SUMMARY AND RECOMMENDATIONS

City of Los Angeles
International Earthquake Conference
February 7-11, 1983

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I. HOW IT ALL BEGAN:

In 1979, Los Angeles City Councilman Hal Bernson was chairman of the City's Building & Safety Committee and in that capacity spearheaded landmark legislation to make the City's 8,000 unreinforced buildings seismically safe.

At that time, the first projection by noted local scientists as to a major earthquake occurring in the area in the near future was made.

Bernson proposed a public education program be launched in order to alert the community to the consequences in the event of a major earthquake.

On behalf of the City, the Councilman innovated an Earthquake Awareness Week for September, 1980. This program involved all City governmental agencies who would deal with an earthquake disaster, as well as special informational and educational materials which were distributed to the community at large.

The response on behalf of both the public and the media made the week an outstanding success.

As a continuation of the Week, on Feb. 10, 1981 a seminar was set up by Councilman Bernson to commemorate the 10th anniversary of the 1971 California Sylmar quake. The seminar attracted a large segment from throughout the country.

One of the attendees, Dr. Fred Krimgold - Disaster Program Director, National Science Foundation - was so impressed by the agenda that he later asked Councilman Bernson to consider organizing the first International Earthquake Conference ever to be held for government officials and policy makers.

In cooperation with Dr. William Petak - University of Southern California, Institute of Safety & Systems Management - Bernson estabished five plenary sessions and 18 workshops for the conference with speakers from all over the world participating.

Additionally, a simulated earthquake exercise was added to the week's events along with field trips, including one to the San Adreas fault.

After the initial invitation from the National Science Foundation to host the conference, the U.S. State Dept., Office of Disaster Assitance, asked to become a sponsor also and arranged for 70 people from 28 countries to attend and participate as speakers and panelists.

This was followed by the Federal Emergency Management Agency requesting a role as a sponsor as well. The scope of the conference enlarged to where the California Office of Emergency Services and the United States Geological Survey also decided to help fund the event.

Over 350 people attended the daily sessions with about 400 viewing the field exercise on Feb. 10 by the L.A. Fire Dept.

II. GENERAL OBJECTIVES:

1. To stimulate exchange of information and experiences among metropolitan areas at risk from earthquakes.

2. To inform all levels of government about lessons learned; and short, medium and long range measures that can be undertaken.

3. To serve as a forum for discussion and to stimulate application of recommendations made at the International Earthquake Conference.

The International Earthquake Conference analyzed aspects of earthquake research, studies, programs and plans which have been realized, planned or are being developed.

SPECIFIC THEMES AND OBJECTIVES:

First Day:

Theme: Seismic Risk Evaluation and Long-range Earthquake Forecasts.

Objective: To develop general awareness of government response to seismic risk evaluation and to earthquake forecasts.

1. Lessons learned.
2. Medium and long range plans to identify problems encountered at various levels of government and possible solutions.
3. To identify additional research needed for effective government response.

Plenary Session Presentations:

1. Analysis of seismic activity levels, data and forecasting method theories.
2. Specific forecasts: Mexico; the Caribbean; California (USA); and Japan. A specific forecast - California (USA). Responses to the Southern California forecast; Japan; and Peru.

Workshops:

1. Government Policy and Actions.
2. Public Information and Education.
3. Government Problems and Costs.
4. Business Reponse.

Recommendations and Conclusions:

1. Develop earthquake legislation prior to the occurence of need, not after the fact.

2. Develop plans to meet the special needs of small remote and isolated communities.

3. Develop plans to meet the special needs of large, rapidly developing urban areas.

4. Initiate long term forecasting to enable development of prototype plans and programs with international application capabilities.

5. Adopt building safety measures concerning unreinforced masonry construction.

6. Form a central world agency to formulate and develop safety communication and preparedness programs.

7. Stimulate better public understanding of earthquake prediction.

8. Establish an effective emergency broadcasting system.

9. Educate the public through utilization of news media and public agencies.

10. Encourage responsible coverage of earthquake disasters by the news media.

11. Increase public awareness regarding influence of vested interests to withhold relevant information broadcast by the media.

12. Develop earthquake prediction methods enabling responsible parties to work within a realistic time frame. (probability of occurence, potential magnitude of quake, estimates of damage, etc.)

13. Avoid and discourage vague earthquake predictions which confuse the public.

14. Determine high risk earthquake areas.

15. Develop a responsible partnership between the government, scientific community and the media for orderly dissemination of material which can result in orderly responses, rather than panic situations.

16. Identify and establish the scope of government liabilities regarding earthquake protection policies and public impact.

17. Establish an international network of local agencies to control risk, administer relief and educate the public.

18. Develop a responsible long-term earthquake prediction methodology which would avoid undue social, economic or political pressures which could cause hasty, ineffectual legislation.

19. Develop private sector earthquake preparedness and recovery programs to protect and assist employees, as well as protect private resources.

20. Develop private sector earthquake preparedness and recovery programs to rapidly assess and resume operations.

21. Develop closely coordinated disaster planning between the public and private sectors.

22. Develop plans that can best identify and allocate public and private resources in the aftermath of disasters.

Second Day:

Theme: Vulnerability Analysis and Hazard Mitigation Strategies.

Objectives:

1. To stimulate an exchange of information on administrative and operational policies on vulnerability analyses and hazard mitigation in metropolitan areas.
2. To identify government constraints.
3. To identify public policy problems related to the identification and mitigation of risk.

Plenary Session Presentations:

1. Methods of vulnerability analysis (response of structures, utilities, drainage and nuclear energy systems and dams, etc.).
2. Applications of methods of vulnerability analysis through laws and administrative and operational policies.
3. Specific case studies: Peru, Japan, Los Angeles (USA) and the Philippines.

Workshops:

1. Energy Generation and Storage Facilities.
2. Hazardous Structures.
3. Transportation and Life Lines.
4. Critical Facilities.
5. Legislative Actions.
6. Electronic Telecommunications.
7. Financing Earthquake Mitigation.

Recommendations and Conclusions:

1. Develop scientific information for inclusion in laws and regulations.

2. Establish a preventive-action program instead of spending money to help after a disaster.

3. Enact regulations of energy plants after considering problems invoked by earth movements.

4. Establish what is known as the "Risk probability" in the construction of nuclear facilities.

5. Increase identification of buildings needing repair.

6. Ensure availability of finances for seismic repair.

7. Enact regulations to avoid threat of building collapse and to secure lives of inhabitants.

8. Develop categories of buildings to analyze differences of construction.

9. Establish lines of communication between the public and the community of engineers.

10. Enact regulations to provide strong ceiling and floor supports in buildings housing data systems.

11. Develop priorities to insure continuity of financial transactions following an earthquake.

12. Develop methods to evaluate damages of systems which will be under the jurisdiction of government agencies.

13. Enact stringent investigation of electric currents.

14. Develop a plan to delineate emergency exits of cities.

15. Ensure that bridges and highways are built with seismic security such as: first, safe, basic structures; second, safe, functional survival buildings; and third, maximum financial ones.

18. Ensure hospital functioning following disaster with priorities with regard to patients.

19. Enact quality control of new buildings to ensure the fulfillment of seismic requirements.

20. Develop a program to identify the costs of re-edification and how that cost can be determined.

21. Develop a financial program to establish low-interest loans for rehabilitation of seismically unsafe buildings.

22. Develop a public information program to provide data to support the fact that the benefits of seismic prevention and preparation will in the long run far outweigh the costs.

Third Day:

Theme: Emergency Response and Rehabilitation.

Objective: Stimulate an exchange of experiences; and planning systems for emergency response.

1. Specific plans and emergency implementation.
2. Long term measures for metropolitan government rehabilitation.

Recommendations and Conclusions:

1. Develop programs to expedite restoration of public services, transportation, waste disposal, public utilities and medical care.

2. Develop assessment and distribution procedures to direct aid to those areas having the greatest need.

3. Develop a schedule of regularly conducted disaster training exercises for the public.

4. Develop well coordinated earthquake disaster plans including all levels of government, (federal, state, multi-jurisdictional) the provate sector and the public.

5. Develop land use planning that will take into account all known earthquake faults and high risk areas.

6. Develop a methodology for establishing priorities based upon the special needs of geographic areas.

7. Develop assessment instruments to insure early and reliable reports of damage and casualty costs to enable proper deployment of personnel, equipment and critical resources.

8. Develop a means to collect meaningful information that will enable more accurate and ongoing assessment of needs.

9. Develop a central information bank from which data can be obtained, analyzed and directed toward proper use.

10. Develop realistic methods to prioritize needs.

11. Develop a flexible and continuous assessment process to enable changes and shifts of priorities as conditions allow.

12. Develop a backup communication system with CB and ham radio operators to augment highly technical communication systems that could be susceptible to extensive damage to their power lines and antennae.

13. Develop swift and accurate aerial and ground assessment programs.

14. Develop effective programs that can be made operational within the first 30 minutes to direct rescue activities, fire suppression, contaminant containment, etc.

15. Develop disaster planning decision systems for local officials that will enable more effective, organized responses.

16. Develop an effective retrieval systems for the injured and deceased.

17. Provide training to aid in recognizing critical psychological factors that affect the care of disaster victims and their families.

18. Develop on site medical assessment procedures that effectively evaluate and prioritize the status of disaster victims to insure maximum survival rates. (i.e., triage method)

19. Develop plans that can most effectively and efficiently disperse medical resources, i.e., field hospitals or evacuation of most critically injured to nearby medical facilities).

20. Develop a system that identifies and ascertains certified medical personnel.

21. Develop alternate evacuation plans for the most critical.

22. Develop plans that can humanely expedite the identification and disposition of the deceased.

23. Develop alternate transportation plans for people and resources when major routes are impassable due to traffic or debris.

24. Develop clean-up procedures for the clearing of debris from major routes so that fire equipment, police and emergency services etc. can be dispersed.

25. Identify facilities determined to be structurally sound, that can serve as shelter areas for disaster victims.

26. When possible, place shelter areas in close proximity to medical facilities.

27. Establish survival programs for the masses so that survivors know how to respond to emrgency disaster needs. (i.e., food and water storage, food preservation, basic rules of sanitation and basic first aid skills).

28. Develop plans for possible long term housing of disaster victims, (tents, inflatable housing, prefabs, mobile homes, etc.).

29. Ensure maintainance of the continuous operation of medical facilities for the treatment of the chronically or critically ill who are not disaster victims.

30. Increase maintainance of continuous operation of medical care facilities with minimal disruptions.

31. Develop emergency plans that recognize the importance of various school district resources and include them within community emergency services network.

32. Enact legislation mandating school districts to formulate and implement emergency plans and to disseminate such information to concerned communities.

33. Develop emergency plans to utlize and disignate specific school faciltiies and personnel in disaster situations.

34. Enact legislation mandating school staffs to remain on duty to provide for the safety and welfare of the children.

35. Establish guidelines of responsibilities for public employees, school teachers, etc.

36. Develop effective warning systems.

37. Develop realistic scenarios that can better prepare people for likely eventualities.

38. Develop through regular drill exercises and projects, an earthquake aware culture that is better prepared for a disaster situation. Such a program would sustain public interest and reduce apathy.

39. Develop and train Citizen Emergency Mobile Patrols, staffed by volunteer members of community agencies.

40. Develop programs to instruct individuals and communities to become more competent and self-sufficient and less dependent upon outside help.

41. Develop computerized disaster decision support systems to facilitate and rapidly disseminate pertinent information, thereby extending the range and capabilities of both mitigation and response planning.

42. Develop computerized disaster response decision processes that can effectively and rapidly evaluate pertinent disaster information, thereby reducing critical response time.

Conference Procedures:

Attendees at the Conference were classified as follows:

1. Plenary speakers
   Speakers who addressed the plenary sessions.

2. Prinicipal speakers
   Speakers who presented theme papers in workshops, providing an overview of specifics.

3. Panelists
   Representatives of various countries participating in the workshops.

4. Attendees
   Government officials, policy makers, research community, business leaders and the general public.

Responsibilities of Session Leaders:

1. Familiarity with the program of the day.
2. Introduce the corresponding speakers.
3. Monitor time limits for conference presentations.
4. Summarize what was said by the speakers, emphasizing topics which should be discussed in the workshops.
5. Gather information provided and recommendations received by workshop moderators and present at the summary plenary session.

Responsibilities of Moderators of Workshops:

1. Introduce the topic to the workshop group.
2. Introduce the principal speaker.
3. Monitor time limit for each presentation and for question and answer sessions.
4. Gather notes taken by the group reporter and his own notes to prepare summary of the discussion and recommendations for the session leader.

The session leader and the workshop moderators shared the podium during the plenary sessions devoted to recommendations.

Recommendations and papers which were presented will appear in the proceedings and will be sent to all conference attendees.

III. RECOMMENDATIONS OF INTERNATIONAL TASK FORCE COMMITTEE.

A Recommendations Committee was formed at the beginning of the Conference with representatives from the United States, Mexico, Peru, Colombia and the Philippines. Following the Conference the committee met to discuss the outcome and to develop a set of recommendations and strategies for action. The major goal was to develop a network and procedures to aid decision makers in large metropolitan communities confronted with the earthquake problem; to assist in helping them become effective in achieving earthquake hazard preparedness, mitigation and recovery through exhange of information, research and experience.

The following recommendations were made in support of this goal:

1. Share experiences resulting from earthquake disasters in addition to mitigation efforts among major metropolitan governments faced with the earthquake hazard.

2. Establish a meaningful dialogue between policy makers, technical staff, and those involved in the earthquake hazard reduction research community and encourage a continuing exchange between them.

3. Create channels of communication and cooperation between policy makers and technical or administrative staff personnel of affected major metropolitan areas.

4. Encourage participation of decision makers in the formulation of research objectives and encourage research in social, economic, and the public administration areas of earthquake mitigation.

5. Develop a standard language for common use among those involved in earthquake hazard reduction. Specifically, develop a glossary of terms for commonly used technical expressions which are easily understood by the cross-cultural community.

IV. STRATEGIES OF ACTION

In support of the major goal and recommendations the committee developed the following strategies for action:

1. Plan and conduct a meeting on earthquake vulnerability assessment with a focus on hazardous buildings. This conference will be held within the next twelve to eighteen months and will include public officials, researchers and technical personnel. In addition, a special session will be included in the conference for mayors, legislators, and primary decision makers from major metropolitan areas concerned with the earthquake-hazard. The special session will focus on problems confronting this group.

   *Cities interested in volunteering as host city for the next conference may contact the Conference Coordinator of the Los Angeles Earthquake Conference.

2. Identify key personnel in each city to represent policy, technical and research areas.

3. Collect, index, archive and distribute information and materials pertaining to the earthquake-hazard such as city reports, which outline mitigation programs, descriptions of need and bibliographic references. Information and materials shall be limited to applied research relevant to city administrators.

4. Develop a network which encourages sharing of problems and solutions, personnel exchange, conference organizing and publications (i.e., newsletter). Investigation shall proceed with establishing an affiliation with existing journals or newsletters published by UNDRO, PAHO, International Civil Defense, Habitat, etc.

*Hal Bernson, Councilman, City of Los Angeles
200 North Spring Street, Room 236
Los Angeles, California 90012
(213) 485-3343

The strategies for action are designed to encourage a continued exchange between policy makers, researchers and technical staffs of large metropolitan cities which face the problem of earthquakes. The primary focus is encouragement of seismic safety research and its application among a user community of major metropolitan cities. Further meetings may focus on (1) hazardous buildings, (2) new development, (3) energy related critical facilities, (4) medical facilities, (5) response planning, and (6) vulnerability assessment. In all cases, future conferences shall include building officials, planners, engineers, researchers and appropriate policy level personnel. The primary focus of all future meetings and conferences shall be an efficient and effective exchange of information, experiences and research objectives.

V. PROGRAM OF EVENTS

Monday, February 7

7:30 a.m. - 8:30 a.m.
REGISTRATION AND CONTINENTAL BREAKFAST — Davidson Conference Center (DCC) Lobby Level

8:30 a.m. - 9:00 a.m.
WELCOME CEREMONIES — DCC - Room 1

Councilman Hal Bernson, Conference Coordinator
Mayor Tom Bradley
City Council President Joel Wachs
Introductions

9:00 a.m.
OPENING CONFERENCE SESSION

THEME OF DAY: FORECASTS — Room 1

° Session Chairman:
Dr. William J. Petak
Institute of Safety and Systems Management
University of Southern California
Los Angeles, CA USA

9:05 a.m. - 10:30 a.m.
EARTHQUAKE FORECASTS: — Room 1

° Participants:

Dr. Clarence Allen
Department of Geology and Geophysics
California Institute of Technology
Pasadena, CA USA

Dr. Kerry Sieh
Division of Geological and Planetary Sciences
California Institute of Technology
Pasadena, CA USA

Koshi Yamaura
Deputy Director, Earthquake Disaster
Countermeasures Div., Minister's Secretariat
National Land Agency, Tokyo, Japan

Dr. Ignacio Galindo
Director Del Instituto De Geofisica
De La Universidad Nacional Autonoma
De Mexico
Mexico City, Mexico

Arq. Mario Sosa Ordono
Presidente Del Centro De Diseno
Para La Emergencias En El Habitat
Mexico City, Mexico

10:30 a.m. - 11:00 a.m.

REFRESHMENT BREAK — Lobby Level

During this period there is an opportunity to view the ZEC exhibit outside the Davidson Conference Center.

11:00 a.m. - 12:00 p.m.
RESPONSE TO EARTHQUAKE FORECASTS — Room 1

° Participants:

Dr. Vit Karnik
United Nations Disaster Relief Office
Geneva, Switzerland

Dr. Richard Andrews
Executive Director, California Seismic Safety Commission
Sacramento, CA USA

Eng. Cesar Arguedas
Deputy Executive Director, Civil Defense Committee; Professor at Latin American Institute of Seismic Engineering
Lima, Peru

Koshi Yamaura
Deputy Director, Earthquake Disaster
Countermeasures Div., Minister's Secretariat
National Land Agency, Tokyo, Japan

12:00 p.m. - 12:15 p.m.
SUMMARY OF ISSUES AND PROBLEMS — Room 1

12:30 p.m. - 2:00 p.m.
LUNCHEON — University Hilton Hotel

° Speaker:

Dr. Frederick Krimgold
Program Director
Earthquake Hazard Mitigation
Civil and Environmental Engineering Division
National Science Foundation
Washington, DC USA

1:15 p.m. - 4:15 p.m.
WORKSHOPS ON RESPONSE TO FORECASTS

No. 1 -GOVERNMENT POLICY AND ACTIONS — Room 1

° Moderator:

Councilman Ernani Bernardi
Los Angeles City Council
Los Angeles, CA USA

° Participants:

Dr. Stanley Scott
California Seismic Safety Commission;
Institute of Governmental Studies,
University of California, Berkeley
Berkeley, CA USA

Mamoru Mizuguchi
Director, Earthquake Disaster Preparation Div.
Governor's Office, Shizuoka Prefecture, Shizuoka, Japan

Dr. Luis Oswaldo Baez
Advisor, Permanent Secretariat of National Security and Defense Council
Caracas, Venezuela

Arq. Jorge Pallas Caceres
Director General de Prevencion Y Atencion
Ed Emergencias Urbanas
SAHOP
Mexico City, Mexico

Eng. Cesar Arguedas
Deputy Executive Director, Civil Defense Committee; Professor at Latin American Institute of Seismic Engineering
Lima, Peru

Paul Flores
Director, Southern California Earthquake
Preparedness Project
Los Angeles, CA USA

No. 2. PUBLIC INFORMATION AND EDUCATION — Room 221

° Moderator:

Robert Light
President, Southern California Broadcasters
Association
Los Angeles, CA USA

° Participants:

Eng. Samuel Perez Pena
Subdirector, Emergencias Urbanas
SAHOP
Mexico City, Mexico

John Babcock
Executive Producer, Special Projects
KABC-TV
Los Angeles, CA USA

Ed Pyle
News Director, KFWB
Los Angeles, CA USA

Roger Nadell
Assistant News Director KNX
Los Angeles, CA USA

Jane Platt
KRLA Program, News Director
Los Angeles, CA USA

Erik Disen
Engineer KNX
Los Angeles, CA USA

George Alexander
Science Editor, Los Angeles Times
Los Angeles, CA USA

T.W. McGarry
United Press International
Editor, Southern California Enterprise
Los Angeles, CA USA

No. 3. GOVERNMENT PROBLEMS AND COSTS — Room 3 BD

° Moderator:

Councilman Hal Bernson
Los Angeles City Council
Los Angeles, CA USA

° Participants:

Dr. Richard Olson
Center for Environmental Studies
Arizona State University
Tempe, AZ USA

Paluok Bibot
Deputy Director,
Geophysical Observatory
Papua, New Guinea

Dr. Ade Harun Alrasjid
Director General for Social Assistance
Department of Social Affairs
Jakarta, Indonesia

Arq. Mario Sosa Ordono
Presidente Del Centro De Diseno
Para La Emergencias En El Habitat
Mexico City, Mexico

Katsuo Ichikawa
Director, Disaster and Fire Control Div.
Environment Dept., Kanagawa Prefecture, Kanagawa, Japan

Professor James L. Huffman
National Resources Law Institute
The Lewis and Clark Law School
Portland, Oregon USA

No. 4 BUSINESS RESPONSE — Room 224

° Moderator:

Anthony Prud'homme
Director of Emergency Planning
Atlantic Richfield Company
Los Angeles, CA USA

° Participants:

Thomas Nagel
Director of Security
Levi Strauss Company
San Francisco, CA USA

Dr. Homer Givin, Jr.
International Business Machines
Corporation
San Jose, CA USA

Joseph Koonin
Assistant Vice President and Safety Officer
Wells Fargo Bank
San Francisco, CA USA

4:15 p.m. - 4:45 p.m.
REFRESHMENT BREAK — Lobby Level

4:45 p.m. - 5:45 p.m.
SUMMARY OF RECOMMENDATIONS — Room 1

6:30 p.m. - 8:30 p.m.
RECEPTION BUFFET — University Hilton Hotel

TUESDAY, FEBRUARY 8

8:00 a.m. - 9:00 a.m.
CONTINENTAL BREAKFAST — DCC - Lobby

9:00 a.m.
OPENING CONFERENCE SESSION — Room 1

THEME OF DAY: PREPARATION

° Session Chairman:

Dr. Arthur Atkisson
Department of Public & Environment
Administration
University of Wisconsin
Green Bay, Wisconsin USA

9:05 a.m. - 10:00 a.m.
HAZARD ANALYSIS AND MITIGATION — Room 1

° Participants:

Dr. Donald E. Hudson
Fred Champion Professor of Engineering
University of Southern California
Los Angeles, CA USA

Dr. Karl Steinbrugge
Professor Emeritus, School of Architecture
University of California, Berkeley
Berkeley, CA USA

Rolando Valenzuela
Chief Geophysicist
PAGASA
Manila, Philippines

Dr. Joseph Ziony
Office of Earthquake Studies
U.S. Geological Survey
Menlo Park, CA USA

10:00 a.m. - 10:30 a.m.
REFRESHMENT BREAK — Lobby Level

10:30 a.m. - 11:30 a.m.
CASE STUDIES — Room 1

° Participants:

Julio Kuroiwa
Principal Professor Engineering,
University of Peru; Technical Advisor
to Peru Civil Defense Committee
Lima, Peru

Fumio Watanabe
Deputy Director, Earthquake Disaster Prevention Div.
Fire Defense Agnecy, Ministry of Home Affairs
Tokyo, Japan

Susumu Kimiya
Director, Emergency Service Section
Disaster Prevention Div.
Tokyo Metropolitan Government
Tokyo, Japan

Lolita Garcia
Consultant in Seismology
PAGASA
Manila, Philippines

Dr. James Davis
State Geologist
Division of Mines and Geology
Sacramento, CA USA

William J. Kockelman
Office of Earthquake Studies
U.S. Geological Survey
Menlo Park, CA USA

11:30 a.m. - 12:00 p.m.
SUMMARY OF ISSUES AND PROBLEMS — Room 1

12:00 p.m. - 1:30 p.m.
LUNCH - WORKSHOP ROOMS

Each delegate will find his or her box lunch in the workshop selected for the afternoon session. Either before or after eating, there is time to view the exhibits.

1:30 p.m. - 3:30 p.m.
WORKSHOPS ON HAZARD MITIGATION

No. 5 ENERGY GENERATION AND STORAGE FACILITIES — Room 221B

° Moderator:

Councilwoman Joan Milke Flores
Los Angeles City Council
Los Angeles, CA USA

° Participants:

Dr. Haresh Shah
John Blume Earthquake Research Center
Stanford University
Palo Alto, CA USA

Ichiro Koshii
Technical Director, Governor's Office
Shizuoka Prefecture
Shizuoka, Japan

Dr. Prescilla Grew
President, California Public Utilities Commission
San Francisco, CA USA

No. 6 HAZARDOUS STRUCTURES — Room 224

° Moderator:

Councilman Robert Farrell
Los Angeles City Council
Los Angeles, CA USA

° Participants:

Dr. Gary Hart
University of California, Los Angeles
Los Angeles, CA USA

Earl Schwartz
Department of Building and Safety
Los Angeles, CA USA

Dr. Roberto Meli Niralla
Investigador Del Instituto De Ingeniera
De La Universidad
Nacional Autonoma De Mexico
Mexico City, Mexico

Donald Geis
American Institute of Architects Foundation
Washington, DC USA

No. 7 TRANSPORTATION AND LIFELINES — Room 3 BD

° Moderator:
Councilwoman Pat Russell
Los Angeles City Council
Los Angeles, CA USA

° Participants:

Munson Dowd
Retired Chief Engineer, Southern California
Metropolitan Water District
Altadena, CA USA

Hiroshi Momma
Deputy Director, Earthquake Disaster Preparation Div.
Governor's Office, Shizuoka Prefecture, Shizuoka, Japan

Luis Ganoza De Zavala
Assistant Manager for Electrolima
Lima, Peru

Stuart Werner
Agbabian Associates
Los Angeles, CA USA

Le Val Lund
Los Angeles City Department of Water
and Power
Los Angeles, CA USA

Luis Escalante
Los Angeles City Department of Water
and Power
Los Angeles, CA USA

Arq. Mario Sosa Ordono
Presidente Del Centro De Diseno
Para La Emergencias En El Habitat
Mexico City, Mexico

No. 8 CRITICAL FACILITIES

° Moderator:

Dr. D. Scott Janik
Medical Officer
Department of Health and Environmental
Protection
Anchorage, Alaska USA

° Participants:

William H. Barbee
Deputy Director, Emergency Management
Veteran's Administration
Washington, DC USA

John F. Meehan
Structural Safety Division
Office of California Architect
Sacramento, CA USA

Arq. Humberto Del Busto
Guatemalan Fire Service
Guatemala City, Guatemala

Mamoru Mizuguchi
Director, Earthquake Disaster Preparation Div.
Governor's Office, Shizuoka Prefecture, Shizuoka, Japan

Eng. Samuel Perez Pena
Subdirector, Emergencias Urbanas
SAHOP
Mexico City, Mexico

No. 9 LEGISLATIVE ACTIONS Room 220 B

° Moderator:

Councilman John Ferraro
Los Angeles City Council
Los Angeles, CA USA

° Participants:

Councilman Hal Bernson
Los Angeles City Council
Los Angeles, CA USA

Lic. Alicia Sosa Ordonez
Secretaria Del Centro De Diseno
Para La Emergencias En El Habitat
Mexico City, Mexico

Carye Brown
U.S. House of Representatives
Committee on Science and Technology
Washington, DC USA

Dr. Charles Thiel
Woodward-Clyde
San Francisco, CA USA

No. 10 ELECTRONIC TELECOMMUNICATIONS — Room 220 A

° Moderator:

Councilman Arthur K. Snyder
Los Angeles City Council
Los Angeles, CA USA

° Participants:

William E. Gates
Dames & Moore
Los Angeles, CA USA

Edward Dugan
Federal Reserve Bank of San Francisco
San Francisco, CA USA

No. 11 FINANCING EARTHQUAKE MITIGATION — Room 221 A

° Moderator:

Hugh Loftus
Vice President, Security Pacific National Bank
Los Angeles, CA USA

° Participants:

Dr. Richard Sanderson
Chief, Natural Hazards Division
Federal Emergency Management Agency
Washington, DC USA

3:30 p.m. - 4:00 p.m.
REFRESHMENT BREAK — Lobby Level

4:00 p.m. - 5:00 p.m.
SUMMARY OF RECOMMENDATIONS — Room 1

5:30 p.m. - 8:00 p.m.
RECEPTION BUFFET
"WESTERN FRONTIER" — California Museum of Science & Industry Exposition Park

Staff with arm badges will guide you to the Museum. Meet Tony Duquette and enjoy the "Our Lady Queen of the Angels," a special cultural event designed for the Los Angeles Bicentennial by Mr. Duquette.

WEDNESDAY, FEBRUARY 9

8:00 a.m. - 9:00 a.m.
CONTINENTAL BREAKFAST — DCC - Lobby

9:00 a.m.
OPENING CONFERENCE SESSION — Room 1

THEME OF DAY: "...THE FIRST 72 HOURS..."

° Session Chairman:

Lee Thomas
Deputy Executive Director
Federal Emergency Management Agency
Washington DC USA

9:05 a.m. - 10:00 a.m.
EMERGENCY RESPONSES — Room 1

° Participants:

Donald O. Manning
Chief Engineer and General Manager
Los Angeles City Fire Department
Emergency Operations Board
Los Angeles, CA USA

Oscar Ernesto Morales Pleitez
General Manager, Salvadoran Red Cross
San Salvador, El Salvador

Major Mauro Jose Humberto Fuentes Soria
Chief of Operations, National Emergency
Committee
Guatemala City, Guatemala

Eng. Ricardo Toledo
Asosiacion Mexicana De Seguros
Mexico City, Mexico

Shoichi Yamaguchi
Director, Disaster Prevention Div.
General Affairs Department
Sendai City, Japan

10:00 a.m. - 10:30 a.m.
REFRESHMENT BREAK — Lobby Level

10:30 a.m. - 11:30 a.m.
EMERGENCY PLANS Room 1

° Participants:

Daryl Gates
Chief, Los Angeles City Police Department
Emergency Operations Board
Los Angeles, CA USA

Minister Loris Fortuna
Minister of Civil Defense
Rome, Italy

Cesar Duque
Director, Fire Protection Association
Bogota, Colombia

Miguel Salvatierra
Architect, Professor at University Merida
Caracas, Venezuela

Tadashi Yasuda
Director, Disaster Prevention Div.
Tokyo Metropolitan Fire Dept.
Tokyo, Japan

Elveno Pastorelli
Head of Department of Civil Protection
Rome, Italy

11:30 a.m. - 12:00 p.m.
SUMMARY OF ISSUES AND PROBLEMS Room 1

12:30 p.m. - 2:30 p.m.
LUNCHEON University Hilton Hotel

° Speakers:

Senator William Campbell
California State Senate
Sacramento, CA USA

Dr. Ralph Turner
University of California, Los Angeles
Los Angeles, CA USA

2:30 p.m. - 4:30 p.m.
WORKSHOPS ON EMERGENCY RESPONSE

No. 12 DAMAGE RECONNAISSANCE Room 221A

° Moderator:

Commissioner James Hall
Los Angeles City Board of Public Works
Los Angeles, CA USA

° Participants:

Alexander Cunningham
Director, California Office of Emergency Services
Sacramento, CA USA

Major Mauro Jose Humberto Fuentes Soria
Chief of Operations, National Emergency Committee
Guatemala City, Guatemala

Commander George Morrison
Los Angeles Police Department
Emergency Operations Committee Los Angeles, CA USA

No. 13 EMERGENCY MANAGEMENT INFORMATION Room 224

° Moderator:

Norman Lamb
Hawaii State Civil Defense
Honolulu, Hawaii USA

° Participants

Dr. William A. Wallace
Rensselaer Polytechnic Institute
Troy, N.Y. USA

Dr. Frank de Balogh
Decision Support Systems Science Department
University of Southern California
Los Angeles, CA USA

Frederick M. Cole
Assistant Director of Asia and the Pacific
Office of Foreign Disaster Assistance:
Agency for International Development
Washington, DC USA

Terrence Haney
TEMJAM Industries, Inc.
Woodland Hills, CA USA

No. 14 MEDICAL RESPONSE Room 221B

° Moderator:

Councilman David Cunningham
Los Angeles City Council
Los Angeles, CA USA

° Participants:

Dr. Rodolfo MacDonald
Professor of Surgery, Faculty of Medicine
University of San Carlos
Guatemala City, Guatemala

Dr. Jose Arroyo
Disaster Coordinator, Ministry of Health
Quito, Ecuador

Takashi Sugiyama
Deputy Director, Disaster Prevention Division
Public Works Department
Kawasaki, Japan

Dr. Jose Luis Zeballos
Advisor on Emergency Preparedness and
Disaster Relief Coordination
Pan American Health Organization
Washington, DC USA

Dr. Donald Cheu
Task Force on Earthquake Preparedness
South San Francisco, CA USA

Dr. Ronald Kornblum
Chief Medical Examiner - Coroner,
Los Angeles County
Los Angeles, CA USA

Norma Gordon
Department of Mental Health,
Los Angeles County
Los Angeles, CA USA

No. 15 MASS CARE AND SHELTER Room 3 BD

° Moderator:

Councilman Howard Finn
Los Angeles City Council
Los Angeles, CA USA

° Participants:

Roy S. Popkin
Deputy National Director of
Disaster Services
American Red Cross
Washington, DC USA

Carlos Martinez Saenz
Director of Rescue Operations,
Red Cross of Colombia
Bogota, Colombia

J. Monroe Sullivan
Regional Emergency Transportation
Representative
U.S. Department of Transportation
Alameda, CA USA

James Haigwood
American Red Cross
Los Angeles, CA USA

No. 16 SCHOOL SAFETY PLANNNG Room 220A

° Moderator:

Gordon Trigg
Los Angeles Unified School District
Los Angeles, CA USA

° Participant:

Dr. Joan Arias
Education Program Supervisor
Southern California Earthquake
Preparedness Project
Los Angeles, CA USA

No. 17. RESTORING PRIMARY
PUBLIC SERVICES Room 1

° Moderator:

Councilwoman Joy Picus
Los Angeles City Council
Los Angeles, CA USA

° Participants:

Commissioner Maureen Kindel
President, Los Angeles City Board of
Public Works
Los Angeles, CA USA

Kaoru Yamane
Director, Disaster Prevention Div.
General Affairs Dept.
Yokohama City, Japan

Guillo Rossi-Crespi
Italeco SPA
Gruppo IRI-ITALSTAT
Rome, Italy

Max Rabines
Director of Planning, Sedapal
(Water Authority)
Lima, Peru

Dr. Edward A. Danehy
Alameda County Flood Control and
Water Conservation District
Haywood, CA USA

Dr. Roberto Meli Niralla
Investigador Del Instituto De Ingenieria
De La Universidad Nacional Autonoma
De Mexico
Mexico City, Mexico

No. 18. NEIGHBORHOOD INVOLVEMENT — Room 220B

° Moderator:

Libby Lafferty
Community Home Economic Services
La Canada, CA USA

° Participants:

Herbert Thier
University of California, Berkeley
Berkeley, CA USA

Colonel Victor Pagulayan
Administrator, Office of Civil Defense
National Disaster Control Center
Manila, Philippines

William E. Yoes
Emergency Planning Coordinator
City of San Francisco
San Francisco, CA USA

Pat Snyder
American Red Cross
Los Angeles, CA USA

Tom Williams
Citizens Emergency Mobile Patrol
Simi Valley, CA USA

4:30 p.m. - 5:00 p.m.
REFRESHMENT BREAK — Lobby Level

5:00 p.m. - 6:00 p.m.
SUMMARY OF RECOMMENDATIONS — Room 1

6:00 p.m. - 7:30 p.m.
CALIFORNIA LIFESTYLE RECEPTION — Lobby Level

7:30 p.m. - 9:00 p.m.
SPECIAL SESSIONS

No. 1 ROLE OF BROADCAST MEDIA Room 1

° Moderator:

James Holton
Director of Public Affairs
Federal Emergency Mangement Agency
Washington, DC USA

° Participants:

Robert Eaton
NBC Bureau Chief
USA

Ted Savaglio
CBS Bureau Chief
USA

Rick Rudmen
Chief Engineer, KFWB
Los Angeles, CA USA

Tom Searson
Assignment Editor, KHJ
Los Angeles, CA USA

No. 2 RECOVERY AFTER AN EARTHQUAKE Room 3

° Moderator:

Ezunial Burts
California Seismic Safety Commission; Task Force on Earthquake Preparedness
Assistant to Mayor Tom Bradley
Los Angeles, CA USA

° Participants:

Dr. Lidia Selkregg
Professor of Resource Economics and Planning
University of Alaska;
Member of Anchorage Municipal Assembly
Anchorage, Alaska USA

Arq. Jorge Pallas Caceres
Director General de Prevencion y Atencion
De Emergencias Urbanas, SAHOP
Mexico City, Mexico

Major Mauro Jose Humberto Fuentes Soria
Chief Of Operations, National Emergency
Committee
Guatemala City, Guatemala

Representative of Nicaragua

No. 3 DISASTER PREPAREDNESS AND
RELIEF ACTIVITIES Room 224

Multi-national presentations. This is an opportunity for anyone at the Conference to make a presentation and to show slides. Please check in the Speakers' Lounge, to the left of the Registration Desk in the Lobby, if you care to participate.

THURSDAY, FEBRUARY 10

THEME OF DAY:
AN EARTHQUAKE RESPONSE: "SEISMOS '83"

8:15 a.m. University Hilton Hotel/
Ambassador Hotel

Buses will depart from both hotels for the site of "Seismos '83" in the parking lot west of the Coliseum. For those driving their own cars, parking will be available at the parking lot of the University Hilton Hotel.

9:00 a.m. - 10:00 a.m. Parking Lot, Coliseum

LOS ANGELES EMERGENCY OPERATIONS AND RESPONSE PLAN

° Participants:

Councilman Hal Bernson
Los Angeles City Council
Los Angeles, CA USA

Ezunial Burts
California Seismic Safety Commission;
Task Force on Earthquake Preparedness
Assistant to Mayor Tom Bradley
Los Angeles, CA USA

Frank Borden
Assistant Chief
Los Angeles City Fire Department
Los Angeles, CA USA

10:00 a.m. - 1:00 p.m. A CITY IN ACTION

° Narrator:

Scott Lenz
Battalion Chief,
Los Angeles City Fire Department
Los Angeles, CA USA

1:00 p.m. - 2:00 p.m. LUNCHEON BREAK

Luncheon is courtesy of the North Hills Jaycess and the Salvation Army.

2:00 p.m. - 3:00 p.m. RESCUE DEMONSTRATION

° Narrator:

Richard Baker
Battalion Chief,
Los Angeles City Fire Department
Los Angeles, CA USA

3:00 p.m. - 4:00 p.m. REVIEW AND CRITIQUE

Delwin Biagi
Deputy City Engineer
Department of Public Works
City of Los Angeles
Los Angeles, CA USA

Peter Lucarelli
Assistant Chief,
Los Angeles City Fire Department
Los Angeles, CA USA

Shirley Mattingly
Chief Administrative Analyst
City Administrative Office
City of Los Angeles
Los Angeles, CA USA

George Morrison
Commander, Los Angeles City
Police Department
Los Angeles, CA USA

7:00 p.m. BANQUET University Hilton Hotel

Speakers:

Honorable George E. Brown, Jr.
U.S. House of Representatives
Washington, DC USA

Panayotis Stanissis
Special Advisor on
Development and Assistance
League of Red Cross Societies
Geneva, Switzerland

FRIDAY, FEBRUARY 11

OPTIONAL TOURS

The following tours have been coordinated by Dr. Thomas Henyey, University of Southern California; Dr. Clarence Allen, California Institute of Technology, and Satoru Matsuda of the Los Angeles City Department of Water and Power. Please check at the Registration Desk of the Davidson Conference Center for details of each tour.

Tour No. 1: SAN ANDREAS FAULT

Tour No. 2: VAN NORMAN DAM

Tour No. 3: CALIFORNIA INSTITUTE OF TECHNOLOGY SEISMOLOGICAL LABORATORY

Tour No. 4: UNIVERSITY OF SOUTHERN CALIFORNIA SEISMOLOGICAL LABORATORY

VI. EARTHQUAKE CONFERENCE EXHIBITORS:

1. California State Office of Emergency Services
   - Anita Garcia, Public Information Officer

2. Southern California Earthquake Preparedness Project
   - Gilbert Najera or Jeff Sampson

3. American Red Cross (Los Angeles Chapter)
   - Ralph Wright, Director, Office of Public Relations

4. U.S. Geological Survey, Office of Earthquake Studies
   - William Kockelman or Wally Black

5. Los Angeles Unified School District
   - Ed Kissler, Assistant Director of Emergency Planning

6. California Institute of Technology, Seismological Laboratory
   - Kathy Watts

7. California State University, Northridge, Department of Geology
   - Dr. Gerry Simila

8. University of Southern California
   - Dr. Bill Petak (he coordinated 3 departments and approximately 7 individuals)

9. Department of Water & Power
   - Erna Bridges, Walter Zeisl

10. Department of Building & Safety
    - Bill Grimes

11. Department of Public Works, Bureau of Engineering
    - Del Biagi (or Del's Secretary Jeanette)

12. Secretariat of Urban Development and Ecology (of Mexico)
    - submitted through SCEPP, contacts would be the same

VII. QUESTIONNAIRE SUMMARY:

1. PROCESS: Please rate how well the conference was planned.

Poor:	1
Fair:	4
Excellent:	15

Please rate how well the program was adhered to:

Poor:	0
Fair:	7
Excellent:	13

2. CONTENT: Please rate the information you received to indicate how much:

a. You already knew:

None:	1
Some:	10
Most:	7

b. You will use in your planning to stengthen:

1) Plans for response to earthquake forecast:

None:	1
Some:	11
Most:	7

2) Programs for identification and mitigation of earthquake hazards:

None:	3
Some:	11
Most:	5

3) Earthquake response and recovery planning:

None:	2
Some:	9
Most:	7

3. CONFERENCE FORMAT AND METHODOLOGY: Based on the overall design of the Conference:

a. How well did the plenary session/workshop format work in structuring the Conference?

Not well:	1
Well:	10
Very well:	8

b. How well did the presentations in the plenary sessions relate to the follow-up workshops?

Not well:	2
Well:	13
Very well:	4

c. Did the workshop format allow for a useful exchange of information and/or experiences?

Not well:	4
Well:	8
Very well:	7

4. OBJECTIVES: How well did the Conference achieve its following stated objectives?

a. Clarified understanding of governmental response to earthquake risk assessment and forecasted events.

Poor:	2
Fair:	8
Excellent:	9

b. Enabled you to formulate recommendations about policies and strategies for meeting needs resulting from forecast.

Poor:	2
Fair:	12
Excellent:	5

c. Enabled you to identify research and applications in the identification and mitigation of the earthquake hazard which could be utilized in your planning.

Poor:	3
Fair:	12
Excellent:	5

d. Enabled you to identify useful approaches and methods in earthquake emergency response and recovery planning.

Poor:	2
Fair:	12
Excellent:	5

e. Enabled you to develop recommendations for the application of current research in your planning.

Poor:	1
Fair:	12
Excellent:	7

5. LENGTH: Given the stated objectives, how would you rate the length of the Conference?

Too short:	0	
Just right:	11	(Most comments said the
Too long:	8	Thursday's exercise was too long)

6. CONFERENCE THEMES: Based on each day's theme:

a. How well do you feel you will be able to use the information you obtained at this Conference in your own planning?

Not at all:	2
Somewhat:	10
Very well:	7

b. How feasible will it be for you to implement the policies and approaches expressed at this Conference in your planning situation?

Not very feasible:	2
Somewhat:	15
Highly feasible:	2

c. How likely is it that you will directly apply some of these approaches and research findings within the next year in your planning situation?

Not very likely:	3
Somewhat:	9
Highly likely:	7

7. OVERALL RATING: How would you rate the Conference overall?

Not useful:	2
Moderately useful:	7
Very useful:	10

OPEN-ENDED QUESTIONS:

8. WHAT WERE THE CONFERENCE'S STRONGEST POINTS:

- U.S./foreign exchange; the international "mix"
- Tight schedule
- Bernson's low-keyed manner and leadership
- Hospitable environment/facilities and amenities
- Sessions chairs, workshop moderators/quality & breadth of presentations
- Outstanding staff
- Workshop format - enabled sharing of vital current information
- Exposure to international experts and practitioners
- Technical and scientific presentations
- Excellent exchange at luncheons and banquets - excellent food & wine
- Participation of public elected officials
- Brought together third world and industrial nation planners
- Introduced scientists to administrators' problems and vice versa
- Extraordinary planning and coordination effort
- Translation and audio-visual services
- Awareness of information sources for future information
- Selection of topics

9. WHAT WERE THE CONFERENCE'S WEAKEST POINTS?

- Speakers with printed materials should be requested to summarize rather than to read verbatim
- Organize effective distribution of printed materials
- Length of the Seismos '83 exercise
- Lack of examples of long-term mitigation except for Davis & Kockelman
- Limit each speaker to a specific subject; limit number of speakers
- Start breakfast 7:00 - 8:00 a.m.; start work at 8:00 a.m.
- The box lunch
- More time was needed for exchange of knowledge & experiences
- Spouses were isolated
- Keep evenings free
- Split hotels are bad situation
- Foreign speakers telling about events in their countries but not explaining specifically how they will cope next time
- Keep strictly on schedule; breaks too long
- Most speakers spoke in generalities; specifics lacking
- Linkage of plenary sessions to workshops
- Too much time spent on plenary and preparedness; not enough on response
- Summarizing workshop conclusions

10. IN WHAT TECHNICAL AREAS DO YOU FEEL A NEED FOR ADDITIONAL INFORMATION?

- Planning
- Microzoning
- Mass hospitalizations (up to 50,000 injuries)
  first aid, triage, evacuation/hospitalization
- Mass care (hundreds of people)
  Housing, food, clothing, lost people (children), security, water, etc.
- Personal and family preparedness
  What to do at family level, before, during, and after an earthquake
- Discussion of the way to institutionalize international cooperation and coordination:
  A way is needed for permanent, regular interchange in order to:
  - exchange technical and scientific information between countries; achieve emergency aid in case of major disaster (sometimes the aid is not needed and is another difficult problem to resolve), "lubricate" the aid mechanisms; provide names, telephones, addresses of responsible people.
- Specifics of experiences (e.g., dead, injured, utilities); end results; what worked and why; what did not work and why.
- Government response -- the politics of risk
- Causes of quakes
- Actual time-phased actions of earthquake motion
- Prediction capability progress
- Earthquake effects that can be expected on modern structures
- Telephone capabilities for response; what is recommended for hardening the sites of telephone switches in ciritical facilities?
- More operational facts
- Copies of legislation enacted by cities, states, countries
- Access to earthquake prediction scientists
- Adaption of prediction/prevention measures at grass roots level
- Interpretation of the P-wave, etc. on earthquake recorder; explanation of dots and acronyms on the display map.
- Translated science for non-scientists
- Hazard risk maps
- Long-term reduction techniques; hazard reduction success examples