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42, Rue des Minimes, BRUSSELS
Xth GENERAL ASSEMBLY

Documents

Hereunder copy of a letter from the President of U. R. S. I. to the Presidents of National Committees

My dear President,

As you will well understand, the duplication of documents for our next General Assembly is likely to give rise to many difficulties and the Secretary is having to work out a special plan in which, by cooperation between Australia and his own office, type-script material will be available, as usual, for participants in the General Assembly in Sydney.

I am sure that it would help in this connection if you could ensure that papers submitted for duplication are as brief as possible. I think you will agree with me that it is unsuitable to send long documents, possibly drafted with the idea of publication elsewhere, which put a heavy burden on our Brussels office just at a time when their commitments are heavy anyway. We can leave the restriction as to the number of words to you, but I would hope that you would encourage the submission of summary papers rather than papers in extenso. These remarks, of course, apply to original papers submitted by individuals, and not to Progress Reports we expect from all countries.

With all good wishes

Yours sincerely,

(Sgd.) E. V. Appleton.
As announced in the March-April issue of the U.R.S.I. Information Bulletin (No. 68, p. 3), the next General Assembly of the U.R.S.I. will take place in Australia on Aug. 11 to 21, 1952. I invite you to take action to insure suitable participation by your country in Commission I's part of that meeting.

One of the valuable features of such meetings is the summary of the status of work in progress. This usually consists principally of a report from each country. It may be a part of the general report of the National Committee, may be appended to it, or may be entirely separate. A good procedure, which is becoming the more common practice, is to have the National Committee report be a brief one on general matters, with appended reports for each Commission. Whatever the form, it is desirable that you take whatever steps are necessary to bring about the preparation of the summary of progress on radio measurement methods and standards. It is desirable that it emphasize outstanding fundamental developments and work on which international joint action or parallel thinking is important. It need not be confined narrowly to work of your own country, especially where you are in an area not otherwise represented in U.R.S.I.

It is also desirable that you be active in securing papers for presentation at the General Assembly. The emphasis should be on quality rather than quantity. We had too many papers at the Zurich meeting; it was not possible to present or even consider many of them. The papers most desired are those presenting basic or fundamental advances or those having a particular international interest.

In addition to the foregoing, I propose to have part of the Commission I sessions at the General Assembly consist of symposiaums, i.e., meetings in which the state of knowledge of a topic is discussed informally by persons who give thought to it in
advance but do not present written papers. The topics might be: (1) Frequency measurement; (2) Power measurement; (3) Impedance measurement; (4) Radio receiver and special measurement techniques. I would appreciate receiving from you the names of persons who can be prepared to participate in any of these (subject, of course, to their being able to attend). Have you any other topics to propose for symposiums, or other ideas as to our program of work at the Plenary Assembly.

Also please let me know if you think of any subjects on which we should adopt Resolutions. (The Resolutions of 1946, 1948, and 1950 are given on pages 52-55, 76-77, and 54-55, respectively, of the Proceedings of the General Assemblies of those years...).

Have you any other topics to propose for symposiums, or other ideas as to our program of work at the Plenary Assembly.

It is suggested that, in respect to the foregoing and also in planning research programs, you read and take account of the conclusions of the C.C.I.R. in its 1951 Plenary Assembly at Geneva which bear upon the work of this Commission. These are Question 54 (Standard frequency transmissions and time signals), and Study Program 19 and Report 4 (Methods of measuring field strength). It is desirable that U.R.S.I. be as helpful to the C.C.I.R. as possible.

I hope I shall have the pleasure of seeing you at the General Assembly.

Very truly yours,

J. Howard Dellinger,
Chairman, Commission I,
Radio Measurement Methods and Standards,
3900 Connecticut Ave.,
Washington 8, D. C., U. S. A.
NATIONAL COMMITTEES

Canada

MEMBERSHIP OF THE PROVISIONAL COMMITTEE

Chairman:
Dr. D. W. R. McKinley, National Research Council, Ottawa.

Secretary:
Mr. J. C. W. Scott, Defence Research Board, Ottawa.

Members:
Mr. F. T. Davies, Defence Research Board, Ottawa.
Dr. J. T. Henderson, National Research Council, Ottawa.
Mr. W. B. Smith, Department of Transport, Ottawa.
Prof. G. A. Woonton, McGill University, Montreal, P. Q.
Prof. R. C. Dearle, University of Western Ontario, London, Ontario.
Dr. B. W. Currie, University of Saskatchewan, Saskatoon, Saskatchewan.
Dr. Pierre Bricout, Laval University, Quebec, P. Q.
Mr. J. E. Hayes, Canadian Broadcasting Corporation, Montreal, P. Q.
Dr. G. Sinclair, University of Toronto, Toronto, Ontario.

Japan

REPORT OF THE JAPANESE NATIONAL COMMITTEE
FOR U.R.S.I.

by Y. Hagihara, Chairman

In order to promote the activity of the National Committee the members were re-elected in May 1951 with seven sub-committees
according to the seven commissions of the U.R.S.I. The National Committee consists of 30 members with additional 34 associated members belonging to each sub-committees. The chairmen were elected.

Chairman of the National Committee : Y. HAGIHARA.

Secretaries : T. SAKAMOTO, T. NAGATA, T. HATANAKA.

Chairmen of sub-committees :

1. Measurement and standardization : I. KOGA,
2. Troposphere and propagation : H. HATAKEYAMA,
3. Ionosphere and propagation : K. MAEDA,
4. Atmospherics : A. KIMPARA,
5. Radio astronomy : Y. HAGIHARA,
6. Waves and circuits : K. MORITA,
7. Electronics : T. SEKI.

The general meeting of the all members was held on May 26, 1951, and the general procedure for promoting the activity in accordance with the U.R.S.I. programs was discussed. Later each sub-committee held meetings several times and discussion was made how and to what extent to conform with the resolutions made at the General Assembly of the U.R.S.I. at Zurich, and how to select papers to be sent to the Union.

Further the following sub-committees were organized for the activity of the Committee :

Sub-committee for Ursigrams. Chairman : H. UEDET

Chairman : Y. HAGIHARA,

Sub-committee for the U.R.S.I. Information Bulletin. Chairman :
Y. HAGIHARA.

The Committee sent H. Hatakeyama to the Joint Commission meeting for Radio-Meteorology held at Brussels, and asked K. Owaki to communicate our greetings to the Semi-Centennial Anniversary of the Bureau of Standards at Washington.
REPORT OF THE SUB-COMMITTEE III
by K. Maeda, chairman

1. — Scientific and Administrative Activities.

The activity of the Sub-Committee III of the Japanese National Committee for U.R.S.I. has been in a close coordination with that of the Ionosphere Research Committee, Science Council of Japan.

Actually the latter Committee is acting throughly as the former. So that the scientific and administrative activities of the latter Committee are presented here. General meetings of the Society of Terrestrial Magnetism and Electricity of Japan (M. Hasegawa, President) were held in May 1950 at Tokyo, in October 1950 at Sendai and in May 1951 at Tokyo. The quarterly publication «Journal of Geomagnetism and Geoelectricity» is issued since March, 1949.

1. Ionosphere Research Committee, Science Council of Japan (chairman, Y. HAGIHARA). — The assemblies of the Ionosphere Research Committee were held every month in Tokyo. As the continuation of three kinds of reports in Japanese with English abstracts, «Report of Ionosphere Research in Japan», vol. IV, 1950, was issued in English text. This publication will be carried on in future. Collecting the data of participating observatories of ionosphere, geomagnetism, field intensity of radio wave, cosmic rays, solar phenomena and other related phenomena, the «Catalogue of Disturbances» is issued since August 1949 with regard to disturbances which occur during the simultaneous cooperative observations of fixed 4 terms in the year or of special disturbance intervals. They are sent widely to observatories and institutes of the world with the hope to exchange observing materials. Warning before disturbances in radio communications and broadcasting of Ursigrams are being planned.

The scientific activity of this Committee is described herewith.

2. Movement of ionospheric conditions. — After several reports concerning the movements of ionospheric conditions, a few more results on the similar phenomena were reported by the following scientists.
S. Matsushita made a detailed study on sporadic-E ionization and found that Es ionic clouds had a tendency to move south and northward with the speed of about 370 km/hr and to change the direction semidiurnally. Y. Aono followed this result and obtained the speed of 250 km/hr. The horizontal shifting of the bright night sky light was recognized by M. Huruhata, mostly north to south with the speed of about 1000 km/hr.

The semi-diurnal lunar tide of F2 layer was shown by S. Matsushita to have the amplitude 2-4 km and the phase difference by about 180° from the earth surface, using the data of maximum ionization height of F2 layer at Kokubunji for 13 months. He also obtained from foF2 the amplitude 0.052 Mc/s and the phase about 12 hr in lunar hours after transit at which maximum occurs. On the basis of these results, he discussed the L-field of the terrestrial magnetism.

S. Matsushita constructed a solar convectional circulation and solar tidal motion in the upper atmosphere, which were in harmony with the results of studies of his own and others on the movement of ionosphere as above described, and showed that the geomagnetic S-field might be dynamo-theoretically interpreted with the electric conductivity of ionosphere of order of $10^{-8}$ e. m. u.

3. Physical properties of the ionosphere. — T. Yonezawa showed that the nocturnal variation of electron density in F2 layer could be best interpreted with the terms of attachment and temperature change. Y. Inoue made a theoretical study of the ionosphere and discussed on the transfer of radiation, temperature-gradient and recombination-process in the ionosphere.

K. Maeda discussed the conductivity of the ionosphere under consideration of the recent theoretical and experimental studies on the ionospheric mechanism, such as recombination, attachment, detachment and photo-absorption processes. His numerical results were largely influenced by the photo-detachment coefficients according to Yamanouchi’s theory.

4. Observations during the solar eclipses. — A solar eclipse occurred twice in the last three years (1948-1950) in Japan, one was the annular solar eclipse on May 9, 1948, and the other was the partial one on September 12, 1950. In both cases, geomagnetic
and ionospheric cooperative observations were administered by the Committee of Solar Eclipse with participation of domestic organizations concerned. In addition to the routine observatories, several temporary stations were distributed. Since the eclipse in 1950 took place around the noon time on a magnetically calm day, the existence of eclipse effect on geomagnetic field was confirmed. The result of observation well agrees with a theoretical expectation.

5. **The electric conductivity of the ionosphere viewed from the characteristics of geomagnetic variations.** — Assuming that the dynamo-action of the ionosphere is responsible for geomagnetic daily variation, the magnetic daily variation, the magnitude and the mode of change of the electric conductivity of the ionosphere were evaluated purely from geomagnetic data. The daily variation of the conductivity of the ionosphere over the low latitude zone was determined by M. Hasegawa to be in the form of $K(1 + 1.1 \cos t + 0.3 \cos 2t)$ for the north direction and of $K(1 + 0.7 \cos t + 0.3 \cos 2t)$ for the east direction. On the other hand, the absolute value of the ionospheric conductivity was estimated by T. Nagata from the result of statistical examination of the transient characteristics of solar-flare type variations in geomagnetic field. The result showed that the conductivity is $7 \times 10^{-8}$ e. m. u.

The Hall effect of the ionosphere being taken into consideration, an abnormally high conductivity of the ionosphere over the magnetic equator was numerically illustrated by M. Hirono.

6. **Magnetic disturbances.** — The progressive characteristics of geomagnetic disturbances such as magnetic storms, and bay-disturbances were studied in detail by N. Fukushima with respect to a number of examples. The result showed that even in the early initial phase of magnetic storms the so-called SD-field, for which the ionosphere is responsible, appears frequently.

By examining the record of $\partial H/\partial t$, Y. Kato suggested that magnetic storms are to be caused by two kinds of radiant rays of different velocity.

7. **Solar phenomena and related problems.** — A 12 cm coronagraph designed by M. Notuki is now under examination at the Corona Station of the Tokyo Astronomical Observatory at Mt. Norikura
(2900 m high). A test observation of the intensity distribution of the coronal bright line $\lambda 5303$ was made with an improved coronagraph since October in 1950. The photometers for standardizing the observation are also under examination and construction by M. Notuki and S. Nagasawa. Percentage of days of observations is about 30 during November 1949-October 1950.

T. Hatanaka and Z. Suemoto of the Tokyo Astronomical Observatory studied the correlation between the area of $K_{2-3}$ flocculi and total electron number of F2 layer. K. Osawa, also of the Tokyo Astronomical Observatory, found a negative correlation between the intensity of $\lambda 5303$ and the daytime electron density of F2 layer.

Z. Suemoto measured photometrically the contours of H, H and K lines in eruptions and flocculi at the tower telescope of the Tokyo Astronomical Observatory and found that they may be accounted for by assigning the electron temperature of the order of 70000° to the active layer.

II. — Procedures taken on Resolutions in Zurich

The resolutions of 1950 Assembly of U.R.S.I. concerning the ionosphere and HF radio wave propagation were introduced to all members. Half of the resolutions has already been undertaken in Japan. The wind in the ionospheric layers was studied extensively by the members as reported in the preceding paragraph. The program for Ursigram broadcast has made some progress as is reported by the Sub-Committe for Ursigrams.

III. — List of Laboratories and Observatories


IV. — List of Published Papers

Abbreviations:

GN : Geophysical Notes, Tokyo University.
JGG : Journal of Geomagnetism.
SRTU : Scientific Report of Tohoku University.
1) Ionosphere


41. **Yonezawa, T.** — On some relations between the night sky light and the ionosphere. *RIRJ*, vol. 4, n° 1 (1950) 55.

42. **Yonezawa, T.** — The recombination coefficient and the temperature variation in the upper atmosphere at night. *RIRJ*, vol. 4, n° 2 (1950) 79-85.

43. **Yonezawa, T.** — On the possible relations between intense sporadic E-layer ionization and other geophysical phenomena. *RIRJ*, vol. 4, n° 3 (1950).


2) **Geomagnetism**

1. **Fukushima, N.** — Some examples of the special condition of wireless communication during the 20th co-operative observation. *RIRJ*, vol. 4, n° 3 (1950) 181.

2. **Fukushima, N.** — Progressive change in the current system of the bay disturbance. *GN* 3, (1950) n° 22.


3) Solar phenomena


REPORT OF SUB-COMMITTEE IV
by A. Kimpara, Chairman

I. — SCIENTIFIC AND ADMINISTRATIVE ACTIVITIES

(1) The meetings were held on the following days: April 21, May 26, June 27, August 4, and September 19, 1951.

(2) The scientific activities of Sub-Committee IV are as follows:

In accordance with the observation of atmospherics since 1928 as well as the physical consideration of the formation of atmospherics, A. Kimpara, Res. Inst. of Atmospherics in Nagoya Univ., proposed a general law that the main origins of atmospherics are the symbol indicating the degree of disturbances in the conditional instability region of every kind. He also studied the construction of the typhoon from the viewpoint of atmospherics and found that the origins of atmospherics concerning to the typhoon are distributed most frequently in the most disturbed area. A. Iwai, Res. Inst. of Atmospherics in Nagoya Univ., devised recently an unidirectional type of CRDF. The idea is to add a sense amplifier, with a small vertical antenna, to conventional twin channel amplifiers with brilliance modulation device. It keeps high accuracy in direction-finding together with the unidirectional characteristics. S. Kitagawa, Central Meteorological
Observatory, made directional observation of atmospherics with CRDF from May, 1950 to Jan., 1951 at three distant stations in Japan. He found that in summer 60% of the observed origins of atmospherics are distributed in the tropical zone and in winter 80%, while in the frigid zone further north than 60° N there are none.

H. Seki, Radio Regulatory Agency, proposed a new method of measuring atmospherics based on the recent information theory. He chose a rectangular wave as a simplest form of information which will become irregular by noise disturbances. He introduced also a new method of measurement which consists of pulsed signal generator and two gate circuits in addition to the ordinary field intensity meter. F. Minozuma, Radio Regulatory Agency, concluded theoretically that they can easily deal the noise problems with a ratio of quasipeak to mean value and a mean repetition frequency of noise impulse. He made an extensive observation of atmospherics and manmade noise all over Japan and published a daily variation of these noises in HF and VHF regions. T. Fujita, Radio Broadcasting Corporation, explained the difference of the nature of atmospherics in the day-time and at night in MF band, and further he reported the disturbances of atmospherics due to snow storms on VHF and UHF relay services.

II. — PROCEDURES STAKEN ON RESOLUTIONS AT ZURICH

(1) Resolutions 1, 2, and 3 are too difficult to be resolved in short time, and we intend to study them theoretically as well as experimentally in intimate collaboration of laboratories and administrative organizations of radio communications.

(2) Resolution 4: Observation of the wave form of atmospherics will be continued at the Research Institute of Atmospherics, Nagoya University, and the results will be investigated from the standpoint of wave propagation as well as from the viewpoint of mechanism of electrical discharge phenomena in the atmosphere.

(3) Resolutions 5 and 6: At present there are no collaborators in the Far East, and we shall be glad to cooperate in the observation of wave form, if India and Australia will join us.
(4) Resolution 7: In Japan it is very easy at present to keep fairly accurate synchronization of observation by using the standard wave radiated regularly from the station of Radio Regulatory Agency.

(5) Resolution 8: At present we have no facilities to concern with the problem.

III. — List of Laboratories and Observatories

1. The Research Institute of Atmospherics, Nagoya University, Toyokawa-City, Aichi-Pref., Japan (34°50' N, 137°22' E).
2. The Observatory of Atmospherics, Nagoya University, Furō-Chō, Chikusa-Ku, Nagoya, Japan (35°09' N, 136°58' E).
3. Meteorological Research Institute, Mabashi, Suginami-ku, Tokyo, Japan (139°39' E, 35°42' N).
4. High Tension Laboratory, Institute of Physics, Faculty of Science Tokyo University, Hongō-ku, Tokyo, Japan.
5. Laboratory of the Radio Broadcasting Corporation of Japan, Kamata-cho, Setagaya-ku, Tokyo, Japan.
7. Shionomisaki Meteorological Observatory, Shionomisaki-mura Wakayama-Pref., Japan (33°27' N, 135°46' E).
8. Yonago Meteorological Observatory, Yonago-city, Shimane-Pref., Japan (35°26' N, 133°21' E).
9. Weather Communication Station, Kiyose-mura, Kitatama-gun, Tokyo, Japan (35°46' N, 139°32' E).
10. Three small stations belonging to the Central Meteorological Observatory.

IV. — List of Papers published during April 1950-September 1951


(To be continued).
COMMISSIONS

Commission III

IONOSPHERIC SOUNDING STATIONS (3)


Austria

Graz station under the control of the Meteorology and Geophysics Institute of the University of Graz

Geographic location: Latitude, 47° 4.8’ N,
Longitude, 15° 27.3’ E.

Automatic recording.
Frequency range: 2.5-12 Mc/s.
Pulse peak power: 1 kW.
Recurrence frequency: 50 per second.
Sweeping: 120 seconds.
Measurement: normally once every hour.
Time used: 15° E.

France

Stations under the control of the Bureau Ionosphérique Français

Bagneux (Seine), 196, rue de Paris

I. — Domont

Location: Latitude, 49°01’ N,
Longitude, 2°19’ E Greenwich.
Three frequency ranges: 1.5 to 4; 4 to 8 and 8 to 16 Mc/s.
Automatic recording of a total duration of 90 seconds.
Peak power : 12 kW.
Number of pulses per second : 50.
Length of the pulse : 100 micros.
Recording periodicity : 30 per day (every hour and eventually every ½ hour).
Vertical recording scaling : about 100 km.
Maximum recording limit : 800 km.
Aerials : three aerials, travelling waves folded dipoles.
Working since March 10, 1950.

II. — Poiliers

Location : Latitude, 46°34' N, Longitude, 0°20' E Greenwich.
Two frequency ranges : 3.1 to 5.4; 5.4 to 11.8 Mc/s.
Automatic recording of a total duration of 75 sec.
Peak power : 0.5 kW.
Number of pulses per second : 100.
Pulse length 150 to 300 microsec.
Recording periodicity : every hour and eventually every ½ hour.
Vertical recording scaling : per 50 km of virtual height.
Maximum recording limit : 1200 km.
Aerials : one folded dipole for each frequency band.
Hour and date are written on each record.
Accuracy of data : 5 km for virtual heights,
0.1 Mc/s (from 5.4 to 11.8 Mc/s),
0.04 Mc/s (from 3.1 to 5.4 Mc/s).
Working since July 1, 1948.

This equipment will be replaced in September 1951 by an automatic sounder having three frequency ranges : 1.5 to 3.5 Mc/s, 3.5 to 8.5 Mc/s, 8.5 to 16.5 Mc/s ; 1.5 kW power. The recording characteristics will be the same.

III. — Casablanca

Location : Latitude, 33°35' N, Longitude, 7°38' W Greenwich.
Three frequency bands: 1.5 to 3.6; 3.6 to 8.7 and 8.7 to 16.5 Mc/s. 
Automatic recording of a total duration of 60 seconds. 
Peak power: 1.5 kW. 
Number of pulses per second: 75. 
Length of pulse: 100 to 300 micros. 
Recording periodicity: every hour (possibility of recording every 15 minutes or continually). 
Vertical recording scaling: per 50 km of virtual height. 
Maximum recording height: 1500 km. 
Aerials: one folded antenna for each frequency band. 
On work from October 1st, 1951.

Note. — Stations will shortly be working in Bangui (French Equatorial Africa), and in Tamanrasset (Sahara).

**Permanent Stations under the control of the Service de Prévision Ionosphérique Militaire (S. P. I. M.)**

I. — Friburg

Location: Latitude, 48° 1' N. 
Longitude, 7° 8' E. 
Automatic radiosounder sweeping continuously the frequency range 1.25-20 Mc/s accordingly to a logarithmic law; frequency range swept once every hour. 
Peak power: about 1 kW. 
Number of pulses per second: 50. 
Pulse duration: 150 micros. 
Aerials: two vertical rhombic antennas.

II. — Dakar

Location: Latitude, 14° 6' N,
Longitude, 17° 4' W.
Same equipment as in Friburg.

III. — Nha-Trang

Location: Latitude, 12° 5' N,
Longitude, 109° E.
Same equipment as in Friburg.
IV. — Djibouti

Location: Latitude, 12° N,
        Longitude, 44° E.
Same equipment as in Friburg.

The service considers to set up permanent stations in Ivato (Madagascar) and in Bizerte (Tunisy).
Members of Commission I are informed that we received the following documents sent to the Members of Study Group VII of the C.C.I.R.:

Form A. — Deviations and adjustments of standard frequencies and time signals as broadcast by Nationale Bureau of Standards Station WWV, Washington, D. C., and WWVH, Maui, T. H. for the quarter ending June 30, 1951.

Form B. — Summary of information on service areas.

Form D. — Summary of information on interfering stations.

A few copies of these documents are available at the General Secretarial.
Unesco Coupon Scheme

Information Circular No 8

Gift Coupons. — The Unesco Gift Coupon Plan, which is already in operation in the U. S. A. and in the United Kingdom will be launched in France during October.

Specimens of the three denominations of Gift Coupons ($10, £1 sterling and 1000 French francs) may be obtained from the Unesco Coupon Office. Editors of journals may wish to obtain specimen coupons for reproduction.

All denominations of Gift Coupons, whether labelled in U. S. dollars, pounds sterling or French francs, may be accepted by suppliers in all participating countries. Unesco will always redeem the coupons in the currency of the supplier's country.

For example : A supplier in the U. S. A. will receive in exchange for a £1 coupon $2.80 and for a 1000 French francs coupon $2.85.

Scientific material. — Orders for scientific material payable in coupons may now be sent to the United Kingdom as well as to the supplier countries already listed in the explanatory leaflet.

Orders to the U. K. should be addressed to :  

The Scientific Instrument Manufacturers'  
Association of Great Britain Ltd.,  
20, Queen Anne Street,  
London W. 1

Radio parts and accessories and electronic equipment :  

Enquiries for sources of supply of specific items may be addressed to the :
National Appliance and Radio Dealers Association,
Merchandise Mart,
Chicago 54, Illinois, U. S. A.

who will nominate a suitable dealer.

Orders payable in coupons may be addressed to the following dealers:

Mr. Mort Farr,
President of the National Appliance and Radio Dealers Association
119 S. 69th Street,
Upper Darby, Pa., U. S. A.

Mr. H. B. Price, Jr.,
Vice-President of the National Appliance
and Radio Dealers Association.
Price's Inc.,
133 W. Charlotte Street,
Norfolk 10, Va., U. S. A.

Export Licences for Scientific Material from U. S. A. — Regulations governing Export Licences to be obtained from the U. S. Government Authorities on a great part of the instruments and supplies which can be purchased with the aid of Unesco Coupons have recently changed. It is now necessary for the suppliers to submit, with their applications for Export Licences, a statement from the ultimate consignee setting forth the following facts:

(i) The ultimate destination of the commodity or commodities involved.

(ii) The end-use of such commodity or commodities which must be a detailed description of the specific use to which the commodity or commodities will be put in the country of ultimate destination.

(iii) A description of the export transaction sufficient to identify it as the same transaction described in the application.

(iv) That the ultimate consignee will promptly send a supplemental statement to the United States exporter of any change of
facts or intentions set forth in this statement which occur after the statement is made.

Some enquiries have reached us from users of coupons on how to fill in the information required under (iii). We should like to point out that this question need not be answered in great detail. It will be sufficient to mention the name and address of the firm with which the order has been placed and to indicate the order number and any other reference number shown on the order, as well as a summary list of the items ordered.

**New Unesco Labels.** — The attention of suppliers is drawn to the new Unesco labels which may be affixed to parcels of all materials purchased with Unesco Coupons, whether books, films or scientific material. We have found that these labels assist people in many countries to obtain customs clearance on material bought with coupons, particularly in those countries where special customs exemption has been granted for purchases made with coupons. The new labels have been sent to the main suppliers under the Scheme. If more are needed, Unesco will be glad to send additional labels to suppliers upon request to the Unesco Coupon Office.

**Redemption of Coupons.** — Booksellers and all other suppliers accepting Unesco Coupons are particularly requested to send the coupons **direct to Unesco** for redemption and not to present them through a bank. In this way they will avoid delays, unnecessary correspondence and the payment of bank charges. Unesco will redeem the coupons in the supplier's currency with the least possible delay, either by cheque or by transfer.

Booksellers and all other suppliers are requested to attach copies of their invoices to the coupons which they submit to Unesco for redemption.

**New Leaflet on Unesco Book Coupons.** — A new version of the explanatory leaflet on Unesco Book Coupons is now available and can be obtained from national distributing bodies and from the Unesco Coupon Office.
### Countries participating in Unesco Coupon Scheme

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<th>Country</th>
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<td>Thailand</td>
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<tr>
<td>Union of South Africa</td>
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<tr>
<td>United Kingdom</td>
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<tr>
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<td>Yugoslavia</td>
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<tr>
<td>Unesco Science Co-operation</td>
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INTERNATIONAL COUNCIL OF SCIENTIFIC UNIONS

Third Meeting of the Executive Board

The Executive Board of I.C.S.U. met in the rooms of the National Academy of Sciences in Washington, on the invitation of the President, Dr. Detlev W. Bronk. U.R.S.I. was represented by Dr. Dellinger, Vice-President.

Admission of New Unions

1. International Union of Biochemistry. — It was agreed to defer a decision on whether to press for the admission to I.C.S.U. of Biochemistry as a separate and independent Union until after the Biochemistry Congress in Paris, July 1952, on which occasion there would be an opportunity for all concerned to review the whole question afresh in the light of the new I.U.P.A.C. organization.

2. International Union of Scientific Psychology. — It was decided to hold over a definite decision until after the formal admission of physiology to I.C.S.U.

Meeting of Union Secretaries

It was agreed to hold a meeting of the Secretaries of all the Unions in Paris on 31 January and 1 February 1952. They would have the opportunity to meet key members of the Unesco Secretariat, to discuss questions of the relations of I.C.S.U. and the Unions with Unesco, and to talk over problems of general interest to all Unions federated in I.C.S.U.
Creation of an International Abstracting Service (I.A.S.)

Notice was taken of a resolution of the Joint Commission on Physics Abstracting recommending to the Council that the Commission should be dissolved, and that an International Abstracting Service, not necessarily confined to Physics, be set up by the Council, under a Board consisting of (1) a neutral chairman; (2) at least two members nominated by I.C.S.U. from among its office-bearers; (3) a Secretary; (4) nominees of the Member Journals admitted by the Board to the I.A.S. This was agreed to, and Professor G. A. Boutry, Conservatoire National des Arts et Métiers, Paris, was nominated Secretary. The Service will function in the first instance under contract with Unesco.

Polar Year 1957-58

It was agreed to form a Special Committee of the Council, under art. V, 18 of the Statutes, to co-ordinate special ionospheric operations in the polar regions, to be planned by the Joint Commission on the Ionosphere, and electric, magnetic, and meteorological measurements in the equatorial belt. The interested Unions (I.A.U., I.G.U., I.U.G.G. and U.R.S.I.) have been approached, with a request to nominate one member each, plus an alternate, to the special committee. These nominations will be submitted by the Bureau to the Executive Board at Amsterdam in September 1952 for its approval.

New draft agreement between I.C.S.U. and Unesco

The text of the draft agreement, as submitted by the External Relations Service of Unesco, was approved. The new agreement will come into force on 1 January 1952.

Travel Grants to Young Scientists

The unsatisfactory situation in regard to travel grants for young scientists which, since the date of the Fifth General Conference
of Unesco at Florence, May 1950, have found a place neither in
the categories of Unesco subvention to non-gouvernemental
organizations, nor in the programme of the Exchange of Persons
Service, was reviewed. The President was authorized to write to
the Director-General of Unesco, pressing for a firm decision.

**Allocation of 1952 subvention**

The following breakdown into categories of the block grant of
$180 000 was approved by the Executive Board of Unesco at its
Twenty-Eighth Session:

<table>
<thead>
<tr>
<th>Categorie</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Organizational expenses</td>
<td>$1 800</td>
</tr>
<tr>
<td>2</td>
<td>Publications</td>
<td>$40 200</td>
</tr>
<tr>
<td>3</td>
<td>Meetings of Committees</td>
<td>$50 000</td>
</tr>
<tr>
<td>4</td>
<td>Symposia and Conferences (including attendance of Young Scientists)</td>
<td>$25 000</td>
</tr>
<tr>
<td>5</td>
<td>Permanent Services</td>
<td>$33 000</td>
</tr>
<tr>
<td>6</td>
<td>International Laboratories</td>
<td>$14 000</td>
</tr>
<tr>
<td>7</td>
<td>Administrative Expenses</td>
<td>$16 000</td>
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<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>$180 000</strong></td>
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</table>

Within this framework, the following breakdown between
I.C.S.U. and the Unions was made by the Executive Board of
I.C.S.U.:

<table>
<thead>
<tr>
<th>Union</th>
<th>Amount</th>
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<tbody>
<tr>
<td>I.C.S.U.</td>
<td>$69 625</td>
</tr>
<tr>
<td>International Astronomical Union</td>
<td>$14 300</td>
</tr>
<tr>
<td>International Union of Biological Sciences</td>
<td>$20 100</td>
</tr>
<tr>
<td>International Union of Pure and Applied Chemistry</td>
<td>$7 925</td>
</tr>
<tr>
<td>International Union of Crystallography</td>
<td>$6 000</td>
</tr>
<tr>
<td>International Union of Geophysics and Geodesy</td>
<td>$17 100</td>
</tr>
<tr>
<td>International Geographical Union</td>
<td>$11 000</td>
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<tr>
<td>International Union on History of Science</td>
<td>$4 000</td>
</tr>
<tr>
<td>International Union of Theoretical and Applied Mechanics</td>
<td>$7 500</td>
</tr>
<tr>
<td>International Union of Pure and Applied Physics</td>
<td>$9 550</td>
</tr>
<tr>
<td>U.R.S.I.</td>
<td>$12 900</td>
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</tbody>
</table>
The grant allocated to U.R.S.I. is divided as follows:

<table>
<thead>
<tr>
<th>Categorie</th>
<th>Amount</th>
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<tbody>
<tr>
<td>1</td>
<td>900</td>
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<tr>
<td>2</td>
<td>3,000</td>
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<tr>
<td>3</td>
<td>9,000</td>
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</tbody>
</table>

(The grants allocated to U.R.S.I. in 1951 amounted to $4,000).

Note. — All figures are in U. S. dollars.

Kalinga Price for Science Writing

In 1950, Sir B. Patnaik of Tulsipur, India, offered through Unesco a prize of £1,000 annually for a body of work disseminating knowledge of science. Unesco requested the assistance of I.C.S.U. in selecting the prizewinner each year. The Bureau of I.C.S.U. drew up in consultation with Unesco a provisional set of regulations governing the award, which were approved by the Executive Board on the second day of Washington meeting.

In the outline, the agreed scheme is as follows:

1. I.C.S.U. invites the national adhering organizations to nominate a candidate for the prize;

2. Unesco selects one candidate;

3. A jury of three, of which two are nominees of I.C.S.U., one of Unesco, considers the work of the candidates put forward under 1 and 2 and names the winner;

4. The presentation of the prize takes place under arrangements made between Sir B. Patnaik and Unesco.

International Union of Crystallography

At the Second General Assembly held in Stockholm from June 27 to July 3, 1951, Officers were elected as follows:

President : J. M. Bijvoet (Netherlands).

Vice-Presidents : G. Hagg (Sweden),
                J. Wyart (France).
General Secretary : R. C. Evans (U. K.).
Editor : P. P. EWALD (U. S. A.).
Ordinary members of the Executive Committee : J. D. Bernal (U. K.);
Sir K. S. Krishnan (India); E. Ororato (Italy); A. L. Patterson (U. S. A.).

It was agreed that the third General Assembly should be held in 1954 in some country on the continent of Europe.

International Union of Geodesy and Geophysics

At the Ninth General Assembly held in Brussels from August 21 to September 1, the following were elected as Officers of the Union for the ensuing 3-year period:
President : Prof. S. Chapman (U. K.).
Vice-Presidents : Prof. J. Bjerknes (U. S. A.);
Prof. G. Cassinis (Italy).
General Secretary : Col. G. Laclavere (France).

International Astronomical Union

A full meeting of the Executive Committee of I.A.U. was held in Paris, September 4-6, 1951.
Agreement was come to on the question of the postponement of the General Assembly scheduled for Leningrad August 1951, and it was agreed to accept the invitation of the Italian Research Council, and to hold the postponed meeting in Rome in September 1952.

International Union of Pure and Applied Chemistry

The following information has come to hand concerning the election of new Officers to the Executive Committee for the period 1951-54:
President : Arno Tiselius (Sweden).
Vice-Presidents at large : Roger Adams (U. S. A.);
Endre Berner (Norway);
Arthur Stoll (Switzerland).
Vice-Presidents and Section Chairmen:

E. W. R. Steacie (Canada), Physical Chemistry;
Pierre Jolibois (France), Inorganic Chemistry;
Paul Karrer (Switzerland), Organic Chemistry;
C. J. van Nieuwenburg (Holland) Analytical Chemistry;
Leslie H. Lampitt (Great Britain), Applied Chemistry;
E. C. Dodds (Great Britain), Biochemistry.

Secretary General: Raymond Delaby (France).
CALENDER

1951

December 17, Unesco, Paris: Meeting of Governmental Representatives for the Establishment of the European Nuclear Physics Laboratory.

1952

March 4-6, I.U.B.S., London: Meeting of Executive Committee.
March 6-8, I.M.U., Rome: First General Assembly, International Mathematical Union.
April 1, I.C.S.U., Naples: First Meeting, International Advisory Committee, Zoological Station Naples.
June 10-13, Stockholm: Conference and Exhibition of « Instruments and Measurements ».


September: I.C.S.U., Monaco: Joint Commission on Oceanography.


September: I.C.S.U., Columbus, Ohio (U.S.A.): Joint Commission on Spectroscopy.


1953