

PART 1

**REPORT OF THE EXECUTIVE COMMITTEE
1967-1969**

EXECUTIVE COMMITTEE 1967–1970

PRESIDENT

Professor Dr O. Heckmann, Director, The European Southern Observatory, Bergedorfer Strasse 131, 205 Hamburg 80, D.B.R.

VICE-PRESIDENTS

Professor M. K. V. Bappu, Director of the Astrophysical Observatory, Kodaikanal, India

Professor W. N. Christiansen, School of Electrical Engineering, University of Sydney, Sydney, N.S.W., Australia

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Professor M. Schwarzschild, Princeton University Observatory, Peyton Hall, Princeton, New Jersey 08540, U.S.A.

Professor A. B. Severny, Director of the Crimean Astrophysical Observatory, USSR Academy of Sciences, P/O Nauchny, Crimea, U.S.S.R.

GENERAL SECRETARY

Dr L. Perek, Director, Astronomical Institute of the Czechoslovak Academy of Sciences, Budečská 6, Praha 2, Czechoslovakia

ASSISTANT GENERAL SECRETARY

Professor C. de Jager, Director, The Astronomical Institute, Zonnenburg 2, The Netherlands

Introduction

The present report covers the period of three years from 1 January 1967 to 31 December 1969. It follows closely the pattern as set by previous reports, especially that for the years 1964–1966, formally approved by the XIIIth General Assembly and published in volume XIII B of the *Transactions of the IAU*.

The period under report includes the first eight months of the year 1967 (until 31 August) which fell under the responsibility of the former Executive Committee, but it does not include the first seven and a half months of the year 1970 still within the responsibility of the present Executive Committee.

Decisions of the Executive Committee related to the XIIIth General Assembly and printed in *Transactions* volume XIII B or published in the *Information Bulletin of the IAU* will not be repeated here. Thus, the present report is actually restricted to formal matters and deals with facts necessary for permanent record. The reports on the activity of IAU Commissions, Inter-Union Commissions, Astronomical Services, etc., have been included in the *Reports of Astronomy, 1970*, to be published as volume XIVA of the *Transactions*.

The Activities Report deals with the administration of the Union, meetings of the Executive Committee, IAU Membership, adherence of countries, Commissions of the IAU, colloquia and symposia organized by the IAU, IAU publications, and relations to other organizations.

The Report on IAU Finances gives a rounded off picture of the receipts and payments of the Union during the period under report, and presents an outline of the financial problems the Union has to face.

The Report as a whole is supplemented by an appendix listing data on Adhering Organizations, IAU Members and IAU Publications.

Activities Report

The President of the Union summoned, with the authority of the Executive Committee, an Extraordinary General Assembly which was held in Prague, Czechoslovakia, on 15 May 1968. This Extraordinary General Assembly modified articles 4a and 11a of the Statutes of the International Astronomical Union in that it added to the six existing categories of adherence, categories 7 and 8 with 20 and 30 units of contribution respectively. The proceedings of this Extraordinary General Assembly have been published in *Information Bulletin* No. 20.

Administration

The Executive Committee and the officers responsible for the administration of the Union have had to deal with an ever increasing number of problems arising from the natural growth of the IAU, its complex relationship with other organizations and from the rapid progress in astronomy. The organization of symposia and colloquia, and the preparation of IAU publications, have now permanently become the responsibility of the Assistant General Secretary. Another development of apparently institutional character is the meetings of executive officers (President, General Secretary and Assistant General Secretary), regularly held at least twice a year in order to co-ordinate the Union's activities in its manifold fields of interest.

The administrative office in Prague had to be re-inforced by a short-hand typist over the periods of intensified work, especially from 1 September 1969 on. Moreover, the President, the General Secretary and the Assistant General Secretary benefited from the services of several assistants and secretarial help in Hamburg, Prague and Utrecht, generously provided by their respective home institutions. It is hoped that the financial situation of the Union will permit one of the future General Secretaries to assemble an IAU staff large enough to cope with the administration of the Union without external help.

Meetings of the Executive Committee

The Executive Committee, in its former composition, held the 29th meeting in Prague during the thirteenth General Assembly, having had sessions on 20, 21, 27 and 29 August 1967. The meeting was presided over by the President of the Union Prof. P. Swings. All members and both counsellors were present.

The 30th meeting of the Executive Committee in its present composition, was held in Prague on 31 August 1967 under the presidency of Prof. O. Heckmann. All members and both advisers were present. Further, the Executive Committee held the following meetings:

The 31st meeting in Hamburg-Bergedorf from 26 to 30 August 1968. Excused were: Prof. A. B. Severny, Vice-President, and Prof. P. Swings, adviser.

The 32nd meeting in Frascati (Rome) from 21 to 26 September 1969, when all members and both advisers were present.

The Executive Committee formed, at its 31st meeting, a Statutes Committee to prepare a revised version of the IAU Statutes and By-laws. This committee, which consisted of the President Prof. O. Heckmann, the Vice-President Prof. M. Schwarzschild, the General Secretary Dr L. Perek, the adviser Prof. J.-C. Pecker, the former General Secretary of long standing Dr D. H. Sadler, and the

Executive Secretary Dr A. Jappel, met in Frankfurt a/M in December 1968 and worked out a draft of the revised Statutes and By-laws for submission to the Executive Committee. The approved draft has been published in *Information Bulletin* No. 23.

Between meetings of the Executive Committee, the business of the Union was, where necessary, conducted by correspondence between members and advisers.

Adhering Countries

Lebanon withdrew from the Union in 1967, and Colombia has adhered to it since that year. The 32nd meeting of the Executive Committee admitted Iran to the Union from 1969 on. Cuba has applied for admission, and its application will be submitted to either the 33rd meeting of the Executive Committee or the XIVth General Assembly, according to whether the present or revised Statutes and By-laws will be in force at the time of submission.

The list of Adhering Countries and corresponding Adhering Organizations, together with the approximative number of individual Members in each country, is given in the appendix on pages 25–26.

Members of the IAU

The number of IAU Members was 1572 on 1 January 1967. A further 450 new Members have been admitted at the XIIIth General Assembly since then. On the other hand, the General Secretary has been informed of the decease of 29 Members, so that the Union had 1993 Members on 28 February 1970.

The list of Members whose decease has been notified since 1 January 1967 is given in the appendix on page 26.

Commissions of the IAU

The *Transactions of the IAU*, volume XIVA, subtitled *Reports of Astronomy* 1970, include the reports prepared by the Presidents of each of the 38 Commissions of the Union, assisted by their Vice-Presidents, Organizing Committees, those responsible for the various working groups or committees formed within the Commissions, and by the Commissions themselves.

The Executive Committee approved, at its 31st meeting, to change the title of Commission No. 5 from Commission for Abstracts and Bibliography to Commission for Documentation; in French from Commission des Analyses de Travaux et de Bibliographie to Commission de Documentation.

In the period under report, Commissions have co-opted a number of new members from among the Members of the Union. On the other hand, Members of the IAU complied with the wish of the Executive Committee not to adhere to more than three Commissions, and resigned their membership in Commissions in excess of three.

Prof. A. I. Lebedinskij has been succeeded by Prof. A. A. Mihajlov, nominated as Vice-President of Commission No. 17 on the Moon.

The Presidents of Commissions will prepare proposals for the new composition of Commissions including co-opted members and new IAU Members to be admitted at the General Assembly.

The Executive Committee formed, at its 32nd meeting, a Working Group on Numerical Data in Astronomy and Astrophysics with the following membership: Prof. Ch. Moore-Sitterly (Chairman), Prof. C. W. Allen, Prof. M. Migeotte, Prof. W. Fricke.

The purpose of the Working Group is to deal with problems of collecting and disseminating numerical data in astronomy and astrophysics, prepare a programme of procedure, act as intermediary between the IAU and CODATA, and prepare a meeting of interested Members at the XIVth General Assembly.

Between the General Assemblies, Commissions organized several colloquia and other projects financed by the Union.

Colloquia of IAU Commissions

(held between 1 January 1967 and 31 December 1969):

IAU Colloquium on Spectroscopy, Bombay, India, 9–18 January 1967 (Commission 14).

IAU Colloquium on The Zodiacal Light and the Interplanetary Medium, Honolulu, Hawaii, 30 January–2 February 1967 (Commissions 21 and 22).

IAU Colloquium on Space Spectroscopy, Evanston, Ill., U.S.A., 3–5 May 1967 (Commissions 9, 14, 29, 44).

IAU Colloquium on The Gravitational n -Body Problem, Paris, France, 16–18 August 1967 (Commissions 17, 28, 33, 37).

IAU Colloquium on Non-Periodic Phenomena in Variable Stars, Budapest, Hungary, 5–9 September 1968 (Commissions 29, 42).

IAU Colloquium on Mass-Loss from Stars, Trieste, Italy, 12–16 September 1968 (Commissions 29, 42).

IAU Colloquium No. 1 on the Problem of Variation of Geographical Coordinates in the Southern Hemisphere, La Plata, Argentina, 4–5 November 1968 (Commission 19).

IAU Colloquium No. 2 on Spectrum Formation in Stars with Steady State Extended Atmospheres, Munich, FRG, 16–19 April 1969 (Commission 36).

IAU Colloquium No. 3 on Interstellar Dust, Jena, GDR, 22–26 August 1969 (Commission 34).

IAU Colloquium No. 4 on Stellar Rotation, Columbus, Ohio, U.S.A., 8–11 September 1969 (Commissions 29, 35, 36, 45).

IAU Colloquium No. 5 on Visual Double Stars, Nice, France, 8–10 September 1969 (Commission 29).

IAU Colloquium No. 6 on Mass-Loss and Evolution in Close Binaries, Elsinore, Denmark, 15–19 September 1969 (Commission 42).

Specific Projects of Commissions

The list of Specific Projects of Commissions as approved by the XIIIth General Assembly (or, during the period under report, by the Executive Committee) is given, together with the corresponding expenditure, in the report on the financial situation of the IAU (page 17). These projects are, as a rule, continuations of the previous projects and thus need no further comment.

*Symposia**IAU Symposia*

During the period under report, the following symposia were organized by the Union:

No.	Subject	Place	Date
32	Continental Drift, Secular Motion of the Pole and Rotation of the Earth	Stresa	March 1967
33	Physics and Dynamics of Meteors	Tatr. Lomnica	September 1967
34	Planetary Nebulae	Tatr. Lomnica	September 1967
35	The Structure and Development of Solar Active Regions	Budapest	September 1967
36	Ultraviolet Stellar Spectra and Related Ground-based Observations (jointly with COSPAR)	Lunteren	June 1969
37	Non-Solar X- and Gamma-Ray Astronomy (jointly with COSPAR)	Rome	May 1969
38	Spiral Structure of the Galactic System	Basel	Aug./Sept. 1969
39	Cosmical Gas Dynamics	Crimea	September 1969
40	Planetary Atmospheres	Marfa/Texas	October 1969

Symposium No. 32 was organized jointly with IUGG. Symposia Nos. 33, 34 and 35 were held shortly after the XIIIth General Assembly.

The following IAU Symposia will be held shortly before or immediately after the XIVth General Assembly:

No.	Subject	Place	Date
41	New Techniques in Space Research (jointly with COSPAR)	Munich	10–14 August 1970
42	White Dwarfs	St Andrews	10–14 August 1970
43	Solar Magnetic Fields	Paris	31 August – 4 September 1970
44	External Galaxies and Quasi Stellar Sources	Uppsala	10–14 August 1970
45	Motion, Evolution of Orbits and Origin of Comets	Leningrad	4–11 August 1970
46	The Crab Nebula	Jodrell Bank	6–8 August 1970

Symposia with IAU participation

Symposium on Solar Flares and Space Research, Tokyo, 9–11 May 1968. Organized by COSPAR, cosponsored by IAU, IUCSTP, URSI and IUGG.

Symposium on Meteorites, Vienna, 7–13 August 1968. Organized by UNESCO, cosponsored by IUG, IAEA and IAU.

Colloquium on Planetary Atmospheres and Surfaces, Woods Hole, U.S.A., 11–15 August 1969. Joint Symposium of IAU and URSI.

International Symposium on Solar-Terrestrial Physics, Leningrad, 12–20 May 1970. Organized by IUCSTP, cosponsored by IAU, IUGG and URSI.

The IAU was, in addition, represented at numerous symposia and meetings of many ICSU Organizations, as announced in the *IAU Information Bulletin*.

IAU Publications

Budgetary considerations and the fact that the Union cannot afford facilities of a publishing house prompted the Executive Committee radically to reformulate the publication policy of the IAU. Thus it was resolved that

- The old contract with Academic Press and Willmer Brothers should be terminated.
- A new publisher should be found.
- The Union should only finance the production of such publications as are meant for free distribution to Members.
- The distribution of IAU publications on a subscription basis should be discontinued.
- Only institutions of developing countries should obtain IAU publications free of charge.
- All symposium proceedings should be published for the account and risk of the publisher.
- For such publications, the publisher should pay the Union a royalty.
- Such royalties should primarily be used for purchasing the volumes to be given free of charge to institutions of developing countries.

These principles were embodied in the contract made with D. Reidel Publishing Company, Dordrecht, Holland.

Transactions of the IAU

The *Transactions of the XIIIth General Assembly* were published in two volumes, A and B. Volume A included the corrected Draft Reports, distributed free to Members of the Union. Volume B, subtitled *Proceedings of the Thirteenth General Assembly, Prague 1967* was distributed free of charge to those who were Members of the IAU at the time of the thirteenth General Assembly.

The Invited Discourses, Joint Discussions and the results of Special Meetings held during the XIIIth General Assembly were published in the form of a symposium volume under the title *Highlights of Astronomy as presented at the XIIIth General Assembly of the IAU 1967*.

The Draft Reports and Transactions volumes were financed from the budget of the Union. The *Highlights of Astronomy* already went to the charge of D. Reidel.

The Transactions volumes sold as follows:

By Academic Press in	1967–1969	1966	1965 and/or earlier
vol. XIA	32	18	46
vol. XIB	34	32	9
vol. XIIA	91	29	423
vol. XIIIB	170	367	
vol. XIIC	327	197	
By D. Reidel	1968–1969		
vol. XIII A	451		
vol. XIII B	451		

IAU Symposia

IAU symposia up to and including No. 31 were still the responsibility of the Union under the terms of the old contract. It should be noted that Symposium No. 29 only appeared in Russian, and is not available in English.

IAU symposia up to and including No. 35 already were published by D. Reidel, without any financial responsibility of the IAU.

Academic Press effected the following sales:

Symposium No.	Number of copies sold 1967–1969
24	140 (319 sold in 1966)
25	142 (322 sold in 1966)
26	155 (309 sold in 1966)
27	769
28	660
30	476
31	658

The sales by D. Reidel were as follows:

Symposium No.	Number of copies sold 1968–1969
32	1363
33	863
34	856
35	921
Highlights	829

IAU Information Bulletin

The *IAU Information Bulletin* was prepared and edited by the General Secretary, and printed, published and distributed by D. Reidel. It appeared, as a rule, twice a year and went, free of charge, to IAU Members and institutions on a special distribution list.

Publication Policy

The Executive Committee examined in detail several proposals for lower publication costs with a view of obtaining lower selling prices. Unfortunately, all possibilities examined proved impractic-

cable, and thus it was resolved not to change the present arrangements, which are as follows:

- The Draft Reports have been abolished.
- The Reports of Commissions will be published in *Transactions* volume A, to be distributed free of charge to Members at the General Assembly. The production costs of this volume are the responsibility of the Union.
- The Proceedings of the General Assembly will be published in *Transactions* volume B, to be distributed free to those having been Members of the IAU at the time of the General Assembly. Production costs to be borne by the Union.
- Information Bulletin* of the IAU to be financed by the Union.
- All other IAU publications to be financed by the publisher, on his account and risk, but the Union to obtain a royalty of 5 % of the selling price. Free distribution only to the Organizing Committee of the Symposium in question and to Institutions of developing countries on a special distribution list.
- Information Bulletin* financed by the IAU and distributed free of charge to IAU Members and selected institutions.

The financial aspects of this publication policy are commented on in the Report on the Financial Situation.

Relations to other Organizations

IAU Representation

1. *International Council of Scientific Unions.* The General Secretary represented the Union at the seventh meeting of the ICSU Executive Committee in Rome (October 1967). At the twelfth General Assembly of ICSU held in Paris, in September 1968, the General Secretary was elected Vice-President of ICSU for two years. The General Secretary also represented the Union at the meeting of the ICSU Executive Committee held in Yerevan, in October 1969.

The General Secretary is the present representative of the Union on the Executive Committee of ICSU.

2. *ICSU Organizations.* The Union participates in the activity of a number of Special and Scientific Committees, and Inter-Union Commissions formed and sponsored by ICSU. For more details please see pages 13 onwards of volume XIIC of the *Transactions*.

The following list only gives the present state of IAU representation in these organizations:

- (a) Committee on Space Research (COSPAR): C. de Jager (succeeded L. Gratton in 1968).
 - (b) International Abstracting Board (IAB): J. B. Sykes.
 - (c) Federation of Astronomical and Geophysical Services (FAGS): D. H. Sadler (President), B. Guinot.
 - (d) Comité International de Géophysique (CIG): G. Righini (Vice-President), R. Michard.
 - (e) Inter-Union Committee on Frequency Allocations for Radio Astronomy and Space Science (IUCAF): J. F. Denisse, V. A. Sanamian, F. G. Smith (Chairman), O. Hachenberg.
- Inter-Union Committee on the Ionosphere (IUCI): discontinued.
 Inter-Union Commission on Solar Terrestrial Physics (IUCSTP) created in 1966: Z. Švestka.
 Inter-Union Commission on Science Teaching (IUCST): Miss Edith Müller.
 Committee for Data on Science and Technology (CODATA): Mrs. Ch. Moore-Sitterly.
 Inter-Union Commission on Spectroscopy: A. H. Cook, E. Edlén, J. G. Phillips, M. J. Seaton.

Other Organizations

The Union is represented in the following organizations:

- (a) La Fondation Internationale du Pic-du-Midi: A. Lallemand.
- (b) Le Comité Consultatif pour la Définition de la Seconde (CCDS) du Bureau International des Poids et Mesures: B. Guinot, H. M. Smith.
- (c) Le Comité Consultatif pour la Définition du Mètre du Bureau International des Poids et Mesures: A. H. Cook.

- (d) Le Comité Consultatif International des Radiocommunications: H. M. Smith.
 (e) Various Services of FAGS:
 Bureau International de l'Heure (BIH): H. M. Smith, F. Zagar.
 International Polar Motion Service: Organizing Committee of IAU Commission 19.
 Quarterly Bulletin on Solar Activity: Organizing Committee of IAU Commission 10.
 International Ursigrams and World Day Service (IUWDS): R. Michard.
 Solar Particles and Radiation Monitoring Organization (SPARMO): C. de Jager.

Direct Relations with UNESCO

The IAU had the benefit of three direct contracts with UNESCO, which provided for grants to the International Summer Schools for Young Astronomers, jointly organized in 1967, 1968 and 1969. These summer schools proved a great success, and the Executive Committee wishes to express to UNESCO its heartfelt thanks for its generous financial help.

The 1967 grant of \$ 8 000 according to contract UNESCO/NS/0134/67 was paid to the Organizers of the Summer School in Manchester direct, and is not included in the accounts of the Union.

The two other grants, each of \$ 8 000, towards the summer schools in Arcetri (1968) and Hyderabad (1969) respectively are included in the financial report.

Moreover, the Union obtained from UNESCO a grant of \$ 2 000 towards the studies of Mr. B. De of India at the University of Michigan. This grant was paid directly to Mr. De.

Relations with ICSU

Over the period under report, the Union enjoyed the most understanding support of ICSU in all its efforts. In addition to the annual UNESCO subvention, transmitted to the Union by ICSU, this organism paid the Union, jointly with UNESCO, further \$ 5 000. A similar grant of \$ 4 000 has been made for the year 1970.

The Executive Committee feels that it has to extend its special thanks to ICSU for the generous assistance given to the Union.

Report on IAU finances

In accord with the policy adopted in 1961, the Executive Committee presents to the Members of the Union a 'Summarized Account of Receipts and Payments' covering the period from 1 January 1967 to 31 December 1969. All amounts are given in U.S. dollars converted from other currencies at the following ICSU conversion rates, treated as exact:

£ sterling: \$ 2.80 (\$ 2.40 after devaluation)
 U.S. \$ = 3.60 Dutch guilders = 4.90 French francs = 14.36 Czechoslovak crowns.

The period under report was marked by the devaluation of the Pound sterling in 1967 and that of the French franc in 1969. This resulted in a total loss to the Union of \$ 478.69 on its English and French bank accounts. The conversion rate of \$ = 4.90 French francs, as used throughout the summarized account, was the official ICSU rate of exchange until 1 November 1969.

Certain bank operations, such as transfers from one account to another and reimbursements, were effected at current rates of exchange and thus resulted in exchange differences.

The summarized account has been derived from 14 (one for each currency and each year) individual accounts of receipts and payments audited and certified as correct by the Union's professional accountants. These accounts will be available for examination by the Finance Committee at the XIVth General Assembly.

SUMMARIZED ACCOUNT OF RECEIPTS AND PAYMENTS

The statement on pages 12–14 is a simple account of receipts and payments collected for convenience under a few main headings. The following explanatory notes provide more detailed information on each item of the accounts.

Receipts

1. *National Subscriptions.* The XIIIth General Assembly of the IAU, held in Prague, resolved to fix the amount of the unit of contribution at 900 gold francs, the gold franc being equivalent to 0.3266 U.S. dollars. Thus, the unit of contribution is 293.94 U.S. dollars.

The modification of articles 4a and 11a of the Statutes of the IAU, by adding to the 6 existing categories of adherence categories 7 and 8 with 20 and 30 units of contribution respectively (Extraordinary General Assembly held in Prague on 15 May 1968 – see Proceedings published in *Information Bulletin* No. 20), led two countries to adhere in category 7.

As on 31 December 1969, the IAU had 44 adhering countries paying annually a total of 184 units of contribution. Eighteen countries adhered in category 1, nine each in categories 2 and 3, three each in categories 5 and 6, and two countries adhered in category 7.

The contributions of 39 adhering countries had passed through the bank before 31 December 1969. Three further payments made in 1969 passed through the bank after 31 December 1969. One adhering country owes its dues to the Union since 1966, another one since 1965. One adhering country has already paid its contribution for 1970, and the account of another country shows a balance to its credit.

SUMMARIZED ACCOUNT OF RECEIPTS AND PAYMENTS (IN U.S. DOLLARS)
FOR THE PERIOD 1967-1969

<i>Receipts</i>								U.S. dollars
1. Subscriptions from adhering countries								
	1966	1967	1968	1969	1970			
	(or before)							
1967	3	38	1 + 3 part.					35 011.48
1968	—	4	33 + 1 part.	1 + 1 part.				44 056.16
1969	—	—	10	39	1			52 614.57
1967-1969	<u>3</u>	<u>42</u>	<u>44 + 4 part.</u>	<u>40 + 1 part.</u>	<u>1</u>			<u>131 682.21</u>
2. Sales of publications								U.S. dollars
1967..	..	..	..	..	..	..	..	13 391.69
1968..	..	..	..	..	..	..	..	16 597.70
1969..	..	..	..	..	..	..	..	13 129.93
								<u>43 119.32</u>
3. Subscriptions to IAU publications								0
4. Interest on savings and other accounts								
1967..	..	..	..	..	..	..	..	77.30
1968..	..	..	..	..	..	..	..	6.65
1969..	..	..	..	..	..	..	..	738.96
								<u>822.91</u>
5. Subvention from UNESCO, through ICSU								
1967..	..	..	..	..	..	..	..	14 000.00
1968..	..	..	..	..	..	..	..	14 000.00
1969..	..	..	..	..	..	..	..	23 987.03
								<u>51 987.03</u>
6. Contracts with UNESCO								
1967..	..	..	..	..	..	..	..	500.00
1968..	..	..	..	..	..	..	..	8 000.00
1969..	..	..	..	..	..	..	..	6 000.00
								<u>14 500.00</u>
7. Other receipts								
1967..	..	..	..	..	..	..	..	74 603.39
1968..	..	..	..	..	..	..	..	31 136.29
1969..	..	..	..	..	..	..	..	11 788.16
Transfer from cancelled savings account-Prague								1.39
Gain through difference of rate of exchange £								1.11
								<u>117 530.34</u>
								<u>Total receipt 359 641.81</u>
Bank accounts as on 1 January 1967:								
—savings accounts	..	..	..	..	..	..	..	71 244.19
—current accounts	..	..	..	..	..	..	..	18 518.91
								<u>89 763.10</u>
Effective balance as on 31.12.1969	..	..	..	..	..	..	..	23 498.47
								<u>113 261.57</u>

EXECUTIVE COMMITTEE

SUMMARIZED ACCOUNT OF RECEIPTS AND PAYMENTS (IN U.S. DOLLARS)
FOR THE PERIOD 1967-1969

										<i>Payments</i>	
										U.S. dollars	U.S. dollars
1. Administrative office											
1967..	..	..	..	..	..	..	..	..	..	15 240.26	
1968..	..	..	..	..	..	..	..	..	..	10 729.56	
1969..	..	..	..	..	..	..	..	..	..	11 960.94	
										<hr/>	37 930.76
2. Subscriptions to ICSU											
1967..	..	..	..	..	..	..	..	..	..	708.09	
1968..	..	..	..	..	..	..	..	..	..	700.23	
1969..	..	..	..	..	..	..	..	..	..	881.12	
										<hr/>	2 289.44
3. Expenses of Commissions											
1967..	..	..	..	..	..	..	..	..	..	—
1968..	..	..	..	..	..	..	..	..	..	63.67	
1969..	..	..	..	..	..	..	..	..	..	676.92	
										<hr/>	740.59
4. Specific projects of Commissions approved by the General Assembly											
1967..	..	..	..	..	..	..	..	..	..	11 992.67	
1968..	..	..	..	..	..	..	..	..	..	9 045.86	
1969..	..	..	..	..	..	..	..	..	..	7 784.07	
										<hr/>	28 822.60
5. General Assembly											
1967 (XIII GA and as per analysis)	..	..	..	..	..	..	..	..	..	21 309.14	
1968 (XIV GA Brighton)..	..	..	..	..	..	..	..	..	..	396.60	
1969 (XIV GA Brighton)..	..	..	..	..	..	..	..	..	..	684.92	
										<hr/>	22 390.66
6. Printing of Publications by IAU											
1967..	..	..	..	..	..	..	..	..	..	48 369.61	
1968..	..	..	..	..	..	..	..	..	..	28 260.97	
1969..	..	..	..	..	..	..	..	..	..	1 919.18	
										<hr/>	78 549.76
7. Meetings of the Executive Committee											
1967..	..	..	..	..	..	..	..	..	..	—
1968..	..	..	..	..	..	..	..	..	..	6 124.61	
1969..	..	..	..	..	..	..	..	..	..	5 929.37	
										<hr/>	12 053.98
8. Organization of IAU Symposia and Colloquia and participation in other scientific meetings											
1967..	..	..	..	..	..	..	..	..	..	5 140.36	
1968..	..	..	..	..	..	..	..	..	..	2 522.87	
1969..	..	..	..	..	..	..	..	..	..	10 718.53	
										<hr/>	18 381.76
9. Publication of symposia not by IAU											0
										<hr/>	<hr/>
										to carry over	201 159.55

									carried over	201 159.55
10. Inter-Union commissions, committees on the ICSU, etc.										
1967..	..	..	..	..	..	..	..	..	2 147.81	
1968..	..	..	..	..	..	..	..	..	2 200.00	
1969..	..	..	..	..	..	..	..	..	2 200.00	
									<hr/>	6 547.81
11. Other expenses of representation										
1967..	..	..	..	..	..	..	..	..	534.06	
1968..	..	..	..	..	..	..	..	..	70.00	
1969..	..	..	..	..	..	..	..	..	777.32	
									<hr/>	1 381.38
12. Specific projects approved by the Executive Committee										
1967..	..	..	..	..	..	..	..	..	1 100.00	
1968..	..	..	..	..	..	..	..	..	—
1969..	..	..	..	..	..	..	..	..	—
									<hr/>	1 100.00
13. Programmes under direct UNESCO contract										
1967..	..	..	..	..	..	..	..	..	1 500.00	
1968..	..	..	..	..	..	..	..	..	6 000.00	
1969..	..	..	..	..	..	..	..	..	8 629.92	
									<hr/>	16 129.92
14. Reimbursement of loan from ICSU										
1969..	..	..	..	..	..	..	..	..	..	4 000.00
15. Reimbursements to savings accounts										
1969..	..	..	..	..	..	..	..	..	..	38 763.89
16. Other Expenses										
1967..	..	..	..	..	..	..	..	..	3 162.62	
1968..	..	..	..	..	..	..	..	..	30 111.19	
1969..	..	..	..	..	..	..	..	..	20 395.07	
Loss through devaluation of £ in 1967	..	..	..	..	..	..	..	..	134.82	
									<hr/>	53 803.70
									Total payments	322 886.25
Excess of receipts over payments	..	..	..	..	..	..	..	..	..	36 755.56
									Total	<u>359 641.81</u>
Bank Accounts as on 31 December 1969:										
—savings accounts	..	..	..	..	..	..	..	..	57 987.10	
—current accounts	..	..	..	..	..	..	..	..	55 274.47	
									<hr/>	<u>113 261.57</u>

2. *Sales of publications.* The complexity of the accounts from the printers and publishers, and the many different arrangements for the sale of transactions and symposium volumes as well as reprints from them, make it impracticable to give separate statements for each volume and reprint sold. Generally, the revenue from IAU publications is made up of

- (a) Receipts from Academic Press Inc. (London) Ltd., for sales of *Transactions* and Symposium volumes.
 (b) Royalties from the same publishers.
 (c) Royalties from Cambridge University Press.
 (d) Royalties from D. Reidel Publishing Company.
 (e) Receipts from organizations and individuals for sales of IAU publications by the Secretariat.
 (f) Receipts from organizations and individuals from sales of reprints.

The following is a synopsis of the receipts, separately for 1967–1968 and 1969.

Receipts from sales of publications 1967–1968:

—Academic Press, for sales of IAU <i>Transactions</i> up to and including volume XIIC and IAU Symposia up to and including volume No. 31	\$ 18 828.33
—Royalties from Academic Press	15.24
—Royalties from Cambridge University Press	310.01
—Sales of IAU publications by the Secretariat	496.10
—Sales of reprints	10 339.71
Total	29 989.39

Receipts from sales of publications 1969:

—Academic Press, for sales of IAU <i>Transactions</i> up to and including volume XIIC and IAU Symposia up to and including volume No. 31	5 262.81
—D. Reidel, royalties for sales of IAU <i>Transactions</i> , vol. XIII A, XIII B, <i>Highlights of Astronomy</i> , and IAU Symposia 32–35	7 711.26
—Cambridge University Press, royalties 1968	18.35
—Academic Press, royalties 1968	9.46
—Sales of IAU publications by the Secretariat	128.05
Total	13 129.93

Recapitulation:

Receipts 1967–1968	\$ 29 989.39
Receipts 1969	\$ 13 129.93
Total for 1967–1969	\$ 43 119.32

3. *Subscriptions to IAU publications.* The system of distributing IAU publications on a subscription basis has been terminated in 1966. It is suggested to omit this heading in the budget for 1971–1973.

4. *Interest on reserves in savings banks.* The interest earned in 1967 on the savings accounts at the Dime Savings Bank, First National City Bank, Chemical Bank and Bowery Savings Bank were transferred to the current account of the IAU with the Chemical Bank when these savings accounts were closed. The interest on the savings account at the American Savings Bank has been allowed to accumulate on this account. The interest of \$ 582.58 earned on the savings account at the Amsterdam-Rotterdam Bank in 1969 has been transferred to the current account of the IAU with this bank.

In addition, the current accounts in Dutch guilders and French francs attracted interest in the total amount of \$ 240.33.

5. *UNESCO subvention through ICSU.* Detailed accounts of the expenditure of this subvention are submitted to UNESCO and ICSU each year. The distribution of the subvention is left to the discretion of the IAU within the permitted UNESCO categories.

In 1969, the normal UNESCO subvention of \$ 14 000 was increased by a combined UNESCO-ICSU grant of \$ 5 000. The amount of \$ 23 987.03 was paid erroneously by ICSU, and the excess of \$ 5 000 had to be reimbursed. \$ 12.97 are bank charges.

6. *UNESCO contracts.* The Union obtained two contracts from UNESCO during the period under report:

(a) Contract UNESCO/NS/0847/68 providing a grant of \$ 8 000 towards the organization of the International Summer School for Young Astronomers in Arcetri.

(b) Contract UNESCO/SC/1492/69 providing a grant of \$ 8 000 towards the organization of the International Summer School for Young Astronomers in Hyderabad.

The last payment of \$ 2 000 under the terms of contract SC/1492/69 will be made in 1970. \$ 500 represent the balance payable under the terms of contract UNESCO/NC/3034/66 (see Agenda and Draft Reports, 1967, page xlii)

7. *Other receipts.* The entries under this heading largely misrepresent the actual receipts of the Union, as they include internal bank transfers, transient items, reimbursements, etc. The following is an analysis of the amounts of \$ 74 603.39, 31 136.29 and 11 788.16 for the years 1967, 1968, and 1969 respectively:

<i>Other receipts in 1967:</i>		\$
—transfer from savings accounts		56 564.79
—loan by ICSU		10 000.00
—transfer from current accounts		3 100.00
—various reimbursements		3 618.88
—reimbursement of loan to staff member		988.17
—response to appeal for funds		200.00
—transfer from Státní spořitelna		82.17
—personal deposit		49.38
	Total	74 603.39

<i>Other receipts in 1968:</i>		
—transfer from current accounts		29 765.13
—various reimbursements		787.07
—response to appeal for funds		392.73
—transfer from ČSOB to Petty-Cash		100.00
—personal deposit		91.36
	Total	31 136.29

<i>Other receipts in 1969:</i>		
—transfer from current accounts		6 693.07
—various reimbursements		1 567.41
—COSPAR funds deposited on ČSOB account		2 400.00
—contribution by Astron.-Meteorol. Anstalt Basel towards Symposium No. 38		934.03
—rectification of erroneous transfer to LOC of Symposium 36		159.00
—personal deposit		34.65
	Total	11 788.16

Recapitulation:

1967	\$ 74 603.39	
1968	\$ 31 136.29	
1969	\$ 11 788.16	
Grand total	\$ 117 527.84	
	+ 2.50	(see page 12)
	117 530.34	

EXECUTIVE COMMITTEE

Specific Projects of Commissions

Commissions, number	Project	Allocated in 1967 for 1968-70 \$	Paid in				Total 1967-69 \$	Total in 1968-69 \$	Balance for 1970 from allocation \$
			1967 \$	1968 \$	1969 \$	1969 \$			
6	IAU Telegram Bureau	1 600	666.66	0	1 066.66	1 733.66	1 066.66	533.34	
10	Cartes Synoptiques	0	882.00	326.66	0	1 208.66	326.66		
16	Centre de Documentation	1 400	665.33	450.00	450.00	1 565.33	900.00	500.00	
20	Minor Planet Center	1 300	500.00	0	400.00	900.00	400.00	900.00	
27	Catalogue of Variable Stars	3 500	0	771.82	771.81	1 543.63	1 543.63	1 956.37	
29	Information Bulletin for the Southern Hemisphere	1 500	0	0	500.00	500.00	500.00	1 000.00	
38	Exchange of Astronomers	22 000	9 278.68	8 269.20	5 167.41	22 715.29	13 436.61	8 563.39	
42	Bibliography and Program Notes for Eclipsing Binaries	200	0	0	200.00	200.00	200.00	0	
	Total	31 500	11 992.67	9 817.68	8 555.88	30 366.23	18 373.56	13 453.10	

It is seen that the bulk of this sum is made up of withdrawals from the savings banks, which were used for financing the production of IAU publications, transfers from one current account to another, the ICSU loan and various reimbursements. These operations cannot be considered effective receipts, as they are balanced by corresponding payments.

Payments

The headings have been numbered to correspond to those of the budget approved by the XIIIth General Assembly in Prague, August 1967.

1. *Administrative Office.* The expenses of the Administrative Office include the salaries, social security and pension payments of the IAU staff, and expenses for the regular meetings of the Executive Officers of the Union. It should be noted that thanks to the generosity of the Observatoire de Nice, Astronomical Institute of the Czechoslovak Academy of Sciences, the Astronomical Institute at Utrecht, the European Southern Observatory, and the Deutsche Forschungsgemeinschaft, the Union paid no rental, had the free use of all communication facilities, and only spent a negligible amount for stationery.

2. *Subscriptions to ICSU.* The IAU makes an annual contribution towards the administrative expenses of ICSU of an amount equal to 2% of the income from subscriptions from Adhering Countries for the previous year.

3. *Expenses of Commissions.* The participation of the President of Commission No. 17 in the meetings of the Committee on Lunar Nomenclature and a visit of the Secretary of the International Summer School for Young Astronomers to Switzerland resulted in expenses exceeding the budgetary amount of \$ 500 by \$ 240.59.

4. *Specific Projects of Commissions.* Details of the allocations approved by the General Assembly are given in the report of the Finance Committee to the XIIIth General Assembly. (*Transactions IAU*, vol. XIIB, for 1967; *Transactions IAU*, vol. XIII B, for 1968 and 1969.)

Actual payments on these projects were as in the list appended. This list requires the following comments:

The grants made towards the publication of the Cartes Synoptiques represent balances from previous years and are not covered by the total sum allocated in 1967.

The sum actually charged to Commission No. 38 is \$ 4 968.92. The difference of \$ 198.49 between this sum and that in the list is due to the devaluation of the French franc. It should be noted that thanks to an additional ICSU subvention of \$ 5 000 to Commission No. 38, the Executive Committee could reduce the allocation from the original \$ 22 000 to \$ 19 000, so that the total amount at the disposal of that Commission for 1968–1970 is \$ 24 000. The actual balance in favour of Commission No. 38 is therefore $\$ 10\,563.39 + \$ 198.49 = \$ 10\,761.88$, out of which \$ 2 225 have already been committed for 1970.

The total of \$ 1 543.63 paid to Commission No. 27 for the publication of the Catalogue of Variable stars has not passed through the bank accounts and is therefore not included in the summary account.

The balance as on 31 December 1969 is made up of credits in favour of different projects which may, but need not be spent in 1970.

5. *Expenses of the General Assembly.* The amount of \$ 21 309.14, as given in the summary account, had been withdrawn from the IAU current bank accounts in connection with the XIIIth General Assembly in Prague, 1967. This sum was used as follows:

Purpose:	\$
(a) Members of the Executive Committee (travel and living expenses)	5 995.00
(b) Presidents of Commissions (travel expenses)	6 943.00
(c) Young astronomers (travel expenses)	3 093.20
to carry over	16 031.20

EXECUTIVE COMMITTEE

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	carried over	16 031.20
(d) IAU staff and external assistance		1 578.25
(e) Bank expenses		213.52
(f) Opening of current account at Československá obchodní banka		1 000.00
(g) Symposia Nos. 33 and 35 (grants towards participation)		430.00
(h) Reimbursement of grants to General Secretary, Presidents of Commissions and Young Astronomers (reimbursed later)		2 056.17
	Total	21 309.14

The costs of the General Assembly itself were \$ 17 822.97, that is by about \$ 2 200 more than in 1964.

6. *IAU Publications*. The production costs of IAU publications were as follows:

	In 1967–1968	\$
(a) Willmer Brothers Ltd., Birkenhead, England, for printing IAU symposium volumes up to and including vol. 31, Draft Reports 1967, sheets of <i>Transactions</i> vol. XIII A and reprints from these publications		62 107.63
(b) D. Reidel Publishing Company, Dordrecht, Holland, for binding and distribution of <i>IAU Transactions</i> , vol. XIII A, production and dispatch of <i>IAU Transactions</i> vol. XIII B, printing and distribution of <i>IAU Information Bulletins</i> Nos. 19 and 20, and purchase of IAU symposium volumes Nos. 32 through 35 and <i>Highlights of Astronomy</i> for free distribution		13 222.96
(c) Etablissements Pierotti, Nice, France, for printing <i>IAU Information Bulletins</i> Nos. 17 and 18		1 210.78
(d) Purchase of other IAU publications resold to customers		89.21
	Total	76 630.58
	In 1969	
(a) D. Reidel Publishing Company, Dordrecht, Holland for printing and distribution of <i>IAU Information Bulletins</i> Nos. 21, 22		1 770.28
(b) Purchase of IAU publications for free and other distribution		148.90
	Total	1 919.18

Recapitulation:

Cost of IAU publications in 1967–1968	\$ 76 630.58
in 1969	\$ 1 919.18
Grand total	\$ 78 549.76

The amount spent for production of IAU publications in 1968–1969 was \$ 30 180.15.

7. *Meetings of the Executive Committee*. The expenses arisen from the 1967 meeting in Prague are included in those for the General Assembly, heading 5, as above. Total expenditure was higher than that for the previous meetings of the Executive Committee: it has become more and more difficult to finance the administrative meetings of the IAU from sources other than its own. The expenses for the meetings of the Statutes Committee have been included in this heading, this committee having been an extension of the Executive Committee rather than one of its projects.

8. *Organization of Symposia and Colloquia*. The payments made were, as a rule, for travel grants towards participation in the meetings; organizational expenses were insignificant. The grants were allocated by the Organizing Committees of the meetings in cooperation with the Assistant General

Secretary; actual payment was made by the Administrative Office. The following table shows the payments in detail:

Symposium No.	Subject, Place, Date	Payment in \$
32	Continental Drift, Secular Motion of the Pole and Rotation of the Earth, Stresa, Italy, 21–25 March 1967	1 270.56
33	Physics and Dynamics of Meteors, Tatranská Lomnica, Czechoslovakia, 3–9 September 1967	849.98 + (350)*
34	Planetary Nebulae, Tatranská Lomnica, Czechoslovakia, 3–9 September 1967	425.00
35	The Structure and Development of Solar Active Regions, Budapest, Hungary, 4–8 September 1967	1 466.00 + (80)*
36	Ultraviolet Stellar Spectra and Related Ground-based Observations, Lunteren, Netherlands, 24–27 June 1969	2 007.92
37	Non-Solar X- and Gamma-Ray Astronomy, Rome, Italy, 8–10 May 1969	572.40**
38	Spiral Structure of the Galactic System, Basel, Switzerland, 29 August – 4 September 1969	1 567.03
39	Cosmical Gas Dynamics, Crimea, U.S.S.R., 9–19 September 1969	1 750.00
40	Planetary Atmospheres, Marfa, Texas, U.S.A., 26–31 October 1969	1 450.00
	Total	11 358.89

Colloquium No.	Subject, Place, Date	Payment in \$
–	On Spectroscopy, Bombay, India, 9–18 January 1967	500.00
–	On the Zodiacal Light and the Interplanetary Medium, Honolulu, Hawaii, U.S.A., 30 January – 2 February 1967	—
–	On Space Spectroscopy, Evanston, Ill., U.S.A., 3–5 May 1967	498.82
–	On the Gravitational <i>n</i> -Body Problem, Paris, France, 16–18 August 1968	500.00
–	On Non-Periodic Phenomena in Variable Stars, Budapest, Hungary, 5–9 September 1967	500.00
–	On Mass-Loss from Stars, Trieste, Italy, 12–16 September 1968	360.00
1	The Problem of Variation of Geographical Constants in the Southern Hemisphere, La Plata, Argentina, 4 and 5 November 1968	500.00
2	Spectrum Formation in Stars with Steady State Extended Atmospheres, Munich, FRG, 16–19 April 1969	407.22
3	Interstellar Dust, Jena, GDR, 22–26 August 1969	495.56
4	Stellar Rotation, Columbus, Ohio, U.S.A., 8–11 September 1969	500.00
5	Visual Double Stars, Nice, France, 8–10 September 1969	439.80
6	Mass-Loss and Evolution in Close Binaries, Elsinore, Denmark, 15–19 September 1969	475.00
7	Proper Motions, Minneapolis, Minnesota, U.S.A., from 21 to 23 April 1970 – advance payment	500.00
	Total	5 676.40

* See page 19.

** The original grant had amounted to \$ 756.00, of which \$ 183.60 were reimbursed.

In addition, the Union contributed financially to the following meetings:

	Contribution in \$
IAEA Conference on Meteorite Research, Vienna, Austria, 7–13 August 1968	553.20
IUCST Congress on the Integration of Science Teaching, Varna, Bulgaria, 12–19 September 1968	409.67
International CODATA Conference, Arnoldshain, FRG, 30 June – 5 July 1968	200.00
Total	1 162.87
<i>Recapitulation:</i>	
	\$
Symposia	11 358.89
Colloquia	5 676.40
Other Meetings	1 162.87
Total	18 198.16
Reimbursed	183.60
Grand Total	18 381.76

9. *Publication of Symposia not by the IAU.* During the term under report the Union did not subsidize publications issued by other organizations.

10. *Inter-Union Commissions.* The payments made consisted of contributions to the Inter-Union bodies concerned, and of a refund of an unspent UNESCO subvention. Expenditure was as follows:

	\$
Reimbursement to ICSU of unspent UNESCO contribution to IUCSTR	447.73
Contribution to CIES (1967, 1968, 1969)	600.00
Contribution to IUCAF (1967, 1968, 1969)	3 000.00
Contribution to IQSY (for 1966)	500.00
Contribution to IUCSTP (1968, 1969)	2 000.00
Total	6 547.73

11. *Representation expenses.* The budgetary provisions permitted the President and General Secretary to participate in the Basel celebration of the 50th anniversary of the Union, to pay the travel expenses of the General Secretary to ICSU and other meetings, to purchase a wreath on the occasion of Professor Danjon's decease, etc.

12. *Projects authorized by the Executive Committee.* No such projects were initiated during 1968–1969. The contribution of \$ 1 100.00 towards the publication of the Information Bulletin for the Southern Hemisphere was a payment which had become due in 1967.

13. *UNESCO Contracts.* The payments under the terms of the UNESCO contracts were as follows:

	\$
Balance from contract NS/3034/66 (grant to Mr. De la Reza)	1 500.00
First instalment according to contract NS/0847/68 (Summer School Arcetri)	6 000.00
Last instalment under the terms of the same contract	2 000.00
First instalment according to contract SC/1492/69 (Summer School Hyderabad)	6 629.92
Total	16 129.92

The balance under the terms of contract SC/1492/69 is payable in 1970.

Details of payments in respect of the contracts are given in the reports to UNESCO. They are available to the Finance Committee for examination.

14. *Reimbursement of Loan from ICSU.* The ICSU loan to the Union of \$ 10 000 has to be repaid as follows under the terms of contract: \$ 2 000 in 1969; \$ 3 000 in 1970; \$ 3 000 in 1971 and \$ 2 000 in 1972. Thus, the payment of \$ 4 000 covers the instalment for 1969 and two thirds of that for 1970.

15. *Reimbursement to Savings Accounts.* Under the budgetary provisions, \$ 38 500 had to be repaid to the IAU savings accounts until 31 December 1970. The amount actually reimbursed is \$ 38 763.89. The excess of \$ 263.89 is due to a difference between the ICSU and effective rate of exchange of the Dutch guilder. The difference between the \$ 56 564.79 withdrawn from the savings accounts and the \$ 38 763.89 repaid is \$ 17 800.90.

16. *Other Expenses.* Reference is made to the comment on heading 7 under Receipts. The analysis of the amounts of \$ 3 162.62 for 1967, \$ 30 111.19 for 1968 and \$ 20 395.07 for 1969 is as follows:

Other Expenses in 1967	\$
Transfer from current account at Chemical Bank to that at ČSOB	2 002.75
Refund to Taiwan of erroneously paid contribution	195.96
Refund of excess payment for reprints	16.85
Discount	0.50
Bank Charges	11.91
Refund of personal deposit	52.13
Loan to staff member	882.52
Total	3 162.62

Other Expenses in 1968	\$
Transfer from current account at Chemical Bank to that at ČSOB	6 002.95
Discount on Canadian cheques	29.48
Bank expenses	28.01
Transfer from current account at Société Générale to current accounts at ČSOB and Amsterdam-Rotterdam Bank	20 429.51
Transfer from current account at Barclays Bank to that at Amsterdam-Rotterdam Bank	3 604.53
Exchange losses	16.71
Total	30 111.19

Other Expenses in 1969	\$
Transfer from current account at Chemical Bank to that at ČSOB	5 000.00
Advance payment towards 32nd meeting of Executive Committee (reimbursed)	282.23
Reimbursement to Taiwan of erroneously paid contribution	295.77
Reimbursement to ICSU of excess subvention	5 000.00
Transfer from current account at Amsterdam-Rotterdam Bank to that at ČSOB	6 063.33
Reimbursement to LOC Symp. 36 of payment to Glusheva	159.00
Travel and living expenses of General Secretary in connection with attendance at IAB General Assembly	263.20
Transfer from current account at ČSOB to Petty Cash	350.00
Transfer from current account at ČSOB of COSPAR deposit	2 414.00
Loan	134.00
Transfer from current account at Barclays Bank to that at Société Générale	362.64
Bank expenses and losses	70.90
Total	20,395.07

<i>Recapitulation:</i>	\$
Other Expenses 1967	3 162.62
1968	30 111.19
1969	20 395.07
Total	53 668.88
Loss through devaluation	134.82
Grand total	53 803.70

The reimbursement of the ICSU loan (partial) and that to the savings accounts is entered in headings 14 and 15 respectively under Payments. A transfer of \$ 5 000 from the current account at the Chemical Bank has not yet been put to the credit of the IAU current account with the ČSOB.

AUDIT OF THE ACCOUNTS 1967–1969

Conformément à la mission que vous avez bien voulu nous confier, nous vous présentons le résultat de notre examen des comptes de l'Union Astronomique Internationale pour la période du 1^{er} janvier 1967 au 31 décembre 1969.

L'examen, notamment, a porté sur les documents suivants:

- comptes des recettes et dépenses pour l'année 1967 vérifiés par nous-mêmes
- comptes des recettes et dépenses pour l'année 1968 vérifiés par nous-mêmes
- comptes des recettes et dépenses pour l'année 1969 vérifiés par nous-mêmes
- comptes des recettes et dépenses et situation des comptes bancaires pour la période de trois ans: 1967, 1968 et 1969.

Les comptes ont été comparés avec les cahiers de comptes) reçus et pièces comptables diverses.

Nous certifions que ces comptes sont en accord complet avec les informations et explications que nous avons demandées pour nous permettre d'effectuer notre examen.

Le compte, ci-inclus, des recettes et dépenses, résumant les comptes des années 1967, 1968 et 1969 est la représentation exacte des dépenses et recettes de l'Union Astronomique Internationale pour la période du premier janvier 1967 au trente et un décembre 1969.

A Paris, le 6 Mars 1970

ROGER BACLE m.p.
H.E.C. – Expert-Comptable

CONCLUSION

The assets of \$ 113 261.57 as on 31 December 1969 (the \$ 66.07 of the Nice petty cash included) compare favourably with those of \$ 89 763.10 as on 1 January 1967; the active balance is \$ 23 498.47.

The budget approved by the XIIIth General Assembly for the years 1968–1970 provided for an expenditure of \$ 225 300 balanced by an income of \$ 225 300. This budget, compared with the actual receipts and payments of the years 1968–1969, gives the balance for the year 1970, as follows:

	Income in \$	Expenditure in \$
Budget 1968–1970, as approved by the XIIIth General Assembly (UNESCO contracts not included)	225 300.00	225 300
Actual figures for 1968 and 1969 (adjusted and UNESCO contracts excluded)	163 103.53	146 538
Balance for 1970	62 196.47	78 762
Available for payments in 1970	16 565.35	
Total	78 762.00	

The budgetary estimates for 1970, on the other hand, are as follows:

Budget 1970 (UNESCO contracts not included)			
Receipts in \$		Payments in \$	
1. National subscriptions	52 000	1. Administrative office	21 309.50
2. Sales of publications	4 200	2. Subscription to ICSU	1 040.00
4. Interest on reserves in savings banks	2 300	3. Expenses of Commissions	500.00
5. UNESCO subvention through ICSU	18 000	4. Specific projects of Commissions	19 151.59
	<hr/>	5. XIVth General Assembly	21 000.00
Total	76 500	6. IAU publications	17 000.00
		8. Organization of symposia	14 500.00
		10. Inter-Union commissions	2 200.00
		11. Representation expenses	500.00
Excess of payments over receipts	21 801.09	14. Reimbursement of ICSU loan	1 000.00
	<hr/>	16. Bank losses	100.00
Total	98 301.09	Total	<hr/> 98 301.09
Estimated excess of payments over receipts for 1970			\$ 21 801.09
Still available from approved budget for payments in 1970			<hr/> \$ 16 565.53
Estimated excess of expenditure over income			\$ 5 245.56

Explanatory Notes

Item 4, Specific projects of Commissions has been corrected for the actual balance in favour of Commission No. 38 and the UNESCO/ICSU subvention of \$ 2 000 it is to receive in 1970, as well as for a balance of \$ 1 500 due from 1967 for the publication of the *Card Catalogue of Clusters and Associations*. Item 5 of Payments (XIVth General Assembly) includes the amounts of \$ 3 000 shifted from the budget of Commission No. 38 in favour of young astronomers wishing to attend the General Assembly, and of \$ 2 000 to obtain for the same purpose from UNESCO. Item 6, IAU Publications: the sum of \$ 17 000 is made up of the estimated payment of \$ 14 000 for the production of *Transactions* volume XIVA and of that for printing the Agenda for the XIVth General Assembly, the Report of the Executive Committee, the Agenda of Commissions and *Information Bulletin* No. 24.

The Finance Committee at the XIVth General Assembly will be asked to endorse the supplementary budget for 1970, as proposed above, and to approve a comprehensive budget for the years 1971–1973.

APPENDIX

A. LIST OF COUNTRIES ADHERING TO THE UNION

The following is a list of the 44 countries that adhered to the Union in December 1969, giving also the year of admission, the approximate number of Members, and the Adhering Organizations.

Country	Year	Members	Adhering Organizations
Argentina	1927	16	Comité Nacional de Astronomía, La Plata.
Australia	1939	46	Australian National Committee for Astronomy, Sydney.
Austria	1955	12	Österreichische Akademie der Wissenschaften, Wien.
Belgium	1920	46	Académie Royale de Belgique, Bruxelles – Koninklijke Vlaamse Academie van België, Brussel.
Brazil	1961	10	Conselho Nacional de Pesquisas, Rio de Janeiro.
Bulgaria	1957	7	Bulgarian Academy of Sciences '7 November', Sofia.
Canada	1920	59	Canadian National Committee for the IAU, Department of Energy, Mines and Resources, Ottawa.
Chile	1947	5	Universidad de Chile, Santiago de Chile.
Colombia	1967	1	Academia Colombiana de Ciencias Exactas, Físicas y Naturales, Bogotá.
Czechoslovakia	1922	38	National Committee of Astronomy of Czechoslovakia, Czechoslovak Academy of Sciences, Praha.
Denmark	1922	14	Danish National Committee for Astronomy, det Kongelige Danske Videnskabernes Selskab, København.
Finland	1948	10	Finish Academy of Sciences and Letters, Helsinki.
France	1920	147	Comité National Français d'Astronomie, Académie des Sciences, Paris.
G.D.R.	1951	31	Nationalkomitee für Astronomie der DDR, Deutsche Akademie der Wissenschaften zu Berlin.
G.F.R.	1951	109	Rat Westdeutscher Sternwarten zu München.
Greece	1920	16	Greek National Committee for Astronomy, Academy of Athens, Athens.
Hungary	1947	10	Hungarian Academy of Sciences, Budapest.
India	1964	40	Indian National Committee for the International Astronomical Union, Indian National Science Academy, New Delhi.
Iran	1969	0	Tehran University, Tehran.
Ireland	1947	4	National Committee of Astronomy, Royal Irish Academy, Dublin.
Israel	1954	5	The Israel Academy of Sciences and Humanities, Jerusalem.
Italy	1921	54	Consiglio Nazionale delle Ricerche, Roma.
Japan	1920	73	National Committee of Astronomy of Japan, Science Council of Japan, Tokyo.
Korea (PDR)	1961	3	Academy of Sciences, Phyongyang.
Mexico	1921	10	Universidad Nacional de Mexico, Mexico D.F.
Netherlands	1922	48	Koninklijke Nederlandse Academie van Wetenschappen, Amsterdam.
New Zealand	1964	2	Royal Society of New Zealand, Wellington.
Norway	1922	10	Det Norske Videnskaps-Akademi, Oslo.
Poland	1922	38	Polska Akademia Nauk, Warszawa.

Country	Year	Members	Adhering Organizations
Portugal	1924	12	Seccao Portuguesa das Unioes Internacionais Astronómica, Geodésica e Geofísica, Lisboa.
Roumania	1928	13	Conseil Scientifique de l'Observatoire de Bucarest, Bucarest.
South Africa	1938	9	Council for Scientific and Industrial Research, Pretoria.
Spain	1922	15	Comision Nacional de Astronomia, Madrid.
Sweden	1925	37	Kungl. Vetenskaps-Akademien, Stockholm.
Switzerland	1923	20	Schweizerische Naturforschende Gesellschaft, Basel.
Taiwan (Republic of China)	1959	9	Academia Sinica, Nankang, Taipei.
Turkey	1961	11	Türk Astronomi Dernegi, Istanbul.
U.A.R.	1925	8	Astronomical Center at Helwan, Egyptian Region.
United Kingdom	1920	189	The Royal Society, London.
U.S.A.	1920	553	The National Academy of Sciences, Washington D.C.
U.S.S.R.	1920	261	Academy of Sciences of the U.S.S.R., Moscow.
Vatican City State	1932	6	Pontificia Academia delle Scienze, Città del Vaticano.
Venezuela	1953	1	Academia de Ciencias Fisicas, Matematicas y Naturales, Caracas.
Yugoslavia	1935	13	Conseil Fédéral pour la Coordination de la Recherche Scientifique, Belgrade.

B. LIST OF DECEASED MEMBERS

The Executive Committee regrets to record the loss by death of the following 29 Members of the Union (at the date of 28 February 1970).

Mrs. Z. N. Aksent'eva	9 April 1969	C. C. Kiess	16 October 1967
H. D. Babcock	8 April 1968	A. Kohlschütter	28 May 1969
A. Birkenmajer	30 September 1967	J. J. Kubikowski	11 November 1968
G. Demetrescu	15 June 1969	N. I. Kučerov	17 October 1964
A. J. Deutsch	11 November 1969	A. I. Lebedinskij	8 September 1967
E. J. Dijksterhuis	18 May 1965	Mrs. S. L. McDonald	6 December 1963
J. Dufay	5 November 1967	A. V. Markov	19 November 1968
J. H. Focas	3 January 1969	O. F. W. Mathias	4 February 1969
C. W. Cartlein	20 December 1965	R. W. Michie	27 March 1969
E. Gullón	9 July 1968	Miss R. J. Northcott	29 July 1969
S. E. Hajkin	30 July 1968	Mrs. S. V. Romanskaja	26 November 1969
L. G. Henyey	18 February 1970	L. I. Semenov	22 March 1965
E. Hertzprung	21 October 1967	S. C. Venter	26 January 1968
C. Hoffmeister	2 January 1968	M. H. Wrubel	26 October 1968
J. Ikaunieks	27 April 1969		

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<i>Transactions of the IAU</i> , volume XIII B, pp. IX + 309, price \$ 9.75 (Members \$ 6.50)	Edited and published as <i>Transactions</i> , volume XIII A.
<i>Highlights of Astronomy as presented at the XIIIth General Assembly of the IAU 1967</i> , pp. X + 548, price \$ 26 (Members \$ 17.50)	Edited and published as <i>Transactions</i> , vol. XIII A.

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Commission No. 26. Proceedings of the Colloquium on the Evolution of Double Stars

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