

INTERNATIONAL ASTRONOMICAL UNION

Sixty-first Meeting of the Executive Committee

Buenos Aires, Argentina, 1991 July 21, 22 & 30

MINUTES

I. OPENING AND WELCOME BY THE PRESIDENT OF IAU

Professor Y. Kozai welcomed the members of the Executive Committee to the 61st meeting held in the Consular Room of the Bauen Hotel, Buenos Aires.

II. INTERNAL MATTERS

II.1.1 Minutes of EC 60

The Minutes of EC 60 were confirmed after correction of typographical errors.

II.1.2 Report of the Officers Meeting 1991 Feb. 7,8

The Report of the Officers Meeting of 1991 February 7,8 was received (Annexe I).

II.2. Matters arising from the Minutes

There were no matters arising from the Minutes of EC 60 which were not a part of EC 61.

II.3. Approval of the Agenda

The Executive Committee agreed to the General Secretary's suggested time sequencing of the Agenda extended to include a short presentation by G. Kiers on possible future trends in scientific publishing.

II.4. Report of the Special Nominating Committee 1988-1991

The President reported that the Special Nominating Committee had completed its task in establishing the Executive Committee 1991-1994. The following names would be proposed to the XXist General Assembly.

As President:	A.A. Boyarchuk
As President-Elect:	L. Woltjer
As Vice-Presidents:	D. Mathewson
	F. Pacini
	V. Radhakrishnan
	M.S. Roberts
	J. Smak
	Ye Shuha

- II.8. Adhering bodies
- II.8.1. Status of payments of 1991 subventions as of 1991 June 30 to be supplied in BA
- II.8.2. Adhering countries in arrears as of 1990 December 31 II.8.2
- II.8.3. Argentina, Iran and Venezuela have either paid off or made arrangements to pay off their arrears. These countries can vote at the General Assembly.
- II.8.4. No further offers to increase categories of adherence has been received.
- II.8.5. The President has visited Vietnam to open contact between Vietnam and the IAU. He has proposed two Vietnamese Astronomers for List B and one as a consultant to Commission 46. President II.8.5
- II.9. Commission Matters
- II.9.1. The role of Commission 48 -High Energy Astrophysics II.9.1
- II.9.2. Commission 35 has objected to the renaming Commission 12 Solar Structure. However, agreement has been reached on renaming Commission 12 -Solar Radiation & Structure. II.9.2 a/b
- II.9.3. In the absence of a proposal for the author of the IAU 75 Year History from Commission 41, Prof Blaauw was invited to undertake the task. He has agreed and will be assisted by Muller, Pecker, Wayman and later by Perek. GS
- II.9.4. List of Presidents & Vice-Presidents of Commissions 1991-1994 II.9.4
- II.10. General Assemblies
- II.10.1. XXIst General Assembly, Buenos Aires, 1991 July 23-August 01 GS
- II.10.1.1. Visit of GS to Buenos Aires to attend LOC Meeting 1991 April 22-27 II.10.1
- II.10.1.2. Draft Programme published in IB 65, Final Programme in IB 66.
- II.10.2. XXIInd General Assembly, the Hague, 1994 August 16-25
- II.10.2.1. Invitation from Netherlands NOC to be supplied
- II.10.3. Format of Future General Assemblies II.10.3

II.11.	Finances of the Union	
II.11.1.	Vérification des Comptes 1990	II.11.1
II.11.2.	Financial State at 1991 June 30	to be supplied in BA
II.11.3.	Finance Advisory Committee	GS
II.12.	Publications	
II.12.1.	Symposia published since EC60) Supplied
II.12.2.	Colloquia published since EC60) by AGS
II.12.3.	Transactions XXIA were published in April 1991	
II.12.4.	IB 65, 66 were published in Jan. & July 1991. IB 65 was subject to a delivery delay caused by difficulty in putting IB 65 in envelopes. There has been dipute over this issue with Kluwer. Future IBs will be packed in transparent plastic.	
II.12.5.	As requested by the Executive Committee, Presidents of Commissions were asked for their views on Transactions A.	II.12.5
II.12.6.	The new Contract for IAU publications was signed with Kluwer in 1991 March.	
II.13.	The Report of the Executive Committee 1988-1991	II.13.1
II.13.1	To consider the Draft Report of the Executive Committee (A shortened version is printed in IB 66).	
II.14.	Committee on the Swedish Resolution	II.14
III.	SCIENTIFIC ACTIVITY	
III.1.	Meetings	
	NB: Meeting proposals for 1993 are adjourned to EC62	
III.1.1.	Proposed Symposia) Supplied
III.1.2.	Proposed Colloquia) by AGS
III.1.3.	Proposed Regional Meetings	GS
	- VIth Asian Pacific, Aug. 16-20, 1993, Pune, India	
	- VIIth Latin American Regional Meeting, Nov. 2-6, 1992, Santiago, Chile	

III.1.4.	Proposed Co-sponsored Meetings) Supplied) by) AGS
III.1.5.	The Meeting on Adverse Environmental Impacts	III.1.5 GS
III.2.	ISYA	
III.2.1.	Currently there are two proposals for future ISYA.	
III.2.1.1.	China PR	III.2.1.1
III.2.1.2.	India	III.2.1.2
III.2.2.	The 18th ISYA was held in Marrakesh, Morocco 1990 September 10-29. The school was the last to be organised by Dr. Kleczek and was the first francophone school. The reports from the school suggest a highly successful school. The school was attended by 42 Students, 22 of whom were from outside Morocco and representing 13 countries. Summary Report of School in IB 65 p. 7.	
III.3.	VLP (Visiting Lecturers Programmes)	
III.3.1.	A PC has been bought for the Paraguayan VLP.	
III.3.2.	There continue to be difficulties in attracting Lecturers for the VLP. Although the contract period for the Peruvian VLP has expired, the IAU has been unable to deliver the requisite number of lectures. There have been difficulties in Paraguay with the living conditions and stipends for the visiting Lecturers. Lecturers are difficult to find because of problems over leave of absence with salary. Neither host institutions seem willing to increase astronomical appointments.	J. Sahade
III.3.3.	There has been a new proposal for a Chinese VLP This proposal meets with the approval of Christiansen & Wentzel and seems to offer a better prospect of enhanced astronomical activity than the other VLP projects.	III.3.3
III.3.4.	Letter from Wentzel on lack of accountability, inspection and follow up in IAU activities such as ISYA and VLP.	III.3.4
III.4.	Working Groups	
III.4.1.	WGWWDA (WG on World Wide Development of Astronomy)	A. Batten

III.4.2.	WGPSN (WG on Planetary System Nomenclature)	
III.4.2.1.	Report of the WGPSN	III.4.2.1
III.4.2.2.	There has been correspondence concerning the disputed names for the Neptunian Satellites. Marsden has withdrawn his objections on the understanding that WGPSN will in future avoid duplication of names. The WGPSN had noted that there was already duplication of names within the Solar System but they have altered their working rules to specifically avoid such duplication in the future. On this basis the proposed names could now be accepted. There will be one further duplication -Pan: used for a Minor Planet and proposed for Saturn XVIII.	
	Marsden has been requested to look at the manner in which Minor Planets are named so that duplication of naming is avoided. In view of the fact that there are just under 5000 Minor Planets with defined orbits, it has been suggested to Marsden that a numerical scheme might be more appropriate.	
III.4.3.	WGASCC (WG on Astronomical Software & Computer Communication)	GS
III.4.4.	WGRPAA (WG on Relations between Professional & Amateur Astronomers)	III.4.4
	Terms of Reference	
III.4.5.	A proposed WG for Data Centers	III.4.5
III.5.	Publication on behalf of IAU	
III.5.1.	Debrecen Photoheliographic Results	
	No information has come from Debrecen or the Hungarian Academy of sciences on publication of Photoheliographic Results.	
III.5.2.	IBVS	
	This publications has effectively ceased -again because of financial difficulties at Konkoly Observatory.	III.5.2.1 III.5.2.2
	Bulletin is of great importance to variable stars observers.	
	Proposal from M. Breger (Commission 27)	III.5.2.3
IV.	<u>INTERNATIONAL ACTIVITIES</u>	

IV.1. ICSU

IV.1.1. ICSU General Assembly, Sofia, October 1990

Report to EC

IV.1.2. UNDP Grant Application

This grant application is still pending. It looks now as though any grant to ICSU by UNDP will not occur before 1992. The IAU element of the grant still stands.

IV.1.3. ICSU Subvention

The mechanism of the ICSU subvention has been clarified. ICSU makes each Union a consolidated grant (subsuming the former standard grant plus specific grants). The Union will continue to pay a subvention to ICSU which will not now be returned to the Union. The amount of the subvention paid to ICSU is 2.5% of Union receipts from Adhering Organisations for the calendar year. There will be an increase in the amount of the subvention in 1993 to 3.5% of receipts from Adhering Organisations.

On behalf of the IAU the General Secretary has written to ICSU to state that the IAU objects to a 40% increase in dues. The projected grant from ICSU in 1993 is 28,900 SwF and the projected subvention to ICSU is 21,350 SwF. The ICSU grant to the IAU is then 7,550 SwF or \$5,800 (the current standard grant is > \$8,000). Currently the state of play between the IAU and ICSU is that the IAU will pay its subvention at the 2.5% level in 1993 and that ICSU will regard the IAU as being in good standing and not a debtor.

IV.1.4. The application from the International Union for Vacuum Science, Technique & Applications (IUVSTA) for Associate status with ICSU was well received by the General Assembly. Associate status has now never not yet been granted by ICSU.

IV.2. UNESCO

UNESCO has awarded the IAU \$10,000 to prepare the Meeting on Adverse Environmental Impacts on Astronomy: an Exposition and will award a contract of \$20,000 to support the meeting and its publication.

IV.3. COSPAR

IV.3.1. The new Charter for COSPAR has raised some problems with other Unions (e.g. URSI).

IV.3.1

Comments by ICSU

IV.3.2

The IAU did not see particular problems when the Charter was discussed at the COSPAR Executive Council in June 1990.

IV.3.2. Proposals for Massey, Vikram Sarabhai and Zel'dovich Awards IV.3.3

IV.6. European Astronomical Society

A Council has been established to govern EAS. J.-P. Swings
The Council was nominated by a Special Nominating Committee composed of former General Secretaries of the IAU (Contopoulos, Müller, Pecker, Perek, Wayman, West-convenor) and the present General Secretary. The first Council met in Geneva in March 1991.

V. OTHER BUSINESS

V.1. EC 62 will be held 1991 August 01, room G, San Martin Cultural Conference Centre, Buenos Aires at 14.00.

V.2. AOB

VI. CLOSURE BY PRESIDENT

As General Secretary: J. Bergeron
As Assistant General Secretary: I. Appenzellar
As Advisors: Y. Kozai
D. McNally

II.5. Secretariat

The General Secretary reported that the new contract between the IAU and CNRS had not yet been received. CNRS had the matter in hand and would produce documentation on its own timescale. The General Secretary reminded the Executive Committee that until definitive proposals had been received from CNRS he could not implement their wish to act as a good employer in respect of three years' pension entitlement which Mrs Orine may have lost and hoped that this obligation would be discharged by the incoming Executive Committee.

The General Secretary reported that the Secretariat functioned well under the control of Mrs Orine. She was ably assisted by Mrs Crook. He expressed his appreciation of their services during his term of office, recalling that it had not been an easy time starting off as it did with a French and English postal strike and a move of the Secretariat, followed by the breakdown of the Union's word processing system. Nevertheless the Secretariat responded gallantly to the deadlines and the affairs of the Union kept moving.

The Union's premises at IAP are an improvement (if less historic) over the Observatoire Gate House providing light, airy, warm, well serviced office accommodation. The Union is most grateful to INSU for providing this accommodation. The Union has three linked Compaq computers backed by two pinwriters, a laser printer and a bulk data storage drive. The system provides for the Union's data base, accounting and word processing requirements. Unfortunately, pressure of time prevented refurbishing of the offices. The Executive Committee confirmed that a sum of 20,000 Sw. F. could be used for this purpose.

II.6. Fundraising

The General Secretary reminded the Executive Committee that the intent to establish an IAU Trust Fund as described in Information Bulletins 63 & 64 would be put to the XXist General Assembly to determine the interest within the membership for the IAU to take such a step.

II.7. IAU Membership

11.7.1. As of 1991 June 30, the membership of the Union was 6624. There are 673 applications for membership on List A and 78 on List B for the approval of the Nominating Committee (751 in total) compared with 792 admitted at the XXth General Assembly).

II.7.2. An update of changes in members' addresses appeared in Information Bulletin 65 (January 1991). During the triennium, the promised two updates were provided and it appears that the number of annual changes made can be accommodated by inserting a single sheet into the Information Bulletin.

II.8. Adhering bodies

II.8.1. The General Secretary reported that about 80% of subventions due to the Union had been received by 1991 June 30. This was some what unusual (Appendix II).

II.8.2. The General Secretary reported that 11 countries were in arrears with their subventions as of 1990 December 31 -Chile, Colombia, Cuba, Iraq, Malaysia, Morocco, Nigeria, Rumania, Uruguay, Venezuela and Yugoslavia. These countries would not be permitted to vote at the XXIst General Assembly with the exception of Venezuela which had entered into an agreement to pay off its arrears and had in fact paid two out of the three agreed instalments and Malaysia which, as an Associate Member country, could only vote on matters affecting Associate Members.

The General Secretary further reported that Malaysia had paid for 1990 and claimed that it could not pay the arrears for 1989. The Executive Committee agreed that Malaysia should not be required to pay its arrears for 1989 provided it now remained in good standing.

The General Secretary invited the Executive Committee to consider action against Nigeria and Rumania, in arrears to the Union for five and eight years respectively. While noting the special circumstances that applied in each case, the Executive Committee resolved with reluctance that both Nigeria and Rumania should be deemed to have terminated their membership in the Union. The Executive Committee required the General Secretary to convey to both countries (a) that it was their wish that the countries should rejoin the Union as soon as there was an assurance of ability to sustain payment of the Union's annual subvention; (b) that individual members from these countries would remain members of the Union (Nigeria has 4 and Rumania 16 members); (c) that they should continue to maintain contact with the Union through Associate Membership, if they so wished, until such time as they wished to rejoin as full members (Appendix III).

II.8.3. The General Secretary reported that Argentina and Iran had paid off their arrears and that Venezuela had offered to pay off its arrears in three instalments by the end of 1991. By 1991 June 30, two instalments had been received from Venezuela as agreed.

II.8.4. The General Secretary reported that no further offer to increase category of adherence had been received from any Adhering Organisation. Italy and Spain were both adhering in too low a category and the General Secretary would be seeing the National Representatives of both countries during the General Assembly. At the final meeting of EC 61

the General Secretary was able to report that both Italy and Spain would seriously consider increasing their category of adherence.

II.8.5. The President reported on his visit to Hanoi, Vietnam. The bulk of the astronomical infrastructure had been destroyed or extensively damaged by the war. Only the calendar section remained and Vietnam had about 20 Ph.D. level astronomers -of these approximately half were in the Astronomical Ephemeris Section. A great deal of reconstruction was needed. The President had proposed two Vietnamese astronomers as members of the Union and a third was being proposed by Commission 46 as a consultant. (A full grant to attend the XXist General Assembly had been offered to Vietnam but no-one was able to take it up.) The President felt it was now up to Vietnam to consider when it should approach the Union and in what form it should apply for membership. The President further reported that he had to travel via Thailand to visit Vietnam and was impressed by the astronomical interest there. He believed Thailand should be encouraged to adhere to the Union.

II.8.6. The General Secretary reported that he had received enquiries from both Libya and the Oman regarding membership of the Union. Of these, Libya was the most advanced with its queries. Both countries should be followed up in the future.

II.9. Commission Matters

II.9.1. The role of Commission 48 -High Energy Astrophysics

The General Secretary reported that Commission 48 -High Energy Astrophysics- had not prepared a Report for Transactions XXIA and had not formulated a scientific programme for the General Assembly. (The first Report of Commission 48 was 19 pages in length -subsequent Reports amounted to 15 pages in total). Since Commission 48 has over 330 members -among them some of the most notable names in current astronomy -it is clear that this Commission produces little tangible benefit for the Union. The General Secretary proposed that Commission 48 either be given to the XXIInd General Assembly in 1994 to institute proper relations with the remainder of the Union or to wind itself up transferring its functions to other appropriate Commissions. The Assistant General Secretary pointed out that Commission 48 had made a number of responses on proposals for IAU Symposia and Colloquia.

Since the President of Commission 48 was not attending the General Assembly, the EC asked to meet with Vice-President Ostriker, during the final session of EC 61 to discuss the future of the Commission. In the event Ostriker had left Buenos Aires before the final session but had a meeting with the General Secretary. The situation was explained to Ostriker. At a Business Meeting of the Commission (attended by only eight members) no consensus could be reached on the future but Ostriker undertook to solicit the views of the Commission members. Ostriker himself felt that an amalgamation with Commission 44 -Astronomy from Space -might represent a way

forward. This latter view raised EC objection in that the interests of High Energy Astrophysics were not identical with, or parallel to, Space Astronomy. On the other hand, several Commissions might be able to take over one or more aspects of High Energy Astrophysics and cover the Commission's original terms of reference.

The inactivity of Commission 48 will require further discussion by a future Executive Committee in the light of Ostriker's determination of the views of the members of that Commission.

The EC appointed Dr. G. Srinivasan to act as Vice-President for the triennium 1991-94 as the Business Meeting of Commission 48 did not have an adequate attendance to adequately determine the matter.

II.9.2. Commission 35 has objected to the renaming Commission 12 Solar Structure. However, agreement has been reached on renaming Commission 12 -Solar Radiation & Structure. Following the agreement of Commission 35 Stellar Structure, the Executive Committee approved the request from Commission 12 to change its name to "Solar Radiation and Structure". The change of name would be submitted to the second session of the XXIst General Assembly for approval.

II.9.3. In the absence of a proposal for the author of the IAU 75 Year History from Commission 41, Prof Blaauw was invited to undertake the task. He has agreed and will be assisted by E. Muller, J.-C. Pecker, P. Wayman and later by L. Perek. The General Secretary reported that in the absence of a proposal for an author for the IAU 75 Year History (1919-1994) from Commission 41, he had obtained the agreement of Prof. A. Blaauw to undertake the task. Prof. Blaauw had asked if he could be assisted by former General Secretaries and E. Muller, J.-C. Pecker, P. Wayman have agreed to assist him. L. Perek hopes to assist after the IAF/COSPAR Congress of 1992 and the present General Secretary is also willing to help.

II.9.4. List of Presidents & Vice-Presidents of Commissions 1991-1994

The list of Commission Presidents and Vice-Presidents was considered. A number of suggested revisions were made for communication to the Commissions. The list presented for the approval of the second session of the General Assembly is attached as Appendix IV. Commission 51 -Bioastronomy -has forwarded the SETI Declaration of Principles Concerning Activities following the Detection of Extraterrestrial Intelligence. While the EC received the Declaration with interest, it noted that the Declaration was concerned with matters beyond the competence of the IAU.

II.10. General Assemblies

II.10.1. XXIst General Assembly, Buenos Aires, 1991 July 23-August 01

The General Secretary reviewed the plans for the XXIst General Assembly. He outlined the form of the Opening Ceremony (Dr. Carlos S. Menem, President of Argentina, Dr. R.F. Matera, National Secretary for Science and Technology and Lic. B.E. Devries, Secretary for Education and Culture of the City of Buenos Aires would be attending) and the format for receiving the visiting dignitaries. An English translation of Dr. Matera's address would be available while President Menem's address would be translated during delivery. A departure from customary practice would be that President Menem would speak last and formally open the General Assembly. A musical interlude would be provided by the La Plata University Brass Quintet.

The General Secretary went on to review the Agenda for both sessions of the General Assembly. Prof. J.-C. Pecker and Dr. J. Rountree-Lesh would act as Official Interpreters (from English to French and French to English respectively). The change proposed for Bye-Law 24 may be contentious - indications of unfavourable reaction had been received. However, the Executive Committee acquiesced in the view that a positive change in Bye-Law 24 was likely to be acceptable rather than firm adherence to the proposed units of contribution. It was agreed that as the resolution on an IAU Trust Fund was designed to test the opinion of the membership on that concept, the resolution should be put to a free vote of the members despite its having financial implications.

The General Secretary reported that attendance at the General Assembly was over 1100 and there was every expectation that attendance would reach 1200 - attendance would then be comparable with Delhi. About 100 grants had been awarded in the ratio of 10 to 1 in favour of Registration and Subsistence Grants. A number of full (Travel, Registration and Subsistence) grants had been declined on the basis of insufficient additional support. The full grant was set at 2500 Sw.F. and registration and Subsistence grants at 750 Sw.F. The General Secretary reported that he had assisted all Commission Presidents by a grant of 1250 Sw.F. and that he had made an additional 10 awards of a similar amount to assist essential speakers. A number of cases of hardship had been assisted. There was some feeling that Presidents of Commission should not be assisted in this way - but assistance only be given to those Presidents of Commission requesting support. The General Secretary reported that he had received requests from just over half the Presidents of Commission which exceeded the amount disbursed. He knew in a number of cases that support of a President of Commission released funds for another person and one President did not require financial support. The Officers agreed at their February 1991 Meeting to extend General Assembly funds by the balance in the Symposia/Colloquia budget for 1991 in view of the high cost of travel to Buenos Aires. Argentina could not make any contribution to provide grants in view of its difficult fiscal

position. 1148 astronomers attended the General Assembly and there were 125 registered guests. The total amount of grants allocated has been of the order of Sw. F. 32,000.

The General Secretary reported that A.H. Batten, E. Budding, R.D. Davies (Chairman), S. Isobe and J-C. Pecker had agreed to form the Resolutions Committee for the General Assembly.

It became clear during the General Assembly that certain Commissions had not fulfilled their obligation in respect of agreed Scientific Programme. The General Secretary was instructed to write to the Presidents of Commissions 16 and 50. Commission 14 should be advised that better rotation of the membership of the Organising Committee be established.

- II.10.1.1. Visit of General Secretary to Buenos Aires to attend LOC Meeting 1991 April 22-27

The report of the General Secretary's final meeting with the LOC had been circulated (Appendix V).

- II.10.1.2. The Scientific Draft Programme for the General Assembly was published in Information Bulletin 65, and its Final Scientific Programme in Information Bulletin 66.

- II.10.2. XXIInd General Assembly, the Hague, 1994 August 16-25

- II.10.2.1. Invitation from Netherlands NOC

Because of the absence of H. van Woerden, the invitation of the Netherlands Royal Academy of Arts & Sciences would be presented at the second session of the General Assembly by H. Habing. Some discussion of future venues for General Assemblies took place. There were indications that China and/or Japan would bid for 1997 and that Germany might bid for 2000. The General Secretary suggested that a very special General Assembly should mark the millenium in 2000.

- II.10.3. Format of Future General Assemblies

The General Secretary reported that following his paper on Format in Information Bulletin 65, 105 responses were obtained from members. Of these 105 replies, 55 favoured a shorter General Assembly, 47 favoured no change and 3 were ambiguous. A four year interval between had again been raised -this interval was favoured by France in particular. The General Secretary included suggestions from V. Trimble and D. Wentzel that were sent as a consequence of his Information Bulletin 65 paper. Trimble was in favour of more compact meetings and Wentzel favoured holding business meetings in the evening, reserving mornings and afternoons for scientific meetings. The General Secretary summarised his concluding proposals on Format which had been published as a personal view in Information Bulletin 66. The Assistant General Secretary outlined her view in which Symposia played an integral part of the General Assembly. She considered that two weeks should be reserved for the General Assembly which would be reduced in length, preceded and followed by Symposia/Colloquia in the same

location and which would also include a number of Symposia/Colloquia running concurrently with more traditional General Assembly activities. She would be developing her ideas for future Executive Committee meetings.

II.11. Finances of the Union

II.11.1. Verification of the 1990 accounts

The General Secretary introduced the Audited Accounts for 1990 and provided an explanation to queries raised. Certain unpaid subventions due in 1990 were paid early in 1991. The large apparent balance held by the Union should be reduced by approximately 50,000 S.F. to take account of such outgoings. The Executive Committee accepted the Audited Accounts for 1990 and noted these Accounts would be supplied to the Finance Committee.

II.11.2. Financial State at 1991 June 30 in Buenos Aires

The unaudited accounts 1991 January 01-June 30 were received by the Executive Committee. These accounts showed that the Union had received about 80% of its subventions from Adhering Organisations and had not yet received its royalties from Kluwer Academic Press. The EC noted the large two year subscription to ICSU now payable as ICSU had settled its subvention policy. Charges in respect of the General Assembly did not yet show in the outgoings in a major way. The unaudited accounts will form the basis of the Residual Budget for 1991 to be published in Transactions XXIB and will be made available to the Finance Committee.

II.11.3. Finance Advisory Committee

The General Secretary reported that the Finance Advisory Committee had been wound up and Drs. Shaver and Sugimoto thanked for their services.

II.12. Publications

II.12.1. Symposia Nos. 142, 143, 144, 145, 146, 147 and 148 have been published since EC 60

II.12.2. Colloquia Nos. 104, 107, 110, 113, 114, 121, 123, 124, 125 & 130 have been published since EC 60

II.12.3. Transactions XXIA -Reports on Astronomy -were published in April 1991.

II.12.4. Information Bulletins 65 & 66 were published in January and June 1991. Information Bulletin 65 additionally contained an update of membership information and the Draft Programme for the General Assembly. Information Bulletin 66 was dispatched with the Final Programme for the General Assembly (as a separate insert). Information Bulletin 65 was subject to delayed delivery because of difficulty in inserting it into envelopes. The matter was taken up with Kluwer and from

Information Bulletin 66 onwards, the Information Bulletin will be packed in transparent plastic to provide cheaper and more expeditious handling. Receipt of Information Bulletin 66 was erratic, the General Secretary receiving his bulk mailing copy on July 11 in the UK, the President receiving his about July 13 in Japan but copies had not been received by some US members prior to departure for Buenos Aires. While Kluwer distribution was clearly not rapid (Information Bulletin 65 was ready for dispatch by June 25) it is also clear that there are local postal delays in the United States.

II.12.5. The General Secretary reported on his solicitation of views requested by the Executive Committee from the Presidents of the Commissions on the future of Transactions A. 27 Presidents expressed no view, 10% wished to retain Transactions A -Reports on Astronomy, 2% wished to discontinue Transactions A (the % vote could be transferred to a favourable response were Transactions A to become more reader friendly). During a meeting of current and incoming Presidents of the Commission on 1991 July 29, it was clear that there was considerable support for the retention of Transactions A and that major opposition only came from Commissions 33, 34 and 36. The Executive Committee confirmed that the Union would continue to publish IAU Transactions A and B.

II.12.6. The General Secretary reported that the new contract agreed by EC 60 was formally signed on behalf of Kluwer and the IAU in March 1991. The new contract would enter into force on 1992 January 01 and continue for six years until 1997 December 31.

II.12.7 G. Kiers of Kluwer Academic Publishers addressed the Executive Committee at its third meeting on Changes in Publishing. He believed that because of its wide availability, printed paper was not going to disappear in the foreseeable future. However, certain changes were likely in the next decade. Despite the possibility of electronic publication, he did not believe it could soon become widespread because of a lack of communication lines and their costs but he did see a future for publication as CD Rom. 1 CD Rom could contain 20 volumes of IAU Symposia and could be produced for \$30. Digital Archival Tape was a second option though the lifetimes of magnetic media were only moderate term -10 years at most. Their advantage was rapid access and massive capacity. He identified a problem in obtaining uniformity of text presentation. Since much publication was based on camera-ready copy prepared by authors, there was a need to agree a standard for text preparation. LATEX may offer a possible solution. There was a need to develop a better publication system within the physical sciences and G. Kiers believed that the IAU should play a major role in any future discussion of publication for the Physical Sciences.

II.13. Report of the Executive Committee 1988-1991

The Report of the Executive Committee was received. It was noted that the Residual Budget for 1991 January 01-June 30 would be added. It was also noted that a lightly summarised version of the Report had been published in Information

Bulletin 66. The Executive Committee accepted the Report on the understanding it would be fully updated to 1991 June 30 before publication in Transactions XXIB.

II.14. Committee on the Swedish Resolution

The General Secretary reported that all members of the Committee on the Swedish Resolution had now signed the Committee's final report and a copy has been sent to the Swedish National Committee for Astronomy.

III. SCIENTIFIC ACTIVITY

III.1. Meetings

NB: Meeting proposals beyond June 1993 are adjourned to EC62

III.1.1. Proposed Symposia

The Symposia proposed and approved were in order of dates:

S155 (SPM 10) Planetary Nebulae, 13-17 July 1992, Innsbruck, Austria (Chairperson: A. Acker),

S157 (CLM 15) The Cosmic Dynamo 3-6 September 1992, Postdam, Germany (Chairperson: F. Krause), which the EC updated from a colloquium to a symposium considering the broad scientific programme, and wishing to give a special financial help to this meeting in the ex-RDA and

S158 (SPM 7) Very High Angular Resolution Imaging, 11-15 January 1993, Sydney, Australia (Chairpersons: J. Davis and R.D. Ekers).

Decision on the proposed symposium SPM 13 Developments in Astrometry and their Impacts on Astrophysics and Geodynamics, September 1992, Shanghai, China (Chairpersons: I.I. Mueller and Ye Shu Hua) was deferred to EC 62 as additional information on the scientific programme was needed and should be provided by Dr. Ye Shu Hua.

The proposed symposium SPM 15 Sub-arcsecond Radio Astronomy, July 1992, Manchester, UK (Chairpersons: R.D. Davis and R.S. Booth) was not approved since there were 4 proposed meetings on high spatial resolution in the radio and submillimeter range and the above proposed symposia had a scientific programme not as broad and well out-lined than the 3 other proposals.

III.1.2. Proposed Colloquia

The Colloquia proposed and approved were in order of dates:

C137 (CLM 16) Inside the Stars, 13-18 April 1992, Vienna, Austria (Chairperson: A. Baglin),

C138 (CLM 11) Peculiar versus Normal Phenomena in A-Type and Related Stars, July 1992, Trieste, Italy (Chairperson: M. Hack), which was accepted as a colloquium, although proposed as a symposium, since the scientific programme was in a very specialized field,

C139 (CLM 21) New Perspectives on Stellar Pulsation and Pulsating Variable Stars, 15-18 July 1992, Victoria, B.C., Canada (Chairpersons: D. Welch & J. Nemec),
 C140 (CLM 17) Astronomy with Millimeter and Submillimeter Wave Interferometry, 5-9 October 1992, Hakone, Japan (Chairpersons: J. Welch & M. Ishiguro),
 C141 (CLM 6) The Magnetic and Velocity Fields of Solar Active Regions, 25-29 October 1992, Beijing, China (Chairperson: H. Zirin),
 C142 (CLM 18) Particle Acceleration Phenomena in Astrophysical Plasma, 11-15 January 1993, Maryland, USA (Chairpersons: A. Benz & E. Chupp) and
 C143 (CLM 20) The Sun as a Variable Star: Solar and Stellar Irradiance Variations, June 1993, Boulder, USA (Chairpersons: J.M. Pap & C. Frohlich).
 The proposed colloquium CLM 19 Ultraviolet and X-ray Spectroscopy of Astrophysical and Laboratory Plasmas, February 1992, Berkeley, USA (Chairperson: S.M. Kahn) was not approved due to the low level of preparation of the scientific programme and to the fact that it was presented as one of a series with special emphasis more on the date of an anniversary within the series than on the science.

III.1.3. Proposed Regional Meetings

With Asian Pacific, 1993 August 16-20, Pune, India

The current proposal received contained sufficient detail to be accepted by the EC. The General Secretary was asked to write to J. Narlikar to ensure adequate planning of a scientific programme was put in hand well in advance of the Meeting. Concern was expressed about insufficient quality of scientific programmes at Regional Meetings.

With Latin American, 1992 November 2-6, Santiago, Chile

The proposal could not be accepted because of lack of a well defined scientific programme. The proposal was referred to the members of its SOC attending the General Assembly. The proposal remained inadequate and was referred to EC 62.

III.1.4 Proposed Co-sponsored Meetings

Two COSPAR symposia presented for IAU co-sponsorship were approved by the EC:

SPON14 Critical Problems in the Plasma Environments of Comets and Other Non-Magnetized and Weakly Magnetized Bodies, August 1992, Ann Arbor, USA and

SPON16 Space Sciences with Particular Emphasis on High Energy Astrophysics, March/April 1992, Munich, Germany.

The EC did not approve to co-sponsor astronomy meetings within the XXIXth COSPAR Biennial Meeting (World Space Congress) August/September 1992. The problem of severe duplication of scientific meetings between COSPAR and IAU was discussed and the EC felt that the information on the XXIXth COSPAR Biennial Meeting was received by the IAU much too late to have an exchange of views with COSPAR on the duplication problem.

The EC recommended that steps be taken by the in-coming General Secretary to avoid duplication of meetings in 1994, year of the XXIInd IAU General Assembly and XXXth COSPAR Biennial Meeting.

III.1.5 Meeting on Adverse Environmental Impacts

The General Secretary reported that an Organising Committee had been assembled. While it had been the original intent to organise the meeting through Commission 50, it had been suggested that in view of the range of Adverse Impacts to be considered and of contacts already in being with ICSU and UNESCO, D. McNally should take the Chair. The Organising Committee is therefore D. Crawford (IAU), R. Costero (IAU), T.E. Gergely (IAU), S. Isobe (IAU), D.J. Kessler (NASA), J. Kovalevsky (IAU/NATO), D. McNally (Chairman, IAU), P. Murdin (IAU), L. Perek (IAF), S. Raither (UNESCO), B. Robinson (IUCAF), J-P. Swings (IAU), M.F. Walker (IAU). All have agreed to serve, except no response had been received from D.J. Kessler and M.F. Walker.

A meeting of OC members present at the General Assembly was held (July 26) and plans for speakers, illustrations and demonstrations were considered. McNally will contact proposed participation in each area before a second meeting of the OC in London on 1991 October 09. (Note added: COSPAR has recommended Bauer of ESA as an OC member and Walker has agreed to serve on the OC. F.G. Smith has also been proposed as a member. A letter to Kessler miscarried. The EC concurred with the proposed arrangements.

III.2. ISYA (International Schools for Young Astronomers)

III.2.1. The EC approved the proposal by the Beijing Astronomical Observatory for an ISYA of three weeks' duration 1992 July 19 - August 04.

III.2.2. The EC approved the proposal from the Inter-University Centre for Astronomy and Astrophysics (Pune, India) for a three week ISYA. The EC supported a date when observational work could be carried out at the school, e.g. winter 1993.

III.2.3. An expression of interest to host a school has been expressed by Turkey

III.2.4. The 18th ISYA was held in Marrakesh, Morocco, 1990 September 10-29. The school, the first francophone ISYA, was attended by 42 students, 22 of whom were from outside Morocco representing 13 countries. A summary report of the school appears in Information Bulletin 65, p. 7.

This school was the last to be organised on behalf of the Union by J. Kleczek. He had organised all 18 schools since their beginning in 1966. J. Kleczek brought to the task of organising the schools a great talent for getting the best school attainable within the local constraints. He established a good relationship with the participants and encouraged international collaboration. His easy-going style sometimes

produced conflict (in the early days of the schools) with the EC (and Commission 46!) but J. Kleczek has left the Union a very fine legacy and a challenge for the future. The Union owes him an immense debt of gratitude for his work in organising, and teaching in, the ISYA.

III.3. VLP (Visiting Lecturers Programmes)

III.3.1. The General Secretary reported that a cheque for \$2000 had been sent to Professor A.E. Troche-Boggino for the Paraguayan VLP. (NB: It proved possible to obtain a PC with a superior specification than initially proposed).

III.3.2. J. Sahade reported on the Paraguayan and Peruvian VLPs. (a) Peru was at the end of its second three year contract in which the priority subjects were Solar Physics, Celestial Mechanics, Optics and Stellar Spectroscopy. One set of solar lectures had been given by Dr. J.I. Garcia de la Rosa. A lecturer on optics had to withdraw at the last moment for personal reasons and the general economic climate in Peru plus the cholera outbreak killed the Programme. New proposals for the Optics and Celestial Mechanics course are to hand. However, five lecturers in total (two now identified) are required to complete the contract. (b) The difficulty of finding appropriate lecturers was affecting the Paraguayan programme. Only two lecturers have been found for the Programme -Professor J.L. Sersic and Dr. C.A. Olano. Additionally a visit was made by Engs. J.A. Sanz and A. Baba who gave a course on radioastronomy and its instrumentation. Two further lecturers are required to fulfil the Paraguayan Programme.

J. Sahade also commented that future programmes should be better regulated with respect to financial and library commitment by the host, the formal objectives to be achieved and continuity of programme for the students.

The Assistant General Secretary took up the point of difficulty of finding lecturers free to make themselves available for a VLP term. Clearly there were financial implications for persons wishing to obtain leave for this purpose. The IAU would not be able to compensate the employing institution.

The General Secretary agreed that inability to secure leave with salary was likely to prove a substantial stumbling block. He believed that leave for research purposes could be easier to get which could favour the Chinese VLP type of proposal (see III.3.3). He felt that extraneous circumstances had caused both South American VLPs to run into the sands -the concept was excellent but today's circumstances were inappropriate. He proposed that the Peruvian VLP should terminate after the courses given by the two identified lecturers had been given: he also proposed that the Paraguayan VLP be terminated and not renewed.

It seemed to be agreeable to the EC that strenuous efforts should be made to obtain two lecturers for Peru -Lopez-

Garcia in Celestial Mechanics and Masacara in Optics. The programme would then be terminated in light of circumstances beyond the control of the IAU.

The Programme for Paraguay should be terminated. Nevertheless it was agreed that Ing. T.A. Rolon should be awarded a grant of \$600 to permit him to spend up to six weeks at IAR gaining experience of the techniques of radioastronomy. It was then up to Paraguay to develop astronomy through radioastronomy.

In discussion, the point was made that it may be better to have a sequence of ISYA in countries without substantial astronomical infrastructure -after three ISYA, a VLP of the South America pattern might be warranted.

III.3.3. The General Secretary reported that after further correspondence with T. Wang and W. Christiansen, a basis for a new kind of VLP with China had emerged. Visits to China by Drs. I.D. Karachentsev and Kwan provided a model on which to base a future contract. The basis of the VLP would be a specific topic -namely the "Physics of Galaxies". Karachentsev and Kwan had contributed to this topic already. Professor Wang had proposed that a VLP contract with China should be based on two visits to China from overseas and a visit by a younger Chinese astronomer. Both Drs. Christiansen and Wentzel agreed that such a proposal form the basis for an agreement.

In view of the fact that Dr. Kwan had already completed his visit to China, the General Secretary proposed that a basis of a two year contract with China should be on the basis of one visit to China by a visiting astronomer and one visit abroad by a younger Chinese astronomer to work with the research group of the visiting astronomer. The IAU would pay the travel expenses of each visitor. The Chinese authorities would pay the subsistence of each visitor.

The EC agreed with this basis, though Professor Ye pointed out that China would have extreme difficulty in being able to meet three month subsistence abroad for the young Chinese astronomer. The EC left the matter up to negotiation in drawing up the contract so that an agreeable solution could be reached.

The General Secretary felt that such a VLP programme would show tangible research initiative to justify an experimental contract, which, if successful, could be renewed.

The EC noted that Professor W. Christiansen wished to be relieved of his role as Chairman of the Chinese VLP subcommittee and the EC recommended that Professor J. Wampler be approached. The EC expressed its thanks to Professor Christiansen for the role he had played in developing this particular concept of a VLP.

III.3.4. The Executive Committee received a letter from D. Wentzel

regarding the difficulty of following up IAU initiatives in education to measure their effectiveness. This applied to both ISYA and VLP. He noted that circumstances often depend on the energy and initiative of a single person in many developing countries and should that person retire, become unwell or be promoted, the interest in astronomy may fail. In a second letter, D. Wentzel suggested that ISYA participants should be surveyed about three years after each ISYA with a view to measuring how much their current activities had been influenced by the ISYA. The EC agreed that D. Wentzel as Secretary of the ISYA should be encouraged to establish and develop such a feedback system.

The suggestion by D. Wentzel on VLP had already been adopted by the EC in respect to the Peruvian and Paraguayan Programmes.

III.4. Working Groups

III.4.1. WGWDA (WG on World Wide Development of Astronomy), Report by its President, Alan H. Batten.

The working Group has made little progress on the specific problems mentioned at the last EC, but a half-day meeting has been arranged for the current General Assembly. It is hoped that this meeting will make members of the Union more aware of the existence of the Group and provide a sounding board for members coming from those countries that we most wish to help. Speakers will include the Presidents of Commissions 5, 38 & 46, who will describe what the Union has long been doing in the field of world-wide development. Speakers are also scheduled from China, India, the Soviet Union and Latin America. The meeting will be reported in the Transactions. We hope to follow up suggestions arising out of the meeting during the next triennium. The chairman will also try to follow up the contacts with scientists in Vietnam and Thailand made by the IAU Presidents in recent months.

III.4.2. WGPSN (WG on Planetary System Nomenclature)

III.4.2.1. Report of the WGPSN

The Report of the WGPSN was received and accepted (Appendix VI). The disputed names for Neptunian satellites VI and VII (Galatea and Larissa) were agreed given that the WGPSN and the Committee for naming Minor Planets had agreed to enter into consultation on securing a policy for the assignment of unique names to planetary system objects (see III.4.2.2 below).

III.4.2.2. The General Secretary reported that the WGPSN and the Minor Planet naming group were now in contact. Both agreed that multiple use of the same name was undesirable. Discussion is now taking place on how best to ensure in the future that a name is a unique designator. It is recognised that a further multiple use has occurred in assigning the name Pan to Saturn XVIII -Pan is also the name of a minor planet. Given the goodwill which now seems to exist, there is every hope that a working solution will be achieved.

III.4.3. WGASCC (WG on Astronomical Software & Computer Communication)

The General Secretary reported that C. Benn wished to resign as Chairman of this WG. The WG had produced a Software Index which would be circulated with a new edition of the Royal Greenwich Observatory Directory of e-mail Addresses. K. Ratnatunga, the co-chairman was currently in Sri Lanka and was difficult to contact. The General Secretary would approach the President of Commission 5 for a new Chairman for the WG. The EC agreed that the WG should now be regarded as established.

III.4.4. WGRPAA (WG on Relations between Professional & Amateur Astronomers)

It was noted that a full set of terms of reference for this Working Group were not yet to hand though progress had been made under its auspices, e.g. a meeting between professional and amateur astronomers at the XXIst General Assembly. The Executive Committee suggested that D. Crawford should present final terms of reference along the lines of those already submitted with a membership list for the WG to EC 63.

Representation of IAAPPP on this WG was raised for reference to Crawford.

III.4.5. Proposal of a WG for Data Centers

A proposal had been received from C. Jaschek regarding the establishment of a "Federation of Astronomical Data Centres and Services". The Executive Committee felt uncertain of the need for such a Working Group and asked that the concept be considered during the XXIst General Assembly and reconsidered at EC 62.

III.5. Publication on behalf of IAU

II.5.1. Débrecen Photoheliographic Results

The General Secretary reported that he had received no response from either the Hungarian Academy of Sciences or from Professor Dezsó regarding the Debrecen Photoheliographic Results. He had heard from Dr. Gaizauskas that the Photoheliographic Results for 1978 were soon to be sent to press. Dr. Gaizauskas had also suggested that the IAU pay Debrecen \$1000 per volume as the Results were sent to press. The EC confirmed their view that only \$500/volume should be payable and matching support from local sources should continue to be sought.

III.5.2. IBVS (Information Bulletin on Variable Stars)

The General Secretary reported he had received a letter from amateur astronomer S. Dunlop that the distribution list for IBVS had to be drastically reduced. Dr. Szabados of the Konkoly Observatory indicated that the funding available to the Konkoly Observatory could no longer cover individual astronomers and would be confined to institutions. The President of Commission 27, Dr. Breger, had proposed that a triennial subvention of \$5000 from IAU sources should be made to support the distribution of IBVS. The EC felt that curtailment of the mailing list for IBVS to institutions was desirable and that amateur astronomers should look into ways and means for redistribution of that material through their own network. No IAU support could be justified.
Proposal from M. Breger (Commission 27)

IV. INTERNATIONAL ACTIVITIES

IV.1. ICSU

IV.1.1. ICSU General Assembly, Sofia, October 1990

The General Secretary reported on the ICSU General Assembly, Sofia, October 1990 (Appendix VII).

IV.1.2. UNDP Grant Application

The General Secretary reported that although ICSU had received a small subvention from UNDP in respect of its preparation for the ASCEND 21 Meeting, no decision had yet been reached on ICSU's major proposal. The General Secretary did not share ICSU's optimism on an eventual favourable response from UNDP.

IV.1.3. ICSU Subvention

The General Secretary reported that the mechanism of the ICSU subvention (from the IAU and sister Unions) had been clarified. ICSU will, as for 1991, make each Union a consolidated grant (subsuming the former standard grant plus specific grants). The Unions will continue to pay a subvention to ICSU which will not now be returned to the Unions. The amount of the subvention to be paid to ICSU is 2.5% of Union receipts from Adhering Organisations received in each calendar year. In 1993 there will be an increase in the rate of subvention to 3.5% of such receipts.

On behalf of the IAU, the General Secretary wrote to ICSU to state that the IAU strongly objects to a 40% increase in dues. (The projected grant from ICSU in 1993 is 28,900 Sw.F. and the projected subvention to ICSU is 21,300 Sw.F. The real ICSU grant is thus 7,550 Sw.F., about 3/4 of the "Standard Grant" before it was abolished). The gentleman's agreement reached with ICSU is that the IAU will pay its 1993 subvention at the present level of 2.5% of receipts from Adhering

Organisations and that ICSU will regard the IAU as being in good standing and not a debtor while the matter is reviewed by ICSU.

IV.1.4. IUUSTA

The General Secretary reported that although the application for Associate Status within ICSU from the International Union for Vacuum Science, Technique and Applications (IUUSTA), had been well received by the ICSU General Assembly, the granting of Associate Status was still pending.

IV.1.5. The General Secretary reported that he had received notification that the Tunisian mathematician Professor Moncef Ben Salem had been detained for political reasons and that he had referred the issue to the Standing Committee for the Free Circulation of Scientists. Professor Moncef Ben Salem is not a member of the IAU.

IV.2. UNESCO

The General Secretary reported that UNESCO would make available, in 1991, the sum of \$10,000 for the preparation of the Adverse Environmental Impacts Meeting and would prepare a contract for 1992 for \$20,000 to support the meeting and its publications.

IV.3. COSPAR

IV.3.1. The General Secretary reported that comments on the proposed new Charter for COSPAR had been received from the IUGG, URSI and the French National Committees for COSPAR. While the IAU did not see any particular problems with the proposals, he could sympathise with some of the points raised. The EC saw no reason to add to the correspondence already exchanged.

IV.3.2., The Executive Committee did not wish to make proposals for the Massey, Vikram Sarathai or Zel'dovich Awards.

IV.4. European Astronomical Society

J.-P. Swings reported that the Council for the European Astronomical Society had held its first meeting and was planning a European meeting for 1992 in Liège. Its first Newsletter was about to go out and it was actively seeking funding from sponsors. The Council was L. Woltjer (President), P. Murdin and R. Sunyaev (Vice-presidents), J. Palous (Secretary), M. Huber (Treasurer), F. Deubner, B. Kolaczek, F. Praderie, M. Rodono, J.-P. Swings (Councillors). The first Council was nominated by a Special Nominating Committee of former General Secretaries and the current General Secretary of the IAU (G. Contopoulos, D. McNally, E. Müller, J.-C. Pecker, L. Perek, P. Wayman, R. West (Chairman)).

IV.5. IUCAF

The General Secretary reported that IUCAF was strenuously preparing for the 1992 WARC and would be seeking strong support from the XXist General Assembly in favor of the allocation of frequency bands for radio astronomy.

V. OTHER BUSINESS

V.1. 62nd Meeting of the Executive Committee

The 62nd meeting of the Executive Committee would be held at 14.00, 1991 August 01 in Room G of the San Martin Cultural Centre.

V.2. World Astronomy Days

New information on the proposal to institute World Astronomy Days was differed to EC 62.

V.3. Marsans

On the representation of J-P. Swings it was agreed that the General Secretary would announce the intention of the IAU to take up cases of alleged loss suffered by participants at the General Assembly directly attributable to Marsans -the official travel agents. Documented cases would be solicited for presentation in bulk where agreement could not be achieved in any other way.

VI. CLOSURE BY PRESIDENT

Before the closure of the meeting, P.O. Lindblad expressed the appreciation of the Executive Committee of the Presidency of Professor Y. Kozai.

Professor Y. Kozai, in closing the meeting, expressed his appreciation for the support of the General Secretary and Assistant General Secretary, the members of the Executive Committee and the Secretariat during his term of office.