

Meeting of 13 September, 9.30, in the Aula Magna of the University of Rome

The President of the Union formally declared the meeting open.

He next read out telegrams and a letter which had been received from various members.

The President then proposed to deal first with the resolutions which had been left over from the previous meeting of 4 September.

With regard to resolution (*d*) he explained that the rules for preparing the draft reports were drawn up by Messrs BOURGEOIS, SPENCER JONES, KULIKOVSKY and OOSTERHOFF. Their recommendations, given on p. 65, were unanimously accepted by the General Assembly.

The President next proceeded to read out resolution (*e*), which had been referred to Commission 31. Its President, Sir HAROLD SPENCER JONES, stated that Commission 31 had not found it possible to accept the resolution in the form in which it stood in the draft report. It had agreed however that the Union should give it its moral support. Since the recommendation concerned not only the I.A.U., but also U.R.S.I. and U.N.E.S.C.O., a committee of experts, including members of U.R.S.I. and U.N.E.S.C.O., should be appointed and moral support given to the proposal of the Belgian Committee. The President of the Union declared himself in favour of adopting the resolution of Commission 31 rather than the resolution as drafted by the Belgian Committee. This was accepted by the Assembly.

The President then dealt with recommendation (*f*) which had been referred to Commissions 3 and 27. Commission 27 unanimously decided to recommend the adoption of the three-letter system for the designation of constellations, to the exclusion of any other nomenclature. In Commission 3 there was some support for this resolution that three-letter abbreviations should be used exclusively for constellation names, but it was finally agreed that the wording of the present recommendation, giving a limited amount of choice to users, was adequate.

Dr KOURGANOFF suggested that the names of constellations should be used in various languages followed by the relative designations in Latin. It was agreed that this suggestion could not now be considered, but that it would be included in the report. The President then put the recommendation (*f*) to the vote and the motion was carried.

The next item on the agenda was the decision to be taken by the General Assembly regarding the place where the next General Assembly was to be held. The President informed the meeting that invitations for the next General Assembly had been received from Eire, Great Britain, Poland and the U.S.S.R. In addition Argentina had sent an invitation for some future General Assembly. In view of this situation, Argentina, Great Britain and the U.S.S.R. had withdrawn their invitations, as far as the next assembly was concerned, so that the General Assembly had to choose now between Eire and Poland.

The President pointed out that, according to the statutes of the I.A.U., voting was to be according to countries, each country having one vote, with the provision that its subscription shall have been paid up to the end of the year preceding the meeting. A ballot committee for this purpose had to be appointed and the President suggested that such a Committee be composed of the interpreters at the meeting with Mr LACLAVERÈ as its chairman.

The President then called upon the official delegates of Eire, Dr BRÜCK, and of Poland, Prof. RYBKA, to address the meeting.

Dr BRÜCK said.

'I have the honour to transmit an invitation from the Dublin Institute for Advanced Studies to the International Astronomical Union to hold the next General Assembly in Ireland.

'Perhaps I may be allowed to add that for a long time the Irish Government has been active in promoting scientific progress and quite particularly progress in astronomy. This may be seen from the recent reconstruction of the Dunsink Observatory. Irish interest

in furthering international co-operation may be found also in the scheme which has led to the erection of the Armagh-Dunsink-Harvard Telescope in Bloemfontein.

'I have no doubt that if Ireland would be honoured by the acceptance of its invitation, a very warm welcome would await the members of the I.A.U. in Dublin.'

Prof. RYBKA made the following statement:

'Au nom de l'Académie Polonaise des Sciences, j'ai l'honneur d'inviter en Pologne le IX Congrès International de l'Union Astronomique.

'Le peuple polonais, duquel est sorti Kopernik, aurait un droit particulier d'accueillir chez lui le IX Congrès.

'La République Populaire de Pologne, qui par le travail admirable et pacifique de son peuple batit un avenir meilleur et heureux, attache une grande importance à une sincère collaboration internationale dans l'esprit de l'amitié et de ce fait a le vif désir de recevoir chez elle les savants du monde entier.'

After these two delegates had conveyed their invitations to the General Assembly, Prof. AMBARTSUMIAN expressed his regret that the Executive Committee had found it impossible to accept the invitation to convoke the next General Assembly in the U.S.S.R. which had been extended to all members of the Union by the Academy of Sciences of the U.S.S.R. He then spoke in support of accepting Poland's invitation. Prof. KUKARKIN raised the question whether, in view of the fact that no diplomatic relations existed between Eire and the U.S.S.R., delegations from certain countries might be prevented by the Irish authorities from entering Eire. Dr BRÜCK, however, assured the meeting that he had made enquiries in this connexion and that the question raised by Prof. KUKARKIN did not arise; that members of all countries would be made welcome in Eire. Then Prof. BUCAR rose and, in the name of Czechoslovakia and Hungary, advocated acceptance of Poland's invitation.

The vote was taken, each country being called upon in alphabetical order. The chairman of the ballot committee then announced that representatives of twenty-eight countries had voted, the result of the vote being: twenty-one votes in favour of Eire, five votes in favour of Poland and two abstentions. In the name of the General Assembly the President therefore accepted the invitation from Eire.

The President then passed to the next item on the agenda, the nomination of the Executive Committee for the next period. He moved the election of Prof. O. STRUVE to the office of President, which was carried by acclamation. Following the proposals made by the Executive Committee the General Assembly then elected by acclamation as Vice-Presidents: Dr A. COUDER, Prof. E. RYBKA, Prof. P SWINGS and Prof. R. V D. R. WOOLLEY and as General Secretary: Prof. P TH. OOSTERHOFF. Prof. AMBARTSUMIAN'S term of office as Vice-President had not yet expired and he therefore remained a member of the Committee.

The President next asked for comments upon the various resolutions put before the General Assembly by individual commissions. Dr BOURGEOIS pointed out that the financial recommendation proposed by Commission 5 referred not only to the *Astronomical News Letters*, but also to their translation. Prof. BANACHIEWICZ then read a recommendation drawn up by Commission 17, which had not been included in the agenda (see p. 70). Prof. GREAVES pointed out that one of the resolutions adopted by Commission 25 had been omitted from the agenda (see p. 73). Prof. KUKARKIN called attention to the fact that the English text of the resolutions submitted by Commissions 5 and 27 contained some inaccuracies, the French text conveying the exact meaning. The Assembly took note of the foregoing comments, amendments and additions and was asked by the President to accept all the resolutions *en bloc* in order to save time.

The meeting then proceeded to consider the financial report, which was presented by Prof. COX, chairman of the Finance Committee. This report reads as follows:

'In accordance with the Statutes (Sect. 4, No. 8), the Finance Committee presents separate reports on the accounts for the years 1948, 1949, 1950, 1951 and on the estimates for 1952, 1953, 1954 and 1955.

'The following report, prepared by a sub-commission, has been unanimously adopted by the full Committee.

'We have examined the account of income and expenditure for the years 1948, 1949, 1950, 1951 in conjunction with the auditor's certificate and with the books and vouchers made available to us.

'We are satisfied that they represent a true and correct account of the operations of the Union during the period.

'Our work was greatly simplified by the fact that the accounts have been audited professionally and we recommend this procedure being continued in the future.

'We wish to record our appreciation of the manner in which the General Secretary has handled the accounts of the Union, he has afforded us all facilities; he has made every effort to reduce arrears of subscription.

(Signed) G. M. CLEMENCE,
A. K. DAS,
E. K. KHARADZE,
E. GUYOT,
J. F. COX.

La Commission de Finance propose à l'Assemblée Générale:

1. Que les subventions suivantes soient allouées pour la période s'écoulant du 1^{er} Janvier 1952 au 31 Décembre 1955:

(a) SUBVENTIONS ANNUELLES

						Dollars	Francs-or
Commission	5	(Bibliographie mensuelle)	...	...	...	163	500
"	6	(Bureau des Télégrammes)	...	...	...	392	1,200
"	10	(Cartes héliographiques de la photosphère)	...	...	...	327	1,000
"	11	(Cartes synoptiques)	...	...	...	882	2,700
"	20	(Centre des Petites Planètes à Cincinnatti)	...	...	...	1,012	3,100
"	27	(Liste des Noms d'Etoiles)	...	...	...	261	800
"	31	(Bureau International de l'Heure)	...	...	...	5,487	16,800
"	38	(Echange des Astronomes)	...	...	...	4,017	12,300
Bureau de l'Union		...	...	...	...	4,899	15,000
						<u>17,440</u>	<u>53,400</u>

(b) SUBSIDES (uniques, spéciaux)

						Dollars	Francs-or
Commission	5	(Uccle, Observatoires et Astronomes)	...	...	...	523	1,600
"	5	(Astronomical News Letters and translations)	...	...	...	621	1,900
"	11	(Observatoire, Paris, Polarimètre photo-électrique Lyot)	...	...	...	2,025	6,200
"	15	(Reproductions des clichés)	...	...	...	523	1,600
"	23	(Catalogue, Oxford)	}	...	...	8,165	25,000
"	23	(Catalogue, Melbourne)					
"	23	(Eléments des clichés de la zone +20 à +25—Heckmann)	...	...	...	1,502	4,600
"	29	(Production of photographic atlas of spectra of diatomic molecules)	...	...	...	1,633	5,000
						<u>14,992</u>	<u>45,900</u>

2. Que l'Unité de cotisation par les années 1952, 1953, 1954 et 1955 reste fixée à 500 francs-or.

(Signed) J. F. Cox.

The Assembly agreed to accept the financial report and the resolutions contained in it as well as the proposal about the unit of subscription.

With regard to the composition of the various commissions the Assistant General Secretary said that it had proved impossible, owing to pressure of work, to have the new list printed, but this would be done in due course and copies of the list would be sent to the national Committees and to all the members of the Union. He explained that the list had been prepared by the Nominating Committee after consultation with the National Committees and with the Presidents of commissions. The new Presidents of commissions had been nominated by the Executive Committee in accordance with the general rule that Presidents of commissions should be changed every two terms, that is to say, every six years, unless there were special reasons to keep a President in office for one more term.* Both lists were then unanimously accepted by the Assembly.

All matters on the agenda having been dealt with, the President next called upon Prof. SWINGS to address the meeting. Prof. SWINGS said:

MONSIEUR LE PRÉSIDENT, MESDAMES, MESSIEURS,

Les journées mémorables du Congrès de Rome de l'U.A.I arrivent à leur fin. Quoique certains astronomes commencent à ressentir quelque fatigue cérébrale—car nous avons bien travaillé à Rome—nous éprouvons un réel regret à la pensée que, dans quelques heures, nous allons devoir faire nos adieux à nos hôtes si hospitaliers.

Nous avons bien travaillé, disais-je. La science à laquelle nous consacrons nos efforts, a fait, au cours de ces dix jours, un grand pas en avant. Nous rentrerons chez nous, pleins d'idées nouvelles. Nous saurons mieux comment trouver la coopération à nos travaux. Les symposia et séances de commission nous ont appris bien des choses nouvelles ou clarifié des connaissances imprécises. Tous, nous avons tiré grand profit scientifique de ce congrès. Le moment est venu de rendre hommage et d'exprimer notre profonde gratitude à ceux qui ont rendu possible tout ce profit scientifique.

Au Conseil National Italien de la Recherche, tout d'abord, va notre gratitude. Non content de nous inviter à Rome et d'y organiser avec une rare efficacité toutes les activités d'un grand congrès, le C.N.R. nous a véritablement gâtés. Il a inauguré nos travaux au Capitole, dans la fameuse salle des Horaces et Curiaces. Le C.N.R. nous a reçus au Capitole; il nous a conduits à travers les Castelli Romani à Castel Gandolfo; il a obtenu pour ceux d'entre nous que la chose intéressait, une audience du Saint Père qui a rempli d'émotion tous les participants. Le C.N.R. nous a permis de circuler partout gratuitement, combinant tramways et trolleybus, pour arriver aux musées et galeries d'art où notre carte de congressiste nous ouvrait les portes. Ce soir encore, ce sera grâce au C.N.R. que nous visiterons Ostia et célébrerons ensemble la clôture du congrès.

Au Président du C.N.R., le Prof. Colonnetti, tous les astronomes réunis à Rome adressent leurs chaleureux remerciements. Ils expriment leur gratitude à tous les membres du Comité Italien d'Organisation et, en particulier, au Comité Exécutif Italien. Le Prof. Zagar, Dr Morelli, Mr l'Ingr. Ceccherini, le Secrétaire Général Prof. Gialanella, tous ont droit à notre vive reconnaissance. J'ai réservé une mention spéciale au Président de ce Comité Exécutif, un des astronomes les plus estimés et les plus aimés dans le monde, le Prof. Giorgio Abetti. Le Prof. Abetti est un génie souriant. Il ne vieillit ni physiquement, ni intellectuellement. Il a le même enthousiasme, le même dynamisme, la même élégante courtoisie, le même sourire raffiné qu'aux Congrès de Zürich, de Stockholm ou de Paris. Il a veillé à ce que tout aille bien; que nous soyons satisfaits de l'efficacité de nos réunions; que nous puissions profiter de nos rares moments de loisir pour jouir au maximum des beautés uniques au monde de Rome et de ses environs. Il s'est fait encore beaucoup d'amis et d'admirateurs en plus.

L'Université de Rome a bien voulu mettre ses locaux splendides à notre disposition. Nous en sommes bien reconnaissants. Nous rentrerons d'ailleurs dans nos divers pays, pleins d'admiration pour la Cité Universitaire et ses élégants instituts.

* The list of members and presidents is to be found on p. 858 of the present volume.

Avant de terminer ce qui concerne l'organisation pratique, je m'en voudrais de ne pas exprimer nos remerciements à tous les membres du personnel secretarial italien, tous, le sourire aux lèvres, ont répondu aimablement et efficacement à toutes nos questions parfois bien saugrenues.

Certes, il a parfois fait chaud; nous avons parfois, au cours de nos longues séances, ressenti les affres de la soif. Même cela était prévu. Il ne fallait pas aller très loin pour apaiser notre soif et nous retrouver dispos.

Mais si notre travail a bien marché, nous le devons, pour une bonne part aussi, à notre Comité Exécutif qui avait remarquablement préparé ce Congrès. Et, parmi le Comité, le Secrétaire Général, Prof. Strömngren, et le Secrétaire Général Adjoint, Prof. Oosterhoff, doivent évidemment recevoir une mention spéciale. Leur tâche était lourde et difficile. Ils n'auraient pas pu mieux la remplir. A eux va notre profonde gratitude.

Dix merveilleuses journées de notre vie vont se terminer. Encore une fois, au nom de tous les participants, mille fois merci à ceux qui les ont rendues possibles.

On behalf of the ladies Mrs SHANE spoke as follows:

PRESIDENT LINDBLAD, MEMBERS AND FRIENDS OF THE ASSEMBLY,

It has been a great privilege to attend a meeting of the International Astronomical Union in this beautiful city of Rome.

In Rome we are in the midst of a rich treasury of history and art that has been more than twenty centuries in the making. We have had barely half that number of days in which to embrace it all.

The committee of ladies has arranged our entertainment so skilfully that in this short time we have been guided to the finest accomplishments of each age. We have followed the Roman emperors through the Forum. We have seen their palaces on the Palatine rise in splendour and fall into decay. We have tasted of the fabulous wealth of the art and architecture that is Rome—in the piazzas, in the churches, in the museums and galleries.

By their thoughtful planning, the Committee has brought to us an incredible amount of all these riches. The almost daily excursions have been varied and of fascinating interest, and the informal sociability of these gatherings has been delightful. We have enjoyed the most magnificent receptions, arranged for our group with all the traditional charm and cordiality of Italy.

On behalf of the ladies, I wish to express heartfelt gratitude to the Committee—to Signora Colonnetti, Signora Morelli, Signora Armellini, Signora Gialanella, Signora and Signorina Zagar and to all those who have assisted them. Their splendid arrangements and their generous hospitality have made this a memorable visit.

THE PRESIDENT then made the following closing speech:

The eighth General Assembly of the International Astronomical Union has now come to its end. I think that we all agree that it has been one of the most successful meetings in the history of our Union. The number of members and guests has exceeded that of any other meeting. One of the main reasons of the success is the splendid organization by the Consiglio Nazionale delle Ricerche, under the Presidency of Prof. Gustavo Colonetti. The General Secretary of the Consiglio, Dr Morelli, has had constant supervision of the arrangements at our headquarters in the Office of the Consiglio. Prof. Abetti, Prof. Zagar, Prof. Gialanella, Dr Ceccherini, how can we thank you and your office for all you have done for our welfare during this congress?

To the Magnifico Rector of the University, Prof. Cardinali, and to Profs. Bompiani and Amaldi we express our grateful thanks for opening up the University buildings, the Aula Magna and the Mathematical and Physical Institutes for our scientific conferences.

We have had many interesting excursions. To His Holiness, Pope Pius XII, we express our deep feelings of gratitude for allowing us to visit the Castel Gandolfo, and for his great kindness in giving us his magnificent speech with profound thoughts on the importance of astronomical discovery. We give also to the Director of the Observatory,

Dr O'Connell, and his staff our warm thanks for showing us the Observatory. To the Mayor of Rome, the Honourable Signor Rebecchini, we express our grateful thanks for his welcome to us and for the splendid reception which he has given us on the Campidoglio. We thank Prof. Armellini for our visit to the Observatory and Astronomical Museum on Monte Mario and the Rector of Mondragone for his great kindness in receiving us in his beautiful college buildings on our tour from Castel Gandolfo. We express our deep and respectful thanks to the Ambassadors of France and of the Soviet Union for the receptions so kindly given in their magnificent palaces.

With the close of this meeting, three Vice-Presidents of the Union are leaving their offices, Prof. Abetti, Director of the Observatory of Arcetri-Firenze, Prof. Danjon, Director of the Paris Observatory, and Prof. Tiercy, Director of the Observatory of Geneva. You have had a great interest in the work of the Union, and your wise and firm counsel based on your high scientific and personal qualifications have been of extreme value. I thank you also personally for the friendship which has united us during the time we have worked together for the Union, and which I hope will continue in the future.

The General Secretary, Prof. Strömgren, leaves his office in the Union on account of the great work and great responsibilities which he has taken on as Director of the Yerkes and McDonald Observatories. We regret very deeply that you cannot keep your position as General Secretary; your qualifications for a position like this are enormous, and my reaction to your activity in the service of the Union has been a deep admiration. I know perhaps better than anyone else how much of deep thought and patient work you have had to give to the affairs of the Union. For all this, for your efficiency, your kindness, your friendship, we give you now our deep and warm thanks.

Prof. Oosterhoff has served as Assistant General Secretary for a year now. Much of the work for the preparation of this congress has fallen to him. I wish to say to you, Dr Oosterhoff, that you have been extremely efficient in the service of the Union, and that our collaboration has been the very best. We are very happy and grateful that it has been possible for you to accept the position of General Secretary.

Lastly, I can only give my very best thanks to the Union, and in particular to the members of the Executive Committee and to Presidents of commissions for the kind patience which they have had with me during my time as President.

In the name of the Union I greet our new President, Prof. Struve, and the new Executive Committee. I congratulate you, and I congratulate the Union in having acquired this strong and efficient Committee as head of our Union.

Prof. STRUVE then addressed the meeting as follows:

PRESIDENT LINDBLAD, MEMBERS OF THE UNION,

I am deeply touched by your action, and I thank you. I am also intensely embarrassed, and at this particular moment I would much rather be exploring the catacombs of Rome than standing here before you exposed in full glare to your friendly, yet searching, gaze.

I believe that I do not possess some of the qualifications that have made other presidents great. But in one respect, and in one respect only. I feel qualified to carry out the task that you have assigned to me. Because of my family's background and also because of the experiences of my own life, I have become a confirmed internationalist and believer in the necessity for international co-operation. I feel most at home in an organization such as the I.A.U.

During the post-war years our Union has made great strides forward, under the wise direction of Sir Harold Spencer Jones and Prof. Lindblad. There have been many important developments since the Zürich meeting. Of most of them our general membership knows little, because much of the work of this Union is done in commissions. But three particularly great events stand out in our minds:

First, there was the admission of Germany. This action represented the healing of a wound which had threatened the very life of the Union from its beginning.

The second development was the rise of the symposia. Never before have we had so many excellent symposia. And with this development has come the realization that purely scientific matters should have precedence over matters of an organizational character.

The third, and perhaps most significant, development is the tremendous impact upon this meeting of the scientific contributions from the Soviet Union. The whole-hearted co-operation of the Russian astronomers, their generosity in the distribution of books, and their understanding in the matter of preparing in advance printed translations of their symposium papers, are a source of hope for us and for the world.

To you, Viktor Amazaspovich [Ambartsumian], I want to say this on behalf of the Union—for I know I speak for the great majority of its members: Take with you to Russia the assurance that this Union desires to meet in your country in the not too distant future. Our deliberations in the Executive Committee, and the vote taken earlier this morning, have shown that this cannot be done now. We must have patience. As astronomers we are quite used to long intervals of time. You yourself, in your lecture on stellar evolution, have spoken in terms of millions and billions of years. The development of the affairs of man does not require so much time. Yet it would be wise to allow enough. otherwise, there might be a catastrophic collapse of our Union to some kind of white-dwarf stage!

At an informal dinner two days ago at which, among others, American and Soviet astronomers sat down together in order to engage in the common process of accretion of the human body. Prof. Ambartsumian remarked, with the wittiness that so naturally springs from the keenness of his mind, that the Western and Eastern astronomers might be likened to the populations of two colliding galaxies. And he said that Dr Baade had found that such a process was accompanied by a certain amount of turbulence but that the spectrum of the resulting radiation could well be of a quiescent, peaceful character, rather than in the form of a catastrophic outburst. I should like to carry this comparison one step farther. Baade has also shown, together with Spitzer, that when galaxies collide, only the diffuse gaseous matter experiences a physical effect. The stars of the two systems pass clear through one another, and no one is hurt. Surely, we astronomers more nearly resemble stars than a diffuse medium of gas and dust!

These and many other advances have been the result of President Lindblad's work for the Union.

I propose a standing vote of thanks to Bertil Lindblad.

Prof. DANJON also proposed a vote of thanks to Prof. Lindblad.

There being no further business to be transacted, the meeting then terminated.