

# REPORT OF THE EXECUTIVE COMMITTEE 1955-57

(This report covers the period from 1 November 1954 to 31 October 1957.)

## COUNTRIES ADHERING TO THE UNION

Since the last General Assembly of the International Astronomical Union, Austria has adhered to the Union in 1955 and Bulgaria in 1957.

The following is the list of the 38 countries adhering to the Union and of the adhering organizations:

Argentina Republic	1927	Comité Nacional de Astronomía.
Australia ... ..	1939	Australian Academy of Science, Canberra.
Austria ... ..	1955	Österreichische Akademie der Wissenschaften, Wien.
Belgium ... ..	1920	Académie Royale de Belgique, Bruxelles.
Bulgaria ... ..	1957	Bulgarische Akademie der Wissenschaften, Sofia.
Canada ... ..	1920	Department of Mines and Technical Surveys, Ottawa.
Chile ... ..	1947	Observatorio Astronómico de la Universidad de Chile, Santiago de Chile.
China ... ..	1935	National Committee of Astronomy, Nanking.
Czechoslovakia ...	1922	Academy of Sciences, Prague.
Denmark ... ..	1922	Det Kongelige Danske Videnskabernes Selskab, København.
Egypt ... ..	1925	Government, Ministry of Foreign Affairs, Cairo.
Eire ... ..	1947	Dublin Institute for Advanced Studies.
Finland ... ..	1948	Académie des Sciences et Lettres, Helsinki.
France ... ..	1920	Académie des Sciences, Paris.
Germany ... ..	1951	Astronomische Gesellschaft, Hamburg-Bergedorf Stern- warte.
Great Britain ...	1920	Royal Society, London.
Greece ... ..	1920	Académie d'Athènes, Athens.
Hungary ... ..	1947	Hungarian Academy of Sciences, Budapest.
India ... ..	1946	Government of India, Ministry of Scientific Research and Cultural Affairs, New Delhi.
Israel ... ..	1954	Research Council of Israel, Jerusalem.
Italy ... ..	1921	Consiglio Nazionale delle Ricerche, Roma.
Japan ... ..	1920	National Research Council, Tokyo.
Lebanese Republic	1954	National Lebanese Committee for Astronomy, Ksara.
Mexico ... ..	1921	National University of Mexico, Mexico, D.F.
Netherlands ...	1922	Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam.
Norway ... ..	1922	Det Norske Videnskaps-Akademi, Oslo.
Poland ... ..	1922	Polska Akademia Nauk, Warszawa.
Portugal ... ..	1924	Government, Lisbon.
Roumania ... ..	1928	Comitetul National Astronomic, Bucarest.
South Africa ...	1938	Council for Scientific and Industrial Research, Pretoria.
Spain ... ..	1922	Academia de Ciencias Exactas, Madrid.
Sweden ... ..	1925	Kungl. Vetenskapsakademien, Stockholm.
Switzerland ...	1923	Schweizerische Naturforschende Gesellschaft, Bern.
United States ...	1920	National Research Council, Washington.
U.S.S.R. ... ..	1935	Academy of Sciences of the U.S.S.R., Moscow.
Vatican City State	1932	Pontificia Accademia delle Scienze i Nuovi Lincei, Rome.
Venezuela ... ..	1953	Academia de Ciencias Fisicas, Matematicas y Naturales, Caracas.
Yugoslavia ...	1935	Conseil des Académies de la R.F.P.Y., Belgrade.

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### APPOINTMENTS OF REPRESENTATIVES MADE BY THE EXECUTIVE COMMITTEE

Prof. J. J. Nassau and Prof. P. Th. Oosterhoff represented the I.A.U. at the seventh General Assembly of the International Council of Scientific Unions (I.C.S.U.) at Oslo in 1955. At the eighth meeting of the Executive Board of I.C.S.U. at Bagnères-de-Bigorre in 1956 the I.A.U. was represented by Prof. A. Danjon and Sir Harold Spencer Jones and at the ninth meeting of this board in Brussels in 1957 by Prof. A. Danjon and Prof. P. Th. Oosterhoff.

In 1955 Prof. M. Waldmeier represented the I.A.U. at the centenary celebration of the Eidgenössische Technische Hochschule in Zürich.

At the twelfth General Assembly of the International Union for Scientific Radio (U.R.S.I.) at Boulder in 1957 the I.A.U. was represented by Prof. J. L. Pawsey, while Prof. C. S. Beals was the official delegate to the eleventh General Assembly of the International Union of Geodesy and Geophysics (I.U.G.G.) in Toronto in the same year.

On behalf of the I.A.U. Dr J. Rösch attended a meeting of the commission for Aerology of the World Meteorological Organization in Paris in 1957.

The Executive Committee appointed Dr N. Stoyko and Dr W. Markowitz as representatives of the I.A.U. on the Consultative Committee for the Definition of the Second of the Bureau International des Poids et Mesures.

Prof. A. Danjon was appointed representative of the I.A.U. on the board of the International Foundation of the Pic-du-Midi, while Prof. A. Danjon and Prof. M. Waldmeier were appointed to represent the I.A.U. on the Council of the Federation of Astronomical, Geodetical and Geophysical Permanent Services.

Prof. O. Struve and Prof. O. Heckmann were appointed as I.A.U. representatives on the Editorial Board of the I.C.S.U. Review.

As Sir Harold Spencer Jones could not represent the I.A.U. on the Special Committee for the International Geophysical Year after he became General Secretary of I.C.S.U., the Executive Committee appointed Dr Y. Öhman in his place. In the I.A.U. two consultative groups were formed, which can be consulted by the two official representatives, Prof. A. Danjon and Dr Y. Öhman. These consultative groups have been composed as follows: Dr E. P. Fedorov, Dr W. Markowitz and Mr D. H. Sadler for questions concerning time, longitude and latitude and Dr C. W. Allen, Dr L. d'Azambuja, Prof. J. L. Pawsey, Prof. R. O. Redman, Prof. G. Righini and Dr W. O. Roberts for questions concerning solar observations.

At present the I.A.U. is represented on three Joint Commissions of I.C.S.U., as follows:

Joint Commission on the Ionosphere: Prof. V. G. Fesenkov, Prof. D. H. Menzel and Dr J. L. Pawsey;

Joint Commission on Solar and Terrestrial Relationships: Dr L. d'Azambuja, Dr M. A. Ellison, Prof. G. Righini and Prof. M. Waldmeier;

Joint Commission on Spectroscopy; Prof. B. Edlén, Prof. G. Herzberg, Dr W. F. Meggers, Dr C. E. Moore-Sitterly and Prof. G. Racah.

### MEETINGS OF THE EXECUTIVE COMMITTEE

In the years which are covered by this report the Executive Committee met twice, on 28 August and 3 September 1955, in Dublin on the occasion of the ninth General Assembly and once in Liège on 4-6 July 1957. The decisions taken at the meetings in Dublin were mostly concerned with the ninth General Assembly and have been incorporated in the report on this assembly, which has been published in the ninth volume of the *Transactions*.

The following took part in the meeting in Liège: A. Danjon (President), A. Couder (Vice-President), O. Heckmann (Vice-President), B. V. Kukarkin (Vice-President), E. Rybka (Vice-President), P. Swings (Vice-President), R. v. d. R. Woolley (Vice-President), P. Th. Oosterhoff (General Secretary) and, in an advisory capacity, O. Struve (former President). P. G. Kulikovskiy attended the meetings as a guest. The agenda of

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the meeting included the following items: financial status of the Union and grants-in-aid from U.N.E.S.C.O.; the next General Assembly and future symposia; the General Assembly of 1961; proposals for a change in the structure of some standing commissions; the formation of F.A.G.G.S. (the Federation of Astronomical, Geodetical and Geophysical Permanent Services); the nomination of an Assistant General Secretary; and some other items.

The time of the tenth General Assembly, which will be held in Moscow, was fixed as from 13 August until, and including, 20 August 1958. It was decided that in connexion with this assembly three symposia will be organized. The first of these, on Radio Astronomy, will be held in France under the combined auspices of U.R.S.I. and I.A.U. The place of the meeting will probably be Paris, the time about one week before the Moscow Assembly. Prof. J. L. Pawsey, the President of Commission 40, was appointed first representative of the I.A.U. on the organizing committee. The Executive Committee further decided that two symposia will be held during the assembly. The topics of these symposia will be: 'The Rotation of the Earth and Atomic Time Standards' and 'The Hertzprung-Russell Diagram', and the organizing committees will consist of: Dr A. A. Mikhailov (President), Dr G. M. Clemence, Dr E. P. Fedorov, Dr W. Markowitz and Dr P. Melchior; and Dr J. L. Greenstein (President), Dr P. P. Parenago, Dr E. Schatzman and Dr O. Struve respectively.

The Executive Committee agreed that time should be reserved during the assembly for some Joint Discussions.

As the General Secretary has decided to resign at the next assembly, the Executive committee nominated Mr D. H. Sadler as Assistant General Secretary.

Some proposals were received and discussed by the Executive Committee concerning a change in the structure of some of the existing standing commissions and the formation of a new commission. It was decided to submit these proposals to the next General Assembly.

Bulgaria was admitted as a member of the I.A.U. Its adhering organization will be the Bulgarian Academy of Science at Sofia.

Prof. M. G. J. Minnaert was appointed President of the Nominating Committee.

The Executive Committee decided to increase the annual dues to the International Council of Scientific Unions from one to two per cent of the Union's proper income in conformity with the request of I.C.S.U. and the decisions taken by the other Unions.

It was also decided that the I.A.U. will adhere to the International Foundation of the Pic-du-Midi and Prof. A. Danjon was appointed as representative for the I.A.U. on the board of this new foundation.

In June 1956 the Executive Board of I.C.S.U. established the Federation of Astronomical, Geodetical and Geophysical Services (F.A.G.G.S.). This new federation will receive a special annual subvention from U.N.E.S.C.O. in order to give financial assistance to the permanent services of the Unions concerned; the permanent services of I.A.U., I.U.G.G. and U.R.S.I. have been incorporated in the new federation. The permanent services of the I.A.U. which will receive subventions from F.A.G.G.S. are the Bureau International de l'Heure, the International Latitude Service and the *Quarterly Bulletin on Solar Activity*. The Executive Committee appointed Prof. A. Danjon and Prof. M. Waldmeier as representatives of the I.A.U. on the council of the federation.

### DECEASED MEMBERS

The Executive Committee regrets to record the loss by death of the following members of the Union:

Dr W. S. Adams, Member of Commission 29; former Vice-President of the Union. Died 11 May 1956.

Prof. Dr S. N. Blazhko, Member of Commission 27. Died 11 February 1956.

Prof. H. Bucerius, Member of Commission 7. Died 7 September 1955.

Prof. C. A. Chant, Member of Commission 3. Died 18 November 1956.

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Dr E. Delporte, Member of Commission 20. Died 19 October 1955.  
D. L. Edwards, Member of Commission 29. Died 23 September 1956.  
J. Evershed, Member of Commission 12. Died 17 November 1956.  
E. Gastardi, Member of Commission 5. Died 13 July 1957.  
Prof. A. N. Gigizkij, Member of Commission 4. Died 20 January 1956.  
Prof. Dr P. Götz, Member of Commissions 21 and 22. Died 29 August 1954.  
Prof. W. M. H. Greaves, Member of Commissions 25, 29 and 36. Died 24 December 1955.  
Dr A. S. King, Member of Commission 14. Died 25 April 1957.  
Prof. O. Kohl, Member of Commission 4. Died 3 April 1957.  
Prof. Dr N. D. Moiseiev, Member of Commission 7. Died 6 December 1955.  
H. R. Morgan, Member of Commission 8. Died 11 June 1957.  
Prof. H. N. Russell, Member of Commissions 29, 35 and 42. Died 18 February 1957.  
P. M. Ryves, Member of Commission 16. Died 27 February 1956.  
Prof. M. N. Saha, Member of Commissions 11, 36 and 36b. Died 16 February 1956.  
Prof. Dr G. A. Shajn, Member of Commissions 28, 29 and 34. Died 4 August 1956.  
Mrs Dr P. F. Shajn, Member of Commission 20. Died 27 August 1956.  
Prof. G. Silva, Member of Commission 31. Died 20 October 1957.  
Prof. C. Störmer, Member of Commissions 21 and 22. Died 13 August 1957.  
Prof. G. Tiercy, Member of Commissions 31 and 35; former Vice-President of the Union.  
Died 18 October 1955.  
Dr R. J. Trumpler, Member of Commissions 33, 34 and 37. Died 10 September 1956.  
Dr M. A. Vashakidze, Member of Commissions 33 and 34. Died 27 November 1956.

### NEW MEMBERS

After the meeting in Dublin the following were co-opted by the various Commissions under By-Law IV, 15:

A. Ali (24), H. Arp (27b), M. K. V. Bappu (29), F. M. Bateson (27), P. L. Bhatnagar (27), N. Boneff (17), F. E. Brasch (41), D. Brouwer (16), E. C. Bullard (16), K. E. Bullen (16), H. E. Butler (36a), A. K. Das (10, 12), G. de Mottoni (16), M. Duchesne (9a), W. M. Elsasser (16), L. Essen (31), J. O. Fleckenstein (41), L. I. Gama (31), M. Golay (15), Mrs S. D. Gossner (13), F. Haddock (40), A. Hewish (25b), H. Jeffreys (16), M. Kamienski (41), V. I. Krassovsky (9a), E. L. Krinov (22a), R. B. Leighton (9a), J. D. McGee (9a), O. A. Melnikov (36a), G. A. Morton (9a), G. F. W. Mulders (13), H. Müller (10), Miss E. A. Müller (12), J. Rösch (25b), A. D. Thackeray (27b, 33a), G. Westerhout (33b), A. G. Wilson (25b), M. H. Wrubel (36a), J. Xanthakis (8), F. Zwicky (25b).

### SYMPOSIA

In connexion with the ninth General Assembly in Dublin three symposia were held. The first on 'Radio Astronomy' took place at the Jodrell Bank Experimental Station near Manchester from 25 to 27 August 1955; the others on 'Non-stable Stars' and on 'Comparison of the large-scale Structure of the Galactic System with that of other Stellar Systems' were held during the General Assembly in Dublin. Reports on these symposia have been published in three volumes of the new I.A.U. symposium series, namely Symposium volume no. 3 on *Non-Stable Stars*, Symposium no. 4 on *Radio Astronomy* and Symposium no. 5 on *Comparison of the Large-Scale Structure of the Galactic System with that of other Stellar Systems*.

In 1956, a symposium was held in Stockholm from 27 to 31 August on 'Electromagnetic Phenomena in Cosmical Physics'. The organizing committee for this symposium consisted of: H. Alfvén (Chairman), H. W. Babcock, L. Biermann and T. G. Cowling. We are greatly indebted to the International Union of Pure and Applied Physics and to the International Union of Geodesy and Geophysics, which Unions were so kind to allocate subventions to the I.A.U. of \$1500 and \$750 respectively, to cover part of the travel expenses of the participants. A report on this symposium will be published as symposium volume no. 6 of the I.A.U. under the editorship of Dr B. Lehnert.

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In 1957, a second symposium on 'Co-ordination of Galactic Research' was held in Saltsjöbaden from 17 to 22 June. The organizing committee consisted of: A. Blaauw, W. Baade, B. Lindblad, J. H. Oort (Chairman), P. P. Parenago and P. J. van Rhijn. A report on this symposium will be published in volume no. 7 of the I.A.U. symposium series.

In the same year a third symposium on 'Cosmical Gas Dynamics' was held in Cambridge, U.S.A. from 24 to 29 June under the combined auspices of the International Union for Theoretical and Applied Mechanics and the I.A.U. The organizing committee was composed as follows: for the I.A.U., S. Chandrasekhar, J. H. Oort, L. Spitzer and H. C. van de Hulst and for the I.U.T.A.M., G. K. Batchelor, J. M. Burgers, A. R. Kantrowitz, G. I. Taylor and G. E. Uhlenbeck. The report on this symposium will be printed in *Reviews of Modern Physics* and reprinted as volume no. 8 in the I.A.U. symposium series.

The I.A.U. is very grateful to U.N.E.S.C.O. and I.C.S.U. for allocating important grants-in-aid towards part of the travelling and subsistence expenses connected with these symposia.

The symposia planned for the tenth General Assembly have already been mentioned in the section on meetings of the Executive Committee.

### U.N.E.S.C.O. GRANTS, 1955, 1956 AND 1957

The following grants have been allocated to the I.A.U. by U.N.E.S.C.O. and I.C.S.U. for the purposes mentioned in the breakdown given below: \$17 750 for 1955, \$15 000 for 1956 and \$14 700 for 1957.

	1955				Requested \$	Allocated \$
A. Category 2 (Publications) ... ..					9650	7750
B. Category 3 (Meetings) ... ..					4000	4000
C. Category 4 (Symposia) ... ..					3000	3000
D. Category 5 (Permanent Services) ... ..					4000	3000
					\$20650	\$17750

In addition to this subvention from U.N.E.S.C.O. the I.A.U. had still at its disposal a sum of \$4950 for symposia. This sum was allocated by U.N.E.S.C.O. for 1954, but as no symposia were held in that year the subvention was transferred by virement to 1955.

	1956				Requested \$	Allocated \$
A. Category 2 (Publications) ... ..					10400	7000
B. Category 3 (Meetings) ... ..					2500	2000
C. Category 4 (Symposia) ... ..					6500	3000
D. Category 5 (Permanent Services) ... ..					4000	3000
					\$23400	\$15000

As the Executive Committee did not meet in 1956, the allocated subvention for this meeting of \$2000 was transferred by virement to 1957 for the same purpose.

	1957				Requested \$	Allocated \$
A. Category 2 (Publications) ... ..					17150	8000
B. Category 3 (Meetings) ... ..					2500	1500
C. Category 4 (Symposia) ... ..					8000	5200
					\$27650	\$14700

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In this year a sum of \$2000, transferred by virement from 1956 to 1957, was available in addition to the subvention mentioned above.

For the first time no subvention from U.N.E.S.C.O. was received in 1957 through the intermediary of I.C.S.U. for the permanent services of the I.A.U., namely for the Bureau International de l'Heure, for the *Quarterly Bulletin on Solar Activity* and for the International Latitude Service. A new body was established, namely, the Federation of Astronomical, Geodetical and Geophysical Services, F.A.G.G.S., in which the permanent services of I.U.G.G., U.R.S.I. and I.A.U. are incorporated. As from 1957 this new federation received subventions direct from U.N.E.S.C.O. and I.C.S.U. to finance the permanent services of the Unions mentioned above. The Bureau International de l'Heure received in this year a subvention of \$8000, the International Latitude Service a subvention of \$4500 and the *Quarterly Bulletin on Solar Activity* a subvention of \$1500. In connexion with the International Geophysical Year, some of the permanent services had to develop a much larger activity than normal with a resulting increase in their expenses; the Bureau International de l'Heure received a special subvention for 1957 to the amount of \$6000, which however had not yet been paid at the end of the financial year 1956-57.

The financial support given by U.N.E.S.C.O. to the I.A.U. has been of the greatest importance to the Union. The I.A.U. is greatly indebted to U.N.E.S.C.O. and I.C.S.U. and to their officers who have given most efficient help in connexion with these grants. The I.A.U. is especially grateful to Dr Ronald Fraser, administrative secretary of I.C.S.U., and to the General Secretary of I.C.S.U.

Several large and small volumes have been published during the period covered by this report under the auspices and with financial aid from the I.A.U. The financial aid received from U.N.E.S.C.O. for this activity is herewith gratefully acknowledged.

### *List of Publications*

#### Vol. 9 of the *Transactions of the I.A.U.*

- |  |                                       |
|--|---------------------------------------|
| Symposium No. 1 on <i>Co-ordination of Galactic Research</i>   | Editor: Blaauw                        |
| Symposium No. 2 on <i>Gas Dynamics of Cosmic Clouds</i>  | Editors: van de Hulst and Burgers     |
| Symposium No. 3 on <i>Non-Stable Stars</i>   | Editor: Herbig                        |
| Symposium No. 4 on <i>Radio Astronomy</i>  | Editor: van de Hulst                  |
| Commission 5:<br><i>Astronomical News Letters</i><br><i>Bibliographie Mensuelle</i>  | Kourganoff<br>Centre de Documentation |
| Commission 10:<br><i>Quarterly Bulletin on Solar Activity</i><br><i>Heliographic Charts of the Photosphere</i>   | Waldmeier<br>Waldmeier                |
| Commission 11:<br><i>Cartes Synoptiques de la Chromosphère</i>   | d'Azambuja                            |
| Commission 15:<br><i>Atlas of Cometary Spectra</i>   | Swings                                |
| Commission 19:<br><i>Results of the International Latitude Service, Vol. 9;<br/>1935.0-1941.0</i>  | Carnera                               |
| Commission 20:<br><i>Ephemerides and Circulars, Minor Planet Centre,<br/>Cincinnati</i>  | Herget                                |
| Commission 23:<br><i>Astrographic Catalogue, Melbourne Section:</i><br>Vol. IV, Zone $-71^{\circ}$ and $-72^{\circ}$<br>Vol. V, Zone $-73^{\circ}$ and $-74^{\circ}$ | Baillaud                              |

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Commission 24: <i>A Catalogue of 9867 Stars in the Southern Hemisphere with Proper Motions exceeding 0".2 annually</i>	Luyten
Commission 26: <i>Bulletin d'Information</i>	Muller
Commission 27: <i>English version of Introduction and Remarks from the fifth and the sixth supplement to the General Cata- logue of Variable Stars</i>	Kukarkin, Parenago
Commission 31: <i>Bulletin Horaire du Bureau de l'Heure</i>	Danjon

### THE FINANCIAL SITUATION

At the General Assembly in Dublin, in September 1955, it was decided that the unit of subscription for the years 1956–58 be fixed again at 500 gold francs, the gold franc being defined in accordance with the Statutes of the International Council of Scientific Unions, Vol. 3, p. 107, 1937, as 0.2903225 g. fine gold, or 0.3266 U.S. dollar.

The detailed reports of the accounts of the I.A.U. in four different currencies for the years 1955, 1956 and 1957 are to be found at the end of this report. Each financial year covers the period from 1 November until 31 October. Consequently the financial account for 1955 covers the twelve months elapsed from 1 November 1954 until 31 October 1955, and so on. The Union has now only accounts in dollars, in sterling, in French francs and in Dutch guilders.

On 1 November 1957 the unexpended balance was \$103 245.88. For the conversion of the different currencies into dollars the following rates have been used:

$$£1 = \$2.8; \text{ } \text{Fr}1 = 350 \text{ French francs}; \text{ } \text{G}1 = 3.80 \text{ Dutch guilders.}$$

Of this unexpended balance a sum of \$39 993.47 has been invested in savings-accounts, the remaining sum of \$63 252.41 is composed of the balances of the four bank-accounts. It is to be kept in mind that the balances of the dollar-accounts, as given at the end of this report, include not only the actual balance of the bank-account in dollars, but also the money, which has been put into savings-accounts.

Part of the unexpended balance however must be considered as committed for publications which are being printed at the moment, and for other purposes. The total amount committed is estimated to be approximately \$30 000. Therefore on 1 November 1957 the net balance is of the order of \$73 000, which means a small increase as compared with the net balance in the financial report published in the ninth volume of the *Transactions*.

The total income from subscriptions now equals 122 units or \$19 922.60 annually. The average annual subvention from U.N.E.S.C.O. during the last three years amounted to \$15 800, but in 1957 special subventions were received through the intermediary of F.A.G.G.S. to the amount of \$9500.

If U.N.E.S.C.O. does not decrease its subventions to the I.A.U. drastically, the I.A.U. may count in the coming years on an annual income of about \$20 000 from subscriptions and of about \$24 000 from U.N.E.S.C.O. The financial situation of the I.A.U. may therefore be considered as satisfactory. The co-operation of National Committees and Adhering Organizations in these financial matters is herewith gratefully acknowledged.

### TOTAL INCOME AND EXPENDITURE, 1955–57

The subscriptions received from the adhering countries, including arrears, are as follows:

1955	1956	1957
\$23438.94	\$18595.84	\$17854.77

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On the whole, payment of subscriptions is up-to-date and only some countries have arrears of a few years.

The amounts paid in the years 1955, 1956 and 1957 on annual grants are given in the following table (cf. for 1955, *Trans. I.A.U.* 8, 65; and for 1956 and 1957, *Trans. I.A.U.* 9, 66). The annual subvention for the Bureau will be discussed below.

	\$
Commission 5 ( <i>Astronomical News Letters</i> )	3000.00
Commission 5 ( <i>Bibliographie Mensuelle</i> )	1142.50
Commission 6 (Bureau des Télégrammes)	1183.37
Commission 10 ( <i>Quarterly Bulletin on Solar Activity</i> )	1500.00
Commission 10 (Cartes héliographiques de la Photosphère)	981.00
Commission 11 (Cartes synoptiques)	3053.97
Commission 20 (Centre des Petites Planètes, Cincinnati)	750.00
Commission 27 ( <i>Liste des Noms d'Etoiles Variables</i> )	241.76
Commission 31 (Bureau de l'Heure)	11987.00
Commission 38 (Echange des Astronomes)	18878.17
	\$42717.77

### Remarks

Commission 5 (*Astronomical News Letters*): The annual subvention was due in 1956 and in 1957. Before that time a special subvention had been allocated, which has been accounted for in Vol. 9 of the *Transactions*. From the accounts at the end of this report, it can be seen that subscriptions to the *Astronomical News Letters* yield an annual income of somewhat over \$500, the profit from subscriptions being \$474 in 1956 and \$567 in 1957.

Commission 5 (*Bibliographie Mensuelle*): This payment consists of the annual subvention for the three years of this report and of a sum of \$653 for the years 1946 and 1952-54. The commitment of \$326, mentioned on p. 41 of *Transactions*, Vol. 9 was erroneous and amounted to \$653, which has now been paid.

Commission 10 (*Quarterly Bulletin on Solar Activity*): The annual subvention of \$1500 has been paid only once, namely in 1956. Before that time special subventions allocated by the Executive Committee were paid for this purpose, which have been accounted for in Vol. 9 of the *Transactions*. In 1957 the *Quarterly Bulletin* has received its subvention of \$1500 from the Federation of Astronomical, Geodetical and Geophysical Services (F.A.G.G.S.).

Commission 11 (Cartes synoptiques): This payment covers the annual subvention over the years 1955, 1956 and 1957 and in addition a sum of \$408, which is the difference between the total amount of subventions voted for the years 1946 to 1954 inclusive and the sums actually paid in these years.

Commission 20 (Centre des Petites Planètes): This payment is the subvention for the year 1956, which proved adequate for the operation of the Centre until the end of 1957.

Commission 27 (*Liste des Noms d'Etoiles Variables*): This payment was made in 1955. After Dublin no annual subvention has been voted for this purpose, although these publications will return again at irregular intervals.

Commission 31 (Bureau de l'Heure): This payment consists of the subventions for the years 1955 and 1956. In 1957 the Bureau International de l'Heure received its annual subvention direct from F.A.G.G.S.

Commission 38 (Echange des Astronomes): The annual subvention for Commission 38 is never paid to the Commission, but following instructions from its President, the secretariat takes care of payments of travel grants. The sum mentioned above is the actual amount paid by the Union. The difference between the sums voted for Commission 38 and the payments actually made is given below in the section of commitments. Part of the payments by Commission 38 in 1955, namely \$4546.37, were made for young astronomers participating in the Dublin General Assembly.



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The following special subventions were paid:

	\$
Commission 5 ( <i>Observatoires et Astronomes</i> ) ... ..	1023.00
Commission 11 (Observatoire, Paris, Polarimètre photo-électrique, Lyot)	2025.00
Commission 19 (Publication des Résultats de la Variation des Latitudes)	2613.00
Commission 23 ( <i>Astrographic Catalogue</i> ) ... ..	6842.65
Commission 24 ( <i>Catalogue of high-velocity southern Stars</i> ) ... ..	950.45
Bureau (Publication of Symposia) ... ..	9282.65
	\$22736.75

### Remarks

Commission 5 (*Observatoires et Astronomes*): This payment includes the two special subventions voted in Rome and in Dublin.

Commission 19 (Publication des Résultats de la Variation des Latitudes): This special subvention was voted at the Zürich General Assembly in 1948.

Commission 23 (*Astrographic Catalogue*): The special subvention to the *Astrographic Catalogue* is never paid to the Commission, but the secretariat pays the bills for typing and printing. The difference between the sums voted in the past and the expenses actually incurred will be given in the section of commitments.

Bureau (Publication of Symposia): The specification of this sum is as follows:

	\$
Symposium No. 1 ( <i>Co-ordination of Galactic Research</i> )	768.78
Symposium No. 2 ( <i>Gas Dynamics of Cosmic Clouds</i> )	543.02
Symposium No. 3 ( <i>Non-Stable Stars</i> )	2556.00
Symposium No. 4 ( <i>Radio Astronomy</i> )	5414.85
	\$9282.65

The expenses for Symposium No. 2, which was published by I.U.T.A.M. and I.A.U. through the North Holland Publishing Company at the risk of the company, were incurred in order that the I.A.U. could provide copies free of charge to the institutes on its mailing list.

The expenses for publication of symposia are considerably higher than the subvention of \$2200 voted by the General Assembly in Dublin. It was a decision of the Executive Committee (see *Trans. I.A.U.* 9, 35, first paragraph) that henceforth symposia organized by the I.A.U. shall be published in a new separate series of publications. On 1 November 1957 four volumes had been published, while three others were at that time at the printer. The subvention of \$2200 voted by the General Assembly in 1955 has clearly been based on too optimistic an estimate. The question therefore arises whether this decision of the Executive Committee should be maintained in the future. It is to be expected that on the average two symposia will have to be published annually.

However, during the three years covered by this report, a number of volumes of I.A.U. publications has been sold each year and the profit from sales has not been accounted for in the figures given above. The income from sales of I.A.U. publications amounts to:

1955	1956	1957
\$97	\$817	\$533

These sales include all I.A.U. publications. It is clear from these figures that the income in 1956 and 1957 was considerably larger than in 1955. This is due to the fact that in 1956 and 1957 a considerable number of symposium volumes and of Vol. 9 of the *Transactions* has been sold. Sales of symposium volumes, which deal with a typically astronomical topic, are usually moderate. A much larger sale can be expected for volumes which are also of interest to physicists and scientists in other fields of research. We do

## REPORT OF EXECUTIVE COMMITTEE

not yet know, however, how large the income from sale will be for such volumes as the symposium no. 4 on *Radio Astronomy*, as this book was distributed in the autumn of 1957.

The total expenses on the Bureau of the Union amounted in this period to \$40 526.20. A detailed list of the expenses for the Bureau follows here:

	\$	\$
Annual dues to I.C.S.U. ... ..		953.72
<i>Transactions</i> , Vol. 8 (partial payment) ... ..		2305.64
Binding, etc. of older publications ... ..		101.03
<i>Draft Reports</i> , Vol. 9 ... ..		2895.80
<i>Transactions</i> , Vol. 9 ... ..		6966.36
Travel expenses, Dublin General Assembly, including Symposia:		
Young Astronomers ... ..	2000.00	
Members Executive Committee ... ..	1848.55	
Presidents of Commissions ... ..	4060.91	
Symposium, Radio Astronomy ... ..	2100.78	
Symposium, Non-Stable Stars ... ..	589.77	
Symposium, Comparison of the large-scale Structure of the Galactic System with that of other Stellar Systems ... ..	570.00	
	\$11170.01	11170.01
Programme, Dublin meeting ... ..		539.70
Travel expenses for Symposium, Electromagnetic Phenomena in Cosmical Physics ... ..		4516.80
Travel expenses for Symposium, Co-ordination of Galactic Research ... ..		3226.66
Travel expenses for Symposium, Cosmical Gas Dynamics		1614.95
Meeting Executive Committee, Liège, 1957 ... ..		940.81
General Secretariat ... ..		5294.72
		\$40526.20

### Remarks

Travel expenses, Young Astronomers in connexion with the Dublin General Assembly: the total sum paid to assist Young Astronomers to attend the Dublin Assembly amounted to the figure mentioned here plus the sum of \$4546.37 mentioned under annual subventions, Commission 38.

Travel expenses for Symposium, Electromagnetic Phenomena in Cosmical Physics: of the travel expenses mentioned here a sum of \$1500 was reimbursed by the International Union of Pure and Applied Physics. The International Union of Geodesy and Geophysics paid a sum of \$750, but this payment is not included in this account, as it was paid direct to the organizing committee in Stockholm to cover subsistence expenses of all participants.

Travel expenses for Symposium, Cosmical Gas Dynamics: the travel expenses in connexion with the symposium were paid by the two organizing Unions, the International Union of Theoretical and Applied Mechanics and the I.A.U. The figure given here is the share of the I.A.U. in the total travel expenses.

According to the votes by the General Assembly the Bureau could use a sum of \$4899 in 1955 and a subvention of \$6000 in the years 1956 and 1957 each. Consequently the sum voted for the Bureau for the term of three years covered by this report amounted to \$16 899, whereas the total expenses for the Bureau were \$40 526, as given above. In this connexion it should be kept in mind, however, that for several activities of the Bureau subventions have been received from U.N.E.S.C.O. Applications for U.N.E.S.C.O.

## REPORT OF EXECUTIVE COMMITTEE

subventions have to be made according to categories: Category 1 (Administrative expenses), Category 2 (Publications), Category 3 (Meetings), Category 4 (Symposia), Category 5 (Permanent Services). As soon as the subvention has been allocated the Union is absolutely free in spending the money according to its own needs, as long as payments can be brought under one of the categories mentioned above.

Among the expenses of the Bureau we find travel expenses in connexion with a General Assembly and with several symposia, a meeting of the Executive Committee and the publication of the *Transactions*. For all these items we received considerable grants from U.N.E.S.C.O., but a part of the U.N.E.S.C.O. subventions can also be used for Category 2 (publications) and therefore for several of the items mentioned above under annual and special subventions.

It would be completely arbitrary to divide the U.N.E.S.C.O. subventions received in these three years over the items under annual subventions, special subventions or expenses of the Bureau.

The following subventions voted by the General Assembly have not yet been paid and should be considered as commitments:

	\$
Commission 12 (Solar Spectrum Tables) ... ..	3960.00
Commission 20 ( <i>Catalogue des Orbites des Comètes</i> ) ... ..	1400.00
Commission 23 ( <i>Astrographic Catalogue</i> ) ... ..	9099.36
Commission 29 ( <i>Photographic Atlas of Spectra of Diatomic Molecules</i> ) ...	1633.00
Commission 38 (Echange des Astronomes) ... ..	1691.06
Bureau (for travel expenses Young Astronomers, Moscow General Assembly) ... ..	2000.00
	\$19783.42
Bureau: Publication, Symposium No. 5 ... ..	1500.00
Publication, Symposium No. 6 ... ..	6500.00
Publication, Symposium No. 7 ... ..	2000.00
	\$29783.42

In computing these commitments we have not counted payments which are normally due after November 1957. On the other hand we have included the cost of publications of symposia which were held before the date mentioned above, although the publications will not be ready for distribution until well after the close of the financial year 1957. The commitments for publications of symposia are rather uncertain estimates.

P. TH. OOSTERHOFF  
*General Secretary*

INCOME AND EXPENDITURE 1955

DOLLARS

INCOME		EXPENDITURE	
Balance, 1 Nov. 1954 ... ..	\$74328.68	Commission 5: <i>Observatoires et Astronomes</i> ... ..	\$523.00
Subscriptions:		Commission 6: Bureau des Télégrammes ... ..	394.61
Belgium (1955) ... ..	\$325.46	Commission 11: <i>Polarimètre photo-électrique, Lyot</i> ... ..	2025.00
Canada (1955) ... ..	489.90	Commission 38: Echange des Astronomes ... ..	2340.00
Chile (1953 part, 1954-57, 1958 part) ... ..	875.00	I.C.S.U. dues 1954 ... ..	347.40
China (1949-54) ... ..	1959.10	Bureau of the Union (including travel grants Dublin	
Czechoslovakia (1954-55) ... ..	979.80	General Assembly: Young Astronomers, \$2976.83;	
East Germany (1955) ... ..	489.90	Members Executive Committee, \$1199.30; Presidents	
Finland (1955) ... ..	163.30	of Commissions, \$1565.95; Symposium, Non-Stable	
Greece (1954-55) ... ..	326.60	Stars, \$504.77; Symposium, Radio Astronomy, \$1223.71;	
Hungary (1953-54) ... ..	653.20	Symposium, Comparison of the large-scale structure of	
Israel (1955) ... ..	163.30	the Galactic System with that of other Stellar Systems,	
Italy (1955) ... ..	1306.40	\$370.00) ... ..	7856.26
Japan (1955) ... ..	1306.40		
Lebanon (1955) ... ..	163.30		
Mexico (1953-55) ... ..	1469.70		
Poland (1955) ... ..	1306.40		
Portugal (1955) ... ..	326.60		
Roumania (1955) ... ..	326.60		
Spain (1955) ... ..	1306.40		
Switzerland (1955) ... ..	163.30		
U.S.S.R. (1955, 1956 part) ... ..	1325.00		
Vatican City State (1955) ... ..	163.30		
Venezuela (1955) ... ..	163.50		
West Germany (1955) ... ..	816.50		
	<u>\$16568.96</u>		
U.N.E.S.C.O. grant 1955 (part) ... ..	7750.00		
Sale of publications ... ..	27.12		
	<u>\$24346.08</u>	Balance, 1 Nov. 1955 ... ..	\$85688.49
			<u>\$99174.76</u>

INCOME AND EXPENDITURE 1956

DOLLARS

INCOME		EXPENDITURE	
Balance, 1 Nov. 1955	\$85688-49	Commission 5: <i>Astronomical News Letters</i>	\$1500-00
Subscriptions:		Commission 6: Bureau des Télégrammes	396-76
Argentina (1954)	\$489-90	Commission 10: <i>Quarterly Bulletin on Solar Activity</i>	1500-00
Austria (1956)	163-30	Commission 10: <i>Cartes héliographiques de la Photosphère</i>	654-00
Belgium (1956)	327-49	Commission 19: Publication des Résultats de la Variation	
Czechoslovakia (1956)	489-90	des Latitudes	2613-00
East Germany (1956)	489-90	Commission 20: Minor Planet Centre	750-00
Finland (1956)	165-37	Commission 31: Bureau International de l'Heure	1500-00
Greece (1956)	163-30	Commission 38: Echange des Astronomes	6090-00
Israel (1956)	163-30	I.C.S.U. dues 1955	234-40
Italy (1956)	1306-40	Bureau of the Union (including travel expenses: Sym-	
Japan (1956)	1306-40	posium, Comparison of the large-scale Structure of the	
Lebanon (1956)	163-30	Galactic System with that of other Stellar Systems,	
Poland (1956)	816-50	\$200; and Symposium, Electromagnetic Phenomena	3399-84
Portugal (1956)	326-60	in Cosmical Physics, \$3011-80)	1000-00
Roumania (1956)	326-60	Transfer to Guilders account	2000-00
Switzerland (1956)	163-30	Transfer to French francs account	<u>\$21638-00</u>
U.S.A. (1955-56)	2613-54		
U.S.R. (1956)	1288-00		
Venezuela (1956)	163-50		
West Germany (1956)	816-50		
	<u>\$11743-10</u>		
U.N.E.S.C.O. grant 1956 (part)	5000-00		
Sale of publications	1-00		
Subscriptions <i>Astronomical News Letters</i>	404-00		
	<u>\$17148-10</u>	Balance, 1 Nov. 1956	\$81198-59
	<u>\$102836-59</u>		<u>\$102836-59</u>

INCOME AND EXPENDITURE 1957

DOLLARS

INCOME		EXPENDITURE
Balance, 1 Nov. 1956 ...	\$81198.59	Commission 5: <i>Astronomical News Letters</i> ...
Subscriptions:		Commission 5: <i>Observatoires et Astronomies</i> ...
Austria (1957) ...	\$163.30	Commission 6: Bureau des Télégrammes ...
Belgium (1957) ...	323.71	Commission 10: <i>Cartes héliographiques de la Photosphère</i>
Canada (1956) ...	489.90	Commission 24: <i>Catalogue of Stars in the Southern Hemisphere with Proper Motions</i> ...
Czechoslovakia (1957) ...	489.90	Commission 38: Exchange des Astronomes ...
East Germany (1957) ...	489.90	I.C.S.U. dues 1956 ...
Finland (1957) ...	164.93	Bureau of the Union (including travel expenses: Symposium, Co-ordination of Galactic Research, \$1966-66; Symposium, Cosmical Gas Dynamics, \$1514-95; and Meeting Executive Committee, \$829-84)
Israel (1957) ...	163.30	Transfer to Guilders account ...
Italy (1957) ...	1306.40	
Japan (1957) ...	1306.40	
Lebanon (1957) ...	163.30	
Mexico (1956, 1957, 1958 part) ...	1000.00	
Poland (1957) ...	816.50	
Portugal (1957) ...	326.60	
Roumania (1957, 1958 part) ...	386.60	
Spain (1956) ...	816.50	
Switzerland (1957) ...	163.30	
U.S.S.R. (1957) ...	1306.50	
Vatican City State (1956) ...	163.35	
Venezuela (1957) ...	163.30	
West Germany (1957) ...	816.50	
	\$11020.19	
U.N.E.S.C.O. grant 1957 (part) ...	6000.00	Balance, 1 Nov. 1957 ...
Sale of publications ...	195.08	
Subscriptions <i>Astronomical News Letters</i> ...	442.20	
Interest ...	383.36	
	\$21040.83	
		\$86202.84
		\$102239.42

INCOME AND EXPENDITURE 1955

POUNDS

INCOME	£	s.	d.	£	s.	d.
Balance, 1 Nov. 1954				4494	9	6
Subscriptions:						
Australia (1955)	117	0	0			
China (1955)	469	1	8			
Denmark (1955)	58	7	0			
Egypt (1954)	174	16	9			
Great Britain (1955)	467	3	11			
India (1955)	116	13	6			
Ireland (1955)	58	13	10			
Norway (1955)	58	8	5			
South Africa (1955)	58	6	9			
Sweden (1955)	116	15	6			
Yugoslavia (1955)	175	0	0			
	£1870	7	4			
U.N.E.S.C.O. grant 1955 (part)	714	5	9			
Sale of publications	15	1	6			
	£2599	14	7	£2599	14	7
				£7094	4	1

  

EXPENDITURE	£	s.	d.
Commission 38: Exchange des Astronomes			
Bureau of the Union (including programme Dublin General Assembly, £192. 15s. 0d.; travel expenses Dublin Assembly: Young Astronomers, £1136. 10s. 3d.; Members Executive Committee, £207. 2s. 4d.; Presidents of Commissions, £610. 12s. 6d.; Symposium, Radio Astronomy, £196. 13s. 8d.; Symposium, Non-stable Stars, £30. 7s. 2d.; and Publications: Draft Reports, 1955, £979. 3s. 11d.; <i>Transactions</i> , Vol. 8, £776. 16s. 1d.; Symposium No. 1, £165. 2s. 7d.)	4412	18	9
Transfer to Guilders account	53	12	6
	£4555	17	0

  

Balance, 1 Nov. 1955	£2538	7	1
	£7094	4	1

INCOME AND EXPENDITURE 1956

POUNDS

	£ s. d.	EXPENDITURE	£ s. d.
INCOME			
Balance, 1 Nov. 1955	...		...
Subscriptions:	...		...
Australia (1956)	117 0 0	Commission 38: Exchange des Astronomes	...
China (1956)	465 8 7	Bureau of the Union (including travel expenses Sym-	...
Denmark (1956)	58 6 5	posium, Electromagnetic Phenomena in Cosmical	...
Egypt (1955)	173 16 5	Physics, £372. 18s. 5d.; and Publications: Draft	...
Great Britain (1956)	465 6 6	Reports, 1955, £55. 0s. 4d.; <i>Transactions</i> , vol. 8,	...
India (1956)	116 15 7	£46. 12s. 9d.; Symposium No. 1, £109. 8s. 8d.)	...
Ireland (1956)	58 7 0		
Norway (1956)	57 19 3		
South Africa (1956)	58 6 10		
Sweden (1956)	117 1 10		
Yugoslavia (1956)	175 0 0		
	£1863 8 5		
U.N.E.S.C.O. grant 1956 (part)	1785 9 3		
Sale of publications	291 11 0		
Subscriptions <i>Astronomical News Letters</i>	7 3 0		
	£3947 11 8		
		Balance, 1 Nov. 1956	£5851 10 8
			£6485 18 9



INCOME AND EXPENDITURE 1957

FOUNDS		INCOME	£	s.	d.	£	s.	d.	EXPENDITURE	£	s.	d.
Balance, 1 Nov. 1956	...	...				5851	10	8	Commission 38: Exchange des Astronomes	...	...	...
Subscriptions:									Bureau of the Union (including travel expenses Sym-	...	...	...
Australia (1957)	...	...	117	0	0				posium, Co-ordination of Galactic Research,	...	...	...
China (1957)	...	...	458	0	0				£344. 12s. 10d.; and Publications: <i>Transactions</i> , vol. 9,	...	...	...
Denmark (1957)	...	...	58	1	10				£2487. 19s. 9d.; Symposium No. 3, £912. 17s. 2d.;	...	...	...
Egypt (1956)	...	...	171	9	6				Symposium No. 4, £1933. 17s. 6d.)	...	...	...
Great Britain (1957)	...	...	468	4	11					...	...	5779 12 5
India (1957)	...	...	116	13	6					...	...	£5929 12 5
Ireland (1957)	...	...	58	9	0							
Norway (1957)	...	...	58	7	1							
South Africa (1957)	...	...	58	6	9							
Sweden (1957)	...	...	117	3	2							
Yugoslavia (1957)	...	...	175	0	0							
U.N.E.S.C.O. grant 1957 (part)	...	...	£1856	15	9							
Sale of publications	...	...	1428	11	5							
Subscriptions <i>Astronomical News Letters</i>	...	...	116	12	7							
			7	3	0							
			£3409	2	9				Balance, 1 Nov. 1957	...	...	£3331 1 0
												£9260 13 5

INCOME AND EXPENDITURE 1955

GUILDERS

INCOME	Fl.	Fl.	EXPENDITURE	Fl.
Balance, 1 Nov. 1954 ... ..		9794.85	Commission 27: <i>Liste des Noms d'Etoiles Variables</i> ...	918.70
Subscriptions: Netherlands (1955) ... ..	1240.88		Bureau of the Union (including travel expenses Dublin meeting: Young Astronomers, Fl. 1292.10; Members Executive Committee, Fl. 265.00; Presidents of Commissions, Fl. 2529.70; Symposium, Radio Astronomy, Fl. 798.00; and Publication: Symposium no. 2, Fl. 2063.46) ... ..	
U.N.E.S.C.O. grant 1955 (part) ... ..	3787.50			
Sale of publications ... ..	103.75			
Interest ... ..	41.62			
Transfer from Sterling account (£53, 12s. 6d.) ... ..	569.23			11462.16
	<u>5742.98</u>	<u>5742.98</u>		<u>12380.86</u>
			Balance, 1 Nov. 1955 ... ..	3156.97
		<u>Fl. 15537.83</u>		<u>Fl. 15537.83</u>

INCOME AND EXPENDITURE 1956

GUILDERS

INCOME	Fl.	Fl.	EXPENDITURE	Fl.
Balance, 1 Nov. 1955 ... ..		3156.97	Bureau of the Union (including travel expenses: Symposium, Electromagnetic Phenomena in Cosmical Physics, Fl. 344.70) ... ..	6818.83
Subscriptions: Netherlands (1956) ... ..	1249.25			
Subscriptions <i>Astronomical News Letters</i> ... ..	75.85			
Interest ... ..	33.03			
Transfer from Dollar Account (\$1000) ... ..	3822.50			
	<u>5180.63</u>	<u>5180.63</u>		<u>1518.77</u>
			Balance, 1 Nov. 1956 ... ..	Fl. 8337.60
		<u>Fl. 8337.60</u>		<u>Fl. 8337.60</u>

INCOME AND EXPENDITURE 1957

GUILDERS

INCOME	Fl.	Fl.	EXPENDITURE	Fl.
Balance, 1 Nov. 1956 ... ..		1518-77	Bureau of the Union (including travel expenses: Symposium, Co-ordination of Galactic Research, Fl. 798-00; Symposium, Cosmical Gas Dynamics, Fl. 380-00; and Meeting Executive Committee, Liège, Fl. 372-00) ... ..	6868-30
Subscriptions:				
Netherlands (1957) ... ..	1250-88			
U.N.E.S.C.O. grant 1957 (part) ... ..	2659-78			
Sale of publications ... ..	41-30			
Subscriptions <i>Astronomical News Letters</i> ... ..	152-03			
Interest ... ..	18-68			
Transfer from Dollar account (\$2500) ... ..	9511-88			
	<u>13634-55</u>	<u>13634-55</u>	Balance, 1 Nov. 1957 ... ..	8285-02
		<u>Fl. 15153-32</u>		<u>Fl. 15153-32</u>

INCOME AND EXPENDITURE 1955

FRENCH FRANCS

INCOME	Fr.frs.	Fr.frs.	EXPENDITURE	Fr.frs.
Balance, 1 Nov. 1954 ... ..		1 574 421	Commission 11: <i>Cartes Synoptiques</i> ... ..	451 489
Subscriptions:			Commission 23: <i>Astrographic Catalogue</i> ... ..	876 419
France (1955) ... ..	457 240		Commission 31: Bureau de l'Heure ... ..	1 920 450
U.N.E.S.C.O. grant 1955 (part) ... ..	2 450 000		Commission 38: Exchange des Astronomes ... ..	12 000
	<u>2 907 240</u>	<u>2 907 240</u>	Bureau of the Union (including travel grants Dublin General Assembly: Young Astronomers, Fr.frs. 17 500; Presidents of Commissions Fr.frs. 42 000; and Symposium, Radio Astronomy, Fr.frs. 42 000) ... ..	111 341
		<u>Fr.frs. 4 481 661</u>	Balance, 1 Nov. 1955 ... ..	3 371 699
				<u>1 109 962</u>
				<u>Fr.frs. 4 481 661</u>

INCOME AND EXPENDITURE 1956

FRENCH FRANCS

INCOME	Fr. frs.	Fr. frs.	EXPENDITURE	Fr. frs.
Balance, 1 Nov. 1955	...	1 109 962	Commission 5: <i>Bibliographie Mensuelle</i>	285 775
Subscriptions:	...		Commission 11: <i>Cartes Synoptiques</i>	308 700
France (1956)	457 240		Commission 23: <i>Astrographic Catalogue</i>	1 139 137
U.N.E.S.C.O. grant 1956 (part)	1 760 000		Commission 31: Bureau de l'Heure	1 750 000
Grant I.U.P.A.P. for Symposium on			Commission 38: Echange des Astronomes	14 390
Electromagnetic Phenomena in Cosmical			Bureau of the Union	10 336
Physics	525 000			3 508 338
Subscriptions <i>Astronomical News Letters</i>	10 500			
Transfer from Dollar account (\$2000)	699 180			
	<u>3 441 920</u>	<u>3 441 920</u>	Balance, 1 Nov. 1956	1 043 544
		<u>Fr. frs. 4 551 882</u>		<u>Fr. frs. 4 551 882</u>

INCOME AND EXPENDITURE 1957

FRENCH FRANCS

INCOME	Fr. frs.	Fr. frs.	EXPENDITURE	Fr. frs.
Balance, 1 Nov. 1956	...	1 043 544	Commission 5: <i>Bibliographie Mensuelle</i>	114 100
Subscriptions:	...		Commission 11: <i>Cartes Synoptiques</i>	308 700
France (1957)	457 240		Commission 23: <i>Astrographic Catalogue</i>	379 370
U.N.E.S.C.O. grant 1957 (part)	1 400 000		Bureau of the Union (including travel expenses: Sym-	
Subscriptions <i>Astronomical News Letters</i>	22 750		posium, Electromagnetic Phenomena in Cosmical	
	<u>1 879 990</u>	<u>1 879 990</u>	Physics, Fr. frs. 131 250; Symposium, Co-ordination of	
			Galactic Research, Fr. frs. 29 750; Meeting Executive	
			Committee, Liège, Fr. frs. 4 541)	183 824
				<u>985 994</u>
			Balance, 1 Nov. 1957	1 937 540
		<u>Fr. frs. 2 923 534</u>		<u>Fr. frs. 2 923 534</u>

## MEMBRES ET HOTES

*ayant assisté au Congrès de l'Union à Moscou, 12-20 août 1958*

### AFRIQUE DU SUD

Dr M. W. Feast  
Dr W. S. Finsen

Dr R. H. Stoy

### ALLEMAGNE

Dr P. Ahnert  
Dr H. Beck  
Dr A. Behr  
Prof. L. Biermann  
Dr K. H. Böhm  
Dr A. Bruzek  
Dr H. Daene  
Prof. J. Dick  
Dr W. Dieckvoss  
Dr E. Engelhard  
Prof. W. E. Fricke  
Dr W. Gliese  
Dr U. Güntzel-Lingner  
Dr O. Hachenberg  
Prof. O. Heckmann  
Dr J. v. d. Heide  
Prof. C. Hoffmeister  
Prof. J. J. A. Hoppe  
Dr H. Ch. Ioksch  
Prof. F. W. Jäger  
Prof. A. Kahrstedt  
Prof. H. Kienle  
Prof. K. O. Kiepenheuer  
Dr H. Kox  
Dr D. W. H. Labs

Prof. H. Lambrecht  
Dr E. Lamla  
Prof. J. Larink  
Dr R. Lüst  
Dr W. Mattig  
Dr H. Nowacki  
Dr E. I. Otto  
Dr W. Priester  
Dr N. Richter  
Dr H. Scheffler  
Dr H. Schmidt  
Dr H. Schneller  
Dr E. H. Schröter  
Dr J. Schubart  
Prof. H. Siedentopf  
Dr W. Strobel  
Dr W. Strohmeier  
Prof. W. Uhink  
Prof. A. Unsöld  
Dr H. H. Voigt  
Prof. J. Wempe  
Dr W. Wenzel  
Prof. K. Wurm  
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