APPENDICES

Third U.S./Japan Workshop on Urban Earthquake Hazard Reduction

November 13-15, 1991 Honolulu, Hawaii

PARTICIPANTS

William Anderson National Science Foundation Washington, D.C.

Richard Andrews Governor's Office of Emergency Services Sacramento, California

Lewis Aptekar San Jose State University San Jose, California

Christopher Arnold Building Systems Development San Mateo, California

Fil Bernal Southern California Gas Company Los Angeles, California

Hal Bernson Councilman, 12th District Los Angeles, California

Vitelmo Bertero University of California Berkeley, California

Patricia Bolton Batelle Research Center Seattle, Washington

Roger Borcherdt U.S. Geological Survey Menlo Park, California

Frank Borden City Fire Department Los Angeles, California Arthur Chiu Civil Engineering Department University of Hawaii

Charles Eadie Department of Planning Watsonville, California

Richard Eisner Bay Area Regional Earthquake Preparedness Project Oakland, California

Paul Flores Southern California Earthquake Preparedness Project Pasadena, California

David Fox City Attorney's Office San Francisco, California

Sigmund Freeman Wiss, Janney, Elstner Associates Emeryville, California

Alan Goldfarb City Council Member Berkeley, California

Hiroko Goto Mitsubishi Research Institute Tokyo, Japan

Marjorie Greene Bay Area Regional Earthquake Preparednes Project Oakland, California

Masanori Hamada Tokai University Shizuoka, Japan Robert Hanson University of Michigan Ann Arbor, Michigan

Haruo Hayashi Hiroshima University Hiroshima, Japan

Toshiyuki Hikata Mitsubishi Electric Corporation Tokyo, Japan

Hiroshi Ishida Kajima Technical Research Institute Tokyo, Japan

Eiichi Itoigawa Building Research Institute Ibaraki-ken, Japan

Toshikatsu Iwami University of Tsukuba Ibaraki-ken, Japan

Barclay Jones Cornell University Ithaca, New York

Kideki Kaji University of Tsukuba Ibaraki-ken, Japan

Hiroyuki Kameda Kyoto University Kyoto, Japan

Tsuneo Katayama University of Tokyo Tokyo, Japan

Mitsuru Kawamura Nihon-Daly, Inc. Honolulu, Hawaii

Hiroshi Kawano Tokyo Institute of Technology Yokohama, Japan Tetsuki Kobayashi City Disaster Prevention Division Kawasaki, Japan

Larry Kornfield Bureau of Building Inspection San Francisco, California

Yoshio Kumagai University of Tsukuba Ibaraki-ken, Japan

Robert Lanning Hewlett-Packard Company Palo Alto, California

Josephine Malilay U.S. Centers for Disease Control Atlanta, Georgia

Shirley Mattingly City Emergency Management Los Angeles. California

Valerie Melloff City Emergency Management Los Angeles, California

Fusanori Miura Yamaguchi University Tokiwadai, Japan

Tadao Mochida City Disaster Prevention Research Division Kawasaki, Japan

Nobuyuki Mori Nikken Sekkei, Ltd. Tokyo, Japan

Suminao Murakami Yokohama National University Tokyo, Japan

Masatake Naganoh Takenaka Corporation Tokyo, Japan Ichiro Nagashima Fire & Marine Insurance Rating Association of Japan

Masaaki Nonaka Japan Engineering Consultants Tokyo, Japan

Guy Nordenson Ove Arup & Partners New York, New York

Tokyo, Japan

Yujiro Ogawa Urban Safety Research Institute Tokyo, Japan

Masamichi Ohkubo Kyushu Institute of Design Fukuoka, Japan

Tatsuo Ohmachi Tokyo Institute of Technology Yokohama, Japan

Kazuyoshi Ohnishi Kobe University Hyogo, Japan

Toshio Okoshi Nihon Sekkei, Inc. Tokyo, Japan

Robert Olson VSP Associates Sacramento, California

Jelena Pantelic National Center for Earthquake Engineering Research Buffalo. New York

Mansour Rahimi University of Southern California Los Angeles, California

Henry Renteria City Office of Emergency Services Oakland, California Chris Rojahn Applied Technology Council Redwood City, California

Satoru Sadohara Yokohama National University Yokohama-shi, Japan

Koichi Sakamoto Institute for Future Technology, Science Museum Tokyo, Japan

Guna Selvaduray San Jose State University San Jose, California

Vivian Shigyo University of Tokyo Kawasaki-shi, Japan

Shunsuke Sugano Takenaka Corporation Tokyo, Japan

Tadashi Sugano Kajima Corporation Tokyo, Japan

Naruko Takanashi Institute for Future Technology, Science Museum Tokyo, Japan

Tom Tobin California Seismic Safety Commission Sacramento, California

Kenneth Topping Urban Planning Consultant Pasadena, California

Susan Tubbesing Earthquake Engineering Research Institute Oakland, California

Martha Tyler William Spangle & Associates Portola Valley, California Randy Updike U.S. Geological Survey Reston, Virginia

Dennis Wenger Texas A & M University College Station, Texas

Loring Wyllie H J Degenkolb Associates San Francisco, California

Staff:

Linsley Bock Earthquake Engineering Research Institute Oakland, California

AGENDA

Third U.S./Japan Workshop on Urban Earthquake Hazard Reduction

November 13-15, 1991

The Ilikai Hotel Nikko Waikiki Honolulu, Hawaii

Wednesday, November, 13, 1991

8:30-9:00 a.m. Pacific Ballroom	PLENARY SESSION: Welcome and Introductions, Purpose, and Discussion of Workshop Format. Hideki Kaji, Tsukuba University; Richard Eisner, BAREPP; and Susan Tubbesing, EERI
	(Time will be set aside for group discussion following each presentation.)
9:00-12 noon	PLENARY SESSION: Overview of Urban Earthquake Hazard Reduction Drawing upon Lessons from the Loma Prieta Earthquake.
9:00-9:30 a.m.	Overview of Critical Issues That Have Emerged in the Loma Prieta Earthquake and Their Impact on U.S. Preparedness Efforts. Richard Eisner, BAREPP
9:30-10:00 a.m.	Housing Recovery and Reconstruction, Lessons from Recent Urban Earthquakes. Marjorie Greene, BAREPP
10:00-10:30	Break
10:30-11:00 a.m.	Medical and Psychological Response: Lessons from Recent Earth- quakes - Resultant Changes in Practice. Josephine Malılay, Centers for Disease Control and Luis Aptekar, San Jose State University
11:00-11:30 a.m.	Lessons for Practice: Status of Earthquake Prediction and Warnings and Advisories Following Recent Earthquakes. Richard Andrews, California Office of Emergency Preparedness and Valerie Melloff, City of Los Angeles
11:30- noon	The Application of Emerging Technology: GIS Systems in Earthquake Hazard Mitigation. Roger Borcherdt, U.S. Geological Survey
12:00-1:00 p.m. Pacific Baliroom	Lunch

PLENARY SESSION: Overview of Urban Earthquake Hazard 1:00-4:30 p.m. Reduction Drawing upon Lessons from the Tokai Prediction and Recent Earthquakes in Iran and the Philippines. Overview of Critical Issues That Have Emerged in Recent 1:00-2:00 p.m. Earthquakes and Their Impact on Japan Preparedness Efforts. Mansanori Hamada, Tokai University; Suminao Murakami, Yokohama National University: Tatuo Ohmachi, Tokyo Institute of Technology Changes in Damage Assessment Procedures Following Recent 2:00-2:30 p.m. Earthquakes. Yujiro Ogawa, ISSS Break 2:30-3:00 p.m. Lifeline Performance and Changes in Practice Following Recent 3:00-3:30 p.m. Earthquakes. Tsuneo Katayama, University of Tokyo 3:30-5:00 p.m. PANEL DISCUSSION: Japanese and U.S. participants respond to presentations and raise questions of presenters to identify problems that have not yet been adequately addressed and to specify further research that may be needed. William Anderson, NSF; Vitelmo Bertero, University of California; Robert Olson, VSP Associates; Yoshio Kumagai, Tukuba University; Hiroyuki Kameda, Kyoto University 5:00-6:00 p.m. Response to Oakland California Firestorm Richard Andrews, California Office of Emergency Services 6:30-8:00 p.m. **RECEPTION** - Hosted by U.S. Delegation Imperial Suite Thursday, November 14, 1991

3:00-3:30 p.m.

Break

8:00-9:00 a.m. Pacific Ballroom	PLENARY SESSION: Plans and Expectations for the Day. Susan Tubbesing and Richard Eisner
9:00-10:00 a.m. (See Group List)	GROUP SESSIONS: Eight topic groups meet simultaneously to discuss Issue #1: Critical Issues pertaining to earthquake hazard reduction that have emerged in recent earthquakes. (Topic groups will be co-chaired by representatives from the U.S. and Japan.)
10:00-10:30 a.m.	Break
10:30-noon	GROUP SESSIONS: Return to groups to discuss Issue #2: Lessons Learned in Recent Earthquakes.
Noon-1:30 p.m.	Lunch
1:30-3:00 p.m.	GROUP SESSIONS: Topic groups meet to discuss Issue #3: Changes that have been made in practice as a result of recent earthquakes and ensuing research.

3:30-5:00 p.m. PLENARY SESSION: Each group presents a summary of issues

discussed earlier in the day.

6:30 p.m. Imperial Suite BANQUET - Hosted by U.S. Delegation

Friday, November 15, 1991

8:00-10:00 a.m. GROUP SESSIONS: Topical groups meet to discuss

(See Group List) Issues #4 and #5: Identification of problems that have not yet been

addressed adequately and, Identification of further researchneeds

and areas of possible collaboration.

10:00-10:15 a.m. Break

10:15-11:45 a.m. **PLENARY SESSION:** Each group presents a summary of the morning group discussions.

11:45-12:45 p.m. Synthesis of Plenary Presentations:

Haruo Hayashi, ISSS and

Christopher Arnold, Building Systems Development

12:45-1:15 p.m. CLOSING SESSION: Plans regarding completion of the current project

and discussion of possible future collaboration. Hideki Kaji, Richard Eisner, and William Anderson

THIRD U.S./JAPAN WORKSHOP

Topical Groups

(1) Pre-Event Period — Preparedness and Mitigation

Patricia Bolton and Masanori Hamada, Co-Chairs Vitelmo Bertero Toshiyuki Hikata Marjorie Greene Elichi Itoigawa Masatake Naganoh Masaaki Nonaka Mansour Rahimi

(2) Pre-Event Period — Local Government Preparedness

Shirley Mattingly and Yujiro Ogawa, Co-Chairs Hal Bernson
Alan Goldfarb
Fusanori Miura
Tadao Mochida
Guy Nordenson
Tatuo Ohmachi
Koichi Sakamoto
Masatoshi Sano
Tom Tobin
Minoru Watanabe

(3) Response — Search and Rescue

Tsuneo Katayama and Dennis Wenger, Co-Chairs Richard Andrews Lewis Aptekar Frank Borden Tetsuki Kobayashi Josephine Malilay Henry Renteria

(4) Response — Damage Assessment

Katsutoshi Iwami and Larry Kornfield, Co-Chairs David Fox Hiroko Goto Ichiro Nagashima Chris Rojahn Tadashi Sugano Loring Wyllie

(5) Recovery and Reconstruction — Seismic Zonation. Planning and Development

Roger Borcherdt and Yoshio Kumagai, Co-Chairs Paul Flores Satoru Kawano Satoru Sadohara Viviana Shigyo Naruko Takanashi Kenneth Topping Martha Tyler

(6) Recovery and Reconstruction — Architecture and Urban Design

Chris Arnold and Suminao Murakami, Co-Chairs Charles Eadie Barclay Jones Mitsuru Kawamura Nobuyuki Mori Jelena Pantelic

(7) Recovery and Reconstruction — Assessment and Repair of Damaged Structures

Robert Hanson and Masamichi Ohkubo, Co-Chairs Sig Freeman Haruo Hayashi Hiroyuki Kameda Toshio Okoshi Shunsuke Sugano

(8) Preparedness and Recovery — Business and Industry

Fil Bernal and Hideki Kaji, Co-Chairs Hiroshi Ishida Robert Lanning Valerie Melloff Kazuyoshi Ohnishi Robert Olson Guna Selvaduray Hiroaki Yoshii