

EC 52/1/1

INTERNATIONAL ASTRONOMICAL UNION
UNION ASTRONOMIQUE INTERNATIONALE
FIFTY-FIRST MEETING OF THE EXECUTIVE COMMITTEE
Garching bei München, FRG
12-15 September 1983

Proceedings

The 51st Meeting of the Executive Committee of the International Astronomical Union took place at the European Southern Observatory, Garching bei München, FRG from 12-15 September 1983.

Present at the meeting were:

Prof. R. Hanbury Brown	President
Dr. M.W. Feast	Vice President
Prof. R.P. Kraft	Vice President
Dr. L. Kresak	Vice President
Prof. M. Peimbert	Vice President
Prof. R. Wilson	Vice President
Prof. Ya. S. Yatskiv	Vice President
Dr. R.M. West	General Secretary
Dr. J.P. Swings	Assistant General Secretary
Prof. P.A. Wayman	Adviser, Former General Secretary

In attendance:

Mrs. B. Manning	IAU Secretary
Ms. P. Smiley	Typist
Mrs. E. Völk	Secretary
Mrs. N.M. Pols-v.d. Heijden	D. Reidel (Item 10 (d) only)
Mr. J.F. Hattink	D. Reidel (Item 10 (d) only)

The agenda are attached as Appendix I.

The following report has been prepared in the order of the agenda items: Documents of the meeting, including those circulated prior to the meeting are available at the IAU Secretariat for further reference.

I OPENING BY THE PRESIDENT

The President opened the meeting at 09.00 and extended a warm welcome to all participants. He passed the word to the Director General of ESO, Prof. L. Woltjer, who welcomed the IAU Executive Committee to the ESO premises. On behalf of the EC members, the President expressed warm thanks for the ESO support and looked forward to a useful and efficient meeting in the stimulating ESO surroundings.

II INTERNAL MATTERS (ADMINISTRATION)

1. Reports of EC 49 and 50

The EC approved the minutes of EC 49 and 50 as distributed earlier, subject to the correction of a few spelling errors.

2. Approval of the Agenda

The agenda were approved (appendix I) with the addition of one item under item 24 (Human Rights).

3. Special Nominating Committee

The President reported about the constitution of the Special Nominating Committee and mentioned that all persons nominated had indicated their willingness to serve (except Prof. Shklovsky, from whom no reply had been obtained so far). It was agreed to include in the IAU Working Rules reference to the Special Nominating Committee as follows:

VIII. SPECIAL NOMINATING COMMITTEE

37. The Terms of Reference of the Special Nominating Committee are those contained in the Minutes of Executive Committee Meeting No. 44 (pp. 8-11) and published separately in Astronomer's Handbook (1986).

VIII. COMITE SPECIAL DES NOMINATIONS

37. Le role du Comité Spécial des Nominations est celui défini dans les Minutes du 44ème Comité Exécutif de l'UAI (pp. 8-11) et publié dans le "Astronomer's Handbook" (1986)".

The "Terms of Reference" are attached as Appendix II to these Proceedings.

4. IAU Secretariat

The General Secretary reported on the work at the IAU Secretariat in Paris in the period since August 1982.

Most time during the autumn of 1982 had been spent in winding up the various affairs connected to the Patras General Assembly, and with the preparation of the manuscripts of Transactions Volume 18B and Highlights Volume 6. These manuscripts were delivered to Reidel in December 1982 and were published in March 1983 by Reidel.

Commission member lists have been revised and updated.

The acquisition of a XEROX 860 Word Processor in November 1982 had proven to be very beneficial to the efficiency of the work at the Secretariat and Information Bulletin No. 49 (January 1983) was the first publication prepared by means of this instrument. The manuscript for the UNISPACE 82 International Astronomical Seminar Proceedings (cf. item 10) was also prepared on the word processor and published by Reidel in August 1983.

Other current projects include the compilation of a complete list of IAU publications, a list of astronomical observatories and institutes (including addresses, telephone and telex numbers, etc.) and a computer-based list of IAU members with an indication of Commission membership, etc.

Many other tasks have been carried out during the past year and the General Secretary expressed his appreciation of the work of the personnel at the Secretariat.

The EC took note of the report and some members commented upon the format of the list of IAU members and the list of observatories.

5. Statutes, BY-laws and Working Rules

A new Working Rule has been added, cf. item 3. above.

The IAU Officers explained that they did not feel the need of electing a new adviser in lieu of the former IAU President, the late Prof. Vainu Bappu.

6. IAU Membership

a) Adhering Organizations

The General Secretary reported about relations with a number of member and non-member countries.

- China: Prof. P.A. Wayman (former IAU General Secretary) and the General Secretary expect to visit mainland China in October 1983 to discuss various details about Chinese participation in IAU affairs. In particular, it is envisaged to discuss ways of strengthening the ties between Chinese astronomers and IAU Commissions. The recent adherence of China to ICSU was noted, but it is not likely to have any implications for Chinese membership in IAU. The possibility of future IAU scientific meetings in China should be looked into.

- Cuba: A letter has been received from the Academy of Science in Havana indicating their interest in more active participation in the IAU.

Iran: The arrears up to 1982 were paid in January 1983.

- Poland: There has been no answer to the General Secretary's letter about the category of adherence to the IAU for Poland. However, during a discussion at the Polish Academy of Sciences, at the time of the ICSU General Committee Meeting in Warsaw, August 1983, the GS was under the impression that at least partial payment of IAU dues can soon be expected from Poland.

- Switzerland: The Swiss Academy of Sciences has indicated in a letter to all scientific unions its inability to support increased dues to these. The GS has written to the Swiss Academy to explain the reasons for the 22% IAU increase in 1982.

- Uruguay: No contact has been established with astronomers in Uruguay, but the GS expects to visit this country in late November 1983.

- Venezuela: The cancellation of two IAU meetings in 1983 was discussed. The EC expressed the hope that the situation will soon improve in that country.

- Algeria: Prof. Yatskiv will contact scientists working within the Time Service in Algeria to learn how the IAU can best support astronomy in this country.

- Iceland: Interest in individual IAU membership has been expressed by two scientists. However, it is probably premature to consider membership of Iceland in the IAU.

- Jordan: An enquiry from a group of (amateur) astronomers has been referred to IUAA.

- Libya: The EC was happy to note the increase in astronomical activity in this country and supported the idea of IAU help to Libyan astronomers. The EC instructed the GS to look further into the possibility of adherence of Libya to the IAU and encouraged such a step, if an interest is expressed on behalf of Libyan astronomy.

- Malaysia: Contacts have been established with Malaysian astronomers, one of whom participated in the Bandung International School for Young Astronomers.

The GS will explore how these contacts can be continued and improved.

- Nigeria: The EC agreed to accept the application by the Nigerian Academy of Science for IAU membership and asked the GS to make sure that administrative steps are taken so that Nigeria can join IAU in 1985. The proposed Visiting Lecturers' Programme will be discussed under item 7.

- Pakistan: A list of institutes and universities teaching physics in this country was received from UNESCO and letters enquiring about the status of astronomy were sent to these. There have been no answers so far.

- Peru: The proposed Visiting Lecturers' Programme will be discussed under item 7.

- Philippines: Following the negotiations in 1982 about possible Philippine membership in the IAU, further letters have been exchanged between the President and the GS and Father Heyden at Manila Observatory. The EC agreed that, if a formal application for membership is received, there would be all reasons for accepting it.

- Saudi Arabia: Further contacts indicate that Saudi Arabia is a potential candidate for IAU membership. It is expected that further details will become available before the next EC meeting.

- Sri Lanka: An institute led by Prof. Wickramasinghe has been established. Support is given by Indian astronomers. IAU should contact Prof. Wickramasinghe to learn how it can be of help.

- Syria: The application from the Syrian Cosmological Society was discussed in detail. The EC was of the opinion that the professional astronomical activity within this Society and in Syria is on a rather low level, although the educational set-up appears to be important. The EC was reluctant to admit Syria unless at least one or two persons want to become individual members and the GS was requested to follow up this matter.

It was suggested that possible individual membership in Commission 46 should be looked into.

- Thailand: Letters have been received from astronomers in Thailand indicating a great need for outside help. The GS will follow this matter up, also after further discussion with the Presidents of Commissions 38 and 46.

b) Individual Membership

The EC took note of the new procedure for resignation. The necessity of a personal letter was underlined.

7. Commission Matters

a) Commission 38: "Exchange of Astronomers":

The GS reported about an attempt to compile a list of international schemes of support to (young) astronomers. Letters have been written to all Adhering Organizations, Commission Presidents and EC members, and a number of replies have been received from various countries. The first list would be published in IB 51 (January 1984).

Travel grants for a total of approx. US Dollars 6.000 have been allocated in the first half of 1983. This corresponds to roughly 1/6 of the allocated amount for 1983-85. The EC wishes to obtain a detailed report from the President of Commission 38 about the activities of grantees which should be discussed at EC 52.

b) Commission 46: "Visiting Lecturers' Programme"

The GS introduced the subject by giving a brief account of the various ideas which had been discussed by earlier EC's in connection with possible IAU support to astronomically developing countries: IAU Fellowships and IAU VLP. In Patras it was felt that it would not be possible to support both and a resolution (A3) was passed by the General Assembly in favour of the VLP, allocating Swiss Francs 35.000 for the period 1983-85. A sub-committee was established in 1979 consisting of members of Commissions 38 and 46, as well as representatives of countries in which astronomy has not yet been fully developed. The Chairman of the sub-committee, Prof. D.G. Wentzel, had consultations with many institutes in various countries, resulting in specific proposals to establish IAU VLP(s) in Peru and/or Nigeria from 1984 onwards.

The GS further reported that additional support has been obtained through an ICSU grant of US Dollars 3.000 for 1984. Moreover, UNESCO is interested in the IAU VLP and some form of IAU/UNESCO collaboration can be envisaged in the future.

- Peru: The sub-committee recommended that Peru be the first country for the IAU VLP. An application has been received from the Universidad Nacional Mayor de San Marcos, in Lima, signed by the Chairman of the Physics Department, Prof. Victor Pena Rodriguez. A meeting took place between Dr. M.L. Aguilar (the originator of the Peruvian proposal) and the GS in Munich, July 1983. The GS also discussed the matter with Dr. Wentzel in Washington, in July 1983. The GS explained in some detail the proposed set-up in Lima, including the financial conditions and was of the opinion that the Peruvian proposal, after some further elaboration and discussion within the IAU sub-committee and with the authorities in Peru, could become a successful first IAU VLP. He also mentioned that he expected to travel to Lima in December 1983 to meet the officials and that a discussion about the Peruvian VLP among Latin-American astronomers will be held in

Buenos Aires, at the time of the Third Latin-American Regional Astronomy Meeting in late November 1983.

It is suggested that Prof. J. Sahade shall become Chairman of the Coordinating Committee for the Peruvian VLP and that the programme can start with a basic course for 100-150 physics students in April 1984. Later on, more advanced courses will be held.

The EC acknowledged the efficient work of the sub-committee headed by Prof. Wentzel and discussed various aspects of the Peruvian proposal. It was generally agreed that the proposal is very valid and should be supported, but that it would be important to ensure that the courses would carry full university credits. Furthermore, one should look into the possibility of having students from neighbouring countries participate and whether the financial guarantees are sufficient to plan for an extended programme. It was emphasized that the VLP is fundamentally different from International Schools for Young Astronomers, but that it might be useful to organize an ISYA in Peru at a later date. Material support to the San Marcos University (books, journals, instruments, etc.), should be given if possible. The GS would explore this further with Prof. Wentzel and the President of Commission 46, Prof. L. Houziaux.

In summary, the GS was authorized to negotiate and sign a contract with the San Marcos University and proceed with the establishment of an IAU VLP in Lima, aided by the advice of the above mentioned Coordinating Committee and the IAU sub-committee.

- Nigeria: A proposal for an IAU VLP has also been received from Prof. S.E. Okoye, Prof. of Physics at the University of Nigeria, Nsukka, Nigeria. The needs in Nsukka are somewhat different from those in Lima in the sense that more graduate courses are being asked for.

The EC, after thorough discussion, felt that the Peruvian and the Nigerian proposals probably represent the extremes within the spectrum of VLPs. It gave its full support to the Nigerian proposal, but emphasized that, in view of the existence of high level courses in Nsukka, it would be advisable to limit the initial IAU VLP to a 1-year period. The necessity of finding a good Chairman of the Coordinating Committee would be important and among the names mentioned were Drs. D. Walsh, D. McNally, J.-C. Pecker, G. Swarup and C. Heiles. Further consultation should take place between Profs. Wentzel and Okoye and the GS to specify the VLP so that it could be started by the middle of 1984.

(b) Other Matters

Commission 5: The GS presented an application from Dr. Hauck concerning a CODATA training course on data handling. The EC, after some discussion, decided not to support this meeting financially, since it was not apparent that the very limited means available would in any way improve the astronomical outcome of that meeting.

A final draft for the IAU Stylebook has been received from Dr. Mitton.

The EC members were requested to send their comments, if any, to the GS at the latest by mid-October 1983. The necessity of assuring compatibility with word processors was underlined.

Commission 6: The EC noted the Statement of Receipts and Expenditures for 1982 as received from the Director of the Central Bureau for Astronomical Telegrams, Dr. B. Marsden.

Commission 8: Two requests had been received from Dr. Hughes, President of Commission 8, concerning the publication of two astrometric catalogues and some instrumentation at the Cerro Calan Observatory, Santiago, Chile. The EC, while recognizing the importance of both of these projects, found itself unable to

support either: The first is not yet complete, and in the second case, it would be unwise to establish a precedent in supporting instrumental programmes.

Commission 9: At the request of the Chairman of the IAU Working Group on Photographic Problems, Dr. M.E. Sim, the EC decided to allocate SF 2500 in support of a meeting to be held in April 1984 in Edinburgh, UK. Most of the money would be used to help participants from eastern Europe during their stay in the UK.

Commission 10: The GS informed about the Solar Index Data Centre and mentioned that a request had been received from the President of Commission 10, Prof. E. Tandberg-Hanssen, concerning affiliation of the SIDC with FAGS.

It was decided to discuss this matter under item 19.

Commission 19: The GS reported on project MERIT and that US Dollars 3000 have been received from ICSU in support of this project in 1984. Prof. Yatskiv mentioned that there is no need for further IAU support for the time being.

Commission 20: Letters have been received from the Chairman of the WGPSN and the President of Commission 20 concerning an agreement about the designation and naming of 4 satellites at JUPITER and SATURN.

The EC welcomed the settlement of this matter and confirmed the following:

<u>Formal Designation</u>	<u>Temporary Designation</u>	<u>Name</u>
Jupiter XIV	1979 J2	Thebe
Jupiter XV	1979 J1	Adrastea
Jupiter XVI	1979 J3	Metis
Saturn XV	1980 S28	Atlas

The GS was requested to publish the information in appropriate places and make sure that the publication would supercede incorrect announcements from other sources.

Commission 22: Information has been received from Prof. B.A. Lindblad, Director of the IAU Meteor Data Centre in Lund, about the operation of the Centre. The GS mentioned that the first installment of the IAU support, as expressed in IAU Resolution A2 (Patras, 1982), has been sent to Prof. Lindblad.

Commission 27: The EC took note of the arrangements with the Astronomical Council of the USSR Academy of Sciences for support of its publications dealing with variable stars.

Commission 40: It was decided to discuss the GERT project under item 20.

Commission 42: Two requests have been received, concerning support of the Commission 42 Bibliography of Binary Stars and of the publication of Accumulated AAVSO Observations of Cataclysmic Variables. The EC felt that it was unable to support the first of these, since it could probably be published through the Strasbourg Data Centre. It was favourably disposed towards the second proposal, but further clarification about the actual needs and the establishment of a comprehensive budget is necessary. The GS was requested to contact Dr. Batten for further details.

Commission 43: It was suggested that interested astronomers (including Profs. Kuperus and Roxburgh) should get together at the next General Assembly to discuss the desirability of reviving this Commission. Any positive action could be supported through a corresponding Resolution by the General Assembly. Beyond this, the EC felt that no further action was necessary for the time being.

Commission 51: The EC welcomed the extensive efforts by the President of this Commission, Prof. M. Papagiannis and took note of the information received. In reply to a letter from the COSPAR

President, Prof. C. de Jager, expressing the desirability of affiliation of COSPAR sub-committee F3 with IAU Commission 51, the GS was requested to mention that it would be preferable to continue less formal cooperation until Commission 51 has been firmly established. The EC expressed the hope that full affiliation with IUBS could be obtained shortly.

A discussion about a letter from the President of Commission 42, Dr. A. Batten, concerning Commission structure was deferred to item 22.

8. General Assemblies

a) 18th General Assembly, Patras, 1982: The GS explained the situation as regards to financial settlement with the LOC, headed by Prof. C. Goudas. Following a letter from Prof. Goudas in October 1982, which indicated that the LOC was of the opinion that the IAU owed approx. 2.5 million Drachmae to the LOC, the GS had consultations with the former GS about the settlement. In a letter dated December 17, 1982, the GS informed Prof. Goudas that, according to the agreements made earlier and in order to remain within his financial brief, it would be possible to abate an apparent debt of the LOC to IAU of Approx. 1 million Drachmae to zero, by the IAU taking upon itself various expenses. Further correspondence with Prof. Goudas failed to settle the matter, and the GS informed the LOC and the NOC that the matter would have to be decided by the IAU EC.

The GS stressed that the IAU has no legal obligation to help the LOC, and that the financial problems are entirely the result of the failure of the Greek government to fully supply the grant which it had promised earlier to the LOC. However, it is equally clear that the IAU has a moral debt and that it would be preferable to arrive at a settlement which would leave no bad feelings in Greece. The former GS has had information from Prof. Goudas which appeared to indicate that approx. US Dollars 9,500 are needed to cover immediate debts of the LOC.

After considerable discussion, the EC authorized the GS to settle the problem with the help of the former GS, and to incur additional expenses not exceeding US Dollars 9500, subject to written confirmation from Prof. Goudas about the outstanding debts.

b) 19th General Assembly, India, 1985: The GS reported about preparations for the next General Assembly. He visited Delhi in November 1982 and has had consultations with Profs. J.C. Bhattacharyya and A.P. Mitra in the meantime. During the visit to Delhi he was received by Prof. T.K. Menon, member of the Planning Commission, who promised full support to the General Assembly. A National Committee has been established with Prof. Menon as Chairman and Prof. Bhattacharyya as Convenor. The LOC was also set up. Its Chairman is Prof. A.P. Mitra.

The LOC met on September 7, 1983 in Delhi. Information received by telex concerns the final choice of the venue (Vigyan Bhavan), local budget (Dollars 200.000), registration fee (Dollars 130) and various details about facilities for young astronomers and travel to India.

The EC discussed briefly the various arrangements including the guarantee that ICSU Rules will be followed. The IAU Officers will hold their next meeting in Delhi, January 23-25, 1984.

c) 20th General Assembly: Although no official invitation has yet been received from the US National Committee, information is available that Baltimore has been chosen as the preferred venue for the 1988 General Assembly. The GS, during a visit to the Washington area, was shown the Baltimore Convention Center by Prof. A.F. Davidsen, who is expected to become Chairman of the LOC. The Center appears to be fully adequate to house an IAU General Assembly, with up to 3000 participants.

9. Finances of the Union

a) Vérification des Comptes

The EC took note of the auditor's report and expressed satisfaction that the triennium 1980-82 was closed with a larger excess of receipts over payments than anticipated (mainly due to early payment of the 1983 contributions).

b) Budget 1983-85

The EC noted the financial status on 30 June 1983 and the summary of contributions of adhering countries received before 1 September 1983.

c) Budget 1986-88

The EC agreed to the proposed format of presentation of the budget. After some discussion about the preparation of the 1986-88 budget, it was agreed that, unless this could be supported by the need for increased scientific activity (e.g. meetings, etc.), it would not be reasonable to propose an increase in the unit of contribution over and above inflation.

Following the recommendation of the Finance Committee in Patras, the GS was asked to prepare the draft budget 1986-88 for EC 52 in two ways:

(A) As before, on an triennial basis;

(B) On an annual basis with annual adjustments
in the unit of contribution.

10. IAU Publications

a) Transactions, Highlights, Symposia, etc.

The GS and the AGS reported about the publication of IAU

Transactions Vol 18B, Highlights Vol. 6 and Proceedings of Symposia 100, 102, 103. A book based on the talks given at the UNISPACE 82 International Astronomy Seminar, jointly organized with the UN in Vienna, 12 August 1982, has been published by Reidel in August 1983 with the GS as editor. Two issues of the Information Bulletin (Nos. 49 and 50) have been published. The Xerox 860 Word Processor is of great help for the preparation of the Information Bulletin. A new front page in two colours has been introduced to make the Information Bulletin more attractive.

During the following discussion, several members of the EC questioned the need and usefulness of the Presidents' Reports from the Patras Commission Sessions (contained in Vol. 18B). There were several examples of reports with very little information, and the EC decided that this matter should be looked into before 1985. At the very least, clearer guidelines should be issued to the current Vice Presidents (most of whom are expected to become Presidents) before 1985.

b) 1986 Handbook

The EC was in favour of the publication of a revised edition of the 1966 Handbook (Transactions Vol. 12C). It was felt, however, that it should only contain material of reasonable longterm interest and that the possibility of including it into Volume 19B should be explored. Future "B" Volumes could then be updated as necessary. The EC discussed briefly the proposed list of contents, as suggested by several Commission Presidents and requested the GS and AGS to make a specific proposal well before the next EC meeting. The GS suggested to send this list to EC members by January 1984, so that it would be possible to start preparations early enough for aiming at publication by early 1986.

c) IAU Pamphlet

The EC agreed to publish a small IAU pamphlet giving essential information about the IAU which could be of use when dealing with

authorities not directly involved in astronomical research. The GS and the AGS were requested to compile and publish such a booklet.

d) Future Policy

In the presence of Mrs. N.M. Pols-v.d. Heijden and Mr. J.F. Hattink from the D. Reidel Publishing Co., Dordrecht, The Netherlands, the EC discussed the desirability of adopting a different format for the publication of IAU Transactions, Highlights, Symposia Proceedings, etc. D. Reidel has proposed to discontinue the current practice and to start an IAU Journal, with the expectation that this will increase circulation and also effectively stop the increasing trend of libraries buying the paperback edition. The EC agreed that it would, in principle, be useful to further explore this possibility, but that the decision could only be taken when further details become available. It was suggested that the AGS, together with the GS, should take the matter up with Reidel, also in connection with the renegotiation of the contract which will have to be done before September 1984.

A main topic was whether or not IAU Colloquia shall be included in such a series. The general feeling was that this is desirable, although some organizers may still want to publish proceedings of their meetings themselves. No strict enforcement should therefore be aimed at.

e) Annual Reviews

A proposal has been received from Annual Reviews which publishes Annual Reviews of Astronomy and Astrophysics, according to which the IAU would obtain a 30% discount on this publication, if IAU members would buy it through the IAU Secretariat. It was suggested that the IAU could retain part of this discount and thus create an additional income.

The EC rejected this proposal because it would establish a

precedent, since the IAU Secretariat can not be burdened with additional administrative tasks, and because the IAU should not profit on its members, many of whom would anyhow obtain the discount by being members of other societies, which already have such an arrangement.

f) Publications to Developing Countries

The GS commented that only nine institutes in developing countries are currently on the distribution list for IAU publications at reduced rate (these institutes pay only one third of the IAU discount price, i.e. 20% of the retail price; IAU pays 40%). He felt that this was really too few and that measures should be taken to explore whether other institutes could profit from this scheme. It was agreed that a note should be put in the next issue of the Information Bulletin and that the GS can then decide how many of the replying institutes can be added to the list.

11. Scientific Content of the 19th General Assembly

a) Invited Discourses

The GS briefly explained arrangements made for the invitation of distinguished scientists to speak at earlier General Assemblies. A list covering the years 1967-82 was of use to the EC during the following discussion, in which all EC members suggested subjects and speakers for consideration.

The President summarized the discussion as follows:

<u>Subject</u>	<u>Speaker</u>
"Dark Matter in the Universe"	Vera C. Rubin or J. Ostriker
"Venus"	R.Z. Sagdeev or V.I. Moroz
(To be determined by the speaker)	V. Radhakrishnan
"Outer Layers of Cool Stars"	G. Preston

The GS was asked to invite, on behalf of the President, Prof. Rubin, Sagdeev and Radhakrishnan. Substitutes are Ostriker and Moroz for the first two talks. The fourth subject and speaker is kept in reserve if it proves impossible to arrange any of the first three.

A letter has been received from the widow of Prof. Bappu, Mrs. Yemuna Bappu, expressing the hope that it would become possible to dedicate one of the above lectures to the memory of her late husband. The EC agreed to this idea, but preferred to defer the decision about which of the above discourses should be dedicated to Prof. Bappu.

b) Joint Discussions

Several possible subjects for Joint Discussions in Delhi were brought up.

Some of these were:

- "Cataclysmic Variables and X-ray Binaries"
- "Infrared Astronomy" (IRAS, etc.)
- "Outer Layers of Cool Stars" (if not Invited Discourse)
- "Cool Stars with Anomalous Heavy Element Abundancies"
- Subject honouring the 75th anniversary of Prof. Chandrasekhar (GS to write to Prof. R. Cox, President of Commission 35).

In addition, one of the meetings proposed as IAU Symposia/Colloquia in 1985, could perhaps become Joint Discussion: "Long Period Eclipsing Binary Stars and Related Objects". The AGS will take up contact with the organizers to clarify this matter. The GS shall invite Presidents of Commissions, by May 84 to make proposals for Joint Discussions. These proposals will be discussed at EC 52, in September 1984, and the final decision about the Delhi Joint Discussion programme will be made at that time.

12. IAU Symposia and Colloquia

Almost 30 proposals for IAU meetings in 1984 and 1985 were received by the AGS. He explained that with Swiss Francs 75.000 available per year (triennial budget SF 225.000), 5 symposia and 5 colloquia could be supported in each year. Clearly, the number of valid proposals was higher, so that the EC must either decline the sponsorship of good meetings or increase the available financial support. The EC felt that, if necessary, it would be possible to add SF 10.000 - 15.000 per year from the IAU reserves.

Following a comprehensive discussion of each proposal, including several which had only been received a few days before the EC meeting, the EC decided to support the following meetings:

A) SYMPOSIA

- S 109: Astrometric Techniques; Chair SOC: H. Eichhorn
January 9-12, 1984, Gainesville, Florida, USA
(approved in 1982)
- S 111: Calibration of Fundamental Stellar Quantities;
Chair SOC: A. Batten and D. Hayes,
May 24-29, 1984, Como, Italy
- S 112: Search for Extraterrestrial Life: Recent
Developments;
Chair SOC: M. Papagiannis
June 11-15, 1984, Boston, MA, USA
- S 113: Dynamics of Star Clusters; Chair SOC: P. Hut,
May 28-June 1, 1984, Princeton, NJ, USA
- S 114: Relativity in Celestial Mechanisms and Astrometry;
Chair SOC: J. Kovalevsky,
May 28-31, 1985, Leningrad, USSR

S 115: Star Forming Regions; Chair SOC: M. Morimoto,
November 11-15, 1985, Tokyo, Japan

B) COLLOQUIA

C 79: Very Large Telescopes, their Instrumentation and
Programs;
Chair SOC: M.-H. Ulrich, April 9-12, 1984, Garching,
FRG
(approved in 1982)

C 81: Local Interstellar Medium; Chair SOC: Y. Kondo,
June 4-6, 1984, Madison, Wisc., USA (approved in
1982)

C 82: Cepheids: Observation and Theory; Chair SOC: J.
Fernie,
May 29-June 1, 1984, Toronto, Canada

C 83: Dynamics of Comets: their Origin and Evolution;
Chair SOC: A. Carusi and G. Perozzi
June 11-14, 1984, Rome, Italy

C 85: Properties and Interaction of Interplanetary Dust;
Chair SOC: R. Giese, July 9-12, 1984, Marseille,
France

C 86: 8th UV and X-ray Spectroscopy of Astrophysical and
Laboratory Plasmas; Chair SOC: G. Doschek,
August 1984, Washington, D.C., USA

C 87: Hydrogen Deficient Stars and Related Objects;
Chair SOC: N.K. Rao and K. Hunger, November/
December 1985, Bangalore, India

Various details are still to be settled for these meetings in correspondence between the AGS and the organizers. In addition, it is suggested that some meetings are deferred to 1986, and in other cases resubmission to EC 52 is suggested.

The EC expressed the hope that it shall become possible to arrange several IAU meetings in India just before and/or after the Delhi General Assembly.

13. Regional Astronomy Meetings

The AGS briefly reported on the preparations of RAMs in 1983 and 84. Some questions arose about the type of meeting in Florence which breaks with earlier tradition in being very general, rather like an AAS meeting. The AGS explained that the Florence meeting programme is an experiment and the programme of future European RAMs will depend on the outcome.

At the request of some African astronomers, it was decided to officially attach this continent to Asian-Pacific RAMs, now calling them 'Afro-Asian-Pacific RAMs'. The AGS would explain this to the organizers of the Kyoto RAM.

Some concern had arisen about the Brazilian RAM in 1984, since Brazil had failed to assure free entrance to nationals of certain countries to participate in some ICSU meetings. The AGS had written to the organizers, but no reply had been received so far. The GS explained that, although regional meetings can be limited to participants from the immediate geographical region, it would be desirable that Brazil stated its intention to honour ICSU Rules.

The 8th European Regional Astronomy Meeting could not be held in Heidelberg in 1984, due to a conflict with an AG meeting, and the EC expressed its appreciation to the organizers in Toulouse who had taken over at short notice.

14. International School for Young Astronomers

The GS reported on the 13th ISYA, which was held in May 1983 in Indonesia. From all sides the opinion was expressed that the School was highly successful. The GS has congratulated the organizers and the teachers. Letters have been sent to the participants and some replies have been received from Malaysia, Thailand and the Philippines. Thus, such Schools are useful to establish contacts in countries where the IAU is not well known.

Unfortunately, the School in Venezuela (September 1984) had to be cancelled, mainly because of lack of funds. It would be desirable to hold another School in Latin America within the next few years. Possible sites would be, for instance, Mexico, Columbia or Peru.

The EC took note of the report of the GS and expressed its appreciation of the success in Indonesia.

A letter has been received from the ISYA Secretary, Dr. Kleczek, concerning possible future Schools. A suggestion was also made by Dr. Derek McNally. The suggestions are:

Portugal 1984

Punjab/India 1985

London/UK, July 1984

The EC discussed the proposals in great detail and resolved to accept the School in India at the Astronomy Department of the Punjab Observatory, in conjunction with the IAU 1985 General Assembly in Delhi. This would provide the ISYA with outside lecturers and, hopefully, save travel costs.

Concerning the Portuguese proposal, the EC did not see from where the young astronomers should come, except from institutes in Portugal. Moreover, there would be no funds available, unless the budget would be increased.

There was a general consensus that the idea to hold a School in London dealing with "Computers in Astronomy", was very good, but also that there are certain negative aspects which can not be overlooked. First of all, such a School will need considerably more funding than a School in a developing country, since it shall be necessary to transport the students rather than the teachers. Secondly, one can not easily see how the students can make efficient use of their newly gained knowledge when they return to their home institutions, which do not have the advanced computer facilities available in London. Finally, it appears that little local support is available in the UK for such a meeting. It was therefore decided to gently refuse Prof. McNally's proposal as not being appropriate within the ISYA system.

15. Other Scientific Meetings and Requests for Co-sponsorship

Two co-sponsored meetings have been held since the last EC meeting. Reports have been received from Dr. Frater ('Indirect Imaging' with URSI, August 1983) and from Dr. J.E. Grindlay ('High Energy Physics' with COSPAR, August 1983).

A request had been received from COSPAR for IAU co-sponsorship of some of the meetings, which will be held in Graz, Austria, at the time of the 25th Plenary Meeting of COSPAR, June 1984.

The EC decided to support all of these:

- Symposium on Solar Maximum Analysis (SCOSTEP/COSPAR/IAU)
- Symposium on Planetology of Venus, Mars and Satellites of Outer Planets (COSPAR/IAU/IAGA/IAMAP)
- Symposium on Nucleosynthesis and Acceleration of Cosmic Rays (COSPAR/IAU/IUPAP/SCOSTEP)
- Working Group on Venus' Atmosphere (COSPAR/IAGA/IAU/IAMAP)

(Note that the proposed meetings on 'Interplanetary Dust' will now be held as IAU Colloquium 85, supposedly co-sponsored by COSPAR).

It was furthermore decided to co-sponsor a meeting on "Comparative Study of Magnetospheric Systems", 1985, Toulouse, France, with CNRS, on the condition that the date will not be in conflict with other IAU meetings. Co-sponsorship was also given to a meeting ('Solar Terrestrial Prediction Workshop'), which is being organized by the IUWDS in Meudon, France on June 18-22, 1984. Finally, after some discussion, the EC also resolved to co-sponsor the 20th ESLAB Symposium "Exploration of Halley's Comet", which will be organized by ESA, and which has co-sponsorship of IACG and IHW in Heidelberg, FRG, 27-31 October 1986. The necessity of avoiding having too many Halley meetings after the 1986 passage was underlined by the EC. The EC decided to allocate US Dollars 1.000 to each of the co-sponsored meetings and US Dollars 3.000 in total to COSPAR in support of the Graz meetings.

16. EC Projects

The GS explained that the Dictionary on Nomenclature has been published in the June issue of Astronomy + Astrophysics, Suppl. Series. SF 5.000, which had been allocated to this project in the 1980-82 period, was only paid early 1983. The EC agreed that this money should be carried over from the earlier budget. SF 2.500 was already given in support of the Working Group on Photographic Problems (cf. item 7) leaving SF 11.500 within this budget item.

IV INTERNATIONAL ORGANIZATIONS

17. ICSU

The GS reported about the ICSU General Assembly held in London and Cambridge (September 1982) and the Meeting of the ICSU

General Committee in Warsaw (August 1983). Full details about the General Assembly have already been sent to EC members. The GS mentioned the adherence of China to ICSU and that more than half of the ICSU Unions now have full membership of China. Several more are expected in the near future.

The GS explained the system for allocation of ICSU funds to scientific unions and that the IAU has obtained the basic allocation and Dollars 9,000, in total Dollars 21,634 for 1984. In particular, it was gratifying to get the ICSU support to the IAU VLP. The GS has become a member of the ICSU Executive Board and participates in the organization of the scientific meetings, which will be held at the time of the ICSU General Assembly in Ottawa, Canada, September 1984. Of further interest to the IAU was the decision to establish an ICSU Publishing House, but since it is too early to judge the efficiency, it is suggested that IAU should, for the time being, wait and see before considering the possibility of changing publishers.

ICSU has decided to sever the contacts with ICSU AB, which has become rather influenced by commercial abstracting services. It is expected that ICSU AB, under a new name, will request affiliation with ICSU in 1984. The EC decided to maintain representation of the IAU to ICSU AB for the time being.

18. COSPAR

The relations between COSPAR and the IAU were discussed and, in general, found to be very satisfactory. The necessity of avoiding duplication of effort was stressed and the general feeling that COSPAR is moving towards scientific fields in which IAU has already established Commissions was commented upon. It was emphasized that every effort should be made to maintain good relations with COSPAR and that attention should be given to coordination of meetings, etc.

The proposed, revised COSPAR Statutes were discussed and were

found to differ from those in force in a minor way only. The EC decided to accept this proposal and asked the GS to inform the President of COSPAR accordingly.

19. FAGS

FAGS was introduced by the GS as a subject of much discussion during earlier meetings of the EC. He expressed the hope that it would be possible at this meeting to arrive at a satisfactory conclusion of the protracted deliberations about IAU/FAGS interaction.

At present, IAU pays SF 2,000 per year (US Dollars 943 in 1982) to FAGS. This is less than what is paid by other Unions, e.g. IUGG and URSI, when calculated in proportion to the number of services in FAGS in which each Union is involved. Suggestions have been received from these Unions that the IAU increases its contribution to double or triple the current amount. In addition, various letters have been received emphasizing the usefulness of FAGS in providing long-term observations of important astronomical and geophysical phenomena. The data are made available not only to institutes and services in developed countries, but also to such institutions which would otherwise not be able to obtain these data. It was stressed that the total cost of the FAGS services is much larger than the contributions from ICSU and the supporting Unions, but that the latter is very important as seed money and also to stress the international interest in the individual services.

The GS further added that requests have been received from the Strasbourg Data Centre (France) and the Sunspot Index Date Centre, Brussels, Belgium, to become affiliated with FAGS. This consequently also leads to the necessity to review the IAU support to FAGS.

A profound discussion followed, in which the individual EC members expressed their views about the importance of FAGS and the need for IAU support. The President summarized the discussion

by suggesting that, as a temporary measure, IAU should immediately raise its contribution to FAGS to Dollars 2000 per year, but emphasize that the IAU expects FAGS to look into the possibility of a more efficient and cheaper distribution of data. The matter shall be taken up again at EC 52 in 1984, at which time the level of IAU support will be reviewed.

20. UNESCO

The GS reported that relations with UNESCO were in reasonable shape and that several discussions have taken place with UNESCO Officials in Paris. He drew attention to the possibility of future UNESCO support to the IAU VLP.

The President explained the status of the GERT project and mentioned that Profs. Hewish and Swarup will meet in September 1983 to see how the GERT project can be modified to assure greater usefulness and to provide Third World countries with a fully modern instrument. UNESCO has been told that there is a need for a technical review of the project and IAU has offered its support. It is expected that, following the Report on Seismicity in Indonesia at the proposed GERT site, the entire matter will be taken up again between UNESCO and IAU.

Initial UNESCO reactions were favourable to the possibility of having antennae in several countries working together within a VLBI system.

21. Other Organizations

The GS reported about collaboration with a number of other bodies:

CCMP: Following discussions within ICSU, it has been suggested to dismantle this committee, due to lack of activity and because it is not obvious that it is needed any more. The matter will be discussed at the meeting of the ICSU Board in Paris, January 1984. The GS was requested to take a neutral attitude in this question.

COSTED: The new IAU representative to COSTED has suggested that IAU can be of help to COSTED. Among the various possibilities, the translation of a low level astronomy textbook into several Third World languages is considered, together with making available astronomical slides to COSTED, which could then be distributed in many developing countries.

CODATA: The EC expresses doubt that there is much use of CODATA to IAU and requests the GS to approach the IAU representative, Prof. Hauck, to learn the reasons for continued collaboration, if any.

CCDM: The EC recommends that the new definition of the metre is accepted.

IUAA and IAF: The EC took note of the documents of affiliation which have been signed with these two organizations in early 1983.

IUBS: The EC expresses the hope that the IUBS will soon enter into formal contact with IAU Commission 51 and co-sponsor meetings organized by this Commission.

The EC took note of further information about some other organizations.

V OTHER BUSINESS

22. IAU Structure

The President reported that there had been no answers to a letter sent by him to Presidents of Commissions concerning this matter. He suggested that the central item of discussion should be the future Commission structure and asked the EC members to give their opinions.

Following extensive discussion, in which various proposals were made, it was decided to set up an ad hoc sub-committee to look into this matter. Prof. Wayman agreed to chair the sub-committee with Profs. Kraft and Feast as members. The sub-committee will set up its Terms of Reference and transmit these to the GS. In particular, it will be free to co-opt other members if deemed necessary. The sub-committee is expected to provide an overview of the current commission structure and a cristallization of opinions, not necessarily final, which could be discussed further by the EC in 1984.

23. Next Meeting of the EC

The EC decided to accept an invitation from Prof. J.-C. Pecker to hold its next meeting at Ile d'Yeu, off the western coast of France. The GS suggested that the first 3 or 4 days of the meeting could be held there, but that it would also be desirable to have the last day of EC 52 at the Observatoire de Paris, so that the EC members could see the IAU Secretariat and meet the ICSU and UNESCO officials, and others. This was agreed to by the EC and it was decided to hold EC 52 in the week commencing 10 September 1984. The GS will make the necessary practical arrangements.

24. Any Other Business

In continuation of the discussion at EC 49 and 50, the GS reported about the developments in two Human Rights cases. He was happy to report that Dr. Stawikowski has, in the meantime, been released from detention in Poland and has now, according to information received, reverted to astronomical research.

In reply to the letter of the former GS to the President of the USSR Academy of Sciences, concerning Prof. L. Ozernoy, a letter was received from the President of the Astronomical Council of the USSR Academy of Sciences, Prof. Mustel. Copies of this letter have been forwarded to the EC members. Information available seemed to indicate that Prof. Ozernoy did not agree to

the contents of Prof. Mustel's letter and felt that he is still being discriminated against. He had made a renewed application to the Soviet authorities to emigrate in order to take up a position in the U.S., but no decision has been made so far. The GS has been in contact with the ICSU Committee for the Safeguard of Pursuit of Science. The Chairman of that Committee, Prof. Gyllenberg, will go to Moscow in September 1983 and discuss the Ozernoy case, among other matters.

After a brief discussion, including information by Prof. Yatskiv that Prof. Ozernoy, according to USSR regulations, has to wait some years before he can emigrate, the EC decided to await information from the ICSU Committee before taking further action.

At the request of the AGS, the EC briefly discussed the threatening closure of the Laboratory on Atomic Standards at the US National Bureau of Standards. It was decided that IAU should not intervene, especially since it is likely that the matter will be clarified shortly.

VI CLOSING BY THE PRESIDENT

The President closed the meeting on Thursday 15 September, 1983 13.20, thanking all members for profitable discussions and wishing them a happy return home.