

UNION ASTRONOMIQUE INTERNATIONALE  
INTERNATIONAL ASTRONOMICAL UNION

Thirty-fifth Meeting of the Executive Committee

Pusat-Tasek, Ile d'Yeu, France

Monday 6 September to Friday 10 September 1971

P R O C E E D I N G S

The 35th meeting of the Executive Committee of the International Astronomical Union was held, upon invitation of the former General Secretary of the IAU, Professor J.-C. Pecker, in Pusat-Tasek, Ile d'Yeu, France, from 6 to 10 September 1971. As a rule, sessions started at 9,15 and ended at 17,30, except on Friday 10 September when they started at 8,45 and ended at 12,30, with lunch breaks from 12,30 - 14,00. The afternoon of Thursday 9 September was devoted to an excursion.

Present were:

B. Strömgren, President  
M.K.V. Bappu, Vice-President  
B.J. Bok, Vice-President  
L. Gratton, Vice-President  
B. Lovell, Vice-President  
E.R. Mustel, Vice-President  
J. Sahade, Vice-President  
L. Perek, former General Secretary  
C. de Jager, General Secretary  
G. Contopoulos, Assistant General Secretary  
A. Jappel, Executive Secretary  
J. Dankova, Secretary

O. Heckmann, former President and adviser of the Executive Committee, was prevented by other engagements from attending the meeting.

Introductory Note: This 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 and during the meeting, have not been included in the present report: they will be kept in the archives of the Union for further reference.

A G E N D A

- I. Opening by the President
- II. Administrative Matters
  1. Report of the 34th Meeting of the Executive Committee
  2. Approval of the Agenda
  3. Report by the General Secretary on the Administrative Office and Archives of the Union. Permanent seat of the Secretariat.
  4. Report by the President on the progress in the Special Nominating Committee
  5. Questions, if any, regarding the Working Rules
  6. Commissions
    - a) Financial aspects of Commission No. 38 - Exchange of Astronomers
    - b) Summer Schools
    - c) Working Groups
    - d) New Commission Members and Consultants
    - e) Resignations of Members
  7. General Assemblies
    - a) State of preparation for the XVth General Assembly - Report by the General Secretary; question of shorter General Assemblies
    - b) State of preparation for the Extraordinary General Assembly - Report by the General Secretary and the Assistant General Secretary
    - c) French invitation to hold the XVIth General Assembly in France
  8. Finances
    - a) Report of the General Secretary on the present financial situation of the Union and on foreseeable developments
    - b) Questions related to annual contributions
  9. Publications
    - a) Report of the Assistant General Secretary on IAU Symposium and Colloquium publications
    - b) Less expensive IAU publications - Action Thomas-Pecker
    - c) Distribution of Reports on Astronomy 1973
    - d) Transactions volume XIV B - why published in one volume
    - e) Proposed new publication scheme for volume XV B
- III. Scientific Activity
  10. Scientific Content of the XVth General Assembly
    - a) Invited Discourses
    - b) Joint Discussions
    - c) Commission Meetings
  11. Invited Discourses at the Extraordinary General Assembly
  12. a) IAU Symposia and Colloquia - Report by the Assistant General Secretary
    - b) Question of regional colloquia sponsored by IAU - Report by the Assistant General Secretary
    - c) Format of Symposia - Report by the General Secretary
  13. Other Scientific Meetings - Report by the Assistant General Secretary

14. Special Projects - Report by the General Secretary
15. Publication of the General History of Astronomy

#### IV. Relations with other Organizations

16. ICSU - Report by the General Secretary
17. COSPAR - Report by the General Secretary
18. URSI, IUCAF, WMC, IUCSTP, MHOUSEE - Report by the General Secretary
19. Question of regional international astronomical organizations

#### V. Other Business

##### 20. Varia

- a) People's Republic of China
- b) Travel grants for XVth General Assembly
- c) Relations to Amateur Union
- d) Acquisition of photographic plates
- e) New name of Commission 42
- f) New name of Commission 15
- g) Symbol for the Astronomical Unit
- h) Discussion on UNESCO anti-apartheid policy
- i) Fellowships and endowments
- j) Travel by Officers of the IAU
- k) Report by Sahade on Venezuela

##### 21. Next meeting of the Executive Committee

- a) Invitation of young astronomers as observers
- b) Place and date

##### 22. Closing by the President

-----

#### I. Opening by the President

The President opened the meeting with a word of thanks and appreciation to the host, J.-C. Pecker, and welcomed all those present. He read a letter from the former President, C. Heckmann, who had asked to be excused for other serious engagements. He proposed to send a telegram to C. Heckmann, and letters of greetings to V.A. Ambartsumian, J.H. Cort, Th. Costerhoff, D.H. Sadler, P. Swings. This suggestion was approved.

#### II. Administrative Matters

##### 1. Report of the 34th Meeting of the Executive Committee

The report had been distributed to the Members of the Executive Committee in September 1970. No comments had been received. With this in mind the meeting unanimously approved the report of the previous Executive Committee meeting.

## 2. Approval of the Agenda

B.J. Bok suggested to reserve about two hours for free discussion of such items which do not occur on the printed Agenda. The General Secretary pointed out that such discussion is foreseen in the Agenda under point 20. - Varia. In the course of the meeting this point was elaborated to include items a) through k), as in the summary list of the Agenda. The Agenda was approved.

## 3. Report by the General Secretary on the Administrative Office and Archives of the Union. Permanent seat of the Secretariat.

In his report the General Secretary said that the live files of the Administrative Office, i.e. those for 1967 - 1970, two typewriters and a thermofax machine had been moved from Prague to Utrecht in August 1970, which made the Secretariat operative immediately after the XIVth General Assembly.

The Administrative Office is now in the building of the Space Research Laboratory of the Astronomical Institute in Utrecht. The Secretariat consists of A. Jappel, the Executive Secretary and Mrs J. Daňkova, Secretary. Miss v.d. Misspel helped with typing from 16 September 1970 to 31 January 1971. The archives of the Union are kept partly in the Uccle Observatory, Brussels, and partly in the Ondřejov Observatory of the Astronomical Institute of the Czechoslovak Academy of Sciences. The archives are apparently complete, would however require expert classification from the point of view of history rather than chronology.

The large number of IAU Symposia and Colloquia, and the meetings to be held in conjunction with the XVth General Assembly and the Extraordinary General Assembly, are a heavy burden on the Assistant General Secretary. This is best reflected by the 300 letters written by the Assistant General Secretary from 1 September 1970 to 12 July 1971, as compared with 191 letters written by the former Assistant General Secretary in the same period of his term of office. The General Secretary therefore suggested to allocate to the Assistant General Secretary a monthly amount of \$ 50,-- for secretarial help. This proposal was agreed. G. Contopoulos expressed his thanks, added however that he would first try to obtain financial help from his National Committee and then only, if he failed, contact the General Secretary.

The subject of the permanent seat of the IAU was introduced, and J.-C. Pecker was invited to present details of the renewed invitation of the Director of the Paris Observatory, Prof. R. Michard. After a lengthy discussion, in which all points in favour of and against a permanent secretariat were carefully weighed, and the conditions of the invitation duly taken into consideration, it was resolved:

1. to accept the invitation
2. to establish the permanent Secretariat of the IAU in Paris not before 1975
3. to move the complete archives of the Union to the Observatoire de Paris as soon as possible.

It was, however, observed that the Assistant General Secretary should not hesitate to re-open the matter if he felt that the permanent Secretariat in Paris could be established before 1975.

The General Secretary was authorized to contact the director of the Observatoire de Paris and to work out with him details of a long-term contract between the Observatoire de Paris and the Union.

#### 4. Report by the President on the Progress of the Special Nominating Committee

B. Strömgrön informed the meeting of the procedure followed by the Special Nominating Committee in the past year. He announced that the proposed names of the future President, General Secretary and Assistant General Secretary are already known. They will have to be contacted. In case of their positive replies the names of three vice-presidents will be established in the next round.

#### 5. Questions regarding Working Rules

It was found that the Working Rules, as accepted by the 34th meeting of the Executive Committee, need not be supplemented.

#### 6. Commissions

- a) **Financial aspects of Commission 38.** On the proposal of the General Secretary it was resolved to disregard the over-expenditure of Commission 38 (Exchange of Astronomers) in the year 1970 and to leave intact the \$ 22,000 allocated to this Commission for the years 1971 - 1973. The President of Commission 38 should be encouraged to favour young astronomers. It is felt that it would be useful to have procedural rules for allocating grants of Commission 38. The President of Commission 38 will be asked to prepare the draft of such rules, which should, among others, provide that each beneficiary has to report on the subsidized work.
- b) **Summer Schools.** The General Secretary reviewed the programme of past Summer Schools, and highly appreciated the excellent work of Dr Kleczek, Secretary of the Schools, and Prof. Edith Müller, President of Commission 46, Teaching of Astronomy. He regretted that UNESCO would no longer have

funds for similar purposes and would therefore discontinue the allocation of money necessary for organizing Summer Schools. Such schools would have to be financed by the Union itself if the necessary funds would be made available through increases in the category of adherence of Member-countries. No Summer School will be organized in 1972. If the necessary funds are available, preparations could be started for a Summer School in 1973.

The following suggestions were made:

1. \$ 4,000 should be enough to trigger preparations;
2. the programme of the Schools should follow a specific goal;
3. the countries to be considered for Summer Schools are: Indonesia, New Zealand, Czechoslovakia, Latvia, or other countries near Australia and Poland (for 1973), Venezuela.

These suggestions will be brought to the attention of Dr J. Kleczek.

- c) Working Groups. The General Secretary informed the meeting that there are 2 types of Working Groups in the Union. The first only to serve the purposes of IAU Commissions, the other going beyond the scope of the Union's activities as they also deal with matters of other Unions or Inter-Union Commissions. Only this second type of Working Groups are the concern of the Executive Committee. The only group of the second type is the IAU Working Group on Numerical Data. Dr G.A. Wilkins submitted to the Executive Committee a draft proposal for the organisation and activities of this working group, and a membership list.

These documents were carefully examined by the Executive Committee and it was agreed to recommend to Dr Wilkins to reword point 2. of the draft proposals, as follows:

" 2. The principal aims of the Group will be:

- a) to collect and publish information about the existence of files of numerical data, especially those in machine-readable form, that are relevant to the interest of the Union; and
- b) to consider ways by which the preparation of such data files and the retrieval of information from them may be carried out economically and effectively, and to offer advice on these questions to the appropriate Commissions. "

As to the membership list it was recommended to add Dr M.S. Davis, Triangle Universities Computation Centre, U.S.A., to the name of Dr B. Morando (Solar System Ephemerides, Celestial Mechanics), to replace Dr V.B. Nickenov by Mrs Dr Z. Kadla, Pulkovo Observatory, U.S.S.R. (Data Files and Information Retrieval in U.S.S.R. and Eastern

Europe) and to supplement the list of regular members by the name of F.B. Wood, University of Florida, U.S.A. (Photometric Double Stars). Consequently the names of Dr M.S. Davis and Dr F.B. Wood should be deleted from the list of alternates. Dr R. Giacconi is an expert on X-ray sources rather than Pulsars. For Pulsars the name of Dr J. Terrien was suggested. Dr H. Gursky should be added for the subject of X-ray sources, and Dr A. Gabriel should replace Dr F. Wilson for Spectroscopic data.

It was noted that the arrangements proposed by Dr Wilkins are of an ad interim character and that further developments must be expected.

In his letter to Dr Wilkins the General Secretary should advise him to leave out the numbers of Commissions in the membership list and to ask the opinions of the Commissions about the future composition of the Working Group during the next General Assembly in Australia. Dr Wilkins will be asked to submit a short report to the next meeting of the Executive Committee.

- d) New Commission Members. The Executive Committee approved the co-option of new Commission Members as follows:

Commission No. 7, Celestial Mechanics:

Dr O. Møller, Ole Rømer Observatory, Århus, Denmark

Commission No. 15, Physical Study of Comets:

Prof. C.R. O'Dell, Yerkes Observatory, Williams Bay, Wisconsin, U.S.A.

Dr A. Wesozyk, Astronomical Observatory, Torun, Poland

Commission No. 24, Photographic Astrometry:

Dr S.V.M. Clube, Royal Greenwich Observatory, U.K.

Dr A. Uggren, Wossleyan University, Middletown, Connecticut, U.S.A.

Dr A.J. Wessolink, Yale University Observatory, New Haven, Connecticut, U.S.A.

Commission No. 36, Theory of Stellar Atmospheres:

Dr P.E. Nissen, Ole Rømer Observatory, Århus, Denmark

Dr Su-Shu-Huang, Dearborn Observatory, Evanston, Ill., U.S.A.

Commission No. 42, Photometric Double Stars:

Dr K.-Y. Chen, University of Florida, Gainesville, Florida, U.S.A.

Dr Y. Kondo, Manned Space Craft Center, Houston, Texas, U.S.A.

Dr S. Kříž, Ondřejov Observatory, Czechoslovakia

Dr H. Mauder, Reineis-Sternwarte, Bamberg, F.R.G.

Dr S. Refsdal, Oslo, Hamburg, and Lincoln (Nebraska, U.S.A.)

Moreover, the Executive Committee approved the appointment of Drs G. Hill and J.E. Hutchings, Dominion Astrophysical Observatory, Victoria, Canada, as Members of Commission 42, subject to their co-option by the Organizing Committee of this Commission.

- c) Resignation of Members. The President informed the meeting that Dr A. Sandage consented to withdraw his resignation. The Executive Committee expressed its satisfaction.

On the other hand it appeared, that Dr C.J. Eggen did no longer consider himself President of Commission No.27. It was agreed that the General Secretary should clarify the situation by writing Dr Eggen a letter.

## 7. General Assemblies

- a) State of preparation for the XVth General Assembly - shorter General Assemblies.

The General Secretary reported on the progress made in the preparations for the General Assembly in Sydney, which would be held from 21 to 30 August 1973. The Preliminary Announcement is available in draft form, the Ladies Committee has been established, living accommodation is booked and preliminary negotiations are under way as regards charter flights. A preliminary programme of the Assembly has been set up. The Executive Committee agreed to have the preliminary programme and participation forms distributed to Members of the Executive Committee and Commission Presidents about two weeks earlier than to the general membership. It was found necessary to issue a daily bulletin during the General Assembly, which, however, would only bring matters of principal importance. The social programme should be less rigidly fixed to give more free time to participants. The registration fee should be kept on a level which would not discouraged participants, in particular from Eastern countries, from attending.

The General Secretary is to prepare a preliminary circular to Adhering Organizations to find out the potential participation.

The Executive Committee then discussed the General Secretary's proposal for "shorter" General Assemblies. According to this proposal a General Assembly is to consist of an administrative part of 2 days, a scientific part of 6 days, plus one free day, and the closing administrative part of one day. This arrangement would separate science from administration. The prepared arrangement would not necessarily apply to Sydney, but it should be tried out there to gain experience for the XVth General Assembly. The General Secretary was authorized to discuss this proposal with the Organizing Committee in Sydney and to report to the Executive Committee.

It will be necessary carefully to prepare the Commission Meetings (each President is to set up a programme) to avoid duplication and long lists of contributed papers. The purpose of Commission meetings is to review developments in the field of the Commission in question rather



than to deal with new scientific results. Young astronomers should be treated as senior ones and they should be given the opportunity actively to participate in the meetings. It will be useful if the members of the Sydney Organizing Committee consult with the General Secretary in Utrecht. It might become necessary for the General Secretary to inspect the preparations in Sydney. Particular attention should also be paid to slides.

Various suggestions were brought forward as regards the arrangement of Joint Discussions during the General Assembly and Symposia to be held in conjunction with it. These problems will be discussed between the (Assistant) General Secretary and the Local Organizing Committee. It would expedite matters if Dr Wood were invited to attend the next meeting of the Executive Committee in order to finalize the arrangements for the General Assembly.

b) State of preparations for the Extraordinary General Assembly.

The General Secretary read to the meeting Prof. Iwanowska's letter, in which she had agreed that the Extraordinary General Assembly would only last half a day to one day and that only five symposia would be held in conjunction with that assembly. It also had been agreed that no Joint Discussions and Commission Meetings would be held in Poland. On the other hand there will be given 3 Invited Discourses.

The Assistant General Secretary reported that the Extraordinary General Assembly would be held on 4 September 1973. The Symposia will be held from 5 to 12 September, with Sunday open. There will be no closing ceremony. The Assistant General Secretary is to discuss with Prof. Iwanowska in Poland further details, such as topics of Invited Discourses attendance at Symposia, a draft for the Preliminary Announcement, etc.

In connection with transportation of participants to the General Assembly B.J. Bok emphasized the danger of possible crashes of air-craft carrying the astronomical elite.

c) French invitation to hold the XVith General Assembly in France.

The President invited J.-C. Pecker to participate in the meeting and to present the invitation of the French National Committee. Prof. Pecker took the floor and reported that a member of the French National Committee is now investigating the cities suitable for the General Assembly. So far Grenoble, Strassbourg and Paris have been taken into consideration. The president of the Republic accepted to act as honorary Chairman of the (National Organizing) Committee. The preparations have the support of the French authorities, even as regards finances, and efforts are being made to keep the registration fee on a low level. The official proposal will be made to the General Assembly in Sydney. France is prepared to welcome any of the IAU Members without discrimination.

Asked when the preparations would start, J.-C. Pecker answered: we work already.

The Executive Committee resolved unanimously to put the French invitation on the Agenda for the XVth General Assembly.

## 8. Finances

- a) Report of the General Secretary on the present financial situation of the Union and on foreseeable developments.

In his report the General Secretary pointed out that the finances of the Union are sound so far. The year 1970 ended with a small active balance, and expenditure from 1 January to 30 June 1971 is within the budgetary limits. However, the Union will have to face financial difficulties arising from the uncertain position of the U.S. dollar and the possibility that UNESCO may discontinue its regular yearly contribution of \$ 14.000 to the Union. It was resolved to try to set up an advisory finance committee which would examine the best way of investing the IAU reserves. The following names were mentioned as potential members of this committee: F.K. Edmondson, U.S.A., L. Goldberg, U.S.A., A. Hunter, U.K., L. Spitzer, U.S.A., H.F. Weaver, U.S.A. The General Secretary is to take further steps.

- b) Questions related to annual contributions.

In his letter of 15 June 1971 the General Secretary of ICSU warned the Union of the possible financial implications of the recommendation of the 16. Conference of UNESCO and emphasized that the ICSU estimated balance in hand at the end of 1971 would not allow large subventions to be made in 1972. He therefore advised the Union to strive for more financial independence through reconsidering the amount of contributions paid by Adhering Organizations. The General Secretary pointed out that the new Statutes now permit a reconsideration of the contributions every 3 years.

In the discussion which ensued it was noted that the activity of the Union continuously increases, that inflation goes on in all countries, and that therefore the strain on IAU finances is more and more severe. It was resolved, to prepare a detailed report for the Finance Committee and to propose to the General Assembly an increase in the unit of contribution.

The General Secretary was asked to defend the position of the IAU at the forthcoming meeting of the Executive Committee of ICSU.

The problem of the apartheid policy of South Africa, which came up in this connection, was deferred until later.

## 9. Publications

- a) Report of the Assistant General Secretary on IAU Symposium and Colloquium publications.

The Executive Committee approved the report of the Assistant General Secretary on the state of publications of IAU Symposia, i.e. the proceedings of Symposia 41 through 48. The Assistant General Secretary emphasized that the new Style Book and the Rules for Scientific Meetings, as published in Transactions vol. XIV B, are now being applied to all IAU publications.

The Secretariat was requested to send to each member of the Executive Committee a Summary List of IAU Publications.

M.K.V. Bappu reported on Symposium 49 held in Argentina. It was attended by 22 participants from outside Argentina. The Symposium was particularly successful, as it adopted the new method of few invited speakers followed by discussions. The manuscript of the proceedings will be ready before December 1971.

The Executive Committee was impressed by the success of meetings with a minimum of short papers.

- b) Less expensive IAU Publications - Action Thomas-Pecker.

Dr Thomas had announced that his joint proposal with Prof. Pecker for less expensive publications would be submitted later.

Reference was made to Resolution No. 4 of the General Assembly instructing the Executive Committee to investigate the possibility of less expensive IAU publications. In the discussion that ensued various suggestions were brought forward such as: to go back to paper-backs, to mimeograph the proceedings, offset printing, to use the services of non-commercial publishing organizations, only to publish invited papers, not to publish papers which have appeared elsewhere, to find a publisher in an Eastern country, to drop the publications of Symposium proceedings and treat them as Colloquia, to reduce the size of IAU publications, etc.

It was resolved to ask Drs Thomas and Pecker to submit a proposal for less expensive IAU Publications before January 1972, and to invite proposals from printers and publishers for new contracts. The General Secretary was asked to prepare for the Executive Committee a memorandum on IAU publications.

It was noted that if a contract were to be entered with a new publisher, the contract with the present publisher would have to be terminated by notice before 1 September 1972.

c) Distribution of Reports on Astronomy 1973.

This volume will be sold, not distributed free of charge. Members will have the possibility of ordering it from the publisher and paying in cash or to add the cost of the volume to the registration fee, as part of it. The General Secretary was asked to arrange with the publisher for having the Reports on Astronomy printed

- 1) in one volume
- 2) in separate preprints covering the report of each individual (or neighbouring) Commissio(s) for distribution (sale) during the General Assembly, or earlier.

The General Secretary is expected to prepare for the Executive Committee a report covering this subject.

d) Transactions volume XIV B - why published in one volume.

It was resolved at the 34th meeting of the Executive Committee to publish Transactions XIV B in 2 parts: the administrative part in the Information Bulletin and the reports of Commissions in an unexpensive volume. This recommendation proved impracticable, since the Alphabetical List of Members alone covers 74 pages, to say nothing of the other text on administrative matters, which would have made the Information Bulletin too bulky. Moreover it was found that offset printing would require more sheets than normal printing and thus bring the price of offset on about the same level as type.

The Executive Committee expressed its agreement with the publication of Transactions XIV B in one volume.

e) Proposed new publication scheme for volume XV B.

The discussion of whether to adhere to the form of Transactions, XIV B also in the case of volume XV B brought no definitive solution. It was agreed however, that the General Secretary should inquire among the Presidents of Commissions as regards the contents of Transactions vol. XV B. The suggestion of having the Alphabetical List of Members and List of Commission Membership printed separately was approved.

### III. Scientific Activity

#### 10. Scientific Content of the XVth General Assembly

##### a) Invited Discourses.

The General Secretary informed the meeting that members of the Executive Committee and Presidents of Commissions had been asked to send in proposals for Invited Discourses to be held at the Sydney General Assembly. In the discussion of the suggestions received the following topics were chosen for presentation:

1. Solar Bursts - invited speaker P. Wild
2. Interstellar Molecules - speaker Ch. Townes
3. Early Stages of the Expansion of the Universe - speaker Ya.B. Zeldovich (or I.D. Novikov)

The invited speakers will be contacted for their agreement. Should any of them refuse to lecture, the matter will be re-opened at the next meeting of the Executive Committee.

b) Joint Discussions.

It was agreed not to hold more than six Joint Discussions during the Sydney General Assembly. Out of the numerous suggestions received from Presidents of Commissions the following topics for Joint Discussions were retained for further consideration:

1. Precession, Planetary Ephemerides and Time Scales (accepted definitively)
2. Stellar Infrared Spectroscopy
3. The Kinematics and Ages of Stars near the Sun
4. The Solar Wind and its Interaction with Interstellar Medium

On the proposal of members of the Executive Committee, the following topics were added:

5. Very Short-time Scale Phenomena
6. The Gum Nebula (accepted definitively)
7. Star Formation
8. Quasars, Radiogalaxies and Explosive Phenomena in Galactic Nuclei.

In the letter of the General Secretary to Presidents of Commissions informing them of the topics considered for Joint Discussions it will be pointed out that the not accepted suggestions may form the basis for Joint Meetings of Commissions.

It was agreed to re-discuss the problem of Joint Discussions (apart from the two selected topics) at the next meeting of the Executive Committee.

c) Commission Meetings.

The Executive Committee asked the General Secretary to send Presidents of Commissions a letter, in the course of this year, inviting them to prepare the programmes of their meetings for the XVth General Assembly. In this letter it will be emphasized that only programmes of high scientific standard will be considered and that no papers will be accepted. Four to five Commission meetings will be the maximum.

11. Invited Discourses at the Extraordinary General Assembly

It was resolved to hold 3 Invited Discourses during the Extraordinary General Assembly in Poland. The only certain topic is Gingerich's lecture on Copernicus. The remaining two subjects will have to be determined in the course of the year. The speakers under consideration are: Woltjer, Neugebauer, Ponamperuna, Burbidge. The Assistant General Secretary was asked to discuss this problem with Prof. Iwanowska during his visit to Poland.

12. a) IAU Symposia and Colloquia

In addition to Symposium No. 51 on Extended Atmospheres and Circumstellar Matter in Spectroscopic Binary Systems, approved earlier, the Executive Committee set up the following list of IAU Symposia and Colloquia to be held in the years to come:

Symp. No.	Title	Place	Date
52	Interstellar Dust and Related Problems	Albany, N.Y., U.S.A.	spring 1972
53	La Physique de la Matière Dense	to be determined	after August 1972
54	Problems of Calibration of Absolute Magnitudes and Temperatures of Stars	Geneva, Switzerland	July or Aug. 1972
55	X- and Gamma Ray Astronomy (cosponsored by COSPAR)	Madrid, Spain	May/June 1972
56	Fine Structure of the Solar Atmosphere	Brisbane?, Australia	3-7 September 1973
57	Coronal Disturbances	Brisbane?, Australia	7-11 Sept. 1973
58	Formation and Dynamics of Galaxies	Canberra, Australia	13-15 August 1973
59	Stellar Instability and Evolution	Canberra, Australia	16-18 August 1973
60	Galactic Radio Astronomy	Parkes, Australia	3-7 September ...
61	New Problems of Astrometry	Perth, Australia	14-16 August 1973
62	The Stability of the Solar System and of Small Stellar Systems	Warsaw, Poland	5-8 September 1973
63	Confrontation of Cosmological Theories with Observational Data	Cracow, Poland	10-12 Sept. 1973
64	Gravitational Radiation and Gravitational Collapse	Warsaw, Poland	5-8 September 1973
65	Exploration of the Planetary System	Torun, Poland	10-12 Sept. 1973
66	Late Stages of Stellar Evolution	Warsaw, Poland	10-12 Sept. 1973

Cell. No.	Title	Place	Date
17	Agos des Etoiles	Paris, France	7 days in Sept. 1972
18	Orbital and Physical Parameters of Double Stars	Swarthmore, Penna, U.S.A.	spring 1972
19	Stellar Chromosphere	Greenbelt, Md, U.S.A.	February 1972
20	Meridian Astronomy	Copenhagen, Denmark	September 1972
21	Variable Stars in Globular Clusters and Related Systems	Richmond Hill, Canada	August 1972

More details, especially as regards the Organizing Committees, will be published in the IAU Information Bulletin.

12. b) IAU Sponsored Regional Colloquia

The Assistant General Secretary reported that he had been approached by organizers of local and regional astronomical meetings with the request that the IAU support and sponsor such meetings. In the discussion which ensued it was noted that no financial contributions from the part of the IAU would be needed for regional colloquia, as they are, as a rule, self-supporting. On the other hand, IAU sponsorship of such meetings would guarantee their high scientific level, and this may help the organizers to obtain funds from other than IAU sources. Moreover, the IAU would have to be informed of such meetings which would keep it in contact with regional astronomical activities. It was felt that the IAU should co-sponsor only carefully selected regional colloquia of high scientific standard with truly international participation. It was resolved to defer the final discussion to the next meeting of the Executive Committee.

12. c) Format of Symposia

The General Secretary read his memorandum on the organization and content of IAU Symposia. Such meetings should review the actual situation in the branch discussed, determine the foremost problems and bring inspiration or find guidelines towards their solution rather than deal with presented results.

It was resolved that the General Secretary would prepare a list of recommendations for the organization of IAU Symposia and give it to Contopoulos for distribution to organizers of Symposia.

13. Other Scientific Meetings

In his short report the Assistant General Secretary brought to the attention of the Executive Committee the scientific meetings of astronomical interest to be held by other international organizations in the near future. More details will be published in the IAU Information Bulletin.

14. Special Projects

No suggestions for special projects, financed by the Executive Committee, were brought forward.

15. Publication of the General History of Astronomy

It was agreed that Commission 41 would co-sponsor the publication of a four-volume work covering the history of astronomy

from antiquity to the 20th century. Dr M. Hoskin of Churchill College, Cambridge, U.K., will serve as general editor. The International Union for the History and Philosophy of Science has already consented to cosponsor the work.

The General Secretary was asked to take the necessary steps.

#### IV. Relations with other International Organizations

##### 16. ICSU

The General Secretary gave a brief review of the situation in ICSU as after its General Assembly in Madrid (1970). ICSU has now 62 adherents. A part of its activity now tends to shift to environmental problems and also to social implications of science. This new programme calls for funds with the result that there is a tendency towards curtailing the contributions to established programmes, such as the services of FAGS, the scientific Unions, etc.

On the proposal of the IAU, the ICSU General Assembly established an Inter-Union Commission on the Moon, with the IAU as parent Union.

In connection with this report E.J. Bok drew the attention of the Executive Committee to the past history of the ICSU's part in work relating to the social implications of science conducted under ICSU. In 1947, Professor Stratton, then General Secretary of ICSU, proposed Bok as a member of a Committee chaired by Dr Jan Burgess. This committee was effectively active for several years. One of its principal accomplishments was its successful effort in getting governments to de-classify large numbers of until-then secret reports on scientific research. A small book on "The Freedom of Science" was written by Bok at the request of the committee and published by UNESCO in English and French. The committee gave much attention to draft a "Charter for Scientists", in which questions relating to their participation in military and other secret research were faced. It is clear from these early efforts that physical scientists cannot leave it to the social scientists to carry on all work in the area of Social Relations of Science. The Executive Committee is to urge ICSU to undertake anew work in these areas and to include at least one young and one senior astronomer in the committee, once formed.

It was resolved that the IAU would support at the forthcoming meeting of the ICSU Executive Committee:

- a) the request for a \$ 2,000 grant per year for the Central Bureau of Satellite Geodesy at the Smithsonian Institution;
- b) the request of the Panel of WDC for a grant of about \$ 2,000 towards the edition of a new consolidated guide on the collection of geophysical and solar data.

##### 17. COSPAR

The report of the General Secretary on the recent COSPAR



meeting in Seattle was approved. It was decided to invite COSPAR to cosponsor the IAU Symposium on X- and Gamma Ray Astronomy to be held in Madrid, in 1972.

18. a) It was decided to strengthen the hand of the IAU representative on IUCAP. The Executive Committee expressed its continuing concern regarding the encroachment on wave bands reserved for astronomical research and requested the General Secretary to investigate and take further action on the basis of the well substantiated resolutions Nos. 10 and 11 passed by the XIVth General Assembly in Brighton.
- b) The General Secretary informed the meeting of some difficulties in starting the MONSEE (Monitoring the Sun-Earth Environment) project.
- c) The Executive Committee resolved unanimously to retain Prof. Wm. Markowitz as its sole representative on CCDS.
- d) The request of the FAGS Council for annual contributions towards the services was noted. It was found that as long as the Union does not know whether ICSU and UNESCO would continue financially to support it, no decision can be taken as regards a contribution to FAGS. The General Secretary was requested to write a letter in this sense to Dr Minnis.

19. Question of Regional International Astronomical Organizations

The discussion of the desirability of establishing such organizations led to the following

Memorandum regarding IAU supported  
Regional Activities

Resolution:

The IAU recognizes the fact that in certain parts of the world the need may be felt to start new regional activities involving especially young professional astronomers. The IAU will be happy to assist in, and to stimulate, the early organization of such activities whenever there seems to be an occasion in which the IAU's assistance may be needed.

Suggested initial IAU activity:

A circular letter will be sent on September 20 to all National Committees of the countries of Europe and Latin America (with copies, for information, to all other National Committees), mentioning the above resolution and the arguments underlying it.

The General Secretary will ask which countries are willing to organize either in 1972, 1974 or 1975 a Regional General IAU Meeting. Such a meeting should last for 3 - 4 days; all IAU Members and a similar number of younger astronomers should be allowed to participate. The IAU is willing to give a financial support to a maximum of \$ 1.000,-- for each of the two meetings ("triggering" sum).

The meetings should deal with various subjects of general astronomical and astrophysical interest. Particularly the topical "burning" problems, most in the centre of interest, should be introduced, each by one or more invited speakers, who should be asked to review the present situation in their fields, and enumerate the key-problems. There should be ample time for discussion in order to allow the participants to obtain the necessary inspiration and obtain guidelines for their future work.

If desired, two or three parallel sessions might be organized. The presentation of contributed ("5 minutes") papers should be strongly discouraged. The IAU should not stimulate the publication of the proceedings of the meetings.

The meetings will be known as IAU Supported Regional Astronomical Meeting.

#### Later Activities:

The National Committee that is willing to organize an "IAU Supported Regional Astronomical Meeting" should submit a brief outline of a suggested scientific programme, with names of speakers. A proposal should be made for the appointment of a Scientific Organizing Committee for the meeting in question, and the IAU Secretariat should be informed about the composition of the Local Organizing Committee. The composition of the Scientific Organizing Committee and the outline of the scientific programme will need the approval of the Executive Committee of the Union. It is realized that the Executive Committee will not have the occasion to discuss in one of its meeting plans for possible 1972 Regional Meetings, but it should certainly be done for subsequent meetings, for which more time of preparation will be available.

#### Suggested Schedule:

20 September 1971: letter to National Committees;  
1 January 1972 : deadline for answers regarding 1972.  
Replies to be communicated to the Executive Committee;  
1 February 1972 : National Committees will be informed about decision;  
1 March 1972 : preliminary announcement by IAU;  
August-Sept. 1972 : Regional Meeting(s).

#### Future Developments:

The IAU should be very careful not to develop into an organization that too strongly has the image of an organization mainly supporting (or supported by) astronomy in Europe and the Americas. It should keep its global character.

V. Other Business

20. Varia

a) People's Republic of China

The Executive Committee expressed its regret that the People's Republic of China is not one of the countries adhering to the IAU. On the suggestion of E.R. Mustel, the Executive Committee authorized the General Secretary to obtain in Ottawa as much information as possible on the attitude of ICSU towards the possibility of bringing China back to the ICSU family, and to report to the Executive Committee. B.J. Bok is of the opinion that the IAU should act immediately and not to sit back. Astronomers have to take a lead.

b) Travel grants to the XVth General Assembly

The General Secretary was requested to work out a programme of:

- i) Travel grants to be paid by the IAU
- ii) Travel grants paid by the Australian National Committee
- iii) Travel grants to be paid by the Polish National Committee towards participation in the Extraordinary General Assembly.

In this connection, E.R. Mustel emphasized that the Registration Fee for the Sydney General Assembly should be kept as low as possible to enable participation of Members from countries with not convertible currency.

c) Relations to the Union of Amateur Astronomers

The question arose whether or not to invite the Union of Amateur Astronomers to send a representative to the Sydney Assembly. The General Secretary was asked to look carefully into the matter.

d) Acquisition of Photographic Plates

An agreement was reached that E.R. Mustel and C. de Jager would write B.J. Bok official letters asking him to arrange with Kodak and the State Department for photographic plates necessary for the operation of the ever increasing number of telescopes in the U.S.S.R. to be sent to this country. The Working Group on Photographic Materials should be informed of this shortage of photographic plates in the U.S.S.R., and other eastern countries, and asked to take action, if necessary.

e) New name of Commission No. 42

The President of Commission No. 42 proposed to re-name this Commission to "Close Binary Stars". It was agreed that this suggestion should be discussed between Commission No. 42 and Commission No. 26. The resulting proposal will then be put on the Agenda for the XVth General Assembly.

f) New name of Commission No. 15

The proposal to re-name Commission No. 15 was not considered favourably, but it was agreed to investigate the possibility

of re-naming Commission No. 20 to "Asteroids", No new Commission will be created.

g) Symbol for the Astronomical Unit

It was resolved to contact Commission No. 5 (Documentation) with the request to propose an international symbol of the Astronomical Unit.

h) UNESCO anti-apartheid policy

This subject, brought up by a letter of the Secretary General of ICSU to the IAU, was discussed in great detail. The result of the discussion is summed up in the following

Memorandum of the attitude of the IAU  
towards the UNESCO anti-apartheid policy

The IAU Executive Committee has discussed the letter of the General Secretary of ICSU (no. FAS/pm/3.01, of 25 June 1971), which deals in more detail with the implications of the 16th General Conference of UNESCO on Racism and Racial Discrimination. The Executive Committee realizes that South Africa adheres to the IAU through its Scientific and Industrial Research Council, which body as such is not known to practice "apartheid". It is, however, an organ of the South African government, which is known for its "apartheids"-policy.

The IAU Executive Committee was unanimous in its absolute rejection of the "apartheids"-policy in all its aspects. However, at the same time the IAU is of the opinion that any region on the Earth, where professional astronomy is practiced, whatever its governmental policy be, should have the right of adequate representation in the IAU.

Withdrawal from this principle would open the gate to political discrimination of an undesirable kind that would be detrimental to the Union and to the progress of astronomy.

i) Fellowships and Endowments

The question whether the IAU is in a position to accept donations was answered in the affirmative with reference to the article 26 of the By-laws. It was resolved to publish in the Information Bulletin a short notice to the effect that the IAU would welcome funds for endowments and fellowships.

j) Travel by Officers of the IAU

Experience shows that senior officers exposed to air travel of longer duration are unfit immediately to take up work after landing. Thus it was agreed to submit to the meeting of the ICSU Executive Committee the motion that Officers of more than 55 years of age should be permitted to travel at first class rates if flights last longer than 4 hours.

The General Secretary has been authorized to take the necessary steps in cases in which officers have difficulties in obtaining exit visas.

k) Report on Venezuela

J. Sahade reported that after he had a personal exchange of views in Buenos Aires with the President of the Venezuelan Research Council, Dr Sebastian Sofia was appointed its adviser for Venezuelan astronomical problems. Early in 1971 Dr Jurgen Stock had been appointed Director of the National Institute of Astronomy and steps had been taken to instal the astrophysical instruments near the University of Los Andes in Mérida. The astrometric instruments will most likely remain in Caracas. Sahade was asked by Stock to help him recruit astrometrists, and a recent letter from the President of the Venezuelan Research Council indicates the need for help from foreign astronomers once the Institute in Mérida becomes operational.

21. Next Meeting of the Executive Committee


a) Invitation of young astronomers as observers.

It was noted that the line dividing young from senior astronomers is uncertain. Moreover, experience shows that younger astronomers are happy to be treated on equal terms with senior astronomers. It was agreed to recommend to the Special Nominating Committee not to overlook young astronomers when making its proposals for candidates.

b) It was resolved that the 36th meeting of the Executive Committee would be held in Copenhagen, Denmark, from 28 August to 2 September 1972.

22. Closing by the President

The President closed the meeting with a word of thanks to the host, Prof. J.-C. Pecker, the members of the Executive Committee, the General Secretary, the Assistant General Secretary and the staff of the Secretariat.



C. de Jager  
General Secretary