### INTERNATIONAL ASTRONOMICAL UNION

Executive Committee, 72nd Meeting

ESO Headquarters, Alonso de Cordova 3107, Santiago, Chile

June 18-20, 1999

### **MINUTES**

### Present:

R.	Kraft	President
F.	Pacini	President-Elect
J.	Andersen	General Secretary
H.	Rickman	Assistant General Secretary
C.	Anguita	Vice-President
C.	Cesarsky	Vice-President
B.	Hidayat	Vice-President
N.	Kaifu	Vice-President
N.	Kardashev	Vice-President
V.	Trimble	Vice-President
L.	Woltjer	Adviser
I.	Appenzeller	Adviser

### In attendance:

M.	Léger-Orine	Executive Assistant
J.	Greenberg	Administrative Assistant

### I. OPENING BY THE PRESIDENT

The President, R. Kraft, welcomes the members of the Executive Committee to the 72nd meeting. The EC members are then welcomed by D. Hofstadt, ESO Representative in Chile and host of the EC meeting.

# II. ADOPTION OF THE AGENDA

The Draft Agenda is adopted as final, with some minor rearrangements of items.

### III. APPROVAL OF MINUTES OF EC 71

The minutes of EC 71 are approved as final.

# IV. REPORT ON SPECIAL NOMINATING COMMITTEE

The President reports that the SNC will propose the following slate of candidates for Executive Committee in the period 2000-2003 to the General Assembly:

F.	Pacini	President	Italy
R.	Ekers	President-Elect	Australia
H.	Rickman	General Secretary	Sweden
O.	Engvold	Assistant General Secretary	Norway
C.	Cesarsky	Vice-President (1997-2003)	France/ESO
N.	Kaifu	Vice-President (1997-2003)	Japan
N.	Kardashev	Vice-President (1997-2003)	Russia

K.	Pounds	Vice-President (2000-2006)	UK
S.	Torres-Peimbert	Vice-President (2000-2006)	Mexico
R.	Williams	Vice-President (2000-2006)	USA
R.	Kraft	Adviser	USA
J.	Andersen	Adviser	Denmark

#### V. REPORT ON SECRETARIAT

The General Secretary reports that Jodi Greenberg has integrated well in the Secretariat, starting July 7, 1998. After repeated stability problems with the portable PCs, two stationary Pentiums have been installed. The membership database has been extensively checked and updated, with many corrections being received in reaction to the list of outdated addresses published in IB 83. The IAU archives for 1919-1970 have been transferred to the Académie des Sciences, and a preliminary sorting and inventory of the archives since 1970 has been initiated. In summary, the situation of the Secretariat is the best since August 1997.

#### VI. MEMBERSHIP

#### MEMBERSHIP OF UZBEKISTAN

The General Secretary reports on his visit to Uzbekistan in October 1998 to attend celebrations commemorating the 1200th anniversary of the famous Central Asian astronomer Akhmad Al-Farghani, by invitation of the Uzbek Academy of Sciences. He also visited the Maidanak Observatory and discussed with several astronomers of the Former Soviet Union the possibilities for facilitating the continued cooperation on the operation of this excellent site.

Subsequently, a formal application from the Uzbek Academy of Sciences for Associate Membership has been received. Following past IAU practice, based on the ICSU recommendations concerning the States of the former Soviet Union, Uzbekistan has become an Associate Member of the IAU effective January 1, 1999.

### APPLICATION BY MOROCCO

The General Secretary reports on the visit he made to Morocco in March 1999 along with Dr. D. Wentzel, on the occasion of the signature of the TAD contract with Université Hassan II in Casablanca. An official application for Morocco to re-join the IAU as an Associate Member has been received. The EC recommends its approval by the next General Assembly.

### APPLICÁTION BY JÖRDAN

The General Secretary reports on the visit he made to Jordan in March 1999, on the occasion of the Eighth UN/ESA Workshop on Basic Space Science. As one result of this, an official application from Jordan for Associate Membership has been received. The EC recommends its approval by the next General Assembly.

### **PHILIPPINES**

An expression of interest in joining the Union has been received from the Philippines. An application for membership is expected in the near future.

# PROCEDURE FOR INVOLVING NEW MEMBER STATES

It is decided to schedule the vote on admission of new national members during the first session of the General Assembly in order to enable them to participate fully in the work of the General Assembly as promptly as possible.

### CATEGORY OF ADHERENCE OF THE USA

R. Kraft reports that the USA has increased its category of Adherence to IX (35 units of contribution), starting in the year 2000. The GS has sent letters of appreciation for this initiative to the US National Academy of Sciences and the US National Committee for Astronomy.

7

#### PROPOSALS FOR NEW INDIVIDUAL MEMBERS

The Chair of the EC Working Group on the World Wide Development of Astronomy has proposed to extend the Working Rules allowing Division Presidents to propose new Individual Members when proposals are not possible through the normal channel of the Adhering Organizations, so that Presidents of EC Working Groups can make such proposals on the same basis. The EC accepts this proposal, and the Working Rules will be modified accordingly.

#### VII. FINANCES

### STATUS OF PAYMENT OF NATIONAL DUES

Due to a vigorous campaign of reminders, the backlog of unpaid dues is at its lowest in several years.

Algeria has been warned that it will lose its membership due to non-payment of dues (Statutes 7) if no payment is received before the end of the year.

Lithuania has paid its dues for 1998 and has been encouraged by the General Secretary to apply for a waiver of the dues for the years 1995, 1996 and 1997.

Peru has paid its dues for the year 1998. Thus, the waiver of its dues for the previous years, agreed at EC 71, has become effective.

#### **AUDITED ACCOUNTS FOR 1998**

Payment of dues proceeded well (cf. above). However, ICSU grant income is less than budgeted. The number of scientific meetings was less than foreseen, and most EC Working Groups had not spent their allocated budgets; thus, spending under "Scientific Activities" was less than budgeted. The TAD programme exceeded its original budget by the amount previously approved. Overall, 1998 was a good year for the IAU finances.

### BUDGET FOR 1999 AND 2000

The EC took note of the budget as decided by the previous General Assembly.

### BUDGET PROPOSAL FOR 2001-2003

The budget proposal has been prepared in close cooperation with the Finance Sub-Committee, and the final, balanced budget has been endorsed by the FSC. On the income side, the larger number of member countries and the increase in the category of the USA have been incorporated, together with a minimum correction for inflation. Expectations as regards ICSU grants have been reduced to a more realistic level.

On the expense side, most items have been carried forward unchanged (in CHF). However, items have been rearranged in a more logical way under the two budget headings Scientific and Educational Activities. The latter now comprise all previous activities of Commissions 46 and 38 as well as of the EC WG on the World Wide Development of Astronomy. The total budget envelope for Education has been increased by the 15,000 CHF/year derived from the increase in the US category of adherence. In order to achieve a balanced budget over the period, the budget for meetings has been reduced slightly, after being raised temporarily in 1994 to bring the reserves to a more normal level; it is proposed to implement this reduction by reducing the number of meetings rather than the support for each. Expenses for the EC meeting at the GA in 2003 have been moved together with the other EC meetings to "Administrative Expenses".

Given the uncertainty still surrounding the Euro, the EC decides to retain the Swiss Franc as its budgetary unit for the moment. This decision will be reviewed when the Euro becomes a real currency in 2002.

A request has been received from Commission 22 to double the IAU contribution to the Meteor Data Centre for 2001-2003 in order to handle the "Year 2000 problem", and to implement the new rules for designating dates as outlined in Resolutions A4 and B1 of GA XXIII. The EC agrees to double its contribution to the MDC for 1999 and 2000, retaining the previous allocation for 2001-2003.

#### **FUTURE INVESTMENT STRATEGIES**

A somewhat less conservative investment strategy should gradually be introduced, but given the still-uncertain situation of the Euro, prudence is recommended. It is recalled that R. Milkey has offered to help in that field.

### VIII. STATUTES, BYE-LAWS, AND WORKING RULES - PROPOSED MODIFICATION

The EC decides to modify paragraph 24 of the revised Bye-Laws so that Division Boards will be composed of 6 to 12 persons appointed by the Division. More precise rules for election of Division Presidents are needed, analogous to those for Commissions, and will be discussed with the current Division Presidents and the EC before the revised Bye-Laws are submitted to the Adhering Organizations. The GS will ask for nominations for Division Presidents well before the GA so that incoming Officers can plan their travels accordingly, and will ask that a reasonable geographical distribution be maintained.

### IX. DIVISION, COMMISSION, AND WORKING GROUP MATTERS

### **COMMISSION 51**

The EC decides to defer the proposal of Commission 51 to change the name of the Commission in order to better reflect the evolution of its interests to the next EC meeting and the next GA.

### WG STRUCTURE IN THE PLANETARY, ASTEROID AND NEO FIELDS

The general policy of the IAU with regard to research on and public information about NEOs (asteroids and comets) is formulated in the Policy Statement issued by the IAU Executive Committee. The practical execution of this policy is organised by the IAU Working Group on NEOs of IAU Division III and the IAU Minor Planet Centre.

WG on Near Earth Objects (NEOs)

H. Rickman reports on the activities of this WG, which has been very active during the past few months. A group will be set up that verifies, and advises on, predictions of actual impacts based on available knowledge of the orbits. Its composition should be made available on the Web, and the WG Chairperson serves as liaison for this review committee. The conclusions as regards the likelihood of the impacts should also be made available on the Web.

He also reports on the IMPACT colloquium organised by the IAU, NASA, ESA, and others in Torino in June 1999. In one of its concluding resolutions, a new scale for the categorization of impact predictions for the public was introduced.

# EC WG on Planetary System Nomenclature (WGPSN)

In order to expedite the introduction of provisional names for new features in the solar system, the WGPSN has asked for rapid EC approval on a running basis as soon as names have been selected, with the proviso that such provisional names may later be retracted if the GA should demand so. Considering that the existing procedure (approval of provisional names at EC meetings, final approval by GA) has worked satisfactorily for many years, the EC is not convinced of the need for extreme urgency, nor that the proposed procedure is necessarily optimal. The EC finds it important that names in the planetary system, which sometimes give rise to vigorous public debate, be given wide exposure before they are finally adopted.

For the time being, the list submitted is provisionally approved (see Annex), but the EC does not wish not to receive future such lists more frequently than twice a year. The EC expects a proposal for revised Terms of Reference for the WGPSN, consistent with those (also revised if necessary) for the Small Bodies Names Committee of Division III, from the President of that Division and the Chairman of the WGPSN.

### WG on Extrasolar Planets

A proposal to appoint a WG to establish a list of extrasolar planets had been received from Commission 51. The EC approves the creation of such a Working Group of 9-12 persons, under Division III and with a broader mandate to

organise IAU activities in this new field, until the next GA. The Presidents of Division III and Commissions 51 and 16 are asked to propose a set of Terms of Reference as well as a list of proposed members of this WG, for rapid EC approval by mail.

#### X. SCIENTIFIC MEETINGS

From a large number of initial proposals, the EC selects the following programme of scientific meetings in the year 2000:

### **SYMPOSIA**

Symposium 200: Formation of Binaries

February 28 - March 4, 2000, Potsdam, Germany

Symposium 201: New Cosmological Data and the Values of the Fundamental Parameters August 7-10, 2000, Manchester, UK

Symposium 202: Planetary Systems in the Universe - Observation, Formation and Evolution August 7-10, 2000, Manchester, UK

Symposium 203: Insights into the Physics of the Sun & Heliosphere - Highlights from SOHO and other Space Missions August 7-10, 2000, Manchester, UK

Symposium 204: The Extragalactic Infrared Background and its Cosmological Implications August 15-18, 2000, Manchester, UK

Symposium 205: Galaxies and their Constituents at the Highest Angular Resolutions August 15-18, 2000, Manchester, UK

### COLLOQUIA

Colloquium 180: Towards Models and Constants for Sub-microarcsecond Astrometry March 20-25, 2000, Washington, USA

Colloquium 181: Dust in the Solar System and other Planetary Systems April 10-14, 2000, Canterbury, UK

Colloquium 182: Sources and Scintillations: Refraction and Scattering in Radio Astronomy April 17-21, 2000, Guiyang, China

### IAU CO-SPONSORED MEETING

33rd COSPAR Scientific Assembly (and selected associated events) July 16-23, 2000, Warsaw, Poland

### MEETING PROVISIONALLY & PPROVED

Colloquium 183: Small-Telescope Astronomy on Global Scales January 4-8, 2001, Kenting, Taipei, China

The General Secretary will contact the two Adhering Organisations in order to establish an agreed procedure which will ensure that the meeting can be prepared and conducted smoothly and in accordance with the ICSU rules.

### TECHNICAL WORKSHOP

Astronomical Site Evaluation in the Visible and Radio Range

Initially proposed as a Colloquium for October 25-29, 2000, in Marrakech, Morocco, this workshop is approved, provided it be scheduled after November 20, 2000, in order to avoid the three-month exclusion period before and after General Assemblies, and on condition that an improved program be approved by the Assistant General Secretary.

### XI. XXIVTH GENERAL ASSEMBLY

In addition to the five GA Symposia (see X above), the following scientific events are selected for the GA:

# INVITED DISCOURSES

(provisional titles)

M Perryman, UK

R.P. Kirshner, USA M. Mayor, Switzerland Supernovae and Cosmological Parameters

Extrasolar Planetary Systems

The Milky Way in Three Dimensions

#### JOINT DISCUSSIONS

Title	Chairman/co-Chairman Duration (days)		
The Transneptunian Population	C. Froeschle/H. Rickman	1.5	
Models and Constants for Sub-microarcsecond Astrometry	K.J. Johnston	1	
The Sun and Space Weather	G. Ai	1	
Highlights of Planetary Exploration from Space and from Earth	B. Bezars/J. Spencer	1.5	
Oxygen Abundances in Old Stars and Implications	B. Barbuy	1	
for Nucleosynthesis and Cosmology	·		
The Birth of Massive Stars	P.S. Conti	1	
HIPPARCOS and the Luminosity Calibration of the Nearby Stars	JC. Mermilliod	1	
Transport Processes in Stars: Theoretical Predictions	D. VandenBerg/JP. Zahn	1	
And Observational Constraints			
First Results from the Far Ultraviolet Spectroscopic	G. Sonneborn	1	
Explorer Mission			
The Origins of Galactic Magnetic Fields	A. Shukurov	1	
Cold Gas and Dust at High Redshift	D. Wilner	1	
Cluster Mergers and their Connection to Radio Sources	L. Feretti	1	
Atomic & Molecular Data for Astrophysics:	F. Rostas	1.5	
Case Studies, New Developments, & Future Needs	J <sup>a</sup>		
Applied Historical Astronomy	R. Stephenson	1	
SPECIAL SESSION			
Astronomy for Developing Countries	A.H. Batten	2.5	

### XII. FUTURE GENERAL ASSEMBLIES

1

GA XXV

The preparation of the GA is going smoothly. The Chair of the NOC is Dr. Raymond Haynes, who has replaced Professor Lawrence Cram.

# GA XXVI

The NRC of Canada has announced that it will submit an official invitation to host the 2006 IAU GA in Calgary. The EC asks the GS to remind the NRC of its concern regarding a balanced distribution of the GA venues with regard to

language. The choice of Calgary might impact on the final decision, considering that GA 23 and 24 are also in English-speaking countries. It was noted that, as suggested in the reply to the initial indication of interest from Canada, a venue in the French-speaking part of Canada would be more appealing.

The Czech National Committee for Astronomy, representing the Czech Academy of Sciences, has recently also indicated its interest in inviting the IAU GA to Prague in 2006.

Considering that the procedure of approving the venue of the General Assembly six years in advance is quite new, Adhering Bodies will be informed this autumn of the existing invitations, in order to allow potential new invitations to be presented in due time

### XIII. EDUCATIONAL ACTIVITIES

#### STATUS OF ISYA AND TAD PROGRAMMES

ISYAs

The 24th IAU/UNESCO International School for Young Astronomers will be held, as previously approved, July 26-August 14, 1999 in Bucharest, Romania.

The proposed ISYA in Thailand in February 2001 (EC 71) is confirmed.

The Secretary for the ISYAs has asked for a 10% increase of the IAU support for the ISYA (currently CHF 30,000). Because the budget for the next triennium has already been reviewed by the Finance Sub-Committee, it is decided not to change the amount which is formally budgeted for this item. However, in view of the proposed reorganization of and increased budget for Educational Activities, it is expected that the budgets for future ISYAs can be adjusted by Commission 46 from case to case, as necessary.

A follow-up report on the long-term results of the ISYAs in India and Egypt (1994) has been received from D. Wentzel. The results, in terms of the long-term career history of the former students, are encouraging well beyond expectations.

TAD

Central America: After the wide-spread destruction by Hurricane Mitch, the entire 1998 TAD (ICSU) support for Central America was sent to Honduras. Here, it was used to help in the repair of the observatory of the National University of Honduras in Tegucigalpa, and to contribute the upgrade of the observatory's capability to retrieve and analyze data from Earth satellites in support of the national reconstruction effort.

Morocco: In March 1999, a contract was signed with Université Hassan II in Casablanca for TAD support to astronomy in Morocco, and the travelling telescope will be sent there. During their stay, J. Andersen and D. Wentzel met many astronomers and visited relevant national and international offices in Casablanca, Marrakech and Rabat to identify potential TAD and other IAU activities that may support the growth of Moroccan astronomy.

The Philippines, Jordan, and possibly other countries are interested in receiving TAD support from the IAU. However, due to lack of funds, no significant new projects can be undertaken at the present time.

### IAU/COSPAR INITIATIVES

The planned joint IAU-COSPAR proposal for a larger grant from ICSU (Category I award) could not be completed in time for the deadline for grants in 2000. The proposal is postponed for submission in March 2000.

Meanwhile, the approved IAU-COSPAR-UN Special Educational Workshop will be held in conjunction with UNISPACE III (see below) in Vienna, July 20-23, 1999, primarily organised by Don Wentzel. A main agenda item will be to examine if a constructive collaboration can be established with the UN Regional Educational Centres for Space Science and Technology, which will be represented at the workshop.

7

### VIIIth UN/ESA WORKSHOP ON BASIC SPACE SCIENCE, Jordan, March 13-17, 1999

The IAU contributed three speakers to the workshop. Janet Mattei (AAVSO) presented the "Hands-On Astrophysics" educational kit on variable stars; Søren Larsen, graduate student at Copenhagen, described the use by students of a small on-campus telescope for education and small research projects; and the General Secretary gave a paper on stellar evolution studies with small telescopes. Many useful contacts were established, and the membership applications from Jordan and (probably) the Philippines are direct consequences of these contacts.

#### The IXth UN/ESA WORKSHOP ON BASIC SPACE SCIENCE

will be held in Toulouse in spring 2000.

#### ORGANIZATIONAL STRUCTURE IN THE FIELD OF EDUCATION

The General Secretary had written to the Presidents, Vice-Presidents, and Past Presidents of Commissions 38 and 46, the Chairman of the WG on WWDA, and the coordinators of the ISYA and TAD programmes and proposed a reorganization of the IAU educational activities in order to achieve a more efficient deployment of the IAU resources. Basically, it was proposed to organise all these activities under Commission 46, with an appropriate planning structure and with authority to decide on the distribution of funds within the new, larger envelope for educational activities in the 2001-2003 budget (see above). It is agreed to have this item put on the agenda of the next EC meeting, for examination at its first session. If the reorganization goes ahead as proposed, the EC should probably be permanently represented by a member in the main planning committee of Commission 46.

### XIV. ENVIRONMENTAL ISSUES - PROTECTION OF THE SKY

### UN-COPUOS - UNISPACE III.

As a follow-up to Resolution A1 from the Kyoto GA and the EC Policy Statement on the Environment approved at EC 71, the IAU-COSPAR-UN Special Environmental Symposium, No. 196, on "Preserving the Astronomical Sky", will be held in conjunction with the UNISPACE III conference of the UN Committee on the Peaceful Uses of Outer Space (COPUOS) in July 1999. The recommendations of the Symposium will be presented to the main UN Conference, hopefully to be included in its recommendations for the future, and will be distributed to IAU Member countries.

### XV. PUBLICATIONS

Since EC.71, the Highlights of Astronomy, vol. 11A+B, and the IAU Transactions Vol. XXIIIB have appeared, as well as the Proceedings of Symposia 181, 182, 183, 184, 185 and 188 (Kluwer) and 190 and 192 (ASP).

### FORMAT OF IAU PUBLICATIONS PRODUCED BY ASP

The ASP has produced the first two Symposium volumes (S192 and S190) under the new contract and have been very cooperative in adjusting the format of future volumes based on this experience. The call for contributions to the Reports on Astronomy 1996-1999 (Trans. IAU XXIVA) has been issued. The ASP has developed a style file and a set of LaTeX templates for the different types of report in Trans. IAU XXIVA; it is expected that this can be used also for Trans XXIVB after the GA. The files and associated documentation are available on-line on the Web and can also be downloaded by ftp. LaTex tools are being developed for the production of the volume once the contributions have been received.

### OLDER IAU VOLUMES ON-LINE AT ADS

The ADS has requested permission to make IAU publications available on the internet, and the GS has consulted the past and present IAU Publishers on the matter. In agreement with the Publishers, permission is given to make Tables of Contents and Abstracts available on-line as soon as a volume appears, and to scan and post the entire volumes five years after publication of the paper version.

#### INFORMATION BULLETIN

The deadline for IB 85 (Scientific Programme of GA XXIV) is September 1, 1999. IB 86 (January 2000) will be submitted to ASP by mid-November 1999.

### AVAILABILITY OF MEMBERSHIP LIST TO PUBLISHERS

Following a request, it is agreed that the Secretariat can provide major scientific publishing houses and possibly a few other similar enterprises with the membership list for promotional mailings, either on diskette or as printed paper labels. Permission will require a agreement signed by the recipient and the General Secretary specifying that the list is for one-time use only and must not be transferred to a third party; a handling fee determined by the General Secretary will be assessed.

### XVI. INTERNATIONAL ACTIVITIES

#### **ICSU**

J. Fierro will represent the IAU at the Conference on the Programme for Capacity Building in Science, June 24-25, 1999, organised in conjunction with the ICSU/UNESCO World Conference on Science in Budapest, Hungary, and at that conference itself.

#### **UN-COPUOS**

The General Secretary will represent the IAU and COSPAR at the meeting of the UN Committee on the Peaceful Uses of Outer Space (COPUOS) held just before UNISPACE III itself.

#### UNISPACE III

The IAU will be represented at UNISPACE III and organises two events under the Technical Forum accompanying the Conference: Symposium 196 on Preserving the Astronomical Sky and the Special Educational Workshop: Capacity Building in Astronomy and Basic Space Science.

### XVII. OTHER BUSINESS

The meeting ends on June 19 at 17.00. The President thanks the General Secretary, Assistant General Secretary, and the IAU staff for preparing the meeting, and expresses the thanks of the Executive Committee to Prof. C. Anguita for his kind invitation and to D. Hofstadt and the ESO staff for their kind hospitality.

Santiago, June 20, 1999