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NECROLOGY

We regret to announce the recent death of two radio scientists who were well known in URSI circles:

Dr. G. Goubau (Federal Republic of Germany), and
Prof. R. Rivault (France), Chairman of URSI
Commission VIII from 1966 to 1969.

A fuller account of their activities will appear in the next issue of the URSI Bulletin.

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XX GENERAL ASSEMBLY OF URSI
GENERAL LECTURES

The following General Lectures will be given on three mornings during the Assembly in Washington:

Wed. 12 August "Radio Science and Oceanography"
Prof. E.D.R. Shearman
Mon. 17 August "Solar Power Satellite and Tele-
communications"
Prof. W.E. Gordon
Wed. 19 August "High Energy Astronomy"
Dr. H. Friedman.

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MEETING OF URSI BOARD OF OFFICERS

The Board met in Brussels on 13 and 14 September 1980. Some of the actions taken at the meeting are summarized below.

1. Nominations for Commission Vice-Chairmen

In view of the differences in character of the Commissions, the method for nominating Vice-Chairmen was left open. However, all Commissions will be asked to submit all nominations received to the URSI Secretariat 4 months ahead of the Assembly, i.e. by 15 April 1981. The lists of nominees will then be sent to the Member Committees. The actual voting procedure will be left to the Commissions, but each Commission shall submit at least two names to the Council, which will elect the Vice-Chairmen. In doing this, the Council will try to ensure a proper balance in the geographical distribution of the Vice-Chairmen.

2. Chairmanship of the URSI/CCIR/CCITT Liaison Committee

The chairmanship was left open by the untimely death of Dr. J.A. Saxton (UK). The Board agreed unanimously to ask M. M. Thué (France), who is very deeply involved in the affairs of ITU and CCIR, to act as Chairman of the URSI/CCIR/CCITT Liaison Committee, pending confirmation by the Council in Washington, D.C. next year. M. Thué has accepted this responsibility.

3. Committee on Relations with Developing Countries

It was agreed that Dr. A.P. Mitra, Vice-President of URSI, should form a Working Group of representatives of developing countries, of which M. J. Voge, Past President, would also be a member. The task of the Group will be to investigate the ways in which URSI could make a useful contribution to the scientific progress of the developing countries, e.g. by organizing symposia of direct interest to them (possibly in collaboration with ITU-CCIR), or by publishing booklets on topics such as the relations between radio science and the environment, or the use of observational satellites for Earth resources.

4. Beacon Satellite Group

The COSPAR Panel under which the Beacon Satellite Working Group was operating had been dissolved and the

Group had adopted a resolution asking for incorporation in URSI as a Working Group of Commission G (Ionospheric Radio and Propagation). The Group is chaired by Professor R. Leitinger (University of Graz, Austria) and has been very active in the past.

It was decided that the Beacon Satellite Group should be incorporated in Commission G as Working Group G.12 on the Use of Beacon Satellite Transmissions, pending formal approval by the Council in Washington, D.C. in 1981.

5. Federation of Astronomical and Geophysical Services

The UNESCO Subvention to FAGS has been strongly reduced. The financial aid of the supporting Unions is therefore more important than ever and, in view of the usefulness of the Services to the scientific community, the Board agreed to make a grant of \$1,000 to FAGS in 1981, as in 1980.

6. XX URSI General Assembly, Washington, D.C., 1981

The Board received a report from the Organizing Committee, which is making excellent progress in its preparation of the General Assembly. The Board was informed of the development of the Scientific Programme by the Steering Committee. A provisional timetable, which represents only a first approximation, was set up. The details of the latter are too long to be quoted here, but the main features were at the time:

- 3 general lectures (see p.1);
- 44 individual scientific sessions(half-day) for the Commissions:
 - 5 for Commission A (Electromagnetic Metrology)
 - 9 for Commission B (Fields and Waves)
 - 5 for Commission C (Signals and Systems)
 - 1 for Commission D (Physical Electronics)
 - 5 for Commission E (Electromagnetic Noise and Interference)
 - 6 for Commission F (Wave Phenomena in Non-ionized Media)
 - 4 for Commission G (Ionospheric Radio and Propagation)
 - 5 for Commission H (Waves in Plasmas)
 - 4 for Commission J (Radio Astronomy)

- 14 joint scientific sessions (half-day): one each for Comm. A, B, J, Comm. C, D, Comm. E, H, Comm. F, G; two each for Comm. A, E and C, D, J; six for Comm. G, H;
- 3 Open Symposia on
 - Remote sensing (Comm. B, F, H)
 - mm and submm waves (Comm. A, B, D, F, J)
 - Mathematical models in radio propagation (Comm. B, F, G, H);
- a Series on Interactions of em waves and biological systems (Comm. A, B).

It was decided that Review of Radio Science 1978-80 would be distributed to participants in the General Assembly at the time of registration. As a result, the Commission reports will have to reach Prof. S.A. Bowhill, General Editor of the Review, before 21 April 1981.

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18th GENERAL ASSEMBLY OF ICSU
Amsterdam, September 1980

The Resolutions and Decisions most likely to interest URSI are reproduced below:

1) Membership

The 18th General Assembly of ICSU

accepts the application for national membership from:

- 1) The Royal Scientific Society, Amman, Jordan
- 2) The Kenya Academy for the Advancement of Arts and Sciences;

accepts the report of the Admissions Committee.

3) Agreement between ICSU, the China Association for Science and Technology and the Academy located in Taipei, China

The 18th General Assembly of ICSU

endorses the recommendation made by the Executive Board at its 27th Meeting in May 1980 concerning the agreement between the China Association for Science and Technology,

the Academy located in Taipei, China and ICSU, and

recommends that the Executive Board make every effort to ensure the participation in ICSU of the scientists from the People's Republic of China.

5) World Data Centres

The 18th General Assembly of ICSU,

noting that international geophysical programmes are increasingly generating data sets which are largely, if not entirely, digital and machine readable, and therefore that it is of the greatest importance that the World Data Centres acquire the necessary equipment, procedures and personnel for the efficient processing, archiving and retrieval of data in large quantities in machine-readable form,

recognizing that the costs of maintaining the WDCs are borne entirely by those countries in which they are located, but that the Centres are required to meet the changing needs of the international scientific community as determined by the relevant Unions, Associations, Commissions and Committees of ICSU,

records its deep appreciation of the enormous service provided by the World Data Centres to the world scientific community,

invites the responsible National Agencies to consider ways and means of meeting the need for continued modernization of data-handling facilities in the WDCs.

8) COSTED and ICSU's Rôle in Development

The 18th General Assembly of ICSU,

aware of the growing interest in problems of the developing countries among members of the ICSU family, and of significant new initiatives by intergovernmental agencies, both of which were discussed in an open meeting on science and technology for development, in Amsterdam on 6 September 1980,

noting with approval the COSTED programme for 1981, the intention to draw up a long-range programme for 1982-84, the planned extension of COSTED activities in Africa and Latin America, and the rapidly increasing participation of many scientific Unions in fostering the growth

of science and technology in developing countries,

recommends that the Scientific Unions and COSTED improve and maintain close and continuing two-way communications concerning their respective programmes and intentions for working with developing countries,

invites national members to appoint national committees or correspondents for COSTED, who would help to identify: 1) problems where ICSU could be helpful; and 2) personnel and resources to strengthen COSTED's programmes,

suggests that the Executive Board and the General Committee continue to consider ways and means of increasing the involvement of the world scientific and technological community in problems of developing countries, and

suggests that the ICSU Executive Board authorize the preparation and publication of a concise readable booklet that would describe the activities of ICSU and its constituent bodies in the development area and characterize the kinds of services the ICSU family has to offer.

15) Commemoration of the First and Second Polar Years and the International Geophysical Year

The 18th General Assembly of ICSU,

remembering that the International Geophysical Year was an unprecedented step forward in world-wide scientific cooperation, and that it marked the beginning of many international programmes in the earth sciences which ever since have progressed continuously,

reaffirms the decision to commemorate the centenary of the First Polar Year and the anniversaries of the Second Polar Year and the International Geophysical Year,

invites appropriate groups within ICSU, intergovernmental organizations and regional and national associations, to take this into account when planning their activities for 1982 and 1983, and

requests the Executive Board to include addresses on the history of international cooperation in earth sciences, and its relevance to future activities at the 19th General Assembly, to consider the publication of a special volume including the papers given at commemorative meetings, and to encourage the publicizing of the commemoration through

the media.

16) The Need for Peaceful Resolution of International Disputes

The 18th General Assembly of ICSU,

aware of the imminent threat to the very survival of the human race inherent in the world-wide arms race,

remembering the call for peace issued 25 years ago in the Einstein-Russell Manifesto signed by nine other great scientists,

urges scientists everywhere to call upon their governments to work toward progressive limitation of weapons of mass destruction, and seek peaceful means for settling all matters of dispute between them.

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SYMPOSIUM ON SCIENTIFIC AND ENGINEERING

USES OF SATELLITE RADIO BEACONS

A Symposium on Scientific and Engineering Uses of Satellite Radio Beacons was held in Warsaw, Poland, from 19 to 23 May 1980 at the invitation of the Space Research Committee of the Polish Academy of Sciences. It was the fifth Symposium of the COSPAR Beacon Satellite Group and was sponsored by COSPAR and URSI. The Symposium had the support of several eminent Polish personalities. The Organizing Committee and the Programme Committee were chaired by Dr. A.W. Wernik.

The Symposium was fortunate in having the participation of 71 scientists from 18 countries. Following the tradition of the previous Symposia, some sessions were devoted to the presentation of 9 invited and 28 contributed papers, and others to discussions of the present status and future aspects of scientific and engineering uses of satellite radio beacons. Some of the topics were:

- Ionospheric disturbances (natural and artificial);
- Scientific uses of trans-ionospheric propagation studies;
- Tropospheric and ionospheric propagation limitations on earth/space systems;

- High-latitude ionospheric studies by radio beacon techniques;
- Equatorial ionospheric studies by radio beacon techniques;
- Mid-latitude ionospheric studies by radio beacon techniques;
- Plasmasphere/protonosphere studies;
- Techniques of radio beacon measurements;
- Application of beacon techniques to microwave and infrared sounding systems.

The Proceedings of the Symposium will be issued by the end of this year. Requests for spare copies should be addressed to:

Dr. A.W. Wernik,
Space Research Centre PAN,
ul. Ordonia 21,
01-237 Warsaw, Poland.

R. Leitinger

Note: See on p.2, para 4) the decision of the URSI Board of Officers to accept the Beacon Satellite Group as Working Group G.12 of URSI Commission G.

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URSI SYMPOSIUM ON MILLIMETER WAVE TECHNOLOGY
WITH EMPHASIS ON RADIO ASTRONOMY APPLICATIONS

This Symposium was held in Grenoble, France from 19 to 22 August 1980. The Scientific Organizing Committee consisted of J.W.M. Baars and P. Encrenaz (co-chairmen), R.A. Batchelor, R.E. Hills, N. Kaifu, P. Kaufmann, A. Kislyakov, E. Kollberg, J.H. Payne, A.A. Penzias, T.G. Phillips, W.J. Welch, G.T. Wrixon and P. Zimmermann.

Local organization was arranged by E.J. Blum of the recently established French-German Institute for Radio-astronomy in the Millimeter Range (IRAM), situated in Grenoble.

About 125 invited participants participated in the

4-day programme, which consisted primarily of extensive invited review papers. Twenty-two review papers were presented on all aspects of MM-technology, subdivided in the following categories: Radiometer Components, Detector Elements, Antennas and Observing Techniques. In addition 28 short contributions and posters were presented.

The great activity currently underway in the development of instrumentation for MM-astronomy was well reflected in the Symposium. Particularly noteworthy are the construction of a new generation of large and accurate telescopes, the advancements in low-noise detector elements and the application of interferometry at MM-wavelengths. In the coming 2-3 years we shall witness an enormous improvement in the observing capabilities at MM-wavelengths.

Proceedings of the Symposium will not be published.

J.W.M. Baars

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PRECISE TIME AND FREQUENCY

A Conference on Precise Time and Frequency was conducted by the Institution of Radio and Electronics Engineers Australia, Canberra Division, at the Academy of Science, Canberra, Australia on 25-28 August 1980. The Organizing Committee consisted of D.G. Thomas (Chairman), J. McK. Luck, R.O. Cook, K.B. Flynn, J. Jennison, A. Page and R.M. Christie, all of Canberra. The Conference was co-sponsored by URSI and was supported by several Australian agencies.

About 80 participants attended the Conference, the first devoted to this topic in the region for over 15 years. Dr. J.P. Wild, Chairman of CSIRO, addressed the opening session and C.C. Costain of NRC, Canada and R.C. Hall of US Naval Observatory were sponsored guest speakers. One delegate each from India, Pakistan, The Philippines and New Zealand were sponsored by the Organizing Committee. Nine review papers and 30 contributed papers of varying duration were presented over the 2½ days

of formal sessions. A compact exhibition of equipment by 7 companies excited much interest.

Besides the Opening and Closing sessions, there were sessions on National Time and Frequency Systems, Frequency Standards, Time Distribution, Time Scales, Communications, Time Transfer by Satellite, Low Frequency Signals and Developments in Applications. Several recommendations were adopted, e.g. concerning the extension of the Commonwealth Science Council programme of portable clock trips to include ASEAN nations.

A Conference Record of manuscripts is being prepared by IREE Australia. Selected papers will be published in Proceedings of the IREE Australia.

J.McK. Luck

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FIFTH INTERNATIONAL WROCŁAW SYMPOSIUM
ON ELECTROMAGNETIC COMPATIBILITY

17-19 September 1980

This Symposium was opened on Wednesday, 17 September by Professor Zielinski, on behalf of Dr. Rudnicki, Minister of Posts and Telecommunications of Poland, Patron of the Symposium. Professor Struzak, Symposium Chairman, gave a welcome address and, as Programme Chairman, I drew attention to the close relations between EMC symposia and international organizations such as CCIR, CCITT, CISPR and URSI. After a coffee break I chaired the first technical session. Mr. Rutkowski (CCIR), on behalf of Mr. Kirby, lectured on "Electromagnetic Compatibility: Guidelines for the next 20 years; Impact of WARC 1979". Mr. Weinberger (Hughes Aircraft) showed that the communication capacity of the geostationary orbit greatly exceeds global needs for the foreseeable future. Professor Wojnar submitted that EMC strongly depends on subjective properties, and therefore in many cases its measurement has to be based on subjective scores. Digital systems are suitable for objective criteria. Inzoli discussed EMI problems in the design of telephone switching systems.

There were 10 normal sessions and 17 poster sessions. URSI was represented strongly in sessions organized by Professor Kikuchi and Dr. Spaulding. The first session treated power-line radiation and its coupling to the ionosphere and magnetosphere. Professor Boerner (Chicago) spoke on impacts of solar and auroral storms on power-line systems. Pirjola (Helsinki) treated the effect of geomagnetic disturbances on power lines. Professor Kaiser (Sheffield) discussed power-line radiation and the electron slot. One finds maxima of VLF emissions above industrial regions, and probably power-line harmonics are a major cause. Pilatowicz discussed the radio noise level due to power lines and its relation with line design. Umberto discussed a computer model for high-voltage line interference. Kapitanov gave a statistical evaluation of this interference. Spaulding treated the robustness of the locally optimum detectors for non-gaussian noise. Porteanu discussed the use of an on-off element with generalized characteristic to increase the noise immunity in relay control systems. Petrov analyzed pulse interference in electronic equipment.

Mayher organized a session on efficient spectrum utilization. Properties of communication satellite services were discussed by Weiss, Kantor, Timofeev and others. Mayher treated minicomputer software development for spectrum management. Murray lectured on computer-aided spectrum monitoring. Dulovic and Bijelic treated an information and documentation system for radiofrequency spectrum management. Stecher reviewed the properties of smart EMI measuring receivers.

Wiesinger organized the session on Lightning and EMC, with contributions by Lundquist, Le Teinturier, Horvath, Beyer, Lorke, Schüppler, Steinbigler and Wiesinger.

The two books Electromagnetic Compatibility 1980 contain all papers that were available in time: 912 pages plus indexes. Professor Bem edited these Proceedings. Mr. Moron was active, as always, as Secretary General.

On Thursday afternoon we had a choice of four excursions, e.g. to the broadcasting station Zorawina and the Henrykow Abbey. On Friday afternoon many delegates visited Ksiaz Castle where a meeting of the Programme Committee and Symposium Council reviewed the lessons learned from this Symposium.

Seven firms took part in an exhibition of EMC equipment.

About 210 participants had a lot of space in Wrocław Technical University; 70 to 80 came from Western Europe and USA, 70 from Poland, and the rest mainly from Eastern Europe. Audience and organizers could be satisfied, looking back on a very successful Symposium. From our Polish hosts I have already mentioned Professors Struzak and Bem, and Mr. Moron. Professor Rotkiewicz, Chairman of the Symposium Council, should also be mentioned.

F. Louis H.M. Stumpers

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ELECTROMAGNETIC WAVES AND BIOLOGY

PUBLICATION OF PROCEEDINGS

The Proceedings of the International Symposium on Electromagnetic Waves and Biology, which was held in Jouy-en-Josas (France) in July 1980, are now available. The 60 papers included in the Proceedings deal with: Cellular physiology; Mechanisms and biochemistry; Behavioural effects; Hyperthermia and cancer; Therapy; Physiology and reproduction; Physio-pathology; Dosimetry and thermometry; Irradiation systems and therapeutic applications.

The price of the Proceedings is FF 170 (or \$40) and they can be ordered from the address below:

Dr. Berteaud,
CNRS,
2 rue H. Dunant,
F - 94320 Thiais, France.

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URSI SYMPOSIUM ON ELECTROMAGNETIC WAVES
AVAILABILITY OF PROCEEDINGS

Copies of the Proceedings of the International URSI Symposium on Electromagnetic Waves, which was held in Munich, F.R. of Germany, from 26 to 29 August 1980, can be obtained at the price of DM 60 (or \$35) from:

International URSI Symposium,
Postfach 70 00 73,
D - 8000 München 70,
F.R. of Germany.

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FOURTH ELECTROMAGNETIC COMPATIBILITY
SYMPOSIUM AND TECHNICAL EXHIBITION, ZURICH
10-12 March 1981

The 4th EMC Symposium and Technical Exhibition will be held from 10 to 12 March 1981 at the Federal Institute of Technology Zurich (ETHZ). The President of the Symposium is Prof. Dr. P. Leuthold. The Organizing Committee is chaired by Dr. T. Dvorak, and the Programme Committee by Prof. F.L. Stumpers.

The technical programme will include 112 papers to be delivered in three parallel daily sessions. The topics are as follows:

- Spread spectrum compatibility
- Characterization of interference and noise and evaluation of system performance
- Intrasytem EMC
- Mathematical and computer methods in spectrum utilization
- Nuclear EMP I and II
- EMI in microelectronics
- Biological effects
- Coupling
- Immunity
- EMC in communications
- Particular EMI sources

- EMC measurements options for the future
- Reliability, limits, measurements
- Available computer programmes for the EMC engineer
- Shielding and grounding
- Lightning and power lines
- EMC analysis and modelling.

In addition, three two-hour workshops will be organized on: EMC diagnostics; EMP hardening of electronic systems; and Applications of programmable calculators and computers for EMI prediction and EMC design.

The full text of all conference papers will be made available in the conference proceedings: EMC 1981.

Copies of the Preliminary Programme with registration forms and further information may be obtained from:

Dr. T. Dvorak,
ETH Zentrum-KT,
CH - 8092 Zurich, Switzerland.

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15TH INTERNATIONAL CONFERENCE ON PHENOMENA
IN IONIZED GASES

ICPIG-15 will be held in Minsk (USSR) from 14 to 18
July 1981.

The address of the Organizing Committee is as follows:

Organizing Committee ICPIG-15,
Institute of Physics,
BSSR Academy of Sciences,
Leninskij Prospekt 70,
Minsk 220072, USSR.

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NEWS FROM MEMBER COMMITTEES

Denmark

The Danish URSI Committee celebrated the 50th anniversary of its formation by organizing an URSI Day on 3 June 1980 at the Danish Institute of Technology (Lyngby). Seven technical papers of a general nature were presented.

Federal Republic of Germany

The annual meeting of the URSI Committee was held in Kleinheubach from 22 to 26 September 1980. The programme consisted of 45 technical communications, covering the disciplines of most URSI Commissions.

Spain

The Spanish Committee, under the direction of its dynamic Chairman, Professor Rodriguez-Vidal, decided to extend the scope of its scientific activities. As a first measure, a two-day Symposium was organized on 7 and 8 October 1980 in Madrid, in the pleasant building of the Academy. More than one hundred scientists attended the meeting, in which some 83 papers were presented, representing the activities of almost all URSI Commissions. The Committee intends to organize more gatherings of a similar nature, initially on a triennial basis.

J. Van Bladel

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INFORMATION ON THE UTC SYSTEM

Please note that there will be no leap second at the end of December 1980. The date of occurrence of the leap second will be announced later, at least eight weeks in advance.

B. Guinot
Director
Bureau International de l'Heure

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CHANGES IN THE SCOSTEP SECRETARIAT

As of 31 December 1980 Dr. E.R. Dyer, Jr. will be retiring from the position of Scientific Secretary of SCOSTEP. His successor will be:

Prof. C.H. Liu,
Department of Electrical Engineering,
University of Illinois,
Urbana, IL 61801, USA.

Telephone: (217) 333-9005
TWX: 910-245-2434 PURCH DIV U OF I+

During the period of 1 Jan - 15 June 1981, Prof. Liu will be on sabbatical leave and Prof. C.F. Sechrist on the same address will be Acting Secretary.

As of 15 December 1980, all correspondence should be sent to the Urbana address.

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INTERNATIONAL GEOPHYSICAL CALENDAR 1981

The Operational Edition of the Calendar (see following pages) has been issued by the International Ursigram and World Days Service (IUWDS) and copies are available on request from:

Dr. P. Simon,
Ursigrammes Observatoire,
F - 92190 Meudon,
France,

or

Miss J.V. Lincoln,
WDC-A for Solar-Terrestrial Physics,
NOAA, D63,
325 Broadway,
Boulder, Colorado 80303,
USA.

On the back of the Calendar, there is a summary (not reproduced here) of the recommended observational programmes in various branches of atmospheric physics and in studies of certain interplanetary phenomena.

International Geophysical Calendar for 1981

(See other side for information on use of this Calendar).

JANUARY

S	M	T	W	T	F	S
				1	2	[3]
4	5	6*	7*	8	9	10
11	12	(13)	(14)*	(15)	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

FEBRUARY

S	M	T	W	T	F	S
1	2	3	[4]**	5*	6	7
8	9	10	11	12	13	14
15	16	(17)	(18)	(19)	20	21
22	23	24	25	26	27	28

MARCH

S	M	T	W	T	F	S
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15	16	(17)	(18)	(19)	20	21
22	23	24	25	26	27	28
29	30	31				

APRIL

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12	13	(14)	(15)	(16)	17	18
19	20	(21)	(22)	23	24	25
26	27	28	29	30		

MAY

S	M	T	W	T	F	S
					1	2
[3]	[4]	[5]*	6*	7	8	9
10	11	(12)	(13)*	(14)	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
[31]						

JUNE

S	M	T	W	T	F	S
	1	2*	3*	4	5	6
7	(8)	(9)	(10)*	(11)	12	13
14	15	16	17	18	19	20
21	22	(23)	(24)	25	26	27
28	29	30				

JULY

S	M	T	W	T	F	S
			1*	2*	3	4
5	6	7	8	9	10	11
12	13	(14)	(15)*	(16)	17	18
19	20	21	22	23	24	25
26]	[27]	[28]	[29]*	30*	[31]	

AUGUST

S	M	T	W	T	F	S
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2	3	4	5	6	7	8
9	[10]	(11)	(12)*	(13)	14	15
16	17	18	19	20	21	22
23	24	25	26*	27*	28	29

SEPTEMBER

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	(14)	(15)	(16)	(17)	18
19	20	21	22	23	24	25
26	27	28	29*	30**		

OCTOBER

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				1	2	3
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11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28**	29*	30	31

NOVEMBER

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8	9	10	11	12	13	14
15	16	17	18*	19	20	21
22	23	24	25*	26*	27	28
29	30					

DECEMBER

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6	7	8	9	10	11	12
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20	21	22	23*	24*	25	26
27	28	29	30	31		

JANUARY 1982

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

- 13 Regular World Day (RWD)
- 14 Priority Regular World Day (PRWD)
- 18 Quarterly World Day (QWD)
also a PRWD and RWD
- 2 Regular Geophysical Day (RGD)
- 4 Day of Solar Eclipse
- 14* Incoherent Scatter Coordinated
Observation Day

- 5* Dark Moon Geophysical Day (DMGD)
- 9-10 World Geophysical Interval (WGI)
- 3 Day with unusual meteor shower activity,
Northern Hemisphere
- 5 Day with unusual meteor shower activity,
Southern Hemisphere
- 3-4 Airglow and Aurora Period

NOTES:

1. Solar Maximum Year continues through February 1981, but with possible extension through September 1981.
2. An Alpine Experiment (ALPEX), of the WMO/ICSU World Climate Research Program, is scheduled for the period 1 September 1981 through 30 September 1982.

NAMES AND ADDRESSES
URSI OFFICERS
AND
OFFICERS OF MEMBER COMMITTEES

Note: An alphabetical index of names, with addresses and page references, is reproduced at the back of this Bulletin.

HONORARY PRESIDENTS

Prof. H.G. Booker (USA)
M. B. Decaux (France)
Prof. W. Dieminger (FR Germany)
Mr. J.A. Ratcliffe (UK)

BOARD OF OFFICERS

President: Prof. W.N. Christiansen (Australia)
Past President: M.J. Voge (France)
Vice-Presidents: Prof. W.E. Gordon (USA) (Treasurer)
Dr. A.P. Mitra (India)
Prof. A. Smolinski (Poland)
Prof. F.L.H.M. Stumpers (Netherlands)
Secretary General: Prof. J. Van Bladel (Belgium)

URSI STANDING COMMITTEES

Steering Group for Coordination of URSI Scientific Programme

Chairman: Prof. W.E. Gordon (USA)
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