

## (b) SPECIAL GRANTS (once only)

	<i>Dollars</i>	<i>Gold Francs</i>
Commission 12 (Solar spectrum tables) ... ..	1,960	6,000
„ 18 (Publication of longitude results 1933) ...	816	2,500
„ 19 (Publication of latitude results to the end of 1948 ... ..)	2,613	8,000
„ 19 (Expenses of moving the central bureau to Turin) ... ..)	327	1,000
„ 23 (Carte du Ciel) ... ..)	6,859	21,000
„ 24 (Publication of 3rd edition of the Parallax Catalogue) ... ..)	1,633	5,000
„ 27 (Charts of variable stars in the Southern Hemi- sphere) ... ..)	261	800
„ 27 (Translation and printing of introduction to <i>Catalogue and Ephemerides...</i> ) ... ..)	261	800
Executive Committee—grant towards expenses of joint symposium of I.A.U. with the Union of Theoretical and Applied Mechanics ... ..)	3,266	10,000
	17,996	55,100

2. That until the next meeting the unit of subscription should be 500 gold francs.

(Signed) C. S. BEALS  
*President*

(Signed) D. H. SADLER  
*Vice-Chairman of the Finance Committee*

The adoption of the report and the resolutions contained in it was moved by Dr Sadler; it was seconded by Dr Shapley, and carried without discussion.

The President said that among the resolutions proposed by the Executive Committee there was one implying a change of By-Laws. In order to promote the continuity in the Union affairs also at the time of a change of General Secretary, when both President and General Secretary retire at the same time, it was proposed that the retiring President and General Secretary remain members of the Executive Committee in a consultative capacity. This resolution would require at least two-thirds of the votes of the countries present. He proposed that this change of By-Laws be discussed at the present Assembly though it had not figured on the official agenda. As none of the countries objected, the resolution itself was put before the Assembly and carried without any opposing vote.

The other resolutions and recommendations proposed by the Executive Committee and by the various standing commissions which had been distributed to those present (see pp. 59–70) were then read.

The President said that as all resolutions had been amply discussed in the commissions concerned, he would move their adoption *en bloc*. The motion was carried without objection. The meeting was then adjourned to 14.30.

*Meeting on August 18, 1948, 14.30, in the Eidgenössische Technische Hochschule*

The President announced that the resolutions of Commission 15 had become available too late to be read at the morning's meeting. These resolutions were now read and agreed to.

The President said that the next business of the Assembly was to elect the new President. He moved the election to this office of Prof. Lindblad, which was carried by acclamation. Following the proposals made in the morning's Assembly by the Executive Committee Profs. Ambartsumian and Struve were then elected as Vice-Presidents, and Prof. B. Strömgren as General Secretary.

The next item was the election of representatives of the Union on the Executive Committee of the International Council of Scientific Unions. The President said that, on account of the much more intimate relation of the affairs of the Union with the International Council which had developed as a consequence of the interest U.N.E.S.C.O. is taking in the various Unions (the International Council being the intermediary between the Unions and U.N.E.S.C.O.), it was desirable that the Union be represented on the International Council by its new President and General Secretary, or, in case either of these is unable to attend a meeting of the Council, by another member of the Union designated by him. The proposal was accepted without objection.

At the President's request the General Secretary then read the list of the members appointed by the Executive Committee to represent the Union in various mixed commissions. A new joint commission on spectroscopy was proposed, containing representatives of the Astronomical Union and of the Union of Pure and Applied Physics. This will be a working commission, its first field of work will be the analysis of atomic and molecular spectral terms (including hyperfine structure). The joint committees on Time, Longitude and Latitude are being dropped, because it had been found more practical to include some geodesists in the corresponding ordinary commissions of the Astronomical Union, and vice versa. The representatives in the various mixed commissions are indicated on p. 527.

In putting the list of members of various standing commissions before the meeting the President said that he wanted in the first place to thank Prof. Struve, the chairman of the Nominating Committee, for having so ably directed this Committee's arduous task of composing the present list. The list had also been considered and slightly amended by the Executive Committee. No doubt there might be some omissions. But these could easily be amended by subsequent co-option. He called attention to the following changes in the list of commissions:

Commission 7, on Celestial Mechanics, had been revived, as several workers in this field found no place in the existing commissions. Three new commissions were proposed, No. 40 on Radar Methods, No. 41 on History of Astronomy, and No. 42 on Photometric Double Stars.

Prof. Mitchell moved the adoption of the list of members as circulated to all present. The motion was seconded by Prof. H. H. Plaskett, and carried.

The place of the next General Assembly, to be held in 1951, was then discussed. The President stated that an invitation had been received from the Academy of Sciences of the U.S.S.R. to hold a meeting in Leningrad, while another invitation had been received from Dr Bowen for a meeting in Pasadena, in connection with the 200-inch telescope. A provisional invitation had already been extended by Prof. Mikhailov in 1946. The President invited Professor Mikhailov to address the Assembly. A translation of Prof. Mikhailov's speech follows:

I have the honour to transmit the invitation of the Academy of Sciences of the U.S.S.R. to hold the next General Assembly of the I.A.U. in Leningrad and Pulkovo. It is well known that the famous Pulkovo Observatory, which was called the astronomical capital of the world, was totally destroyed by the German invaders during the Second World War. We are rebuilding it on its old historical place, and hope that in 1951 it will have been erected in its former size. It seems proper that the inauguration of this observatory should be made in presence of the most authoritative scientific body—the I.A.U.

The President explained that the Executive Committee had not yet found it possible to take a definite decision in this matter, but that it hoped to be able to decide within a few months.

He then remarked how greatly indebted the Union was to the hosts for the splendid reception in Zürich. In particular thanks were due to Prof. and Mrs Waldmeier for the manner in which the meeting and the social events around it had been arranged. The President called on Prof. Minnaert to address the hosts; he would ask Miss Harwood to speak more especially on behalf of the ladies.

PROF. MINNAERT :

MES CHERS COLLÈGUES,

Nous voici donc réunis pour la dernière fois dans cette même salle où nous nous sommes rassemblés il y a huit jours, lors de l'ouverture du 7<sup>e</sup> Congrès de l'U.A.I.

Après avoir été séparés pendant 10 ans, après avoir lutté et souffert, nous sommes venus de tous les côtés du monde pour nous retrouver ici, nous nous sommes regardés dans les yeux d'un regard qui disait plus que ce que les paroles pouvaient exprimer; et nous avons fait ensemble du bon travail. Dès le premier jour, la cordialité et la bonne entente ont régné dans toutes nos assemblées; nous nous sommes donné bien de la peine, et cependant, à la fin de ce congrès, nous nous sentons rafraîchis et rajeunis. L'air même qui nous entoure semble nous avoir stimulés, c'est comme s'il y avait ici un bon génie, un *genius loci* particulier, qui rend heureux ceux qui vivent et travaillent sous son inspiration.

Eh bien, mes chers collègues, nous savons tous que ce bon esprit qui nous a entourés ici, c'est *l'hospitalité de la Suisse*, l'hospitalité du pays même et l'hospitalité de ses habitants. C'est cette hospitalité que nous avons sentie dès notre arrivée dans la merveilleuse gare centrale de Zürich. Nous avons fait connaissance avec cette ville; nous avons admiré la grande allure de ses avenues, nous nous sommes perdus dans ses anciens quartiers si pittoresques, et nous avons commencé à comprendre la synthèse qui s'est opérée dans ce pays entre la bonne tradition et le progrès moderne. Pour nos assemblées, nous avons pu faire usage du bâtiment de la Technische Hochschule, qui domine la ville entière du haut de sa terrasse. Mais c'est au bord du lac que nous avons apprécié entièrement la situation magnifique de la ville, quand nous l'avons vu s'étendre d'un côté le long de la Limmatt impétueuse, de l'autre côté sur les collines de part et d'autre du lac, tandis que dans le lointain surgissaient les cimes neigeuses de la haute-montagne. Le soir, les mille lumières dispersées de tous côtés, reflétées dans le lac, donnaient au paysage un aspect de féerie. Cet entourage est un des imponderabilia qui sans aucun doute a contribué puissamment à nous rendre ce congrès inoubliable.

Vous souvenez-vous encore de cette première réception, le mardi soir, quand nous nous sommes rencontrés dans le vestibule du Kongresshaus? Il était presque impossible de rassembler les participants dans la salle de réception, tant nous étions émus et enthousiastes en retrouvant nos amis qui entraînaient l'un après l'autre dans le vestibule, tant nous avions à nous raconter.

Ensuite nous avons eu le plaisir immense de collaborer pour l'étude d'une foule de problèmes scientifiques avec les collègues dont tant de fois nous avons lu les savants mémoires, et qui maintenant se révélaient à nous, très humains comme toute, chacun avec son caractère particulier. Un tel congrès a nécessairement un caractère mixte: on y discute les dernières découvertes scientifiques, mais aussi on y traite de l'organisation même de notre travail. L'une partie est aussi indispensable que l'autre, personnellement je crois que la proportion relative a été réglée d'une manière très heureuse. Les différents colloques auxquels nous avons pu assister ont été d'une grande importance pour comparer et élucider les résultats des recherches. L'exposition des instruments et des documents scientifiques était extrêmement intéressante et très réussie. Nous avons pu jouir de visites répétées à ce bel Observatoire de Zürich, qui, lui aussi, est basé sur la tradition des longues années d'observations fidèles, mais qui s'est rajeuni et renouvelé et prend une place importante dans le développement moderne de la science solaire. Les démonstrations de la chromosphère et des protubérances, faites à cet observatoire par notre infatigable collègue, Monsieur le Dr B. Lyot, nous ont révélé d'une manière inoubliable la beauté des phénomènes solaires.

Mais nos hôtes n'ont pas seulement mis à notre disposition un entourage admirable pour le travail, ils ont encore songé au repos, nécessaire de temps en temps. Ils nous ont prodigué tantôt des rafraîchissements, tantôt un lunch, ou un Imbiss, ou même un banquet. La musique nous a fait entendre les harmonies dont l'homme de science sent le besoin profond. Des excursions très agréables nous ont donné le temps de prendre haleine et nous ont montré quelques-unes des beautés de la Suisse, ainsi que son développe-

ment industriel moderne. (Je relève très particulièrement l'excursion des dames à la fabrique de chocolat!) La grande excursion de dimanche dernier a certainement été le point culminant; c'est alors que la Suisse nous a réellement ouvert son cœur, et il était bien intéressant d'entendre le soir les impressions des différents collègues qui avaient pris part à l'une ou à l'autre des trois excursions, chacun étant d'avis que l'excursion choisie par lui avait certainement été la plus belle des trois. Elles nous ont toutes conduit vers le Lac des Quatre Cantons, où s'est fondée l'unité de la Suisse, et où s'est ressuscitée dans notre mémoire la légende inoubliable de Wilhelm Tell, qui nous fait encore tressaillir d'émotion, tant est beau l'idéal de la liberté à travers les siècles.

La Suisse a même pris soin de nous procurer un état du ciel parfaitement adapté au but de notre séjour. En nous accueillant par des nuages et même de la pluie, elle a voulu nous recommander de ne pas perdre de temps et de nous mettre au travail. D'autre part elle nous a récompensé en nous octroyant pour le dimanche de l'excursion un soleil éblouissant et un ciel bleu, dont l'effet était encore plus puissant par le contraste avec les jours précédents.

Enfin, le banquet de clôture, hier soir, a terminé tout ce beau programme par une festivité inoubliable. Après les rencontres fréquentes des derniers jours, nous avions vraiment l'impression d'être à un grand dîner de famille, avec le charme un peu mélancolique qu'ont toujours les dernières conversations avant le départ.

L'hospitalité dont nous avons joui ici, quoique due au pays tout entier, a été exercée tout particulièrement par les comités et par les personnes qui nous ont entourés de leurs soins. Je nomme en premier lieu le Comité d'Honneur, qui a bien voulu nous faire souhaiter la bienvenue par un de ses membres; le Comité d'Organisation, qui a si bien rédigé le programme; le Comité des Dames, qui a prodigué l'hospitalité la plus gracieuse (au sens littéral du mot); le Comité Suisse d'Astronomie, qui nous a accueillis par un lunch que nous avons su apprécier. Mais l'âme de toute cette organisation a certainement été le Dr Waldmeier, secondé par Mme Waldmeier, qui a su inspirer tous ces Comités d'un grand enthousiasme et coordonner leurs activités. Avec un personnel restreint il est parvenu à une organisation réellement parfaite et qui fait honneur à la Suisse. Il a fait un travail dont il peut être fier et qui a été de grande utilité pour le développement de l'astronomie internationale. Nous le remercions chaleureusement de toute la peine qu'il s'est donnée et nous lui en témoignons notre profonde gratitude. Nous remercions en même temps tous ceux qui l'ont assisté au bureau d'information, à l'observatoire et en maintes autres occasions.

Permettez-moi de conclure par une petite réflexion personnelle. Lorsque nous sommes arrivés ici, nous avons reçu un bulletin donnant 'Les Faits de la Semaine' à Zürich. On y trouvait même l'horoscope astrologique, qui prédisait pour la période du 24 juillet au 23 août: 'Une semaine tranquille — rien d'important'. Et bien, j'avais toujours été enclin à croire un peu à l'astrologie... Mais maintenant je suis bien convaincu de sa fausseté. Comment donc: 'une semaine tranquille'! Mais qu'en pensez-vous, mesdames et messieurs? Et qu'en pensez-vous, monsieur le secrétaire général, mon cher Oort? Et 'rien d'important'? Mais n'est-il pas important que nous avons pu accomplir ce que tous les diplomates du monde ont vainement cherché d'atteindre jusqu'ici? Des représentants de plus de 25 nationalités réunis fraternellement, inclus l'Amérique et la Russie—et le droit de veto n'était pas même nécessaire puisque tout le monde était d'accord!

Ainsi donc, nous partons, reconnaissants et heureux, en regrettant de devoir nous séparer, mais en nous réjouissant déjà à l'idée de nous retrouver dans trois ans, à une réunion qui peut-être, par les circonstances où elle aura lieu, sera un véritable climax dans la série des congrès astronomiques.

Au revoir dans trois ans!

MISS HARWOOD:

It would seem that this fine, substantial building of the Technische Hochschule, with its comfortable conference and assembly rooms, would be all that is necessary for a successful meeting of the International Astronomical Union. And that this beautiful city

of Zürich with its ever varying and even more lovely surroundings would alone afford sufficient recreation. But a Committee of Ladies has handled our mail, given us information of all kinds, and has attended to every possible need, including mid-morning refreshment, and the details of every extra-curricular activity. This Committee has also entertained the visiting ladies by personally conducted tours of the museums and other places of interest, both near and far.

Be it resolved, therefore, that the I.A.U. extend an expression of our heart-felt gratitude to Mrs Dr Waldmeier, Miss Dr Müller, and Mrs E. Lindt and to each and all of their assistants.

SIR HAROLD SPENCER JONES then addressed the meeting as follows:

All who have attended this General Assembly will have appreciated the excellent arrangements that have been made for the meeting and the generous hospitality that has been provided for us. The preparations for a meeting such as this, including the arrangements for hotel accommodation, for excursions and other functions necessarily entail a great deal of work for the Local Committee. It has functioned most efficiently under the chairmanship of Prof. Waldmeier. To all the members and to him in particular we express our grateful thanks.

Two of the Vice-Presidents of the Union now retire, Dr W. S. Adams and Dr A. A. Mikhailov. Dr Adams was unfortunately not able to come to this meeting and in his stead Prof. Stebbins has acted as Vice-President, as he did also at the meeting of the Executive Committee in Copenhagen in 1946. But Dr Adams has been available for consultation at all times during the past 10 years and his advice has been of great value in the many special post-war problems that have arisen. I propose a vote of thanks to Dr Adams, Dr Mikhailov and also to Prof. Stebbins for their valuable services.

The International Astronomical Union has been well served by the three General Secretaries whom it has had in the course of its 26 years of existence—Prof. Alfred Fowler, Prof. Stratton, and Prof. Oort. For half of this time, the last 13 years, this important office has been held by Prof. Oort. To-day he hands over his charge to the safekeeping of Prof. Bengt Strömgren and the occasion should not pass without a tribute to the devoted service which he has given to the Union throughout these years. As President of the Union for the past few years I have worked in close association with Prof. Oort and I know how heavy is the work of the General Secretary. Much of the time which Prof. Oort could otherwise have given to his own research has necessarily been occupied with the affairs of the Union. Some considerable self-denial is necessarily involved in the acceptance of this office; but there is no doubt that the advancement of our science in the field of international co-operation is greatly dependent upon having a capable and efficient General Secretary of the Union. To Prof. Oort's unwearied labours, to his wise handling of the affairs of the Union, and to his sound judgement the Union owes much. It is fitting that we should express our gratitude to Prof. Oort for his services as General Secretary; I have therefore much pleasure in proposing from the Chair a warm vote of thanks.

This was received with loud applause, everybody standing.

The work of this Assembly has been greatly helped by the services of Miss Kluyver. As private secretary to Prof. Oort, Miss Kluyver has had much to do with the affairs of the Union and this has been a great asset. The secretarial work in connection with a meeting such as this is very heavy; reports, recommendations, and lists of members of Commissions have to be typed and duplicated at short notice and there is much other burdensome detail. Miss Kluyver has not only looked after this necessary secretarial work, but she has always been ready to answer inquiries, to provide information and to assist the members in every possible way. I propose that we express by acclamation our appreciation of Miss Kluyver's services.

The new members of the Executive Committee then took their places, with Prof. Lindblad in the Chair.

PROF. LINDBLAD:

LADIES AND GENTLEMEN,

I thank the members of the Union for the great honour which they have bestowed upon me by electing me President of the Union for the next three-year period.

After this wonderfully successful meeting here in Zürich our expressions of deep gratitude have gone to those who have had the burden of arranging this meeting.

There is one person, however, to whom it remains for me to give our warm and sincere thanks, namely our President himself, the Astronomer Royal, Sir Harold Spencer Jones. You, Sir Harold, took over the presidency at a critical time in the history of the Union, and you have led the proceedings at two meetings of the Union, the small but very important reorganizing meeting at Copenhagen in 1946 and now this great General Assembly of the Union here. We have all deeply appreciated and admired the eminent way in which you have presided on these occasions. Your great authority and your genial and kind personality have made us look up to you with the greatest confidence. Your contribution as President in the service of the Union is certainly one of the most important in the Union's records, and will always be remembered in grateful memory. On this occasion we can only express to you our grateful feelings by giving you our warmest thanks for what you have done for our Union.

During the past week a considerable part of the world's active astronomers have been assembled here at Zürich. We astronomers think highly of our science, and are devoted to it in a quite particular way. From a philosophical point of view one may ask what drives us in our research and what kindles our enthusiasm for the exploration of the heavens. One may point at the parts of Astronomy which have great and undeniable practical importance. But we know that this is not the answer. There is in reality in this world nothing for us worth while compared to the development, soundness and perfection of the human mind. We know that the science of Astronomy has been, is, and will be one of the sources of health for the human mind. The bird's-eye view of our conditions of life on this Earth which Astronomy gives may scare us with its immensity in time and space, but is also at the same time deeply comforting, even though we still understand so little of the deep mysteries of the Universe.

The peoples of the Earth are still divided among themselves by questions and problems which involve a great number of difficulties and conflicts. There is at least one field where we may all meet without reservation in entire friendliness—in our science of Astronomy. I am sure that this meeting which has just ended has been very successful in the way of personal contacts as well as from a purely scientific point of view, like the other meetings preceding it, and we hope sincerely that our next meeting will carry us further on this way for the growth and development of our old, glorious, and free science of Astronomy.

I hereby declare the General Assembly of the International Astronomical Union closed.