

GENERAL ASSEMBLY

Meeting of 4 September, 16.00, in the Aula Magna of the University of Rome

Prof. BERTIL LINDBLAD, President, in the Chair

The President opened the meeting with the following address:

I have the honour to declare open the eighth General Assembly of the International Astronomical Union. The four years which have elapsed since our meeting in Zürich in 1948 have seen an extremely great activity in our science. The draft reports which have been presented record very considerable progress in most commissions of the Union.

We are extremely grateful to the Consiglio Nazionale delle Ricerche, represented by its President, Prof. Gustavo Colonetti, for the kind invitation to meet in the great city of Rome, and for the exceedingly great hospitality which the Consiglio delle Ricerche has shown us in making its beautiful palace our headquarters. We all understand what great work lies behind the organization of this congress, and we express our most sincere thanks to the local committee, Prof. Abetti, Prof. Zagar, Dr Morelli, Dr Ing. Ceccherini and Prof. Gialanella for all the work and care which they have devoted to the arrangement of our meeting.

During the four years since we last met, we have lost a great number of our colleagues. The news of the death of Bernard Lyot was received with the deepest regret by all members of our Union. His work is too well known to everybody to need a review here. His death means an immense loss to our science and to our Union. Other colleagues we have lost, among whom are many of extremely high standing in our science, are: Dr R. G. Aitken, Dr V. A. Albitsky, Dr I. V. Belkovich, Prof. Ö. Bergstrand, Prof. I. Bonsdorff, Dr Leon Campbell, Dr L. J. Comrie, M. G. S. Da Costa Lobo, M. G. Delmotte, Dr H. O. Grönstrand, Prof. K. A. W. Gyllenberg, Prof. C. H. Hins, Dr F. S. Hogg, Prof. N. I. Idelson, M. R. Jouaust, Dr C. O. Lampland, Prof. L. L. Matkevich, Prof. E. A. Milne, Prof. J. S. Paraskevopoulos, Dr N. L. Pierce, M. F. Quénesset, M. J. H. Reynolds, M. H. Roure, Dr J. W. J. A. Stein, Prof. K. F. Sundman, Prof. E. von der Pahlen.

I ask you to stand a few moments in silence in honour of the colleagues who have left us.

The former President of the Union, Prof. Esclangon and the former Vice-Presidents Dr Adams, Dr Mikhailov and Dr Stebbins have not been able to come to our meeting. I should like to mention specially that Prof. Leuschner, Prof. Russell and Prof. van Rhijn have likewise not been able to join us this time. I propose that greetings be sent by telegram to these good friends of our Union.

At the General Assembly of the International Astronomical Union in Zürich an invitation was given to the Union by the Academy of Sciences of the Soviet Union to hold the next General Assembly in Leningrad. The President explained that the Executive Committee had not yet found it possible to take a definite decision in this matter. The documents printed in the second part of the draft report give a full account of the course of events following. The situation has been embarrassing to all concerned and I regret to say that it has been a strain on the internal relations in our Union. I can only express the hope that in the future such situations will not occur, and that we may keep our Union intact from the complicated and difficult international problems of our days.

Since the last General Assembly Germany has joined the Union. The total number of countries adhering to the Union is now thirty-two.

In March 1950 Le Centre National de la Recherche Scientifique in Paris arranged a colloquium on the fundamental constants of astronomy. The colloquium, which was organized by the Vice-President of the Union M. Danjon, gave as a result certain recommendations which have been presented to the Union for approval.

With the steadily growing bulk of scientific publications, the work of documentation and the abstracting service have become of paramount importance. The preparation and distribution of abstracts is, in fact, one of the greatest problems in science today. U.N.E.S.C.O. organized in 1949 a meeting in Paris for discussing the organization of science abstracting. The I.A.U. was represented at this meeting by Dr P. Bourgeois and Prof. A. Danjon. Prof. B. Lindblad was present as representative of Sweden. In this connexion I should like to express our hope that the *Astronomischer Jahresbericht*, which has so ably served our science for a great many years, will overcome financial difficulties so that it may continue as effectively as before.

The plans for establishment of an International Computing Centre sponsored by U.N.E.S.C.O. have been followed with great interest. At the meeting arranged by U.N.E.S.C.O. in May 1950 for a discussion of this question, the Executive Committee appointed Vice-President Danjon and Prof. Oort as observers. A small committee consisting of Messrs P. Couderc, W. J. Eckert, S. Rosseland and D. H. Sadler, was appointed to follow developments in this field as far as they are of general interest to the I.A.U.

It has been resolved that the I.A.U. will apply for the entire U.N.E.S.C.O. grant for the Time Bureau, whereas the I.U.G.G. will apply for the grant for the Latitude Bureau. The Executive Committee decided in favour of a proposal to form a Joint Supervisory Commission, having learnt that the I.U.G.G. is also in favour of this plan. The membership of the Joint Supervisory Commission will be: for the Time Bureau—President, Sir Harold Spencer Jones, Secretary, M. F. Moreau, two members to be nominated by I.U.G.G., for the Latitude Bureau—President and Secretary nominated by I.U.G.G., members, Mr P. Sollenberger, Sir Harold Spencer Jones.

I wish to emphasize the importance of symposia in the activity of the Union. It is of great value that at the General Assemblies where the meetings in the various commissions often concern technical questions, general subjects of wide scientific interest are taken up for discussion. It is equally important that between the General Assemblies symposia are arranged on problems of actual interest. The symposium on 'Problems of Cosmical Aerodynamics' which was organized in 1949 by the International Union of Theoretical and Applied Mechanics and the International Astronomical Union with the co-operation of U.N.E.S.C.O. was a great success and very instructive for the arrangement of similar symposia in the future. We have at the present General Assembly the symposia on stellar evolution, astrometry of faint stars and astronomical instrumentation. Other symposia are planned for the years following the present meeting.

Commission 38 for the exchange of astronomers has been very effective in the years during which it has been working in promoting the studies and the scientific work of a considerable number of young astronomers. U.N.E.S.C.O. has changed the organization of its activity concerning exchange of scientists, but we hope that U.N.E.S.C.O. may find a new way of supporting our Commission. An annual grant to the I.A.U. is desirable for keeping up the activity of the Commission.

In August 1949 I submitted to the Executive Committee a memorandum on possible improvements in the working organization of the Union. Disadvantages of the present system were as follows:

(1) The separate sessions of the great number of commissions during the meetings have a tendency to make it very difficult for an individual member to get a comprehensive view of the proceedings even in a very limited number of those commissions in which he is interested.

(2) The proceedings in the commissions have often a tendency to be held up on points of minor importance, which might very well have been agreed upon by correspondence between the chairman and the members between the meetings.

(3) A drawback to extended intercourse between the chairman and the members by correspondence is the great number of members in many commissions.

As remedy for some of the inconveniences it was tentatively proposed that within large commissions the chairman may be empowered to form a preparatory working committee. It was further proposed that during the meetings commissions on related subjects might

normally have sessions together, the chairman alternating from the separate commissions, according to some automatic rule.

The Executive Committee has discussed these proposals and decided that Presidents of large commissions (of more than about fifteen members) be informed that the Executive Committee was of the opinion that on questions which are not of principal importance, the President may consult a limited number of members of his commission whom he considers to be the foremost experts on the particular question under consideration.

With regard to the other proposal, the Executive Committee agreed that it is desirable to organize joint meetings of groups of commissions at the General Assembly. The grouping might vary from one General Assembly to another. The proposal has also met with approval from the Presidents of commissions. A system for the meetings of commissions at this General Assembly has been very ably worked out by the Assistant General Secretary, Dr Oosterhoff.*

A new system of organizing the nomination of members of the commissions has also been adopted, and is in short as follows. Well in advance of the General Assembly, the Executive Committee invites the national committees of countries adhering to the I.A.U. to nominate one member each for a Nominating Committee. The members are invited to prepare and send to the General Secretary a list of suggested changes in the membership of the commissions, each one for his country. The list is sent to Presidents of commissions for comments and suggested modifications. The Executive Committee then draws up a preliminary list of changes which is sent to the members of the Nominating Committee. This procedure will no doubt ensure a well-prepared election of members in the commissions and will save much time for the members of the Nominating Committee at the General Assembly.

The President then read to the meeting a number of telegrams from members unable to be present. He proposed that telegrams be sent to the members concerned, thanking them for their kind wishes. This proposal was unanimously accepted.

The President next invited Messrs KULIKOVSKY, LA CLAVÈRE and VAN BIESBROECK to act as interpreters for the meeting.

He next moved the adoption of the report of the Executive Committee, which may be found on pp. 27–42 of the present volume. It was accepted without alterations.

The President then called upon Prof. Ambartsumian to address the meeting. Prof. Ambartsumian made the following statement:

MR PRESIDENT, LADIES AND GENTLEMEN,

The activity of the International Astronomical Union must have one single aim—to encourage and strengthen international collaboration in the domain of our science.

The Soviet delegation states with extreme satisfaction that during recent years the desire to expand and deepen international scientific connexions has constantly grown among the astronomers of the whole world. Since the assembly in Zürich, Soviet astronomers have aspired to strengthen their relations with astronomers of all countries and they themselves have greatly increased their participation in astronomical research work planned on an international scale. It is sufficient to note that Soviet astronomers have accomplished and are at present carrying out according to the agreement with the International Astronomical Union such laborious work as the compilation of the catalogue of variable stars and the ephemerides of minor planets.

Regarding the exchange of scientific information as a matter of high importance, Soviet astronomers are constantly taking an active part in the work of nearly all the I.A.U. commissions. The number of Soviet astronomical publications being distributed to foreign observatories is greatly increasing. Many prominent foreign astronomers have visited our observatories during the last four years. The Soviet astronomers have taken the initiative of organizing two symposia which are to take place during our present meeting: symposia concerning stellar evolution and astrometry of faint stars.

* Details of this system are to be found on p. 40 of the present volume.

To our greatest regret, the cancelling by the Executive Committee of the I.A.U. of a unanimously accepted decision to hold the Eighth Assembly in Leningrad—an unprecedented fact in the history of the International Astronomical Union—was most harmful to international collaboration in astronomy.

Wishing to repair this damage, the Academy of Sciences of the U.S.S.R. forwarded a second invitation to the Executive Committee of the I.A.U. in Paris to convoke the Eighth Assembly of the I.A.U. in 1952 in Leningrad. Unfortunately, this invitation of the Academy of Sciences of the U.S.S.R. was also not accepted.

In our opinion the cancelling of the assembly in Leningrad was based on considerations that were completely beyond the interests of science. It seems that the aim in cancelling the convocation of the assembly in the Soviet Union was to prevent the astronomers of other countries from getting acquainted with the activities of Soviet observatories and Soviet astronomers, to provoke discordance in the International Astronomical Union and to prevent the fruitful development of international co-operation in astronomy.

Despite all these facts, Soviet astronomers will continue their work directed to the expanding and deepening of international collaboration in the wide field of astronomy. We are quite certain that this activity will be met with sympathy and understanding by those who sincerely care for the interests of our science.

Today we meet here in Rome, the ancient capital of the Italian people, in the country of Leonardo da Vinci, Galileo Galilei, and many other great scientists and great humanists, in order to discuss questions of interest to us and to further our future collaboration. True to the principles of the development of international relations, the Soviet astronomers took a prominent part in the preparation of the discussions of nearly all items of the agenda of the present assembly here in Rome.

As many astronomers, members of the International Astronomical Union, not agreeing with the actions of the Executive Committee of the I.A.U., have expressed their desire to take part in an assembly in the Soviet Union, the Academy of Sciences of the U.S.S.R. authorized the Soviet delegation to deliver to the International Astronomical Union an invitation to convoke the General Assembly of 1955 in the Soviet Union.

The official declaration concerning this question will be forwarded at the final meeting of the present assembly.

The following astronomers, designated by the official delegates of their respective countries, were then nominated as members of the Finance Committee.

<i>Argentina</i>	J. PLATZECK	<i>Italy</i>	Prof. F. ZAGAR
<i>Australia</i>	Prof. R. v.d. R. WOOLLEY	<i>Japan</i>	Prof. Y. HAGIHARA
<i>Belgium</i>	Prof. J. F. COX	<i>Mexico</i>	Dr G. HARO
<i>Canada</i>	Dr J. F. HEARD	<i>Netherlands</i>	Prof. H. ZANSTRA
<i>Czechoslovakia</i>	Prof. E. BUCAR	<i>Norway</i>	Prof. S. ROSSELAND
<i>Denmark</i>	Miss J. M. VINTER HANSEN	<i>Poland</i>	Dr W. ZONN
<i>Egypt</i>	Dr M. R. MADWAR	<i>Spain</i>	Dr R. CARRASCO
<i>Eire</i>	Prof. H. A. BRÜCK	<i>Sweden</i>	Dr C. SCHALÉN
<i>Finland</i>	Prof. G. J. JÄRNEFELT	<i>Switzerland</i>	Prof. E. GUYOT
<i>France</i>	Dr F. BALDET	<i>U.S.A.</i>	G. M. CLEMENCE
<i>Germany</i>	Prof. J. LARINK	<i>U.S.S.R.</i>	Prof. E. K. KHARADZE
<i>Great Britain</i>	Dr G. MERTON	<i>Vatican City State</i>	Dr J. JUNKES, S.J.
<i>India</i>	A. K. DAS	<i>Yugoslavia</i>	Dr L. RANDIC

The President nominated Prof. COX to act as chairman of the Finance Committee.

The following motions submitted by the Executive Committee and by the National Committees of Astronomy were then presented for discussion:

Resolutions submitted by the Executive Committee

(a) That the statutes be changed to the effect that the maximum of the unit of subscription be raised from 500 to 750 gold francs.

(b) That the Union contemplate an increase of income from its own sources, in connexion with the U.N.E.S.C.O. rule that 'organizations receiving subventions shall make every effort to increase progressively their own share in the financing of the activities for which U.N.E.S.C.O. has granted a subvention'

(c) That the Union adopt the same financial year as I.C.S.U., *videlicet* from 1 November to 31 October.

(d) That rules be established to guide the Presidents of Commissions in preparing their Draft Reports.

Resolutions submitted by National Committees of Astronomy

(e) Le Comité National Belge d'Astronomie exprime le vœu que les Gouvernements des Nations européennes (ou l'U.N.E.S.C.O.) aient leur attention attirée sur l'intérêt qu'il y aurait à créer en commun, en Europe ou en Afrique, un centre de recherches dont le programme comporterait l'étude et la construction des garde-temps les plus précis, notamment ceux dénommés 'horloges atomiques ou horloges à raies spectrales', ainsi que des instruments susceptibles de permettre la détermination simultanée d'unités de durée et de longueur.

(f) In view of the confusion and inconvenience likely to arise from the use of two different systems of abbreviations for the constellations, the Australian National Committee wishes to recommend to the consideration of the General Assembly that the three-letter system, adopted by the I.A.U. in 1922, be regarded as standard.

Commenting on resolution (a) the President considered it impracticable that every future increase of the unit of subscription should require a change of statutes. He informed the Assembly that there was at present no intention of increasing this unit to 750 gold francs.

Dr J. JACKSON moved on behalf of Great Britain that the maximum value of the unit should be fixed at 600 and not at 750 gold francs. The amendment was seconded by Dr MADWAR and accepted by the Executive Committee. The resolution was then approved and carried.

In connexion with resolution (b) the General Secretary said it was important that this rule, as laid down by U.N.E.S.C.O., should be complied with by the I.A.U. It was decided to leave this matter to the attention of the Executive Committee.

The President explained that resolution (c) was being put forward merely for the purpose of simplifying the preparation of accounts. The resolution was carried.

The Assistant General Secretary then suggested with regard to resolution (d) that it be left to the Executive Committee to appoint a committee consisting of three Presidents and one of the two Secretaries for the purpose of establishing such rules to be submitted to the next meeting of the General Assembly. From the assembly the suggestion was made that this matter should first be brought up in the commissions. The General Secretary replied that any committee appointed by the Executive Committee would welcome suggestions from the various commissions. The resolution was then approved by the General Assembly.

With regard to resolution (e) the President informed the meeting that the Executive Committee had examined this question, which was a very complicated one. He proposed that it be referred to Commission 31. This proposal was accepted and carried.

The President next suggested that resolution (f) be referred to the commission on notations. Father O'Connell remarked that it would be advisable to consult also the commission on variable stars. In reply to a suggestion from the Assembly to settle this matter without reference to either of these commissions, the President remarked that it would be in conformity with usual practice to submit the resolution first to the consideration of one or more commissions. The President's suggestion was then approved by the General Assembly.

The President then formally declared the meeting closed.