

## U.R.S.I.

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## COMMISSION A - ELECTROMAGNETIC METROLOGY

As already announced in URSI Information Bulletin No 218, page 18, the Official Members of Commission A have been invited to vote by correspondence on some draft recommendations which had not been formally approved by the Commission during the General Assembly in Washington, D.C., August 1981. The Recommendation reproduced below has now been adopted unanimously by Commission A.

### A.3 - Interactions of Electromagnetic Waves with Biological Systems

Commission A

*recommends*

1. that the existing Working Group on "Interactions of Electromagnetic Waves with Biological Systems" be continued under the chairmanship of Prof. S.W. Rosenthal;
2. that the Working Group hold several international symposia between General Assemblies and during the XXI General Assembly of URSI.

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## COMMISSION A - MÉTROLOGIE ÉLECTROMAGNÉTIQUE

Comme annoncé dans le Bulletin d'Information de l'URSI No 218, page 46, les Membres officiels de la Commission A ont été invités à voter par correspondance sur certains projets de recommandations qui n'avaient pas été officiellement approuvés par la Commission pendant l'Assemblée générale de Washington en août 1981. La Recommandation reproduite ci-dessous vient d'être adoptée à l'unanimité par la Commission A.

### A.3 - Interactions entre ondes électromagnétiques et systèmes biologiques

La Commission A

*recommande*

1. le maintien du Groupe de travail sur les interactions entre les ondes électromagnétiques et les systèmes biologiques, sous la présidence du Prof. S.W. Rosenthal;

2. l'organisation, par ce Groupe de travail, de plusieurs colloques internationaux entre les Assemblées générales et pendant la XXIIe Assemblée générale de l'URSI.

## INTER-COMMISSION COORDINATING GROUP ON REMOTE SENSING

In accordance with Resolution U.14 adopted by the URSI Council during the General Assembly in Washington, D.C.(1981), an Inter-Commission Coordinating Group on Remote Sensing has now been formed with the following membership:

Chairman: Dr. J.F.R. Gower (USA)

Secretary: Dr. D.L. Croom (United Kingdom)

Members: Dr. A.K. Jordan (USA)  
Dr. W.R. Stone (USA)  
Prof. F. Carassa (Italy)  
Mr. F. Eklund (Sweden)  
Prof. R.K. Moore (USA)  
Dr. M. Crochet (France).

## NEWS FROM MEMBER COMMITTEES

### JAPAN: Nobeyama Radio Observatory

The Nobeyama Radio Observatory was dedicated on 1 March 1982. The facility includes a fully steerable 45-meter dish and five 10-meter dishes that can be placed in various positions relative to the 45-meter dish. The facility will operate at millimeter wave lengths.

To mark this occasion, Prof. W.E. Gordon, President of URSI, has sent the following message to Prof. S. Okamura, President of the Japanese URSI Committee:

"On behalf of URSI may I extend to you and your scientific colleagues in Japan the congratulations of the radio science community on the inauguration of the Nobeyama Radio Observatory".

"Professors Tanaka, Akabane, Morimoto and their associates have brought into being a magnificent new facility dedicated to the pursuit of radio science. The resources put into this enterprise by your country are, indeed, significant. The research that your radio astronomers will do at Nobeyama will enhance man's knowledge, enrich his cultural heritage and bring credit to Japan.

"We look forward with great anticipation to the results that will come forth from this powerful facility".

UNITED STATES OF AMERICA: USNC/URSI Meetings 1982-1986

The following list of USNC/URSI Meetings has been received from Dr. T.B.A. Senior, Chairman of the US URSI Committee.

1982 National Radio Science, IEEE/AP-S and Nuclear EMP Joint Meetings, 24-28 May; University of New Mexico, Albuquerque, NM, USA.

Contact: Dr. C.E. Baum, AFWL/ELT, Kirtland AFB; Albuquerque, NM 87117, USA.

1983 USNC/URSI National Radio Science Meeting, 5-7 January; University of Colorado, Boulder, CO, USA.

Contact: Prof.S.W. Maley, Department of Electrical Engineering, University of Colorado, Boulder, CO 80302, USA.

National Radio Science and IEEE/AP-S Joint Meetings, 23-26 May; University of Houston, Houston, TX, USA.

Contact: Prof. S.W. Long, Department of Electrical Engineering, University of Houston, Houston, TX 77004, USA.

1984 USNC/URSI National Radio Science Meeting, 9-12 January (tentative); University of Colorado, Boulder, CO, USA.

Contact: Prof. S.W. Maley, Department of Electrical Engineering, University of Colorado, Boulder, CO 80302, USA.

- 1984 National Radio Science and IEEE/AP-S Joint Meetings,  
18-22 June; Boston, MA, USA.  
Contact: Dr. A.C. Schell, Hanscom AFB, Bedford,  
MA 01731, USA.
- 1985 North American Radio Science (CNC/URSI and USNC/URSI)  
and IEEE/AP-S Joint Meetings, May/June; Canada (dates  
and location to be arranged).
- 1986 National Radio Science and IEEE/AP-S Joint Meetings,  
16-20 June; University of Pennsylvania, Philadelphia,  
PA, USA.  
Contact: Dr. D.L. Jaggard, Moore School-D2, University of  
Pennsylvania, Philadelphia, PA 19104, USA.

## URSI ACCOUNTS 1981

In accordance with the recommendation of the URSI Standing Finance Committee, the practice of publishing the accounts of the Union annually in the URSI Information Bulletin is being continued.

The Balance Sheet and Income and Expenditure Accounts of URSI for the year ended 31 December 1981 are reproduced below. They have been audited by Monsieur Maurice MAQUET, Expert Comptable, CNECB, Brussels.

The assets held in Belgian francs have been converted to US dollars using the UNESCO rate valid at 31 December 1981 (\$1 = 37.5 B.francs).

The apparent decrease in administrative expenditure from \$67,000 in 1980 to \$50,000 in 1981 is due mainly to the 17% depreciation in the value of the franc during 1981, but this gain has been offset by losses in exchange amounting to \$24,000.

INTERNATIONAL UNION OF RADIO SCIENCE (URSI)

Balance Sheet: 31 December 1981

	US\$	US\$	US\$
<u>ASSETS</u>			
<u>Dollars</u>			
<u>Bank Balances:</u>			
First City Bank	5,354.35		
American Security Bank	<u>1,468.59</u>		
Merrill Lynch R.A. Trust		6,822.94	
		<u>55,417.13</u>	62,240.07
<u>Belgian Francs</u>			
<u>Bank Balances:</u>			
Banque Degroof (current)	4,703.76		
Banque Degroof (3-month)	29,333.33		
Société Générale (current)	<u>558.93</u>		
		34,596.02	
Belgian State Loans (Value at 31 December \$68,864,-)		75,291.68	
Petty Cash and Stamps		<u>173.73</u>	
			<u>110,061.43</u>
			172,301.50
Sundry Debtors			<u>4,290.86</u>
			<u>176,592.36</u>
<u>Less: Creditors</u>			
IUCAF		6,840.50	
IUCRM		23.20	
IUWDS		4,141.71	
ICSU		2,853.60	
Hulp der Patroons		1,663.65	
Vaillant-Carmanne		7,466.66	
Maquet		2,074.80	
Sundry		<u>2,721.72</u>	
			<u>27,785.84</u>
			148,806.52
Balth. van der Pol Gold Medal Fund			<u>7,980.50</u>
			<u><u>\$140,826.02</u></u>
NET TOTAL OF URSI FUNDS			

Represented by:

	US\$	US\$
<u>Reserve Fund</u>		
General	0	
Closure of Secretariat	<u>74,400</u>	
		74,400
<u>Scientific Activities Fund</u>		
Scientific Activities in 1982 (Washington Budget)	37,400	
Special Symposium Fund	<u>6,854.45</u>	
		44,254.45
		<u>22,171.57</u>
<u>Allocated</u>		<u><u>\$140,826.02</u></u>

Income and Expenditure Account for the Year Ended 31 December 1981

	US\$	US\$	US\$
<u>INCOME</u>			
Allocation from UNESCO Grant to ICSU			9,600.-
Contributions from Member Committees			114,144.20
Registration Fees: XX General Assembly			19,520.-
Sale of Publications			870.23
Interests and Dividends			
Belgian francs		7,565.57	
US Dollars	5,022.35		
less interest on Balth.			
van der Pol Fund	<u>568.03</u>		
		<u>4,454.32</u>	
			<u>12,019.89</u>
TOTAL INCOME			<u><u>\$ 156,154.32</u></u>
<u>EXPENDITURE</u> (for details, see schedule attached)			
<u>Scientific Activities</u>			
Meetings and Symposia	7,463.64		
Grants	2,550.-		
Publications	<u>7,790.98</u>		
		17,804.62	
XX General Assembly			
Scientific Sessions and Colloquia	24,509.67		
Organisational expenses	19,672.13		
Young Scientists Scheme	<u>3,282.93</u>		
		<u>47,464.73</u>	
Total Expenditure:Scientific Activities			65,269.35
<u>Administration</u>			
Salaries and pensions (including Soc.Sec.)	40,111.33		
Office and General Expenses	<u>11,228.01</u>		
Total Expenditure: Administration		51,339.34	
Loss on exchange (net)		1,851.14	
ICSU Dues for 1981		<u>2,853.60</u>	
			<u>56,044.08</u>
TOTAL EXPENDITURE			<u>121,313.43</u>
Excess of Income over Expenditure			<u>34,840.89</u>
			<u><u>\$156,154.32</u></u>
Balance in hand on 1 January 1981 (\$1=31 BF)		126,986.17	
Plus adjustment Symposium Fund		<u>573.29</u>	
		127,559.46	
Less loss on depreciation of Belgian franc		<u>22,110.33</u>	
Revised balance on 1 January 1981 (\$1=37.5 BF)			105,449.13
Surplus on Symposium			536.-
Excess of Income over Expenditure			<u>34,840.89</u>
Balance in hand on 31 December 1981			<u><u>\$140,826.02</u></u>



Income and Expenditure Account for the Year Ended 31 December 1981  
(continued)  
(Supplementary Schedule)

	US\$	US\$
<u>Scientific Activities</u>		
<u>Meetings and Symposia</u>		
Awards and Steering Committees	1,252.50	
Radio Astronomy (Albuquerque)	920.-	
Bio-effects (Jouy-en-Josas)	2,163.44	
Information Theory (Santa Monica)	506.67	
FAGS Council (Paris)	283.54	
SCOSTEP Bureau Meeting (Abingdon)	<u>2,337.49</u>	
		7,463.64
<u>Grants</u>		
IUCAF	1,250.-	
IUCRM	300.-	
FAGS	<u>1,000.-</u>	
		2,550.-
<u>Publications</u>		
URSI Information Bulletin Nos 216-219	5,858.48	
URSI Brochure	1,432.50	
INAG Bulletin	<u>500.-</u>	
		<u>7,790.98</u>
Total Expenditure: Scientific Activities		<u><u>817,804.62</u></u>
<u>XX General Assembly</u>		
Scientific Sessions and Colloquia	10,544.24	
Review of Radio Science 1978-80	9,043.97	
Proceedings of General Assemblies, Vol.19	4,000.-	
Miscellaneous	<u>921.46</u>	
		24,509.67
Organisational Expenses		19,672.13
Young Scientists Scheme	11,382.93	
less grants made by: US Member Committee	5,000.-	
COSTED	<u>3,100.-</u>	
	<u>8,100.-</u>	
Total Expenditure: XX General Assembly		<u><u>3,282.93</u></u> <u><u>847,464.73</u></u>
<u>Office and General Expenses</u>		
Rent, heat, light, etc.	3,200.-	
Stationery, office supplies	795.65	
Office equipment	43.06	
Insurance	269.06	
Telephone	2,083.46	
Postage	825.12	
Entertainment	250.37	
Audit fee	1,666.80	
Administrayive travel	1,727.30	
Bank charges	245.89	
Miscellaneous	<u>121.30</u>	
Total Expenditure: Office Expenses		<u><u>811,228.01</u></u>

## ANNOUNCEMENTS OF MEETINGS AND SYMPOSIA

### Ionospheric Observatory, Dourbes, Belgium - 25th Anniversary

In the 1950's research on the physical characteristics of the ionosphere was a relatively new, but rapidly developing branch of geophysics. However, there was a need for more observational data concerning the geographical distribution of the many parameters which characterise the various ionospheric layers. A particularly strong stimulus to the establishment of new ionospheric stations was provided by the International Geophysical Year (1957-58) and, thanks to the new data acquired during this 18-month period, much progress was made in understanding the ionosphere.

In May 1957, the Royal Meteorological Institute in Belgium established a new ionospheric station at Dourbes, in the south of Belgium, and this station has operated continuously ever since. The technical progress made over the past quarter century is reflected in the replacement of the earlier ionosondes by the new Digisonde 256 system.

The 25th Anniversary of the Dourbes ionospheric station, and the installation of the latest ionosonde, will be celebrated during a short meeting to be held in Brussels and in Dourbes on 13 and 14 May 1982. It is expected that short papers will be presented by representatives from ionospheric research centres in Austria, Belgium, Federal Republic of Germany, France, Hungary, Italy, Sweden, United Kingdom and USA.

Further information is available from:

Professor L. Bossy,  
Institut Royal Météorologique,  
Avenue Circulaire 3,  
B - 1180 Brussels,  
Belgium.

URSI International Symposium

Radio Probing of the High-Latitude Ionosphere and Atmosphere:  
New Techniques and New Results

This Symposium will be held from 9 to 13 August 1982 at the Geophysical Institute, University of Alaska, Fairbanks, Alaska, USA. It is sponsored by URSI and co-sponsored by the Aeronomy Section of the National Science Foundation and the Geophysical Institute of the University of Alaska.

The Chairman of the Steering Committee is Dr. R.D. Hunsucker (Geophysical Institute, University of Alaska) and the Chairman of the Technical Programme Committee is Dr. R.A. Greenwald (The John Hopkins University, Laurel, MA).

The Purpose. Several new radio techniques for probing the atmosphere have been developed and deployed at high geomagnetic latitudes in the past two or three years. These systems include the VHF Mesosphere/Stratosphere/Troposphere (MST) radar, the European Incoherent Scatter (EISCAT) radar, a new generation of HF digital ionospheric sounders, HF ionospheric "heaters" and pulse interaction arrays, and VHF coherent oblique backscatter radars (STARE and SABRE). The purpose of the Symposium is to present and discuss results obtained with these new techniques and to work toward putting together coherent, consistent models of high-latitude atmospheric structure and dynamics using these new results.

The Programme. The Technical Committee that designed this meeting selected a topically-oriented format which will feature six minisymposia. Internationally recognized speakers have been invited to present papers. In addition, there will be work sessions where scientists may work together to improve their mutual understanding of new techniques and new results in this field. The content of the symposia will include:

- The High Latitude Ionosphere and its Extension into Space.
- Neutral Winds - From the Ground through the Thermosphere.
- Coupling and Energy Transfer between the Solar Wind, Magnetosphere, Ionosphere, and Atmosphere.
- Solar Cycle Variations in the High Latitude Ionosphere.
- Irregularities - Large and Small.
- Man-made Perturbations of the Ionosphere.

Submission of Papers. Contributed papers are welcome. Titles and abstracts (not to exceed 200 words) should be submitted to the Technical Programme Chairman:

Dr. R.A. Greenwald,  
Applied Physics Laboratory,  
The John Hopkins Laboratory,  
Laurel, Maryland 20707,  
USA.

The deadline for receipt of abstracts is 1 June 1982. Titles of papers intended for presentation should be submitted by 1 May 1982.

Conference Proceedings. Most papers presented at the Symposium will be published in a special issue of *Radio Science* subject to the usual review procedure. Authors are requested to submit the written version of their presentation to Prof. Hunsucker during the Symposium.

Registration. Registrations will be accepted at the door on a space available basis. Preregistration is strongly advised, since the meeting will be limited to 100 participants.

For further information regarding registration and accommodation, apply to:

Ms N. Bachner,  
Department of Conferences and Institutes,  
University of Alaska,  
117 Eielson Building,  
403 Salcha Street,  
Fairbanks, Alaska 99701,  
USA.

URSI Commission F Inter-Assembly Symposium  
on Wave Propagation and Remote Sensing

The URSI Commission F Inter-Assembly Symposium on Wave Propagation and Remote Sensing will be held from 9 to 15 June 1983 in Wépion-Namur, Belgium.

Theme

The general objective of the Symposium is to provide an opportunity for interaction among the propagation and the remote sensing communities and to bring some new topics and view points in the propagation community.

The Symposium will be concerned with all aspects of microwave propagation in the atmosphere and of waves interaction with the medium, which are important for telecommunications and remote sensing applications, e.a.: attenuation, cross-polarisation, incoherent scattering, millimeter waves, clear-air effects, propagation in random media, scattering by random surfaces of volumes, inversion methods, remote sensing of subsurface bodies.

Organizing and Technical Programme Committees

The Chairman of the Organizing Committee is Prof. P. Delogne, and the Secretary is Dr. P. Sobieski. The Technical Programme Committee will be chaired by Prof. A. Guissard.

Information to Authors

Prospective authors should submit five copies of a 200-500 word summary, where the original contribution of the paper is clearly stated. The papers will be accepted on the basis of the summaries. Papers on remote sensing should be limited to the propagation aspects and to the interaction of waves with the medium. After acceptance, authors will be required to prepare their final papers for publication in the Symposium Preprints.

The Conference languages will be French and English.

Conference Timetable

Five copies of 200-500 word summary due 1 November 1982.

Acceptance letters and authors kits mailed 1 February 1983

Complete manuscripts due 15 March 1983.

Conference Office

All correspondence should be sent to:

URSI Commission F International Symposium 83,  
Telecommunications Laboratory,  
U.C.L.,  
Place du Levant 3,  
B - 1348 Louvain-la-Neuve,  
Belgium.

1983 URSI International Symposium  
on Electromagnetic Theory

The next meeting in this triennial series started in 1953 will be held in Santiago de Compostella, Spain, from 23-26 August 1983. The tentative list of topics mentions:

1. Field analysis and numerical methods
2. Scattering and diffraction
3. Antennas
4. Guided waves (waveguides, open structures, etc.)
5. Transient phenomena
6. Random media
7. Remote sensing
8. Interaction of EM waves with biological systems.

The Technical Programme Committee is chaired by Prof.H.G. Unger, Chairman of URSI Commission B. The Vice-Chairman is Prof. J. Bach Andersen, Vice-Chairman of URSI Commission B.

The Organizing Committee consists of M. Rodriguez Vidal (Chairman), J. Rivas Rey, Vice-Chairman, J.L. Sebastian, Secretary, F. Jimenez Asenjo, A. Castillo, E. Moreno Piqueo, and M. Sierra Pérez.

Abstracts should be submitted by 1 October 1982. Notification of accepted papers will be made by 1 February 1983, and full manuscripts should be in the hands of the Editor by 15 May 1983.

All correspondence should be directed to:

Dr. J.L. Sebastian,  
Dpt.º de Electricidad y Electronica,  
Facultad de Ciencias Fisicas,  
Ciudad Universitaria,  
Madrid 3, Spain.

The URSI community is urged to strongly support this Conference, which has been one of the most successful efforts of our Union for almost thirty years.

### ICSU RESOLUTION ON THE PREVENTION OF NUCLEAR WARFARE

The URSI Board of Officers wishes to draw the attention of the Member Committees of URSI to the following Resolution which was passed unanimously by the ICSU Executive Board, and approved by the ICSU General Committee, in September 1981.

ICSU,

- *Recalling* paragraph 3-a of Part 1 of the Statutes of the Council which says that one of its principal objectives is "to encourage international scientific activity for the benefit of mankind, and so promote the cause of peace and international security throughout the world";

- *Emphasizing* that the objectives of the Council, as stated in its Statutes, can be realized only in the atmosphere of peace and stability in the world;

- *Noting* the positive effect of efforts to promote mutual understanding and confidence building measures on the development of international scientific cooperation and science as a whole;

- *Expressing* concern about recent deterioration of the international situation caused by the continuing arms race;

- *Considering* that the scientific community has a special responsibility to initiate actions on a large scale to secure world peace and stability;

- *Urges* scientists to do their best to demonstrate to the governments and peoples of all countries the vital necessity of preventing nuclear warfare.

UTC TIME STEP  
on the 1st of July  
1982

The following note has been received from Dr. B. Guinot, Director of the Bureau International de l'Heure (BIH):

A positive leap second will be introduced at the end of June 1982. The sequence of dates of the UTC second markers will be

30 June 1982, 23<sup>h</sup> 59<sup>m</sup> 59<sup>s</sup>

30 June 1982, 23<sup>h</sup> 59<sup>m</sup> 60<sup>s</sup>

1 July 1982, 0<sup>h</sup> 0<sup>m</sup> 0<sup>s</sup>

The difference between UTC and the International Atomic Time will thus be

from the 1st of July 1981, 0h UTC to the 1st of July 1982, 0h UTC: UTC-TAI = - 20 s

from the 1st of July 1982, 0h UTC: UTC-TAI = - 21 s.

## URSI COMMITTEE ON DEVELOPING COUNTRIES

At the 1981 General Assembly, several suggestions were made concerning the manner in which URSI could optimally support the scientific efforts of Developing Countries. One of the suggestions was that Member Committees might, through local contacts, identify unused scientific equipment which could be put at the disposal of these Countries. The sponsors of the idea had in mind good, serviceable equipment, perhaps not of the "state of the art" level, but of a quality appropriate to the needs of a beginning research team. A first request has now been received from Bangladesh, which is anxious to obtain communications research equipment. Member Committees desirous to help our Bangladesh colleagues are requested to contact Dr. R.I. Sharif, Department of Applied Physics and Electronics, University of Dacca, Dacca 2, Bangladesh.



## ICSU-UNESCO DISTINGUISHED FELLOWSHIPS IN SCIENCE<sup>+</sup>

The International Council of Scientific Unions (ICSU) and the United Nations Educational, Scientific and Cultural Organization (UNESCO) announce the creation of the ICSU-UNESCO Distinguished Fellowships in Science. A small number of Fellowships have been established in the natural sciences, including their application to development, in order to strengthen the scientific capacity of developing nations. The fellowships will be awarded to individuals who have demonstrated exceptional scientific ability at the level of Ph.D., or its equivalent, and who desire to advance their scientific knowledge in order to conduct basic research relevant to national needs.

Candidates will come from developing countries and will be under 35 years of age when the Fellowship begins. Candidates will, ordinarily, have had one year of post-doctoral experience; special consideration will be given to candidates who have done research in their native region. Fellowships will be awarded for one year, with extension for a second year in exceptional circumstances, and will be tenable in any centre of scientific excellence in the world. A letter will be required to show that the candidate will be accepted in the host department or laboratory where he proposes to study. In order to make sure that a position will be available when the Fellow returns to the country or region of origin, institutional commitment of a post will be required with the application as well as governmental approval of the application for Fellowship.

An important feature of the award is the follow-up programme which includes a UNESCO grant to the Fellow for research materials and services to support a research project to be carried out in the Fellow's region of origin. Another feature is the award of two travel grants in the two or three-year period after completion of the Fellowship. These travel funds will allow one visit by the Fellow to the foreign, host institution as well as one lectureship for the foreign mentor, tenable in the country or region in which the former Fellow's research project is being conducted.

Application forms for the ICSU-UNESCO Distinguished Fellowships in Science are available from National Commissions for UNESCO or from the Division of Scientific Research and

<sup>+</sup> Reprinted from ICSU Newsletter No 9 (March 1982).

Higher Education at UNESCO, 7 place de Fontenoy, 75700 Paris, France. The forms will also be obtainable from the UNESCO Regional Offices.

Completed application forms should be sent to the Division of Scientific Research and Higher Education, UNESCO, 7 place de Fontenoy, 75700 Paris, France. They should be received at UNESCO not later than 1 August 1982.

Awards will be announced about 1 November 1982, and the first Fellowships will begin between 1 January and 30 June 1983.

## COSTED TRAVEL FELLOWSHIP PROGRAMME

The ICSU Committee on Science and Technology for Developing Countries (COSTED) continues to award travel fellowships to young scientists to attend international meetings. Recently, these meetings have included the International Course on Physics of Materials, Madras; the International Conference on Environmental Education, New Delhi; The Sixth Indian National Heat and Mass Transfer Conference, Madras; The Workshop on Laser Technology and Applications, Madras; the Symposium on the Rôle of Physics in Development, Bangladesh; the Summer Institute of Physics, Santiago, Chile.

Those persons wishing to apply for a COSTED Travel Fellowship should write to the Scientific Secretary of COSTED, Department of Physics, Indian Institute of Technology, Madras 600 036, India.

## THE INTERNAL STRUCTURE OF IAGA

The internal structure of the International Association of Geomagnetism and Aeronomy (IAGA) (valid until 1983) has been published in *IAGA News* No 20 (December 1981). Certain of the activities of Divisions II, III and IV are of interest to URSI. The topics covered by these Divisions are listed below.

### DIVISION II. AERONOMIC PHENOMENA

Chairman: H. Rishbeth (UK)

Co-Chairmen: P. Bauer (France), A.D. Danilov (USSR), M.H. Rees (USA)

Topic II.1 - Structure and Dynamics of the Thermosphere

Reporters: A.D. Richmond (USA), C.A. Reddy (India), N.Matuura (Japan)

Topic II.2 - Neutral and Ion Chemistry and Solar Fluxes

Reporters: J.H. Carver (Australia), P.C. Simon (Belgium), M.T. Torr (USA)

Topic II.3 - Atmospheric Quantal Emissions

Reporters: R.R. Meier (USA), A. Vallance-Jones (Canada), N.N. Shefov (USSR)

Topic II.4 - Ionospheric Small Scale Structures

Reporters: R. Raghavarao (India), A.V. Shirochkov (USSR), S.L. Ossakow (USA)

Topic II.5 - Ionosphere-Magnetosphere Interactions

Reporters: M. Blanc (France), A. Brekke (Norway), R.A. Wolf (USA)

Topic II.6 - Stratosphere-Mesosphere-Ionosphere Interactions

Reporters: M. Gadsden (UK), H. Volland (FRG), B.R. Clemesha (Brazil)

Topic II.7 - Aeronomy of other Planetary Atmospheres

Reporters: A.F. Nagy (USA), U. von Zahn (FRG), V.I. Moroz (USSR)

Topic II.8 - Laboratory Experiments of Aeronomic Interest

Reporters: K.C. Clark (USA), S.Trajmar (USA), D.Smith (UK)

Topic II.9 - Planetary Exospheres

Reporters: B.A. Tinsley (USA), A. Vidal-Madjar (France),  
M.K. Wallis (UK).

DIVISION III. MAGNETOSPHERIC PHENOMENA

Chairman: G. Rostoker (Canada)

Co-Chairmen: A. Nishida (Japan), M.I. Pudovkin (USSR),  
R.G. Rastogi (India)

Topic III.1 - Magnetosphere-Ionosphere Interactions

Reporter: R.A. Wolf (USA)

Topic III.2 - Magnetosheath, Magnetospheric Boundary and Plasma Penetration

Reporter: G. Paschman (FRG)

Topic III.3 - Distribution and Properties of Magnetospheric Plasmas

Reporter: K.I. Gringauz (USSR)

Topic III.4 - Energetic Particle Populations Including Cosmic Ray Entry

Reporter: M. Schulz (USA)

Topic III.5 - ULF Waves

Reporter: V.A. Troitskaya (USSR)

Topic III.6 - Plasma Waves and Wave Particle Interactions

Reporter: D.J. Southwood (UK)

Topic III.7 - Magnetic Storms and Substorms, Including Aurora-Magnetosphere Relations

Reporter: R.L. McPherron (USA)

Topic III.8 - Magnetospheres of other Planets

Reporter: M.G. Kivelson (USA)

Topic III.9 - Active Space Experiments, Laboratory Experiments and Computer Simulation

Reporter: I.M. Podgorny (USSR)

Working Group III.1 - ULF Pulsations

Co-Chairmen: B.J. Fraser (Australia), F. Glangeaud (France)

Working Group III.2 - Composition of Hot Magnetospheric Plasma

Co-Chairmen: R.G. Johnson (USA), G. Haerendel (FRG)

Working Group III.3 - Quantitative Magnetospheric Models

Chairman: W.P. Olson (USA).

DIVISION IV. SOLAR WIND AND INTERPLANETARY MAGNETIC FIELD

Chairman: L.F. Burlaga (USA)

Co-Chairmen: T. Gombosi (Hungary), F.M. Neubauer (FRG)

Topic IV.1 - Large Scale Characteristics of the Interplanetary Medium

Reporters: W.C. Feldman (USA), F. Mariani (Italy), J.D. Scudder (USA), E.J. Smith (USA)

Topic IV.2 - Waves, Discontinuities and Shocks in the Interplanetary Plasma

Reporters: M. Dobrowolny (Italy), S. Pinter (Czechoslovakia), O.A. Vaisberg (USSR)

Topic IV.3 - Solar Wind Interaction with Unmagnetized or Weakly Magnetized Bodies

Reporters: T.K. Breus (USSR), C.T. Russell (USA)

Topic IV.4 - Solar Activity, Interplanetary Dynamics and Terrestrial Disturbances

Reporters: P.H. Scherrer (USA), R. Schwenn (FRG), N.R. Sheeley (USA)

Topic IV.5 - Evolution of the Sun and Solar System as Deduced from Solar Wind Observations

Reporters: J. Geiss (Switzerland), C.P. Sonett (USA)

Topic IV.6 - Interaction of the Interplanetary Neutral Gases and the Solar Wind Plasma

Reporters: T.E. Holtzer (USA), S. Grzedzielski (Poland).

URSI is directly concerned with the Joint IAGA/URSI Working Groups on

- a) Passive Electromagnetic Probing of the Magnetosphere;
- b) Wave Instabilities in Space Plasmas.

The Secretary General of IAGA is

Dr. N. Fukushima,  
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Tokyo 113, Japan.

## WORLD COMMUNICATIONS YEAR 1983

In November 1981, the General Assembly of the United Nations proclaimed the year 1983 World Communications Year: Development of Communications Infrastructures. The International Telecommunication Union (ITU) has been designated the lead UN Agency for the preparation and celebration, on a world-wide scale, of WCY 83, with responsibility for coordinating the interorganizational aspects of the programmes and activities of other intergovernmental, governmental and non-governmental organizations.

The UN Resolution invites Member States, UN specialized Agencies, governmental and non-governmental organizations and users of communications services to participate actively in the fulfilment of the objectives of the Year and to cooperate closely with the ITU Secretary-General.

A "Guide to World Communications Year 1983" has been published by the ITU. The text reproduced below has been adapted from the Guide by the ITU Secretariat.

### Summary - Principles and Objectives

#### World Communications Year 1983

- WCY is a specific set of activities to increase the scope and effectiveness of communications as a force for economic, cultural and social development.
- The principles and objectives for the Year have been defined by governments and adopted in resolutions of the UN General Assembly, the UN Economic and Social Council (ECOSOC) and the ITU Administrative Council.

- The Year stresses the expansion and refinement of communication infrastructures as a catalyst for and essential element of development.
- By identifying, coordinating and accelerating the implementation of communications infrastructures, the Year is an opportunity for a "quantum leap" in the development of a complete world communication network which will leave no one isolated from his local, national or international community.
- The Year's programme calls for the harnessing of all possible resources towards the accomplishment of its objectives - human, financial, governmental, industrial, intergovernmental and non-governmental, and the resources of the many other bodies and organizations with related interests.
- The Year focuses on the development of communication infrastructures at the national level. The growth of communication facilities varies greatly from country to country. In some it is minimal. In some it is extremely fast. In some it is haphazard. In some it is unbalanced. With no "master plan" to be imposed, the Year is an opportunity for realistic, national analysis, review and planning to most speedily and effectively meet the communications needs of each country.
- Special attention is being given to the communications needs of developing countries.
- The WCY will promote and accelerate the achievement of the objectives of the Transport and Communications Decade in Africa.

For further information on World Communications Year 1983, contact:

International Telecommunication Union,  
WCY83 Secretariat,  
CH - 1211 Geneva 20,  
Switzerland.

