

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

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## NEWSLETTER No.24 JULY 1989

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

As our Istanbul General Assembly approaches we must still pause to note with sadness the death of Sir Harold Jeffreys. We seem fortunate that so many scientists in our discipline are blessed with long life, and see their work pass almost into legend as has Sir Harold's.

This Newsletter contains further information about the Istanbul Assembly, and further activities of the Association. I look forward to seeing as many of you as possible in Istanbul.



R. D. Adams  
Secretary-General

## OBITUARY - SIR HAROLD JEFFREYS

An era ended on 18 March 1989 with the death of Sir Harold Jeffreys, aged 97. Sir Harold has graced many branches of science with his contributions, but to us seismologists he will be especially remembered for two achievements - the successive editions of his treatise "The Earth", and the J-B tables originally compiled in the 1930s with his student K.E. Bullen. "The Earth" contains some material that is now superseded, but also much sound science that still remains undisputed. The fact that the J-B tables are still the standard, and used by world seismological centres after fifty years attests to their worth.

In IASPEI we remember Sir Harold as our President from 1957 - 1960, following Bullen in the post. Sir Harold never really retired; he continued his scientific interest and the writing of papers until the time of his death. He remains a model for us all, and we extend our fullest sympathy to his wife and colleague, Bertha, Lady Jeffreys.

21st GENERAL ASSEMBLY, ISTANBUL. 21 AUGUST - 1 SEPTEMBER

Those who have not already registered should do so as soon as possible, with:

IASPEI Organizing Committee  
General Directorate for Disaster Affairs  
Kizilay-ANKARA,  
Turkey

Telex: 42477 AFET; Phone: +90 4 287 3645; Fax: +90 4 213 7658

Requests for accommodation should be made to:

Star Travel Inc.  
Cinnah Cad. 61/1, Cankaya-ANKARA  
Turkey

Telex: 46087 HBR; Phone: +904 138 9900; Fax: +904 138 5597

An accommodation deposit of US \$200 is requested.

The Assembly will be held in the Ataturk Cultural Center, Istanbul, with some smaller meeting rooms at the neighbouring Etap Marmara Hotel.

Registration This will take place at the Ataturk Center from Sunday, 20th August, where Star Travel will provide all facilities. The Registration Fee is now US \$200, and \$125 for accompanying persons. Students remain at \$75.

Programme The main sessions remain as shown in the Second Circular. The Programme and Abstract Book will be available at registration.

Opening Ceremony and IASPEI Plenary Session 21 Aug 10:00

This will be followed by the Association  
Lecture "Plate Motions and Seismotectonics  
of the Aegean-Anatolian Region" by Prof.  
M Nafi Toksoz.

Closing IASPEI Plenary Session 1 Sep 16:00

Scientific Sessions

- S1 Scientific Horizons in IASPEI
- S2 Detailed Structure and Processes of Active Margins
- S3 The Earth's Deep Interior and Dynamics of Subducting Slabs
- S4 Geodynamical Processes: Quantitative Models and New Geophysical Constraints
- S5 Physical and Petrological Nature of Discontinuities in the Lithosphere
- S6 Seismotectonics of the Alpine Himalayan Belt and Other Major Orogenies
- S7 Modelling the Earthquake Source
- S8 Determination of Source Parameters Using Digital Seismograms
- S9 Earthquake Prediction and Premonitory Phenomena
- S10 Earthquake Hazard Assessment in the Interplate Setting
- S11 Estimation of Site Specific Ground Motion for Large Earthquakes
- S12 Computation and Interpretation of Seismic Waveforms in 2-D and 3-D Structures
- S13 Scattering and Attenuation of Seismic Waves
- S14 Forward and Inverse Techniques in Geothermal Modelling
- S15 Correlation of Geothermal and Other Parameters
- W1 Travel Time Tables and Earthquake Location Problems
- W2 Regional Data Centres: State of the Art
- W3 Instrumentation and Data Analysis in Developing Countries
- W4 Comprehensive Mapping of the Lithosphere

PROGRAMME

	Mon 21 am. pm.	Tue 22 am. pm.	Wed 23 am. pm.	Thu 24 am. pm.	Fri 25 am. pm.	Mon 28 am. pm.	Tue 29 am. pm.	Wed 30 am. pm.	Thu 31 am. pm.	Fri 1 am. pm.
<u>Main Scientific Sessions</u>										
S1. Horizons	■									
S2. Active Margins					■					
S3. Deep Interior & Slabs								■	■	■
S4. Geodynamical Processes		■	■							
S5. Discontinuities						■	■			
S6. Seismotectonics			■	■						
S7. Source Modelling				■						
S8. Source Parameters & Digital		■	■							
S9. Prediction						■	■			
S10. Hazard								■		
S11. Ground Motion					■					
S12. Wavefields								■	■	
S13. Scattering										■
S14. Geothermal Modelling					■	■				
S15. Geothermal Correlation					■	■	■			
W1. Travel Time Tables						■	■			
W2. Data Centres				■						
W3. Developing Countries					■					
W4. Comprehensive Mapping								■		
Armenian Earthquake									Eve'g	
Workshop on Crustal Deformation									■	
Workshop on Hazard Assessment									■	
Workshop on Time-Dependent Hazard										■
Workshop on ISOP								■		
Working Group on Seismology in Africa			■							

The following specialised workshops and meetings have also been arranged:

IASPEI/Unesco Symposium on the Armenian Earthquake  
Workshop on Crustal Deformation  
Workshop on Earthquake Hazard Assessment Techniques  
Workshop on Earthquake Statistics and Time-Dependent Hazard  
Workshop on International Seismological Observing Period (ISOP)  
IASPEI/Unesco/ICL Working Group on Seismology and Related Sciences  
in Africa

All IASPEI Commissions will meet, usually on the evenings of days on which there are relevant scientific sessions.

Scientific Excursion A Scientific Study Tour to the North Anatolian Seismic Zone has been arranged 26-27 August. The cost is \$80 (double), \$100 (single). Enquiries to Star Travel.

Social Events A welcoming reception will take place on the evening of 21st August, in the Ataturk Cultural Center, hosted by the Ministry of Public Works and Settlement. A Dinner Cruise on the Bosphorus is being arranged on Tuesday, 29th August. (Tickets from Star Travel). Star Travel is arranging a series of pre- and post-Assembly tours, and local tours in Istanbul during the Assembly.

#### Business Sessions

Formal plenary sessions will be held at the beginning and end of the Assembly. Provisional agendas are given below, but any other matter may be raised if approved by a majority of delegates present. These meetings are open to all but voting on financial matters is restricted to accredited national delegates.

21 August (a.m.)	President's welcome Secretary-General's Statement Nomination of Resolution Committee
1 September (p.m.)	President's Report Secretary-General's Report Financial Statement Association and Commission Activities Union Activities Programme for 1991 Assembly, Vienna Venue for 1993/94 Assembly Adoption of Resolutions Other Business

Please note that this is not an Assembly at which elections are held for officers.

IASPEI/Unesco/ICL REGIONAL SEISMOLOGICAL ASSEMBLY IN AFRICA  
Nairobi, Kenya. 22-29 August 1990

This Regional Assembly will now definitely take place, under the local sponsorship of the Kenyan Ministry of the Environment and Natural Resources, with the Ministry of Energy, the University of Nairobi, the National Council for Science and Technology, the Kenyan National Academy of Sciences and the National Committee for IUGG as co-hosts. A Local Organizing Committee has been set up under the Chairmanship of Professor I.O. Nyambok, with Mr. J.D. Obel as Secretary.

Scientific themes for the Assembly have been established as:

Earthquake Disaster Assessment and Mitigation in Africa  
Africa from Above and Below - Satellite Imagery and

Lithospheric Probing

The African Rift System - Structure and Tectonics

Induced Seismicity - Mining and Reservoir

Geothermal and Heat Flow Studies in Africa

Volcanism and Related Seismicity in Africa

Seismological Instrumentation and Data Analysis in Africa

Further details will be worked out during the Istanbul Assembly, in conjunction with representatives from our African hosts, and the other sponsoring organizations, Unesco and ICL.

We see this Assembly as an important opportunity to bring together African scientists working in our field and those from outside Africa with interests in that continent.

IASPEI ACCOUNTS 1988

1988 was a year with no major Assembly, so our support was spread over a wide range of commission activities, while our reserves were increased, with a view to supporting the 1989 Assembly.

Our activities were helped by a number of grants from outside agencies, in particular the US National Academy of Sciences. Grants were:

US National Academy of Sciences	\$45,000
ICSU	7,000
Kinometrics Inc.	400
	<hr/>
	\$52,400
	<hr/>

In addition, support from the Interunion Commission for the Lithosphere for the joint IASPEI/Unesco/ICL Training Course for African Seismological Observers (\$5,000) was paid through IASPEI.

Miscellaneous income comprises interest of \$1,313.74 and an exchange adjustment of \$407.81.

Expenditure was almost entirely on Symposia and Scientific Meetings. Besides the Training Course for African Seismological Observers, the General Assembly of the European Seismological Commission in Bulgaria received substantial support. Administrative expenses are somewhat higher than usual, as they include expenses for the Bureau meeting early in the year.

The Association finished the year with a cash balance of \$30,792.79.

INTERNATIONAL ASSOCIATION OF SEISMOLOGY AND PHYSICS OF THE EARTH'S INTERIOR

Financial Report for the year 1988

Amounts in US Dollars

Exchange rates £1 = US \$1.809

RECEIPTS	IUGG	GRANTS & CONTRACTS	EXPENDITURE	IUGG	GRANTS & CONTRACTS
15 IUGG ALLOCATION	19 200.00		11 ADMINISTRATION	10 225.22	
3 OTHER GRANTS		57 400.00	12 PUBLICATIONS	2 059.66	3 900.00
6 MISCELLANEOUS	1 721.55		14 SYMPOSIA & SCIENTIFIC MEETINGS	1 958.09	53 500.00
			13 MISCELLANEOUS	28.11	
	<hr/>	<hr/>		<hr/>	<hr/>
7 TOTAL RECEIPTS	20 921.55	57 400.00	19 TOTAL EXPENDITURE	14 271.08	57 400.00
8 CASH IN BANK 1 JAN 88	24 142.32		20 CASH IN BANK 31 DEC 88	30 792.79	
	<hr/>	<hr/>		<hr/>	<hr/>
10 TOTAL	45 063.87	57 400.00	22 TOTAL	45 063.87	57 400.00
	<hr/> <hr/>	<hr/> <hr/>		<hr/> <hr/>	<hr/> <hr/>

1 January 1988

Dec. 31 1988

23 ACCOUNTS RECEIVABLE

Nil

2 000.00

24 ACCOUNTS PAYABLE

1 638.88

732.36

IUGG ASSEMBLY, VIENNA 11-24 AUGUST, 1991

The main IUGG Programme for the Assembly will be decided by the IUGG Executive at its meeting in Edinburgh just before our Istanbul Assembly. It is proposed that five symposia will be concerned with broad topics and will be the responsibility of the Union itself. These will include a session devoted to the International Decade for Natural Disaster Reduction. Another ten interdisciplinary symposia will be the responsibility of smaller groups of Associations. Among those being proposed at the moment are "Fine Structure of Subduction Zones", "Earth Rotation and Dynamics of the Earth's Deep Interior", and symposia related to geodetic monitoring of geodynamic processes and studies of the Lithosphere-Asthenosphere system.

At Istanbul we shall decide our Association's programme for the 1991 Assembly, to cover areas of interest to our Association not included in the IUGG programme.

STRENGTHENING SCIENTIFIC TRAINING AND RESEARCH IN  
THE THIRD WORLD

In what is an almost unprecedented move the United Nations Development Programme (UNDP) has given a grant directly to the International Council of Scientific Unions (ICSU) to pursue this topic. Some parts of the programme could start as soon as 1990 and plans are being made up to 1996. ICSU is keen to concentrate its activities on basic science in general and also in the three specific interdisciplinary areas of biotechnology, environment and natural disasters. Professor Melchior (Secretary-General, IUGG) has been appointed special consultant to UNDP for Earth Sciences, and will co-ordinate IUGG's activities in this field.

The objectives of the project are to increase the numbers of Third-World scientists that are trained to a high level, to maintain the professional competence of Third World scientists by involving them more in activities of the international scientific community, to accelerate the application of new scientific developments in developing countries, and to increase the capabilities of Third World countries to tackle themselves problems in the three specific areas.

IASPEI will be making submissions to the IUGG Executive Committee in August, and a progress report will be available at the Istanbul Assembly.

PUBLICATIONS

The first publication of IASPEI symposia from the Vancouver Assembly has now appeared as a special edition of Physics of the Earth and Planetary Interiors. It is "Physical Properties of Earth Materials", edited by Prof. T.J. Ahrens. A further seven symposia are being published in Elsevier journals.

The Manual of Seismogram Interpretation compiled by an IASPEI/Unesco Working Group under the chairmanship of Dr. O. Kulhanek is now in its final form, and is being submitted for publication. As well as over 50 plates of records, it contains an extensive introductory section, describing seismic phases, their paths and characteristics.

The IASPEI Software Library, prepared by the Working Group on Personal Computers, was described in Newsletter No.23. This is now available and may be ordered through the Seismological Society of America, 201 Plaza Professional Building, El Cerrito, CA 94530, USA. Enquiries to Dr. W.H.K. Lee, P.O. Box "I", Menlo Park, CA 94026, USA. Further sales are needed to ensure the continuing success of this project, so please urge your organization to subscribe.

FORTHCOMING MEETINGS

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

- 1989 Aug 21 - 25th GENERAL ASSEMBLY, IASPEI  
Sep 1 Istanbul, Turkey  
IASPEI Conference Organization Committee, General Directorate  
for Disaster Affairs, P.O. Box 763, Kizilay-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
- 1989 Sep 11-19 GEOLOGICAL-GEOPHYSICAL MAPPING OF THE PACIFIC REGION  
Yuzhno-Sakhalinsk, USSR  
Inst. of Marine Geology and Geophysics, Yuzhno-Sakhalinsk,  
693002, USSR
- 1989 Oct 2-6 GEODESY AND SEISMOLOGY : DEFORMATION AND PROGNOSIS  
Erevan, Armenian SSR, USSR  
V.A. Sidorov, Soviet Geophysical Committee, Molodezhnaya 3  
Moscow 117296, USSR
- 1989 Oct 24-26 CATASTROPHES AND SOCIETY  
Madrid, Spain  
ITSEMAP, Paseo de Recoletos 25, 28004, Madrid, SPAIN
- 1989 Nov 20-24 FIRST CONGRESS BRAZILIAN GEOPHYSICAL SOCIETY  
Rio de Janeiro, Brazil  
Marco Polo P. da Boa Hora, PETROBRAS/DEPEX/SEMPEO,  
Caixa Postal 15541, 20 132 Rio de Janeiro, BRAZIL
- 1990 Apr 23-27 EUROPEAN GEOPHYSICAL SOCIETY - GENERAL ASSEMBLY  
Copenhagen, Denmark  
Prof. P V Sharma, Geophysical Institute, University of  
Copenhagen, Haraldsgade 6, 2200 Copenhagen, DENMARK
- 1990 Jul 2-6 4th INTERNATIONAL WORKSHOP ON SEISMIC ANISOTROPY  
Edinburgh, U.K.  
J. Lovell, B.G.S., Murchison House, West Mains Road,  
Edinburgh, EH9 3LA, U.K.
- 1990 Aug 22-29 IASPEI/Unesco/ICL REGIONAL SEISMOLOGICAL ASSEMBLY IN AFRICA  
Nairobi, Kenya
- 1990 Sep 17-22 EUROPEAN SEISMOLOGICAL COMMISSION  
Barcelona, Spain  
Dr. A. Roca, Geological Survey of Catalunya, Diputacia 92,  
08015 Barcelona, SPAIN
- 1990 Oct 20-25 GEODYNAMICS OF THE ARABIAN PLATE  
Kuwait  
Dr W.E.K. Warsi, Dept. of Geology, University of Kuwait,  
Box 5969, Safat 13060, KUWAIT
- 1991 Aug 11-24 XX GENERAL ASSEMBLY, IUGG  
Vienna, AUSTRIA  
IUGG Committee ZAMG, Hohe Warte 38, A-1190 Vienna, AUSTRIA