

INTERNATIONAL ASTRONOMICAL UNION

Twenty-ninth meeting of the Executive Committee

Prague, Czechoslovakia

Sunday 20 to Tuesday 29 August 1967

PROCEEDINGS

The twenty-ninth meeting of the Executive Committee of the International Astronomical Union convened in Prague, Czechoslovakia, from 20 to 29 August 1967. The meetings were held at the Faculty of Law in Prague within the programme of the XIIIth General Assembly of the Union. Sessions were held as follows :

Sunday 20 August	: 9.00 - 12.00	14.00 - 18.00
Monday 21 August	: 9.00 - 12.00	14.00 - 18.00
Sunday 27 August	:	20.30 - 23.00
Tuesday 29 August	:	17.30 - 23.00

Present were : P. Swings (President); W.N. Christiansen, Y. Hagihara, G. Haro, W. Fricke, M. Schwarzschild, A.B. Severniz (Vice-Presidents); J.-C. Pecker (General Secretary); L. Perek (Assistant General Secretary); V.A. Ambarcumjan (Former President) and D.H. Sadler (Former General Secretary) as advisers. Present at the sessions on 27 and 29 August were also O. Heckmann (President elect) and C. de Jager (Assistant General Secretary elect). A. Jappel was present as Assistant Secretary.

Introductory note : The report has been prepared in the order of the items overleaf in the summary list of the agenda.

The documents related to the agenda and distributed before the meetings have not been included in the present report: they will be kept in the archives of the Union together with the report. These documents include : the report of the Special Nominating Committee, the application of Columbia for admission, the list of proposed new Members of the IAU, proposals 1 to 14 of resolutions, various letters by IAU Members concerning one or the other item of the agenda, etc.

A G E N D A

1. Opening by the President.

Internal matters of administrative nature.

2. Administration

Report of the Special Nominating Committee.

3. Report by the General Secretary.

a) Administration

b) Finances

c) Arrangements for the General Assembly

4. Consideration of the Agenda for the first session of the General Assembly.

5. Consideration of special meetings to be held during the General Assembly.

Brief for the meeting of representatives of Adhering Countries.

Brief for the meeting of Presidents of Commissions.

I.A.U. Membership

6. Admission of new Adhering Countries.

a) Columbia

b) Iran, Algeria

7. Election of new Members of the Union.

Resolutions

8. Resolutions of financial nature.

a) The universal unit of metric system (Executive Committee).

b) The Palomar Sky Atlas, to be repeated on I-N plates.

c) Comité National Belge d'Astronomie propose que soit examinée la possibilité, pour les éditeurs des publications astronomiques, de joindre à celles-ci des fiches de format normalisé donnant pour chaque article, en plus de la référence bibliographique, un très court résumé du sujet traité.

d) Etant donné certains résultats obtenus en Belgique dans le domaine des marées terrestres le Comité National Belge d'Astronomie propose l'examen du problème soulevé par la détermination des termes de nutation à courte période.

- e) The National Committee of Astronomy of the German Democratic Republic recommends to pass a resolution on the creation, within the IAU, of a Commission on Relativistic Astrophysics and Cosmology (see hereafter point 9).
- f) Dr F. Graham Smith wishes to have discussed by Commission 5 a resolution on the list of astronomical journals in existence (implications: he is against new journals of a "commercial" nature).
- g) Resolution (by the Directing Board of the BIH) on the BIH pole of rotation.
- h) Resolution (by the US Space Board) on satellite reflector systems.
- i) Resolution on the unit of time and epochs (to be presented by Commissions 4, 31 and 19).

Commissions

9. Changes in Commissions

- a) Creation of new Commissions.
- b) Rearrangement of functions and subjects of some Commissions.
- c) Dissolution of Commissions.

10. Nomination of Presidents and Vice-Presidents of Commissions.

11. Approval of the Organizing Committees for Commissions.

IAU Finances

12. Financial Accounts and Budget.

- a) Approval of budget in general terms;
 - i) Modified supplementary budget for 1967;
 - ii) Budget for the years 1968, 1969 and 1970.
- b) Approval of individual projects proposed by Commissions.
- c) Formal approval of "Financial Authority to the General Secretary".

13. Proposed unit of contribution, for consideration by the Finance Committee.

- a) rise in unit.
- b) membership fees.
- c) additional funds.

Future administrative problems of the IAU

14. The transfer of the Administrative Office to Prague.
Questions relative to staff, contracts, banking accounts in Czechoslovakia.
15. Future publication policy (recommendations to the new Executive Committee).
 - a) Transactions of the XIIIth General Assembly. The arrangement into volumes of the Transactions.
 - b) Proceedings of IAU Symposia. Possibility of new contracts.
 - c) Has the IAU publication policy to be more drastically changed?
16. Future Policy
Discussion of the changes proposed by the General Secretary.
17. XIVth General Assembly
Date and place.
18. Consideration of the future Special Nominating Committee
Prior to its discussion by the Nominating Committee and by the new Executive Committee, according to rules.

Scientific activity of the IAU

19. Scientific meetings
 - a) Symposia
 - i) Symposia to be held after the General Assembly in 1967.
 - ii) Symposia proposed for 1968.
 - iii) Symposia proposed by other organizations, with invitation to the IAU to participate.
 - iv) Symposia in future years.
 - b) Colloquia
 - i) Colloquium on the Final Stages of Stellar Evolution.
 - ii) Fourth colloquium on variable stars, Budapest - 1968 -
 - iii) Financial provisions for symposia and colloquia in the years 1968 through 1970.
20. Specific projects

Relations with other organizations

21. Relationships with the International Council of Scientific Unions.
 a) Situation after the ICSU Executive Committee meeting in Monaco, 1966.
 b) Appointment of IAU representative on ICSU Executive Committee.
 Recommendation.
22. Representation.
 a) Interunion Commissions and Committees (minus COSPAR) IUCAF, IUCST, IUCSTP, CODATA, ICSU A.B.
 b) COSPAR
 c) FAGS
 d) Others: CCIR, CCDS.
23. Problems of Solar-Terrestrial Disciplines.
 a) Constitution of IUCSTP.
 b) Desirability of a Solar-Terrestrial Service.
24. Problems of Space Disciplines.
 a) Relations with COSPAR.
 b) COSPAR Symposia.
 c) The project Able (report by the President, in the name of the Working Group appointed by correspondence).
 d) The 18th International Astronautical Congress.
25. Desirability of a new interdisciplinary commission on cosmical chemistry (proposal of Dr Cameron).

Last session of the meeting of the Executive Committee.

Summary of previous discussions and new agenda as follows:

26. Resolutions adopted by Commissions, and not adopted by the Resolution Committee for submission to the General Assembly.
27. Any other business.
28. Closing by the President.

Prior to the opening, Professor Sternberk welcomed the Executive Committee, its President and members, to Prague and wished them much success in their work.

The General Secretary announced that Draft Reports had reached all members of the Executive Committee, except Professor Christiansen; a spare copy was placed at his disposal.

1. Opening by the President, P. Swings.

The President opened the meeting with a word of thanks to the Czechoslovak hosts, especially to the Local Organizing Committee. He welcomed the members of the Executive Committee as well as the advisers, and expressed his satisfaction over the full attendance. Then he passed to the agenda.

Internal matters of administrative nature.

2. Administration

Report of the Special Nominating Committee, as read by the President.

The Special Nominating Committee had unanimously recommended that the following nominations be made by the Executive Committee for consideration by the General Assembly

as President	:	Prof. O. Heckmann (German Federal Republic)
as Vice-Presidents for the period 1967-1973	:	Prof. V. Bappu (India) Prof. L. Gratton (Italy) Prof. J. Sahade (Argentina)
as Vice-President for the period 1967-1970	:	Prof. W.N. Christiansen (Australia)
as General Secretary	:	Dr L. Perek (Czechoslovak Socialist Republic)
as Assistant General Secretary	:	Dr C. de Jager (the Netherlands)

The Executive Committee agreed unanimously to put these names to the vote of the General Assembly.

Thus, the full Executive Committee for the period 1967-1970 would consist of the above seven together with:

Continuing Vice-Presidents	Prof. M. Schwarzschild (U.S.A.) Prof. A.B. Severny (U.S.S.R.)
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In an advisory capacity :

Former President : Prof. P. Swings

Former General Secretary: Prof. J.-C. Pecker

It was also suggested that it would be essential to give financial aid to the Assistant General Secretary, and that arrangements to this purpose should be made in the Statutes.

3. Report by the General Secretary

a) Administration

The General Secretary emphasized the difficulties encountered in the administration of the IAU during the past three years due, mainly, to insufficient funds. The material expenses increased, the Union has no equipment, the two machines (typewriter and Thermofax) it owns are outdated and inefficient. For financial reasons, Mlle Caseneuve had to be given notice as on 1 January 1967. She continued to work for the IAU, but her salary was paid by the Observatoire de Nice; Mlle Drouin was paid by the French Government; the Secretary of the President was working for the IAU in Liège, and Mrs Dankova and Jakubcova worked for the IAU in Prague without drawing any salary. Further difficulties in the administration were caused by the change in the person of the Assistant Secretary.

It was recognized that these conditions were regrettable and recommended to improve the situation by securing for the employees of the Union salaries of international level.

b) Finances

The General Secretary outlined, in general terms, the critical financial situation of the Union. It resulted from the fact that the payments over the three years under report were larger than foreseen in the budget; thus the Union will have to have recourse to its reserves. Responsible for this development is the growth of the Union, while its resources are stationary and not in proportion to the number of Members. As for more details the General Secretary referred to his report published in the Draft Reports. It is imperative to overcome this difficult financial situation by raising the unit of contribution of the Adhering Organizations and/or National Committees of Astronomy to 900 gold francs, the maximum permissible according to the Statutes.

c) Arrangements for the General Assembly

It was agreed that translation of controversial parts of the General Assembly would be provided for, as usual, by official interpreters. The Local Organizing Committee provided for simultaneous translation of the whole General Assembly. Dr Houziaux and Dr Demarque were elected to interpret English into French, and Dr Reeves and Dr Kandel were to interpret French into English.

It also was suggested that the Committee of Resolutions should be made up of Professors Bok, Oort, D.H. Sadler and Prof. A.B. Severnij subject to their approval. The General Secretary and Assistant General Secretary would be members ex officio (with no vote).

It was recommended that words of thanks at the closing of the General Assembly should be by Mme Couder, for the ladies, and by David S. Evans, for the gentlemen.

Further it was agreed that short addresses during the Closing Dinner should be pronounced by Mrs Dr Massevic, Prof. Fricke, Dr de Greiff, Dr Piksin The, Dr Gingerich, Dr Boury, Dr Delache.

It was resolved that the Executive Committee should be represented as follows at the events associated to the General Assembly:

- a) Inauguration of the two-metre telescope at Ondrejov - by the President, Prof. P. Swings.
- b) Exhibition of Astronomical Instruments - by Dr Rösch, who is to read a message by the President, Prof. P. Swings.
- c) Exhibition of History of Astronomy - by Prof. Rybka, who is to read a message by the President, Prof. P. Swings.

As to the Joint Discussions it was resolved that they should be introduced by the presidents of the organizing committees.

The introduction of the Invited Discourses should be done by Prof. Swings (for Prof. Mikhailov), Prof. Schwarzschild (for Prof. Ledoux) and Prof. Haro (for Dr Sandage and Sir Martin Ryle).

4. Consideration of the Agenda for the first session of the General Assembly.

a) The General Secretary announced that the Agenda of the General Assembly could not be circulated to the Adhering Organizations and/or National Committees four months prior to the General Assembly. Hence it would be necessary to have the Agenda formally approved by a simple majority of votes.

b) It will be necessary to ask the Assembly whether any changes in or additions to the Agenda will be proposed.

5. Consideration of Special meetings to be held during the General Assembly.

It was agreed, as previously planned, that the briefing session of Presidents of Commissions should be held before the Inaugural Ceremony on Tuesday, 22 August, and that of the representatives of Adhering Organizations at Jevany Saturday, 26 August. Discussed were the topics to be dealt with at these meetings, such as economy, interdisciplinary co-operation, financial problems, distribution of IAU Publications, Consulting Members, etc.

x pronounced by

I.A.U. Membership6. Admission of New Adhering Countries

It was unanimously agreed to accept Colombia as a new member country of the Union.

The President announced with regret the withdrawal of Lebanon from the Union.

7. Election of new Members of the Union

The General Secretary presented to the Executive Committee the List of proposed new Members of the Union and explained in more detail how it had been compiled. It was resolved to pass this list to the Nominating Committee for comment before giving final approval. The Executive Committee agreed that the General Secretary could propose to the Nominating Committee the name of Prof. Lambrecht as president of the latter, if requested to do so.

Resolutions

8. The proposals of resolutions discussed for submission to the General Assembly were as follows (numbers are provisional) :

Resolution n° 1 on the metric system - proposed by the Executive Committee.

Resolution n° 2 on bibliographic cards - proposed by the National Committee of Belgium.

Resolution n° 3 on the terms of short-period mutations - proposed by the National Committee of Belgium.

Resolution n° 4 on a New Commission of relativistic astrophysics and Cosmology - proposed by the National Committee of the GDR.

Resolution n° 5 on Bibliography and programme notes for eclipsing binaries - proposed by Commission 42.

Resolution n° 6 on the Eclipsing Binary Circulars - proposed by Commission 42.

Resolution n° 7 on the Third Colloquium on Variable Stars - proposed by Commission 42.

Resolution n° 8 on the U.S.S.R. catalogues of variable stars - proposed by the National Committee of the USSR.

Resolution n° 9 on the repetition of the Palomar Sky Atlas on DE plates - Proposed by Commission 29

Resolution n° 10 on the Cartes Synoptiques - proposed by Commission 10

Resolution n° 11 on the Cartes Héliographiques - proposed by Commission 10.

Resolution n° 12 on a list of existing astronomical magazines - proposed
by H.G. Smith, Commission 5

Resolution n° 13 on the BIH pole of rotation - proposed by Commissions 19 + 31

Resolution n° 14 on satellite reflector systems - proposed by the Executive
Committee.

The proposal to create a commission on relativistic astrophysics and cosmology was withdrawn during the interval between the two sessions of the General Assembly by the National Committee of the GDR.

The remaining 13 proposals, together with new ones submitted later and examined by the Resolution Committee were taken into consideration, and - some of them partly reformulated - passed to the vote of the General Assembly (see report of the General Assembly).

Commissions

9. Changes in Commissions

a) Creation of new Commissions

The proposal by the National Committee of the German Democratic Republic to create a new Commission on Relativistic Astrophysics and Cosmology was withdrawn. No other proposals as to the formation of new Commissions was received.

b) Rearrangement of functions and subjects of some Commissions

It was unanimously approved that Commissions nos 23 and 24 (that is Carte du Ciel, and Stellar Parallaxes and Proper Motions, respectively) should merge into a single Commission in not too distant future.

It was also unanimously agreed, on the proposal of Professor Cowling, that the name of Commission 43 should henceforward be "Astrophysical Plasmas and Magnetohydrodynamics".

c) Dissolution of Commissions

No proposal was submitted in this respect.

10. Nomination of Presidents and Vice-Presidents of Commissions

The General Secretary presented a list of preliminary nominations to be discussed with the Presidents designate and confirmed by the Executive Committee for submission to the General Assembly. The definitive list of Presidents and Vice-Presidents of Commissions, as approved by the General Assembly, would be published in the Proceedings of the General Assembly.

11. Approval of the Organizing Committees for Commissions

The General Secretary presented a list giving the preliminary composition of the Organizing Committees of Commissions. This list, with minor changes, was unanimously approved by the Executive Committee. It was resolved that the names of the members of the individual Organizing Committees should be put on slides and projected during the General Assembly prior to voting.

IAU Finances

12. Financial Accounts and Budget

a) Approval of Budget

The Executive Committee approved the report of the General Secretary on IAU Finances, as circulated with circular letter nº 276, and resolved that this report, together with the accounts for the period 1964-1967, should be passed to the Finance Committee.

The General Secretary and the Assistant General Secretary then jointly submitted to the Executive Committee the following financial estimates of the budget 1967 and of the budget 1968-1970 together with financial estimates in respect of publications.

Financial Estimates of the Budget 1967

(Revision - August 1967)

(all sums in US Dollars)

Income		Expenditure	
1. Subscriptions	35 000	1. Administrative Office	10 000
2. Sales of Publications)	11 000	2. Subscription to ICSU	500
3. (Forfaitory subscription to IAU publications)	0	3. Commissions	0
4. Interests	3 000	4. Specific projects of Commissions	12 000
5. UNESCO subvention	14 000	5. General Assembly	16 500
6. (UNESCO contracts)	X	6. IAU Publications	60 600
7. (Other receipts)	?	7. Executive Committee	0
		8. Organization of symposia	4 500
		9. Publication for symposia not by IAU	0
		10. Interunion Commissions	2 000
		11. Representation expenses	0
		12. Specific projects of the Executive Committee	2 000
		13. (UNESCO contracts)	<u>X+1 000</u>
	<u>63 000</u>		
8. ICSU loan	<u>10 000</u>		
	73 000	Total	<u>109 100</u>

Financial Estimates in respect of Publications

		(Revision - 15 August 1967)		
		(All sums in U.S. Dollars)		
		Receipts	Payments	Balance (excess of expenditure)
1967	Transactions XII A B C	4 000	4 600	
	Draft Reports (XIII A)	0	18 000	
	Symposia 24 to 26	7 000	8 000	
	Symposia 27 to 31 (minus 29)	0	28 000	
	Information Bulletins	0	2 000	
		<u>11 000</u>	<u>60 600</u>	+ 49 600
1968	Transactions XIII A B C	5 500	12 300	
	Highlights of Astronomy	400	700	
	Symposia 24 to 26	0	0	
	Symposia 27 to 31 (minus 29)	9 200	0	
	Symposia 32 to 35	1 600	2 800	
	Information Bulletins	0	2 000	+ 1 100
1969	Symposia 36 to 38	1 200	2 100	
	Information Bulletins	0	2 000	
	Highlights of Astronomy	300	0	
	Transactions XIII B C	800	0	
	Symposia 32 to 35	<u>1 200</u>	<u>0</u>	+ 600
1970	Symposia 36 to 38	900	0	
	Symposia 39 to 42	1 200	2 100	
	Information Bulletins	0	2 000	
	Agenda and Draft Reports			
	if largely free	(sales in 1971)	((27 300))	+ ((29 300))
	if restrictedly free		13 700	+ 15 700
		<u>22 300</u>	<u>39 700</u>	+ 17 400
			((53 300))	+ ((31 000))

(1) The parentheses correspond to the case of continuation of the present policy for distribution of Draft Reports.

(2) These estimates have been made from past experience, but unknown factors (wage increases, taxes, need for airmail postage, etc, ...) can always unexpectedly occur.

These three estimates were approved unanimously and it was resolved to pass them to the Finance Committee with the recommendation to propose to the General Assembly an increase from 600 to 900 gold francs in the unit of contribution paid by the Adhering Organizations.

In the discussion of the estimates in respect of publication, the General Secretary read a letter by Dr Thomas asking for lower prices of IAU publications and recommending the services of non-profit publishing organizations. The Executive Committee sympathized with Dr Thomas' views, but felt that, in the given conditions, it would be unrealistic to deviate from the new publication policy adopted (see further down). However, it was recognized that the possibilities suggested by Dr Thomas should be investigated. It was thus resolved to recommend to the future Executive Committee that it should authorize Dr Thomas to carry out such an investigation (in consultation with other Members) and to report his results.

b) Approval of individual projects proposed by Commissions

The following table shows the specific projects as suggested by individual Commissions, the grants requested, and the allocations eventually agreed upon to be suggested for consideration by the Finance Committee :

Commission no.	Project	Sum requested	Sum proposed by Finance Committee
5	Bibliography of Astronomy	?	0
6	IAU Telegram Bureau	2 000 +	1 500
10	Cartes héliographiques de la photosphère (3x1000 gold francs)	980	0
10	Cartes synoptiques de la chromosphère (3x2700 gold francs)	2 646	0
16	Centre de documentation sur les planètes	2 000	1 300
20	Minor Planets Center	1 500 (?)	1 200
23	Carte du Ciel	2 000	0
27	Catalogue of Variable Stars	5 000)	0
		3 000)	
27	Southern Variable Stars	1 000	0
29	Information Bulletin of the Southern Hemisphere	3 000	1 800
37	Card Catalogue of Clusters and Associations (§ 1 500 allocated in 1967)	0	0
38	Exchange of Astronomers	24 000	24 000
42	Bibliography and program notes for eclipsing binaries	225	200
			<hr/>
			\$30 000

It was felt that such publications as the Cartes Synoptiques, Cartes Héliographiques, Carte du Ciel, Catalogue of Variable Stars and Southern Variable Stars should follow the example of other IAU publications and not be distributed free of charge.

c) Formal approval of "Financial Authority to the General Secretary"

The Executive Committee resolved unanimously that it should be recommended to the new Executive Committee formally to approve the financial authority of the new General Secretary, as set forth in the document distributed and kept in the archives of the Union, and especially to transfer on him the responsibility for the banking accounts of the Union.

The General Secretary informed the Executive Committee that he had authorized the Assistant General Secretary to open a new account of the Union in Prague, and that this account has now been opened. This step was unanimously approved.

13. Proposed unit of contribution

The General Secretary moved that, owing to the critical financial situation of the Union, as shown in more detail in his financial report, it should be suggested to the Finance Committee to submit to the vote of the General Assembly the proposal to raise the unit of contribution from 600 to 900 gold francs. This motion was unanimously supported.

It was felt premature to discuss the possibility of increasing the resources of the Union by introducing membership fees pending the decision of the General Assembly on this point.

The General Secretary then reported of the President's and his joint appeal for funds from national and other institutions, and of the rather discouraging results achieved. The Executive Committee heard this report with regret.

The Executive Committee resolved to ask the General Secretary to propose, if requested to do so, to the Finance Committee Professor McCrea for election as its Chairman.

Future administrative problems of the IAU

14. The transfer of the Administrative Office to Prague.

The Assistant General Secretary reported that the future address of the IAU Secretariat would be : Jilska 1, Praha 1. The premisses of the office would be paid for by the Czechoslovak Academy of Sciences, so that, as to material expenses, the Union would only have to pay for stationery, postage, telephone and other minor items. The staff of the office will consist of the Assistant Secretary and a secretarial employee who will

also have to do the major part of typing. If this should prove insufficient another employee would have to be added. The Assistant General Secretary also emphasized that the proposed budget has no provision for financial aid to the future Assistant General Secretary. The contract with the Assistant Secretary would have to be continued, and new contracts would have to be entered into with the other staff members.

15. Future publication policy

The General Secretary referred to the report on publications given in the Draft Reports and emphasized that the present difficulties are mainly due to the ever increasing prices of printing, the overly generous distribution policy of the Union and to the unfavourable contract with the present publishers. Remedies were sought by limiting free distribution and attempting to modify the contract with the publishers. Eventually, other publishing houses had to be contacted. Out of the seven publishers with whom informal discussions had been started, the two to offer acceptable conditions were Ceuterick of Belgium and Reidel of Netherlands.

The word was then given to the Assistant General Secretary who outlined the future publication policy, as follows :

- i) The present contract with Academic Press would be discontinued
- ii) Transactions XIII A would be published by the new publisher, who would order the necessary copies from Willmer Brothers, the printers, who have in hands the composition of the present Draft Reports, which actually is the page proofs of XIII A. The Union will only buy such copies of Transactions XIII A as needed for free distribution.
- iii) Transactions XIII B, the so called Proceedings, whose free distribution to Members is statutory, would be condensed to the necessary minimum giving only the report of the meetings of the General Assembly. The production of this volume would be paid for by the Union.
- iv) Transactions XIII C would be paid for by the Union, but would only contain the list of Commissions and the alphabetic list of IAU Members.

The future Draft Reports would not be distributed free of charge. The Union would have to pay for the composition, as it would need about 50 to 100 copies of both Draft Reports and Transactions A for free distribution. Members would be given the possibility of buying from the publisher direct the reports they would be interested in the form of reprints.

The IAU Symposia would be published entirely to the risk of the publishers. This series would also comprize the scientific part of the General Assembly. The Union would buy such copies, as needed for free distribution.

Further details, as to royalties, reduced prices for Members, statements of sales, etc, ..., would be part of the contract with the publisher.

The Executive Committee approved this new publication policy, and resolved to recommend it to the new Executive Committee for adoption.

Controversial were the views as to the choice of the future publishers of the Union. Those favouring Ceuterick emphasized his high reputation and the fact that his interests were not centered on astronomical literature. Those in favour of Reidel, on the other hand, held that ~~his~~ being engaged in astronomical literature provides a means for better publicity. The fact that ~~he~~ he already co-operated with the future Assistant General Secretary, was felt to be an advantage to some, a disadvantage to others.

After a lengthy discussion it was unanimously resolved to authorize the future General Secretary to decide the problem after consultation with the future Assistant General Secretary. The objections against Reidel were withdrawn; however, any future contract should only extend over three years in view of the possibility that Dr Thomas might succeed in finding cheaper publishers.

16. Future Policy

The General Secretary read to the Executive Committee a paper giving an analysis of the present state of the Union, and outlining the changes which may become necessary in its future policy. Such changes may imply an extension of the interval between General Assemblies, a limitation of the number of participants in them, the organization of specialized symposia by more commissions interested, the introduction of new units of contribution and, eventually, a reformulation of the Statutes.

In the discussion which ensued each member of the Executive Committee commented in turn on this report. The views heard may be summed up as follows :

The IAU is still one of the best of all Unions, and therefore no radical changes are necessary. It will be sufficient to adapt its structure, step by step, to its growth. The problems the Union faces are those encountered by every scientific organization: the need for specialization and the need for generalization **at the same time** . Thus the structure of the Union should be maintained, but the number of those participating in scientific meetings restricted. Democracy should be strengthened in Commissions, and young astronomers should be encouraged to participate in their work. This applies especially to the nomination of new Presidents of Commissions: they should be elected by a larger body and not designated by the retreating President. The same applies to the choice of Vice-Presidents and members of the Organizing Committees. A classification is possible within the Union according to field, that is according to planetary, stellar and extragalactic astronomy, on the one hand, and according to whether the activity of the Commission in question has a prevailing scientific or organizational character. But how to implement this without a break ?

It was resolved to recommend to the future Executive Committee not to accept any other invitation, and to make its choice between Australia and Poland.

Professor Swings remarked, in this connection, that the long standing invitation of Belgium to hold a General Assembly there is still open.

18. Consideration of the future Special Nominating Committee

Asked about the procedure, D.H. Sadler informed the Executive Committee that the suggestions as to the composition of the future Special Nominating Committee could be made by the General Secretary upon advice of the Executive Committee, if requested to do so by the Nominating Committee.

Accordingly, the General Secretary proposed after final nomination by the Nominating Committee to put to the vote of the General Assembly the following four combinations of names:

For the case of the appointment of Mr Christiansen by the new Executive Committee, the following names were proposed:
M. Golay; L. Goldberg; E.R. Mustel; D.H. Sadler.

For the case of the appointment of Mr Perek by the new Executive Committee, the following names were proposed :
L. Goldberg; B.Y. Mills; E.R. Mustel; D.H. Sadler.

For the case of the appointment of Mr Schwarzschild by the new Executive Committee, the following names were proposed :
H. Hirose; B.Y. Mills; E.R. Mustel; D.H. Sadler.

For the case of the appointment of Mr Severny by the new Executive Committee, the following names were proposed :
L. Goldberg; H. Hirose; B.Y. Mills; D.H. Sadler.

This was unanimously approved.

Scientific Activity of the IAU

19. Scientific meetings

a) Symposia.

The Assistant General Secretary first gave a brief report on the Symposia held since the last meeting of the Executive Committee. He then gave a progress report on the Symposia n^o 33, 34 and 35, which would be organized immediately after the General Assembly.

The following proposals for Symposia to be held in 1968 were approved:

The O, Of, and Wolf-Rayet Stars, Utrecht, July 1968

Organizing Committee: E. Bappu (Chairman)

G.A. Gurzadjan

J. Sahade

A.B. Underhill

O.C. Wilson

Sum allocated : \$ 1000 (maximum \$ 1500).

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For the case of the appointment of Mr Perek by the new Executive Committee, the following names were proposed :
L. Goldberg; B.Y. Mills; E.R. Mustel; D.H. Sadler.

For the case of the appointment of Mr Schwarzschild by the new Executive Committee, the following names were proposed :
H. Hirose; B.Y. Mills; E.R. Mustel; D.H. Sadler.

For the case of the appointment of Mr Severny by the new Executive Committee, the following names were proposed :
L. Goldberg; H. Hirose; B.Y. Mills; D.H. Sadler.

This was unanimously approved.

Scientific Activity of the IAU

19. Scientific meetings

a) Symposia.

The Assistant General Secretary first gave a brief report on the Symposia held since the last meeting of the Executive Committee. He then gave a progress report on the Symposia n° 33, 34 and 35, which would be organized immediately after the General Assembly.

The following proposals for Symposia to be held in 1968 were approved:

The O, Of, and Wolf-Rayet Stars, Utrecht, July 1968

Organizing Committee: B. Bappu (Chairman)

G.A. Gurzadjan

J. Sahade

A.B. Underhill

O.C. Wilson

Sum allocated : \$ 1000 (maximum \$ 1500).

Solar Flares, organized by COSPAR and cosponsored by IAU, IUGG, URSI, Tokyo, Japan, May 9 to 11, 1968. The IAU will be represented by Michard and Severny. The Executive Committee felt that the name should be changed in such a way as to show that it is the implications for space research of the solar flares which are the topic of the Symposium. The Executive Committee regrets that no financial support could be given to that Symposium.

Solar Magnetic Fields. Cancelled.

X-Ray Astronomy was deferred to the new Executive Committee.

Cosmical Gas Dynamics to be held in summer 1969. The proposal with the topic will be put before the Executive Committee meeting in the summer of 1968.

Extragalactic Research proposed by R. Minkowski to be held immediately before or after the XIVth General Assembly. The Executive Committee approved in principle but expressed the feeling that the topic should be more specified because the entire field is too broad for a Symposium.

b) Colloquia

The Assistant General Secretary reported briefly of the past Colloquia: Colloquium on Spectroscopy (Bombay, January 1967), Colloquium on Zodiacal Light and Interplanetary Medium (Honolulu, January 1967), Space Spectroscopy (Evanston, Illinois, May 1967).

The Colloquium on n-body problem was held in Paris prior to the General Assembly but no report was received before the meeting of the Executive Committee.

The Colloquium on the Use of Computers for Analytical Developments was to be held during the General Assembly. It will be reported upon at the next meeting of the Executive Committee.

No other Colloquia were planned at the moment.

The Assistant General Secretary reported briefly of the past "other meetings". The IAU participation in future meetings was decided as follows:

Physics of the Magnetosphere, planned by the IAGA and IUCSTP to be held in Washington in 1968. The IAU will not cosponsor the meeting, but only express its wishes for a successful meeting.

Astronautical Congress. The IAU will be represented by Dr Monfils.

Publication of Symposia. No 29 will not be published in English version, because the Russian edition will be available to all those interested. The English edition would come out too late for attaining a reasonably wide market. An advance copy of No 31 reached the General Secretary during the General Assembly. The manuscript of No 32 is expected to reach the IAU office within a few weeks.

20. Specific projects

This subject has been dealt with under point 12 b) of the present report.

Relations with other organizations

21. Relationships with International Council of Scientific Unions

The General Secretary reviewed briefly the situation in ICSU during and after the meeting of its Executive Committee in Monaco, 1966. He emphasized the reluctance of ICSU to take "political" responsibilities, and criticized this attitude (with reference, for example, to the case of project Westford), since this organism is the only one capable to speak in the name of science. The finances of ICSU are steady, but show a tendency to decline. The increasing number of international unions and the stationary^x of ICSU will naturally result in a lowering of the allowances this body may attribute to the IAU. Approaches for a rise were attempted, but without success.

It was felt that the IAU should take a lead in ICSU and persuade also other Unions of the soundness of its views.

As to the representation, it was unanimously resolved to recommend the future General Assistant Secretary as representative of IAU on the Executive Committee of ICSU.

22. Representation

It was unanimously resolved to recommend to the Future Executive Committee the following list of IAU representatives in the different international bodies affiliated to ICSU, and others:

1. International Council of Scientific Unions (ICSU): The future General Secretary, Dr. L. Perek, was proposed to represent the Union on the Executive Committee of the ICSU.
2. ICSU organisms : The following were proposed to represent the Union in the different Special and Scientific Committees, Committees, or Inter-Union Commissions set up under the auspices of the ICSU, in cooperation with other International Scientific Unions.
 - a) Committee on Space Research (COSPAR) : L. Gratton.
 - b) Special Committee for the International Years of the Quiet Sun (IQSY) : G. Righini (Vice-President), R. Michard (reporter for "solar activity").
 - c) Comité International de Géophysique (CIG) : G. Righini (Vice-President), R. Michard.
 - d) Federation of Astronomical and Geophysical Services (FAGS) : D.H. Sadler (Vice-President), B. Guinot.
 - e) Inter-Union Commission on Frequency Allocations for Radio-astronomy and Space Science (IUCAF) : J.-F. Denisse, V.A. Sanamian, F.G. Smith (Chairman), O. Hachenberg.

^x income

- f) Inter-Union Commission on Solar-Terrestrial Physics (IUCSTP):
Z. Svestka.
- g) Inter-Union Commission on Spectroscopy: B. Edlen, M.V. Migeotte,
J.G. Phillips, M.J. Seaton.
- h) Commission Inter-Union sur l'Enseignement des Sciences (CIES-
IUCST) : E.A. Miller.
- i) ICSU Abstracting Board (IAB) : J. Kleczek, J.B. Sykes.
- j) Committee for Data on Science and Technology (CODATA):
Ch. Moore-Sitterly.

3. Other Organizations:

The Union should be represented in the following further organizations:

- a) La Fondation Internationale du Pic-du-Midi, by A. Lallemand.
- b) Le Comité Consultatif pour la Définition de la Seconde (CCDS)
du Bureau International des Poids et Mesures, by W. Markowitz,
H.M. Smith.
- c) Le Comité Consultatif pour la Définition du Mètre du Bureau
International des Poids et Mesures, by Ch. Moore-Sitterly,
A.M. Cook.
- d) CCIR : H.M. Smith.
- e) Different Services of FAGS, that is in :
 - Bureau International de l'Heure (BIH), by H.M. Smith, F. Zagar.
 - International Polar Motion Service, by the Organizing Committee
of IAU Commission 19.
 - Quarterly Bulletin of Solar Activity, by the Organizing Com-
mittee of IAU Commission 12.
 - International Ursigrams and World Days Service (IUWDS)
by R. Michard.
 - Solar Particles and Radiations Monitoring Organizations
(SPARMO) by C. de Jager.

As to COSPAR it was felt that the new Executive Committee should express the desire that place should be found for new fields of scientific activity within existing organizations, and approve the present attitude of Professor Silver, President of URSI.

D.H. Sadler gave a brief report on the situation in FAGS. He emphasized that cuts seem to be indicated in the ICSU contribution to FAGS, and the latter had been encouraged to seek support from other sources than ICSU. ICSU is also reluctant to support established programmes, and favours new ones. A new permanent service had been created, that of the Fluctuation of Glaciers. It is certain that the Solar Terrestrial Service, if established, will affect FAGS. The Executive Committee of FAGS is to meet on 18 September 1967.

23. Problems of Solar-Terrestrial Disciplines

a) The new constitution of the Inter-Union Commission for Solar-Terrestrial Relations was discussed in more detail. It was felt that more emphasis should be placed on the inter-union character of this body.

b) The desirability of a Solar-Terrestrial Service was considered, and the Executive Committee expressed his unanimous view of the absence of a real need for this service.

24. The project ABLE

The President reported of the results obtained by the special working group, formed by correspondence, to investigate this problem. He noted with pleasure that the U.S. Government was no longer interested in this project. The Executive Committee drafted a resolution for submission to the General Assembly expressing the satisfaction of the IAU over the discontinuation of the project.

25. Desirability of a new interdisciplinary commission on cosnical chemistry

The General Secretary read a letter by Dr Cameron calling for the creation of an Interdisciplinary Commission of Cosnical Chemistry. The Executive Committee thinks the procedure is not proper, as the Union create interunion bodies, not the associations.

26. Resolutions adopted by Commissions, and not adopted by the Resolution Committee for submission to the General Assembly. Such proposals are covered by the blanket resolution adopted by the Executive Committee, as will be included in Volume XIII B of the Transactions.

27. Other business

The problem of the summer schools was shortly discussed. The school in Manchester was a great success. New proposals concern Arcetri (1968), JILA, Boulder, U.S.A. (1969), Edinburgh (1970). These two last proposals will have to be discussed by the next Executive Committee.

28. The 29th meeting of the Executive Committee was closed by the President. After having let the General Secretary express his own thanks to the Executive Committee, the President thanked the members of the Executive Committee for the work done and stated that the three years of his official term were very pleasant ones.