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In your reply refer to our ref:

NEWSLETTER NO. 5 SEPTEMBER 1981

TO: National Correspondents, Officers and Representatives of the Association and related organizations.

This issue of the Newsletter is mainly devoted to reports of the General Assembly, held in Canada in July. The Assembly was well attended and must be judged as one of the most successful that the Association has held. Great credit and our sincere thanks go to Professor Beck and his helpers for their tremendous efforts.

Plans are now in hand for the next Assembly, to be held at the IUGG General Assembly in Hamburg in 1983, and we look forward to an equally successful meeting then.

Robin Adams

R D Adams
Secretary-General

GENERAL ASSEMBLY, LONDON, ONTARIO, 21-30 JULY 1981

The 21st General Assembly of IASPEI took place at the University of Western Ontario, London, Canada, 21-30 July 1981. About 400 registrants and 80 guests attended from forty-seven countries.

OPENING PLENARY SESSION, 21 JULY 1981

Present: Officers of the Association and some 250 delegates and guests.

The meeting was called to order at 0930 by Professor A E Beck, Chairman of the Local Organising Committee, and of the Canadian National Committee for Geodesy and Geophysics, who introduced Dr G E Connell, President and Vice-Chancellor of the University of Western Ontario. Dr Connell welcomed participants, and informed them of some of the history of the University, which this year was celebrating its centenary. He wished all those attending a pleasant and fruitful stay.

Professor G D Garland, President of IUGG, then spoke on behalf of the Union. He mentioned new developments in instrumental seismology, and commented on how the science had changed in recent years. He then showed a slide of the participants at the 1936 IUGG Assembly in Edinburgh, where the total number attending was much less than those gathered for this Assembly. In summarising, he mentioned two points to which he thought seismologists might turn their attention. One was the enormous disparity between the cost and complexity of modern seismological equipment, and the funds provided for the International Seismological Centres, and the other was the need for one simply-understood scale of earthquake magnitude.

The President (Professor B A Bolt) then took the chair and welcomed participants, and in particular those from the International Association for Earthquake Engineering, which was jointly sponsoring the session on "Earthquake Ground Motions and their Effects on Critical Structures".

Participants were asked to stand, in memory of colleagues who had died since the last Assembly. Among those so remembered were: Sir Edward Bullard, Dr M A Choudhury, Professor W Hiller, Fr J Ramirez, Professor Y V Riznichenko, Professor E F Savarensky, Professor O Somville and Mr E Tillotson.

Professor Bolt mentioned that Professor Somville, who was in his 100th year when h died, had represented Belgium in the earliest days of the Association's history at the beginning of the century.

The President recommened the following for the Resolutions Committee: Dr W. D. Smith (New Zealand) Convenor, Dr M. J. Berry (Canada), and Dr E. G. Kausel (Chile). These appointments were confirmed by the meeting.

It was then reported that a pleasing feature of the last two years had been the excellent relations between the Association and Unesco, culminating in the convening during this meeting of two Ad Hoc Unesco/IASPEI Working Groups, one to discuss the Copying of Historical Seismograms, and the other International Experimental Sites for Earthquake Prediction Research. Dr Bolt warmly welcomed the newly-appointed Director of the Earth Science Division of Unesco, Dr V. Sibrava, and invited him to address the meeting.

Dr Sibrava greeted the participants on behalf of the Director-General of Unesco, and said how much Unesco appreciated IASPEI's collaboration in activities relating to its programme on natural hazards, and enumerated the various seismological projects, past and present, in which Unesco had been involved. In particular, he mentioned the Unesco earthquake reconnaissance missions to earthquake affected areas, the most recent being to El Asnam, in Algeria in 1980, and Unesco-sponsored symposia on matters relating to earthquake risk and other natural hazards.

The President then called on the Secretary-General, Dr R. D. Adams, to present a short report on Association affairs. Dr Adams reported that the Association's Secretariat had now been transferred to the International Seismological Centre, at Newbury, in England, where the Association's main funds were held in a US dollar account. The balance at the end of 1980 had been $19,878. Dr Adams described various commission activities and relations between IASPEI and other bodies. It was pleasing to note that Professor J-P Rothé, Honorary Secretary-General of the Association, had completed writing the history of the first fifty years of the International Association of Seismology. The English version had already been published in the Bulletin of the Seismological Society of America, the original French version was to appear in 1981 in Gerland's Beiträge zür Geophysik, and a preliminary translation had been made into Spanish.

The President closed the meeting at 1010.

TECHNICAL SESSIONS

In the course of the Assembly, the following technical sessions were held:

21 July	Standard Earth Model. Convenor: A. M. Dziewonski (USA).
21 July	Microseisms. Convenor: H. Korhonen (Finland).
21-22 July	Digital Seismometry and the use of Digital Seismic Data. Convenors: S. S. Alexander (USA), D. H. Weichert (Canada).
21-22 July	Structure of the Arctic. Convenors: G. L. Johnson (USA), J. F. Sweeney (Canada).
22 July	Reports on Recent Earthquakes. Convenor: Z. Suzuki (Japan).
22-23 July	Probing the Earth's Lithosphere by Controlled Source Seismology. Convenors: J. Ansorge (Switzerland), R. F. Mereu (Canada).
22, 24 July	Heterogeneity in the Earth's Lithosphere. Convenors: K. Aki (USA), T. H. Jordan (USA).
23 July	Heterogeneity in the Earth's Boundary Layers. Convenors: J. R. Cleary (Australia), D. Loper (USA).
23-24 July	Earthquake Prediction and Risk. Convenors: T. V. McEvilly (USA), G. R. Buchbinder (Canada).
24 July	Standards in Geothermics. Convenors: M. L. Gupta (India), R. Haenel (FRG).
27 July	Thermal Evolution of the Earth. Convenors: D. L. Turcotte (USA), W. R. Peltier (Canada).
27 July	Quantification of Earthquakes. Convenor: S. J. Duda (FRG).
27-29 July	Earthquake Ground Motions and their Effects on Critical Structures. Convenors: D. M. Boore (USA), A. C. Heidebrecht (Canada).

28 July	Earthquake Algorithms. Convenor: E. R. Engdahl (USA).
29-29 July	Thermal Aspects of Plate Interactions. Convenors: D. S. Chapman (USA), R. D. Hyndman (Canada).
29 July	Properties of Materials at High Pressures and High Temperatures. Convenors: R. C. Liebermann (USA), H. H. Schloessin (Canada).
29-30 July	Mechanics of the Earthquake Source. Convenors: H. Stiller (GDR), T. R. Rice (USA).
30 July	Teaching and Research in Geophysics in Developing Countries. Convenors: D. E. Ajakaiye (Nigeria), I. S. Sacks (USA).

ASSOCIATION LECTURES

The following invited Association Lectures were given:

21 July	Professor G. D. Garland, "An Outsider's view: some aspects of earth structure seen aseismically."
22 July	Professor J. Tuzo Wilson, "Thoughts about past and potential developments in plate tectonics."
23 July	Professor K. Aki, "3-D seismic structure of the lithosphere and asthenosphere."
27 July	Professor G. W. Housner, "What we should know about strong earthquake ground motion, past and future."
29 July	Professor S. Akimoto, "Mineralogical constitution of the mantle down to a depth of 650 km viewed from recent laboratory measurements."

OPEN MEETING, 27 JULY 1981

Present: Professor B. A. Bolt (President) in the Chair and some 80 delegates and guests.

The President opened the meeting at 2000 by explaining that this was a chance for all those interested to give their thoughts on the running of the Association, and what activities it should carry out. He then described the arrangements already in hand for the 1983 Hamburg Assembly. These include three symposia in which IASPEI is the lead Association and eight convened by other Associations, in which IASPEI also has an interest. The Association was also planning various activities on its own.

Dr Flinn (Secretary-General, ICL) asked for suggestions for joint ICL/IASPEI activities. These were requested by 1 October, 1981.

The President told delegates that financial support for the 1983 Assembly might not be as great as anticipated, because of a 20% cut in Union allocations to Associations from 1982. He urged all delegates to make it clear to their national sources that the Union and its Associations could not continue to work unless dues were maintained at an appropriate level for each country, and paid on time.

Dr Adams referred to the proposed guidlines for appointment of chairmen and members of Commissions, and explained the reason for them. There was at present no clear procedure for such appointments, and confusion existed, with different Commissions adopting different procedures. The proposed guidelines would aim for uniformity, by having the chairman appointed by the Executive, after consultation with the outgoing chairman, who is encouraged to consult the membership of his Commission. He would then choose the membership, for ratification by the Executive.

The proposals drew no comment, except that an assurance was given that those Commissions who already had long-established and well-proven procedures, such as the European Seismological Commission, would not be required to alter these.

"Mini" Assembly in India, 1984 The President mentioned the possibility of IASPEI organizing an additional small Assembly, perhaps not inclusive of all activities of the Association, in India in 1984, in a year in which IASPEI would not normally meet. The International Head Flow Commission was already planning a meeting in India at this time, which might form a nucleus for the Assembly.

Dr M. L. Gupta expressed pleasure at the idea, and said that such a meeting could

be sponsored by the Indian Academy of Sciences and could be held either at Delhi or Hyderabad, preferably in either the first or last quarter of 1984.

Dr Kondorskaya pointed out that it was possible that the ESC would be meeting at Baku, early in October 1984, and to reduce travel expenses it might be possible to arrange the two meetings consecutively so participants could travel directly from Baku to India, or vice versa.

Dr Shebalin suggested that as the nucleus of the meeting would be the International Heat Flow Commission, it might be appropriate to concentrate on those aspects of the Association's activities that relate to Physics of the Earth.

Dr Flinn said that there could not be a full meeting of ICL in India at that time, as this had already been arranged elsewhere, but there could be joint meetings with ICL working groups.

Anisotropy The President mentioned that a workshop on "The Theory, Observation and Causes of Seismic Anisotropy" had been arranged to be held at Suzdal, near Moscow in May 1982, and that this might lead to the later formation of a Commission to consider problems of wave propagation in real materials, which would include anisotropy.

Dr E. M. Chesnokov gave details of plans for the Suzdal meeting.

General Dr Denham, while congratulating the organizers of this Assembly, pointed out that there had been clashes of review papers at the beginning of various symposia. He suggested that in future Assemblies, more review papers be presented, and that those be scheduled at different times to avoid clashes.

The President closed the meeting at 2115.

FINAL PLENARY SESSION, 30 JULY 1981

Present: Professor B. A. Bolt (President) in the Chair and some 70 delegates and guests.

The President called the meeting to order at 1600.

1983 Assembly Professor Bolt described to the meeting the arrangements for Inter-Association Symposia at the 1983 Hamburg Assembly of IUGG, and plans for the IASPEI programme.

Preliminary titles of Symposia for which IASPEI is lead Association are:

Assessment of Natural Hazards,
Time-dependent Processes and Properties in Planetary Materials,
Heat Flow and Geothermal Systems.

Other Symposia with which IASPEI is likely to be associated are:

Structure and Processes in Subduction Zones (Lead IAVCEI),
Lithosphere Deformation: Geodetic Geomagnetic and Seismic Techniques (Lead IAG),
Geophysics of Polar Regions (Lead IUGG),
Management of Earth Science Data (Lead IAGA),
Hot spots and Mantle Plumes (Lead IAVCEI),
Structure, Composition and Origin of the Oceanic Crust (Lead IAVCEI),
Plateau Uplift, Rifts and Volcanism (Lead IAVCEI),
Scientific Discoveries from MAGSAT investigations (Lead IAGA),

1985 Assembly Professor Suzuki invited IASPEI to hold its 23rd General Assembly in Japan in 1985, with some possibility of a joint meeting with IAMAP. The invitation was accepted with pleasure by the meeting.

Revision of Statutes Dr Adams explained that some minor revision of the statutes was necessary following the closing of the Central Bureau, and in order to make it clear that the provisions of the statutes applied equally to men and women. A motion to amend the statutes, as circulated in the IASPEI Newsletter, was carried unanimously. The revised statutes will be published in IUGG Chronicle.

Unesco/IASPEI Working Groups Dr Adams reported that the two Ad Hoc Working Groups, on Copying Historical Seismogram Records and International Experimental Sites for Earthquake Prediction Research, had met in the course of the Assembly, and had produced reports and recommendations that would be distributed by Unesco. The Groups appreciated the additional scientific stimulus from having the meetings during the Assembly.

Resolutions Dr W. D. Smith, Chairman of the Resolutions Committee, proposed 19 resolutions which had been submitted either by individuals or Commissions. These were all adopted, some after amendment. The final form of the resolutions are appended to this report.

Guidelines for Appointment of Chairman and Members of Commissions No adverse comments on these had been received by the Secretary-General in the course of the meeting so Dr Adams moved that the principles expressed in these be adopted by the Association. The motion was carried without opposition. It was pointed out that it was not the intention to formally incorporate these guidelines into the by-laws.

Commission for Geological Map of the World Dr N. Pavlenkova and Dr V. Cermak were appointed as IASPEI liaison officers with CGMW. These persons are qualified to represent the Association's interest in the fields of controlled source seismology and heat flow, respectively.

Closing Remarks Professor Bolt closed the session by re-affirming Resolution 19, expressing the meeting's sincerest thanks to Professor Beck and his organizers for the excellent arrangements that they had made. Professor Beck then referred to all the bodies and individuals who had helped him, and promised to pass the Association's thanks on to them. A preliminary count showed that 409 full registrants and 79 guests had attended, from 47 countries.

The President closed the meeting and the Assembly at 1700.

STANDARD EARTH MODEL COMMITTEE

The Committee issued the following statement after its meeting at the London Assembly:

The Committee on the Standard Earth Model thanks Drs D. L. Anderson and A. M. Dziewonski, the members of the Sub-Committee charged with the preparation of the model, for the effort they have given to the preparation of the Preliminary Reference Earth Model P.R.E.M. The Committee regards the model as meeting the specifications laid down at the Grenoble 1975 meeting of I.U.G.G. and the Durham 1977 meeting of IASPEI. The attention of those interested is drawn to the fact that a description of the model was published in the June 1981 issue of Physics of the Earth and Planetary Interiors (P.E.P.I. 25 (1981), 297-356). Any comments on or suggestions about the Reference Earth Model sent to the Secretary of the Committee before the end of 1981 will be considered by the Committee.

The final meeting of the Committee will be held at the Assembly of I.U.G.G. in Hamburg in 1983.

R. O. Vicente (Secretary)
R. Mestre Aviz, 30, R/C
1495 Lisboa, Portugal

OBITUARY

We learn with great sorrow of the death, early in August, 1981, of Dr David Sutton, of Adelaide University, South Australia, who founded and directed the work of the seismic network attached to the Physics Department. He was widely active in many branches of seismology, and was a member of the Local Magnitude Working Group of the IASPEI Commission on Practice.

We offer sincere condolences to his widow, family and colleagues.

IASPEI RESOLUTIONS ADOPTED AT PLENARY SESSION, LONDON, CANADA, 30 JULY 1981

1. EUROPEAN-MEDITERRANEAN SEISMOLOGICAL CENTRE

IASPEI,

Recognizing the valuable services rendered over the past five years by the EUROPEAN - MEDITERRANEAN SEISMOLOGICAL CENTRE (EMSC) in Strasbourg to the scientific community and the general public in the form of a rapid epicentre determination of strong earthquakes, the regular dissemination of epicentral data, the cataloging of earthquakes and the transmission of European earthquake data to seismological world data centres,

Noting that the demand for such services, in particular the rapid information for civil protection authorities and news media, will increase in importance during the years to come,

Being aware of the imminent danger that these services will have to be terminated at the end of 1981 due to financial difficulties,

Urges all national and international organizations concerned to provide the necessary support for assuring the continuation of the EMSC services beyond 1981.

2. CODE OF PRACTICE IN EARTHQUAKE PREDICTION

IASPEI,

Noting the valuable past contributions of UNESCO, UNEP and UNDRO towards the development of multidisciplinary studies of earthquake prediction and its social implications,

Recognizing the need for the world seismological community to develop a code of practice on the formulation, assessment and communication of earthquake predictions, especially when the crossing of international boundaries is involved,

Recommends that ICSU be invited to encourage these United Nations Agencies to address this need in implementing their work programmes related to seismology and the mitigation of earthquake risk.

3. ISC AND ISS DATA TAPES

IASPEI,

Noting that the International Seismological Centre (ISC) and International Seismological Summary (ISS) data archives for the years prior to 1971 are not in forms that can be readily utilized by the scientific community,

Recognizing the importance of the data sources and the possibility of their irrevocable loss,

Recommends that fixed format ISC Bulletin and Catalogue data tapes be prepared from Bulletin and Catalogue image tapes for the period 1964-70, and that fixed format ISS data tapes be prepared from ISS card image tapes for the period 1918-42.

4. DIRECTORY OF WORLD SEISMOGRAPH STATIONS

IASPEI,

Recognizing the importance of the work of the regional compilers of the Directory of World Seismograph Stations in preparing comprehensive information on the location, operation and instrumentation of, and availability of records and data from the world seismograph stations past and present,

Urges national seismological agencies and observatories to cooperate with this effort when contacted by the regional compilers.

5. SEISMOLOGICAL PRACTICE - AMPLITUDE AND PERIOD

IASPEI,

Recognizing the continuing need to make available more readings of amplitude and period of seismic waves,

Recommends that the international agencies extend their existing formats in such a way as to permit the acceptance of measurements of amplitude and period, as adopted at the Canberra Assembly in 1979.

6. SEISMOLOGICAL PRACTICE - STATION BULLETINS

IASPEI,

Noting that rapid publication by seismological observatories around the world of basic observations such as arrival times and maximum amplitudes of seismic waves recorded from earthquakes is essential in providing basic data for seismological research,

Urges that continuing national and international support be given to observatories in preparing and publishing their station bulletins.

7. SEISMOLOGICAL PRACTICE - SEISMIC MOMENT

IASPEI,

Recognizing the need to extend the magnitude scale to large earthquakes,

Recommends that wherever possible seismic moment be estimated and that institutions include this value in earthquake catalogues.

8. SEISMOLOGICAL PRACTICE - HOMOGENEOUS MAGNITUDE SYSTEM

IASPEI,

Recognizing the value of the Homogeneous Magnitude System developed for the Eurasian continent,

Recommends that consideration be given to development of comparable Homogeneous Magnitude Systems for the North American, South American and Australasian regions.

9. STRONG MOTION STUDIES

IASPEI,

Considering that accelerograms provide invaluable data for near field studies in seismology,

Recognizing that these data are of limited use without absolute timing and a knowledge of the crustal structure and details of the source geometry,

Urges that absolute time be recorded with ground motion and that regional and site characteristics be determined for strong motion sites,

Further, urges that when a significant number of strong motion records are obtained in an earthquake, field investigations be made to endeavour to determine the location and geometry of the source.

10. STRONG MOTION PROCESSING

IASPEI,

Considering the detailed processing which is necessary for strong motion data,

Recognizing the variety of new procedures being developed,

Resolves to investigate the possibility of active cooperation with the International Association for Earthquake Engineering and other concerned organizations for the purpose of setting standards for data processing techniques,

Further, urges that, pending the development of such standards, the raw data, together with the unprocessed digitized data where possible, be preserved and made available for distribution.

11. NEAR FIELD DATA

IASPEI,

Considering the lack of data obtained from the near field of large earthquakes,

Urges that every attempt be made to obtain near field data, for example by installing strong motion instruments in recognized seismic gaps or in regions of predicted earthquakes, and by moving portable arrays of strong motion stations into the epicentral region as soon as possible following a major earthquake.

12. INTERNATIONAL INSTITUTE OF SEISMOLOGY AND EARTHQUAKE ENGINEERING

IASPEI,

Noting that the UNDP-Japan joint project, established in 1963 by the International Institute of Seismology and Earthquake Engineering (IISEE), Tokyo, and operated from 1972 by the Japanese Government, contributed much to the training of seismologists and earthquake engineers in the developing countries, especially with the help of UNESCO experts before 1972,

Recommends that the IISEE endeavour to resume its former practice of inviting professors from abroad, seeking national or international funds to achieve this.

13. STORAGE OF HISTORICAL DATA

IASPEI,

Recognizing the importance of retaining old seismograms, bulletins, unpublished readings, clock correction and calibration records and other seismological information,

Noting the danger that these data may be lost due to lack of space or facilities, or for other reasons,

Encourages all stations and institutes to take appropriate measures to improve storage conditions in order to preserve these invaluable data, if necessary seeking financial and technical help from national or international sources.

14. REGIONAL SEMINARS

IASPEI,

Recognizing the usefulness of regional seminars which have been devoted to specific seismological topics, such as that held by CERESIS/OAS on microzonation in Lima in November, 1978, and that held by the IISEE on engineering seismology in Japan in April 1980,

Noting that these seminars have particular value for scientists from developing countries,

Resolves to encourage national and international bodies to organize similar regional seminars and symposia in and/or for the developing countries.

15. DIRECTORIES OF DIGITAL STATIONS

IASPEI,

Noting the continuing development of new digital seismograph stations by many countries

Urges that directories of digital recording stations be updated at least annually, and that these directories be made available in computer accessible format.

16. DIGITAL RECORDING FORMAT

IASPEI,

Noting the variety of data formats currently in use for digital data,

Recommends that the global digital seismograph network day tape format be adopted as the initial standard for international data exchange, and that data sets in this format be made available for arbitrary (user defined) event time windows.

Further, recommends that one or more demonstration data tapes be developed to help users.

17. DIGITAL ANALYSIS

IASPEI,

Recognizing that digital waveform analysis is a detailed procedure,

Urges that software for simple types of analysis be made available to seismologists who are relatively inexperienced in digital seismometry.

18. DIGITAL DATA EXCHANGE

IASPEI,

Recommends that digital seismograms in an internationally accepted format be included in the International Data Exchange data sets.

19. RESOLUTION OF THANKS

IASPEI,

Considering the success of the 1981 Assembly,

Recognizing that much work and time were involved in preparation,

Expresses its thanks to the University of Western Ontario, the Department of Geophysics and the local organizing committee for the fine facilities which were made available and for all the preparation which contributed to an excellent Assembly.

GUIDELINES FOR APPOINTMENT OF CHAIRMEN AND MEMBERS OF IASPEI COMMISSIONS

The following guidelines were approved in principle at the Plenary Meeting of IASPEI, held in London, Canada, on 30 July, 1981:

1. Chairmen of Commissions shall be appointed by the Executive Committee (or its Bureau) after consultation with existing officers and members of the Commission. Note that under the Statutes, officers of Commissions shall not hold the same office for more than two periods (i.e. eight years).

2. It shall be the Chairman's responsibility to ensure that the officers and members of his Commission are, as far as practicable, representative both of the disciplines covered by its activities, and geographically, bearing in mind the need for rotation of membership.

3. Membership of Commissions should be kept as small as is practicable for their efficient working, and should not in general number more than twenty.

4. Chairmen will normally be appointed, or confirmed in office, before or during the early part of those General Assemblies at which Association elections take place, and they should ensure that a review of the membership of their Commissions is carried out during or immediately after these Assemblies. Within six months of these Assemblies, the Chairmen shall forward a list of their Commission Members to the Executive Committee for their confirmation. The Bureau shall notify each member of his appointment and also of his retirement.

5. Although the official membership of Commissions will be specified for administrative matters, it is hoped that scientific meetings of Commissions will continue to be open to all interested participants, and that any interested scientist will be able to take part in all Commission activities.

It is intended that these points be guidelines only, and it is realised that some Commissions, particularly those with joint affiliations, may have other well-established procedures, some details of which they may not wish to alter.

FORTHCOMING MEETINGS

The following is a selection of meetings from October 1981 in the field of interest of the Association. Not all those mentioned in previous Newsletters are repeated:

1981 Oct 28-30 SECOND ARAB SEISMOLOGICAL SEMINAR
Rabat, Morocco
Federation of Arab Scientific Research Councils, and others
Dr D Ben-Sari, Service de Physique du Globe
B P 703, RABAT-Agdal, MOROCCO

1981 Nov 2- 7 SYMPOSIUM ON PHYSICAL AND GEODYNAMICAL PROCESSES IN EARTHQUAKE FOCAL REGIONS
Potsdam, GDR
ESC, KAPG
Prof E Hurtig, Zentralinstitut fuer Physik der Erde
Potsdam, GDR

1981 Nov 30- Dec 4 FIRST INTERNATIONAL WORKSHOP SHAKEISTICS
Rome, Italy
Italian National Committee for Nuclear Energy
RAD-RSI-INGSITO, CSN-CASACCIA, CNEN, C.P. 2400
Rome, ITALY

1982 May 12-19 THEORY OBSERVATION AND CAUSES OF SEISMIC ANISOTROPY
Suzdal, USSR
Soviet Geophysical Committee, IASPEI
Dr V Magnitsky, Soviet Geophysical Committee, Moscow, USSR

1982 May 31- Jun 4 TERRESTRIAL HEAT FLOW STUDIES AND THE STRUCTURE OF THE LITHOSPHERE
Liblice, Czechoslovakia
Czech Acad of Sciences, IHFC
Dr V Cermak, Geophysical Institute
141-31 Prague 4, CZECHOSLOVAKIA

1982 Jun 28- Jul 1 THIRD INTERNATIONAL CONFERENCE ON MICROZONATION
Seattle, Washington, USA
NSF, Unesco, EERI, SSA, and others
Dr M A Sherif, 132 More Hall
University of Washington, Seattle, USA

1982 Aug 16-20 FOURTH INTERNATIONAL SYMPOSIUM ON ANTARCTIC EARTH SCIENCES
Adelaide, South Australia
SCAR, IUGS
Dr J B Jago, Box 1, Ingle Farm, SA 5098, AUSTRALIA

1982 Aug 23-27 EUROPEAN SEISMOLOGICAL COMMISSION - EUROPEAN GEOPHYSICAL SOCIETY
Leeds, England
ESC
Prof J C Briden, Dept of Earth Sciences
The University, Leeds, UK

1982 Sep 6-11 SEVENTH EUROPEAN CONFERENCE ON EARTHQUAKE ENGINEERING
Athens, Greece
EAEE
Technical Chamber of Greece, 4 Karageorgi Servias str,
Athens, 125 GREECE

1983 Aug 15-26 XVIII GENERAL ASSEMBLY OF IUGG
Hamburg, FRG
International Union of Geodesy and Geophysics
Local Organizing Committee, IUGG,
Postfach 302360, 2000 Hamburg 36, FRG