FIFTY-NINTH MEETING OF THE EXECUTIVE COMMITTEE

Stockholm, Sweden, September 1-4, 1989

Draft Minutes

<u>Present</u>

Y. Kozai President A.A. Boyarchuk President-elect A.H. Batten vice-President R. Kippenhahn vice-President P.O. Lindblad vice-President V. Radhakrishnan vice-President M.S. Roberts vice-President Ye Shu-hua vice-President D. McNally General Secretary
Assistant General Secretary
Advisor J. Bergeron J. Sahade Advisor J.-P. Swings Advisor

In attendance:

M. Orine

IAU Administrative Assistant

- I. OPENING & WELCOME BY THE PRESIDENT OF THE IAU
- II. INTERNAL MATTERS
- II.1. The minutes of EC 57, 58 were approved subject to minor typographical correction.
- II.2. The minutes of the Officers Meeting of 1989 February 23-24 were received (a copy is appended to these minutes).
- II.3. There were no matters arising from previous minutes which would not be considered in the Agenda for EC 59.
- II.4. Subject to minor rearrangement, the agenda was approved.
- II.5. The President reported on the progress of the Special Nominating Committee.

The Special Nominating Committee (G.B. Field, F.M. McCarthy, J. Rahe, R.A. Sunyaev, L. Woltjer, assisted by Past President Sahade under the chairmanship of Y. Kozai) had experienced some difficulty in maintaining communication. Nevertheless, progress had been made

in identifying a candidate for Assistant General Secretary. The President outlined the qualifications of the prime candidate. The candidate had been approached but discussions were still in progress. Meanwhile names had been suggested for vice-Presidents candidates from Europe and the Southern Hemisphere were being sought. It is expected that the work of the Special Nominating Committee will be complete by Executive Committee 60 (1990); (the report of the President is attached to these minutes).

II.6. The General Secretary reported on the Secretariat. The move of the Secretariat from a Gatehouse of the Observatoire de Paris to accommodation on the 3rd floor of the Institut d'Astrophysique took place in November 1988. While the new accommodation has about the same floor area as the old, it is much more suitably distributed for the Secretariat. The staff is less isolated. The IAU archive is now accommodated in the dead area under the telescope dome of the Institute.

The staff has worked hard during the past year to deal with the publication arising from the XXth General Assembly. In this they were not assisted by

- i) a UK postal strike.
- ii) a French postal strike,
- iii) breakdown of the local telephone exchange and
- iv) The move.

Highlights 8 was sent to press before the end of 1988 and has been published. Transactions XXB were now in press having been held up for a number of reasons the last of which was the final demise of the Union computer. The General Secretary expressed his thanks to Mrs. Orine for her able constance in the editorial work associated with both Highlights 8 and Transactions XXB. The staff had coped with the demands of a full time workload for at least 2 people in exemplary fashion.

The General Secretary requested the Executive Committee to sanction the spending of up to 20,000 Sw.F. on refurnishing the Secretariat. It was suggested that the office could be furnished in a way more welcoming to the Union's visitors. The expenditure was agreed.

The General Secretary requested the Executive Committee, in view of the demise of the Union's computer, as a matter of urgency, to proceed to the purchase of a new office computer system. A system was being sought which would substantially enhance the Union's data base capacity, provide facilities for systematic backup of the Union's data, allow local networking, provide good printing facilities (in view of the great age of the Union's Xerox word processor) and allow eventual connection to e-mail services. Several companies had been approached and costs appeared to be in the region of 40,000 Sw.F. The Executive Committee agreed that a new computer system for the secretariat should be acquired with all possible speed.

- II.7. The General Secretary raised the question of Union fundraising. The previous endeavours to find a means of raising funds for new Union projects had come to nothing. The General Secretary put forward the concept of an IAU Trust Fund to be managed by a Board of Trustees. The details of the proposal are set out in a paper attached to these minutes but in essence are:
 - i) Contributions would be sought from the Membership (Members currently pay no dues).
 - ii) The Union would make a contribution to match the contributions from the Members from normal Union funds up to some predetermined limit.
 - iii) Benefactors would be invited to make donations to the Trust.
 - iv) The revenue of the Trust would not be available to support ongoing Union projects -only new initiatives could be supported by the Trust and then only until such time as the new initiatives could be accommodated within the normal Union budget. After some discussion of the concept of a Trust, it was agreed that the General Secretary should test the views of the Membership of the Union by means of an article in IB 63.
- II.8. The General Secretary confirmed that at the end of the XXth General Assembly the Union had 6711 individual Members drawn from 55 Adhering Member Countries and 2 Associate Member Countries.

Currently, there were 34 Members of the Union for whom the Secretariat lacked addresses. Information on these Members would be sought through the IB.

The revision of the membership file was completed at the beginning of June. Changes of permanent address had been maintained on a separate file as of June 01 so that updates of the membership list could be issued. The mechanism of publication of the list was discussed and it agreed that revisions should be tipped into the IB as a pull out centre fold in the first instance. The first update would be published in IB 63.

II.9. The General Secretary reported the payments for 1989 were coming in slowly -31 countries had not yet paid their subvention. On the positive side one country had overpaid! The following countries are in arrears:

Country 🤚	Amount of Arrears (Swiss Francs)	Date last payment
Belgium	12,030	1987
Chile	4,408	1986
Egypt	7,540	1987
Iran	6,720	1984
Iraq	5,835	1985
Nigeria	5,835	1985
Rumania	21,150	1982

Turkey	5,520	1985
Venezuela	9,185	1983
Yugoslavia	11,670	1985

Total: 89,893

The arrears represent about 75 % of the annual budget for Symposia and Colloquia. After some discussion it was agreed that the General Secretary should write to the National Committee and other astronomers in the countries involved with a view to recovering some part of the arrears.

The General Secretary also repeated that he had written 9 countries (Brazil, Bulgaria, Chile, China, India, Italy, Spain, USA, USSR) whose category of adherence appeared too low with respect to numbers of Members. If the General Secretary's suggestions for new categories of adherence were accepted, 54 additional units of subscription would accrue, i.e. 115,830 Sw.F. of additional revenue for 1990. However, only the United States had responded. The United States is a special case -the USA is the only Adhering Country in category VIII (30 units of subscription), the highest category that the Union has. The USA contributes about 30 % of the Union membership and about 15 % of the Union budget. There is, as now, no category of adherence that the USA could move to, so it was suggested for the interim, that the USA might like to make a special additional contribution of 20 units annually. The response from the National Science Foundation was chilly -however, the US National Committee for Astronomy has yet to consider the request. The two other countries with membership levels most out of line with category of adherence are Italy and Spain.

The General Secretary reported that an approach had been received from Vietnam concerning Membership of the Union. A reply had been sent and the matter is now with Vietnam. The Executive Committee were not collectively aware of the state of astronomy in Vietnam.

II.10. Commission Matters

Com. 46. Prof. Sahade reported on the 16th ISYA in Havana, Cuba. He felt that the school had been successful but was disappointed by the lack of participation from other countries in the Carribean and Central America. It was admitted that there was little astronomical activity in the region -ISYA are supposed however to promote such interest. It was a matter of regret that arrangements could not be made for the IAU Travelling Telescope to be sent to the school. The General Secretary reported he had received a request for \$ 2500 for the transportation of the telescope by the Cuban Airline. This charge was excessive in the light of a fare of \$ 550 for the associated technician. The request for funding was declined. The General Secretary also reported the receipt of a list of desiderata for books for the school from Alvarez. The contents of the list seemed inappropriate for a school and seemed more like a request for the nucleus of a research library.

Com. 46. The General Secretary reported that an extension contract had been drawn up for the Paraguayan VLP. The contract was now ready for signature and translation into Spanish. Funding for 1989 would come from a grant of \$ 2000 from CLAF. The contract would be signed on behalf of the Union by J. Sahade.

Com. 46. The General Secretary reported that the Union had been advised by Prof. W. Christiansen, Chairman of the Chinese VLP Committee that no further action should be taken on the Chinese VLP following the events in Beijing in June 1989. The Committee would await a new approach from Prof. Wang in the future to re-initiate activity.

Com. 10/12. The General Secretary reported that a detailed report had been received from the President and vice-President of Com. 10 President of Com. 12 on the delayed production of Photoheliographic Results by the Debrecen Observatory. The Debrecen Observatory had taken over the production of the Photoheliographic Results from the Royal Greenwich Observatory at the end of 1976 but to date had only published the Results for 1977. The report praised the quality of this publication but expressed concern for the lack of further progress. Part of the problem was lack of finance but a considerable part of the problem lay with the small number of people employed on the task. The report argued that the absolute positions of sunspots were invaluable for long-term analysis. The General Secretary reported he had requested ICSU for a grant of \$ 5000 to help defray the costs of publication in the hope that the Hungarian Academy of Sciences will provide a matching grant. The Executive Committee remained unconvinced of the value of the Results in the sense of the number of scientists that would use them. They argued that traditional publication may not be the best way to make the Results available. However, it was agreed that every effort should be made to publish the backlog but that consideration should be given to how the Results are to be archived for the future and, following the retirement of Prof. Deszo, the question of whether or not the Debrecen Observatory is the best place to produce the Results should be addressed. If a grant was successfully obtained from ICSU, a small IAU Committee would have to be formed to supervise the publication of the backlog.

 $Com.\ 10/12$. The General Secretary reported that Com. 10 & 12 were seriously considering a merger and were polling members on the issue. Such a merger, if it took place, would be welcomed by the Executive Committee.

Com. 41. The General Secretary suggested that as the Union would celebrate 75 years of existence in 1994, consideration should be given to the preparation and publication of a history of the Union. It was pointed out that there is a declining number of members still alive who remember the Union before the second World War. This collective memory would be a valuable record for the preparation of a centennial history. The Executive Committee instructed the General Secretary to approach the President of Com. 41 (History of Astronomy) to see what arrangements could be made for the writing of the 75 year history.

Misc. The General Secretary reported that an approach had been received from Prof. R.O. Vicente regarding the mechanism for forming a new Commission of the Union. This request indicated that no formal mechanism was clearly laid down in either Statutes, Bye-laws or Working Rules apart from the fact that new Commissions were established by the General Assembly. The General Secretary had informed Prof. Vicente that a strong scientific case supported by a significant number of Commissions would be the minimum requirement to needed by the Executive Committee before any recommendation could be made to the General Assembly. It was agreed to leave matters at that point and await a proposal.

II.11. General Assemblies

XXIst 1991

The General Secretary reported on his visit to Buenos Aires, 1989 May 15-20 to meet the LOC of the XXIst General Assembly 1991. The facilities available at the Buenos Aires Conference Centre were of an appropriate standard -if rather large on the whole. A suite of 9 meeting rooms, 3 theatres and adequate office space for the IAU, LOC, NOC would be available. There was good circulation space for exhibitions, poster sessions and social activity. The main lack was meeting room for the smaller meetings as all the rooms had a capacity in excess of 100. The staff of the Conference Centre were welcoming and it was clearly an appropriate location for the General Assembly.

There were no University Dormitory facilities available in Buenos Aires. Participants would have to be accommodated in hotels of which there was an adequate range in the neighbourhood. Prices ranged from \$20 - \$750 per night with breakfast -the median price being about \$100/night. The LOC had every confidence that a 30 % reduction in hotel prices could be negotiated. The LOC had selected the Bauen Hotel as a suitable venue for the Executive Committee. A week's stay in that hotel indicated that it had the facilities available which the Executive Committee would require. It is 2 blocks from the Conference Centre.

There is a variety of restaurants in the neighbourhood of the Conference Center to suit all tastes and purses. The Bauen Hotel was willing to provide a daily buffet lunch. No refectory facilities exist at the Conference Center itself.

The principal problem facing the General Assembly was Argentinian inflation. In May, this was 10 % a day. Sahade was able to assure the Executive Committee that the smooth and early transition between the Alphonsine and Menem administrations had allowed inflation to be tackled vigorously and the rate was currently 10 %/month and falling. As far as could be foreseen at a distance of 2 years it would be reasonable to assume that the level of inflation would be withing acceptable limits well before the General Assembly. Members of the Executive Committee who had taken diplomatic advice confirmed Sahade's analysis. The intention to hold the XXIst General Assembly in Buenos Aires was confirmed and it was agreed that the backup arrangements would be relinquished.

XXIInd 1994

Invitations for the XXIInd General Assembly in 1994 had been received from China, Japan and the Netherlands. It was decided that since the XXIst General Assembly will be held in a distant location, it would be best to hold the following General Assembly nearer to the astronomical centre of gravity. The Executive Committee instructed the General Secretary to investigate the suitability of the Netherlands as the venue for the XXIInd General Assembly. China and Japan were warmly thanked for their invitations with the hope that it might be possible to take up one or other invitations for the XXIIIrd, or subsequent, General Assembly. The Netherlands' willingness to provide a backup for the XXIst General Assembly until September 1989 was greatly appreciated.

Format of the Future General Assemblies

The Report of the Working Group on the format of General Assemblies received and discussed. While appreciating the reasons underlying the changes proposed, the majority viewpoint of the Executive Committee was that a change of format was not necessary. However, they felt that it was a matter of such importance that an experiment should be implemented at the XXIInd General Assembly on the basis of the Working Group's proposals with a view to asking the Union to decide what future format should be. Because of the severe impact of the Working Group's proposals on the normal expectation of the Commissions, the General Secretary was instructed to send a lightly edited version of the Working Group's report to all Commission Presidents for consideration and comment. The Executive Committee, while confirming that there could be no change of format for the XXIst General Assembly in 1991, decided to implement two minor proposals of the Working Group:

- i) to add a vice-President/President-elect to the Scientific Organising Committee of each Joint Discussion;
- ii) to institute, as an experiment, a poster session at XXIst General Assembly. The General Secretary and Assistant General Secretary would be responsible for maintaining the scientific level of the posters so as to minimise the logistical input. The success or otherwise of the poster session would be reviewed at the 63rd meeting of the Executive Committee. Additionally, the Commissions were to be asked to resolve as much routine business as they could by correspondence to keep business sessions as short as possible at General Assemblies.

I.I.12. Finances of the Unions

Vérification des Comptes 1988

The accounts for 1988 were presented and discussed. The Union's accumulated balance had decreased with respect to previous years in view of the high cost of the XXth General Assembly. Other expenditure was in line with budgetary expectation. The General Secretary explained that about 10,000 Sw.Fr. of the overspend on the General Assembly was accounted for by the Union's subvention of the Telegram Bureau; Minor Planet Circulars, etc. which had been wrongly subsumed into General Assembly expenditure by the Secretariat. The audited accounts were accepted by the Executive Committee.

Financial state of the Union at 1989 June 30

A brief summary of the Unions accounts to 1989 June 30 were presented. These accounts underlined the slow rate of payment by Adhering Countries. Because of the 6 months moratorium on Symposia, Colloquia either side of a General Assembly, little expenditure, apart from the secretariat, had been incurred by the Union. The provisional accounts were accepted by the Executive Committee.

Working of the Finance Advisory Committee

The Finance Advisory Committee was established after the XXth General Assembly to give guidance to the General Secretary on the disposition of the Union's Deposit Accounts. It was not possible for the Committee to help the General Secretary until the 1988 Accounts had been audited and an exchange of correspondence had taken place. It is still too early to evaluate the operation of this Committee.

Union allowance for inflation

The Unions allowance for inflation has been about 3 % for a number of years. This figure has been arrived at as an amalgamation of inflation rates in a number of countries. However, the Secretariat is based in France and is therefore subject to French cost inflation which is more of the order of 8 % annually. The consequence is, since the secretariat constitutes just over 1/3 of the Union costs, that scientific activities have been maintained on a basis of level funding in terms of budgetary allowance, i.e. a decrease in real terms of the Union support for science. The General Secretary considered that in next triennium a 25 % increase in revenue was necessary to bring Union spending on Science back to 1986 levels. Discussion confirmed that 25 % would prove to be an unacceptably high increase and the Executive Committee eventually agreed to a 15 % (i.e. 5 %/annum) increase for the next triennium. It was recognised that this level of allowance for inflation would not restore the 1986 level of expenditure but would be a significant step towards partial restoration of the effects of international inflationary pressures.

II.13. Publications

The General Secretary reported discussions that had taken place with Kluwer. Following IAU Colloquium No. 110 on Library and Information Services in Astronomy, Hattinck and Kiers had expressed concern regarding the expressed intention of Librarians to buy paperback copies of symposia proceedings. Since the difference in cost between binding in hard and soft back is marginal, Kluwer anticipated loss of revenue. Such loss is a cause for concern to the IAU also since it could affect the IAU royalty on sales of symposia volumes, etc.. Kluwer subsequently reiterated this point and the EC felt that publication in only one form of binding was not a critical point provided the costs of purchase to members of the Union were not hazarded by such a change. A discount of 75 % off the hardback price was required to maintain parity with current softback discounts for members.

Kluwer were also dissatisfied with the time editors took to deliver camera ready copy. They wished to offer IAU editors an honorarium which would reduce as the delay increased. The Executive Committee observed that the IAU rules enjoined editors to deliver the camera ready manuscript within 3 months and that the General Secretary should be advised by Kluwer if there were serious delay. Reminders might be sent by the Secretariat to editors following the conclusion of symposia and then after the elapse of 3 months. However, the Executive Committee was opposed to the concept of an honorarium for editors.

The distribution cost/delivery time issue was discussed in respect of the Information Bulletin. It would cost a factor of 2-3 more than present costs to send the Information Bulletin airmail universally. It was agreed that Kluwer should use a cheap bulk delivery service for most Information Bulletins but in the case of particular urgency a more expensive quicker service could be authorised by the General Secretary.

The General Secretary reported that Kluwer had offered to extend the existing contract on the same terms for a further 3 years (NB: this is a somewhat empty offer since article IX.2 of the present agreement provides for automatic extension for a second 6 year term if neither party gives notice of termination!). The Executive Committee determined that the current agreement be terminated at the end of its first 6 year term and a call for tender for a further 6 year term should be put in hand.

The Executive Committee agreed to a suggestion by Kluwer to require all authors to sign a "Consent to Publish" form for the IAU Symposium series. As part of this form the copyright to the published material is transferred from the authors to the Union and an escape clause is available where certain classes of author are unable to give consent to such transfer of copyright.

The Executive Committee received a listing of institutions in receipt of free or reduced cost IAU publications.

Additionally under section II of the Agenda, the Executive Committee received two discussion papers (on Commissions and Transactions respectively) for consideration and discussion at the 60th Executive Committee Meeting.

III. SCIENTIFIC ACTIVITY

III.1. Meetings

Symposia *

No. 148 The Magellanic Clouds & their Dynamical Interaction with the Milky Way, Sydney, Australia, 9-13 July 1990.

No. 149 The Stellar Populations of Galaxies, Brazil, August 1991.

No. 150 The Astrochemistry of Cosmic Phenomena, Brazil, August 1991.

No. 151 Evolutionary Processes in Interacting Binary Stars, Cordoba, Argentina, August 1991.

Colloquia

No. 128 Magnetospheric Structure & Emission Mechanisms of Radio Pulsars, Lagow, Poland, 17-23 June 1991.

No. 129 Structure & Emission Properties of Accretion Disks, Paris, France, 2-6 July 1990.

No. 130 The Sun & Cool Stars: Activity, Magnetism, Dynamos, Helsinki, Finland, 17-21 July 1990.

No. 131 Radio Interferometry - Theory, Techniques & Applications, Socorro, USA, 8-12 October 1990, co-sponsored by URSI.

No. 132 Instability, Predictability & Chaos in Celestial Mechanics & Stellar Dynamics, Delhi, India, 10-13 October 1990.

No. 127 Reference Systems, Virginia Beach, VA, USA, 14-20 October 1990. Co-sponsored by IAG/IUGG.

No. 133 Eruptive Solar Flares, Buenos Aires, Argentina, July/August 1991.

III.2. Regional Meetings

5th Asian Pacific Regional Meeting, Sydney, Australia, 16-20 July 1990.

III.3. Cosponsorships

None

The General Secretary reported on discussions he had had with Prof. W.I. Axford, President of COSPAR on the vexed question of meeting overlaps between COSPAR and IAU. It was clear that in the nature of both bodies interest in the same subject areas is bound to occur. There was no unique way of providing a boundary between these areas of interest of both bodies. Again the schedule of meetings of both bodies does not permit the COSPAR Bureau to give the IAU Executive Committee much notice of COSPAR meeting proposals. It was agreed that it would be beneficial if either the General Secretary or Assistant General Secretary could attend those parts of the COSPAR Bureau meetings which dealt with Meetings. The summary tables of IAU Meetings sent to the COSPAR Secretariat were useful. It was agreed that it was important to reduce friction between COSPAR and the IAU.

The problem of COSPAR and the IAU General Assemblies occurring in the same year (as in 1988) every 6 years was also discussed. Clearly no conclusion could be reached on the impact of each General Assembly on the other. Prof. Axford proposed a joint IAU/COSPAR jamboree in the same location every 6th year (every other IAU General Assembly and every third COSPAR General Assembly) separated by a week of Symposia. Both sides could see objections to such a

scheme but the General Secretary suggested this could be an appropriate way to mark the millenium in the year 2000.

The Executive Committee hoped that better relation between COSPAR & the IAU would result. It was felt that it would be appropriate for either the GS or the AGS to attend meetings of the COSPAR Bureau. The Executive Committee exhibited little sympathy for co-located General Assemblies of both bodies.

III.4. International Schools for Young Astronomers

The 16th School in Cuba took place 1989 July 31 - August 20 and was reported upon earlier by Sahade.

The 17th School is being planned for Malaysia 1990 May 20 - June 15. A School is under discussion for North Africa to be held in Morocco in 1990. Proposals are not yet finally formulated. The Executive Committee agreed to this School in principle noting that the proceedings should cater for the English speaking countries of North Africa.

Josip Kleczek has been associated with the Schools since the inception in 1966. To date he has organised 16 Schools on behalf of the IAU (with UNESCO support originally). He has indicated his wish to retire as Secretary of the ISYA at the next General Assembly. Commission 46 has undertaken the difficult task of finding a replacement. By the next General Assembly, Kleczek will have organised 18 ISYA -a remarkable record- which should be duly recognised at that time.

It is highly probable the UNESCO will make substantial additional funding available in respect of the ISYA in 1990. The extent of the funding will be confirmed later in 1989.

The Travelling Telescope is now complete and ready for use. It had been hoped to send it to the 16th ISYA in Cuba but difficulties in regard to travel costs prevented this occurring. In the interim Air Canada have offered to fly the Telescope and accompanying technician anywhere in the world served by Air Canada free of charge during 1990. While this does not solve all problems it is a substantial help particularly in the case of the Malaysian School. Paraguay also has an interest in the Telescope in association with the VLP. The Executive Committee asked the General Secretary to thank Air Canada for the generous support and to ask Troche-Boggino to investigate the possibility of free transport by Paraguayan Airlines and where they link with Air Canada.

III.5. J. Sahade, reported on the progress being made by the Working Group on the Swedish Resolution.

Although some limited progress was being made by correspondence, Sahave believed that more progress would be possible if the Working Group could meet. It was suggested that a meeting at the Secretariat might be possible in the autumn of 1989 funded as a project of the Executive Committee. The General Secretary reported that he had

approached Sir John Kendrew, Chairman of the ICSU Committee on the Ethical Problems of Science and that after some persuasion, Sir John had agreed to consider the Ethical Problems posed by the militarisation of space.

A.H. Batten reported on the Activities of the Working Group for the World-wide Development of Astronomy. The group had spent the year in setting up their organisational structure and are in the course of finalising their terms of reference. The group is seeking a session at the XXIst General Assembly. The group is currently looking at a proposed Latin American Centre for Astronomy, the Indian Centre, Library Twinning and the Travelling Telescope.

A move to consider non-convertible balances within the Union was not acceptable -the idea, though apparently resolving problems experienced by scientists from Eastern Europe, was inoperable as Unions who had tried the experiment had found to their cost.

No terms of reference have yet been received from the proposed Working Groups on Photography, Relations between Amateurs & Professional Astronomers and Astronomical Software & Computer Communication.

III.6. The communication from Bruce Campbell, Dominion Observatory, Victoria, Canada on the subject of formulating an IAU policy on the naming of extra-solar planets was referred to the Chairman of the Working Group on Planetary Nomenclature.

IV. INTERNATIONAL ACTIVITIES

IV.1. ICSU

The General Secretary attended the ICSU General Assembly in Beijing, China, 1988 September 4-16. The report on this meeting was sent to the Executive Committee and is appended to these Minutes.

The General Secretary reported that a grant proposal had been put to ICSU in respect of the VLP as well as the Photoheliographic Results mentioned earlier in these Minutes.

The General Secretary reported on the ICSU Meeting of Union Treasurers (Paris 1989 April 26). ICSU is to adopt a new formula in paying the Unions and will deduct Unions dues instead of billing them. On the debit side, ICSU will be examining Union balances (some Unions have very large balances). The Unions were anxious to ensure that balances equivalent to a year's working were exempt from such examination (anticipated to lead to further decreases in the ICSU subvention to Unions with large balances). A highlight of the meeting was a talk by Ms. L. Kofmehl of Merrill Lynch (New York) on the topic of managing Union funds giving the example of the Merrill Lynch management of ICSU balances. As a consequence a meeting has been tentatively arranged with her for September to discuss the management of ICSU balances.

ICSU is hoping to obtain funding from the United Nations Development Programme (UNDP) and asked member Unions to submit projects to be considered in a major proposal to be prepared by ICSU for submission to UNDP. The IAU suggested six projects, five for 1990 and one for the period beyond.

- i) Funding to support initial travel costs
 for Ph.D. study of "Graduates" of IAU VLP's \$ 1500/annum
 & ISYA
- ii) Two Senior Service Fellowships to allow Scientist with an established research \$210,000 record to develop collaboration with (over 3 years) large scale astronomical projects e.g. Space Telescope)
- iii) Contribution to the IAU distribution of books

\$ 6000/annum

iv) Contribution to dissemination of CDS/NASA (single data bases on CD row to 3rd World contribution)

\$ 5000

v) Support of astronomical Data Centres to help 3rd World Countries

\$ 5000/annum

Additionally, the IAU proposed that UNDP funding might be used to support a research project to investigate the use of astronomical photometric data to study changes in the transparency of the Earth's Atmosphere on a global basis over the period since the establishment of the UBV system. The cost of a one year explorating programme would be \$ 40,000.

The Executive Committee endorsed these proposals pointing out that the last on the use of photometry to investigate the transparency of the Earth's atmosphere had already been attempted. However, the problem probably warranted further investigation and extension.

FIG (Federation Internationale de Géométries -i.e. Surveyors) is seeking Associate Status with ICSU and has asked for IAU support. The General Secretary asked the Reader in Photogrammetry (Dr. A. Allen) at University College London for more detail on FIG (of which he is a member). FIG is the professional international body for surveyors and is concerned with professional codes of practices, ethics, etc, but also carries out high class research. On balance Allen felt Associate Status with ICSU could be therefore justified. However, IUGG are against Associate Status for FIG on the grounds of commercial activity. The Executive Committee recommended no action be taken at this time.

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IV.2. COSPAR (See also III.3)

COSPAR are introducing two new medals -the Massey award to be awarded in association with the Royal Society and the Vikram Sarabhai award to be awarded in association with the Indian Space Research Organisations. Proposals were urgently required and it was

agreed these should be sent to the General Secretary for forwarding to the COSPAR secretariat.

IV.3. FAGS

The Presidents of Commissions 19 and 31 made a recommendation for a substantial increase in the IAU subvention to FAGS. The Executive Committee accepted there was no scope in the budget 1989-1991 for such an increase. The Executive Committee recommended a modest increase in subvention in the 1992-1994 budget proposals.

There was a discussion of reorganisation of Solar Services under FAGS including whether or not the Photoheliographic Results should be incorporated under FAGS. The discussion turned on alternative means of archiving the solar data and its accessibility. No firm conclusions were reached.

IV.4. UNESCO

Following the encouragement received from UNESCO at the XXth General Assembly a substantial grant proposal was submitted to UNESCO designed to enhance the IAU ISYA, VLP and to establish IAU studentship travel funds and Senior Fellowships. The proposal was obliquely acknowledged by UNESCO who undertook to make every effort to include "at least some of the proposed projects in the draft of our (i.e. UNESCO) programme & budget". This was amplified in conversation with Dr. Raither who regretted that, in fact, the hope for increase in UNESCO funding had not materialised and the IAU proposal could consume the bulk of the UNESCO science budget. The optimism of 1988 has clearly to be tempered by the financial realities of 1989.

However, Dr. Raither has been in communication once again and it seems there is a good chace of a UNESCO grant for the 1990 ISYA. The figure quoted is \$20,000 but is subject to confirmation in late 1989.

The proposal by J. Sahade that the Union should reassign some VLP funding for travel support to graduates of VLP's to initiate higher degree studies up to a limit of \$ 1500 in total annually was agreed, out of UNESCO funds if received.

IV.5. International Data Centres

Dr. C. Jäschek of CDS, Strasbourg, has proposed that recognition be given to the international activities of the five astronomical data centres. While all are nationally based, they also serve an international community. Data Centres are difficult to maintain in respect of basic funding and manpower -despite the extensive use made of them by the astronomical community. He would like to see an IAU Federation of Astronomical Data Centres with a small annual subvention to help defray some of the costs of international activities.

In discussion, it was indicated that CDS is internationally recognised through its subvention from FAGS. However CDS is the only data centre recognised in this way. The General Secretary pointed out that a proposal to help the Data Centres was included in the IAU proposal to ICSU under the UNDP scheme. Developments in this field would be carefully watched to see if further action by the IAU might be required.

V. OTHER BUSINESS

V.1. Date & Place of next meeting

R. Kippenhahn undertook to investigate the possibility of holding the 60th meeting of the Executive Committee in Munich in 1990. Should Munich not prove possible, A.H. Batten suggested that Victoria B.C. might be considered as the fall back position.

The dates for the meeting were left in some ambiguity but 1990 September 7-10 seemed the most favoured dates.

The Secretariat would inform the Executive Committee when the situation was clarified.

V.2. Advance of date of 60th Executive Committee Meeting

A request had been received from the Local Organising Committee of the XXIst General Assembly that the 60th Executive Committee Meeting should be held early in view of the decisions it would make in respect of the scientific programme. The Local Organising Committee would thus have more time to prepare a Preliminary Programme. The General Secretary opposed this request on logistical grounds and, as such an advance of date did not suit many Members of the Executive Committee, it was not agreed.

V.3. Any other business

Request from Athlone Press:

A request had been received from the Athlone Press for an IAU subsidy to support the publication of the 4th edition of Astrophysical Quantities. While welcoming the intention to publish a 4th edition, the Executive Committee considered agreement to this request would set an unfortunate precedent for the future and was not agreed.

Hipparcos;

A resolution was passed asking ESA to do all in its power to support the implementation of Hipparcos II following the failure of the satellite to go into geosynchroneous orbit. The value of the project was such that the residual programme which was now possible from the transfer orbit was inadequate.

Fang Li Zhi:

A carefully worded request was sent to the Zhou Guang Zhao requesting the at the Chinese Academy of Science & Technology assist in the restoration of freedom to Fang Li Zhi to continue his scientific research.

VI. CLOSURE BY THE PRESIDENT

The President closed the meeting by thanking our hosts, the Stockholm Observatory at Saltsjöbaden, through P.O. Lindblad for the excellence of the arrangements, the helpfulness of the local assisting staff and for the kind hospitality which the Executive Committee had received -particularly the Sunday excursion to the Archipelago, the dinner party given by the Lindblads and the operatic evening at the Dröttingholm Theatre.