

IASPEI Newsletter
(No. 20, September 1987)

To: National Correspondents, Officers and Representatives of the Association, and related organisations.

For those of us lucky enough to attend the General Assembly at Vancouver, it was a memorable occasion. These four-yearly Assemblies with the IUGG are a chance for us not only to arrange scientific activities on our own, but also to join our sister Associations and the Union in interdisciplinary sessions. The scientific sessions were highly successful, and it was pleasing to see not only many young scientists and scientists from developing countries, but also many senior people who brought their expertise to the meeting. The local arrangements, the facilities and the weather combined to make it a highly successful occasion, and our special thanks go to Professor Russell, Professor Armstrong and local organisers for their great efforts on our behalf.

Much of this Newsletter is devoted to a report of the Assembly, and to news of the next, scheduled for Istanbul in 1989. I would remind recipients of this Newsletter, particularly National Correspondents, that circulation is rather limited, and they should therefore distribute the information contained in it as widely as possible among their colleagues.

The new Executive looks forward to working with you during the next four years, in what appears to be an increasingly active period for the Association.

Robin Adams

R. D. Adams
Secretary-General

25th GENERAL ASSEMBLY, ISTANBUL, TURKEY, 21 AUGUST -
1 SEPTEMBER, 1989

Three members of the Local Organising Committee for the 25th General Assembly of IASPEI, to be held in Istanbul in 1989, attended the Vancouver Assembly. The dates have now been set as 21 August - 1 September 1989. The Assembly will be held in the Conference Centre in the Taksim area of central Istanbul, with accommodation at a wide range of prices nearby. The Scientific Programme will be decided by the Bureau early in 1988. Those interested in obtaining further information when it is available should contact the Chairman of the Local Organising Committee:

Dr. Otkay Ergunay
Head, Earthquake Research Division
Ministry of Public Works and Settlement
Yuksel Cad No. 7/F
Ankara, Turkey

GENERAL ASSEMBLY, VANCOUVER, CANADA. 9-22 AUGUST 1987

The 24th General Assembly of IASPEI was held at the University of British Columbia, Vancouver, Canada, 9-22 August, 1987, in conjunction with the XIX General Assembly of the International Union of Geodesy and Geophysics. There were 3939 registrants at the Assembly, of which 526 gave their main affiliation as IASPEI.

FIRST PLENARY SESSION, 10 AUGUST 1987

Present: Prof. Z. Suzuki (President) in the Chair and about 150 delegates and guests.

The meeting was called to order by the President at 0930. Prof. Suzuki welcomed participants and said he was sure that this Assembly would prove most successful. He then asked those present to stand in memory of colleagues who had died since the last Assembly. These names have been published in IASPEI Newsletter 19.

The President proposed the composition of the following Committees, which were approved:

Nominating Committee: B.A. Bolt (Chairman), H. Berckhemer, K.L. Kaula, R.M. Kebeasy, N.V. Kondorskaya

Resolutions Committee: St. Mueller (Chairman), A.E. Beck, A. Plesinger

Audit Committee: J. Hjelme (Chairman), M. Ohnaka

The Secretary-General (Dr. R.D. Adams) formally presented the Association's accounts, for examination by the Audit Committee.

Prof. Mueller then took the Chair, while Prof. Suzuki delivered his Presidential Address "Seismology and Society". Prof. Suzuki pointed out that the scientific aims of earthquake studies, and particularly prediction, do not always coincide with the social aims. For instance, pre-earthquake and post-earthquake studies may be of equal scientific worth, but the authorities are much more interested in the former. He also mentioned possible conflict between freedom of scientific expression and social responsibility, and warned against seismologists claiming expertise in all earthquake-related fields, such as engineering and social aspects. The full text will be published in IUGG Chronicle.

The meeting closed at 1020.

TECHNICAL SESSIONS

In the course of the Assembly the following technical sessions were held. Business sessions were also held by all IASPEI Commissions.

Association Lecture

10 Aug. "The Integrated Geoscience Lithoprobe Program across the Margin of Southwestern Canada" - Dr. R.D. Hyndman. The text will be published in IUGG Chronicle.

IUGG Symposia, with IASPEI Leadership

15,17 Aug. Hydrogeological Regimes and their Subsurface Thermal Effects. Convenor: A.E. Beck (Canada)

18-19 Aug. Large-Scale Three-Dimensional Earth Structure. Convenor: T.H. Jordan (USA)

20-21 Aug. Lower Crust Properties and Processes. Convenor: R.F. Mereu (Canada)

IUGG Symposia with IASPEI Participation

11-12 Aug. Impact of Global Positioning System on Geophysics. IASPEI representative: A. Tsuchiya (Japan)

11-12 Aug. Evolution of Mid-Oceanic Ridges. IASPEI representative: R.B. Whitmarsh (UK)

13-15 Aug. Quo Vadimus: Where are we Going? IASPEI representative: V.I. Keilis-Borok (USSR)

14 Aug. Geochemistry and Geophysics of Transport in the Lithosphere-Asthenosphere System. IASPEI representative: C. Froidevaux (France)

- 14-15, 17-18 Aug. Comparative Planetology. IASPEI representative: H. Waenke (FRG)
- 15,17 Aug. Slow Deformation and Transmission of Stress in the Earth. IASPEI representative: Xu Shao-xie (China)
- 15, 16-18 Aug. Deep Structure and Past Kinematics of Accreted Terranes. IASPEI representative: D.L. Jones (USA)
- 18-19 Aug. Variations in Earth Rotation. IASPEI representative: M.G. Rochester (Canada)
- 19-20 Aug. Origin and Evolution of Sedimentary Basins and their Energy and Mineral Resources. IASPEI representative: D.J. Blundell (UK)
- 20-21 Aug. Instability within the Earth and Core Dynamics. IASPEI representative: F.D. Stacey (Australia)
- 20-21 Aug. Results of EMSLAB-Electromagnetic Studies of the Lithosphere and Beyond. IASPEI representative: F.A. Nava (Mexico)

IASPEI Symposia

- 11 Aug. Interpretation of Strong Motion Wave Forms. Convenors: D.H. Weichert (Canada), B.A. Bolt (USA)
- 11 Aug. Microseisms Caused by Factors Internal and External to the Earth's Crust. Convenors: E. Hjortenberg (Denmark), A.V. Nikolaev (USSR)
- 12-13 Aug. Quantification of Earthquakes and the Determination of Source Parameters. Convenors: D. Denham (Australia), R.B. Herrmann (USA)
- 12-14 Aug. Fine Structure and Anisotropy of the Lithosphere. Convenors: G.G.R. Buchbinder (Canada), J. Ansorge (Switzerland), E.M. Chesnokov (USSR)
- 13-14 Aug. Dynamic Thermal Regimes and the Deformation of the Lithosphere. Convenors: W.R. Peltier (Canada), H.J. Neugebauer (FRG). (Joint with ICL)
- 14-15 Aug. Computation and Interpretation of Seismic Waveforms in 2-D and 3-D Structures. Convenors: J.H. Woodhouse (USA), B.L.N. Kennett (Australia)
- 17-18 Aug. Earthquake Hazard Assessment and Prediction. Convenors: M.J. Berry (Canada), F.F. Evison (New Zealand). (Joint with ICL)
- 17-19 Aug. Physical Properties of Solid and Molten Earth Material. Convenors: T.J. Ahrens (USA), S. Franck (GDR), I. Jackson (Australia), Y. Gueguen (France), Y. Syona (Japan)
- 18 Aug. Tsunamis. Convenors: T.S. Murty (Canada), E.N. Bernard (USA). (Joint with IAPSO)
- 19-21 Aug. Earthquake Source Processes. Convenors: S. Das (USA), B.V. Kostrov (USSR), M. Ohnaka (Japan)
- 20-21 Aug. Seismological Instrumentation and Data Analysis in Developing Countries. Convenors: H.K. Gupta (India), E. Nyland (Canada). (Joint with ICL)

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

Other IASPEI Meetings

The following pre-Assembly workshops were held:

- 2-7 Aug. Seismic Studies in Laterally Heterogeneous Structures - Interpretation of Deep Refraction and Reflection Profiling. Held at Whistler, B.C., Canada, by the Commission on Controlled Source Seismology. Convenors: R.M. Ellis (Canada), J. Ansorge (Switzerland)
- 8 Aug. Processing of Seismic Strong Motion Records. Held at Vancouver by the Commission on Strong Motion Seismology. Convenors: D.H. Weichert (Canada)

The following meetings were held during the Assembly:

- 11,13 Aug. IASPEI/Unesco Working Group on Manual of Seismogram Interpretation. Convenor: O. Kulhanek (Sweden)
- 12-13 Aug. IASPEI/IAEE Working Group on Effects of Surface Geology on Seismic Motion. Convenors: B.E. Tucker (USA), W.D. Iwan (USA)
- 14 Aug. Workshop on Hazard Assessment Techniques. Convenor: R.K. McGuire (USA)
- 14-15 Aug. Workshop on Seismo-electromagnetic Effects. Convenors: M.B. Gokhberg (USSR), M.J.S. Johnston (USA), M. Parrot (France). (Joint with IAGA)

- 18 Aug. Working Group on Electromagnetic and Asthenosphere Sounding.
Convenor: L. Vanyan (USSR) (Joint with IAGA)
- 18-19 Aug. Workshop on Applications of Personal Computers in Geophysics.
Convenors: W.H.K. Lee (USA), M. Mizoue (Japan), M. Yedlin (Canada)
- 19 Aug. IASPEI/Unesco/ICL Working Group on Seismological Recording and Earth
Science Studies in the African Continent. Convenor: H.K. Gupta
(India).
- 20 Aug. Working Group on Time Variable Earthquake Hazard. Convenor:
F.F. Evison (New Zealand).

SECOND PLENARY SESSION, 19 AUGUST 1987

Present Prof. Z. Suzuki (President) in the Chair and about 100 delegates and guests. The President opened the meeting at 1930.

PRESIDENT'S REPORT The President welcomed those attending, and thanked them for coming to this second plenary meeting of the Association. Prof. Suzuki expressed satisfaction with the high level of activity in IASPEI and its Commissions, and particularly referred to the growing co-operation with Unesco, for which the Association was particularly grateful. He also mentioned that ICL had joined IASPEI in many joint activities, including co-sponsorship of symposia at Assemblies.

SECRETARY-GENERAL'S REPORT Dr. Adams referred to the short written report which had been circulated in IASPEI Newsletter 19. He reiterated the Association's thanks to the International Seismological Centre for housing the IASPEI Secretariat, which greatly facilitated the Association's operations. Dr. Adams then gave a brief summary of some of the Commission activities.

On publication matters, it is now the policy both in the Union and the Association to arrange for special publication of symposia, with financial benefit to the bodies concerned. IUGG had chosen to ask the American Geophysical Union to issue a special series of hard-back books of the Union Symposia of this Assembly, and IASPEI had an agreement with Elsevier to publish IASPEI Symposia as special issues of their regular journals, with royalties of 10% of nett takings coming to the Association. It was also noted that a Handbook on Algorithms being prepared by the Sub-Commission on Algorithms was being published by Academic Press, again with financial advantage to IASPEI. Publication of a new Manual of Seismogram Interpretation was being undertaken as a joint IASPEI/Unesco project.

DISCHARGE OF ACCOUNTS Dr. Adams spoke briefly about the accounts, which had been published in Newsletter 19. The main point was the great growth of income from contracts and grants. It was also pleasing to note that expenditure on administration was low, only about 9% of the total, while that spent on supporting Assemblies and Meetings was about 86%. Prof. Hjelme then spoke for the Audit Committee and said their task had been made easy by the fact that professional auditors had already examined the accounts and confirmed them correct. He moved the adoption of the financial report, and that discharge be given the Treasurer for the accounts for the period 1983-86. This was carried.

COMMISSION STRUCTURE There followed a discussion on the Association's Commissions and their structure. Prof. Suzuki explained that it was IASPEI policy to reduce the number of Commissions, and give them broader scope, with more provision for Sub-Commissions and Working Groups. This would give greater flexibility, and allow more interaction between groups. In particular, it was envisaged that within the next few years the Commission on Strong Ground Motion would complete its present plan of work, and would merge with the Commission on Earthquake Hazard and Prediction, which was being re-named from the previous Commission on Earthquake Hazard.

A further merger would take place in 1989, when the Commission on Microseisms would merge with the Commission on Wave Propagation in Real Media. The Chairmen of these two Commissions were therefore appointed for two years only, and asked to consider ways in which their joint new Commission could be structured.

The Commission on Quantitative Geodynamics was also extending the scope of its activities and was being renamed the Commission on Geodynamics and Tectonophysics.

Other Commissions would remain unchanged, but the Chairmen would be free to organise the internal structure of their Commissions. Some Commission Chairmen had already selected Vice-Chairmen. The Commissions and their Chairmen are:

- Commission on Controlled Source Seismology - Prof. H. Shimamura (Japan)
(Vice-Chairman, Prof. N. Pavlenkova - USSR)
- Commission on Earthquake Hazard and Prediction - Dr. M.J. Berry (Canada)
(Vice-Chairman, Prof. Xu Shao-xie - China)
- Commission on Geodynamics and Tectonophysics - Prof. C. Froidevaux (France)
- International Heat Flow Commission - Prof. S. Uyeda (Japan)
(Vice-Chairman, Dr. H.N. Pollack - USA)
- Commission on Microseisms - Prof. J. Darbyshire (UK)
- Commission on Physical Properties of Materials of the Earth's Interior -
Prof. T. Yagi (Japan)
- Commission on Practice - Dr. E.R. Engdahl (USA)
(Vice-Chairman, Prof. N.V. Kondorskaya - USSR)
- Commission on Seismological Theory - Prof. B.L.N. Kennett (Australia)
- Commission on Strong Motion Seismology - Prof. B.A. Bolt (USA)
- Commission on Wave Propagation in Real Media - Dr. S. Crampin (UK)
- European Seismological Commission - Prof. C. Morelli (Italy)

UNION ACTIVITIES Dr. Adams reported on the setting up of an Inter-Association Commission by the Union, Study of the Earth's Deep Interior (SEDI) with IASPEI participating with IAGA, IAVCEI and IAG. IASPEI scientists involved in the steering committee are Prof. D. Doornbos (Vice-Chairman) and Prof. D. Loper (Secretary). This activity is likely to include a proposal by Prof. T.H. Jordan for an International Seismological Observation Period (ISOP) for enhanced reporting of secondary seismic phases.

Prof. C. Kisslinger then spoke of the proposed International Decade of Natural Hazard Reduction (IDNHR), which had been suggested for 1990-2000. The main programme would be undertaken by UN agencies, with participation and advice from relevant ICSU bodies.

The International Geosphere-Biosphere Programme (IGBP) was described by Prof. V.V. Belousov. A plan for inter-Association activity of IUGG in this programme is being developed.

FUTURE ASSEMBLIES

25th General Assembly, 1989 This would now definitely be held at Istanbul, Turkey, 21 August - 1 September 1989. Dr. O. Ergunay of the Local Organising Committee said the meeting would be held at a Conference Centre in the Taksim area of Istanbul, with a wide variety of accommodation close by.

26th General Assembly, 1991 This would be held in conjunction with IUGG, at a venue to be decided. [Subsequently established as Vienna, 11-24 August, 1991.]

27th General Assembly, 1993 Two invitations have been received, one from New Zealand to hold the meeting early in 1994, and one from the Soviet Union. The decision will be made in 1989, when these invitations will be considered with any others received.

ELECTION OF OFFICERS

Prof. Berckhemer spoke on behalf of the Nominating Committee, and proposed the following officers for the period 1987-1991.

President:	Prof. St. Mueller (Switzerland)
First Vice-President:	Prof. A.V. Nikolaev (USSR)
Second Vice-President:	Dr. E.R. Engdahl (USA)
Secretary-General/Treasurer:	Dr. R.D. Adams (UK)
Executive Committee:	Prof. A.E. Beck (Canada)
	Prof. C. Froidevaux (France)
	Prof. V.K. Gaur (India)
	Prof. B.L.N. Kennett (Australia)
	Prof. Z. Suzuki (Japan) (Past President)

The meeting approved these nominations and the President declared the above officers elected.

APPOINTMENT OF ASSOCIATION REPRESENTATIVES

The following were approved as Association representatives on the recommendation of the Executive Committee:

Commission on Recent Crustal Movement:	Prof. N. Favoni (Switzerland)
Commission on Geological Map of the World:	Dr. V. Cermak (Czechoslovakia)
	Prof. N. Pavlenkova (USSR)
Solid Earth Geophysics Working Group SCAR:	Dr. P.F. Barker (UK)
International Seismological Centre, Governing Council and Executive Committee:	Prof. N.V. Kondorskaya (USSR)

ADOPTION OF RESOLUTIONS

The Chairman of the Resolutions Committee, Prof. St. Mueller, proposed the 12 resolutions which are listed below. They were approved after some minor discussion.

OTHER BUSINESS

IASPEI Award Dr. Adams referred to the suggestion at the 1983 General Assembly by Prof. Husebye that IASPEI investigate the establishment of some award. The idea was generally well received, and the incoming Executive Committee was charged with looking at the idea further. Dr. Adams also reminded the meeting that Dr. Inge Lehmann was now in her 100th year, and Dr. Hjortenbergs remarked that a commemorative symposium was being planned in Denmark.

Prof. Mueller, the incoming President, expressed the Association's thanks to Prof. Suzuki for his wise guidance of the Association during his term as President, and also thanked the retiring members of the Executive Committee, Profs. Bolt, Kausel and Xu.

Finally, the President once more thanked those organisations who had helped in the running of this Assembly, and in particular the Local Organising Committee and the Canadian National Committee.

The meeting closed at 2110.

IASPEI RESOLUTIONS ADOPTED AT PLENARY SESSIONVANCOUVER, CANADA, 19 AUGUST 1987

1. IASPEI,

Noting the increasing loss of life, property damage, and social and economic disruption due to natural disasters such as earthquakes, tsunamis, volcanic eruptions and landslides,
Fully supports the establishment, under the auspices of the United Nations and ICSU, of a multi-disciplinary programme dedicated to improving the scientific and engineering knowledge necessary to reduce the toll of natural disaster, and
Recommends that the programme be implemented for the period 1990 to 2000.

2. IASPEI,

Recalling its resolution No.7 adopted at the 23rd General Assembly in 1985 which led to the formation of the joint IASPEI/Unesco/ICL Working Group on Seismological Recording and Earth Science Studies in Africa,
Resolves to consult with Unesco and ICL to explore the possibility of holding a Regional African Seismological Workshop at a suitable venue in Africa in 1990.

3. IASPEI,

Noting that developments in digital seismograph technology with associated advances in theory, together with the recent organisation of the Federation of Digital Broad Band Seismograph Networks, present new and challenging opportunities for greater understanding of the internal structure and dynamics of the Earth, and
Recognising the need for uniform coverage,
Urges all seismological organisations to support these efforts by giving high priority to the development of broad-band instruments at sites in the African continent, oceanic and other critical regions, and to support appropriate Federation Network Data Centres.

4. IASPEI,

Recognising current efforts to improve hypocentre determinations and to probe the deep interior of the Earth by taking advantage of rapidly improving instrumentation and methods of processing,
Draws attention to the usefulness of polarisation analysis for improving the reliability of phase identification and onset time determination, and
Recommends increased routine reporting of supplementary seismic phases to augment the global data set of phase arrival times, as part of an International Seismological Observing Period.

5. IASPEI,

Recognising the value of the international experimental programme organised by a joint IASPEI/IAEE Working Group, to validate methods used to predict the effect of near surface geology on strong ground motion and
Noting the establishment of test sites at Turkey Flat, California, and Ashigara Valley, Japan.
Requests the IAEE to join IASPEI in urging all interested parties to participate in validation experiments being conducted at the test sites and to help in the establishment of other test sites.

6. IASPEI,

Noting that accelerograms provide the basic information on the variation of large amplitude seismic waves and Recognising the growing needs of engineers for reliable seismological estimates of coherency of strong ground motion, Urges that whenever possible three-dimensional strong motion arrays be installed in seismically active areas.

7. IASPEI,

Considering the invaluable information on earthquakes and seismic sources provided by strong motion records, Urges all members to follow the tradition of unrestricted seismological data exchange by providing copies of strong motion records when requested.

8. IASPEI,

Recognising that pre-filtering of broad-band seismograms may introduce a bias in the determination of magnitude m_b , and in an effort to maintain a coherent data set, Recommends application of a standard filter with the WWSSN short-period response.

9. IASPEI,

Recognising the importance of earthquake source parameters, Recommends that fault plane solutions and independent determinations of seismic moment be published whenever possible by regional and national seismological organisations and that these results be published in internationally accepted formats.

10. IASPEI,

Recognising that present techniques for the filming of seismograms are unable to resolve all the significant information on historical seismograms, Urges all organisations maintaining original historical seismograms to continue to preserve those records.

11. IASPEI,

Recognising the importance of collecting processing and publishing high-quality global seismological data, Commends most highly the International Seismological Centre in Newbury for its continuing achievements in this field, and Thanks sincerely the Director and Staff for their substantial contribution to the support of the IASPEI Secretariat.

12. IASPEI,

Recognising that making the IASPEI adherents feel so much at home and the IASPEI programme so productive required the time, effort and dedication of all members of the Local Organising Committee, and the Canadian National Committee, Thanks and congratulates all those individuals who accepted the challenge of helping to organise a meeting to advance the frontiers of our science.

UNION AFFAIRS

Our parent body, the International Union of Geodesy and Geophysics, has elected the following Bureau members for the next four years:-

President:	V.I. Keilis-Borok (USSR)
Vice-President:	C. Kisslinger (USA)
Secretary-General:	P. Melchior (Belgium)
Treasurer:	S. Gregersen (Denmark)
Bureau:	G.A. McBean (Canada)
	H. Moritz (Austria)
	Duzheng Ye (China)

These officers, together with the Presidents of the seven Associations and the past President (Professor D. Lal), make up the Union's Executive Committee.

At Vancouver, two new countries were admitted to the Union, and thus to IASPEI. They are Burundi and the Republic of Guinea. Seismological interest is developing in Burundi, with collaboration in particular with the Royal Observatory, Belgium, and in Guinea a network is being set up following the major earthquake in December 1983, which resulted in about 300 deaths. It was noted with regret that Nepal has withdrawn from the Union.

POSEIDON

The Global Seismology Sub-committee of the Japan National Committee for Seismology and Physics of the Earth's Interior has announced plans for a Pacific Orient Seismic Digital Observation Network (POSEIDON) as its proposed contribution to the Federation of Digital Broadband Seismograph Networks. With the co-operation of neighbouring countries in the Western Pacific and Eastern and Southeastern Asia it is hoped to establish up to 50 new stations, including ocean-bottom seismographs in an area extending from the Aleutians to Indonesia.

JOURNAL NEWS

It has been announced that from January 1988 the two European journals "Journal of Geophysics - Zeitschrift fuer Geophysik" and Series B of "Annales Geophysicae", published by the European Geophysical Society, will merge with the "Geophysical Journal of the Royal Astronomical Society", London. The new journal will be expanded to A4 format, and will be known simply as "Geophysical Journal". It will continue to be published from London.

A new journal "Natural Hazards" will be published by D. Reidel Publishing Company in the Netherlands, starting in 1988. It will be devoted to original research work on the physical aspects of natural hazards, the statistics of forecasting catastrophic events, risk assessment, and the nature of precursors of natural and technological hazards. The editors will be M.I. El-Sabh (University of Quebec), G. Schneider (University of Stuttgart) and Y. Fujinawa (National Research Centre for Disaster Prevention, Japan).

"European Earthquake Engineering" is a new quarterly journal, intended for researchers in earthquake engineering and engineering seismology. Its editor is Professor D. Benedetti, Milan, Italy.

FORTHCOMING MEETINGS

- 1988 Mar 14-18 INDUCED SEISMICITY AND ASSOCIATED PHENOMENA
Liblice, Czechoslovakia
Dr. D. Prochazkova, Geophysical Institute, Bocni II
14131 Prague 4, CZECHOSLOVAKIA
- 1988 May 9-13 CAUSES AND EFFECTS OF EARTHQUAKES AT PASSIVE MARGINS AND IN AREAS
WITH POSTGLACIAL REBOUND ON BOTH SIDES OF THE NORTH ATLANTIC
Copenhagen, Denmark
NATO Advanced Research Workshop
Dr. S. Gregersen, Geodetic Institute, Gamlehave Alle 22
Charlottenlund, DENMARK
- 1988 May 31 - SEISMIC ANISOTROPY IN THE EARTH'S CRUST
Jun 4 Berkeley, California, USA
Dr. P.C. Leary, Dept. of Geological Sciences, University of
Southern California, Los Angeles, CA. 90089-0741 USA
- 1988 Jul 1-8 SEISMIC PROBING OF THE CONTINENTS AND THEIR MARGINS
Canberra, Australia
Seismic Workshop, 1988
AGTS, GPO Box 2200, Canberra ACT 2601, AUSTRALIA
- 1988 Aug 2-9 NINTH WORLD CONFERENCE ON EARTHQUAKE ENGINEERING
Tokyo/Kyoto, Japan
9WCEE, Japan Convention Services, Nippon Press Center, 2-1,
2 chome, Uchisaiwai-cho, Chiyoda-ku, Tokyo 100, JAPAN
- 1988 Aug 14-21 INTERNATIONAL CONFERENCE ON NATURAL AND MAN-MADE HAZARDS IN
COASTAL ZONES
Ensenada, Mexico
Tsunami Society/Hazards Conference, Suite 6, 2919 Kapiolani
Blvd, Honolulu, Hawaii 96826, USA
- 1988 Aug 23-27 GENERAL ASSEMBLY, EUROPEAN SEISMOLOGICAL COMMISSION
Sofia, Bulgaria
- 1988 Nov 10-14 EXPLORATION AND DEVELOPMENT OF GEOTHERMAL RESOURCES
Kumamoto and Beppu, Japan
Geothermal Research Society, c/o Geological Survey of Japan,
1-1-3 Higashi, Yatabe, Tsukuba, Ibaraki 305, JAPAN
- 1989 April 1-6 GEODYNAMICS AND SEISMIC SOURCE PROCESSES - STRESS, STRENGTH
AND VISCOSITY IN THE LITHOSPHERE
Potsdam, German Democratic Republic
Prof. E. Hurtig, ZIPE, Potsdam, DDR 1561 GERMAN DEMOCRATIC
REPUBLIC
- 1989 Jul 9-19 28th INTERNATIONAL GEOLOGICAL CONGRESS
Washington, DC, USA
IFS, P.O. Box 1001, Herndon, VA., 22070, USA
- 1989 Aug 21- 25th GENERAL ASSEMBLY, IASPEI
Sep 1 Istanbul, Turkey
Dr. Otkay Ergunay, Earthquake Research Division, Ministry of
Public Works and Settlement, Yuksel Cad No. 7/F, Ankara, TURKEY
- 1989 Sep 4-9 4th INTERNATIONAL SYMPOSIUM ON ANALYSIS OF SEISMICITY AND
SEISMIC RISK
Bechyne, Czechoslovakia
Dr. Z. Schenkova, Geophysical Institute, Bocni II,
14131 Prague 4, CZECHOSLOVAKIA
- 1991 Aug 11-24 XX GENERAL ASSEMBLY, IUGG
Vienna, Austria