

APPENDIX I. REPORT ON IAU FINANCES

(Voir texte français, page xxv)

A. INTRODUCTION

In accord with the policy adopted in 1961, the Executive Committee presents to the Members of the Union a single 'Summarized Account of Receipts and Expenditure' covering the period from 1 January 1964 to 31 December 1966. All amounts are given in U.S. dollars converted from other currencies at the following UNESCO conversion rates, treated as exact:

£ sterling: \$2.80

U.S. \$: 4.90 French francs

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

The summarized account has been derived from nine (one for each currency and each year) individual accounts. These accounts, which will be available for examination by the Finance Committee, have been audited and certified as correct by the Union's professional accountants. At the end of the present report (page liv) there is printed an auditor's certificate covering the account for the three years under consideration.

The present report includes, appended to the summarized account, explanatory notes to each point concerned; the amounts due at the end of the financial year 1966, or the receipts corresponding to outstanding payments for the period 1961-1964, are given separately for each case. In contrast to 1961-1964, these amounts are not negligible, owing to the important modification in the IAU publication system; this problem is dealt with in more detail in a separate appendix (see page lxiii).

The report ends with a serious warning, the financial situation of the Union being particularly difficult, and with proposals as to the budget for 1967 and the years 1968, 1969, 1970.

B. SUMMARIZED ACCOUNT OF RECEIPTS AND PAYMENTS

(see appended table)

Receipts

1. *Subscriptions of Adhering Countries.* The eleventh General Assembly of the IAU, held in Berkeley, resolved to fix the amount of the unit of contribution at 600 gold francs, the gold franc being equivalent to 0.3266 U.S. dollar. Thus, the unit of contribution is 195.96 U.S. dollars.

Arising from the modifications in the Statutes adopted by the twelfth General Assembly, Adhering Organizations were approached with the request to choose a new category of adherence, in accord with the new article 4 of the Statutes, as published in Volume XII C of the *Transactions*. This appeal led to an increase in the total number of units of contribution which, however, failed fully to live up to the hopes of the Executive Committee in office between 1961 and 1964, the one to propose the modifications adopted.

It should be noted that a special and successful effort was made in 1966 to collect the outstanding contributions and to have the category of adherence raised in certain individual cases.

As on 31 December 1966, six countries still owed contributions to the Union (the units unpaid amounting to 20). On the other hand, one country had already paid its contribution (6 units) for 1967, and the account of another country shows a balance of \$140.40 to its credit.

REPORT OF THE EXECUTIVE COMMITTEE
SUMMARIZED ACCOUNT OF RECEIPTS AND PAYMENTS
(in U.S. Dollars)
for the period 1964-1966

Receipts

	U.S. dollars	U.S. dollars
1. Subscriptions from Adhering Countries		
		<i>Number of units</i>
		<i>due (outstanding) received</i>
(1963 and before)	16	13
1964	126	119
1965	152	146
1966	157	150
(1967)	0	7
		85 341·91
2. Sales of publications (for details see page lxviii)		11 882·78
3. Subscriptions to IAU publications (for details see page xliv)		4 469·79
4. Interest on savings and other accounts		
Current accounts	319·54	
Saving accounts	8 513·35	
	<hr/>	8 832·89
5. Subvention from UNESCO, through ICSU		
1964	14 000·00	
1965	14 000·00	
1966	14 000·00	
	<hr/>	42 000·00
6. Contracts with UNESCO		
Grant towards the organization of Symposium no. 23	1 154·86	
Grant towards the organization of Symposium no. 25	4 499·46	
Exchange of Astronomers (Commission 38)	2 000·00	
Summer School (Organization) (Commission 46)	1 306·00	
Scholarship 1966 (Commission 46)	3 000·00	
	<hr/>	11 960·32
7. Other receipts		
ICSU grant for IUCSTR	3 564·40	
URSI participation in the organization of Symposium no. 20	200·00	
Various refunds		
—to Commission 38	3 072·04	
—of the IUCI grant	180·00	
—of the Telegram Bureau reserve fund	2 267·04	
	<hr/>	9 283·48
		<hr/>
<i>Total of effective receipts</i>		\$ 173 771·17
8. Excess of Payments over Receipts		19 700·84
		<hr/>
		\$ 193 472·01
Bank accounts as on 1 January 1964		
in bank (savings)	62 730·84	
in bank (current accounts)	46 798·81	
in petty cash	0·37	
	<hr/>	\$ 109 530·02

SUMMARIZED ACCOUNT OF RECEIPTS AND PAYMENTS

(in U.S. Dollars)

for the period 1964-1966

Payments

	U.S. dollars	U.S. dollars
1. Administrative Office		30 231.60
2. Subscription to the ICSU		1 490.74
3. Expenses of Commissions		452.29
4. Specific projects of Commissions approved by the General Assembly (for details see page xlvii)		36 514.62
5. General Assemblies - Hamburg, August 1964		
(a) Members of Executive Committee (travel expenses)	1 714.80	
(b) Presidents of Commissions (travel expenses)	7 219.41	
(c) Young astronomers (travel expenses)	5 044.71	
(d) Miscellaneous - Prague, August 1967	1 582.54	
(d) Other expenses (Travel expenses of General Secretary to Prague)	133.26	
	<hr/>	15 694.72
6. Printing of publications by the IAU (for details see page xlvii)		56 712.00
7. Meetings of Executive Committee		
(a) Nice, September 1965	3 092.36	
(b) Prague, September 1966	2 130.49	
	<hr/>	5 222.85
8. Organization of IAU Symposia and Colloquia, and participation in other scientific meetings (for details see page xlvii)		20 014.30
9. Publication of Symposia (if the IAU is not the publisher) (for details see page xlviii)		13 088.36
10. Inter-Union Commissions, Committees on the ICSU, etc. (see separate list on page xlix)		7 473.11
11. Other expenses of representation		858.00
12. Specific projects approved by the Executive Committee (for details see page 1)		350.00
13. Programmes under direct UNESCO contract		
(a) Commission 38, Exchange of Astronomers	2 000.00	
(b) Commission 46, Organization of Summer Schools	1 306.24	
(c) Commission 46, Scholarship	2 000.00	
	<hr/>	5 306.24
<i>Total of effective expenses</i>		\$ 193 408.83
14. Exchange losses due to internal transfers		63.18
		<hr/>
<i>Total</i>		\$ 193 472.01
<i>Excess of payments over receipts, carried down</i>		19 700.84
Balances as on 31 December 1966		
(a) in banks (savings)	71 244.19	
(b) in banks (current accounts)	18 518.92	
(c) in petty cash	66.07	
	<hr/>	89 829.18
		<hr/>
		\$ 109 530.02

2. *Sales of publications.* Owing to the complexity of the accounts it is difficult to give separate statements for each volume sold. However, an attempt has been made in Appendix II to present a balance-sheet of all operations (receipts and payments) in connection with IAU publications, whether or not the Union was financially responsible.

3. *Subscriptions to IAU publications.* A new procedure was introduced in 1963: it consisted in requesting annual subscriptions from all institutions on the Distribution List. The difficulties connected with collecting these subscriptions and the administrative complexity of the operations led to the termination of this system in 1966. See Appendix II on Publications, page lxiii.

4. *Interest on savings accounts.* The interest on the savings accounts was retained in these accounts and has been incorporated into their respective balances.

In addition, the current account in French francs attracted interest, as shown in a separate account.

5. *Subvention from UNESCO.* This subvention is paid through the International Council of Scientific Unions. Detailed accounts of the expenditure from this subvention are submitted to UNESCO each year. The distribution of the subvention is left to the discretion of the Union, provided the individual allocations are within the categories approved by UNESCO.

6. *Contracts with UNESCO.* The Union negotiated a number of separate contracts with UNESCO, of which the details are as follows:

- (a) Participation in the organization of Symposium no. 23, 'Astronomical Observations from Space Vehicles' (UNESCO/NS/1966/64; 135-5674) . . . 'The funds shall be used for meeting all or part of the cost of travel of participants'.

Grant	\$1500
Expenditure (as appearing in the accounts)	\$1154.86
(the balance was reimbursed to UNESCO).	

- (b) Participation in the organization of Symposium no. 25, 'Theory of Orbits in the Solar System and in Stellar Systems' (UNESCO/NS/1967/64; 135-5675).

Grant	\$4500
Expenditure (as appearing in the accounts)	\$4499.46 (amount actually received by IAU)
Reimbursed to UNESCO	\$ 0

- (c) Contribution to Exchange of Astronomers (Commission 38) (UNESCO/NS/2477/65; ED.SS. 0085)

Grant (1965-1966)	\$2000
(Total grant spent. See headings 4 and 13 of Payments).	

- (d) Organization of meeting of experts to work out long-term programme of International Astronomical Summer Schools (Nice, 1965) (Commission 46) (UNESCO/NS/2468/65; EC.SC. 0085)

Grant	\$2000
Expenditure	\$1306
(UNESCO did not pay the balance).	

- (e) Organization of individual scholarships (Commission 46) (UNESCO/NC/3034/66; EC.DOC. 5555)

Grant	\$4000	} as appearing in the accounts
Received in 1966	\$3000	
Spent in 1966	\$2000	

The account will be closed in 1967, according to contract.

7. *Miscellaneous.* This heading includes:

- (a) Subventions from various organizations.

- (i) A subvention from ICSU towards the expenses of IUCSTR. The figure in the accounts is the balance of a receipt of \$3500.00 and of a reimbursement of \$64.40, as follows:

<i>Receipts</i>		<i>Payments</i>	
Grant	\$3500.00	Travel expenses	\$1360.63
Reimbursement by Professor Allen	64.40	Publication of the Xth IUCSTR Report	1194.20
		Administrative and secretariat expenses	562.55
	<hr/>		<hr/>
	\$3564.40		\$3117.38

The amount of \$64.40 reimbursed to the IAU, will be returned to ICSU in the course of 1967, in the same way as other unspent sums: the total balance to refund to ICSU is \$447.02. IUCSTR having terminated in 1966, this amount cannot be used in the future.

- (ii) Subvention from URSI towards the organization of Symposium no. 20.
URSI also contributed to the organization of IAU-URSI Symposium no. 31, but this contribution was paid direct to the organizers. The same applies to the IUTAM contribution to IAU-IUTAM Symposium no. 28.

- (b) When the Telegram Bureau was transferred from Copenhagen to Cambridge (Massachusetts, U.S.A.), the active balance of the funds attributed to it in 1961 was reimbursed to the Union. The IAU subvention to IUCI, an Inter-Union Commission terminated in 1966, was partly reimbursed to the IAU. Some recipients of travel grants made by Commission 38 later returned part of the funds received, as their personal programmes had changed after receipt of the grants.

It should be emphasized that out of the \$9283.48 under this heading only \$3700 are actual receipts: the remainder corresponds to reimbursements and should be subtracted from both the actual receipts and payments. This amount represents a very small percentage of the budget (about 2%) and it is preferred not to complicate the accounts by presenting them in this way, though this would add to their accuracy.

8. *Excess of Expenditure over Receipts.* The excess has never yet been so high, in spite of the marked increase in receipts. This problem will be dealt with in more detail in paragraph D, page li.

Payments

The headings have been numbered to correspond to those of the Budget approved by the General Assembly in Hamburg in August 1964.

1. *Expenses of the Administrative Office.* These expenses include only the salaries of the Assistant Secretary and of one typist; social security payments; postage and telegraph charges; and purchase of stationery.

Although much smaller than they might otherwise be, thanks to the material aid of the Royal Greenwich Observatory, the Observatoire de Nice and the Czechoslovak Academy of Sciences (in the form of furniture, telephone, personnel, accommodation), the expenses exceed slightly the budgetary estimates, but not significantly to affect the budget.

2. *Subscription to the ICSU.* The Union 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.

REPORT OF THE EXECUTIVE COMMITTEE

Specific Projects of Commissions

Commis- sion no.	Projects	Balance 1964	Allocated 1965-1967	1964	Paid in \$ 1965	1966	Total \$	Balance 1967 \$(d)
5	Bibliography of Astronomy		250.00	—	—	—	—	250.00
6	IAU Telegram Bureau		2 000.00	666.66	666.66	666.66	1 999.98	0.02
10	Cartes Synoptiques		2 646.00	882.00	882.00	882.00	2 646.00	—
10	Cartes Héliographiques		980.00	326.66	326.66	326.66	979.98	0.02
16	Centre de Documentation sur les Planètes (Meudon)		2 000.00	—	665.31	665.31	1 330.62	669.38
20	Minor Planet Center		1 500.00	—	—	1 000.00	1 000.00	500.00
23	Carte du Ciel	(a)	2 000.00	1 476.54	—	3 467.22	4 943.76	1 422.15
27	English Version of Remarks to the Second Supplement of J.C.V.S.	(b)	700.00	—	—	—	—	—
27	English Version of Remarks to the Second Catalogue of Stars suspected of vari- ability	(b)	700.00	—	—	—	—	1 000.00
27	Southern Variable Stars		1 000.00	—	—	—	—	—
37	Card Catalogue of Clusters and Associations		1 500.00	—	—	—	—	1 500.00
38	Exchange of Astronomers IAU grant 1964	(c)	—	—	—	—	—	—
	Reimbursed grants (1964-1966)		—	—	—	—	—	—
			3 072.04	—	—	—	—	—
			18 578.51	7 200.58	5 200.67	13 213.03	23 614.28	14 964.23
			(+2 000.00 UNESCO contract)	these sums include payments from the \$2000 UNESCO contract			(+2 000.00 UNESCO contract)	
	Total		35 276.00	10 552.44	6 891.30	19 070.88	36 514.62	20 305.80
				(+850.00 UNESCO contract)	(+1 150.00 UNESCO contract)		(+2 000.00 UNESCO contract)	

3. *Expenses of Commissions.* This amount is minimum. Grants were only made to Commissions 42 and 46 over the period 1964–1966. The respective documents will be available to the Finance Committee for examination.

4. *Specific Projects approved by the General Assembly.* The details of these projects are given in the Report of the Finance Committee to the twelfth General Assembly (*Transactions IAU*, XI B, for 1964; *Transactions IAU*, XII B, for 1965 and 1966).

Details of actual payments on the different projects are given in the following list (see table appended).

This list requires the following comments:

- (a) The publication of the *Carte du Ciel* is subsidized by funds administrated by the President of Commission 23.
- (b) The IAU allocations concerned (\$1400) will actually not be spent: they are partly compensated by sums due to the Union from the Academy of Sciences of the U.S.S.R.
- (c) \$2000 is a grant attributed by UNESCO contract towards the Exchange of Astronomers. This amount has been subtracted from the 'total of payments' corresponding to this heading of the budget.
- (d) The balance as on 31 December 1966 is made up of credits in favour of different projects. It is not certain whether all these credits will be spent. Some represent exchange differences, others cover projects not yet realized.

5. *General Assembly, Hamburg, August 1964.* Expenditure was less in 1964 than in 1961 owing to the favourable position of Hamburg, more central than that of Berkeley. Moreover, the generosity of the host country permitted us, as in the past, to limit incidental expenses to a minimum. The items under (d), Miscellaneous, correspond, in the main, to travel expenses of the Secretarial staff present at the General Assembly and to those of the Assistant General Secretary.

6. *Printing of publications, published at the expense of the IAU.* This is the weightiest heading of the budget, the one in which over-expenditure is most serious. The problem of publication is dealt with in more detail in a special Appendix to the present report (Appendix II).

7. *Meetings of the Executive Committee.* The expenses arising from the 1964 meeting in Hamburg are included in those for the General Assembly, heading 5, as above. Total expenditure is small owing to the generosity of the host countries and their institutions, and to the efforts of the members of the Executive Committee to combine these with other scientific meetings subsidized from other than IAU sources.

8. *Organization of Symposia and Colloquia.* The bulk of the payments consists of travel grants to participants selected by the Organizing Committee of each Symposium; organizational expenses were much smaller. Allocations were frequently not fully spent: individual grants were often returned to the Union too late to be re-allocated. The following table gives the payments in detail.

Symposium no.	Subject, Place Date	Payments made \$
23	<i>Astronomical Observations from Space Vehicles</i> , Liège, August 1964	1155·05
24	<i>Spectral Classification of Multi-Colour Photometry</i> , Saltsjöbaden, August 1964	2403·89
25	<i>The Theory of Orbits in the Solar System and in Stellar Systems</i> , Thessaloniki, August 1964	5459·57
26	<i>Abundance Determination in Stellar Spectra</i> , Utrecht, August 1964	300·00

continued on next page

Symposium no.	Subject, Place, Date	Payments made \$
27	<i>The Construction of Large Telescopes</i> , Tucson (Pasadena), April 1965	0
28	<i>Cosmical Gas Dynamics, Aerodynamical Phenomena in Stellar Atmospheres</i> , Nice, September 1965	1450.00
29	<i>Instability Phenomena in Galaxies</i> , Burakan, May 1966	1100.01
30	<i>Determination of Radial Velocities</i> , Toronto, June 1966	1500.00
31	<i>Radio Astronomy and the Galactic System</i> , Noordwijk, September 1966	1972.25
		<hr/>
		\$15 340.77

Owing to the generosity of the host organizations, the Union incurred no expenses in respect of the organization of Symposium no. 27. Symposia nos. 23 and 25 were financed almost completely from separate UNESCO contracts. In addition, the following amounts were spent on other meetings:

IAU Colloquium on <i>Variable Stars</i> (Bamberg, 1965)	\$500.00
IAU Colloquium on <i>Late-Type Stars</i> (Trieste, 1966)	373.53
IAU Colloquium on <i>The Blanketing Effect</i> (Heidelberg, 1966)	500.00
IAU Colloquium on <i>Double Stars</i> (Uccle, 1966)	500.00
IUPHS Symposium on <i>The History of Astronomy</i> (Hamburg, 1964)	400.00
IUTAM-COSPAR-IAU Symposium on <i>Trajectories of Artificial Celestial Bodies</i> (Paris, 1965)	1000.00
COSPAR-IAU-URSI-UGGI Symposium on <i>Solar Terrestrial Physics</i> (Belgrade, 1966)	750.00
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\$4 673.53	

9. *Publication of the proceedings of Symposia not published at the expense of the IAU.* The IAU has decided to publish, at its own expense, all symposia from Symposium no. 24 onwards; for details see Appendix II on the Publications of the Union, page lxiii. Thus, the present paragraph deals only with earlier volumes:

Symposium no.	Title	Published by	Payment in \$
9	Radio Astronomy	Stanford U. Press	80.28
14	The Moon	Academic Press	12.09
19	Site Testing	<i>Bulletin Astronomique</i>	1648.12
20	The Galaxy and the Magellanic Clouds	Australian Academy of Sciences	2240.00
21	The System of Astronomical Constants	<i>Bulletin Astronomique</i>	1005.83
22	Stellar and Solar Magnetic Fields	North Holland Pub. Co.	3000.00
23	Astronomical Observations from Space Vehicles	<i>Annales d'Astrophysique</i>	5102.04
<hr/>			\$13 088.36

As to Volume no. 9, the IAU has repurchased the stock; in the case of Volume no. 14 a single copy was concerned.

Symposia nos. 19, 21 and 23 were published free of cost to the Union in scientific journals; the Union purchased the copies it required for free distribution to participants, authors and institutions on the Distribution List, prior to the decision to limit this distribution. For more details see Appendix on Publications, on page lxiii. No appreciable revenue may be expected from future sales of these volumes.

10. *Inter-Union Commissions, ICSU Committees, etc.* The payments were made either as contributions to the expenses of the inter-union bodies concerned, or as refunds of travel expenses to IAU representatives. Expenditure was as follows:

Various contributions to the general expenses of IUCSTR (travel of IAU representatives, organizational expenses, printing of IUCSTR Reports 1964, 1965, 1966)	\$3117.38
Representational expenses (travel expenses of IAU representatives) to COSPAR (1966)	1070.00
Representational expenses to CIG (for years preceding 1964)	286.14
Contributions to CIES (1964, 1965, 1966)	599.59
Contributions to IUCAF (1964, 1965, 1966)	1200.00
Contributions to IUCI (1964, 1965)	200.00
Contributions to IQSY (1963, 1964)	1000.00
	\$7473.11

The following notes should be added:

IUCSTR is a special case, the IAU having been the parent Union. The ICSU subvention was administered by the IAU, and the respective accounts are as follows for the three years covered by the present report:

	Receipts		Payments
ICSU grant	\$3000 for year 1964	1964	\$1500.53
	500 for year 1966	1965	772.80
Refund:	64.40 for year 1966	1966	844.05
			\$3117.38

The existence of IUCI was short-lived. From the \$200 paid by the IAU, \$180 was repaid: see Receipts, paragraph 7.

Our debits to CIG (travel grants to delegates) for the year 1963 had to be paid in 1964. The same applies to the contribution to IQSY for 1963, paid in 1964; it should be noted that this contribution has not been claimed for 1965 and 1966, but it is still as a debit (that is \$1500 to be paid in 1967, our engagement to IQSY being for a maximum of five years).

11. *Other representational expenses.* The budget provision permitted the President to participate in the General Assembly of the International Council of Scientific Unions in Bombay, in January 1966.

It should be noted that headings 10 and 11, which correspond to those of the budget, are easily confused: it is proposed henceforth to limit heading 10 to contributions, and to include travel expenses of IAU representatives to meetings of Inter-Union Commissions under heading 11.

12. *Specific projects approved by the Executive Committee.* A small number of projects were authorized by the Executive Committee after the General Assembly in Hamburg, as follows:

Commission 15. <i>Atlas of Representative Cometary Spectra</i> (Institut d'Astrophysique de Liège)	\$500
This sum has not yet been used.	
Commission 29. <i>Information Bulletin of the Southern Hemisphere</i> (Dr Sahade)	\$1400
This grant is made up of \$700 for 1965 and \$700 for 1966; the Executive Committee approved Dr Sahade's proposal to carry over this credit to the years 1966-1967. However, the cheques sent to Dr Sahade had not been passed through the bank as on 31 December 1966. The amount actually paid was \$350.	
Commission 5. <i>Les Observatoires Astronomiques et les Astronomes</i> (Observatoire Royal de Belgique)	\$500
This is a grant towards a new edition, on cards, of the book by Mr Rigaux.	
87. The credit is still unspent.	

To sum up, \$2400 was granted, but \$2050 is still to be paid in the course of 1967. If the actual progress of the projects requires a further deferment of payments, the General Assembly will have to reconsider the allocations made by the Executive Committee.

13. *Programmes under direct UNESCO contracts.* The UNESCO financed five projects by direct contracts (see Receipts, heading 6). Expenditure on Symposia 23 and 25 is included under heading 8. Details of payments in respect of the contracts are given in the reports submitted to UNESCO. They are available to the Finance Committee for examination.

14. *Exchange differences in internal transfers.* The item refers to a currency operation in 1966 when a considerable sum was transferred from the account in pounds sterling to two other accounts, that in French francs and that in U.S. dollars. The transfer was made subsequent to rumours in Great Britain indicating an imminent devaluation of the pound.

It should be noted that invoices in pounds had thus to be paid from our French account at a rate of exchange different from that of UNESCO. If the account in pounds had been maintained, the currency losses would have differed slightly from those actually incurred. Incorporated into the exchange differences are also the bank expenses incurred with the internal transfers (their separation was impossible).

Balance as on 31 December 1966. An examination of the bank balances reveals an excess of \$19 700.84 in payments over receipts, and an increase of \$8513.35 in the savings accounts.

The deficit is appreciable, in spite of a policy of rigid economies, especially as regards the Administrative Office. It is due, in the main (see below), to the high costs of printing and publishing IAU publications.

C. AUDIT OF THE ACCOUNTS 1964-1966

In compliance with the mission with which you kindly entrusted us, we present the result of our audit of the accounts of the International Astronomical Union for the period from 1 January 1964 to 31 December 1966.

We have examined, in particular, the following documents:

- the accounts of receipts and payments for the year 1964, as audited by Mr G. Chambraud, Chartered Accountant, Nice, Alpes-Maritimes;
- the accounts of receipts and payments for the year 1965, as audited by Mr W. E. Copus, F.C.A., Chartered Accountant, Mougins, Alpes-Maritimes;
- the account of receipts and payments for the year 1966;
- the accounts of receipts and payments and the state of the bank accounts for the period of three years 1964, 1965 and 1966.

We have also examined the six separate accounts of payments included in the financial report of the Executive Committee.

The accounts were compared by Messrs Chambraud (year 1964) and Copus (year 1965) and by ourselves (year 1966) with the account books, receipts and other documents produced.

We certify that the accounts are in full accord with the information and explanations we have required for the purpose of our audit.

The enclosed account of receipts and payments, summarizing the accounts for the years 1964, 1965 and 1966, is an accurate representation of the payments and receipts of the International Astronomical Union for the period from 1 January 1964 to 31 December 1966.

ROGER BACLE

Paris,
8 March 1967

H.E.C.—*Chartered Accountant Inscribed in
the Tableau de l'Ordre of the Region of Paris*

(Note: The original statement by the Chartered Accountant is written in French, and signed)

D. CONSIDERATIONS AS TO THE BUDGET FOR 1967

In order to prepare the budget for the years 1968–1970, and an additional budget for 1967, the tables below summarize (without repeating the titles of the individual headings) the previous budgetary estimates and the differences as compared with the actual accounts.

Survey of the estimates for the period from 1965 to 1967

New estimates as to the budget for 1967 (as established in March 1967)		New estimates as to the budget for 1965–1967 (as established in March 1967)			
Income	Expenditure	Income	E ₁ – E ₂	Expenditure	E ₁ – E ₂
1. 35 000	1. 8 000	1. 95 309	– 691	1. 30 112	+ 112
2. 12 000	2. 500	2. 20 011	– 21 989	2. 1 510	– 490
3. 0	3. 0	3. 1 496	– 8 504	3. 277	– 1 722
4. 3 000	4. 10 000	4. 9 146	+ 1 146	4. 35 962	+ 686
5. 14 000	5. 14 000	5. 42 000	+ 0	5. 14 134	+ 134
6. (pro memoria)	6. 63 600	6. (6 306 +x)	(+ 6 306 +x)	6. 109 153	+79 153
7. (miscellaneous)	7. 0	7. (6 083)	(+6 083)	7. 5 223	+ 223
	8. 4 500	8. 10 000	+10 000	8. 14 216	– 2 784
	9. 0			9. 10 768	– 39 232
	10. 2 000			10. 6 472	– 38
	11. 0			11. 858	– 142
	12. 2 000			12. 2 350	– 2 650
	13. (pro memoria, equal to heading 6 of income + 1000)			13. (6 306 +x)	(+ 6 309 +x)
				14. 56	+ 56
8. 64 000	105 600	190 351		237 397	
10 000		+x		+x	
<hr/> 74 000					

(All sums in U.S. dollars)

E₁: Estimates made in March 1967
E₂: Estimates made in August 1964

Notes

The estimates for 1967 have been made with due regard to the difficult financial situation of the Union, and impose on the budget rigid economies under certain headings. One employee was discharged in January 1967 and will not be replaced until the Administrative Office moves to Prague. This step could only be taken as a result of the help given by the staff of the Observatoire de Nice. It permitted a reduction of the estimated IAU expenditure on the Administrative Office to \$8000. However, this expenditure would rise to about \$20 000 to \$25 000 a year if the Administrative Office were to be independent of extraneous financial assistance. And if it were desired to improve the working conditions of the Administrative Office, its staff would have to be increased by two or three members, and the budget raised to \$35 000-\$40 000.

The balance in favour of the Specific Projects is \$20 306. It is suggested to economize on this balance by not spending for Commission 38 more than \$4500, in addition to the grant from the UNESCO contract.

ICSU has granted the Union a loan of 10 000 U.S. dollars to be repaid by 1972.

The estimates as to publications (Income, headings 2 and 3, Expenditure, headings 6 and 9) result from calculations given in more detail in the Appendix II, on the IAU publication policy, pages lxiii-lxx.

No matter how well justified by the fact that the publications paid for in 1967 will only sell in 1968, these figures may seem disastrous. They differ widely from those estimated in the budget set up in August 1964: receipts are low, expenditure is high. Sales of IAU publications did not live up to expectation. Expenses are enhanced by the increase in the volume of IAU literature and the costs of the free distribution of the *Transactions*.

The new estimates for 1967 permit a re-evaluation of the estimates for the three-year period 1965-1967 and a comparison with the budget. Disregarding the UNESCO grants, not included in the approved budget, the following should be noted:

The budgetary estimates of 1964 as regards the expenses of the Administrative Office, the General Assembly, the Executive Committee and for the Specific Projects of Commissions, correspond almost exactly to the present estimates. Significant economies were achieved in the organization of Symposia (owing to help of national organizations), and on the projects approved by the Executive Committee. On the other hand, publications (headings 6 and 9) show an excess of \$40 000 in expenditure over the estimates from 1964.

The budgetary estimates established in 1964 of income correspond almost exactly to the estimates of the contribution by Adhering Organizations. The surplus of \$10 000 under heading 8 corresponds to the loan obtained from ICSU. On the other hand, it should be noted (headings 2 and 3) that, in comparison with the estimates, the Union failed to obtain \$30 000 through sales of IAU publications. The miscellaneous receipts (heading 7) correspond mainly to reimbursed grants, made under headings 4 and 8 of Expenditure; thus, these headings include additional savings corresponding to this amount.

The details of the additional budget proposed for 1967 are given in the following table:

Additional Budget for 1967

	Income	Expenditure	
1. Actual amount (1962-63)	\$96 184	\$87 109	
2. Actual amount (1964)	57 420	61 675	
3. Total actual amount 1962-64 (1 + 2)	153 604	148 784	
4. Liquid assets by end 1964 (income minus expenditure)			\$4 820
5. Budget estimate 1962-64 (estimate of February 1964)	143 384	150 219	

	Income	Expenditure	
6. Budgetary supplement authorized by General Assembly in August 1964 (calculated from comparison with income and expenditure of budget estimate)			6 500
7. Budget 1965-1967, as approved by the XIIth General Assembly	198 000	197 776	
8. Surplus, from 4 and 6, not used in 1964	11 320		
9. Budget authorized for 1965-1967 (UNESCO contracts excluded) (8 + 7)	209 320	197 776	
10. Total subventions from UNESCO under contract 1965-66	6 306	5 306	
11. Actual amount 1965-66 (UNESCO contracts included)	116 351	131 797	
12. Estimation 1967, without UNESCO contracts (estimation of March 1967)	74 000	105 600	
13. Estimation 1965-67 (11 + 12) (UNESCO contracts 1965-66 included)	190 351	237 397	
14. Budgetary supplement proposed to the XIIIth General Assembly (calculated from comparison of income and expenditure of the budget estimate)			50 000

Thus, the amount of \$50 000 will be proposed to the Finance Committee, as an additional IAU budget for the financial year 1967. It need not be emphasized that proposals will have to be made to remedy this situation (to the detriment of the balance on the savings accounts) in the period 1968-1970, if the situation is not to become catastrophic.

E. CONCLUSION AND BUDGET 1968-1970

The estimated expenses, especially high due to the marked increase in the costs of publication, call for new sources of income.

Without entering into more detail it should be noted that the receipts are proportional, or almost so, to the number of Members (such a proportionality should be acceptable to the Adhering Organizations in computing a raise of their annual contribution to the Union) while the expenses increased by the free distribution to all Members of IAU publications (*Draft Reports, Transactions* Volumes XII B and C, *Information Bulletins*), are approximately proportional to the square of the number of Members. The amount published increases (like the number of recipients) in proportion to the number of Members.

Thus, an imbalance is inevitable, and it will become even more serious in the future. This, however, is implied in the logic of the Union's growth. One might reproach the present General Secretary, responsible for the accounts since the summer of 1964, with the fact that he did not realize this state of things early enough and thus could not inform the Executive Committee accordingly.

A first solution is to reduce the generosity of the Union. Members of the IAU, without paying any fee, have numerous advantages, in that they receive free of charge IAU publications, and use the services of IAU Commissions. It would be possible to apply the Statutes rigorously, to require that the specific projects of Commissions be profitable, to reduce the contribution to the organization of General Assemblies, etc.

However, it is desirable to minimize the effects of austerity: it is contrary to the spirit of the IAU not to assist the Special Projects of Commissions or to reduce the help given to young astronomers, etc.

Thus, the General Secretary will propose, on behalf of the Executive Committee, to moderate austerity by finding new sources of financial support. Fully aware of the sacrifices asked for from the Adhering Organizations, but certain that the very existence of the IAU is endangered, and that these organizations will not fail to understand the necessity of the measures to be

taken, the Executive Committee proposes an increase in the unit of contribution to the maximum value allowed by the Statutes, that is from 600 to 900 gold francs.

If this proposal is approved by the General Assembly, it will be possible to formulate a reasonable budget and to redress the effect of the additional budget for 1967 by 1970.

If this proposal is rejected, it will be necessary for the IAU to face the consequences. It might become necessary to suppress IAU publications, to suppress the individual membership, etc.

Budgets for both alternatives will be proposed to the Finance Committee. Discussions may be based on the following budget proposed for 1968-1970, in which income has been estimated on the same bases as for 1967 and expenditure on publications has been taken from the report on the IAU publication policy (Appendix II); reductions on certain expenses (§ 4 for example) have been taken into account.

Income		Expenditure	
1.	\$105 000 + x	1.	\$30 000
2.	73 400	2.	1 500
3.	0	3.	500
4.	8 000	4.	20 000
5.	42 000	5.	14 000
6.	(x)	6.	99 000
7.	?	7.	5 000
	<hr/>	8.	20 000
	\$228 400 + x	9.	0
		10.	7,500
		11.	0
		12.	2 000
		13.	(x)
		14.	10 000 Re-imbursement to ICSU
		15.	50 000 Re-imbursement to savings
			<hr/> accounts
			\$259 500

It is imperative either to save 30 000 U.S. dollars or to raise additional funds of this order of magnitude.

Possible solutions:

- (a) Increase the unit of contribution by the Adhering Organizations from 600 to 900 gold francs, without change in the category of adherence.

Additional income for three years about: \$52 000.

- (b) Contribution of \$10 a year by individual Members (to be introduced).

Additional income for three years about: \$48 000.

- (c) Suppression of the *Information Bulletin* and its replacement by a mimeographed Bulletin.

Economies of about: \$8 000.

- (d) Suppression of publications (*Transactions* included, with the exception, however, of the *Information Bulletin*, *Draft Reports* 1967, and Symposium no. 32, which are to be prepared previous to the General Assembly in Prague).

Savings of about: \$30 000.

Other possibilities of achieving economy will have to be sought if the measures adopted by the General Assembly prove insufficient. It is accordingly proposed to the General Assembly that it authorize the Executive Committee to study possibilities of finding new ways of saving 50 000 U.S. dollars, and to introduce the necessary measures, if no definitive solution is otherwise adopted by the General Assembly itself.