Meeting of 13 August 1958, 09.00 in the Assembly Hall of Moscow University

Prof. A. Danjon, President, in the Chair

The agenda for this meeting, which had been published in the I.A.U. circular of May 1958 and in the official programme for the Moscow meeting, read as follows:

Official opening of the Congress.

2. Address by the President of the Union.

3. Appointment of interpreters for the meeting.

4. Report of the Executive Committee.

5. Report by the General Secretary.

6. Report of the special committee (see Trans. I.A.U. 9, page 20, line 26 from above).

7. Appointment of the Finance Committee.

8. Fixation of the unit of subscription.

9. Fixation of the budget for the 1959-61 term.

10. Approval of the proposals made by the Nominating Committee.

- II. Election of a new President, of a new General Secretary and of four new Vice-Presidents of the Executive Committee.
- 12. Fixation of the place of meeting for the eleventh General Assembly in 1961.

13. Resolutions submitted by National Committees of Astronomy:

(a) Le Comité National d'Astronomie de la France recommande que l'année tropique, étalon naturel du temps des Ephémérides, soit définie comme la durée nécessaire pour que la longitude moyenne du Soleil augmente de 360°.

(b) The Australian National Committee of Astronomy wishes to submit to the tenth General Assembly of the I.A.U. a motion proposing the formation of a Sub-Commission of

Commission 28 for the study of the Magellanic Clouds.

(c) Le Comité Belge d'Astronomie conscient de l'importance des problèmes que pose la recherche de sites appropriés à l'installation d'observatoires astronomiques importants et des difficultés rencontrées par les missions d'exploration en ce qui concerne les techniques les plus adéquates, exprime le vœu qu'un symposium groupant les spécialistes les plus qualifiés de ces questions soit organisé dès que possible à l'initiative et dans le cadre de l'Union Astronomique Internationale.

14. Resolutions submitted by presidents of standing commissions:

(a) The Presidents of Commissions 16 and 20 propose that the list of magnitudes for the 1622 numbered asteroids in the 1958 Ephemeris, prepared on the basis of the Yerkes-McDonald Asteroid Survey, and supplemented by a special investigation at Indiana University, be adopted in future editions of the Ephemeris.

(b) The President of Sub-Commission 16 a proposes that the system of Martian nomen-

clature prepared by Sub-Commission 16a be adopted in future studies of Mars.

(c) The President of Commission 16 recommends that Sub-Commission 16 a be discontinued, when the report of this Sub-Commission has been approved by the General Assembly.

(d) The President of Commission 27 recommends that the Sub-Commission 29a on Spectra of Variable Stars be transferred from Commission 29 to Commission 27 as Sub-Commission 27c.

(e) On behalf of the Presidents of Commissions 10, 11, 12, 13 and 36, the President of Commission 20 recommends:

1. That the present work of Commissions 10, 11, 12 and 13 should be taken over by

the following new Commissions:

(10) Solar activity and evolution of solar phenomena = Activité solaire et évolution des phénomènes solaires. This commission should be drawn from those workers who are mainly concerned with all different aspects of the active sun.

- (12) Solar radiation and physical nature of the outer layers of the sun = Radiation solaire et la nature des couches supérieures du soleil. This commission should deal with the spectral and radiation properties of the normal and active sun as well as with their theoretical interpretation. Work done during and without eclipse, and work in radio astronomy should be coordinated in this with the other aspects of the normal sun.
- (13) Solar eclipses = Eclipses solaires. A new commission should be created to deal with those people interested in the technical and geodetic aspects of eclipse observing and in the planning of future eclipse expeditions.

(II) Commission II should be abolished.

- 2. That the work of the two Commissions Stellar Spectra (29) and Spectrophotometry (36) should be combined in one Commission, Stellar Spectra, with suitable subcommission structure. The combined commission, although large, would offer a more rational organization without a separation of techniques and results as at present exists.
- (f) The Presidents of Commissions 29 and 14 recommend that Sub-Commission 29b on Molecular Bands in Stellar Spectra be discontinued and that a Sub-Commission 14b on Molecular Spectra of Astronomical Interest be formed.
- (g) The Presidents of Commissions 29 and 35 recommend that a new Commission on Magnetohydrodynamics and the Physics of Ionized Gases be established.
- (h) The President of Commission 32 recommends that Commission 32 on Selected Areas be discontinued, but that a new Sub-Commission on Selected Areas be established as Sub-Commission 33c.

The President opened the meeting with the following words:

'Je déclare ouverte la Xe Assemblée Générale de l'Union Astronomique Internationale. L'Assemblée est régulièrement constituée, les participants ayant été convoqués conformément aux statuts.

Depuis notre dernière Assemblée Générale, l'Union a perdu 29 membres décédés. La liste en sera lue dans un instant. Tous les noms que vous entendrez sont ceux de bons serviteurs de la science. Mais je crois devoir rendre un hommage particulier à la mémoire de Henry Norris Russell, dont l'œuvre a eu tant d'importance en astrophysique, et qui prit toujours une si grande part à nos Assemblées Générales. Je vous prie de vous lever pendant la lecture que va faire le Secrétaire Général.'

The General Secretary then read the following names: W. S. Adams, G. Armellini, S. N. Blazhko, H. Bucerius, K. Burns, C. A. Chant, E. Delporte, D. L. Edwards, J. Evershed, E. Gastardi, A. N. Gigizkij, P. Götz, W. M. H. Greaves, A. S. King, O. Kohl, K. Lundmark, N. D. Moiseiev, H. R. Morgan, W. Rabe, H. N. Russell, P. M. Ryves, M. N. Saha, G. A. Shajn, Mrs P. F. Shajn, G. Silva, C. Störmer, G. Tiercy, R. J. Trumpler, M. A. Vashakidze.

The President continued: 'Nous allons observer un moment de silence à la mémoire des morts.'

Then the President spoke a few words of welcome to the official representatives of two other Unions, Prof. A. C. B. LOVELL for U.R.S.I. and Prof. D. BROUWER for I.U.T.A.M., and continued with the following words:

'Plusieurs membres de l'Union, parmi eux qui nous ont rendu les plus grands services, ont été empêchés de venir à Moscou par des motifs divers. Je mentionnerai en premier lieu le Prof. O. Struve, ancien Président. Le Prof. Goldberg a été chargé par lui d'un message pour l'Union. Je donne la parole au Prof. Goldberg.'

Then Prof. Goldberg read the letter from Prof. Struve:

'Friends.

To all of you who are today assembled in Moscow for the Tenth General Assembly of the International Astronomical Union I send my greetings and best wishes for a successful and harmonious meeting. As you know, it was my action at Dublin, three years ago,

which led to the unanimous vote of the delegates to accept the Soviet invitation for 1958. I felt then, and I feel today, that the world-wide scope of astronomy made it necessary for us to resolve the political stalemate that had prevented us, since the end of the Second World War, from scheduling any of our meetings in the two countries that are now most active in astronomical research—the Soviet Union and the United States. Today's Assembly represents the fulfilment of the first half of our aspirations. The second half will be fulfilled when the Union meets in the United States.

On 4 October of last year the world of science and, with it, the entire world was suddenly changed by the Russian announcement of the successful launching of their first 'sputnik'. Because of this event the year 1957 will be remembered in the history of astronomical exploration as the year 1492 is remembered in the history of geographical exploration. May we not hope that the event of 4 October represents a step toward the recognition that there is only *One World* and that our understanding of it must be fostered by the methods of *free inquiry* engaged in co-operatively by the scientists of all nations.

May all nations apply to themselves the prophetic verses of M. V. Lomonosov, which

he wrote in 1747:

And you in whom your Country now expects The same high qualities Of scientists in foreign lands Your days are happy ones indeed.

Dare now to show the world By your efforts and inspiration That Russia's soil can bear Its own great Platos And brilliant minds like Newton's.'

# The President continued:

'Je propose d'envoyer un télégramme de sympathie au professeur Struve. Le Prof. Cowling, Président de la Commission 35, est empêché par son état de santé. Un télégramme lui sera également envoyé, ainsi qu'à plusieurs collègues dans la même situation: MM. Abetti, Jules Baillaud, Dziewulski, Kamienski and Kopff.'

The General Secretary read two cables received from Dr Masani and Prof. Kamienski with their good wishes for the Assembly.

The meeting then appointed the following persons as official translators: J. F. Denisse,

Mrs S. D. Gossner, E. K. Kharadze and P. G. Kulikovsky.

The President submitted the report of the Executive Committee, as printed in the *Draft Reports*, to the General Assembly. The General Secretary recapitulated the main items of this report and explained that the part of the report dealing with the finances of the Union would have to be discussed first by the Finance Committee. The Assembly then approved the non-financial part of the report.

Concerning item 5 of the agenda, the General Secretary announced that he did not wish to make a report to the Assembly, as he had decided to resign at this meeting and as he did

not want to make any suggestions which might commit his successor.

He then announced the names of those persons who had been nominated by the Executive Committee as Acting Presidents for the meetings of Commissions at the tenth General Assembly:

Commission 17: A. A. NEFEDIEV
Commission 28: N. U. MAYALL
Commission 30: R. M. PETRIE
Commission 32: A. BLAAUW

Commission 35: M. SCHWARZSCHILD
Commission 42: V. P. TSESEVICH
Commission 36a: M. WRUBEL

The General Secretary read the names of those nominated by the National Committees of Astronomy of the adhering countries to vote during the Assembly on behalf of their countries.

The President asked the General Secretary to read the proposal from the special committee concerning the nomination of President and other members of the Executive Committee of the Union. This special committee consisted of Sir Harold Spencer Jones, A. McKellar and P. Th. Oosterhoff and, according to the decision taken in Dublin, its recommendation was now submitted to the General Assembly. The proposal read as follows:

'A Nominating Committee is to be formed to consider and to make recommendations about the membership of the Executive Committee for the period following the next General Assembly. This Committee is to consist of the President of the I.A.U., the immediate past President, a retiring member of the Executive Committee, and two other members, who are not members of the Executive Committee.

This Committee is to be appointed by the Executive Committee within one year following each General Assembly, regard being paid to the representation of different countries, so that not more than one member of the Committee should belong to any one

country.

The President is to be the Chairman and Convener of the Nominating Committee (it is suggested that it would normally meet when the Executive Committee meets, as three of its members are on the Executive Committee). The Committee should report to the Executive Committee of the Union not later than six months before the next General Assembly.

The final selection of the President, Vice-Presidents and General Secretary, for submission to the General Assembly, remains with the Executive Committee, which will be guided by the recommendations of the Nominating Committee, though it should not have to be rigidly bound by them. There may be relevant factors to be taken into account which were not available to the Nominating Committee.'

The General Secretary explained that this proposal had already been discussed at a meeting of the Executive Committee a year ago and that it had not been approved unanimously, as it was felt that the adhering countries should have more influence on the composition of the small nominating committee.

Consequently the Executive Committee wished to submit to the General Assembly not the original proposal but a new proposal, which had been unanimously agreed upon by the Executive Committee. The first two paragraphs of this new proposal read as follows:

'A Nominating Committee is to be formed to consider and to make recommendations about the membership of the Executive Committee for the period following the next General Assembly. This Committee is to consist of the President of the I.A.U., the immediate past President and one retiring member of the Executive Committee to be nominated by the Executive Committee, and in addition four other members, who are not members of the Executive Committee, to be appointed by the I.A.U. Nominating Committee.

This Committee is to be appointed within one year following each General Assembly, regard being paid to the representation of different countries, so that not more than one member of the Committee should belong to any one country.'

The last two paragraphs of the original proposal remain unchanged.

This amended proposal was then unanimously approved by the General Assembly.

The President then announced that the Executive Committee had followed the original proposal of the special committee in order to prepare the list of candidates for the new Executive Committee. The advisory committee consisted of: Prof. A. Danjon, as President of the I.A.U., Prof. O. Struve as the immediate past President, Prof. P. Swings as a retiring member of the Executive Committee, and of Dr A. McKellar and Prof. V. A. Ambartsumian as two members who were not members of the Executive Committee.

The proposals made by this special committee had been studied and discussed by the Executive Committee at its meeting in Moscow and, as a result, the Executive Committee submitted to the General Assembly the following names as candidates for the new Executive Committee:

President:

J. H. Oort Vice-Presidents: L. GOLDBERG O. HECKMANN

B. V. Kukarkin R. M. Petrie B. Sternberk R. H. Stoy

General Secretary: D. H. SADLER

The President remarked that the election of the new Executive Committee would take place during the final meeting of the General Assembly. He asked the President of the Nominating Committee to appoint at its meeting in Moscow four members of the Union, who are not members of the Executive Committee, to partake in the work of the special nominating committee for the new members of the Executive Committee.

The General Assembly then appointed the Finance Committee, after the General Secretary had read the names of the persons proposed by the National Committees of all adhering countries. The Finance Committee appointed by the Assembly was the following, Prof. CH. FEHRENBACH having been nominated President:

	· ·		
Argentina	R. Jaschek	` Israel	G. Racah
Australia	B. J. Bok	Italy	L. Rosino
Austria	J. Hopmann	Japan	M. Miyadi
Belgium	H. L. Vanderlinden	Lebanon	G. Contino
Bulgaria	N. Boneff	Mexico	Mrs Paris Pishmish de
Canada	J. L. Locke		Recillas
Chile	F. Rutllant	Netherlands	J. Houtgast
China	Chang-Yu-Che	Norway	H. S. Jelstrup
Czechoslovakia	B. Sternberk	Poland	S. Piotrowski
Denmark	E. Hertzsprung	Portugal	A. P. Botelheiro
Egypt	M. K. M. Aly	Roumania	G. Demetrescu
Eire	M. J. Smyth	South Africa	W. S. Finsen
Finland	G. Järnefelt	Spain	R. Carrasco
France	Ch. Fehrenbach	Sweden	C. Schalén
Germany	J. Larink	Switzerland	M. Golay
Great Britain	A. Hunter	U.S.A.	F. K. Edmondson
Greece	No representative	U.S.S.R.	E. K. Kharadze
Hungary	Mrs J. Balázs	Vatican City State	No representative
India	M. K. V. Bappu	Venezuela	No representative
		Yugoslavia	L. Randic

The General Secretary explained to the Assembly that he had experienced some difficulties with the finances of the Union. The income of the Union consists of two parts, the first from the subscriptions by the adhering countries giving a fixed annual income and the second from the subventions of U.N.E.S.C.O., which is decided upon every year and which therefore may change from year to year. The financial resolutions approved by the Finance Committee at a General Assembly did not therefore represent a real budget for the term of three years after the General Assembly, as the annual and special subventions approved by the Finance Committee usually could not cover more than 60% or 70% of the total income of the Union. The expenditure of the remaining part of the income was therefore more or less left to the discretion of the General Secretary. In order to avoid this position the General Secretary had proposed to the Executive Committee, and to the Finance Committee, that the Finance Committee should prepare a budget about equal to the fixed

income from the subscriptions of the adhering countries and that a special advisory finance committee be appointed, consisting of three or four persons who are well acquainted with the financial problems of the Union, to assist the General Secretary and the Executive Committee in allocating the annual subvention from U.N.E.S.C.O. The Executive Committee had approved this suggestion and the Finance Committee would accordingly be requested to appoint the special advisory finance committee.

Then the President announced that the items 8, 9, 10, 11 and 12 of the agenda would be

discussed in the second meeting of the General Assembly.

There remained the discussion of the resolutions submitted by National Committees of Astronomy and by Presidents of Standing Commissions. The President suggested that the three resolutions by National Committees of Astronomy, namely 13a, 13b and 13c should first be submitted to Commissions 4, 28 and 9 respectively and that the resolutions mentioned under item 14 of the agenda should first be discussed in the Commissions concerned. This was agreed.

The meeting was then adjourned.

Meeting of 20 August 1958, 15.00, in the Assembly Hall of Moscow University

The Executive Committee had prepared the following unofficial agenda for this second session of the Assembly:

1. Advisory Finance Committee.

2. Special Nominating Committee for the Executive Committee.

3. Nomination of General Members.

- 4. Non-financial Resolutions.
- 5. Transformations and formations of Commissions.

6. Membership of Commissions.

7. New Presidents of Commissions.

8. Representatives of the I.A.U. in C.S.A.G.I.

9. Presidency of the Joint Commission on Solar and Terrestrial Relationships.

10. Report by the Finance Committee.

11. Unit of Subscription.

12. Budget.

13. The Place of the Eleventh General Assembly.

14. Communication by the General Secretary.

- 15. Election of a new President, of six Vice-Presidents and of the General Secretary.
- 16. Address by the new President.
- 17. Address by the retiring President.
- 18. Address by Prof. van de Kamp.
- 19. Address on behalf of the ladies by Mrs Swings.

The President opened the meeting and spoke a few words of welcome to Prof. Stratton, who had not been present at the first meeting of the Assembly. As Prof. Stratton was one of the founders of the Union and as he never missed any of the General Assemblies, the President invited him to take a seat on the platform with the members of the Executive Committee.

The General Secretary then read two cables which had been received from Prof. J. Baillaud and Prof. Cowling.

The President asked the Secretary to read the names of the persons who were selected by the Finance Committee to serve on the Advisory Finance Committee. These names are: V. A. AMBARTSUMIAN, B. LINDBLAD, P. TH. OOSTERHOFF and F. J. M. STRATTON.

Concerning the Special Nominating Committee for the selection of new members of the Executive Committee, the task of the (ordinary) Nominating Committee was to appoint on this new committee four members not belonging to the Executive Committee. As it could not be foreseen which of the two retiring vice-presidents, Prof. HECKMANN and

Prof. Kukarkin, would be appointed by the future Executive Committee to act on the Special Nominating Committee, the (ordinary) nominating committee had to take into account both possibilities. The Special Nominating Committee for the selection of members of the Executive Committee will thus have either of the two following compositions:

(a) J. H. Oort(b) J. H. OortA. DanjonA. DanjonO. HeckmannB. V. KukarkinG. M. ClemenceG. M. ClemenceA. A. MikhailovY. ÖhmanA. D. ThackerayA. D. ThackerayF. ZagarF. Zagar.

The General Secretary then reported on the meeting of the Nominating Committee concerning the election of new general members. As the list of new general members, approved by the Executive Committee, was too long to be read at the meeting, the General Secretary promised that it would be included in the next I.A.U. circular.

With respect to the non-financial resolutions, the President explained that there were too many to be read at the meeting, but mimeographed copies of the resolutions had been distributed before the meeting. The President therefore asked the meeting to have confidence in the commissions, which had prepared the resolutions and recommendations, and suggested to the General Assembly that the resolutions be approved *en bloc*.

Failing any comments, all resolutions were approved.

The President asked the General Secretary to read to the meeting a summary of all the changes in the constitution of the commissions of the Union, which had been decided upon by the Assembly in adopting the resolutions of the commissions.

The General Secretary announced that:

the name of Commission 8 has been changed to: Commission de l'Astronomie de Position; the new Sub-Commission 9b has replaced the old Sub-Commission 25b;

the name of Commission to has been changed to: Commission de l'Activité Solaire;

Commission II has been discontinued and Sub-Commission II a has become Sub-Commission IO a with the name: Sous-Commission de Cinématographie des Phénomènes Solaires;

the name of Commission 12 has been changed to: Commission de la Radiation et de la Structure de l'Atmosphère Solaire;

Commission 13 has been discontinued and has become Sub-Commission 12a;

Sub-Commission 14b has replaced the old Sub-Commission 29b with the new name: Sous-Commission des Spectres Moléculaires d'Intérêt Astronomique;

Sub-Commission 16a has been discontinued;

the old Sub-Commission 22b has been discontinued and a new Sub-Commission 22b has been formed with the name: Sous-Commission pour Normaliser la Terminologie et les Notations concernant les Météores;

Sub-Commission 25 a has been incorporated into Commission 25;

the name of Sub-Commission 27b has been changed to: Sous-Commission des Etoiles Variables dans les Amas;

Sub-Commission 27c has replaced the old Sub-Commission 29a;

a new Sub-Commission 28a has been formed with the name: Sous-Commission des Nuages de Magellan;

the new Commission 29 on Stellar Spectra has replaced the former Commissions 29 and 36; the new Sub-Commission 29a has replaced the old Sub-Commission 36b;

the new Sub-Commission 29b has replaced the old Sub-Commission 36a;

Commission 32 has been discontinued and has been replaced by the new Sub-Commission 33¢;

a new Commission 43 has been established with the name: Commission de la Magnéto-hydrodynamique et de la Physique des Gaz Ionisés.

As many members of the Union may be rather disappointed that they have not been proposed for nomination as a member of one or more commissions, the President asked the President of the Nominating Committee to say a few words about the general policy which had been followed by the Nominating Committee.

Prof. MINNAERT explained that the Nominating Commission had followed the new rules adopted at the Dublin General Assembly, which are as follows:

r. The election of members of the Union takes place every three years. Twelve months before the General Assembly adhering organizations will be asked to submit proposed changes in membership. The closing date for such proposals will be nine months before the Assembly. If no reply has been received by the closing date it will be assumed that the organization in question is not proposing any changes as far as its nationals are concerned. Proposals for new members must be accompanied by a statement of the reasons, a list of works, complete initials and address of the member proposed and all other details concerning the member proposed which may be of use for the Nominating Committee and the General Secretary. Presidents of Commissions can also send in proposals concerning persons whom they would like to see appointed as general members. Such proposals should be made within the same time limits as stated, and be accompanied by the same information concerning the persons proposed. These latter proposals will be sent by the General Secretary for advice to the Adhering Organizations from the countries to which the proposed persons belong. If no reply is received before six months before the General Assembly it will be assumed that the National Organizations agree with the proposals.

The criteria for eligibility to membership of the Union will be as rigid as those that were applied previously for the election of members of Commissions.

2. Twelve months before the General Assembly the General Secretary will ask the Presidents of Commissions for suggestions concerning changes in the membership of their Commissions. The closing date for such suggestions will be nine months before the Assembly. Adhering Organizations will not be asked to send proposals for membership of commissions. If they wish to make specific suggestions they should approach the Presidents of Commissions concerned, before the closing date. The President will forward such proposals with his comment to the General Secretary. The General Secretary will send all suggestions received to the Nominating Committee, which will have to advise the Executive Committee concerning these proposals. Commissions can co-opt new members between General Assemblies as before. In order not to undo the work of the Nominating Committee and of Adhering Organizations such co-options should, however, be restricted to a minimum.

At the General Assembly the nominating committee should be concerned only with (a) settling cases of disagreement between Presidents of Commissions and Adhering Organizations; (b) considering any individual case expressly remitted to it by the Executive. Late nominations or deletions should not be considered and it should be an instruction to the Chairman from the Executive that any such should be ruled out of order.

3. In order to reduce the membership of Commissions it is desirable to suggest that in general astronomers should not belong to more than three different Commissions. Exception to this general principle should, however, be permitted, and the restriction should not apply to Sub-Commissions. In general a given institution should not have more than one member of its staff on a given Commission. But here again, exceptions should be made in special cases.

Presidents of Commissions should be urged to restrict as much as possible new nominations in their Commissions.

As a rule, newly proposed members of the Union should not be nominated directly as members of Commissions.

- 4. Not later than four months before a General Assembly Adhering Organizations may submit to the General Secretary proposals to have astronomers who are not yet members of the Union invited to attend the General Assembly. The reasons for such proposals should be given. The scientists in question may then be invited by the President of the Union to attend the General Assembly.
- 5. No reference to membership of Commissions will be given in the alphabetical list of members prepared by the General Secretary after the General Assembly.

Prof. Minnaert emphasized that general membership would in future be the really important matter. According to the decision taken in Dublin that membership of commissions should be drastically reduced, only a much smaller number of members could be nominated to the commissions.

Although the reduction in the membership of the commissions had not been made as strict as had been foreseen by the Executive Committee, namely that commissions should be considered as small working groups only, the proposals by the Nominating Committee for membership in commissions had nevertheless resulted in the omission of a considerable number of former commission members.

Prof. Minnaert also emphasized that general members would have the opportunity of contributing to the work of the commissions. Any member of the Union could communicate with the Presidents, or with members of commissions, in time for the Presidents to include the resulting information in the *Draft Reports*. The Nominating Committee had arranged with the General Secretary that an announcement to this effect will be made in a circular to be sent to all members of the Union.

The President then thanked Prof. Minnaert, and also the Nominating Committee, for the excellent work they had done in carrying out their difficult task. He then submitted the proposals from the Nominating Committee concerning membership of standing commissions (previously circulated in mimeographed form) to the General Assembly, which approved them.

As it is a rule that presidents of commissions should not remain in office more than two terms of three years, several presidents were due to resign at the present meeting; the General Secretary read the names proposed by the Executive Committee to serve as new presidents of the following commissions:

Commission 3: M. F. SUBBOTIN	Commission 27: P. Th. Oosterhoff
Commission 4: W. FRICKE	Commission 28: N. U. MAYALL
Commission 8: F. P. Scott	Commission 29: O. Struve*
Commission 10: A. B. SEVERNY	Commission 30: CH. FEHRENBACH
Commission 12: L. Goldberg	Commission 34: L. Spitzer
Commission 14: G. Herzberg	Commission 35: M. Schwarzschild
Commission 15: K. Wurm	Commission 37: H. HAFFNER
Commission 16: A. Dollfus	Commission 40: J. F. Denisse
Commission 17: K. Koziel	Commission 41: P. G. Kulikovsky
Commission 22: V. V. FEDYNSKY	Commission 43: H. Alfvén
Commission 26: P. VAN DE KAMP	

\* Subsequent to the meeting Prof. Struve informed the Executive Committee that he was unable to accept the presidency, and the Executive Committee appointed Dr L. H. Aller in his stead.

This list was unanimously approved by the General Assembly.

Concerning the new Commission 43 on Magneto-hydrodynamics and the Physics of Ionized Gases, it was stated that the Nominating Committee had not the opportunity of deciding on the membership of this Commission during its meetings and that the Executive Committee therefore proposed to nominate the following as members of this Commission: H. W. Babcock, Chandrasekhar, Cowling, Ledoux, Shklovsky and Spitzer. These members would be considered as a working group to start the task of the commission and they would have the right to extend the membership if necessary.

The General Assembly agreed with this proposal by the Executive Committee.

The General Secretary then announced that as Prof. Y. Öhman had decided to resign, the Executive Committee had appointed Dr M. A. Ellison as the official representative of the I.A.U. for solar observations in the terminating committee of the International Geophysical Year.

Further the General Secretary announced that the Joint Commission on Solar and Terrestrial Relationships had appointed Dr C. W. Allen as President to replace Dr L. D'AZAMBUJA who had indicated his wish to resign.

The President asked Dr Fehrenbach, President of the Finance Committee, to read the report of this committee.

'En accord avec les statuts (Section 4, no. 8) le Comité des Finances présente un rapport séparé des comptes des années 1955, 1956 et 1957 ainsi que les estimations des dépenses pour 1959, 1960 et 1961.

Le rapport suivant de la sous-commission qui a examiné les comptes a été adopté à

l'unanimité des membres présents de la Commission réunie en séance plénière:

"We have examined the account of income and expenditures for the years 1955, 1956 and 1957 in conjunction with the auditor's certificates and with the books and vouchers made available to us. We are fully satisfied that they represent a true and correct account of the operations of the Union during this period. We approve the action of the Executive Committee in placing some of the current balances in certain savings accounts, which pay interest. We appreciate the continued support given by U.N.E.S.C.O., and especially the encouragement given us by Sir Harold Spencer Jones, General Secretary of I.C.S.U., and Dr R. Fraser, Administrative Secretary of I.C.S.U.

The accounts have again been audited professionally and this has greatly simplified our work.

We wish to record our appreciation of the able administration of the accounts of the Union by the General Secretary.

(Signed) F. K. Edmondson (Chairman) Ch. Fehrenbach M. Golay, E. Kharadze"

'La Commission propose à l'unanimité la nomination des conseillers financiers suivants qui ont tous accepté cette charge: V. A. Ambartsumian, B. Lindblad, P. Th. Oosterhoff, F. J. M. Stratton.

La Commission propose à l'Assemblée Générale:

1. Que les subventions suivantes soient allouées pour la période s'écoulant du 1er janvier 1959 au 31 décembre 1961:

(a) Subventions annuelles		Dollars	Francs-or
Bureau de l'Union (salaires, fournitures de bureau, timbres, circul	aires, etc.)	4000	12247
Commission 5 (Astronomical News Letters)	•••	2000	6124
Commission 6 (Bureau des Télégrammes)	•••	523	1600
Commission 10 (Cartes héliographiques de la Photosphère)	•••	327	1000
Commission II (Cartes synoptiques de la Chromosphère solaire)	•••	882	2700
Commission 20 (Centre des petites Planètes à Cincinnati)	•••	750	2296
Commission 29 (Bibliographie des observations spectroscopiqu	es)	1500	4593
Commission 38 (Echange des Astronomes)	•••	6000	18371
		15982	48931
(b) Subsides (uniques, spéciaus	x)	Dollars	Francs-or
Commission 23 (Carte du Ciel)		8000	24495
Commission 24 (Catalogue des étoiles de l'hémisphère Nord qui	présen-		
tent des mouvements propres supérieurs à 0°2)	•••	1000	3062
Commission 26 (Catalogue général des étoiles doubles découver	tes par		
Jonckheere)	•••	2000	6124
Commission 27 (Version anglaise des Remarques à la seconde l	Edition		
du Catalogue Général des Etoiles variables)	• • •	500	1531
Commission 42 (Rassemblement des données relatives aux époq	ues des		
minima des binaires à éclipses)	•••	650	1990
		12150	27202
		12150	37202

2. Que l'Unité de cotisation pour les années 1959, 1960 et 1961 reste fixée à 500 francs-or. (Signed) Ch. Fehrenbach'

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

With regard to the budget for the years 1959, 1960 and 1961 it should be remarked that the Finance Committee followed the suggestion of the Executive Committee that the total amount of this budget should not exceed the fixed income of the Union from the subscriptions of the adhering countries.

The President announced that some financial resolutions submitted by commissions to the Finance Committee could not be taken into account by the Finance Committee, as they depended on the future general policy of the Union. The fact that these resolutions were not mentioned in the report of the Finance Committee did not mean that they had been refused. The Executive Committee would try to find another solution for these financial proposals.

The General Secretary mentioned that the Executive Committee had decided to follow a suggestion by the Finance Committee to put a further sum of \$10,000 into a savings account.

The President thanked the Finance Committee and its President, Dr Fehrenbach, for the important and useful work which they had accomplished.

At the request of the President, Prof. GOLDBERG then read the following letter to him from the National Research Council of the National Academy of Sciences in Washington, containing the invitation to the I.A.U. to hold its next General Assembly in 1961 in the U.S.A.:

'In accordance with the unanimous wish of the Governing Board of the National Academy of Sciences—National Research Council, I am happy to authorize you, in your dual capacity as Chairman of the United States National Committee for the International Astronomical Union and chairman of our delegation to the tenth General Assembly of the Union, to extend a cordial invitation to the Union to hold its eleventh General Assembly in the United States in 1961. The Academy—Research Council, which adheres to the Union on behalf of the astronomers of the United States, will be greatly honored to serve as host and to welcome to our country as individuals all participants qualified under the statutes of the Union.

You may wish to advise the tenth General Assembly that arrangements will be in the hands of the United States National Committee, which will have the full support of the American Astronomical Society. The committee will be pleased to develop plans for the eleventh General Assembly in close co-operation with the officers of the Union.

(Signed) D. W. Bronk'

The invitation was unanimously accepted.

The President then said:

'Par ses applaudissements l'Assemblée Générale a manifesté sa reconnaissance au Comité National des Etats-Unis et à l'Académie Nationale des Sciences de Washington. Je prie le Dr Goldberg de transmettre ces remerciements à son Comité National et à l'Académie et de leur dire combien nous serons heureux de visiter les magnifiques observatoires des Etats-Unis.

Je crois devoir informer l'Assemblée que le Comité Exécutif a reçu, pour 1964, une invitation formelle du Sénat de la ville de Hambourg, et que d'autres invitations ont été faites, dont certaines il y a plusieurs années déjà. En premier lieu par la Belgique, puis par la Pologne, l'Afrique du Sud, l'Egypte, la République Argentine et l'Australie. Il appartiendra à la XIe Assemblée Générale de statuer sur toutes ces demandes qui sont mentionnées ici pour mémoire.'

The President then asked the General Secretary to address the meeting. The General Secretary said:

'As this is the last meeting of the General Assembly at which I am General Secretary, I wish to say a few words and I am glad that the President has given me the opportunity to speak to you.

There have been moments during the past six years when I wished that someone else be responsible for all the work of the Union, because often very little time remained for my own research and as I would like to attend meetings of commissions and symposia during assemblies again.

On the other hand my task has been very interesting and I must confess that the Union has grown dear to me. Therefore I am glad that I will be able to continue to serve the Union in the next three years as a member of the Executive Committee in an advisory capacity and as President of one of its standing commissions.

On former occasions I have already expressed my appreciation for the pleasant cooperation with Prof. Lindblad and Prof. Strömgren during the year preceding the Rome Assembly and I will not easily forget the three following years when I worked with Prof. Otto Struve.

Today I want to say in front of all of you that I am very grateful to Prof. Danjon.

'En dépit de ma connaissance plutôt limitée de la langue française, ce fut un travail facile de travailler avec vous, Prof. Danjon. Pratiquement nous avons toujours été d'accord quand il s'agissait de prendre d'importantes décisions et ce me fut toujours un plaisir de discuter avec vous les problèmes de l'Union. Pendant ces trois années où nous avons travaillé ensemble, j'ai senti grandir en moi un profond sentiment d'amitié.'

During this last term of three years my task has been very much lightened by the efficient assistance of Miss Splinter who made herself indispensable by being my memory.

I am also grateful to Mr Sadler who has helped us in many matters before this assembly and I hope that he will find the secretariat in reasonable order, now that he will take over my task.

Finally I want to say how grateful I am for the splendid co-operation with my Soviet colleagues and their staff in preparing the assembly which has now nearly come to an end. I would like to mention many names here, but I am afraid that the list would become too long. In thanking Prof. Kulikovsky, I convey my feelings of gratitude to all who have helped me in making this congress a success.'

The President then brought before the meeting the election of the new Executive Committee. At the first meeting of the General Assembly the names of the candidates proposed by the Executive Committee as members of the new Executive Committee were submitted to the General Assembly. As no other proposals were received, the President proposed the following persons as members of the Executive Committee for the next term of three years:

President: Vice-Presidents:

J. H. Oort L. Goldberg

O. HECKMANN
B. V. KUKARKIN
R. M. PETRIE
B. STERNBERK

R. H. Stoy

General Secretary: D. H. SADLER

These proposals were approved by acclamation.

Prof. Oort then addressed the meeting as follows:

'In accepting the Presidency of the International Astronomical Union I want, in the first place, to thank the members of the General Assembly for their confidence in electing me as President. I must confess that I do not wholly share your confidence: I dread the position of captain on so large a ship as the I.A.U. has become. It is true that I have learned to know some of the navigational problems at a time when I was chief officer in the same company, but since that period the ship has been extended to such formidable dimensions that great professional skill and experience are required to handle it properly and to ensure that it can continue to fulfill its first and foremost task. This task is to

furnish a place where astronomers from all countries can have a happy inspiring trip together, on which they can form ties of lasting friendship. The real dangers that loom before us are *not* storms or typhoons, but rather that the ship will break under its own weight.

Personally I have a feeling that the all-embracing congresses may to some extent have outlived themselves and that in a foreseeable future we may partly have to split up into smaller conferences. Whether or not it will be possible to do so within the framework of the present statutes, whether we can tie up our huge steamer somewhere in a quiet harbour and sail out merrily on a number of yachts and on these recover the carefree life that the older ones among us used to enjoy at the small I.A.U. meetings of the past, is a matter for the Executive Committee to consider.

In the face of the tragedies that always anew appear to develop between countries on this Earth all of us during these days have derived comfort from the very friendly atmosphere in which this encounter between several worlds has taken place. Let us remember all our lives the perfect way in which political differences and competition among nations could be forgotten when we were jointly absorbed in finding the best way of attack on our common problems.

The beginning of my Presidency in the world of the Soviet Union, which has received us with such wonderfully warm hospitality, and the prospect of completing it after three years' time in that other world, the United States of America, appears to me like a symbol of the link that unites astronomers the world over, without regard to national or political frontiers. I hope fervently that we shall be able to keep this link intact for ever.

I am very fully aware that the task of the President of the I.A.U. carries a great responsibility. I would certainly shrink from it were it not for the fact that the President does not stand alone. Like my predecessor I shall have the great fortune to have the real direction of the affairs in the hands of a man who is an exceptionally able astronomer as well as organizer.

It is also a comfort to know that others have faced the same, or more difficult, problems before me. Not only have they all come through, but they have succeeded in making the I.A.U. the most active and flourishing of all existing scientific unions. I hope I may count on their advice whenever serious difficulties may arise. In particular I know that I can build on the advice of the past President who will remain a member of the Executive Committee in an advisory capacity.

These days we have all witnessed the graceful manner in which he has led this huge general assembly. In your name I should like to thank him for all the thought and care he has given to this task. Most of you have seen only the outward brilliance, but some of us know how deeply he has worried when difficult problems presented themselves, and how well he has solved them.

M. Danjon, je suis particulièrement heureux que ce soit vous qui me passiez le marteau présidentiel de l'Union Astronomique Internationale. J'ai une grande admiration pour la façon dont après la guerre vous avez reconstruit l'astronomie en France. En vous regardant on pourrait vous croire impatient. C'est tout le contraire. C'est largement grâce à votre grande patience, qui ne vous a jamais permis d'accepter que le parfait, et à votre faculté de reconnaître les hommes de valeur et de leur donner les moyens d'exécuter des travaux importants, que l'astronomie s'est développée en France d'une manière si imposante. C'est grâce à ce sens de la perfection que vous avez su mettre au point ce magnifique astrolabe à prisme qui semble ouvrir une nouvelle ère pour l'astronomie fondamentale. Pendant la durée de votre terme de présidence de l'U.A.I. vous nous avez fait profiter de tous ces talents. J'espère que je pourrai en profiter encore pendant les trois ans qui viennent.

C'est au nom des membres de notre Union que j'exprime la plus profonde reconnaissance pour tout ce que vous avez fait pour elle.

I conclude with the ardent wish that it will be possible in the next few years to extend still further the international co-operation which has always been one of the great assets of the science of astronomy.'

The President then spoke the following words:

'La partie administrative de notre Xe Assemblée Générale étant terminée, il reste à prononcer les remerciements d'usage. Ce n'est pas une simple formalité. Cette Assemblée aura connu un succès sans précédent et elle laissera dans toutes les mémoires un souvenir ineffaçable. Nous avons le devoir de remercier nos hôtes, en leur disant combien nous

avons apprécié leur accueil magnifique au sens classique du mot.

La réception au Kremlin m'a donné l'occasion d'exprimer notre gratitude au Gouvernement et à l'Académie des Sciences de l'Union Soviétique. Je voudrais m'adresser plus spécialement aujourd'hui au Comité d'Organisation, à son président le Prof. Ambartsumian, à son vice-président le Prof. Kulikovsky, à qui incombait la tâche écrasante d'organiser une Assemblée Générale de près d'un millier de membres. Ils y ont travaillé pendant des mois, et nous avons apprécié hautement le succès de leur entreprise. Nous avons trouvé à Moscou d'excellentes conditions de travail, l'agréable étant joint à l'utile. Le climat de cette Assemblée Générale, la bonne entente des astronomes de l'Est et de l'Ouest, la volonté de maintenir les relations amicales qui se sont nouées à Moscou sont la meilleure récompense de nos hôtes.

En quittant la Présidence, je tiens à exprimer ma reconnaissance à tous les membres du Comité Exécutif, pour la part qu'ils ont prise aux affaires intérieures et extérieures de l'Union et pour l'appui constant qu'ils m'ont apporté. Nous avons travaillé en plein accord, il n'y a jamais eu de dissentiments entre nous, et notre unique souci a été la pros-

périté de l'Union au profit de l'Astronomie.

C'est avec le Prof. Oosterhoff, Secrétaire Général, que j'ai eu les rapports les plus fréquents. Je ne puis assez dire combien ces rapports ont été confiants et cordiaux. Le Prof. Oosterhoff a été un Secrétaire Général modèle. Il a sacrifié une partie de son activité scientifique au bénéfice de l'Union. Il a accompli une tâche très lourde, et nous lui en devons tous une grande reconnaissance. Personnellement, ces trois années de travail en commun me laissent un souvenir inoubliable. Je tiens à remercier aussi Mlle Splinter pour l'activité et l'intelligence dont elle a fait preuve comme Secrétaire de l'Union.

Je tiens à remercier aussi en votre nom les traducteurs désignés lors de notre première séance et ceux qui ont assuré la traduction des résolutions: M. Denisse, M. Delhaye,

Mrs Gossner et le Dr Pagel.

Je voudrais enfin remercier l'Union toute entière du grand honneur qu'elle m'a fait en m'appelant à sa Présidence, et de la confiance qu'elle m'a témoignée. Je sais depuis longtemps de quel prestige jouit l'Union Astronomique Internationale et quel rôle elle joue dans le développement de la Science. Je me suis efforcé d'écarter les obstacles qui, de temps à autre, se sont placés en travers de notre route. Si j'ai pu y parvenir autant qu'il était possible, c'est parce que la confiance que l'Union mettait en son président lui donnait

l'autorité indispensable. Du profond de mon cœur je vous en remercie.

L'amitié qui me lie à mon successeur, le professeur Oort, m'inciterait à lui dire publiquement toute l'admiration que j'ai pour lui, si je ne craignais de blesser sa modestie. Son œuvre constitue l'une des assises fondamentales de l'astronomie galactique. A 30 ans de distance, il a su se renouveler, lorsque après avoir appliqué les méthodes statistiques à l'étude de la Galaxie, il a pu mettre à profit les méthodes nouvelles de la radio-astronomie. Il a donné ainsi un témoignage de sa jeunesse intellectuelle et de l'universalité de son esprit. L'Union a choisi un bon pilote, parfaitement informé de son fonctionnement et de ses intérêts par une longue pratique des fonctions de Secrétaire Général.

Je suis heureux que le dernier acte de ma fonction soit la transmission de mes pouvoirs

à mon excellent ami le Prof. Oort.'

The President asked Prof. VAN DE KAMP to say a few words of thanks to our hosts. Prof. van de Kamp said:

'Mesdames, Messieurs, Mes chers collègues!

La fin de notre assemblée à Moscou approche rapidement. Permettez-moi donc d'adresser quelques mots à nos hôtes et à tous ceux qui ont contribué au succès de notre travail.

Nous avons appris beaucoup en astronomie, mais en plus nous avons fait la connaissance du peuple russe, qui nous a accueillis avec autant de chaleur que d'amitié. Nous savons combien il est difficile de recevoir plus de mille hôtes, qui ne parlent pas du tout la langue russe. Grâce à l'organisation géniale et à la bonne volonté de la nombreuse équipe — les gentilles interprètes, les agents de l'Intourist et beaucoup d'autres — tout a fonctionné à merveille. Nous vous remercions de tout notre cœur.

# Dear Friends and Colleagues!

At the close of the tenth General Assembly of the International Astronomical Union it gives me great pleasure to speak on behalf of my astronomical colleagues from all over the globe, and to address our hosts.

The past eight days have witnessed ardent activity of commissions and symposia, and of the countless small, often spontaneous, associations of individuals concerned with problems of common interest. Our discussions and deliberations took place under ideal circumstances, thanks to the careful and thoughtful preparations and activities of many groups and individuals.

Our sincere thanks are expressed to the following:

To the Government of the Union of Soviet Socialist Republics for their thorough and most generous support which facilitated the coming of many of us, for providing the opportunity to visit Leningrad, and for their reception in the splendor of the Kremlin.

To the State Symphony Orchestra of the Armenian S.S.R., its conductor Muluntsian and soloists for their spirited musical overture to the tenth General Assembly, and

to the unseen musical performers in the upper recesses of the Kremlin for their heart-warming music of all nations, from Viennese waltz to boogie-woogie.

To the various Embassies who invited their national delegations and other guests.

To the Academy of Sciences of the U.S.S.R., its President Academician Nesmeianov and Vice-President Academician Topchiev.

To the Organizing Committee and its President Academician Ambartsumian and Vice-President Kulikovsky, and

to the U.S.S.R. National Committee of the International Astronomical Union and its President Academician Mikhailov and Vice-President Kukarkin, whose combined work has resulted in the excellent arrangements made for us.

A special word of thanks to retiring General Secretary Oosterhoff and Miss Splinter.

To director Mikhailov and the staff of the Pulkovo Observatory and to director Martynov and the staff of the Sternberg Institute. It was an exciting experience for most of us who visited these well-known observatories for the first time.

To Deputy Vice-Chairman Kosygin of the Council of Ministers of the U.S.S.R. who welcomed us at the ceremonial opening and to Deputy Vice-Chairman Koslov of the Council of Ministers of the U.S.S.R. who received us in the Kremlin.

To Pro-rector Professor Vovchenko of Moscow University, this unique institution of higher learning, whose spacious rooms and halls formed an ideal setting for this assembly.

And to the many others, too many to mention individually, the scientists and students, whose cordiality and sincerity touched us deeply, to the helpful interpreters and guides, the staff of Hotel Ukraina, not to forget the bus despatcher and the bus drivers.

It is impossible to enumerate the many sightseeing tours to museums, parks, etc., which in a delightful manner supplemented and interfered with our formal astronomical activities. Thank you for providing these unusual opportunities to see with our own eyes the treasures, the beauty and the social accomplishments of Russia.

The past eight days provided an overwhelming experience beyond the realm of astronomy, not ever to be erased from our memory. The walks along the spacious streets of this beautiful city, the friendliness of the Russian people, the numerous street acquaintances, the spontaneous handshakes and friendships shall not be forgotten.

These extra-curricular activities will long remain in our minds and hearts. Highlights for me personally include the superb artistry of the puppet show and no matter what the

weather, the unforgettable symbol of Moscow, the indescribably beautiful St Basil cathedral.

We thank you all, dear friends, for your wonderful hospitality, which played an important part in bringing us closer together. We hope to visit you again and, dear friends, fervently look forward to your visits to our respective countries.'

Дорогие и уважаемые коллеги!

Разрешите мне сказать несколько слов от имени ваших иностранных гостей и, в первую очередь, от имени группы американских астрономов, членом которой я являюсь. Происходивший здесь в течение этих нескольких дней обмен мнений снова показал объединяющую силу нашей науки — астрономии. Мы, астрономы, знаем, что ключь к тайнам вселенной может быть найден только на пути медленного и глубокого ее изучения. Происходившие здесь дискуссии представляют собою часть этого процесса разгадки загадок вселенной.

Я хочу выразить глубокую благодарность за превосходую организацию конгресса всем нашим русским коллегам....

Мы прощаемся сегодня с твердой уверенностью в том, что все мы будем продолжать гордо и радостно трудиться на поприще нашей великой науки — астрономии. До свидания, дорогие друзья.

On behalf of the ladies, Mrs Swings addressed the meeting as follows:

'Monsieur le Président, Mesdames, Messieurs,

Pour nous, femmes d'astronomes, les Congrès de l'U.A.I. constituent des événements marquants dans notre vie. Ils nous permettent de revoir périodiquement de nombreux amis et amies, de faire connaissance avec les nouveaux collègues de nos maris et avec leurs épouses, de créer de nouveaux liens d'amitié. Pour beaucoup d'entre nous ces congrès marquent des étapes: la période entre Zurich et Rome, entre Rome et Dublin, entre Dublin et Moscou.

Quant à moi, j'ai eu le privilège d'être présente aux six derniers congrès de l'U.A.I., depuis celui de Paris en 1935. Peut-être cette assiduité me confère-t-elle aujourd'hui un droit spécial de parler au nom de mes compagnes?

A chacun de ces six congrès, nous avons rencontré la même cordiale serviabilité de la part du Comité Organisateur et de la part du Comité des Dames. Mais le nombre d'épouses a continuellement augmenté, au même rythme que celui des maris. Il y a plus de 180 épouses étrangères et à peu près 80 épouses soviétiques. Nous pouvons imaginer aisément l'immense somme de travail que nous avons causée aux organisateurs de ce splendide Congrès de Moscou.

Ces Dames du Comité se sont donné beaucoup de peine pour nous rendre notre séjour ici aussi heureux que possible. On nous a fait faire des excursions et des visites extrêmement intéressantes. On nous a reçues avec une exquise gentillesse. Vraiment ces Dames du Comité nous ont toutes choyées et gâtées. Nos journées n'ont été qu'une succession d'activités éminemment agréables.

Certes, nous garderons de notre passage à Moscou, et aussi, pour certaines d'entre nous, de nos journées à Leningrad, un souvenir inoubliable.

Dans très peu de temps, nous allons nous trouver dispersées aux quatre coins de la terre. Mais notre vie se trouvera enrichie: nos vieilles amitiés se seront raffermies, de nouvelles se seront créées; nous aurons vécu à Moscou une expérience magnifique; une nouvelle étape de notre vie se sera préparée.

Tout cela, mes chères compagnes, nous le devons au Comité Organisateur et avant tout, au Comité des Dames. Que les membres de ces deux Comités, et particulièrement nos compagnes soviétiques, recoivent l'expression de toute notre gratitude.'

The President then closed the meeting.