



International Association of Seismology and Physics of the Earth's Interior



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27th General Assembly Wellington, New Zealand 10-21 January 1994

The 27th General Assembly was held at Victoria University of Wellington, Wellington, New Zealand, from 10-21 January 1994.

The Assembly was attended by 483 scientific participants and 55 accompanying members from 42 countries. 399 oral papers and about 160 posters were presented in 27 symposia and workshops, including additional special sessions on New Zealand Seismotectonics and the Latur earthquake. The 17 January California earthquake provided additional interest during the Assembly.

Opening Ceremony 10 January 1994

The Opening Ceremony took place at 0900 on 10 January, with the speakers being introduced by Dr. F.J. Davey, Chairman of the Local Organizing Committee.

The General Assembly was opened by the Honorable Simon Upton, Minister for Research, Science and Technology. Mr. Upton noted the wide interest in New Zealand in the earth sciences and particularly seismology which has extended from the earliest time of European settlement. He emphasized that international cooperation was a vital component of seismology and noted his government's interest to increase its support for science. He wished delegates an interesting and enjoyable meeting.

The Mayor of Wellington, the Honorable Fran Wilde, noted the awareness of the City to the active Wellington fault through the city and the large areas of land reclaimed for city buildings from the harbor which have given rise to strict seismic building codes and the replacement of some older buildings in the region.

The next speaker was Professor Phillipa Black, President of the Royal Society of New Zealand, who noted that scientific interest was not incompatible with social responsibility and that research in earth science was vital even though it may not give results of immediate return.

The President of IASPEI, Professor Alexei Nikolaev, noted the often serendipitous nature of scientific discovery and hoped that this might be fulfilled at the Assembly. He thanked New Zealand for hosting the meeting.

Finally, Dr. Davey thanked the delegates for their support in coming, often long distances, to attend the meeting, members of his Local Organizing Committee for their work in preparing for the Assembly, and the Organizations who sponsored the meeting.

Opening Plenary Session 10 January 1994

Present: Prof. A.V. Nikolaev (President) in the Chair and about 300 delegates and guests.

The President opened the meeting at 1030 and welcomed participants.

Dr. E.R. Engdahl (Secretary-General) read aloud the following list of colleagues who had died since the last IASPEI General Assembly in 1991 and asked those present to take a few moments of silence in their memory.

Prof. M. Alexidze (Georgia)
Prof. J.H. Ansell (New Zealand)
Prof. Emilio R. Deutsch (Mexico)

Prof. Durk J. Doornbos (Norway)
Mr. George A. Eiby (New Zealand)
Prof. Walter M. Elsasser (USA)
Dr. Trevor Hatherton (New Zealand)
Mr. Joses H. Kanyanta (Zambia)
Dr. Inge Lehmann (Denmark)
Dr. Jorge Lomnitz-Adler (Mexico)
Prof. Chaim L. Pekeris (Israel)
Prof. A.E. Ringwood (Australia)
Dr. V. Solonenko (Russia)
Dr. John P. Webb (Australia)
Prof. J. Tuzo Wilson (Canada)

The Secretary-General announced that the major items of business at this Assembly were:

To develop the IASPEI scientific program for the 21st General Assembly of IUGG and the 28th General Assembly of IASPEI, to be held in Boulder, Colorado, U.S.A., 2-14 July 1985.

To select a venue for the 29th General Assembly of IASPEI in 1997. The candidate host locations are Beijing (China), Prague (The Czech Republic), Helsinki (Finland), Sophia-Antipolis (France), Reykjavík (Iceland), Utrecht (The Netherlands), Bergen (Norway) and Thessaloniki (Greece).

Dr. Engdahl then announced the composition of the Resolutions Committee as follows:

Prof. B.L.N. Kennett (Australia), Chairman
Prof. M. Ohnaka (Japan)
Dr. W.D. Smith (New Zealand)

The deadline for submission of draft resolutions was set at 1230, Tuesday, January 18.

The President closed the meeting at 1045.

Scientific Program

Convenors' summaries of these sessions will be published in the IUGG Chronicle.

Association Symposium

10 Jan, International Decade for Natural Disaster Reduction (A3), Convenors: B.A. Bolt (Chairman, Commission for IDNDR), R. Van Dissen (New Zealand).

Association Lectures

13 Jan, Active Margin Oroclines (A4), Lecturer: R. I. Walcott (New Zealand).

19 Jan, The Statistical Mechanics of Earthquakes (A6), Lecturer: J.B. Rundle (USA).

Symposia

10-11 Jan, Wave Propagation in Heterogeneous Media: Deterministic and Stochastic (S1), Convenors: A.J. Haines (New Zealand), H. Sato (Japan), D. Seidl (Germany)

11-12 Jan, Earthquake Hazard & Risk (S2), Convenors: V. Schenk (Czech Republic), G.A. Sobolev (Russia), A. Shapira (Israel)

12-13 Jan, Deep Earth Discontinuities: Configuration and Dynamics (S4, Joint with SEDI), Convenors: F.D. Stacey (Australia), T. Lay (USA), U. Christensen (Germany)

13 Jan, Sedimentary Basins of the Asia-Pacific Region and their Tectonic Setting (S3, Joint with ILP), Convenors: D.M. Finlayson (Australia), C. Beaumont (Canada), F.J. Davey (New Zealand), S. Cloetingh (The Netherlands)

13-14 Jan, Earthquake Prediction (S6), Convenors: D.A. Rhoades (New Zealand), G. Molchan (Russia), M. Wyss (USA)

14 Jan, Structure and Composition of the Earth's Interior and their Relation to Planetary Evolution (S5, Joint with SEDI), Convenors: S. Franck (Germany), T.J. Ahrens (USA)

17-18 Jan, Seismic Tomography and Mantle Dynamics (S7, Joint with SEDI), Convenors: Y. Fukao (Japan), W. Spakman (The Netherlands), H.C. Nataf (France)

18 Jan, Northridge, California, Earthquake (12 hours after the earthquake at 17 January 0430 PST), Presiding: D. Eberhart-Phillips (USA)

19 Jan, Latur Earthquake, Convenor: H.K. Gupta (India)

19-20 Jan, Subduction Zones and Back Arc Basins (S8), Convenors: M. Reyners (New Zealand), A. Hasegawa (Japan)

19-20 Jan, Geothermal Aspects of Lower Crustal structure, Petrology and Rheology (S9), Convenors: V. Cermak (Czech Republic), D.M. Fountain (USA), R. Allis (New Zealand), J.P. Patel (Kenya)

20 Jan, Location and Quantification of Regional Earthquakes (S10), Convenors: D. Giardini (Italy), K. Koketsu (Japan), E.G.C. Smith (New Zealand)

20 Jan, Milli- and Micro-Hz Seismology (S11), Convenors: G. Beroza (USA), A.A. Ostrovsky (Russia)

21 Jan, Detailed Seismic Studies in Ridge Areas (S12), Convenors: H. Shimamura (Japan), L.A. Mendes Victor (Portugal), R. Stefansson (Iceland), A. Hirn (France)

Workshops

10 Jan, Seismological and Tsunami Hazards in the Pacific (W1), Convenors: R.D. Adams (UK), W.D. Smith (New Zealand)

12 Jan, Upgrading Global Seismological Practice (W2), Convenors: E.A. Bergman (USA), F. Scherbaum (Germany), E.S. Husebye (Norway), M. Randall (New Zealand)

12 Jan, Anisotropy on Large and Small Scales (W3), Convenors: P.G. Silver (USA), E.M. Chesnokov (Russia)

17 Jan, Delay Times and Seismic Tomography: Statistics, Algorithms and Errors (W4), Convenor: G. Nolet (USA)

17 Jan, Earthquake Source Modeling and Fault Mechanics (W5), Convenors: R.H. Sibson (New Zealand), M. Ohnaka (Japan)

18 Jan, Non-Linear Seismology (W7), Convenors: P.A. Johnson (USA), I. Beresnev (Russia)

18 Jan, Effects of Surface Geology on Seismic Motion (W8), Convenors: M.O. Erdik (Turkey), B.E. Tucker (USA)

18 Jan, Space Geodesy and Real Time Tectonics (W9, Joint with ILP), Convenors: J.A. Jackson (UK), R.I. Walcott (New Zealand), S. Zerbini (Italy)

18-19 Jan, Heat Flow and Hydrothermal Circulation (W10), Convenors: L. Rybach (Switzerland), D.S. Chapman (USA), V.M. Hamza (Brazil)

20 Jan, Induced Seismicity (W6), Convenor: H.K. Gupta (India)

20 Jan, New Zealand and Others (W99), Convenors: F.J. Davey (New Zealand), K.R. Berryman (New Zealand)

21 Jan, Broad-Band Seismology and Seismic Sources (W11), Convenor: B. Romanowicz (USA)

21 Jan, New Findings on Strong Ground Motions from Recent Great Earthquakes (W12), Convenors: Xie, Li-li (China), G. McVerry (New Zealand)

Other Meetings

11 Jan, Committee for Developing Countries

11 Jan, Federation of Digital broadband Seismograph Networks

12 Jan, Commission for International Decade for Natural Disaster Reduction

12 Jan, Commission on Wave Propagation: 20 Jan, Joint Sub-Commission on Earthquake Algorithms

14 Jan, Commission on Controlled Source Seismology

14 Jan, Commission on Physical Properties of Materials of the Earth's Interior

17 Jan, Commission on Earthquake Hazard and Prediction: 12 Jan, Sub-Commission on Earthquake Hazard; 14 Jan, Sub-Commission on Earthquake Prediction; 17 Jan, Sub-Commission on Modeling the Earthquake Source; 17 Jan, Sub-Commission on Strong Motion Seismology

17 Jan, International Seismological Observing Period (ISOP)

17 Jan, Commission on Geodynamics and Tectonophysics

18 Jan, Federation of Digital broadband Seismograph Networks

18 Jan, Commission on Practice: 12 Jan, Sub-Commission on Reporting Standards; 11 Jan, Working Group on Magnitude Calibrating Functions; 11 Jan, Working Group on Regionalization

19 Jan, International Heat Flow Commission

19 Jan, European Seismological Commission

Closing Plenary Session 21 January 1994

Present: Prof. A.V. Nikolaev (President) in the Chair and about 300 delegates and guests.

The President opened the meeting at 1600, and after welcoming participants, announced that a member of the IASPEI Executive Committee, Dr. Jorge Lomnitz-Adler (Mexico), died a few days before the beginning of our Assembly.

He asked that we take a minute's silence to remember him.

President's Report

The President reported that we had about 450 participants and 800 technical reports, both oral and poster, at this Assembly. The Scientific and the Social Programs were completely fulfilled. The Icebreaker and Reception in Parliament were excellent, and we had a beautiful chance to test the Maori's meal and to watch the Maori Concert Party. These events remain in our memory as bright pictures of the New Zealand General Assembly.

The President did not comment on the scientific side of the Assembly because it is evident to all the participants. The Symposia and Workshops were extremely interesting, and discussions were fruitful. This Assembly will remain in the history of IASPEI as a very significant event.

During the Assembly there were five meetings of the IASPEI Executive Committee and two Bureau meetings. So all the necessary problems of our Association business seem to have been solved completely. The most important information on these meetings was then given.

Since the IUGG General Assembly in Vienna in 1991 a number of IASPEI sponsored meetings have been conducted. A short summary follows:

1992 July, International Symposium on Effects of Surface Geology on Seismic Motion, Odawara, Japan.

1992 July, 3rd International SEDI Symposium, Mizusawa, Japan.

1992 September, General Assembly of European Seismological Commission, Prague, Czech Republic.

1992 September, 5th International Symposium on Seismic Reflection Probing of the Continents and their Margins, Banff, Canada.

1992 October, 2nd International Conference on Intercontinental Earthquakes, Beijing, China.

1993 June, Yemen Seminar on Seismic Hazard and Earthquake Disaster Mitigation, Republic of Yemen.

1993 September, Meeting of Working Group of Economic Losses from Earthquakes, Moscow, Russia.

1993 September, Workshop on Regional Seismology in Eurasia, Obninsk, Russia.

1993 October, International Conference on Continental Collision Zone, Earthquakes and Seismic Hazard Reduction, Yerevan, Armenian Republic.

This is a significant part of the activities of the geophysical community which is comparable to General Assemblies.

In the past 2 years many special publications have been issued and this is an important source of our income from Elsevier. I would also mention also our Newsletter which is irregularly issued.

Secretary-General's Report

Dr. E.R. Engdahl (Secretary-General) reported that the administration of Association activities has now been entirely computerized. The Structure of the Association has also been elaborated and a listing posted on the notice board during this Assembly. A Mailing List of more than 800 names has been compiled and is continuously being updated. An Association Newsletter has been irregularly issued in a new two-column format. Suggestions for improvement of the Newsletter and written contributions from the general scientific community are encouraged.

Financial Reports

The Secretary-General reviewed the 1991 and 1992 Financial Reports for the Association which were published in Newsletter 33. Major sources of income during this period were IUGG Allocations, Grants, and Sales of Publications. Major expenditures were Administration, General Assemblies, and support for other Symposia and Scientific Meetings.

Association Activities

In addition to the activities presented previously, the President reported that all IASPEI Commissions have had their meetings during this Assembly. He announced several changes.

Commission on Earthquake Hazard and Prediction - The Sub-Commission on

Earthquake Hazard is re-named the Sub-Commission on Earthquake Hazard and Risk, Chaired by V. Schenk (Czech Republic). A new Working Group on Earthquake Losses is established, Chaired by Chen, Yong (China).

Commission on Wave Propagation - The former Commission Chair, B.L.N. Kennett, is replaced by C. Thomson (Canada). The Sub-Commission on Anisotropy has been reactivated with Chairman E. Chesnokov (Russia).

Union Activities

The President reported that the main Union activities concerning IASPEI were two IUGG Executive Committee Meetings, which were held May 1992 in Beijing, China, and November 1993 in Paris, France. New countries which have appealed for membership in IUGG are Croatia, Czech Republic, Slovak Republic, Slovenia, Estonia, Ukraine Republic, and Moldavian Republic. These appeals were approved by the Executive Committee and membership is expected to be granted at the next IUGG General Assembly. Another important item of business was the development of the Scientific Program for the 1995 IUGG General Assembly to be held in Boulder, Colorado, U.S.A.. The program of Union and Inter-Association Symposia and Workshops was accepted after detailed discussions. This program has been displayed on the notice board during the Assembly.

Regional Seismological Assembly in South America

The Secretary-General announced that a Regional Seismological Assembly in South America will be held in Brasilia, Brazil, during 22-26 August, 1994. The Assembly is sponsored by IASPEI, ILP, and UNESCO and is being organized by CERESIS in the framework of the IDNDR. A Second Circular has been prepared by the Local Organizing Committee and distributed at this Assembly. The Abstract Deadline is 15 April 1994.

21st IUGG General Assembly

The Secretary-General reported that preliminary Titles and Convenors for IASPEI-related Symposia and Workshops for the Boulder meeting have been posted on the notice board during this Assembly. He also announced that the Second Circular, containing program information, and a listing

of Symposia, Workshops, and Convenors, will be distributed this February. The Third Circular, containing further program information, a Framework Program, and the Call for Papers, will be distributed later this year.

The Abstract Deadline will be 1 February 1995.

General comments followed. The Assembly is being organized by the American Geophysical Union for the U.S. National Committee. It will be held on the campus of the University of Colorado in Boulder, Colorado. Housing and meals at the University will be available at very reasonable prices, but hotels will be available for those who prefer. The program for this meeting is being organized by a Program Committee consisting of the Association Secretaries General or their designated alternates. The Committee is chaired by Prof. David Chapman from the University of Utah. The Committee has agreed: (1) to encourage abstracts on any topic in geophysics, whether there is a specific symposium or not; and (2) to accept at least one contribution from each individual scientist who submits an abstract.

29th IASPEI General Assembly

The Secretary-General announced that Thessaloniki, Greece, has been selected by the Executive Committee as the venue for the 29th IASPEI General Assembly in 1997. The Association expects the Local Organizing Committee to provide a high level of support to participants for travel and local expenses. The Scientific Program for this Association Assembly will be developed at the 1995 IUGG General Assembly in Boulder.

Nominating Committee

The President announced the composition of the Nominating Committee to propose a slate of officers at the 1995 General Assembly. The members are Profs. S. Mueller (Switzerland, Chairman), B.A. Bolt (USA), and Y. Fukao (Japan). The President, First Vice-President, Second Vice-President, Secretary-General, and four additional Members of the Executive Committee should be nominated. Nominations should be sent directly to:

Prof. S. Mueller
Institut für Geophysik
ETH-Hönggerberg

CH-8093 Zürich
SWITZERLAND
Tel: 41 1 633 2610
Fax: 41 1 371 2556;
E-mail: kiss@tomo.ifg.ethz.ch

Resolutions

Prof. B.L.N. Kennett, Chairman of the Resolutions Committee, then proposed the Resolutions given below. They were accepted without modification.

Other Business

Prof. B.L.N. Kennett announced that, following the tragic death of Prof. Durk Doornbos in a cycle accident in Oslo last April, his friends and colleagues have established a Memorial Fund (administered through IASPEI) to support a Prize for Young Scientists working on the Earth's Deep Interior.

There is now sufficient capital to initiate the prize and so from the presentations at this meeting the first Doornbos Memorial Prize Winner has been selected.

Dr. Jeroen Tromp from Harvard University for an elegant study of the anisotropy of the inner core using both free oscillation and travel times.

There being no further business, the President once more thanked the Local Organizing Committee and expressed the hope that participants had enjoyed their stay in New Zealand.

The President closed the meeting at 1645.

IASPEI Resolutions Adopted Wellington, New Zealand 21 January 1994

1. Asian Seismological Commission

Noting the very large population and earthquake hazard in Asia and the need to improve cooperation between Asian and Pacific nations,

IASPEI **endorses** the formation of an Asian Seismological Commission to promote academic exchange, cooperation, upgrading of seismological research and strengthening measures to mitigate disasters.

2. Seismic Hazard

Noting the growing threat of great earthquakes and tsunamis and to life and economic welfare in a great many countries of the world,

recognising that catastrophic loss of life, property damage, and social and economic disruption could be significantly reduced by a major international program that develops further scientific and engineering knowledge, extends technology transfer and technical assistance, and accelerates education and training world-wide,

considering the establishment of an International Decade for Natural Disaster Reduction (IDNDR) for the period 1990 to 2000 as a highly cost effective program,

IASPEI **urges** the United Nations, ICSU, all concerned nations and all relevant scientific, engineering and socio-economic organisations, to increase priorities for earthquake disaster mitigation and provide adequate support and leadership.

3. Global Seismic Hazard Assessment Program

Considering the establishment of the International Decade of Natural Disaster Reduction (IDNDR) by the United Nations (UN), the adoption of the Global Seismic Hazard Assessment Program (GSHAP) by the International Council of Scientific Unions (ICSU), the endorsement of GSHAP as a demonstration project by the Scientific and Technical Committee of the UN Decade, and

recognising the increased need to cooperate in the field of global seismic hazard assessment and the experience and expertise IASPEI has accumulated in this field through its Commissions, Subcommissions and Working groups,

IASPEI **endorses** the GSHAP initiative, **supports** the establishment of international test areas under the supervision of Regional Centres,

urges assistance to GSHAP in the establishment of standards and guide-lines applicable within the time frame of the Decade.

4. Earthquake Risk

Recognising the great need to expand and emphasise seismological interest in risk and loss assessment,

IASPEI **endorses** the efforts of the Sub-Commission on Earthquake Hazard and Risk to initiate pilot projects on local and regional

scales to test and develop methodologies, techniques and procedures for realistic assessment of earthquake risk. Current candidates for test areas are 1) the Gulf of Aqaba/Eilat and 2) Central America

5. Macroseismic Data

Considering the increased importance of historical and macroseismic data for the assessment of long-term seismicity and seismic hazard and the need for a homogeneous updated data set, IASPEI **recommends** that standard criteria be established in order to organize regional macroseismic data banks.

6. Regional Cooperation

Recognising the vital importance of regional cooperation in seismology, and particularly in establishing common recording and analysis techniques throughout specific regions, IASPEI **commends** the holding of regional training workshops, and **urges** sponsoring agencies to continue to support such workshops in appropriate regions.

7. Digital Processing of Routine Data

Recognising the rapidly growing fraction of seismological observatories operating digital seismograph equipment, and **noting** that seismological parameters measured from digital data are highly dependent on the procedures used in processing data prior to analysis, for example, interactive software, IASPEI **urges** all seismological agencies adopt new protocols governing the measurement of routine seismological parameters from digital waveform data, including the processing of waveform data prior to analysis, to be developed under the guidance of the Commission on Practice.

8. Magnitude Calibrating Functions

Noting that broadband observations of seismic waves are gaining importance in studies of source parameters and of the earth structure, as well as in seismological practice, and that the concept of magnitude is expected to continue to play a significant role in the future, IASPEI **suggests** that tests of the new calibrating functions developed by the Working Group on Magnitude Calibration Functions be considered for inclusion in the

International Seismological Observing Period project (ISOP) with the aim of verifying the theoretical functions with high-standard empirical observations.

9. Federation of Digital Seismographic Networks

Recognising the successful efforts conducted by the members of the Federation of Digital Seismographic Networks (FDSN) to achieve a global coverage of state-of-the-art broad-band stations,

IASPEI **commends** these efforts, and **endorses**

- a) the continuing attempt to improve the global coverage by deploying stations in remote areas, ocean islands and on the sea floor, and
- b) the need for denser coverage in continental areas for high-resolution studies of regional seismicity and Earth structure.

10. Communication

Recognising the need to maximise the interaction between participants at General Assemblies and the very effective arrangements at this meeting

IASPEI **urges** that poster displays should be placed adjacent to the location of oral presentations.

11. Appreciation

Recognising the effort required to organise a General Assembly

IASPEI **thinks and congratulates** the members of the Local Organising Committee for a memorable meeting in Wellington.

**Regional Seismological Assembly
in South America
Brasilia, Brazil
22-26 August 1994**

This Assembly is sponsored by IASPEI, ILP and UNESCO, and is being organized by CERESIS. The Second Circular, containing housing and registration forms, preliminary program details, and the Call for Papers is now available from the Local Organizing Committee (Observatório Sismológico, Universidade de Brasilia, 70910-900 Brasilia, DF - BRAZIL; Tel: 55 61 348 2145/2675; Fax: 55 61 274 5927; E-mail: OBSIS@BRUNB.BITNET; Telex: 612730 UNBS BR). Abstracts are acceptable in English (preferred) and Spanish.

The following lectures and scientific sessions have been arranged by CERESIS:

Invited Lectures

IDNDR Program in Latin America
Lecturer: A. Giesecke (Peru)

Structure of the South American Plate
Lecturer: D. James (USA)

Broad Band Seismology and Its Applications
Lecturer: B. Dost (The Netherlands)

Earthquake Hazard and Risk in Latin America
Lecturer: S.T. Algermissen (USA)

A Theme on Andean Tectonics
Lecturer: K. Burke (ILP President)

Andean Neotectonics
Lecturer: M. Sebrier (France)

Modern Techniques for Active Fault
Characterization
Lecturer: G. Brogan (USA)

Symposia

Seismicity Studies and Evaluation of
Earthquake Hazard and Risk
Convenors: P. Basham (Canada),
S.T. Algermissen (USA), E. Kausel (Chile)
and H. Yepes (Ecuador)

Prevention, Prediction and Mitigation of
Earthquake Disasters
Convenors: A. Giesecke (Peru), J. Zamarbide
(Argentina) and L. Ponce (Chile)

Strong Motion Seismology
Convenors: K. Singh (Mexico), R. Saragoni
(Chile) and A. Sarria (Colombia)

Tectonic Features and Lithospheric Structure
S. Kirby (USA), M. Assumpcao (Brazil) and
L.A. Drake (Bolivia)

Stress and Source Mechanism
Convenors: A. Cisternas (France), D. Comte
(Chile) and M. Araujo (Argentina)

Earthquake Associated Phenomena
Convenors: J. Monge (Chile), L. Ocola (Peru)
and J. Mendoza (Venezuela)

Seismological Studies Related to
Vulcanological
Phenomena
Convenors: M. Hall (Ecuador), H. Meyer
(Colombia) and J.J. Rueda (Spain)

Developments of Geothermal Studies
Convenors: S. Hurter (Brazil) and M. Munoz
(Chile)

Round-Table Meetings

Modern Seismographic Instrumentation: The
Digital Seismic Network for South America
Convenors: E.R. Engdahl (USA), J. Berrocal
(Brazil) and B. Dost (The Netherlands)

Deep Seismic Reflection and Refraction
Experiments
Convenors: W.D. Mooney (USA) and R. de D.
Matos (Brazil)

Results of Disaster Preparedness Planning
After
Recent Earthquakes
Convenors: K. Tierney (USA) and R. Meli
(Mexico)

Short-Term Variations in Geothermal Field
Related to Seismicity
Convenor: G. Buntebarth (Germany),
V. Hamza (Brazil)

*Training Courses - Workshops
(during the period 27 August-2 September)*

Interactive Analysis of Digital Seismic Data
Coordinators: R.D. Adams (UK), E.A.
Bergman (USA) and F. Scherbaum (Germany)

Quantitative Seismology (under negotiation)
Coordinator: L.A. Rivera (France)

Technical and Business Meetings

XIII Ordinary Meeting, CERESIS Directive
Council.

Steering Committee Meeting, Global Seismic
Hazard Assessment Program (GSHAP).

Coordinator: D. Giardini (Italy)

Steering Committee Meeting, PAIGH Seismic Hazard Assessment in Latin America Project. Presentation of CERESIS Seismic Hazard Map of South America.

Convenors: J. Castano (Argentina), J. Tanner (Canada), A. Benavidez (Uruguay)

Consortium Meeting, Middle American Digital

Seismographic Network (MIDAS) Project.

Convenor: D.A. Novelo-Casanova (Mexico)

* **NEW ABSTRACT DEADLINE** *

* **MAY 30, 1994** *

IDNDR Monograph on Earthquake Hazard Assessment Published

IASPEI has published *The Practice of Earthquake Hazard Assessment*, edited by Dr. R.K. McGuire. This 284-page Monograph contains reports of earthquake hazard studies in over eighty countries. Copies may be obtained free of charge from the Secretary-General.

IASPEI PC Shareware Library Editor's New Address

Under the auspices of the Working Group on Personal Computers, a diskette with several useful programs for seismological applications, provided by the authors on a shareware basis, has been distributed. Due to the success of this initiative it was decided to complement the existing volumes of the IASPEI Seismological Software Library (SSL) with the publication of the IASPEI PC Shareware Library for fast and wide distribution of geophysical programs and utilities, reduced or demonstration versions of geophysical software, and beta-versions of new programs to be included in future volumes of the SSL. The PC Shareware Library will be published on diskette, including files with short-form manuals of the programs. They will be distributed at nominal cost at scientific meetings or mailed on request to the Editor. For information contact Dr. M. García-Fernández, Institute of Earth Sciences *Jaume Almera*, Martí i Franqués s/n, E-08028 Barcelona, SPAIN (Tel: 34 3 4900552; Fax: 34 3 4110012).

Death of Jorge Lomnitz-Adler

It was at the Wellington Assembly that we first learned of the death of Dr Jorge Lomnitz-Adler, of Mexico, a member of the IASPEI Executive Committee. Jorge had bravely faced illness for some time, and his loss at an early age is a great tragedy both personally and professionally. We extend our deepest sympathy to his family and colleagues.

Doornbos Memorial Fund

We are all saddened at the tragic death of Durk J. Doornbos on April 27, 1993. The Doornbos Memorial Fund was set up as a way of commemorating the unselfish contributions

of Durk to the international community. It has been organized through IASPEI with the object of setting up a prize for a young scientist working on some aspect of the Physics of the Earth's Interior. Donations should be sent payable to IASPEI (c/o Dr. E.R. Engdahl, IASPEI Secretary-General, U.S. Geological Survey, DFC, Box 25046, Stop 967, Denver, CO 80225, U.S.A.).

PUBLICATIONS

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FORTHCOMING MEETINGS

The following is a selection of forthcoming meetings in fields of interest to the Association:

1994 April 25-29

XIX GENERAL ASSEMBLY OF THE EUROPEAN GEOPHYSICAL SOCIETY, Grenoble, FRANCE

EGS Office, Postfach 49, 37189 Katlenburg-Lindau, GERMANY (Tel: 49 5556 1440; Fax: 49 5556 4709; Telex: 965 515 cop d; E-mail: EGS@LINMPI.GWDG.DE)

1994 April 25-30

7th INTERNATIONAL SYMPOSIUM ON THE OBSERVATION OF THE CONTINENTAL CRUST THROUGH DRILLING, Santa Fe, NM, U.S.A.

Earl Hoskins, DOSECC, College of Geosciences and Maritime Studies, Texas A & M University, College Station, TX, U.S.A. (Tel: 1 409 845 3651; Fax: 1 409 845 0056; E-mail: hoskins@pluto.tamu.edu)

1994 May 14-19

NATURAL AND ANTHROPOGENICALLY INDUCED HAZARD: EARTHQUAKE HAZARD, Granada, SPAIN

Josip Hendekovic, European Science Foundation: Euroconferences Foundation, 1 quai Lezay-Marnésia, 67080 Strasbourg Cedex, FRANCE (Tel: 33 88 76 71 35; Fax: 33 88 36 69 87)

1994 May 23-27

WORLD CONFERENCE ON NATURAL DISASTER REDUCTION

Yokohama, JAPAN

IDNDR Secretariat, Palais des Nations, CH-

1211 Geneva 10, SWITZERLAND (Fax: 41 22 755 8695)

1994 June 7-9

SEISMIC ANISOTROPY OF THE MANTLE AND GEODYNAMICS OF OROGENIC BELTS

Montpellier-La Grande Motte, FRANCE
Alain Vauchez, Laboratoire de Tectonophysique, Place Eugène Bataillon, 34095 Montpellier, Cedex 05, FRANCE (Tel: 67 63 91 44; E-mail: vauchez@dstu.univ-montp2.fr)

1994 June 19-24

20TH INTERNATIONAL CONFERENCE ON MATHEMATICAL GEOPHYSICS
La Citadelle, Villefranche sur mer, FRANCE
Chairman, Local Organizing Committee, Didier Sornette, Laboratoire de Physique de la Matière Condensée, Université de Nice-Sophia Antipolis, Parc Valrose, 06108 Nice Cedex 2, FRANCE (Tel: 33 93 52 99 73; Fax: 33 93 52 98 08; E-mail: sornette@naxos.unice.fr)

1994 July 25-29

WESTERN PACIFIC GEOPHYSICS MEETING, Hong Kong
AGU, Meetings Dept., 2000 Florida Ave., N.W., Washington, DC 20009, U.S.A. (Tel: 1 202 939 3203)

1994 August 8-12

4TH SEDI SYMPOSIUM, Whistler Mountain, British Columbia, CANADA,
SEDI 94 Secretariat, Department of Earth and Planetary Sciences, McGill University, 3450 University Street, Montreal, Quebec, CANADA H3A 2A7 (Tel: 1 514 398 4886; Fax: 1 514 398 4680; E-mail: sedi94@erda.geophys.mcgill.ca)

1994 August 14-19

INTERNATIONAL SYMPOSIUM ON THE PHYSICS AND CHEMISTRY OF THE UPPER MANTLE, São Paulo, BRAZIL
Prof. Wilson Teixeira, Instituto de Geociências, Universidade de São Paulo, P.O. Box 20899, 01498-970 São Paulo, BRAZIL (Tel: 55 11 8138777 ext. 3987; Fax: 55 11 2104958; E-mail: brenha@iag.usp.br)

1994 August 22-26

REGIONAL SEISMOLOGICAL ASSEMBLY IN SOUTH AMERICA, Brasília, BRAZIL
Local Organizing Committee, Observatório Sismológico, Universidade de Brasília, 70910-900 Brasília, DF-BRAZIL (Tel: 55 61 348

2145/2675; Fax: 55 61 274 5927; E-mail: OBSIS@BRUNB.BITNET; Telex: 612730 UNBS BR)

1994 August 28-September 3

EUROPEAN ASSOCIATION OF GEOCHEMISTRY MEETING
Edinburgh, UNITED KINGDOM
B. Harte, Department of Geology and Geophysics, Grant Institute, University of Edinburgh, West Mains Rd., Edinburgh, UNITED KINGDOM

1994 September 5-9

INTERNATIONAL SYMPOSIUM ON MECHANICAL PROBLEMS IN GEODYNAMICS, Beijing, CHINA
Ren Wang, Chairman, Dept. of Mechanics, Peking University, Beijing 100871, CHINA (Tel: 86 1 2502985; Fax: 86 1 2561284; E-mail: shiyl@ihepvx.slac.stanford.edu)

1994 September 12-17

6TH INTERNATIONAL SYMPOSIUM ON SEISMIC REFLECTION PROBING OF THE CONTINENTS AND THEIR MARGINS, Budapest, HUNGARY
Dr. Károly Posgay, Eötvös Lorand Geophysical Institute of Hungary, Budapest POB-35, H-1140, HUNGARY (Tel: 361 183 6533; Fax: 361 163 7256; Telex: 61 22 6194 elgi h; E-mail: H6123Tit@ELLA.HU)

1994 September 19-23

9TH INTERNATIONAL SEMINAR ON EARTHQUAKE PROGNOSTICS
San José, COSTA RICA
Ing. Edwin Moya, Executive Director, Apartado 6260, 1000 San José, COSTA RICA (Tel: 506 2 32 02 70; Fax: 506 2 32 93 74; E-mail: WMONTERO@UCR.VM2.BITNET)

1994 September 19-24

XXIV GENERAL ASSEMBLY OF THE EUROPEAN SEISMOLOGICAL COMMISSION, Athens, GREECE
L.O.C. XXIV General Assembly ESC, Attn: Prof. K. Makropoulos, Department of Geophysics and Geothermy, University of Athens, Panepistimioupolis, Ilissia, Athens 157 84, GREECE (Tel: 301 7243217, 7284425, 7247425; Fax: 301 7243217; E-mail: seis@grathunl.bitnet)

1994 October 23-27

64TH ANNUAL MEETING OF THE SOCIETY OF EXPLORATION GEOPHYSICISTS, New Orleans, LA, U.S.A.

1994 November 7-18
SECOND WORKSHOP ON THREE-
DIMENSIONAL MODELLING OF SEISMIC
WAVES GENERATION, PROPAGATION
AND THEIR INVERSION
Trieste, ITALY
International Centre for Theoretical Physics,
P.O. Box 586, I-34100, Trieste, ITALY
(Tel: 39 40 22401; Fax: 39 40 224163; Telex:
460392 ICTP I)

1994 November 14-25
SECOND REGIONAL GEODESY AND
GEOPHYSICS ASSEMBLY IN AFRICA,
Ibadan, NIGERIA
LOC of ICESA Scientific Assembly, ICESA
International Secretariat, P.O Box 22383,
University of Ibadan Post Office, Ibadan,
NIGERIA

1995 March 7-11
CONFERENCE ON STRESS AND STRESS
RELEASE IN THE LITHOSPHERE
Karlsruhe, GERMANY
Joachim Ritter, SFB 108, Geophysikalisches
Institut, Universität Karlsruhe, Hertzstrasse
16, D-76178 Karlsruhe, GERMANY (Fax: 49
0 721 71173; E-mail:
ritter@gpiwap3.physik.uni-karlsruhe.de)

1995 July 2-14
21ST GENERAL ASSEMBLY, IUGG,
28TH GENERAL ASSEMBLY, IASPEI
Boulder, Colorado, U.S.A.
IUGG XXI General Assembly, c/o American
Geophysical Union, 2000 Florida Ave., NW,
Washington, DC 20009, U.S.A.