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THE 1991 ANNUAL REPORT
OF THE
DISASTER RESEARCH CENTER

University of Delaware

Newark, Delaware USA, 19716

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DRC PERSONNEL

Research Staff:

Joanne M. Nigg, Director
Kathleen J. Tierney, Research Director
Russell R. Dynes, Research Professor
E. L. Quarantelli, Research Professor
James M. Dahlhamer, Field Director

Office Coordinator:

Diane Murray

Secretary:

Maura Jentz

Graduate Research Assistants:

1. Bruce Crawford
2. James Dahlhamer
3. Elaine Denning
4. Eli Duarte
5. Margie Edwards
6. Lisa Ferreira
7. Michael Hackett
8. Keith Hughes
9. Susan Knight
10. Jinfang Li
11. Jason McNamara
12. Kristen Miller
13. Diana Olinger
14. Everett Ressler
15. Catherine Simile
16. Stephanie Willson-Stewart

Research Aids:

1. Linda Anderson
2. Kara Berkowitz
3. Lisa Crabil
4. Raquel Doukas
5. Kristin Ekdahl
6. Vanessa Field
7. Elizabeth Goetz
8. Nathanael Herman
9. Kristina Kavaliunas
10. Erica Kestenbaum
11. Mary Layton
12. Pamela Leland
13. Stephanie Leveene
14. Andrew Long
15. Todd Powers
16. Gia Raffaelli
17. Lisa Roberson
18. Tammi Robertson
19. Kelly Scannell
20. Joseph Testa
21. Maria Valenza
22. Steve Whalen
23. Erin White
24. Maureen Widzowski
25. Valerie Yoder

Resource Collection Staff:

1. Maureen Ahern
2. Heidi Feyler
3. Jill Herzog
4. Maria Romeo
5. Jennifer West
6. Song Ying

PUBLICATIONS

Articles and Book Chapters:

Dynes, Russell R.

"Meeting of the Research Committee on Disaster, World Congress of Sociology, Madrid." Disasters, Vol. 15, No. 1, Pp. 73-76.

"Planificacion de Emergencias Comunitrias: Supsiciones Falsas Y Analogias Inadecuadas." Proteccion Civil, 12:35-40 (in Spanish).

Dynes, Russell R., Fredrick Bates and E. L. Quarantelli

"The Importance of the Social Sciences to the International Decade for Natural Disaster Reduction." Disasters, Vol. 15, No. 3, Pp. 288-289.

Quarantelli, E. L.

"Disaster Planning for Transportation Accidents Involving Hazardous Materials." Journal of Hazardous Materials 27:49-60.

"Disaster Response: Generic or Agent-Specific." In A. Kreimer and M. Munashinghe (eds.) Managing Natural Disasters and the Environment. (Washington, DC: The World Bank):97-105.

"Disaster Research Center, University of Delaware." Disasters 15:274-277.

"Criteria for Evaluating Disaster Planning in an Urban Setting." In Francesco Battisti (ed.) La Citta e L'emergenza: Organizzazione delle Protezione Civile e Planificazione della Scicurezza nelle Aree Metropolitane. (Milan, Italy: Franco Angeli):39-63.

"Radiation Disasters: Similarities to and Differences From Other Disasters." In R. Ricks, M. Berger and F. O'Hara (eds.) The Medical Basis for Radiation-Accident Preparedness: The Psychological Perspective. (NY: Elsevier):15-24.

Quarantelli, E. L. and Dennis Wenger

"A Cross-Societal Comparison of Disaster News: Reporting in Japan and the United States." In L. Wilkins and P. Patterson (eds.) Risky Business: Communicating Issues of Science, Risk and Public Policy. (NY: Greenwood Press):97-111.

Quarantelli, E. L., Russell Dynes and F. Bates

"The Importance of the Social Sciences to the International Decade for Natural Disaster Reduction." Disasters, Vol. 15, No. 3, Pp. 288-289.

Technical Reports, Proceedings and Book Reviews:

Dynes, Russell R.

Book Review. Clinical Sociological Perspectives on Illness and Loss: The Linkage of Theory and Practice, in Clinical Sociology Review, Vol. 9, 1991, Pp. 178-180.

"Social Science Research on Earthquake Hazard Mitigation: Relevance for Policy and Practice." International Symposium on Building Technology and Earthquake Hazard Mitigation. (Buffalo: NCEER, State University of New York at Buffalo):67-86

Nigg, Joanne M.

"Earthquake Hazard Reduction Policy in the United States: A Problem for local Governments." International Symposium on Building Technology and Earthquake Hazard Mitigation. (Buffalo: NCEER, State University of New York at Buffalo):211-224.

Book Review. Natural Hazards: An Integrative Framework for Research and Planning, by Risa I. Palm, The Journal of Architectural and Planning Research, 8: 3, Pp. 259-260.

Dracup, Edmond D. H. Cheng, Joanne M. Nigg., and Thomas A. Schroeder

The New Year's Eve Flood on Oahau Hawaii. (Washington, DC: National Academy Press.

Quarantelli, E. L.

"The Mass Media in Disasters in the United States."
Proceedings of the IDNDR International Conference 1990
Japan (Tokyo, Japan: Japanese Government Headquarters
for the IDNDR):348-353.

"Lessons from Research." Seminar Report on Crises and
the Media 1991. (Easingwold, England: The Emergency
Planning College).

Kreimer, Alcira, Alberto Harth and E. L. Quarantelli

Lessons Learned From Emergency Lending. The World
Bank, Environment Department, Divisional Working Paper
No. 1990-15.

Tierney, Kathleen J.

"Emergency Medical Care Aspects of the Loma Prieta
Earthquake." International Symposium on Building
Technology and Earthquake Hazard Mitigation. (Buffalo:
NCEER, State University of New York at Buffalo):225-
250.

ACADEMIC PRESENTATIONS

Dahlhamer, James

"Recurring Problems in the Delivery of Emergency Medical Services in Disasters." Emergency Planning '91 International Conference, University of Lancaster, Lancaster, England, September 10.

Denning, Elaine

"Preparedness and Response to Airline Disasters: Two United States Case Studies." Emergency Planning '91 International Conference, University of Lancaster, Lancaster, England, September 9.

Dynes, Russell R.

"Current Research at the Disaster Research Center," Research Committee on Disasters, International Sociological Association, Cincinnati, OH, August 26.

"Disaster Reduction: The Importance of Adequate Assumptions About Social Organization." Seminar on Training Materials for Disaster Reduction, UNESCO-Delft University of Technology, Cairo, Egypt, September 4.

Edwards, Margie

"Earthquake Forecasts: Implications for Household Preparedness." 16th Annual Hazards Research and Applications Workshop, Boulder, CO, July 15.

Li, Jinfang

"Social Responses to the Tangshan Earthquake Prediction." UCLA International Conference on the Impact of Natural Disasters, Los Angeles, CA, July 9-12.

Nigg, Joanne M.

"Social Science Approaches to Disaster and Hazard Research." Invited lecture at the University of Puerto Rico, Mayaguez, January, 1991.

"Earthquake Prediction: the Sociological Significance of Geophysical Science." Invited presentation for the Science, Technology, and Disaster colloquium series, Clairmont Colleges, Riverside, CA, February 1991.

"Anticipated Social Consequences of a Nuclear Waste Facility." Paper presented at the annual meeting of the AAAS, Washington, DC, February 1991.

"The Management of Earthquake Predictions: Policy Lessons from Past Experiences." Invited presentation at the CUSEC/USGS sponsored colloquium series on Earthquake Research, Memphis, TN. March 1991.

"Earthquake Hazard Reduction Policy in the United States: A Social Science Assessment." Invited presentation at the NSF/NAS/NCEER sponsored US-PRC International Symposium on Building Technology and Earthquake Hazard Mitigation, Kunming, PRC. March 1991.

"Social Science Approaches in Earthquake Research." Invited presentation at NAS/NRC sponsored US-USSR Joint Workshop on Earthquake Hazard Mitigation, Moscow, Republic of Russia, USSR. September 1991.

Quarantelli, E. L.

"Converting Disaster Scholarship Into Effective Disaster Planning and Managing: Possibilities and Limitations." Integrating Disaster Research and Practice Conference, University of North Texas, Denton, TX, February 21.

"More and Worse Disasters in the Future." UCLA International Conference on the Impact of Natural Disasters: Agenda for Future Action, UCLA, Los Angeles, CA, July 12.

"Different Types of Disasters and Planning Implications." Emergency Planning '91 International Conference, University of Lancaster, Lancaster, England, September 9.

Tierney, Kathleen J.

"Emergency Medical Care Aspects of the Loma Prieta Earthquake." International Symposium on Building Technology and Earthquake Hazard Mitigation, Kunming, China, March 25-29.

"Social and Economic Consequences of Disasters." Guest lecture in graduate course on Public Health Issues in Disaster, Johns Hopkins University School of Hygiene and Public Health, May 1.

"Organizational Features of U. S. Lifeline Systems and Their Relevance for Disaster Management." Fourth U. S.-Japan Workshop on Earthquake Disaster Prevention for Lifeline Systems, Los Angeles, CA, August 19-21.

"Emergency Medical Services in the Loma Prieta Earthquake."
Panel presentation at Annual Meeting of the American Public
Health Association, Atlanta, GA, November 10-14.

PRESENTATIONS TO GOVERNMENTAL BODIES AND PROFESSIONAL ORGANIZATIONS

Bourdess, Timothy

"The Browning Prediction: A Social and Historical Context." Kentucky Emergency Management Association Training Workshop, Louisville, KY, April 12.

"The Browning Prediction: Observations of the Memphis TV News From December 1, 1990, to December 5, 1990." Kentucky Emergency Management Association Training Workshop, Louisville, KY, April 13.

Dynes, Russell

"Research on Earthquake Hazard Mitigation: Policy/ Practice." Earthquake Mitigation Workshop, Development Technologies, Inc., and Federal Emergency Management Agency, Alexandria, VA, July 23-24.

Nigg, Joanne

"Social Response to Earthquake Prediction: A Memphis Case Study." CUSEC/USGS-sponsored invited lecture, Memphis State University, Memphis, TN, March 1991.

"Earthquake Prediction Response in the Central United States." CUSEC/USGS-sponsored invited lecture, Washington University, St. Louis, MO, June 1991.

Quarantelli, E. L.

"Human Response in Radiation Disasters." Medical Planning and Care in Radiation Accidents Course, REACTS, Oak ridge, TN, March 20.

"Characteristics and Implications of Changes in Social Organizational Aspects for Disaster Planning and Managing." American Society for Public Administration 52nd National Conference, Washington, DC, March 26.

Tierney, Kathleen

"Disaster Agent Differences and Their Implications for Emergency Management." Training session for Chester County Emergency Services Coordinators, sponsored by Chester County Department of Emergency Services, Chester, PA, May 23.

"Socioeconomic Impacts of Earthquakes on Small Businesses." Panel presentation at conference on Earthquake Recovery, sponsored by the Southern California Earthquake Preparedness Project, Pasadena, CA, May 30-31, 1991.

ACADEMIC ACTIVITIES

Dahlhamer, James

Organizer. "Current Issues in Disaster Research," round table, Annual Meeting of the American Sociological Association, Cincinnati, OH, August.

Denning, Elaine

Chair. "Session on Case Studies'" Emergency Planning '91, University of Lancaster, Lancaster, England, September 9.

Nigg, Joanne

Member. Advisory Panel of the Hazard Reduction and Recovery Center, Texas A & M University.

Organizer and Presider. Session on Transmitting Research to Practice and Practice to Research--Social Impacts and Policy responses to the Loma Prieta Earthquake, at the annual meeting of the Earthquake Engineering Research Institute, Salt Lake City, UT, February 1991.

Organizer and Presider. Presentations by Soviet social scientists at National Research Council, Washington, DC, March 1991.

Chair. Session on Policy Analysis in Public Decision Making at NCEER--sponsored Workshop on Research Utilization for Policy Analysis on Earthquake and other Hazard Mitigation, Rensselaerville, NY. June 1991.

U.S. Delegate. US-USSR Joint Workshop on Earthquake Hazard Mitigation, Moscow, Republic of Russia, USSR. September 1991.

Quarantelli, E. L.

Editorial board member. Asia-Pacific Journal of Rural Development, Journal of Hazardous Materials, Industrial Crisis Quarterly, the Hazard Monthly, and the Psychosocial Stress Book Series.

Reviewer. University of Georgia Press; Disasters: The International Journal of Disaster Studies and Practice; Journal of Management Studies; Social Science Research; Journal of Traumatic Stress; NEHRP Report to Congress; and International Journal of Mass Emergencies and Disasters.

Tierney, Kathleen

Discussant. Session on Scientific and Policy Perspectives on the Exxon Valdez Oil Spill, Society for Applied Anthropology, Charleston, SC, March 13-17.

Discussant. Workshop on Research Utilization for Policy Analysis in Earthquake and Other Hazard Mitigation, sponsored by the National Center for Earthquake Engineering Research, Rensselaerville, NY, June 23-25.

Panel Presentation in Session on U. S. Disaster Research Centers and Programs, Natural Hazards Workshop, Boulder, CO, July.

Manuscript and Proposal Reviewer. **National Science Foundation, U. S. Geological Survey, American Political, Science Review, Gender & Society, Pacific Sociological Review, Rutgers University Press, and Sociological Quarterly.**

OTHER PROFESSIONAL ACTIVITIES

Dynes, Russell

Consultant. College of Arts and Science, Mississippi State University, Starkville, Mississippi, November 12-14.

Consultant. UNESCO, Project through the Delft University of Technology, The Netherlands, November 1991-.

Co-Chair. Coordinating Committee, Middle States Self Study, University of Delaware.

Participant. Informational Meeting, UNESCO/Office of Foreign Disaster Assistance, Department of State, Washington, DC, June 26.

Participant. Coalition of Professional Organizations Supporting NEHRP, Washington, DC, December 3.

Participant. International Telemedicine/Disaster Medicine Conference, Uniformed Services University of Health Services, Bethesda, MD, December 9-11.

Knight, Susan

Attendee. SGER meeting on Hurricane Hugo research, National Science Foundation, Washington, DC.

McNamara, Jason

Attendee. "The Natural Disaster Loss Reduction Puzzle: Making the Pieces Fit," National Committee on Property Insurance Annual Forum, Baltimore, MD, December 5.

Nigg, Joanne

Member. Governor's Council on Emergency Planning and Operations, State of Delaware. 1990-1993.

Discussant. National Center for Earthquake Engineering Research Workshop on Research Utilization for Policy Analysis in Earthquake and Other Hazard Mitigation. Rensselaerville, NY, June 23-25.

Member. Steering Committee, National Center for Earthquake Engineering Research. 1991.

Vice President. Earthquake Engineering Research Institute.
1991.

Quarantelli, E. L.

Member, Board of Advisors. The Center for Psychological Response in Disaster Emergencies of the New York Medical College; National Research Council Panel on the Evaluation of the United States-People's Republic of China Earthquake Engineering Program; Advisory Board of the International Laboratory of Sociopolitical Ecology, University of Georgia.

Member. The United States Committee on the Decade for Natural Disaster Reduction of the National Academy of Sciences.

Consultant. Research proposals for the Economic and Social Research Council of Great Britain, and the National Science Foundation.

Consultant. The World Bank, Maravan of Venezuela, and French disaster researchers.

Participant. Field work in St. Croix, U.S. Virgin Islands in follow-up of antisocial behavior after Hurricane Hugo.

Tierney, Kathleen

Member. Advisory Committee, National Earthquake Hazard Reduction Program.

Member. Research Committee, National Center for Earthquake Engineering Research.

Member. "Learning from Earthquakes" Committee, Earthquake Engineering Research Institute.

Member. Council of the Section on Collective Behavior and Social Movements, American Sociological Association.

Secretary. Research Committee on Disasters, International Sociological Association.

Member. Editorial Advisory Board, Gender and Society.

Participant. Briefing on U. S. Earthquake Policy Structure for members of the Earthquake Law Study Tour Delegation from the People's Republic of China, at U. S. Department of Interior, U. S. Geological Survey, July, 1991.

Review Panelist. Federal Emergency Management Agency Earthquake Mitigation Study, July 1991.

CONTRACTS AND GRANTS

1. Disaster Analysis: Study of Hospitals and
Emergency Medical Services (continuing)

Federal Emergency Management Agency \$421,899
2. Preparedness and Response of Lifeline
Organizations in Community Disasters
(continuing)

National Science Foundation \$256,393
3. Emergency Preparedness and Response
Measures for Earthquake-Induced Oil
Pipeline Failures (new)

Dames & Moore \$ 19,655
4. Local Earthquake Mitigation and
Preparedness Planning in China
and the United States (continuing)

National Science Foundation \$242,548
5. Comparative Analysis of Community
Disaster Recovery (continuing)

National Science Foundation \$ 83,866
6. An International Workshop on Prediction
and Perception of Natural Hazards
(continuing)

National Science Foundation \$ 51,471
7. U.S. - U.S.S.R. Collaborative Research
Development

International Research & Exchange Board \$ 1,500
8. Sociobehavioral and Emergency
Management Aspects of Catastrophic
Marine Oil Spills (new)

University of Delaware Sea Grant College
Program \$ 24,960

PROPOSED RESEARCH

1. US-USSR Seminar on Social Science
Research on Mitigation for and
Recovery from Disasters and Large
Scale Hazards

National Science Foundation \$ 18,642

2. Judgements of Responsibility for
Disaster Consequences

National Science Foundation \$305,835

3. Seminar on Research in Socio-Economic
Aspects of Disasters in Developing
Countries in Central America

National Science Foundation \$ 19,752

4. Societal Impact of Crude Oil
Spills in the Central US

National Center for Earthquake
Engineering Research \$ 46,428

5. Urban Seismic Risk Assessment

National Center for Earthquake
Engineering Research \$ 29,935

DRC FIELD STUDIES

January 12 Santa Cruz, CA
Follow-up 1989-1017, Earthquake

January 16 Charleston, SC
Follow-up 1989-0922, Hurricane

June 15 San Francisco/Sacramento, CA
Follow-up 1989-1017, Earthquake

June 22 Santa Cruz, CA
Follow-up 1989-1017, Earthquake

July 20 Charleston, SC
Follow-up 1989-0922, Hurricane

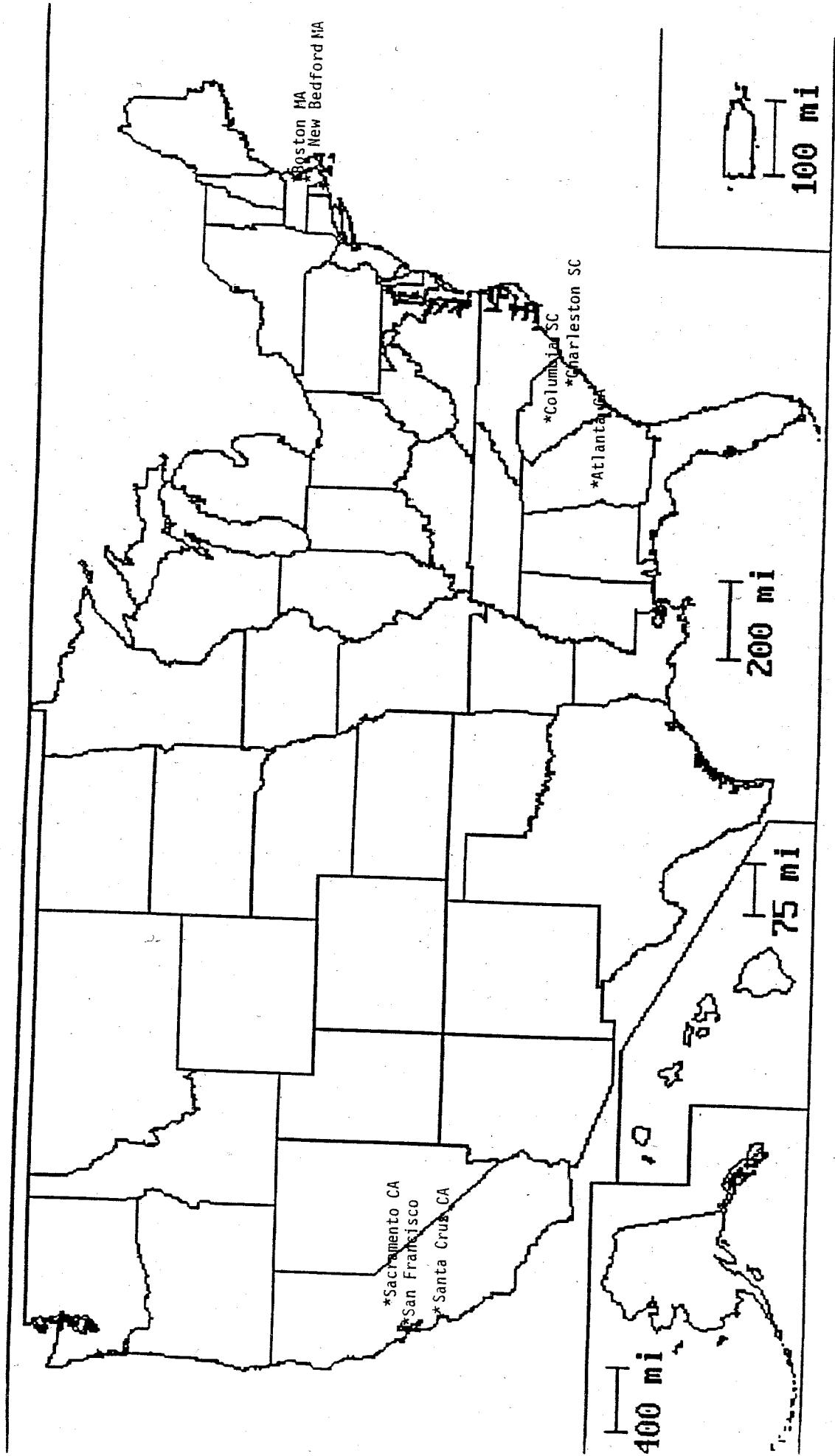
August 25 New Bedford, MA
Recovery 1991-0820, Hurricane

August 25 Atlanta, GA & Columbia, SC
Follow-up 1989-0922, Hurricane

October 5 New Bedford/Boston, MA
Providence, RI
Follow-up 1991-0820, Hurricane

November 9 Charleston, SC
Follow-up 1989-0922, Hurricane

1991 FIELD STUDY SITES



VISITORS TO DRC

Among visitors to DRC were staff members from:

AUSTRALIA

Chief Commissioner's Office, Police Headquarters,
Melbourne

BYELORUSSIA

Institute of Sociology of the Academy of Sciences of the
Byelorussian SSR, Minsk

CANADA

Crisis Simulations, Ltd., Halifax, Nova Scotia

Department de genie industriel, Ecole Polytechnique,
Montreal, Quebec

Emergency Communications Research Unit, School of
Journalism, Carleton University, Ontario, Ottawa

CHINA

Institute of Sociology, Chinese Academy of Social Sciences,
Beijing

FRANCE

Laboratoire d' econometrie de l'ecole Polytechnique,
Paris

Palais de l'Universite-Place de Verdun, Grenoble

Departement de Technologie ET SCIENCES DE L'HOMME,
Compiegne cedex

GERMANY

Institut for Soziologie, Christian-Albrechts-Universitat,
Kiel

ITALY

Department of Sociology, University of Rome, Rome

RUSSIA

Institute for System Studies of the USSR Academy of Sciences, Moscow

SCOTLAND

University of Aberdeen

VENEZUELA

National Oil Company, Maravan

USA

Los Angeles Department of Water and Power,
Los Angeles, CA

Department of Sociology, Colorado State University,
Ft. Collins, CO

Hazards Assessment Laboratory, Colorado State University
Ft. Collins, CO

College of Nursing, University of Delaware,
Newark, DE

H. Crane Miller, Attorney at Law, Washington, DC

Environment Department, Policy & Research Division, The
World Bank, Washington, DC

Division of Natural Hazard Mitigation, National Research
Council, National Academy of Sciences, Washington, DC

School of Engineering and Applied Science, Department of
Engineering Management, George Washington University,
Washington, DC

Disaster Response Services, Flink Vulcan Corporation,
Arnold, MD

Post Traumatic Stress Disorder Clinical Team, VAMC,
Perry Point, MD

School of Social Work, Washington University at St. Louis,
St. Louis, MO

Department of Sociology, Rutgers University,
New Brunswick, NJ

New Jersey Institute of Technology, Newark, NJ

Department of Sociology, Bowling Green State University,
Bowling Green, OH

Department of Sociology/Anthropology, Millersville
University, Millersville, PA

Duncan and Kindler, Consulting Psychologists,
Wescosville, PA

Social Work Program, Utah State University, Logan UT

U. S. Geological Survey, Reston, VA

Department of Sociology, College of William & Mary,
Williamsburg, VA

Saudi Arabian Television in the U.S.A., Arlington, VA

NEW DRC PUBLICATIONS IN 1991

Bates, Frederick L., Russell R. Dynes and E. L. Quarantelli

"The Importance of the Social Sciences to the International Decade for Natural Disaster Reduction"

Dynes, Russell R.

"Meetings of the Research Committee on Disasters: 12th World Congress of Sociology, Madrid 9-13 July 1990"

"Planificacion de Emergencias Comunitarias: Suspiciones Falsas Y Analogias Inadecuadas"

"Social Science Research on Earthquake Hazard Mitigation: Relevance for Policy and Practice"

"Disaster Reduction: the Importance of Adequate Assumptions About Social Organization"

Edwards, Margie L.

"Public Response to the Browning Prediction: Some Preliminary Findings"

Li, Jinfang

"Social Responses to the Tangshan Earthquake"

Nigg, Joanne M.

"Earthquake Hazard Reduction Policy in the United States: A Problem for Local Government"

Porfiriev, Boris N.

"Policy Responses to Large Scale Accidents in the Soviet Union"

"Environmental Dimension of National Security: A Trial of Systems Analysis Study"

Quarantelli, E. L.

"The Mass Media in disasters in the United States"

"Disaster Planning for Transportation Accidents Involving Hazardous Materials"

"Disaster Response: Generic or Agent-Specific?"

"Criteria for Evaluating Disaster Planning in an Urban Setting"

"Lessons From Research"

"More and Worse Disasters in the Future"

"Lessons From Research: Findings on Mass Communication System Behavior in the Pre, Trans, and Postimpact Periods of Disasters"

"Converting Disaster Scholarship Into Effective Disaster Planning and Managing: Possibilities and Limitations"

"Disaster Research: An Entry for an Encyclopedia"

"Different Types of Disasters and Planning Implications"

"Patterns of Sheltering and Housing in American Disasters"

"Disaster Assistance and Socioeconomic Recovery at the Individual and Household Level: Some Observations"

"More and Worse Disasters in the Future: The Social Factors Involved"

Quarantelli, E. L. and Dennis Wenger

"A Cross-Societal Comparison of Disaster News: Reporting in Japan and the United States"

Tierney, Kathleen J.

"Emergency Medical Care Aspects of the Loma Prieta Earthquake"