NTIS No. AD A111181), Naval Biodynamics Laboratory, New Orleans, LA, September 1981.
- Wiker, S. F., Kennedy, R. S., and Pepper, R. L., "Performance Evaluation Tests for Environmental Research (PETER): Navigational Plotting Task." *Preprints of 1981 Annual Scientific Meeting*, Aerospace Medical Association, Washington, D.C., pp. 242-243, 1981.
- Willems, G. C. and Becker, E. B., "An Algorithm for Minimizing the Effect of Low Frequency Errors in Kinematic Variables Derived from Cinephotography." *Second International Symposium of Biomechanics, Cinematography, and High Speed Photography*, The International Society for Optical Engineering, San Diego, CA, Vol. 291, pp. 119-123, 1981.
- Willems, G. C., Muzzy, W. H., III, Anderson, W. R., and Becker, E. B., "Cinematography Data Systems at the Naval Biodynamics Laboratory." *Second International Symposium of Biomechanics, Cinematography, and High Speed Photography*, The International Society for Optical Engineering, San Diego, CA, Vol. 291, pp. 90-96, 1981.

BIBLIOGRAPHY OF SCIENTIFIC PUBLICATIONS

NAVBIODYNLAB PUBLICATIONS 1982

- Berger, M. D., *Analysis of Sensory Evoked Potentials Using Normalized Cross-Correlation Functions and Polyex Potential Regression*, Report No. NBDL-82R015 (NTIS No. AD A121726), Naval Biodynamics Laboratory, New Orleans, LA, July 1982.
- Bittner, A. C., Jr., "Averaged Correlations Between Parallel Measures: Reliability Estimation." *Proceedings Eighth Psychology in Department of Defense Symposium*, Colorado Springs, CO, pp. 77-79, 1982.
- Bittner, A. C., Jr., Carter, R. C., Krause, M., Kennedy, R. S., and Harbeson, M. M., "Performance Tests for Repeated Measures: Moran and Computer Batteries." *Proceedings of the Human Factors Society 26th Annual Meeting*, Human Factors Society, Inc., Santa Monica, CA, pp. 747-751, 1982.
- Bittner, A. C., Jr., Dunlap, W. P., and Jones, M. B., "Averaged Correlations with Differentially-Stable Variables: Fewer Subjects Required for Repeated Measures." *Proceedings of the Human Factors Society 26th Annual Meeting*, Human Factors Society, Inc., Santa Monica, CA, pp. 349-353, 1982.
- Bittner, A. C., Jr., Guignard, J. C., Woldstad, J. C., and Carter, R. C., "Vibration Effects on Digit Symbol Coding." *Proceedings, Eighth Psychology in Department of Defense Symposium*, Colorado Springs, CO, pp. 69-76, 1982.
- Bittner, A. C., Jr., Lundy, N. C., Kennedy, R. S., and Harbeson, M. M., "Performance Evaluation Tests for Environmental Research (PETER): Spoke Tasks." *Perceptual and Motor Skills*, Vol. 54, pp. 1319-1331, 1982.
- Carter, R. C., "A Design Tool for Color Displays." *Proceedings of the Human Factors Society 26th Annual Meeting*, Human Factors Society, Inc., Santa Monica, CA, pp. 589, 1982.
- Carter, R. C., "Search Time with a Color CRT: Analysis of Distribution Functions." *Human Factors*, Vol. 24, pp. 203-212, 1982.
- Carter, R. C., "Visual Search with Color." *Journal of Experimental Psychology, Human Perception and Performance*, Vol. 8, pp. 127-136, 1982.
- Carter, R. C. and Biersner, R. J., *U. S. Navy Enlisted Jobs: An Analysis*, Report No. NBDL-82R010 (NTIS No. AD A122410), Naval Biodynamics Laboratory, New Orleans, LA, September 1982.
- Carter, R. C. and Bittner, A. C., Jr., *Jackknife for Variance Analysis of Multifactor Experiments*, Report No. NBDL-82R013 (NTIS No. AD A121760), Naval Biodynamics Laboratory, New Orleans, LA, May 1982.
- Carter, R. C. and Carter, E. C., "High Contrast Sets of Colors." *Applied Optics*, Vol. 21, pp. 2936-2939, 1982.

THE NAVAL BIODYNAMICS LABORATORY: 1980-1990

- Carter, R. C., Patsfall, M., and Shannon, R. H., *A Job Analysis of the Aegis Combat Submodes*, Report No. NBDL-82R002 (NTIS No. AD A115030), Naval Biodynamics Laboratory, New Orleans, LA, January 1982.
- Carter, R. C. and Sbisà, H. E., *Human Performance Tests for Repeated Measurements; Alternate Forms of Eight Tests by Computer*, Report No. NBDL-82R003 (NTIS No. AD A115021), Naval Biodynamics Laboratory, New Orleans, LA, January 1982.
- Carter, R. C., Stone, D. A., and Bittner, A. C., Jr., "Repeated Measurements of Manual Dexterity: Applications and Support of the Two-Process Theory." *Ergonomics*, Vol. 25, pp. 829-838, 1982.
- Frisch, G. D. and D'Aulerio, L. A., "Instrumentation Requirements for Assessing Occupant Response to Three Dimensional High Acceleration Environments." *AGARD Conference Proceedings No. 322*, North Atlantic Treaty Organization Advisory Group for Aerospace Research and Development, Neuilly-sur-Seine, France, pp. 15:1-9, 1982.
- Guignard, J. C., Bittner, A. C., Jr., and Carter, R. C., "Methodological Investigation of Vibration Effects on Performance of Three Tasks." *Journal of Low Frequency Noise and Vibration*, Vol. 1, pp. 12-18, 1982.
- Harbeson, M. M., Kennedy, R. S., Krause, M., and Bittner, A. C., Jr., "Repeated Measures of Information Processing." *Proceedings of the Human Factors Society 26th Annual Meeting*, Human Factors Society, Inc., Santa Monica, CA, pp. 818-822, 1982.
- Harbeson, M. M., Krause, M., Kennedy, R. S., and Bittner, A. C., Jr., "The Stroop as a Performance Evaluation Test for Environmental Research." *Journal of Psychology*, Vol. 111, pp. 223-233, 1982.
- Kennedy, R. S., Bittner, A. C., Jr., Harbeson, M. M., and Jones, M. B., "Television Computer Games: A New Look in Performance Testing." *Aviation, Space, and Environmental Medicine*, Vol. 53, pp. 49-53, 1982.
- Krause, M., "Repeated Measures on a Choice Reaction Time Task." *Proceedings of the Human Factors Society 26th Annual Meeting*, Human Factors Society, Inc., Santa Monica, CA, pp. 359-363, 1982.
- Krause, M. and Bittner, A. C., Jr., *Repeated Measures on a Choice Reaction Time Task*, Report No. NBDL-82R006 (NTIS No. AD A121904), Naval Biodynamics Laboratory, New Orleans, LA, August 1982.
- Lustick, L. S. and Williamson, G. H., "Errors in Derived Kinematic Variables." *ISA Transactions*, Vol. 20, pp. 35-47, 1982.
- Lustick, L. S., Williamson, G. H., Seemann, M. R., and Bartholomew, J. M., *Problems of Measurement in Human Analog Research*, Report No. NBDL-82R012, Naval Biodynamics Laboratory, New Orleans, LA, May 1982.

BIBLIOGRAPHY OF SCIENTIFIC PUBLICATIONS

- Mackaman, S. M., Bittner, A. C., Jr., Harbeson, M. M., Kennedy, R. S., and Stone, D. A., "Performance Evaluation Tests for Environmental Research (PETER)." *Psychological Reports*, Vol. 51, pp. 635-644, 1982.
- Saltzberg, B., Burton, W. D., Jr., Burch, N. R., Ewing, C. L., Thomas, D. J., Weiss, M. S., Berger, M. D., Sances, A., Jr., Walsh, P. R., Myklebust, J. B., Larson, S. J., and Jessop, M. E., Jr., "Evoked Potential Studies of Central Nervous System Injury Due to Impact Acceleration." *AGARD Conference Proceedings No. 322*, North Atlantic Treaty Organization Advisory Group for Aerospace Research and Development, Neuilly-sur-Seine, France, pp. 16:1-11, 1982.
- Sances, A., Jr., Myklebust, J. B., Houterman, C., Weber, R., Lepkowski, J., Cusick, J. F., Larson, S. J., Ewing, C. L., Thomas, D. J., Weiss, M. S., Berger, M. D., Jessop, M. E., Jr., and Saltzberg, B., "Head and Spine Injuries." *AGARD Conference Proceedings No. 322*, North Atlantic Treaty Organization Advisory Group for Aerospace Research and Development, Neuilly-sur-Seine, France, pp. 13:1-34, 1982.
- Sances, A., Jr., Myklebust, J. B., Kostreva, D., Cusick, J. F., Weber, R., Houterman, C., Larson, S. J., Maiman, D. J., Walsh, P. R., Chilbert, M., Unterharnscheidt, F. J., Ewing, C. L., Thomas, D. J., Seigesmund, K., Ho, K., and Saltzberg, B., "Pathophysiology of Cervical Injuries." *26th Stapp Car Crash Conference*, Society of Automotive Engineers, Warrendale, pp. 41-70, 1982.
- Shannon, R. H., *Biomechanical Analysis of Manual Material Handling Techniques*, Research Report No. NBDL-82R001 (NTIS No. AD A113955), Naval Biodynamics Laboratory, New Orleans, LA, February 1982.
- Shannon, R. H., *Translation of Functional Tasks of a Navy Workstation to Structured Job Analysis*, Report No. NBDL-82R007 (NTIS No. AD A119620), Naval Biodynamics Laboratory, New Orleans, LA, March 1982.
- Shannon, R. H., Krause, M., and Irons, R. C., *Attributes of a Simulated Flight Scenario Microcomputer Test*, Report No. NBDL-82R004 (NTIS No. AD A115676), Naval Biodynamics Laboratory, New Orleans, LA, January 1982. Also published as "Attribute Requirements for a Simulated Flight Scenario Microcomputer Test" in *Proceedings of the Human Factors Society 26th Annual Meeting*, Human Factors Society, Inc., Santa Monica, CA, pp. 959-963, 1982.
- Unterharnscheidt, F. J., "Neuropathology of the Rhesus Monkey Undergoing $-G_x$ Impact Acceleration." *AGARD Conference Proceedings No. 322*, North Atlantic Treaty Organization Advisory Group for Aerospace Research and Development, Neuilly-sur-Seine, France, pp. 17:1-34, 1982.
- Weiss, M. S. and Berger, M. D., "Neurophysiological Effects of $-X$ Impact Acceleration." *AGARD Conference Proceedings No. 322*, North Atlantic Treaty Organization Advisory Group for Aerospace Research and Development, Neuilly-sur-Seine, France, pp. 14:1-7, 1982.

THE NAVAL BIODYNAMICS LABORATORY: 1980-1990

Willems, G. C., Muzzy, W. H., III, and Lustick, L. S., *Cinematographic Data Systems at the Naval Biodynamics Laboratory: Collected Papers*, Report No. NBDL-82R011, Naval Biodynamics Laboratory, New Orleans, LA, May 1982.

Woldstad, J. C., Bittner, A. C., Jr., and Guignard, J. C., "A Methodological Investigation of Subject Input/Output Related Error During Vibration." *Proceedings of the Human Factors Society 26th Annual Meeting*, Human Factors Society, Inc., Santa Monica, CA, pp. 533-537, 1982.

BIBLIOGRAPHY OF SCIENTIFIC PUBLICATIONS

NAVBIODYNLAB PUBLICATIONS 1983

- Berger, M. D., "Analysis of Sensory Evoked Potential Using Normalized Cross-Correlation Functions." *Medical and Biological Engineering and Computing*, Vol. 21, pp. 149-157, 1983.
- Berger, M. D., *A High-Performance Analog-to-Digital Subsystem Suitable for the Study of Evoked Potentials. With Design Considerations for the Eclipse S140™ Computer*, Report No. NBDL-83R001 (NTIS No. AD A130353), Naval Biodynamics Laboratory, New Orleans, LA, February 1983.
- Berger, M. D. and Weiss, M. S., "Effects of Impact Acceleration on Somatosensory Evoked Potential." In C. L. Ewing, D. J. Thomas, A. Sances, Jr., and S. J. Larson (Eds.), *Impact Injury of the Head and Spine*, Charles C. Thomas, Springfield, IL, pp. 324-378, 1983.
- Berger, M. D. and Weiss, M. S., *Effects of Impact Acceleration on Somatosensory Evoked Potentials*, Report No. NBDL-83R002 (NTIS No. AD A130380), Naval Biodynamics Laboratory, New Orleans, LA, April 1983.
- Bittner, A. C., Jr., Carter, R. C., Krause, M., Kennedy, R. S., and Harbeson, M. M., "Performance Evaluation Tests for Environmental Research (PETER): Moran and Computer Batteries." *Aviation, Space, and Environmental Medicine*, Vol. 54, pp. 923-928, October 1983.
- Bittner, A. C., Jr., Guignard, J. C., Woldstad, J. C., and Carter, R. C., "Vibration Effects on Digit Symbol Coding." *Journal of Low Frequency Noise and Vibration*, Vol. 2, pp. 169-175, 1983.
- Bittner, A. C., Jr., Shortal, J. P., III, and Harbeson, M. M., *Effects of Head Impact Acceleration on Human Performance: Overview and Preliminary Battery Identification*, Report No. NBDL-83R004 (NTIS No. AD A130286), Naval Biodynamics Laboratory, New Orleans, LA, May 1983.
- Carter, R.C, and Carter, E. C., "CIE $L^*u^*v^*$ Equations for Self-Luminous Display." *Color Research and Applications*, Vol. 8, pp. 252-253, 1983.
- Carter, R. C. and Krause, M., *Reliability of Slope Scores for Individuals*, Report No. NBDL-83R003 (NTIS No. AD A130252), Naval Biodynamics Laboratory, New Orleans, LA, April 1983.
- Damos, D. L., Smist, T. E., and Bittner, A. C., Jr., "Individual Differences in Multiple-Task Performance as a Function of Response Strategy." *Human Factors*, Vol. 25, pp. 215-226, 1983.
- Dunlap, W. P., Jones, M. B., and Bittner, A. C., Jr., "Averaged Correlations vs Correlated Averages." *Bulletin of the Psychonomic Society*, Vol. 21, pp. 213-216, 1983.

THE NAVAL BIODYNAMICS LABORATORY: 1980-1990

- Ewing, C. L., Thomas, D. J., Sances, A. Jr., and Larson, S. J. (Eds.), *Impact Injury of the Head and Spine*. Charles C. Thomas, Springfield, IL, 1983.
- Frisch, G. D., "Simulation of Occupant-Crew Station Interaction During Impact." In C. L. Ewing, D. J. Thomas, A. Sances, Jr., and S. J. Larson (Eds.), *Impact Injury of the Head and Spine*, Charles C. Thomas, Springfield, IL, pp. 485-535, 1983.
- Ginsburg, A. P., Bittner, A. C., Jr., Kennedy, R. S., and Harbeson, M. M., "A Methodological Investigation of Three Psychophysical Techniques for Rapid Measurement of Contrast Sensitivity." *Proceedings of the Human Factors Society 27th Annual Meeting*, Human Factors Society, Inc., Santa Monica, CA, Vol. 1., pp. 264-268, 1983.
- Guignard, J. C., Bittner, A. C., Jr., and Harbeson, M. M., *Current Research at the Naval Biodynamics Laboratory on Human Whole Body Motion and Vibration*, Research Report No. NBDL-83R008 (NTIS No. AD A138367), Naval Biodynamics Laboratory, New Orleans, LA, July 1983.
- Harbeson, M. M., Bittner, A. C., Jr., Kennedy, R. S., Carter, R. C., and Krause, M., "Performance Evaluation Tests for Environmental Research (PETER): Bibliography." *Perceptual and Motor Skills*, Vol. 57, pp. 283-293, 1983.
- Krause, M. and Woldstad, J. C., *Massed Practice: Does it Change the Statistical Properties of Performance Tests?* Research Report No. NBDL-83R005 (NTIS No. AD A139338), Naval Biodynamics Laboratory, New Orleans, LA, June 1983.
- Muzzy, W. H., III, *Ship Motion Generator Upgrade Study*, Report No. NBDL-83R012 (NTIS No. AD A138368), Naval Biodynamics Laboratory, New Orleans, LA, September 1983.
- Myklebust, J. B., Sances, A., Jr., Maiman, D. J., Pintar, F., Chilbert, M., Rauschnig, W., Larson, S. J., Cusick, J. F., Ewing, C. L., and Thomas, D. J., "Experimental Spinal Trauma Studies in the Human and Monkey Cadaver." *Proceedings of the 27th Annual Stapp Car Crash Conference*, Society of Automotive Engineers, Warrendale, PA, 149-160, 1983.
- Saltzberg, B., Burton, W. D., Jr., Weiss, M. S., Berger, M. D., Ewing, C. L., Thomas, D. J., Jessop, M. E., Jr., Sances, A., Jr., Larson, S. J., Walsh, P. R., and Myklebust, J. B., "Dynamic Tracking on Evoked Potential Changes in Studies of Central Nervous System Injury Due to Impact Acceleration." In C. L. Ewing, D. J. Thomas, A. Sances, Jr., and S. J. Larson (Eds.), *Impact Injury of the Head and Spine*, Charles C. Thomas, Springfield, IL, pp. 310-323, 1983.
- Seemann, M. R., *Error in CALSPAN™ 3-Dimensional Crash Vehicle Simulation Computer Program for the Case of Massless Segments*, Report No. NBDL-83R013 (NTIS No. AD A141783), Naval Biodynamics Laboratory, New Orleans, LA, December 1983.
- Smith, M. G., Krause, M., Kennedy, R. S., Bittner, A. C., Jr., and Harbeson, M. M., "Performance Testing with Microprocessors: Mechanization Is Not Implementation." *Proceedings of the Human Factors Society 27th Annual Meeting*, Human Factors Society, Inc., Santa Monica, CA, Vol. 2, pp. 674-678, 1983.

BIBLIOGRAPHY OF SCIENTIFIC PUBLICATIONS

- Thomas, D. J. and Jessop M. E., Jr., "Experimental Head and Neck Injury." In C. L. Ewing, D. J. Thomas, A. Sances, Jr., and S. J. Larson (Eds.), *Impact Injury of the Head and Spine*, Charles C. Thomas, Springfield, IL, pp. 177-217, 1983.
- Unterharnscheidt, F. J., "Neuropathology of Rhesus Monkeys Subjected to $-G_x$ Impact Acceleration." In C. L. Ewing, D. J. Thomas, A. Sances, Jr., and S. J. Larson (Eds.), *Impact Injury of the Head and Spine*, Charles C. Thomas, Springfield, IL, pp. 94-176, 1983.
- Unterharnscheidt, F. J., "Traumatic Alterations in the Rhesus Monkey Undergoing $-G_x$ Impact Acceleration." *Neurotraumatology: Proceedings of the 6th Meeting of the Japanese Society of Neurotraumatology*, Nihon Shinkei Gaisho Kenkyukai, Tokyo, Japan, Vol. 6, pp. 151-167, 1983.
- Walsh, P. R. and Jessop, M. E., Jr., "The Evoked Potential in Sled Impact Acceleration: Methodologic and Neurosurgical Considerations." In C. L. Ewing, D. J. Thomas, A. Sances, Jr., and S. J. Larson (Eds.), *Impact Injury of the Head and Spine*, Charles C. Thomas, Springfield, IL, pp. 231-285, 1983.
- Weiss, M. S. and Berger, M. D., "Neurophysiological Effects of $-X$ Impact Acceleration." *Aviation, Space, and Environmental Medicine*, Vol. 54, pp. 1023-1027, November 1983.
- Wiker, S. F., Kennedy, R. S., and Pepper, R. L., "Performance Evaluation Tests for Environmental Research (PETER): Navigational Plotting Task." *Aviation, Space, and Environmental Medicine*, Vol. 54, pp. 144-149, 1983.
- Willems, G. C., *A Detailed Evaluation of the Endevco Model 7302™ Angular Accelerometer*, Report No. NBDL-83R009 (NTIS No. AD A134882), Naval Biodynamics Laboratory, New Orleans, LA, August 1983.

NAVBIODYNLAB PUBLICATIONS 1984

- Anderson, W. R., Willems, G. C., and Guignard, J. C., "Analysis of Head Motion During Simulated, Rough Water Operation of a 2200 Ton Surface Effect Ship." *AGARD Conference Proceedings No. 372*, North Atlantic Treaty Organization Advisory Group for Aerospace Research and Development, Neuilly-sur-Seine, France, pp. 38:1-14, 1984.
- Bittner, A. C., Jr., Carter, R. C., Kennedy, R. S., Harbeson, M. M., and Krause, M., "Performance Evaluation Tests for Environmental Research (PETER): The Good, Bad, and Ugly." *Proceedings of the Human Factors Society 28th Annual Meeting*, Human Factors Society, Inc., Santa Monica, CA, Vol. 1, pp. 11-15, 1984.
- Bittner, A. C., Jr., Carter, R. C., Kennedy, R. S., Harbeson, M. M., and Krause, M., *Performance Evaluation Tests for Environmental Research (PETER): Evaluation of 112 Tasks*, Report No. NBDL-84R006 (NTIS No. AD A152317), Naval Biodynamics Laboratory, New Orleans, LA, September 1984.
- Bittner, A. C., Jr. and Moroney, W. F., "Estimation of Comprehensive Anthropometric Data from Limited Information." *Proceedings of the Human Factors Society 28th Annual Meeting*, Human Factors Society, Inc., Santa Monica, CA, Vol. 1, pp. 176-178, 1984.
- Bowman, B. M., Schneider, L. W., Lustick, L. S., Anderson, W. R., and Thomas, D. J., "Simulation Analysis of Head and Neck Dynamic Response." *28th Stapp Car Crash Conference*, Society of Automotive Engineers, Warrendale, PA, pp. 173-206, 1984.
- Carter, R. C., "Time Series Models of Human Factors Dynamic." *Human Factors*, Vol. 26, pp. 83-95, 1984.
- Damos, D. L., Bittner, A. C., Jr., Kennedy, R. S., Harbeson, M. M., and Krause, M., "Performance Evaluation Tests for Environmental Research (PETER): Critical Tracking Test." *Perceptual and Motor Skills*, Vol. 58, pp. 567-573, 1984.
- Francis, D. A., *General Plot Subroutine Package for the Hewlett Packard 54514 C Fourier Analyzer*, Report No. NBDL-84R008 (NTIS No. AD A157127), Naval Biodynamics Laboratory, New Orleans, LA, December 1984.
- Frisch, G. D., "Manikin Response Requirements for Safety Equipment Testing." *Proceedings of the 37th Annual Conference on Engineering in Medicine and Biology*, The Alliance for Engineering in Medicine and Biology, Bethesda, MD, p. 293, 1984.
- Guignard, J. C. and Thomas, D. J., *Toward Standard Biodynamic Coordinate Systems*, Report No. NBDL-84R005, Naval Biodynamics Laboratory, New Orleans, LA, 1984.
- Jones, M. B., Dunlap, W. P., and Bilodeau, I. McD., "Factors Appearing Late in Practice." *Organizational Behavior and Human Performance*, Vol. 33, pp. 153-173, 1984.

BIBLIOGRAPHY OF SCIENTIFIC PUBLICATIONS

- Kennedy, R. S., Frank, L. H., McCauley, M. E., Bittner, A. C., Jr., Root, R. W., and Binks, T. A., "Simulator Sickness: Reaction to a Transformed Perceptual World, VI. Preliminary Site Surveys." *AGARD Conference Proceedings No. 372*, North Atlantic Treaty Organization Advisory Group for Aerospace Research and Development, Neuilly-sur-Seine, France, pp. 34:1-11, 1984.
- Kilgore, P. D. and Gottbrath, J. H., *Photodigitizing Procedures*, Report No. NBDL-84R002 (NTIS No. AD A143589), Naval Biodynamics Laboratory, New Orleans, LA, February 1984.
- Lambert, J. J., *A Method of Photo Data Reduction, with Design Considerations for the Nova 800™ and Univac 1100/83™ Computers*, Report No. NBDL-84R001 (NTIS No. AD A144537), Naval Biodynamics Laboratory, New Orleans, LA, January 1984.
- Muzzy, W. H., III, Lustick, L. S., Anderson, W. R., and Willems, G. C., "Human vs Manikin Head and Neck Response to +Gz Acceleration." *Proceedings of the 37th Annual Conference on Engineering in Medicine and Biology*, The Alliance for Engineering in Medicine and Biology, Bethesda, MD, p. 294, 1984.
- Sances, A., Jr., Myklebust, J. B., Maiman, D. J., Larson, S. J., Cusick, J. F., and Jodat, R. W., "The Biomechanics of Spinal Injuries." *CRC Critical Review of Bioengineering*, 11:1-76, 1984.
- Seemann, M. R., Lustick, L. S., and Frisch, G. D., "Mechanisms of Control of Head and Neck Dynamic Response." *28th Annual Stapp Car Crash Conference*, Society of Automotive Engineers, Warrendale, PA, pp 207-222, 1984.
- Tabler, R. E., *Nicolet Med-804™ Programs in the Naval Biodynamics Laboratory Evoked Potential Series*, Report No. NBDL-84R007 (NTIS No. AD A147105), Naval Biodynamics Laboratory, New Orleans, LA, August 1984.
- Thomas, D. J. and Jessop, M. E., Jr., "Experimental Head and Neck Injuries from Inertial Forces." *Proceedings of the 37th Annual Conference on Engineering, Medicine and Biology*, The Alliance for Engineering in Medicine and Biology, Bethesda, MD, p. 291, 1984.
- Weiss, M. S., *Kolmogorov-Smirnov Goodness-of-Fit Test: Corrected for use with "EEG-Like" Data*, Report No. NBDL-84R003 (NTIS No. AD A144711), Naval Biodynamics Laboratory, New Orleans, LA, April 1984.

NAVBIODYNLAB PUBLICATIONS 1985

- Bittner, A. C., Jr. and Guignard, J. C., "Engineering Principles for Minimization of Adverse Ship Motion Effects: Theory and Practice." *The Naval Engineers Journal*, Vol. 97, No. 4, pp. 205-213, May 1985.
- Bittner, A. C., Jr., Smith, M. G., Kennedy, R. S., Staley, C. F., and Harbeson, M. M., "Automated Portable Test (APT) System: Overview and Prospect." *Behavior Research Methods, Instruments, and Computers*, Vol. 17, pp. 217-221, 1985.
- Carter, R. C. and Woldstad, J. C., "Repeated Measurements of Spatial Ability with the Manikin Test: Change and Stability of Skill Across Time and Task." *Human Factors*, Vol. 27, pp. 209-219, 1985.
- Dunlap, W. P., Silver, N. C., Hunter, R. E., and Bittner, A. C., Jr., "Averaged Cross-Correlations: A Method for Validity Assessment in Small Sample." In R. Eberts and C. G. Eberts (Eds.), *Trends in Ergonomics/Human Factors*, Vol. 2, Elsevier Science Publishers, Amsterdam, the Netherlands, pp. 13-21, 1985.
- Irons, R. C. and Rose, P. V., "Naval Biodynamics Laboratory Computerized Cognitive Testing." *Neurobehavioral Toxicology and Teratology*, Vol. 7, pp. 395-397, 1985.
- Matson, D. L., "Impact Acceleration and the Effects of Heart Rate of Short-Latency Somatosensory Evoked Potentials." *Psychophysiology*, Vol. 22, p. 603, October 1985.
- Pepper, R. L., Kennedy, R. S., Bittner, A. C., Jr., Wiker, S. F., and Harbeson, M. M., "Performance Evaluation Tests for Environmental Research (PETER): Code Substitution Test." *Perceptual and Motor Skills*, Vol. 61, pp. 735-745, 1985.
- Pollack, J. G., *Motion Comparison Between a SWATH and a Monohull*. Report No. NBDL-85R001 (NTIS No. AD A164882), Naval Biodynamics Laboratory, New Orleans, LA, February 1985.
- Seales, D. M., Bittner, A. C., Jr., Weiss, M. S., and Morrill, S. N., "Short-Latency" Somatosensory Evoked Potentials During Experimentally Induced Biodynamic Stress in Humans. Research Report No. NBDL-85R002, Naval Biodynamics Laboratory, New Orleans, LA, December 1985.

BIBLIOGRAPHY OF SCIENTIFIC PUBLICATIONS

NAVBIODYNLAB PUBLICATIONS 1986

- Biersner, R. J. and Davis, P. O., "Needed: Chemical Warfare Defense Doctrine." *U. S. Naval Institute Proceedings*, Vol. 112, pp. 116-120, 1986.
- Biersner, R. J. and von Gierke, H. E., *DOD Biomechanical Research*, Report No. NBDL-86R005 (NTIS No. AD A168199), Naval Biodynamics Laboratory, New Orleans, LA, May 1986.
- Bittner, A. C., Jr., Carter, R. C., Kennedy, R. S., Harbeson, M. M., and Krause, M., "Performance Evaluation Tests for Environmental Research (PETER): Evaluation of 114 Measures." *Perceptual and Motor Skills*, Vol. 63, pp. 683-708, 1986.
- Bittner, A. C., Jr., and Damos, D. L., *Demonstration of a Statistical Method for Isolating Time-sharing Components*, Report No. NBDL-86R001 (NTIS No. AD A165417), Naval Biodynamics Laboratory, New Orleans, LA, January 1986.
- Bittner, A. C., Jr. and Guignard, J. C., *Motion Sickness Evaluations in an At-Sea Environment: Seakeeping Trials of a USCG Cutter (WMEC 901)*, Report No. NBDL-86R002, Naval Biodynamics Laboratory, New Orleans, LA, 1986.
- Carter, R. C., Krause, M., and Harbeson, M. M., "Beware of the Reliability of Slope Scores for Individuals." *Human Factors*, Vol. 28, pp. 673-683, 1986.
- Cullen, J. K., Jr., Rampp, R. D., May, J. G., and Dobie, T. G., "Measures of Auditory Evoked Potentials During Optokinetic Stimulation." *Aviation, Space, and Environmental Medicine*, Vol. 58, pp. 129-132, February 1986.
- Dunlap, W. P., Silver, N. C., and Bittner, A. C., Jr., "Estimating Reliability with Small Samples: Increased Precision with Averaged Correlations." *Human Factors*, Vol. 28, pp. 685-690, 1986.
- Matson, D. L., "Evoked Potential Indices for Predicting Motion Sickness Susceptibility." *Psychophysiology*, Vol. 23, pp. 450-451, 1986.
- Matson, D. L., *Impact Injury and Evoked Potentials: I - Somatosensory Evoked Potentials in Humans*, Research Report No. NBDL-86R003 (NTIS No. AD A175836), Naval Biodynamics Laboratory, New Orleans, LA, January 1986.
- Muzzy, W. H., III, Seemann, M. R., Willems, G. C., Lustick, L. S., and Bittner, A. C., Jr., "The Effects of Mass Distribution Parameters on Head/Neck Dynamic Response." *Thirtieth Annual Stapp Car Crash Conference Proceedings*, Society of Automotive Engineers, Warrendale, PA, pp. 167-183, 1986.
- Seemann, M. R., Muzzy, W. H., III, and Lustick, L. S., "Comparison of Hybrid III Head and Neck Dynamic Response." *Thirtieth Annual Stapp Car Crash Conference Proceedings*, Society of Automotive Engineers, Warrendale, PA, pp. 291-311, 1986.

THE NAVAL BIODYNAMICS LABORATORY: 1980-1990

- Thomley, K. E., Kennedy, R. S., and Bittner, A. G., Jr., "Development of Postural Equilibrium Tests for Examining Simulator Aftereffect." *Perceptual and Motor Skills*, Vol. 63, pp. 555-564, 1986.
- Trautman, E., Pollack, J. G., and Gilreath, P., *Task and Environmental Considerations for Laboratory Simulation of the Dead Reckoning Tracer Crew Station*, Report No. NPRDC-F50-TN86-2, Navy Personnel Research and Development Center, San Diego, CA, February 1986.
- Trautman, E., Pollack, J. G., and Webb, S. C., *Task and Environmental Considerations for Ship Motion Simulation in the FFG 7*, HFOSL Technical Note No. 71-86-13, Human Factors and Organizational Systems Laboratory, Navy Personnel Research and Development Center, San Diego, CA, June 1986. (Distribution to authorized U. S. Government agencies only.)
- Wamsley, B. W., Bittner, A. C., Jr., Gilbert, N. S., and Lustick, L. S., *Dynamic Variable Temporary Injury Correlation for Human and Neck Impact Experiments*, Report No. NBDL-86R007, Naval Biodynamics Laboratory, New Orleans, LA, 1986.
- Weiss, M. S., "Testing Correlated 'EEG-Like' Data for Normality Using a Modified Kolmogorov-Smirnov Statistic." *IEEE Transactions on Biomedical Engineering*, New York, NY, Vol. 33, pp. 1114-1120, 1986.
- Weiss, M. S. and Lustick, L. S., *Guidelines for Safe Human Experimental Exposure to Impact Acceleration*, Report No. NBDL-86R006 (NTIS No. AD A169347), Naval Biodynamics Laboratory, New Orleans, LA, April 1986.
- Wilson, K. P. and Pollack, J. G., "Effect of Vertical Heave Motion on Cognitive Performance." *Proceedings of the Tenth Symposium Psychology in the Department of Defense*, Department of Behavioral Sciences and Leadership, United States Air Force Academy, Colorado Springs, CO, pp. 344-348, 1986.
- Wilson, K. P., Pollack, J. G., and Wallick, M. T., "The Effects of Ship Motion on Human Performance: An Update." *ANSE Symposium - 1986: Destroyer, Cruiser and Frigate Technology*, American Society of Naval Engineers, Alexandria, VA, pp. 347-395, 1986.

BIBLIOGRAPHY OF SCIENTIFIC PUBLICATIONS

NAVBIODYNLAB PUBLICATIONS 1987

- Biersner, R. J., "Emotional and Physiological Effects of Nitrous Oxide and Hyperbaric Air Narcosis." *Aviation, Space, and Environmental Medicine*, Vol. 58, pp. 34-38, 1987.
- Carter, R. C. and Biersner, R. J., "Job Requirements Derived from P. A. Q. Validated Using Medical Aptitude Test Scores." *Journal of Occupational Psychology*, Vol. 60, pp. 11-321, 1987.
- Cullen, J. K., Rampp, R. D., May, J. G., and Dobie, T. G., "Measures of Auditory Evoked Potentials During Optokinetic Stimulation." *Aviation, Space, and Environmental Medicine*, Vol. 58, pp. A129-A132, 1987.
- Dobie, T. G., May, J. G., Fisher, W. D., Elder, S. T., and Kubitz, K. A., "A Comparison of Two Methods of Training Resistance to Visually-Induced Motion Sickness." *Aviation, Space, and Environmental Medicine*, Vol. 58, pp. A34-A41, September 1987.
- Harbeson, M. M., *Bibliography of NBDL Publications*, Report No. 87R001 (NTIS No. AD A180126), Naval Biodynamics Laboratory, New Orleans, LA, January 1987.
- Jones, M. B., Dunlap, W. P., and Bilodeau, I. McD., "Comparison of Video Game and Conventional Test Performance." *Stimulation and Games*, Vol. 4, pp. 435-446, 1987.
- Muzzy, W. H., III, "Summary of Current Research In Head Injury Mechanisms at the Naval Biodynamics Laboratory." *Symposium on Head Injury Mechanisms*, American Association for Automotive Medicine, Des Plaines, IL, pp. 96-99, 1987.
- Weiss, M. S., "Scope of Current Biomechanics Research." *Injury Biomechanics*, Society of Automotive Engineers, Warrendale, PA, pp. 31-35, 1987.

THE NAVAL BIODYNAMICS LABORATORY: 1980-1990

NAVBIODYNLAB PUBLICATIONS 1988

- Anthropometry and Mass Distribution for Human Analogues, Vol. 1: Military Male Aviators.* Report No. NBDL-87R003, Naval Biodynamics Laboratory, New Orleans, LA, March 1988.
- Gilbert, N. S., Mawn, S. V., Guccione, S. J., Jr., and Bolin, F. E., *Fabrication and Application of a Standardized T1/T2 Mount*, Report No. NBDL-88R001, Naval Biodynamics Laboratory, New Orleans, LA, December 1988.
- Guignard, J. C., "Aspects of Consensus Standards Development in Biodynamics." In F. Aghazadeh (Ed.), *Trends in Ergonomics/Human Factors V*, Elsevier Science Publishers, Amsterdam, the Netherlands, pp. 495-503, 1988.
- Matson, D. L. and Weiss, M. S., "Evoked Potential Analysis of Impact Acceleration Experiments." *AGARD Conference Proceedings No. 432*, North Atlantic Treaty Organization Advisory Group for Aerospace Research and Development, Neuilly-sur-Seine, France, pp. 28:1-13, 1988.
- Watkins, T. A. and Guccione, S. J., Jr., "A Statistical Approach to Human Kinematics Response to Impact." *International Workshop on Human Subjects for Biomechanical Research (Sixteenth Annual Meeting)*, Society of Automotive Engineers, Warrendale, PA, pp. 209-227, 1988.
- Weiss, M. S. and Lustick, L. S., "Safe Human Experimental Exposure to Impact." *International Workshop on Human Subjects for Biomechanical Research (Sixteenth Annual Meeting)*, U. S. Department of Transportation, National Highway Traffic Safety Administration, Washington, D.C., pp. 135-164, 1988.

BIBLIOGRAPHY OF SCIENTIFIC PUBLICATIONS

NAVBIODYNLAB PUBLICATIONS 1989

- Dobie, T. G., "Teaching the Right Stuff — The Heart of the Matter." *Aviation, Space, and Environmental Medicine*, pp. 195-196, February, 1989.
- Dobie, T. G., May, J. G., Dunlap, W. P., and Anderson, M. E., "Reduction of Visually-Induced Motion Sickness Elicited by Change in Illumination Wavelength." *Aviation, Space, and Environmental Medicine*, Vol. 60, pp. 749-754, August 1989.
- Dobie, T. G., May, J. G., Fisher, W. D., and Bologna, M. S., "An Evaluation of Two Main Elements of Cognitive-Behavioral Therapy as a Method of Training Resistance to Visually-Induced Motion Sickness." *Aviation, Space, and Environmental Medicine*, Vol. 60, pp. 307-314, April 1989.
- Grunsten, R. C., Gilbert, N. S., and Mawn, S. V., "The Mechanical Effects of Impact Acceleration on the Unconstrained Human Head and Neck Complex." *Contemporary Orthopaedics*, Vol. 18, No. 2, pp. 199-202, February 1989.
- Hirsch, A. E., Shiabani, S. J., Nguyen, T. T., Willems, G. C., and Muzzy, W. H., III, *Response of Seated and Standing Manikin During Shock Trials on U. S. S. MOBILE BAY (CG53) and U. S. S. ROOSEVELT (CVN71)*, Report No. NBDL-89R005 (NTIS No. AD A212586), Naval Biodynamics Laboratory, New Orleans, LA, May 1989.
- Muzzy, W. H., III, and Prell, A. M., *Photo Reference Target Array Scheme*, Report No. NBDL-89R004 (NTIS No. AD A210963), Naval Biodynamics Laboratory, New Orleans, LA, 1989.
- Watkins, T. A. and Guccione, S. J., Jr., "A Consistent Statistical Model for Human Kinematic Response to Impact Acceleration." *Seventeenth Annual International Workshop on Human Subjects for Biomechanical Research*, Society of Automotive Engineers, Warrendale, PA, pp. 117-132, 1989.
- Weiss, M. S., "Testing EEG Data for Statistical Normality." *Proceeding of the 11th Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, The Institute of Electrical and Electronics Engineers, Ind., New York, NY, pp. 704-705, 1989.
- Weiss, M. S., Matson, D. L., and Mawn, S. V., *Guidelines for Safe Human Exposure to Impact Acceleration: Update A*, Report No. NBDL-89R003, Naval Biodynamics Laboratory, New Orleans, LA., 1989.
- Willems, G. C., *Closing the Loop — or Can the Ship Motion Simulator Simulate Ship Motion?* Report No. NBDL-89R007, Naval Biodynamics Laboratory, New Orleans, LA, 1989.

THE NAVAL BIODYNAMICS LABORATORY: 1980-1990

NAVBIODYNLAB PUBLICATIONS 1990

- Dobie, T. G. and May, J. G., "Generalization of Tolerance to Motion Environments." *Aviation, Space, and Environmental Medicine*, Vol. 61, pp. 707-711, August 1990.
- Dobie, T. G. and May, J. G., "Motion Sickness Prevention: A Course of Instruction in Cognitive-Behavioral Counseling." *Proceedings of the Twelfth Symposium Psychology in the Department of Defense, Department of Behavioral Sciences and Leadership, United States Air Force Academy, Colorado Springs, CO*, pp. 87-91, 1990.
- Dobie, T. G., May, J. G., Gutierrez, C., and Scott, S., "The Transfer of Adaptation Between Actual and Simulated Rotary Stimulation." *Aviation, Space, and Environmental Medicine* Vol. 61, pp. 1085-1091, December 1990.
- Guignard, J. C. and McCauley, M. E., "The Accelerative Stimulus for Motion Sickness." In George H. Crampton (Ed.), *Motion and Space Sickness*, CRC Press, Inc., Boca Raton, FL, pp. 123-152, 1990.
- Weiss, M. S., Guccione, S. J., Jr., and Watkins, T. A., "A Kinematic/Dynamic Model for Prediction of Neck Injury During Impact Acceleration." *AGARD Conference Proceedings No. 471*, North Atlantic Treaty Organization Advisory Group for Aerospace Research and Development, Neuilly-sur-Seine, France, pp. 11:1-6, 1990.