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PRESENT POSITION

Director, The George Washington University Institute of Crisis, Disaster, and Risk Management; an interdisciplinary institute engaged in research, education, and professional development.

Professor, Department of Engineering Management and Systems Engineering, School of Engineering and Applied Science, The George Washington University, Washington, D.C

Co-Founder, The George Washington University Aviation Institute, a center for aviation safety and security training and research

Program Director, Crisis, Emergency and Risk Management graduate curriculum, School of Engineering and Applied Science, GW University

Immediate Past President, The International Emergency Management Society (TIEMS), an international society of researchers and practitioners in crisis and emergency management

Editor, *The Journal of Homeland Security and Emergency Management* (JHSEM). An electronic journal established May 1, 2003, published by Berkeley Press.

Associate Editor, *The International Journal of Emergency Management* (IJEM). An international journal published by Inderscience Enterprises LTD.

Member Disaster Roundtable Steering Committee, National Research Council

Member, National Research Council Computer Science and Telecommunications Board, Committee on Information Technology in Disaster Management

EDUCATION

1982 Ph.D. Rensselaer Polytechnic Institute (Management Science)
1978 M.S. Massachusetts Institute of Technology (Alfred P. Sloan Fellow)
1973 M.B.A. Rensselaer Polytechnic Institute
1969 M.A.L.S. Wesleyan University, Physical Science (ABD in Physics)
1964 B.S. U.S. Coast Guard Academy, Engineering

PRIOR REGULAR ACADEMIC APPOINTMENTS

- 1988-2000 Associate Director: National Ports and Waterways Institute, A joint research institute of The Louisiana State and George Washington Universities
- 1989-1993 Associate Professor of Engineering Management, School of Engineering and Applied Science; The George Washington University
- 1988-1989 Acting Director, Administrative Sciences Program, Graduate School of Arts and Sciences, The George Washington University.
- 1986-1989 Associate Professor of Administrative Sciences and Academic Advisor for Management Information Systems Program; Graduate School of Arts and Sciences, The George Washington University
- 1969-1972 Assistant Professor, Department of Physical and Ocean Sciences, U.S. Coast Guard Academy

OTHER ACADEMIC APPOINTMENTS AND POSITIONS

- 1988--1995 Visiting Professorial Lecturer, Graduate Program in Maritime Administration, Maine Maritime Academy, Castine, ME
- 1983-1986 Associate Professorial Lecturer (adjunct faculty), Center for Technology and Public Policy, American University

PRIOR WORK EXPERIENCE--U.S. COAST GUARD

- 1984-1986 Chief, Personnel Systems Division, U.S. Coast Guard, Washington, D.C. (Captain, USCG)
- 1981-1984 Chief, Training Design and Evaluation Branch, Training and Education Division, U.S. Coast Guard, Washington, D.C.
- 1978-1981 Commanding Officer, USCG Group Long Island Sound and Captain of the Port of New Haven (CDR, USCG)
- 1973-1978 Chief, Program Staff, Marine Environmental Protection Division, U.S. Coast Guard, Wash. D.C. (LCDR, USCG)
- 1964-1972 Operational Assignments, U.S. Coast Guard

MEMBERSHIP IN PROFESSIONAL SOCIETIES

- TIEMS (The International Emergency Management Society)—Past President and Director
- SRA (Society for Risk Analysis)
- ASEM (The American Society of Engineering Management)
- INFORMS (Institute For Operations Research and the Management Sciences)
- EERI (Earthquake Engineering Research Institute)

PRIOR BOARDS, PANELS, AND COMMITTEES

- Director, Disaster Recovery Institute
- Member, National Institute of Building Sciences, Project Oversight Committee, National Earthquake Loss Methodology Study (HAZUS)
- Director, National Institute of Urban Search and Rescue
- Member, Secretary of Transportation Morgan Educational Roundtable
- Member, Transportation Research Board Ports and Waterways Committee
- Chair, TIEMS'98, the Fifth Annual Conference of The International Emergency Management Society
- Member, 1999 International Oil Spill Conference Program Committee

- Member, National Academy of Public Administration Advisory Panel to the U.S. Department of Transportation on the National Transportation Policy.
- Member, Marine Board, National Research Council, Workshop of Oil Pollution Research and Development
- Member, Advisory Committee on Research And Development and Spill Response Systems, Marine Spill Response Corporation
- Member, Advisory Committee, American Red Cross Northern California Earthquake Preparedness and Planning Project

Publications in refereed journals

1. Harrald, J.R.. 2005. "Sea Trade and Security: An Assessment of the Post 9-11 Reaction". *Journal of International Affairs*. Fall/Winter 2005. Volume 59, Number 1. pp. 157-178.
2. Harrald, J.R. 2006. "Agility and Discipline: Critical Success Factors for Disaster Response". *Annals, American Academy of Political and Social Sciences*. Spring 2006
3. Shaw, Greg L. and John R. Harrald, 2006. "The Core Competencies Required of Executive Level Business Crisis and Community Managers - the Results" *Journal of Homeland Security and Emergency Management*, Vol.3, Issue 1.
4. Merrick, J. R. W., and J. Harrald. "[Making Decisions about Safety in US Ports and Waterways.](#)" *Interfaces*, in press.
5. Merrick, J. R. W., M. Grabowski, P. Ayalamayajula and J. Harrald. 2005 "[Understanding Organizational Safety Using Value Focused Thinking.](#)" *Risk Analysis*, Vol. 25, No. 4, pp. 1029-1041, 2005.
6. Harrald, J.R., H.W. Stephens, and J.R. van Dorp. 2004. "Developing a Framework for Economically Sustainable Port Security. *Journal of Homeland Security and Emergency Management* , Vol 1, Issue 2
7. Shaw, G.S and J.R. Harrald. 2003 "Identification of the Core Competencies Required of Executive Level Business Crisis and Continuity Managers" *Journal of Homeland Security and Emergency Management*, Vol. 1., No. 1
8. Merrick, J.R.W., J.R. van Dorp, J.P. Blackford, G.L. Shaw, J.R. Harrald, and T.A. Mazzuchi. 2003. "A Traffic Density Analysis of Proposed Ferry Service Expansion in San Francisco Bay Using a Maritime Simulation Model". *Reliability Engineering and System Safety*.
9. Guidotti, T.L, J.R. Harrald, and J.A Barbera. 2003. "The Rationale for Cross Training in Emergency Management and Public Health. *Journal of Emergency Management*. Vol 1 No. 1. pp 62-64.
10. Grabowski, J. Merrick, J., J.R. Van Dorp, J. Harrald, J. Spahn, and M. Grabowski 2002. "Prince William Sound Risk Assessment. *Interfaces*. Vol 32. No. 6. pp. 25-40
11. Al-Momani, Nail M. and John R. Harrald. 2003 "An analysis of the sensitivity of earthquake loss estimation" *The International Journal of Risk Assessment and Management*. Vol. 4. No. 1. pp. 1-19.
12. Merrick, J. J.R. Van Dorp, J. Harrald, J. Spahn and M. Grabowski. 2000 "A Systems Approach to Managing Oil Transportation Risk in Prince William Sound." *Systems Engineering*, Vol 3. pp 128-142
13. Grabowski, M. J. Merrick, J.R. Van Dorp, and J. Harrald. 2000 "Risk Modeling in Distributed, Large Scale Systems. *IEEE Transactions in Systems, Man, and Cybernetics—Part A: Systems and Humans*. Vol. 30, no. 6 pp 651-660.
14. Van Dorp, J.R., J. Merrick, J. Harrald, T. Mazzuchi, and M. Grabowski. 2000. "A Risk Management Procedure for the Washington State Ferries. *Journal of Risk Analysis*. Vol 21, No. 1, pp. 127-142

15. Cohn, R. K.M. Carley, J.R. Harrald, and W.A. Wallace. 2000. "Emotions in crisis management: an analysis of the organizational response to two natural disasters." *International Journal of Technology Management*. Vol 19, No 3/4/5. pp.313-335.
16. Harrald, J.R. and Y.J Lee. 1999. Critical Issues for Business Area Impact analysis in Business Crisis Management. *Disaster Prevention and Management* pp. 184-199.
17. Harrald, J.R. and T. Mazzuchi, J. Merrick, J. Spahn, and R. Van Dorp. 1998. "Using System Simulation to Model the Impact of Human Error". *Safety Science* 30, pp. 235-247.
18. Carley, Kathleen M., and J.R. Harrald 1997. "Organizational Learning under Fire: Theory and Practice" *American Behavioral Scientist*, Vol 40. No.3. pp. 310-332
19. Harrald, J.R., 1995, " Keys to Crisis Management", *Proceedings of the Marine Safety Council*, May—June pp. 87-91.
20. Harrald, J.R. and T. Mazzuchi "Planning for Success: A Scenario Based Approach to Contingency Planning Using Expert Judgment" 1993. *Journal of Contingencies and Crisis Management* 1:4. pp. 189-198
21. Carley, Kathleen and J.R. Harrald. 1992. "The Hurricane Andrew Response: Comparing Practice, Plan and Theory. *Natural Hazard Observer* XVII:2 pp 1-3
22. Harrald, J.R. and W.A. Wallace. 1992. "We Were Always Reorganizing..Some Crisis Management Implications of the Exxon Valdez Spill". *Industrial and Environmental Crisis Quarterly*, 6:3 pp. 197-217
23. Belardo, S. and J.R. Harrald. 1992. "A Framework for the Application of Group Decision Support Systems to the Problem of Planning for Catastrophic Events" *IEEE Transactions on Engineering Management*. 38:4 pp. 400-411
24. Harrald, J.R., H.S. Marcus, and W.A. Wallace. 1990. "The Exxon Valdez: An Assessment of Crisis Prevention and Management Systems. *Interfaces* 20:5 pp. 14-20
25. Harrald, J.R. 1990 "Contingency Planning: Building the Infrastructure for Crisis Decision Making" *International Journal of Mass Emergencies and Disasters* 8. pp. 137-150.
26. Al-Awadi, M.A. and J.R. Harrald. 1989 "A Political Model using Influence Diagrams and the Analytic Hierarchy Process" *Socio Economic Planning Sciences*, 23:3. pp. 145-159.
27. Harrald, J.R. and W.A. Wallace. 1988. "An Analytic Approach to Planning the Response to Technological Disasters" *Industrial Crisis Quarterly* 2. pp. 257-270
28. Belardo, S. Harrald, J.R., Wallace, W.A. and Ward, J., 1984. "A Partial Covering Model Approach to Siting Response Resources for Major Maritime Oil Spills. *Management Science*. 30:10, pp.1184-1196.
29. Harrald, J.R., Leotta, J. Wallace, W.A., and Wendell, R.E., 1978. "A Note on the Limitations of Goal Programming as Observed in Resource Allocation for Marine Environmental Protection". *Naval Logistics Quarterly*. Vol. 25., No. 4.
30. Charnes, A. W.W. Cooper, J.R. Harrald, W.A. Wallace, 1976. "A Goal Interval Programming Model for Resource Allocation in a Marine Environmental Protection Program" *Journal of Environmental Economics and Management* 3. pp. 347-362.
31. Baisuck, A., Harrald, J.R., Leotta, J. And W.A. Wallace. 1974. "A Management Information System for Marine Environmental Protection", *Management Science Newsletter*, Vol 1., No. 1.
32. Harrald, J.R.. 2005. "Sea Trade and Security: An Assessment of the Post 9-11 Reaction". *Journal of International Affairs*. Fall/Winter 2005. Volume 59, Number 1. pp. 157-178. (invited paper)
33. Harrald, J.R. 2006. "Agility and Discipline: Critical Success Factors for Disaster Response". *Annals, American Academy of Political and Social Sciences*. Spring 2006 (invited paper)

Books, Book Chapters, and Monographs

1. J. Harrald, J. Barbera, I.R. Tanali, D. Coppola, G.L.Shaw, "Response Actions to the Attack on the Pentagon", in I.R. Tenali, C.B. Rubin, 2005 *Managing Change through Post Event Evaluations*. Corinthian Publications, Boston, MA., pp 267-282

2. Hugh W. Stephens and J.R. Harrald. 2001. "From Texas City to Exxon Valdez: What have we learned about managing disasters" *Crisis and Emergency Management*. M. Farazmand, Marcel Dekker. Pp. 231-244.
3. Harrald, J.R., T.A. Mazzuchi, J. Merrick, J. Spahn, and R. Van Dorp. "Prince William Sound Risk Assessment: System Risk Analysis by Simulation and Expert Judgment" *Risk Management in the Marine Transportation System*. Transportation Research Board, National Research Council. 1999. pp. 65-72.
4. Harrald, J.R. and G.L. Shaw. (Editors). 1998. *Disaster and Emergency Management: International Challenges for the Next Decade*. Proceedings of the Fifth Annual Conference of The International Emergency Management Society. Washington, D.C. 660 pp.
5. Grabowski, M.R., J.R. Harrald and K. H. Roberts. 1997. "Decision Support and Organizational Forms in a High Velocity Environment: Responses to Catastrophic Oil Spills". *Advances in Expert Systems for Management*. M.R. Grabowski and W.A. Wallace, Editors. JAI Press, Greenwich, CT. pp. 71-94.
6. Walker, A., J. Harrald, and D. Ducey. 1995. *Implementing an Effective Response Management System*, American Petroleum Institute. Washington, D.C. 101pp.

Selected Research Reports

1. Harrald, J.R., Barbera, J., Renda-Tanali, I., Coppola, D., and Shaw, G. July 2002. *Observing the Organizational Response to the Attack on the Pentagon*. NSF Project Report.
2. Harrald, J.R., T.A. Mazzuchi, M. Grabowski. *Evaluating Maritime Risk: The Development of a Vessel Risk Model for Puget Sound and the Straits of Juan de Fuca*. National Ports and Waterways Report. July 1993. *and Documenting the Inter-Organizational Response to the Attack on the Pentagon*, NSF Report, 50 pp. Report can be viewed at: http://www.seas.gwu.edu/~icdm/nsf_9_11.htm
3. Harrald, J.R., I. Renda-Tanali, and J.B. Perkins. March, 2002. *The Collection, Synthesis, and Quality Assessment of Data Describing the Response to Human Needs Following the 1999 Turkey Earthquakes*. National Science Foundation Research Report.
4. Perkins, J.B., J.R. Harrald, K. Mikulis, C. Kramer, I. Renda-Tanali, 2000. *Preventing the Nightmare—Post Earthquake Housing Issue Papers*. Association of Bay Area Governments. 80pp.
5. Perkins, J.B., Harrald, J.R. and Renda-Tanali, I, 1999 *Kocaeli and Duzce Earthquakes: Lessons for Local Governments on Hazard Mitigation Strategies and Human Needs Response Planning*. Association of Bay Area Governments, Oakland, CA, Publication Number: P02001EQK, March 2002, 12 pp.
6. Harrald, J.R., M. Grabowski, R. Van Dorp, J. Merrick, T. Mazzuchi. July 1999. *Final Report. Washington State Ferries Risk Assessment Project*. GWU Research Report.
7. Harrald, J.R. and J. Merrick, Jan 1999. Feb. 1999. Final Report: *Developing a Tool for Assessing the Requirements for Vessel Traffic Systems In U.S. Ports*. GWU Research Report .
8. Harrald, J.R. and M. Grabowski, Nov. 1998. *Washington State Ferry Risk Assessment Project Status Report*. GWU Research Report
9. Harrald, J.R. 1996 *Final Report: Crisis Management Needs and Information Management Requirements for the International Federation of Red Cross and Red Crescent Societies*.
10. Harrald, J.R., M. Grabowski, T. Mazzuchi, E. Saebø. 1996. *Final Report: Prince William Sound Risk Assessment*. GWU Research Report.
11. Harrald, J.R. 1996. *A Waterways Risk Analysis Guide for the US Coast Guard*. GWU Research Report
12. Harrald, J.R. 1996. *Marine Safety Criteria for an International Tug of Opportunity System*. GWU Research Report.

13. Harrald, J.R. 1996. *Preventing Oil Spills by Evaluating, Monitoring, and Managing Port and Waterway Risk*. U.S. Coast Guard 1994 Oil Pollution Research Grants. Volpe Transportation Systems Center. pp. 145-222.
14. Perkins, J., and J.R. Harrald. 1996. *Shaken Awake: Estimates of Uninhabitable Dwelling Units and Peak Shelter Populations in Future Earthquakes affecting the San Francisco Bay Area*. Association of Bay Area Governments. 160 pp.
15. Harrald, J.R. and S. Fernandes, *Defining the Safety and Environmental Component for the Argentine Port Modernization Program*. The Inter American Development Bank, 51 pp.
16. Harrald, J.R. , T. Mazzuchi, M. Grabowski, J. Spahn. 1995. *Evaluating and Monitoring Risk in the Lower Mississippi River*. (Phase I and Phase II reports) LSU Ports and Waterways Institute Research Report
17. Harrald, J.R., R. Scotti, D. Jeong, and M. Abchee. 1994. *Analysis of the American Red Cross Staffing for the Hurricane Andrew and Hurricane Iniki Disaster Relief Operations*. GWU Research Report.
18. Harrald, J.R., T. Mazzuchi, and M. Grabowski. 1994. *The Development of a Vessel Risk Model for Puget Sound and the Strait of Juan de Fuca*. LSU Ports and Waterways Institute Research Report.
19. Harrald, J.R., R. Scotti, D. Jeong, and M. Abchee. *Analysis of the American Red Cross Staffing for the Hurricane Andrew and Hurricane Iniki Disaster Relief Operations*. George Washington University Research Report. April 1994.
20. Carley, K, and J.R. Harrald. *Organizing for Response: Comparing Practice, Plan and Theory*. Quick Response Grant Report 23-92 Natural Hazards Research and Application Center. University of Colorado. June 1993.
21. Harrald, J.R. *Scenario Building: Organization and Task Analysis for Coast Guard On Scene Coordinator Training*. George Washington University Research Report. March 1993.
22. Harrald, J.R., B. Fouladi, and S. Al-Hajj. *Estimates for Demand for Mass Care Services In Future Earthquakes Affecting the San Francisco Bay Region*. George Washington University Research Report. June 1992.
23. Harrald, J.R., C. Stone, V. Bagal, and S. Al-Hajj. *Final Report: Second International Marine Safety Workshop*. George Washington University Research Report. January 1992.
24. Harrald, J.R. *Planning and Organizing for the Response to a Spill of National Significance*. George Washington University Research Report. July 1991.
25. Harrald, J.R., M. Abchee, H. Alharthi, and D. Boukari. *The Development of a Methodology for American Red Cross Staffing of a Disaster Under the Federal Response Plan*. George Washington University Research Report. July 1991.
26. Harrald, J.R., M. Abchee, and H. Alharthi. *A Study of the Requirements for and American Red Cross Disaster Welfare Information System for a Catastrophic Disaster*. George Washington University Research Report. June 1991.
27. Harrald, J.R., B. Muskovitz, R. Salem, V. Bagal, and K. Harrald. *Final Report: International Marine Safety Workshop*. George Washington University Research Report. May 1991.
28. Harrald, J.R., T. Scholarios, S. Cho, M. Abchee, and H. Alharthi, *Analysis of Narrative Reports for Hurricane Hugo and the Loma Prieta Earthquake*, George Washington University Research Report. June 1990.
29. Harrald, J.R., M. Abchee, S. Cho, and D. Boukari, *Development of a Planning Methodology for Red Cross Catastrophic Earthquake Response*, George Washington University Research Report. June 1990.
30. Harrald, J.R., M. Abchee, S. Cho, and D. Boukari, *An Analysis of the American National Red Cross Staffing for the Hurricane Hugo and the Loma Prieta Earthquake Disaster Relief Operations*. George Washington University Research Report. March 1990.

31. Harrald, J.R., D. Boukari, S. Desai, and A. Harrison, *The Development of Decision Support Systems for American Red Cross Disaster Services*. George Washington University Research Report. June 1989.
32. Harrald, J.R. and S. Cho. *Maritime Safety and Marine Environmental Protection: An annotated Bibliography in the Areas of Tanker Structure and Design, Navigation Safety, and Contingency Planning*. August 1989.
33. Harrald, J.R., *The Design and Development of Knowledge Based Decision Support Systems for the American Red Cross*, George Washington University Research Report. July 1988.
34. Harrald, J.R., Kochis, P. and Ferstl, J. *Common Technical Training in the Federal Aviation Administration and U.S. Coast Guard*, U.S. Department of Transportation, Summer 1983.
35. Harrald, J.R. and Johnson, Q., "Training Issue Paper", *U.S. Coast Guard Roles and Missions Study*, U.S. Department of Transportation, March 1982.
36. Harrald, J.R. and Leotta, J., *Marine Environmental Protection Program: An analysis of Mission Performance*, Department of Transportation, National Technical Information Service August 1975.
37. Harrald, J.R., *A Comprehensive Program Evaluation of the U.S. Coast Guard Marine Environmental Protection Program*, U.S. Coast Guard, February 1974.

Articles published in Conference Proceedings or Periodicals

1. Harrald, J.R., and D. Taha. 2003. "Corporate Strategic Planning and the September 11, 2001 Attacks. *Proceedings, 10th Annual Conference of The Emergency Management Society (TIEMS)*, Sophia-Antipoles, France. pp. 75-81.
2. Harrald, J.R., D. Coppola, and S. Yeletaysi, "Assessing the Financial Impacts of the World Trade Center Attacks on Publicly Held Corporations." *Proceedings, 10th Annual Conference of The Emergency Management Society (TIEMS)*, Sophia-Antipoles, France. pp.64-74.
3. Harrald, J.R., I. Renda-Tanali, and D. Coppola. 2002. "Observing and Documenting the Inter Organizational Response to the September 11 Attack on the Pentagon. *Proceedings, 9th Annual Conference of The International Emergency Management Society (TIEMS)*, Waterloo, Canada. pp. 32-43.
4. Harrald, J.R., I. Renda-Tanali, and J.B. Perkins. March, 2002. "The Collection, Synthesis, and Quality Assessment of Data Describing the Response to Human Needs Following the 1999 Turkey Earthquakes" . *Proceedings, 9th Annual Conference of The International Emergency Management Society (TIEMS)*, Waterloo, Canada.
5. Harrald, J.R. 2001. "Are we prepared to deal with the unintended crisis and emergency management consequences of eco-tourism." *Proceedings, TIEMS 2001*. Oslo, Norway.
6. Harrald, J.R. 2001. The Development of a Crisis, Emergency, and Risk Management Enabling Technology Center. *Proceedings, TIEMS 2001*. Oslo, Norway.
7. Merrick, J., J.R. Van Dorp, J. R. Harrald, T. Mazzuchi, and J. Spahn, 2001 "Modeling Risk in the Dynamic Environment of Maritime Transportation." *Proceedings of the 2001 Winter Simulation Conference*.
8. Harrald, J.R. and J. Merrick. 2000. "Development of A Decision Support Tool for Assessing Vessel Traffic Management Requirements for U.S. Ports. *Proceedings, 7th Annual Conference Emergency Management Society*. Orlando, FL. pp. 165-174
9. Harrald, J.R. 1999. "Training for Tomorrow". *United Nations International Decade for Natural Disaster Reduction*. Geneva, Switzerland. pp.239-241
10. Harrald, J.R. R. Van Dorp, J. Merrick, T. Mazzuchi, and M. Grabowski. 1999. "Assessing Risk in the Washington State Ferry System." *Proceedings, TIEMS 1999*. Delft, Netherlands. pp. 427-437.
11. Grabowski, M.R., J.R. Harrald, and K.H. Roberts. 1998. "Decision Support and Organizational Forms in a High Velocity Environment: Responses to Catastrophic Oil Spills" *Advances in Expert Systems for Management*, Vol. 2. JAI Press. Pp. 71-94.

12. Harrald, J.R. 1998. "A Strategic Framework for Corporate Crisis Management" *Proceedings, Fifth Annual Conference of The Emergency Management Society*. Washington, D.C. pp. 389-398.
13. Harrald, J.R. and Linda Stoddart. 1998. "Scenario Based Identification and Structuring of Information Needs for the Response to Complex International Crises" *Proceedings, Fifth Annual Conference of The Emergency Management Society*. Washington, D.C. pp. 295-306.
14. Harrald, J.R. and T. Mazzuchi, J. Merrick, J. Spahn, and R. Van Dorp. 1997. "Using System Simulation to Model the Impact of Human Error". *Proceedings, Fourth International Emergency Management Society Conference*. Copenhagen, DN
15. Harrald, J.R. and T. Mazzuchi, J. Merrick, J. Spahn, and R. Van Dorp. 1997. "Hidden Assumptions and Misleading Data: Accounting for Human Error in A Maritime Risk Assessment." *Proceedings, Maritime Hoperations: The Human Element Conference*. Washington, D.C.
16. Harrald, J.R. and T. Mazzuchi, J. Merrick, J. Spahn, and R. Van Dorp. 1997. "System Simulation: A Risk Management Tool for Prince William Sound". *Proceedings, 1997 International Oil Spill Conference*. Ft. Lauderdale, Florida. pp 545-550
17. Harrald, J.R. and F. Abordaif. "Evaluating Oil Spill Contingency and Prevention Plans Using Measures of Quality" *Proceedings, 1995 International Oil Spill Conference*. Long Beach, CA. American Petroleum Institute. pp. 37-44.
18. Harrald, J.R., and W. Money "Using a Group Support System to Re-Engineer the Disaster Damage Assessment Process." *Proceedings, 1995 International Emergency Management and Engineering Conference*. Nice France. pp. 437-442.
19. Harrald, J.R. and F. Abordaif. "The Identification of Factors Leading to the Failure of Disaster Contingency Plans." *Proceedings, International Conference on Prevention, Response, and Oversight*. March, 1994. Anchorage, AK.
20. Harrald, J.R., S. Al-Hajj, and B. Fouladi. "Estimating the Demand for Sheltering and Feeding in Future Earthquakes Affecting the San Francisco Bay Region". *Proceedings: TIEMEC 1994*. Hollywood Beach, Florida. pp. 261-268.
21. Harrald, J.R., and T. Mazzuchi. 1994. "Group Decision Support Systems in Contingency Planning". *Risk and Vulnerability Analysis*. G. Beroggi, and W.A. Wallace, Editors. Elsevier Press.
22. Harrald, J.R., and T. Mazzuchi. "A Risk Analytic Approach to Contingency Planning Using Expert Judgment in Simulated Scenarios" *Proceedings: 1993 International Emergency Management and Engineering Conference*. Arlington, Va. April 1993. pp. 29-33.
23. Carley, Kathleen and J.R. Harrald. "Hurricane Andrew Response: Comparing Practice, Plan, and Theory". *Natural Hazards Observer*. Vo. XVII, No. 2. Nov. 1992. pp. 1-3.
24. Harrald, J.R. and C.M. Stone. "Risky Business: Should We Believe in Port Risk Assessments" *Proceedings, Ports '92: The Sixth Special Conference on Ports* sponsored by the American Society of Civil Engineers. Seattle WA. July 1992.
25. Wilson, Mark B. and John R. Harrald, "Managing the Risk of A large Marine Chemical Spill". *Proceedings, 1992 International Emergency Management and Engineering Conference: Managing Risk with Computer Simulation*. Orlando. April 1992. pp. 39-46.
26. Belardo, S. and John R. Harrald, "Stimulating the Planning Process through Computer Simulation". *Proceedings, 1992 International Emergency Management and Engineering Conference: Managing Risk with Computer Simulation*. Orlando. April 1992. pp. 139-143.
27. Harrald, John R. and Kristen P. Harrald, "A Systems Approach to the Problem of Maritime Safety". *Proceedings, 12th Annual National Conference of the American Society for Engineering Management*. October, 1991. pp. 130-137.
28. Harrald, J.R., R. Cohn, and W.A. Wallace, "Organizing for Response: the Unresolved Problem" *Proceedings, 1991 Oil Spill Conference*, American Petroleum Institute, Washington, D.C. March 1991. pp. 29-33.

29. Harrald, J.R. "Thinking the Unthinkable: Are We Prepared for the Next Catastrophic Spill", *Proceedings: 7th National Hazardous Wastes and Hazardous Materials Conference*, (invited paper) Hazardous Materials Control Institute. Silver Spring, MD. May 1990. pp. 438 - 430.
30. Harrald, J.R. "The Development of Decision Support Systems for Red Cross Disaster Managers", *Transactions: 1988 Hazards Research Applications Workshop*, Boulder, Colorado. July 1988. p. NR88-17.
31. Harrald, J.R., D. Boukari, R. Budeiri, D. Scholarios and F.R. Sapp, "The Use of Influence Diagrams as a Design Tool for a Disaster Management DSS", *Transactions: DSS 88, Eighth International Conference on Decision Support Systems*, Boston, MA. June 1988. pp. 95-104.
32. Belardo, S., J.R. Harrald and K.R. Karwan, "Invest: An Integrated Approach to Successful System Implementation", *Proceedings, 1988 Annual Meeting of the Decision Sciences Institute*, Boston, MA. November 1987
33. Harrald, J.R., J. Silberstang, and F.R. Sapp, "Designing Knowledge Based Decision Support Systems for Red Cross Disaster Managers", *Proceedings, Washington OR/MS Council Symposium*, Washington, D.C. November 1987. pp. 40-46.
34. Harrald, J.R. and Belardo, S., "Decision Support for Chemical Emergencies", *Proceedings of the 1987 World Conference on Chemical Emergencies*, Rome, Italy, July 1987.
35. Harrald, J.R. and Conway, S.M., "The Use of Decision Aids in the Development of an Action Oriented Contingency Plan", *Proceedings, 1981 Oil Spill Conference*, Atlanta, 1981, pp. 509-512.
36. Harrald, J.R., "The Management Control Process in the U.S. Coast Guard", *U.S. Coast Guard Academy Alumni Association Bulletin*, June 1979, pp 12-15.
37. Harrald, J.R., Karwan, K.R., and Stone, C.M., "Prevention of Pollution During Oil Transfer Operations: An Evaluation of USCG Preventive Actions", *Proceedings of the 1977 Oil Spill Conference*, New Orleans, 1977, pp. 223-227.
38. Harrald, J.R., Boyd, B.D., and Bates, G.C., "Oil Spills in the Alaskan Coastal Zone, the Statistical Picture", in *Fate and Effects of Petroleum Hydrocarbons in Marine Organisms and Ecosystems*, Wolf, D.A., editor, Pergammon Press, New York, 1977, pp. 38-53.
39. Baisuck, A., Harrald, J.R., Leotta, J., and Wallace, W.A., "The Implementation and International Applications of a National Information System on Marine Pollution", *Proceedings: Symposium on Prevention of Pollution From Ships*, Inter-Governmental Maritime Consultative Organization, Acapulco, Mexico. 1976.