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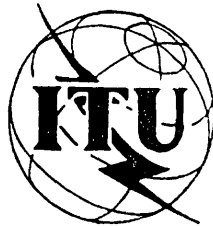
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ON THE ACTIVITIES OF
THE INTERNATIONAL
TELECOMMUNICATION UNION

in

1974



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1. INTRODUCTION

Under the terms of an Agreement signed at Lake Success in 1947, the United Nations recognized the I.T.U.—which was founded in 1865—as “ the specialized agency responsible for taking such action as may be appropriate under its basic instrument for the accomplishment of the purposes set forth therein ”.

The purposes of the Union, as laid down in the International Telecommunication Convention, are:

- to maintain and extend international cooperation for the improvement and rational use of telecommunications of all kinds;
- to promote the development of technical facilities and their most efficient operation with a view to improving the efficiency of telecommunication services, increasing their usefulness and making them, so far as possible, generally available to the public;
- to harmonize the actions of nations in the attainment of those common ends.

The supreme organ of the Union is the Plenipotentiary Conference. It meets generally once every five or six years in order to determine the general policies for fulfilling the purposes of the Union and to revise the International Telecommunication Convention if it considers this necessary. At its meeting in Torremolinos in 1973, the Conference established a new Convention which entered into force on 1 January 1975. Annexed to the Convention are the Regulations, established by World Administrative Conferences, which govern, on an international basis, the use of radio, the telegraph and telephone.

In intervals between Plenipotentiary Conferences the Administrative Council, which, in accordance with a decision of the 1973 Conference, is now composed of thirty-six Members of the Union, meets annually. It is responsible for taking all steps to facilitate the implementation by the Members and Associate Members of the Union of the provisions of the Convention, of the Regulations, of the decisions of the Plenipotentiary Conference and, where appropriate, of the decisions of other conferences and meetings of the Union.

The Union has four permanent organs:

the General Secretariat, the International Frequency Registration Board (I.F.R.B.), the International Radio Consultative Committee (C.C.I.R.), and the International Telegraph and Telephone Consultative Committee (C.C.I.T.T.), the activities of which in 1974 are reviewed in Section 6 of this report.

The activities of the Union in the field of Technical Cooperation are outlined in Section 7.

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2. MEMBERSHIP AND ASSOCIATE MEMBERSHIP OF THE UNION

1. In 1974, two countries, the Republic of the Gambia and the Commonwealth of the Bahamas, became Members of the Union, thereby raising the membership of the Union from 146 to 148, i.e.:

- a) the 129 countries or groups of territories mentioned in Annex 1 to the Montreux Convention, 1965;
- b) the following 19 countries which became Members on the deposit of an instrument of accession to the Convention:

	which became a Member on
Republic of Maldives	28. 2.1967
Guyana	8. 3.1967
Kingdom of Lesotho	26. 5.1967
Barbados	16. 8.1967
Republic of Botswana	2. 4.1968
People's Democratic Republic of Yemen	15. 8.1968
Republic of Nauru	10. 6.1969
Mauritius	30. 7.1969
Republic of Equatorial Guinea	2. 7.1970
Kingdom of Swaziland	11.11.1970
Fiji	5. 5.1971
Kingdom of Tonga	7. 1.1972
Sultanate of Oman	28. 4.1972
United Arab Emirates	27. 6.1972
State of Qatar	27. 3.1973
German Democratic Republic	3. 4.1973
People's Republic of Bangladesh	5. 9.1973
Republic of the Gambia	27. 5.1974
Commonwealth of the Bahamas	19. 8.1974

On 31 December 1974, Membership of the Union therefore stood at 148 Members and 1 Associate Member (Papua New Guinea).

In a communication received at the General Secretariat on 10 September 1973, the Government of Papua New Guinea announced its full acceptance of the rights and obligations of Associate Membership.

2. During 1974, one country ratified the International Telecommunication Convention (Montreux, 1965) and two countries acceded thereto. On 31 December 1974, the total number of ratifications was 115 and of accessions, 31.

3. The position on 31 December 1974 of Members and Associate Members with respect to the Montreux Convention (1965) and to the Administrative Regulations annexed hereto is shown in Table I of Annex 1 to this Report. Annex 1 also gives information relating to a number of other conventions and agreements concerned with telecommunications.

4. The position of Members with respect to the Final Acts of Torremolinos (1973)—on 1 January 1975—is shown in Annex 1 *bis* to this Report. Annex 1 *bis* also gives the list of countries which signed the Final Acts of the World Maritime Administrative Radio Conference, Geneva, 1974, which will come into force on 1 January 1976.

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3. THE ADMINISTRATIVE COUNCIL

3.1 After an inaugural session at Torremolinos in October 1973, at which Mr. Victor Haffner (Nigeria) was elected Chairman and Mr. Maurice Ghazal (Lebanon) Vice-Chairman, the 29th Session of the Administrative Council continued its work at I.T.U. Headquarters from 15 June to 5 July 1974.

It was attended by representatives of all thirty-six Members of the Council, i.e.:

Algeria (Algerian Democratic and Popular Republic), Germany (Federal Republic of), Saudi Arabia (Kingdom of), Argentine Republic, Australia, Brazil (Federative Republic of), Cameroon (United Republic of), Canada, China (People's Republic of), Egypt (Arab Republic of), Spain, United States of America, Ethiopia, France, Hungarian People's Republic, India (Republic of), Iran, Italy, Japan, Lebanon, Malaysia, Morocco (Kingdom of), Mexico, Nigeria (Federal Republic of), Poland (People's Republic of), Roumania (Socialist Republic of), United Kingdom of Great Britain and Northern Ireland, Senegal (Republic of the), Sweden, Switzerland (Confederation of), Tanzania (United Republic of), Thailand, Trinidad and Tobago, Union of Soviet Socialist Republics, Venezuela (Republic of), Zaire (Republic of).

3.2 The following Committees were constituted:

Committee 1 — Finance

Chairman: Mr. R. Rütschi (Switzerland)

Vice-Chairman: Mr. L. Katona Kis (Hungarian People's Republic)

Committee 2 — Personnel and Pensions

Chairman: Mr. T. U. Meyer (United Kingdom)

Vice-Chairman: Mr. J. J. Hernández G. (Mexico)

Committee 3 — Technical Cooperation

Chairman: Mr. Thomas E. Nelson (United States)

Vice-Chairman: Mr. A. Zaidan (Saudi Arabia)

The resolutions and decisions adopted either in Plenary Meeting or by Committees are summarized below:

3.3 *Financial matters*

3.3.1 *Financial Operating Report of the I.T.U. £ for 1973*

The Council approved the Financial Operating Report and the Management Report of the I.T.U. Staff Superannuation and Benevolent Funds for 1973.

(Resolution No. 722)

3.3.2 *External audit of I.T.U. accounts for the period 1 January to 31 December 1973*

The Council approved the accounts of the I.T.U. for the period 1 January to 31 December 1973 as drawn up and as audited by the External Auditor of the Swiss Confederation.

(Resolution No. 723)

3.3.3 *Special Interest on Arrears Account*

In its Resolution No. 10, the Plenipotentiary Conference, Torremolinos, 1973, decided to transfer to a Special Interest on Arrears Account amounts due from the major debtors of the Union on account of interest.

The Council decided that until the Special Interest on Arrears Account is settled, to credit to it the balance of the Interest Account, receipts from the sale of I.T.U. stamps and a withdrawal from the Publications Capital Account of 83,733.20 Swiss francs representing interest on publications accounts in arrears.

(Resolution No. 732)

3.3.4 *Budgets of the I.T.U. for 1975*

The budgets for 1975 were approved. For details, see under Section 8.2 of this report.

(Resolution No. 738)

3.3.5 *Financial Regulations of the Union*

The Council added the following to paragraph 1 in Article 39 of the Financial Regulations:

“ e) credits entered in the ordinary budget of the Union for the adjustment of this account.”

(Resolution No. 739)

3.3.6 *Final budgets for 1974*

The Council approved the final budgets for 1974. For details see Section 8.2 of this report.

(Resolution No. 740)

3.3.7 *Income derived from the issue of I.T.U. official postage stamps*

The Council decided that as from 1974 the income derived from the issue of I.T.U. official postage stamps should be used to amortize the Special Interest on Arrears Account.

(Decision No. 368)

3.3.8 *Expenditure resulting from the election of a new Director of the C.C.I.R.*

The Council authorized the Secretary-General to effect transfers of credits in order to cover, in 1974, the expenditure resulting from the election of a new Director of the C.C.I.R.

(Decision No. 369)

3.3.9 *Organization of the Permanent Organs of the Union*

The Council decided that permanent posts the holders of which retire on reaching the age limit should not be refilled before its 30th Session.

(Decision No. 371)

3.4 *Personnel matters*

3.4.1 *Staff Regulations and Rules for elected officials*

The Council approved a number of modifications to the Staff Regulations and Rules for elected officials, with effect from 1 January 1974.

(Resolution No. 724)

3.4.2 *Amendment to the Staff Regulations and Rules*

The Council approved an amendment to the Staff Regulations and Rules relating to the Appointment and Promotion Board.

(Resolution No. 725)

3.4.3 *Salaries of elected officials*

The Council approved new rates of salaries for elected officials with effect from 1 January 1974.

(Resolution No. 726)

3.4.4 *Transformation of unestablished posts into established posts*

The Council approved the transformation of the following unestablished posts in the General Secretariat into established posts with effect from 1 January 1974:

- one P.4, six P.3, fourteen G.3 and eight G.2 posts, to be charged to the ordinary budget;
- one P.3, one P1/P2, one P.1, one G.6, three G.4 and one G.3 posts to be charged to the Supplementary Publications budget.

(Resolution No. 727)

3.4.5 *Membership of the I.T.U. Staff Pension Committee*

The following persons were appointed to represent the Council on the I.T.U. Staff Pension Committee:

Members	Alternate Members	Term
Mr. C. Baudazzi	Mr. J. Dunin	Until the end of the 30th Ordinary Session of the Council
Mr. J. Lepesqueur	Mr. K. Sase	Until the end of the 31st Ordinary Session of the Council
Mr. J. Kupper	Mr. J. J. Hernández	Until the end of the 32nd Ordinary Session of the Council

(Resolution No. 728)

3.4.6 *Financing of the Relief Fund*

The Council decided that a sum of 15,000 Swiss francs should be withdrawn each year from the contributions reimbursed by the United Nations Joint Staff Pension Fund and paid into the Relief Fund (henceforth to be known as the Assistance Fund).

(Resolution No. 729)

3.4.7 *Amendments to the Regulations of the I.T.U. Staff Superannuation and Benevolent Funds*

The Council approved amendments to Articles 82 and 83 of the Regulations of the I.T.U. Staff Superannuation and Benevolent Funds and the inclusion of a new Article 83 *bis*.

(Resolution No. 730)

3.4.8 *Statutory rate of interest of the I.T.U. Staff Superannuation and Benevolent Funds*

The Council decided that as from 1 January 1975 the statutory rate of interest should be increased to 4 per cent per annum.

(Resolution No. 731)

3.4.9 *Transformation of unestablished posts into established posts and creation of a new post charged to the Supplementary Publications budget*

The Council approved:

- the transformation with effect from 1 January 1975 of one P1/P2, two G.6, two G.5, five G.4 and two G.3 unestablished posts in the General Secretariat and one G.5 unestablished post in the C.C.I.T.T. into established posts;
- the transformation of one P.3 unestablished post in the General Secretariat into an established fixed-term post for a period of three years;
- the creation as from 1 January 1975 of one G.4 established fixed-term post in the General Secretariat for one year.

(Resolution No. 733)

3.4.10 *Posts in Technical Cooperation : Continuation of fixed-term posts and conversion of fixed-term posts into permanent posts*

The Council decided:

- to extend until 31 December 1979 two P.4, fourteen P.3, three P.2 and one P.1. fixed-term posts charged to the Technical Cooperation budget;
- to convert two G.6, two G.5, six G.4 and three G.3 fixed-term posts charged to the Technical Cooperation budget into permanent posts;
- to extend until 31 December 1979 three P.4 fixed-term posts charged to the ordinary budget;
- to extend until 31 December 1975 one P.4, two P.3 and two P.2 fixed-term posts charged to the ordinary budget.

(Resolution No. 734)

3.4.11 *Creation of posts*

The Council approved the creation of the following posts as from 1 January 1975:

- one P.4 and three P.3 posts in the C.C.I.T.T.
- one P.3 and one G.6 post in the C.C.I.R.

(Resolution No. 735)

3.4.12 *Creation of posts in the Technical Cooperation Department to be charged to the Technical Cooperation budget*

The Council approved the creation of three P.3 posts on a fixed-term basis up to 31 December 1979.

(Resolution No. 736)

3.4.13 *Grading standards and classification of posts*

To give effect to the instructions given by the Plenipotentiary Conference, Torremolinos, 1973, in Resolution No. 4, the Administrative Council authorized the Secretary-General to contact administrations which might be able to furnish the Union with three experts who, after having reviewed the organization

and methods of the Headquarters of the Union, would recommend a post classification plan taking into account existing standards and the guidelines of the U.N. Common System.

(Decision No. 370)

3.4.14 *Organization, methods and grading review*

The Council decided that the terms of reference of the experts referred to in Decision No. 370 should be:

- a) to consider the efficiency of operation of the I.T.U. secretariats including the Technical Cooperation Department, identify those sectors where studies are required from the point of view of organization and methods (planning, management, supervision, including in particular such procedures as cost analysis, data processing, etc.), carry out such studies where possible and make appropriate recommendations, in particular as regards redistribution of duties and responsibilities and with a view to the abolition of posts where redundancy and duplication might be found;
- b) to review the job descriptions of all I.T.U. posts in order to ensure their correctness in form and substance and to draft new or revised job descriptions as required;
- c) to recommend a revised post classification plan taking into account existing standards and the guidelines of the U.N. Common System and in consultation with the C.C.A.Q. Classification Officer.

(Resolution No. 737)

3.5 *Second Session of the Regional Administrative Conference (Regions 1 and 3) to draw up Frequency Plans for LF/MF Broadcasting*

The Council decided that the second session of the Regional Broadcasting Conference should be convened on 6 October 1975 for a duration of seven weeks, with the following agenda:

- to consider the report of the first session on technical and operational criteria and methods for frequency planning in the LF/MF broadcasting bands in Regions 1 and 3;
- on the basis of these technical and operational criteria and planning methods, to draw up an agreement and an associated frequency plan of assignments in the LF/MF broadcasting bands in Regions 1 and 3 to replace, as appropriate, existing plans for those bands.

(Resolution No. 743)

3.6 *Conditions governing the attendance of liberation organizations at meetings of the I.T.U.*

The Council decided that the following liberation organizations may at any time attend meetings of the I.T.U. and that they shall be exempted from payment of contributions towards defraying the expenses of any conferences and meetings they may attend:

Mozambique Liberation Front (FRELIMO)
 Angola Popular Liberation Movement (MPLA)
 Angola National Liberation Front (FLNA)
 South West Africa People's Organization (SWAPO)
 African National Council of Zimbabwe
 Somali Coast Liberation Front (FLCS)
 Comoro Islands National Liberation Movement (MOLINACO)

African National Congress (ANC)
Panafricanist Congress (PAC)
Djibouti Liberation Movement (MLD)
Seychelles People's United Party (SPUP)
Liberation Movement of São Tomé e Príncipe (MLSTP)
Palestine Liberation Organization (PLO)

(Resolution No. 741)

3.7 *Illegal action taken by Israel*

The Council urgently called upon Israel to comply with the United Nations General Assembly and Security Council Resolutions to refrain from taking any measures and actions which would lead to the integration of Arab occupied territories within Israel's administrative structures and, in particular, to refrain from linking the Arab villages of Esisola, Sur Baher, Swahdh, Abidia and Omtoba with the Israel telephone network.

(Resolution No. 742)

3.8 *Facilities for interpretation at conferences and meetings*

The Council decided that Members of the Union should give at least ninety days' previous notice of attendance at meetings of C.C.I.T.T. Study Groups and Working Parties and at least one hundred and eighty days' previous notice for all other meetings and conferences, so that the necessary steps may be taken to provide adequate interpretation facilities.

(Decision No. 372)

3.9 *Rules of Procedure of the Administrative Council*

Pending a general revision of the Rules of Procedure of the Administrative Council to be carried out during the 1975 Session, the Council approved amendments to Rule 17.2 (Quorum) and Rule 19.4 (Voting procedure).

3.10 *Date and duration of the 30th Session of the Administrative Council*

The Council decided that its 30th Session would be held from 7 June to 27 June 1975.

(Decision No. 373)

4. THE WORLD ADMINISTRATIVE RADIO CONFERENCE FOR MARITIME MOBILE TELECOMMUNICATIONS

4.1 In its Recommendation No. Mar 6, the World Administrative Radio Conference to deal with matters relating to the maritime mobile service held in 1967 recommended that a World Administrative Radio Conference be convened to establish on the basis of single sideband operation a new Frequency Allotment Plan for high-frequency radiotelephone coast stations, covering the channels in the existing Appendix 25 as well as the new high-frequency channels made available for maritime radiotelephony.

4.2 In 1972, the Administrative Council decided, under Resolution No. 704, that such a conference should meet in Geneva on 22 April 1974, for a duration not exceeding seven weeks, with the following basic agenda:

- to consider and revise as necessary the provisions of the Radio Regulations and the Additional Radio Regulations for the Maritime Mobile and the Maritime Mobile-Satellite Services and for the Radiodetermination and Radiodetermination-Satellite Services used for maritime purposes, provided that frequency spectrum considerations be confined to those parts of the frequency spectrum already available for these services.

Resolution No. 704 also contained a non-exhaustive list of items which could be taken into account

4.3 Delegates of 104 Members and the one Associate Member of the Union attended the Conference, together with observers from the United Nations Educational, Scientific and Cultural Organization, the International Civil Aviation Organization, the World Meteorological Organization, the Intergovernmental Maritime Consultative Organization and from a number of international organizations.

4.4 Mr. R. M. Billington (United Kingdom) was elected Chairman of the Conference. Mr. Yun-chou Liu (People's Republic of China), Mr. Robert E. Lee (United States), Mr. A. Badalov (U.S.S.R.) and Mr. A. M'Bodji Dione (Senegal) were elected Vice-Chairmen.

4.5 Seven Committees were set up as follows:

Committee 1 — Steering Committee

Chairman : The Chairman of the Conference

Vice-Chairmen : The Vice-Chairmen of the Conference

Committee 2 — Credentials Committee

Chairman : Mr. Samuel H. Butler (Liberia)

Vice-Chairman : Mr. Mah Seck Wah (Malaysia)

Committee 3 — Budget Control Committee

Chairman : Mr. Janos Szekely (Hungarian People's Republic)

Vice-Chairman : Mr. G. C. Okoli (Nigeria)

Committee 4 — Radiotelegraphy

Chairman : Captain V. R. Y. Winkelman (Netherlands)

Vice-Chairman : Mr. Ahmed Zaidan (Saudi Arabia)

Committee 5 — Radiotelephony

Chairman : Mr. O. J. Haga (Norway)

Vice-Chairman : Mr. Cesar Trombetta (Argentina)

Committee 6 — Operation

Chairman : Mr. W. W. Scott (Canada)

Vice-Chairman : Mr. A. C. de Araujo Ituassu (Brazil)

Committee 7 — Editorial Committee

Chairman : Mr. P. Chaspoul (France)

Vice-Chairmen : Mr. Donald E. Baptiste (United Kingdom)

Mr. F. Molina Negro (Spain)

4.6 The Conference adopted a large number of measures to ensure the smooth operation of radiocommunications in the maritime mobile service, taking into account the present trends towards an increase in radiotelephone traffic, a decline in manual radiotelegraph traffic and an expansion of radiotelegraph traffic using direct-printing systems. A new Frequency Allotment Plan for High Frequency Radiotelephone Coast Stations (Appendix 25 Mar2) was established on the basis of single side-band operation.

The frequency bands allocated to the maritime mobile service were rearranged, particularly for wide-band telegraph systems, facsimile, narrow-band systems, direct telegraphy and data transmission. Procedures were defined for narrow-band direct-printing telegraphy in the maritime mobile service.

Procedures for distress signals and traffic and alarm, emergency and safety signals were reviewed to increase safety by such new technical means as the international use of selective calling, the procedure for which was revised. A resolution was also adopted on the introduction of the digital selective calling system to meet the needs of the maritime mobile service.

Regulatory provisions were adopted to enable telex subscribers on land to make contact with ships equipped with a telex station.

The article of the Radio Regulations on operators' certificates for ship stations was revised. The new denomination of "operators of mobile earth stations in the maritime mobile-satellite service" was introduced and the classes and categories of operators' certificates for ship stations were separated from those of operators on aircraft stations.

4.7 Pursuant to a resolution of the Plenipotentiary Conference, Torremolinos, 1973, elections were held during the Maritime Conference for the five seats on the International Frequency Registration Board, to which Mr. Francis G. Perrin (Canada), Mr. Charles W. Sowton (United Kingdom), Mr. Alexander N. Gromov (USSR), Mr. Abderrazak Berrada (Morocco) and Mr. Sakae Fujiki (Japan) were elected.

4.8 The Conference also adopted a certain number of resolutions and recommendations relating to:

- use of the single-sideband technique in the radiotelephone bands of the maritime mobile service between 4 000 and 23 000 kHz;
- spacing of frequencies allocated to the maritime mobile service in the band 156-174 MHz;
- unauthorized use of frequencies in the bands allocated to the maritime mobile service (especially by broadcasting stations);
- technical cooperation with the developing countries in the matter of maritime telecommunications;
- use of low-powered radiolocation stations in the bands between 1 605 and 2 850 kHz;
- use of fixed-frequency radiodetermination beacons;
- distress, emergency and safety traffic;
- temporary provisions on technical and operational aspects of the maritime mobile-satellite service;
- studies of the interconnection of maritime mobile radiocommunication systems with the international telephone and telegraph networks;
- future use and characteristics of emergency position-indicating radiobeacons.

4.9 The Conference completed its work on 8 June 1974 with the signature, by 88 delegations, of the Final Acts, in the form of a Partial Revision of the Radio Regulations.

They will enter into force on 1 January 1976. However, the Frequency Allotment Plan for Coast Radio Stations operating in the Exclusive Maritime Mobile Bands between 4 000 and 23 000 kHz will come into force as from 1 January 1978 in accordance with a calendar drawn up by the Conference and will be kept up to date by a procedure it also established.

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**5. FIRST SESSION
OF THE REGIONAL ADMINISTRATIVE CONFERENCE
(REGIONS 1 AND 3)
TO DRAW UP FREQUENCY ASSIGNMENT PLANS
FOR LF/MF BROADCASTING**

5.1 At its 28th Session, the Administrative Council decided, in Resolution No. 719, that the First Session of the Regional (Regions 1 and 3) Administrative Radio Conference to draw up Frequency Assignment Plans for LF/MF Broadcasting should open in Geneva on 7 October 1974, with the following agenda:

- to prepare the technical and operational criteria which will serve as a basis for the preparation, by the second session of the Regional Administrative Radio Conference, of frequency assignment plans for the LF/MF broadcasting bands in Regions 1 and 3, taking into account the following non-exhaustive list of items:
 1. propagation data;
 2. modulation standards and channel spacings;
 3. protection ratios, including noise levels;
 4. transmitting antenna characteristics and transmitter powers;
 5. planning methods;
- to specify the form in which requirements for inclusion in the frequency assignment plans should be submitted to the Union and fix the date by which they should be submitted.

5.2 Eighty-nine Members and one Associate Member of the Union from Regions 1 and 3 were represented at the Conference. An observer Member of the Union from Region 2, representatives of 2 recognized private operating agencies and observers from the International Radio and Television Organization, Arab States Broadcasting Union, Union of National Radio and Television Organizations of Africa, Arab Telecommunication Union, and Asian Broadcasting Union were also present.

5.3 Mr. Fritz Locher (Confederation of Switzerland) was elected Chairman of the Conference. Mr. K. P. Ramanathan Menon (Malaysia), Mr. G. C. Okoli (Federal Republic of Nigeria) and Mr. Vassili Chamchine (Union of Soviet Socialist Republics) were elected Vice-Chairmen.

5.4 Seven committees were set up as follows:

Committee 1 — Steering Committee

(Composed of the Chairman and Vice-Chairman of the Conference as well as the Chairmen and Vice-Chairmen of the other Committees)

Committee 2 — Credentials Committee	Chairman: Republic of Liberia (Mr. Samuel H. Butler) Vice-Chairman: New Zealand (Mr. Derek C. Rose)
Committee 3 — Budget Control Committee	Chairman: Republic of India (Dr. M. K. Rao) Vice-Chairman: Belgium (Mr. P. C. M. Bouchier)
Committee 4 — Technical Data and Criteria Committee	Chairman: People's Republic of Poland (Mr. Jerzy Rutkowski) Vice-Chairman: Central African Republic (Mr. Jacques M'Bilo)
Committee 5 — Planning Methods Committee	Chairman: Federal Republic of Germany (Mr. K. Rudolf Binz) Vice-Chairman: Japan (Mr. Nobukazu Morishima)
Committee 6 — Committee for Submission of Requirements	Chairman: Algeria (Algerian Democratic and Popular Republic) (Mr. Mohamed Harbi) Vice-Chairman: Hungarian People's Republic (Dr. Lajos Horváth)
Committee 7 — Editorial Committee	Chairman: France (Miss M. Huet) Vice-Chairman: Spain (Mr. José María Arto Madrazo) Vice-Chairman: United Kingdom of Great Britain and Northern Ireland (Mr. Thomas Kilvington)

5.5 By Resolution B, relating to studies to be made by the I.F.R.B. before the second session of the Conference, the Conference invited administrations to submit their frequency requirements to the I.F.R.B. as soon as possible, and not later than 1 May 1975, and instructed the I.F.R.B.:

1. to supplement the information it received by means of other specified data;
2. to prepare a list of all the requirements it received, supplemented by that other data, and to send a copy to each administration in Regions 1 and 3 not later than 1 June 1975;
3. to study the requirements and to draw up a report, to be sent to all administrations not later than 15 July 1975, which shall contain, in statistical form, the following information:
 - a) calculated usable field strength for transmitters already in service;
 - b) calculated usable field strength for transmitters already in service together with those contained in the African Plan, Geneva, 1966, which are not in service;
 - c) calculated usable field strength for the total future requirements for transmitters;

4. to make suggestions to each administration, as appropriate, with a view to eliminating apparent incompatibilities in the submitted requirements;
5. to prepare a document, for submission to the Second Session of the Conference, containing the report sent to the administrations, together with any comments received thereon from administrations.

5.6 By adopting Resolution C, the First Session of the Conference established technical and planning criteria which are to be applied by the Second Session in the preparation of frequency assignment plans for broadcasting stations in the LF and MF bands. A uniform channel spacing of 9 kHz, for both LF and MF bands, has been adopted. Whereas in the MF band the First Session could designate the carrier frequencies which are multiples of 9 kHz, it could not do the same in the case of the LF band, as this latter band is shared by the broadcasting service with other services and consequently a displacement of carrier frequencies from those at present in use would have given rise to problems with respect to sharing. In its Resolution C, the First Session has invited the administrations to study the problem of frequency sharing of LF band allocated to the Broadcasting Service and to submit, if necessary, proposals to the next competent WARC.

The other criteria established by the Conference (First Session) for application by the Second Session relate to modulation standards, protection ratios, ground-wave and sky-wave field strength prediction and the principles of planning which include synchronized network planning and low-power stations. In connection with the modulation standards, the Conference (First Session) invited the C.C.I.R. (Resolution A) to expedite the studies of bandwidth saving modulation methods and requested the next competent World Administrative Radio Conference to decide on the feasibility of introducing the bandwidth saving techniques in LF/MF broadcasting service.

5.7 By Resolution D, the Conference also instructed:

1. the Chairman of the Conference to transmit the Report of the First Session under his signature to the Second Session, and
2. the Secretary-General to transmit the Report to all administrations of Regions 1 and 3.

The Administrative Council, at its 29th Session, had resolved that the Second Session of the Regional Administrative Conference (Regions 1 and 3) to draw up frequency plans for LF/MF broadcasting should convene on 6 October 1975 for a duration of seven weeks, and that the agenda be as follows:

- to consider the report of the first session of the Regional Administrative LF/MF Broadcasting Conference on technical and operational criteria and methods for frequency planning in the LF/MF broadcasting bands in Regions 1 and 3;
- on the basis of these technical and operational criteria and planning methods, to draw up an agreement and an associated frequency plan of assignments in the LF/MF broadcasting bands in Regions 1 and 3 to replace, as appropriate, existing plans for those bands.

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6. ACTIVITIES OF THE PERMANENT ORGANS

6.1 ACTIVITIES OF THE GENERAL SECRETARIAT

The General Secretariat comprises six departments: Personnel Department, Finance Department, Conferences and Common Services Department, Computer Department, Department of External Relations and the Technical Cooperation Department.

Personnel Department

Compared with preceding years, 1974 was notable for an extremely heavy programme of conferences and meetings which required the recruitment and administration of a very large number of supernumerary staff. The number of Technical Cooperation experts to be administered also increased appreciably. (For several months, the total number of staff exceeded 1,000.) The Department made preparations for the implementation of the Plenipotentiary Conference decisions, including the work of the experts engaged to carry out the organization, methods and grading review. It continued to cooperate with the other organizations in coordination organs on all staff matters: working conditions, classification of posts, pensions and insurance.

Finance Department

Electronic machines were introduced in the Finance Department in 1974 to deal with general accounting and the billing of publications. The calculation of salaries by computer also became operational. Monetary fluctuation continued to affect the Department's work, particularly with regard to the budget and salaries.

Department of Conferences and Common Services

Exceptional efforts were required of the Department's staff in 1974 to service all the conferences and meetings that took place, including the World Administrative Maritime Radio Conference, the Administrative Council, the Regional Administrative LF/MF Broadcasting Conference (First Session), the Final Meetings of the C.C.I.R. Study Groups, the XIIIth Plenary Assembly of the C.C.I.R., 292 days of C.C.I.T.T. meetings, four Technical Cooperation Department seminars and one seminar of the I.F.R.B. Other duties comprised the fitting out, conversion and reassignment of offices, the production of a large number of publications, and the preparation and processing of a great volume of conference documents.

The translation work of the *Languages Division* requires the translators to assimilate more and more innovations in techniques, many of which do not as yet have internationally agreed terms in different languages. In spite of this difficulty, which naturally does not facilitate recruitment of suitable staff, the Division translated 15,091 pages into French (40% of the total), 6,070 into English (16%) and 16,870 into Spanish (44%), which represent an increase of 9,007 pages (31%) over the figure for 1973.

The *Publications and Reprography Division* arranged for the production of 202 publications, totalling 34,160 pages, in 277,220 copies.

With the assistance of the Computer Department, the RM Division and specially equipped organizations, it was possible to typeset Lists VIIA and VIIB using a third generation photocomposition unit. For the World Administrative Maritime Radio Conference, the Final Acts were typed and reproduced in offset; they were then typeset in French, English and Spanish by means of the Union's photocomposition unit. Other work was done with this system.

The *Conference Documents, Stocks and Dispatch Section* dealt with 6,318,279 copies of documents (345% more than in 1973), dispatched 428,000 printed documents by post (cost: 1,055,000 Swiss francs) and 1,100 parcels by freight (cost: 137,000 Swiss francs—weight: 150,000 kg) and received 7,500 packages (574,000 kg). It organized 155 local conveyances (removals, hauling) and prepared 208 customs papers. To handle the adhesive labels prepared by computer, the section acquired a labelling machine.

Like the other services, the *Stenographic Pool* also had to deal with a large volume of work. During the year, 39,150 pages in French, 28,671 in English and 41,695 in Spanish, making a total of 109,516 pages (74% more than in 1973) were typed in 64,355 working hours. To cope with the workload, the typists and heads of teams worked 3,184 hours' overtime. The weekly average number of typists was 40, 8 more than in 1973; in all, 6,047 temporary staff/days were necessary. The recruitment of qualified staff is extremely difficult due to local competition as outside posts, particularly with the International Conference Centre, are offered on more favourable terms.

Computer Department

Over the last 15 years, the Union has been using computers as an integrated and involved management tool in its daily technical and regulatory work and for its technical conferences. The I.T.U. Administrative Council, taking due account of outside computer facilities, including particularly the I.C.C. possibilities, decided that an in-house computer, suitable for its purposes and under its management, was needed to enable the I.T.U. to meet its statutory obligations. To carry out this task, the I.T.U. continued, in 1974, to process data as part of the international coordination in the planning and operation of telecommunication services of Member governments and administrations. Improvements were made in the exchange of information with Members, including magnetic tapes and other data storage media. Collaboration continued with the data processing systems used by various Member administrations.

Nevertheless, the Union does and will continue to require outside computer facilities. At the present time the Union has arrangements with the I.C.C. and C.E.R.N. in Geneva and from time to time the Institute of Telecommunication Science (I.T.S.) at Boulder in the U.S.A., particularly for certain non-regularly recurring tasks which require a larger computer than the I.T.U. in-house facility; there is close collaboration in the development and use of programmes which incorporate the technical standards adopted in the Union's organs and for use in administrations. The I.T.U. also makes use of the I.L.O. facility for certain administrative work in connection with health and medical benefits within the framework of a joint scheme with the I.L.O.

The I.T.U. has been active in connection with the development of the Common Register for Development Projects (CORE) by the Inter-Organization Board (I.O.B.). The I.T.U. sees CORE as a means of assisting coordination and improving project programming and management which takes account of the growing inter-disciplinary character of the development effort of the United Nations' system and the increasing demands for information affecting many, if not all, organs and agencies in the system.

Department of External Relations

The Department of External Relations comprises three divisions: relations with the United Nations and other international organizations, relations with Members of the Union and public relations. The office of the Legal Adviser and a special section dealing with work before and after conferences and Administrative Council sessions are also attached to the Department.

In 1974, the Department staff continued to follow closely the work of the United Nations relating to matters of common interest and coordination among the specialized agencies. Special attention was paid to the discussions held in the United Nations and other organizations on subjects relating to the peaceful uses of outer space, particularly in the legal and technical sub-committees, and to the work undertaken by ECOSOC in connection with the general policy of the United Nations system as a result of the resolutions of the General Assembly.

The *Legal Adviser* prepared, examined and put into due form several Technical Cooperation contracts and drew up a number of draft agreements; he also assisted countries of the Middle East in establishing projects affecting that region.

The *AC and Conferences Section* made the administrative arrangements for the World Administrative Maritime Radio Conference (see Section 4) and for the first session of the Regional Administrative Broadcasting Conference (see Section 5) and provided the executive secretariats thereof.

These administrative arrangements comprised, for example, invitations to the conferences, processing of proposals and publication of the Final Acts of the Maritime Conference and of the Report to the Second Session of the Broadcasting Conference.

The section also provided the secretariat for the 29th Session of the Administrative Council and made the initial preparations for the 30th Session (draft agenda, programme of preparatory documents, etc.).

As part of the normal work programme of the *Division Relations with Members of the Union*, data were collected and coordinated, and manuscripts were prepared for the monthly Notification, Operational Bulletin and 11 editions of service documents or tables plus 20 supplements.

New publications issued in 1974 were the 1st edition of the Yearbook of Common Carrier Telecommunication Statistics and the Instructions for the International Public Telegram Service. The provisional edition of the Revised Terminal and Transit Rates for Telegrams was also compiled and issued.

The policy of rationalizing and speeding up the production of service documents was continued within the limits of available resources. The two Alphabetical Lists of Call Signs (Lists VIIA and VIIB), in addition to the List of Ship Stations, are now produced by video-composition and a start was made on preparing coast station index material with the help of the computer.

In connection with the use of the computer, the Division undertook, in association with the C.C.I.T., the design of the first data processing system for preparing Plan Books and the exchange of the telecommunication data for the World and Regional Plans; these data are similar in content to the operational data processed periodically in the Division. This action was taken in order to meet the need for more economical treatment of the data collected and published through the Headquarters of the Union, and in particular simplification and rationalization of the methods of collecting and assembling data which may (with more effective data processing) be reproduced in different forms even if collected on fewer occasions.

A considerable amount of work was done in preparation for the Maritime Conference, in particular the preparation of a list of the frequencies used for operational services shown in the List of Coast Stations, largely representing the public correspondence service use, for which the reciprocal exchange of service information takes place through the Union's Headquarters. The RM Division furthermore provided part of the secretariat for Committee 6 (Operations) of the Conference.

The decisions of the Maritime Conference will give rise to new and additional work in the Division. It is foreseen that a very large part of the entries in the List of Coast Stations used for the reciprocal exchange of service operations will be affected by the frequency changes to be made in the coming years. The notifications in connection with new calling procedure for the high frequency telegraph bands will also have to be taken care of.

Some of the delays currently arising will be eliminated by a better use of electronic data processing; work on this will proceed in accordance with the availability of adequate systems analysis and programming staff. A considerable part of the effort to rationalize further working methods is centred on obtaining the composed copy used for publication more directly from the Division's records and file maintenance work. The varied nature and presentation of the publications concerned means that data handling and storage techniques have to be carefully selected so as to achieve a sound compromise between staff and equipment requirements, while still ensuring selection of working methods not likely to become quickly obsolete.

Following the proposal made by the President of the Confederation of Switzerland that the 2nd World Telecommunication Exhibition should be held in Geneva in October 1975 on the occasion of the 2nd session of the Regional Broadcasting Conference, the *Public Relations Division* began preparations for TELECOM 75.

The 6th World Telecommunication Day was celebrated throughout the world on 17 May and a large volume of documentation—texts, photographs and posters—was prepared and disseminated by the Division. The theme was “Telecommunications and Transport”.

At the end of 1974, invitations were sent out for the 4th Space and Radiocommunication Symposium to be held by I.T.U. in 1975 during the International Air and Space Show in Paris under the patronage of the French Secretary of State for Telecommunications. This activity was carried out in pursuance of Resolution No. 637 adopted by the 23rd Session of the Administrative Council to the effect that greater publicity should be given to I.T.U. activities and responsibility in the field of space radiocommunication.

Lectures on the work of the Union, including the activities of the Computer Department, were given to some 40 groups (about 1,000 people) which visited Union headquarters in the course of the year.

Preparation was begun on the catalogue of I.T.U. publications and compilation of the address bank. These operations will make it possible in the years to come to conduct more intensive publicity campaigns concerning I.T.U. publications by sending out information on material as it comes from the press to a public selected on the basis of its interest.

As in previous years, the *Telecommunication Journal* published the list of satellites launched during the preceding year as well as the 13th Report of the I.T.U. on Telecommunication and the Peaceful Uses of Outer Space.

Part of the October issue of the *Journal* was devoted to telecommunications in the Ivory Coast.

Finally, in response to the request of the Plenipotentiary Conference which, in Resolution No. 47, instructed the Secretary-General to carry out studies with a view to the creation of a documentation and bibliographical reference centre for telecommunications at Union headquarters, the Central Library provided the secretariat for two meetings attended by representatives of the administrations concerned. After these meetings a circular-letter with a questionnaire was dispatched to all administrations. The questionnaire will make it possible to understand better the needs of administrations.

Technical Cooperation Department

The activities of this Department are fully covered in Section 7 of this Report.

6.2 INTERNATIONAL FREQUENCY REGISTRATION BOARD (I.F.R.B.)

6.2.1 *Treatment of frequency assignment notices*

The Board continued to carry out its duties as prescribed in the Convention (Montreux, 1965) and the Radio Regulations attached thereto. These duties in relation to the coordination, utilization, notification, technical examination and registration of frequencies involved steps to ensure the application both by the

administrations and the I.F.R.B. of the provisions of the Radio Regulations. During the year 1974, the Board dealt with a total number of 67,324 frequency notices.

6.2.2 *Technical examination of frequency assignment notices*

The Board effected a technical examination, in accordance with the provisions of the Radio Regulations, of the following frequency assignments, with a view to their being recorded in the Master International Frequency Register:

- 11,479 assignments notified under Article 9 of the Radio Regulations;
- 3,613 assignments notified under Article 9A;
- 24,940 assignments notified under Article 10.

6.2.3 *Interference cases and special assistance to administrations*

The Board formulated a number of suggestions on specific cases of use of frequencies and made recommendations with a view to the clearance of harmful interference or to rendering special assistance as requested by administrations. This is an aspect of the Board's work to which administrations attach particular importance and which seems to be a field in which the Board's assistance is most valuable. In addition to these specific cases which the Board had to deal with, many times when one of the members of the Board had the opportunity of meeting representatives of administrations, he was able to shed useful light on the procedures for notifying frequency assignments, or on the choice of frequencies to be assigned which would ensure the most effective use of the radio frequency spectrum.

6.2.4 *Broadcasting in the high frequency bands allocated exclusively to this service*

The Board continued to apply the procedure specified in Article 10 of the Radio Regulations for the bands allocated exclusively to the HF Broadcasting Service. In conformity with its terms of reference, it published the four tentative seasonal schedules together with recommendations with a view to improving the utilization of the spectrum. Since the entry into force of this procedure, the number of frequency-hours included in the HF Broadcasting Schedules has grown from approximately 16,700 in November 1960 to approximately 20,500 in November 1974. Despite the increasing use of the frequency bands, the number of apparent incompatibilities remains limited owing in particular to preliminary coordination measures taken by some administrations.

6.2.5 *Monitoring*

Four periodic Summaries of Monitoring Information, numbered 180 (for the period November 1973 to January 1974) to No. 183 (for the period July to October 1974) inclusive and totalling 1,864 pages were issued in 1974. Each Summary contained results of monitoring observations in the frequency bands between 2 850 kHz and 28 000 kHz, including information concerning broadcasting stations; each one covered a period of three months and included all information received by the Board concerning the last month of the previous Summary (I.F.R.B. Circular-letters No. 241, dated 25 May 1970, and No. 248, dated 23 November 1970, refer).

6.2.6 *Use of the I.T.U. computer*

Main applications

The I.F.R.B. used the I.T.U. computer in 1974 for about 46% of its total utilization time (excluding the time used for programme tests) to carry out the following work:

- a) data processing to bring up to date the information on frequency assignments recorded in the Master Register;
- b) data processing for the preparation of the I.F.R.B. weekly Circulars, service documents and other publications mentioned in this report (see Annex 3); production of the tabulations required for publication by the offset process;
- c) technical calculations for the assessment of the probability of harmful interference in accordance with the relevant provisions of the Radio Regulations, or the preparation of the data used in such calculations;
- d) production, at the request of administrations or for the internal use of the Board, of up-to-date tabulations of the frequency assignments recorded in the Master Register;
- e) technical calculations for the assessment of the interference power produced by emissions from a space station at the receiver input of the station of the fixed service using tropospheric scatter pursuant to the provisions of Nos. 470 NGA and 470 NK of the Radio Regulations;
- f) technical calculations for the assessment of the increase in equivalent satellite link noise temperature pursuant to the provisions of Appendix 29 of the Radio Regulations.

6.2.7 *Preparation of computer programmes and associated studies*

The existing programmes for technical examinations have been reviewed and improved. The I.F.R.B. has undertaken a study with a view to having draft provisional findings prepared by computer. The initial stage consists in developing a method for the automatic preselection of assignments already recorded in the Master Register which have to be taken into account when new notices are examined. The study of this question is fairly well advanced.

The Board also reviewed and amended some of the programmes for updating of the Master Register (e.g., programmes relating to the examination of assignments to Fixed Service stations in the bands between 3 and 30 MHz and to space stations), for monitoring and for the automatic conversion of finding symbols into new symbols in the case of frequencies above 28 MHz. For the two Radio Conferences held in 1974, many programmes were written for the extraction of certain assignments from the Master Register and for several kinds of statistics.

In addition, other programmes are being prepared which are necessary for the technical examination, in conformity with the decisions of the World Administrative Radio Conference for Space Telecommunications, Geneva, 1971, of frequency assignments to stations in the Space and Terrestrial Radiocommunication Services. In this connection a programme received from the French Administration for calculation of the coordination distances of earth stations in the frequency range 1-40 GHz has been tested on the I.T.U. machine.

The first programmes to use the new curve plotter installed in December 1974 have been written. Its use will considerably facilitate execution of certain work entrusted to the I.F.R.B. by administrative conferences.

6.2.8 *Technical Standards and Rules of Procedure*

As the Plenary Assembly of the C.C.I.R. has adopted a new method for sky-wave field strength computations in the frequency range 150-1 605 kHz (C.C.I.R. Report 575), a computer programme has been written. A programme received from Finland for the mixed-path ground-wave propagation in the same frequency band has been studied. Both programmes will be used for the second session of the

Regional Administrative LF/MF Broadcasting Conference, and the Board will ultimately take them into account for preparing a revised version of I.F.R.B. Technical Standard A-5, which deals with the same subject.

The programme used in 1970 in Boulder, Colorado, for the computation of MUF curves (I.F.R.B. Technical Standard Series M) has been amended to make it operable on the I.T.U. machine, in connection with requests for further computations of such curves.

6.2.9 *Implementation of the decisions of the World Administrative Maritime Radio Conference, Geneva, 1967*

Although the Final Acts of the World Administrative Maritime Radio Conference, Geneva, 1967, entered into force on 1 April 1969, the Conference foresaw that some of the provisions it adopted could be applied only in successive stages. It accordingly drew up a schedule, some stages of which extended until 1983. These decisions were confirmed and supplemented where appropriate by the World Administrative Maritime Radio Conference held in Geneva from 22 April to 8 June 1974. The Board pursued its efforts to induce administrations to apply the decisions of the Conference as fully as possible. It continued to draw the attention of administrations, at what was considered to be the most appropriate moment, to the action to be taken to implement the Conference decisions within the prescribed time limit.

In its Circular-letter No. 312 dated 14 October 1974, the Board reminded administrations of the action to be taken in pursuance of Resolutions Nos. Mar 4 and Mar 5 of the 1967 Maritime Conference to ensure that double-sideband emissions by coast radiotelephone stations operating in the 1 605-4 000 kHz bands should cease completely by 1 January 1975.

6.2.10 *Implementation of the decisions of the Extraordinary Administrative Aeronautical Radio Conference, Geneva, 1966*

Following the implementation of the Allotment Plan which appears in Appendix 27 to the Radio Regulations (dated 18 September 1969 for the frequency bands between 10 005 kHz and 17 970 kHz and dated 17 September 1970 for the frequency bands between 2 850 kHz and 8 965 kHz), the provisions that the Board applies to notices received from administrations are those of Article 9 of the Radio Regulations as revised by the Aeronautical Conference in 1966.

The implementation of the Plan in Appendix 27 is practically completed and has been effected by most countries. The assignments recorded in the Master Register which have not been cancelled by administrations are examined by the Board in accordance with paragraph 2 of Resolution No. Aer 6 of the Aeronautical Conference.

6.2.11 *World Maritime Administrative Radio Conference, Geneva, 1974*

The I.F.R.B. submitted, within the framework of the technical preparation of the Conference, a number of documents dealing with technical and regulatory questions, including the implementation in the Maritime Mobile Service of certain of the relevant Radio Regulations and the Appendices thereto and of Resolutions adopted by the World Administrative Radio Conference to deal with the matters relating to the Maritime Mobile Service, Geneva, 1967.

Members of the Board took an active part in the Conference. The technical secretariat of Committees 4 (Telegraphy) and 5 (Telephony) of the Conference was provided by I.F.R.B. officials who worked in close collaboration with Committee 6 (Operations) and the Editorial Committee.

The Final Acts of the Conference will come into force on 1 January 1976. They include, inter alia, a number of provisions on the gradual introduction of certain techniques and new systems and on the

rearrangement of frequency bands allocated to the Maritime Mobile Service as a consequence of changes in the operating conditions in the Service; the Conference also adopted a new frequency allotment plan for high frequency coast radiotelephone stations. The Resolutions adopted by the Conference include decisions of a transitional nature, many of which contain directives to the I.F.R.B. on how it should collaborate with administrations in implementing these decisions.

6.2.12 *Regional Administrative LF/MF Broadcasting Conference, Geneva, 1974*

In accordance with the provisions of No. 482 of the Radio Regulations, and having regard to Administrative Council Resolution No. 719, the Board continued its study of the problems and the collection of data relating to the Regional Administrative LF/MF Broadcasting Conference (Regions 1 and 3).

The Board prepared Documents No. 41 (Extracts from the Master International Frequency Register) and No. 54 (Situation of Broadcasting Stations in Region 2 vis-à-vis those in Regions 1 and 3). It also prepared a number of working documents in which it submitted to the Conference the proposals of administrations in analytical form, which proved useful to the Conference.

The Conference was held in Geneva from 7 to 25 October 1974. The Board provided the technical secretariat of the Conference by detaching some officials from its Specialized Secretariat to take part in the work of Committee 4 (Technical questions), Committee 5 (Planning methods) and Committee 6 (Submission of requirements).

In Resolution B, the Conference instructed the Board:

- to collect all the frequency requirements submitted by administrations by 1 May 1975, to supplement them with a certain number of data, to prepare a list of all the requirements received and to send a copy to each administration in Regions 1 and 3 by 1 June 1975;
- to study the requirements by calculating provisionally, for each transmitter, the usable field strength resulting from the requirements;
- to provide a summary of the situation for transmitters already in service, for those contained in the African Plan, Geneva, 1966, which are not yet in service, and for total future requirements;
- to send a report containing the above summary to administrations in Regions 1 and 3 by 15 July 1975;
- to make to each administration individually whatever suggestions it sees fit with a view to eliminating any apparent incompatibilities; and
- to prepare a document for the Second Session of the Conference (to be held from 6 October to 22 November 1975) containing the report sent to administrations, together with any comments received since it was sent.

As soon as the First Session ended, the Board began to consider how it should set about performing the duties thus assigned to it within the time limit prescribed.

6.2.13 *Seminar on Frequency Management and the Use of the Radio Frequency Spectrum*

Pursuant to Administrative Council Resolution No. 528, the I.F.R.B. organized at Union Headquarters in 1974 a seminar on Frequency Management and the Use of the Radio Frequency Spectrum. The Seminar was held from 9 to 20 September 1974 and simultaneous interpretation was provided in English, Spanish, French and Russian for 127 participants (36 of whom received fellowships from U.N.D.P.)

from 57 countries throughout the world and 6 participants from the Centre National d'Etudes Spatiale (C.N.E.S.), the European Space Research Organization (E.S.R.O.) and the World Meteorological Organization (W.M.O.). Lectures were given during the Seminar by 12 experts from 6 countries, members of the Board and officials of its Specialized Secretariat.

6.2.14 *Visits and training for officials of Administrations at the I.F.R.B.*

In 1974 the Board received visits from many representatives of administrations wishing to study the procedures for processing frequency assignment notices and to obtain advice on frequency assignments suitable for the radio links in their countries. The Board has found that such visits to Union Headquarters provide one of the most effective means of acquainting administration officials both with the procedures applied in the management and use of the radio frequency spectrum and with the Board's activities.

6.2.15 *Technical Cooperation*

In accordance with No. 155 of the Convention, important questions concerning I.T.U. technical cooperation were discussed in the Coordination Committee. The I.F.R.B. therefore participated in dealing with those questions which had been submitted by the Secretary-General to the Coordination Committee.

6.2.16 *Miscellaneous*

In accordance with the Convention and the Radio Regulations, members of the I.F.R.B. and staff members of its Specialized Secretariat attended conferences and meetings as representatives of the Board, in order to assist and collaborate in the treatment of questions concerning frequency utilization.

6.3 INTERNATIONAL RADIO CONSULTATIVE COMMITTEE (C.C.I.R.)

6.3.1 *Introduction*

1974 marked the close of the 1970-1974 study period, with intense activity in meetings and publications. New results were achieved in a number of fields of study concerning space telecommunications, terrestrial radio relay, mobile radio, broadcasting, radio wave propagation and spectrum utilization.

6.3.2 *Meetings*

Two series of C.C.I.R. meetings were held in Geneva during 1974. The first (5 February - 22 March) was the series of Final Study Group Meetings. The second (15 - 26 July) was the XIIIth Plenary Assembly.

The Final Meetings reviewed the work of the corresponding Interim Study Group Meetings held in 1972, in the light of new contributions, with the object of preparing proposals for submission to the Plenary Assembly. A meeting of the Interim Working Party PLEN/2 (possible broadcasting satellite systems and their relative acceptability) was held simultaneously. A substantial volume of documentation was handled during the plenary period, 1970-1974. During the Final Meetings 1,050 new contributions were considered together with the Interim Booklets (3,500 pages). As a result, 657 proposals were submitted to the Plenary Assembly. Participants in the Study Group meetings numbered 812 (see pages 39 to 42).

The XIIIth Plenary Assembly was attended by 318 participants and held 14 working sessions. One of its important administrative tasks was the election of a new Director. Mr. Richard C. Kirby, of the United States of America, was selected.

The Plenary Assembly considered the reports of the Director, IWP PLEN/2, and the Drafting Committee, as well as those of the Organization, Technical Cooperation, and Budget Control Committees formed at the Assembly.

The terms of reference of the Study Groups were reviewed with respect to the work to be carried out during the next study period, and Chairmen and Vice-Chairmen were appointed. With respect to the technical texts, the Plenary Assembly considered and adopted all texts proposed by the Study Groups with the exception of six, which were returned for further study. In addition it adopted a number of new Questions arising from the Maritime Radio Conference and other sources, bringing the total of technical texts considered to 688.

Final editing and preparation for publication of the texts of the XIIIth Plenary Assembly has been under way since the close of the meeting. Thirteen volumes, consisting of some 4,700 pages, together with about 200 pages as separate texts or booklets, are expected to be printed during the first half of 1975. A provisional index is being prepared.

6.3.3 *Contribution to Administrative Radio Conferences*

Approximately 460 pages of texts finalized by Study Group 8 during the Final Study Group Meetings (February-March 1974) and relevant to the World Maritime Radio Conference, 22 April - 7 June 1974, were forwarded to the Conference for consideration.

For the Regional LF/MF Broadcasting Conference (Regions 1 and 3, first session) held in October, appropriate texts of relevant Study Groups on *radio wave propagation* (5, 6) and on *sound broadcasting* (10), approved by the XIIIth Plenary Assembly and numbering about 390 pages, were forwarded to the Conference for its consideration.

Both conferences made extensive use of the C.C.I.R. texts in their deliberations. The substances of several texts were incorporated either in the Final Acts of the Maritime Conference, or in the Final Report of the First Session of the Regional Broadcasting Conference.

6.3.4 *Activities and principal technical conclusions of the Study Groups*

6.3.4.1 *Study Group 1 (Spectrum utilization—monitoring)*

Emphasis has been laid on a number of relatively new items to be studied. In particular, attention is to be given to the development of mathematical models to facilitate studies of interference, spectrum utilization and system compatibility.

Application of the principles of communication theory and modulation techniques to ensure more efficient use of the spectrum is being studied. Studies are also being carried out on a proposed method of classification and designation of emissions, of techniques for measuring, at a distance, the parameters of emission and spectrum occupancy, and of methods of reducing interference between the broadcasting service and the land mobile service.

Possible new definitions of interference are being studied, particularly with respect to its specification in quantitative terms.

The work of Study Group 1 is expected to be carried out in close collaboration with the C.C.I.R. Study Groups devoted to specific radio services, and to become of increasing future importance to the planning and management of the radio-frequency spectrum.

6.3.4.2 *Study Group 2 (Space research and radioastronomy services)*

The Study Group has continued its work related to developments of satellite technology, for position finding for radio terminals located on the earth and for data collection, and in the analysis of safety aspects of radio-frequency radiation from space-research earth stations. Quantitative appraisals of the effects of interference on many aspects of space research and radioastronomy are now being introduced to the texts. The results achieved within Study Group 2 in connection with space matters are so extensive as to be of importance to the service Study Groups 4, 8, 10 and 11, all of which are concerned with satellite technology.

Interference and frequency-sharing investigations continue for:

- manned and unmanned deep-space research,
- spacecraft transmitters used as beacons,
- satellites as relays,
- amateur satellites,
- narrow-band phase-locked loops,
- telemetering,
- manned and unmanned near-earth space research,
- sharing between earth exploration satellites, other satellites and terrestrial services,
- geostationary meteorological satellites and meteorological aids,
- radioastronomy in general,
- and radar astronomy.

Initial work has begun on the safety of radio-frequency radiation from space research earth stations.

6.3.4.3 *Study Group 3 (Fixed service at frequencies below about 30 MHz)*

The most important recent item of the work of Study Group 3 is the study of linked compressor-expanders (Lincomplex) which has made a considerable improvement in the quality of HF radiotelephone circuits in the fixed service and has also made possible semi-automatic telephone exchange operation in this service.

Other major technical developments concern ionospheric channel simulators, automatically controlled HF radio systems and stability of frequency synthesizers. Further studies are being pursued in respect of protection and signal-to-noise ratios. Future emphasis will be on automatic techniques to ensure better integration of HF circuits within the international network.

6.3.4.4 *Study Group 4 (Fixed service using satellites)*

The work of Study Group 4 largely follows the needs identified by the World Administrative Radio Conference on Space Telecommunications, June 1971. The most important aspect concerns the use of frequencies above 10 GHz. Since these higher frequencies are also to be used for terrestrial radio-relay systems, study is being made of the anticipated coordination and interference problems.

Considerable attention is being given to improving the efficiency of use of the geostationary-satellite orbit, a problem involving intricate relationships between the sizes, numbers, and orbital positions of the satellites and the utilization of assigned frequency bands by each.

In this connection, and also that of the efficiency of spectrum utilization, studies are in course on the technical means of taking advantage of new types of satellite antennae, to facilitate repeated use of the same frequencies. On matters presenting special importance to developing countries, Study Group 4 has adopted a *Report*, in response to a *Recommendation* of the World Administrative Radio Conference on Space Telecommunications, 1971. This Recommendation requested the C.C.I.R. to study parameters of transportable earth stations for relief operation. In response to a *Resolution* of the Plenipotentiary Conference (Torremolinos, 1973), a *Question* has been adopted which will coordinate studies on low-capacity earth stations and associated satellite systems.

6.3.4.5 Study Group 5 (*Propagation in non-ionized media*)

A principal task is the development of a simple, but realistic, radio propagation model for calculating earth-station coordination distances. This is a necessary step for estimating interference from planned earth stations. The accuracy of the solutions reached in such calculations is of vital importance to all space services.

Study of the effects of the earth and atmosphere on propagation is being actively pursued for application to problems of frequency sharing in respect of space services. Tropospheric propagation is being studied as a matter concerning all services up to frequencies of 300 GHz and above. Other topics under study include propagation factors relative to the siting of earth stations, and the reception of radio signals on the moon.

Recommendation 368-2, providing ground-wave propagation data for frequencies below 10 MHz, has been extended to cover a wider range and mixed values of conductivity of the soil. This Recommendation was of particular value to the LF/MF Broadcasting Conference held in Geneva in October 1974.

6.3.4.6 Study Group 6 (*Ionospheric propagation*)

The C.C.I.R. *Atlas of Ionospheric Characteristics* has been revised to include predictions of the Es and F1 layers. The charts of this Atlas, or the version in the form of punched cards, enable the prediction of usable frequencies in the HF bands.

As well as up-dating the *Report* on atmospheric radio noise, Study Group 6 prepared a new *Report* on field-strength prediction for the Regional Administrative Radio Conference for LF/MF Broadcasting (October 1974).

The monthly publication by the C.C.I.R. Secretariat of long-term predictions of ionospheric indices continues.

Although the introduction of satellites has led to a certain decrease of interest in the development of long-distance ionospheric radiocommunications, Study Group 6 is aware that, in certain areas, the possibility of a rapid introduction of HF radio and the relatively low cost of the equipment is a matter of considerable interest to developing countries (for example, those of low and equatorial latitudes).

6.3.4.7 Study Group 7 (*Standard-frequency and time-signal services*)

Study Group 7 has revised *Recommendation 460*, on the improved *Coordinated Universal Time system*, by incorporating not only instructions for the implementation of the system, but also a procedure for the

insertion of “ leap seconds ” in the emissions. This system is now in almost universal use for standard-frequency and time-signal emissions.

In the course of the last study period, new methods of time and frequency dissemination were studied, as for example television synchronization signals, and additional phase modulation of the carrier of amplitude-modulation broadcast transmitters.

The problems of mutual interference between emissions of the standard-frequency and time-signal service in the HF bands are being studied, as well as possible administrative procedures for solving such problems.

6.3.4.8 *Study Group 8 (Mobile services)*

Technical preparation for the World Maritime Administrative Radio Conference (Geneva, 1974) was a major task of Study Group 8. More than sixty *Reports and Recommendations* furnished technical information concerning terrestrial and satellite services for mobile communication and other maritime radio uses. A further programme of new C.C.I.R. studies in maritime radio topics results from various decisions of this Conference.

Studies were also made at the request of the Intergovernmental Maritime Consultative Organization on self-supporting antennae on board ships. The latter gave rise to an *Opinion* addressed to that Organization, to be considered for possible incorporation in the International Convention for the Safety of Life at Sea.

The fast-evolving techniques in satellite systems for mobile communication have necessitated the revision of many texts and the preparation of many new *Reports*. An Interim Working Party has been established to study technical characteristics for satellite communication in the maritime mobile service.

As regards the aeronautical mobile service, anticipating the entry into service of supersonic aircraft operating at speeds up to 3,200 km/h, a *Recommendation* on the influence of the Doppler effect was adopted, with the result that no changes will be necessary in respect of the aeronautical mobile HF communication service.

The study of technical characteristics of equipment in the land mobile service was extended to 1 000 MHz.

6.3.4.9 *Study Group 9 (Fixed service using radio-relay systems)*

Study Group 9 has intensified its study of digital radio-relay systems which, since they make use of pulse regeneration, are highly resistant to noise and distortion. Digital systems are especially important to the exploitation of higher frequency bands of the spectrum than are presently used. Use of increasingly higher frequencies has become necessary to accommodate expansion of services. The principal existing *Report* on digital radio-relay systems has been revised and others have been prepared dealing with the compatibility between digital and FDM/FM radio-relay systems, measurements of bit error performance, and propagation effects of special significance to digital systems. Considerable work has yet to be done in this field.

The development of digital systems has raised the problem as to whether these could be accommodated in existing channel arrangements for analogue systems. Questions of interference and problems of interconnection at radio frequencies, at intermediate frequencies and at baseband, arise for both telephony and television. So far, Study Group 9 has amended a *Recommendation*, applying to the 11 GHz band, making it possible for low- or medium-capacity digital systems to coexist in the same channel arrangement;

a new *Recommendation* for the 13 GHz band was adopted for both analogue and digital systems as well as a *Report* stating the general principles of frequency channel arrangements for digital systems.

As regards the problem of reliability and availability of radio-relay systems, Study Group 9 is taking an active interest in Special Joint C.C.I.R./C.C.I.T.T. Study Group C.

With the needs of developing countries in mind, Study Group 9 continues to study radio-relay systems for special application. An existing *Report* on a low-capacity radio-relay system in bands 8 and 9 has been revised to include digital systems and, in response to a request by the World Administrative Radio Conference for Space Telecommunications, a new *Report* has been drafted on transportable radio-relay systems in the event of disaster.

Study Group 9 is continuing its studies on frequency sharing with systems in the fixed satellite service and has extended the limits of application of the equivalent isotropic radiated power of emissions from radio-relay stations to frequencies up to 30 GHz. It has also drawn up, for studies of interference probabilities, reference radiation diagrams of antennae of radio-relay transmitters.

6.3.4.10 *Study Group 10 (Broadcasting service (sound))*

Much of the effort of Study Group 10 has been concentrated on preparing for the LF/MF Broadcasting Conference and the Plenary Assembly.

A comprehensive series of *Reports* and *Recommendations* relating to sound broadcasting in band 5 (LF) and band 6 (MF) were prepared for the work of the First Session of the LF/MF Broadcasting Conference; most of these texts were used in the work of the Conference, and several were included in the Final Report.

The Conference requested urgent renewal of C.C.I.R. studies on modulation systems for sound broadcasting resulting in economical use of the radio-frequency spectrum. This is to be undertaken by Study Group 10 under a new *Study Programme*.

Study Group 10 has been studying a system for the subjective assessment of the quality of sound broadcasting programmes, which uses a scale applicable also to television programmes and which may have some application to point-to-point telephony.

As regards sound broadcasting using satellites, Study Group 10 has provided some important information in a number of *Reports* where it is associated with information concerning television broadcasting.

Future studies include digital methods of modulation for sound broadcasting programmes.

6.3.4.11 *Study Group 11 (Broadcasting service (television))*

The Study Group has given much attention to studying the viewing conditions for the subjective assessment of the quality of television pictures, together with a scale of assessment applicable not only to television but also to sound broadcasting and possibly telephone communications. Once completed, this study will enable a direct correlation to be made between the impairment of the image as seen by the viewer and the disturbances in the broadcasting system.

Systems are being studied for transmitting, simultaneously with the television signal, multiple still images, such as news bulletins, weather reports, etc. At the same time, studies have been initiated on the development of high-definition television.

Studies are under way on the application of digital modulation techniques for the transmission of television signals and their associated sound channel or channels. Since digital techniques will also be used for sound broadcast transmission and other services, this programme will be coordinated by the CMTT.

The technical requirements for the establishment of a broadcasting satellite service, for both sound broadcasting and television, are being studied with a view to submitting a report to the World Administrative Radio Conference for the Planning of the Broadcasting Satellite Service in the Frequency Band 11.7 to 12.2 GHz, to be held in 1977. Provision is made for collaboration with other C.C.I.R. Study Groups and the CMTT. Studies will be made to aid solution of the problems of coordination between the broadcasting satellite service and existing terrestrial services using the same frequency bands. A special report on the technical and economic factors influencing the choice of a broadcasting satellite system may also be prepared.

6.3.4.12 CMTT (*C.C.I.R./C.C.I.T.T. Joint Study Group for television and sound transmission*)

The CMTT is engaged in the study of digital transmission, including digital coding methods and digital standards suitable for the transmission of television and sound programme signals over long distances. This study requires close coordination between the various groups involved in the development of digital techniques to ensure compatibility between the encoding methods for each application and to minimize equipment cost and complexity.

The main subjects of the CMTT's mandate concern standards for television transmission, measurement, monitoring and maintenance, and the joint transmission of sound and television signals (as well as questions of sound programme transmission). The CMTT has undertaken the study of some new topics. The more important of these concern standards for circuits other than the 2,500 km hypothetical reference circuit, distortion due to transient phenomena, the insertion of special signals in the field-blanking intervals of a television signal, the definition of the overall reliability and quality of a television circuit or chain, the type of fault likely to be encountered in an international sound programme circuit or chain and, finally, the quality of sound in broadcasting programmes.

6.3.4.13 CMV (*C.C.I.R./C.C.I.T.T. Joint Study Group for Vocabulary*)

The principal matter of importance achieved in the work of the CMV was the commencement of the IEC¹/C.C.I.R.-C.C.I.T.T. Joint Coordination Group created under Resolution No. 283 of the Administrative Council. This Group initiated the work of preparing a collection of definitions of essential telecommunication terms, by establishing a restricted number of experts to select the terms to be defined.

The CMV has prepared draft definitions of certain terms as requested by Resolution No. 44 of the Plenipotentiary Conference, Torremolinos, 1973, and these will be submitted to the interested C.C.I.R. and C.C.I.T.T. Study Groups.

As regards graphical symbols, the CMV has up-dated present texts and is studying a more rational numbering system.

6.3.4.14 *Interim Working Party (IWP) PLEN/2 (Possible broadcasting satellite systems and their relative acceptability)*

Established under Resolution 38 at the XIIth Plenary Assembly, New Delhi, 1970, this IWP has been very active and its mandate has been extended for the 1974-1977 period. At the XIIIth Plenary Assembly, the IWP presented a report summarizing the technical and economic factors which enter into the choice of a system for satellite broadcasting. After further study at the Interim Study Group Meetings

¹ International Electrotechnical Commission.

in 1976, this *Report* will be presented as a contribution by IWP PLEN/2 to the subsequent World Administrative Radio Conference for the Planning of the Broadcasting Satellite Service in the Frequency Band 11.7-12.2 GHz, foreseen for 1977.

6.3.5 *Editorial work*

During 1974, the Editorial Section of the C.C.I.R. published a revised version of the Report: *Graphical symbols for telecommunications*.

On completion of the Final Meetings, February-March 1974, work was devoted to preparation of texts and drawings for the documents of the Plenary Assembly. Final work on the editing and printing of the volumes of the Plenary Assembly began in earnest during the autumn and is still in progress. There will be 13 volumes with a total of some 4,700 pages in each of three languages, together with about 200 pages published as separate texts or booklets. A provisional subject index to the volumes is being prepared.

Editorial work has begun on the first of the special reports to be produced in the study period.

6.3.6 *Other activities of the Secretariat*

6.3.6.1 *Computer usage*

Regular use is still being made of the I.T.U. computer for the monthly predictions of ionospheric indices and their evolution, for the computation of ground-wave propagation curves, and for various work concerning diagrams for directional antennae for HF and space communications as well as for minor administrative purposes.

The new C.E.R.N. computer is now being used for computations of HF propagation parameters. (Owing to a change of computer at C.E.R.N. this work had to be interrupted in the latter part of 1973.)

6.3.6.2 *Technical cooperation*

The C.C.I.R. Secretariat continued its close cooperation with the Technical Cooperation Department in the selection of experts and equipment for UNDP/ITU projects.

An engineer of the C.C.I.R. Secretariat visited the Yemen Arab Republic to review the installation and operation of the Sana's-Taiz-Aden Pilot Trans-horizon Link (an ITU/UNDP project). The C.C.I.R. had carried out the original survey locating the stations of this link and is following up this work by taking propagation measurements over the link.

The C.C.I.R. Secretariat also cooperated with the Technical Cooperation Department in the Seminar on the Planning of Broadcasting Systems held in Kuwait by presenting information on ground-wave propagation curves for a variety of electrical characteristics of ground-wave constants produced by means of the I.T.U. computer.

6.3.7 *Relations with other Organizations*

6.3.7.1 *Cooperation with the C.C.I.T.T.*

The C.C.I.R. Secretariat participated in the Joint C.C.I.T.T./C.C.I.R. Plan Committee meetings for Europe and Asia held in Spain (September 1974) and Tokyo (October 1974) respectively.

6.3.7.2 Cooperation with other International Organizations

The Director and members of the technical staff attended a number of meetings of various international organizations, in keeping with the general desire to coordinate, to the extent possible, work of interest to the C.C.I.R. being carried out by such organizations.

Close contact during this period was maintained with the:

- International Union of Radio Science (U.R.S.I.)
- Intergovernmental Maritime Consultative Organization (I.M.C.O.)
- International Civil Aviation Organization (I.C.A.O.)
- International Electrotechnical Commission (I.E.C.)
- European Broadcasting Union (E.B.U.)
- International Radio and Television Organization (O.I.R.T.)
- Asian Broadcasting Union (A.B.U.)
- International Special Committee on Radio Interference (C.I.S.P.R.)
- International Maritime Radio Association (C.I.R.M.)

PARTICIPATION IN C.C.I.R. MEETINGS, GENEVA, 1974

[illegible]

PARTICIPATION IN C.C.I.R. MEETINGS, GENEVA, 1974 (continued).

[illegible]

PARTICIPATION IN C.C.I.R. MEETINGS, GENEVA, 1974 (continued).

[illegible]

PARTICIPATION IN C.C.I.R. MEETINGS, GENEVA, 1974 (*concluded*).

Study Group																XIIIth P.A.
Administration	1	2	3	4	5	6	7	8	9	10	11	C.M.T.T.	C.M.V.	Plen. 2	Total	
Togo	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	×
Tunisia	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	×
Turkey	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	×
U.S.S.R.	×	×	×	×	×	×	—	×	×	×	×	×	×	×	13	×
Viet-Nam (Rep. of)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	×
Yugoslavia	—	×	×	×	—	—	—	—	×	×	×	×	—	×	8	×
Totals: 36	27	21	25	31	28	26	16	30	29	29	32	28	16	22		74

Study Group																XIIIth P.A.
	1	2	3	4	5	6	7	8	9	10	11	C.M.T.T.	C.M.V.	Plen. 2		
Recognized private operating agencies	14	4	8	21	19	15	3	13	20	20	24	25	4	10		29
International organizations	2	2	—	4	2	2	2	3	3	4	3	2	—	1		5
Scientific and industrial organizations	3	1	2	14	3	1	—	8	14	6	7	14	1	3		—
Specialized agencies of the United Nations	—	—	—	—	—	—	—	2	—	—	—	—	—	—		2
Other organs of the I.T.U.	2	2	2	3	2	2	2	2	3	2	2	3	2	2		3
Registration	105	79	78	193	120	117	58	174	166	199	219	189	46	75		318

6.4 INTERNATIONAL TELEGRAPH AND TELEPHONE CONSULTATIVE COMMITTEE (C.C.I.T.T.)

6.4.1 *Introduction*

1974 was marked by intense activity on the part of the C.C.I.T.T. Study Groups and Working Parties.

Early in the year an important part of the C.C.I.T.T. Secretariat's activity was still devoted to the Green Book, since half the volumes were not published until the first few months of 1974; this question has already been dealt with in detail in the report on activities for 1973 (Section 6.4.2).

6.4.2 *General information on Study Group activities*6.4.2.1 *List of meetings held*

a) The final I.T.U. budget for 1974, established by Resolution No. 740 adopted by the Administrative Council at its 29th Session (June 1974), awarded the C.C.I.T.T. a credit of 2,048,000 Swiss francs for meetings, under Section 8.2.

This credit was designed to cover the cost of:

- 45 weeks of Study Group meetings, generally held in Geneva;
- 2 weeks of meetings of the Regional Plan Committee for Asia and Oceania in Japan;
- 2 weeks of meetings of the Regional Plan Committee for Europe and the Mediterranean Basin in Spain.

b) Table 1 below gives a list of meetings of the Study Groups and Plan Committees and their Working Parties, the Special Autonomous Working Parties and the Joint Working Parties which were actually held in 1974.

TABLE 1

List of meetings held in 1974

<i>Date</i>	<i>Subject of the meeting</i>	<i>Place</i>
7-16 January	Special Study Group A (Data transmission) and its Working Parties (2 simultaneous series of meetings)	Geneva
17-25 January	S.G. VII (New networks for data transmission) and its Working Parties (2 simultaneous series of meetings)	Geneva
7-11 January	S.G. III (General tariff principles; lease of telecommunication circuits) .	Geneva
14-18 January	S.G. II (Telephone operation and tariffs)	Geneva
21-25 January	Working Party on Human Factors	Geneva
21-25 January	W. P. of S. G. XV on sound programme transmissions	Paris
28-30 January	W. P. of S. G. XV on the visual telephone service	Paris
31 Jan.-1 Feb.	W. P. of S. G. XV on coaxial pairs for analogue transmission	Paris
4-8 February	S. G. XV (Transmission systems)	Paris
28 Jan.-1 Feb.	S. G. VI (Protection and specifications of cable sheaths and poles) . . .	Geneva
30 Jan.-1 Feb.	Africa Plan Coordination Committee	Geneva
25-29 March	S. G. I (Telegraph operation and tariffs (including telex)).	Geneva
25-29 March	Joint Working Party CNC (Digital paths over cable)	Geneva
1-11 April	Special S. G. D (Pulse code modulation)	Geneva
1-5 April	Joint Working Party TEUREM	Geneva
1-5 April	W. P. IV/5 (Maintenance of groups, supergroups, etc. and new systems) .	Geneva
8-11 April	W. P. IV/4 (International network performance)	Geneva

TABLE 1 (*concluded*)

<i>Date</i>	<i>Subject of the meeting</i>	<i>Place</i>
22-26 April	Restricted W. P. of GAS/5 (Economic conditions and development of telecommunications)	Geneva
24-26 April	S. G. XIV (Facsimile telegraph transmission and equipment).	Geneva
29 April-3 May	S. G. IX (Telegraph transmission quality; specification of equipment and rules of the maintenance of telegraph channels)	Geneva
6-10 May	S. G. X (Telegraph switching)	Geneva
6-10 May	W. P. LTG (Use of telephone-type lines for purposes other than telephony)	Geneva
6-10 May	W. P. XI/6 (Signalling System No. 6)	Copenhagen
9-15 May	W. P. XI/3 (Programming languages)	Geneva
16-17 May	Restricted W. P. of TEUREM Working Party (Questionnaire on costs) .	Geneva
20-24 May	W. P. IV/1 (Maintenance of telephone-type circuits)	Geneva
27-31 May	W. P. IV/2 (Measuring equipment)	Geneva
27-31 May	Laboratory Working Party	Geneva
29-30 May	Ad hoc Working Party on Accounting for the maritime radio services .	Geneva
4-7 June	W. P. II/1 (International accounting)	Geneva
10-14 June	W. P. III/1 (Lease of circuits).	Geneva
10-14 June	Editing Group of GAS/3	Geneva
8-12 July	W. P. CDF (Protection against lightning)	Geneva
26-27 August	Preparatory joint meeting of S. G. I/S. G. II on maritime radio services.	Geneva
3-10 September	Plan Committee for Europe and the Mediterranean Basin	Léon
16-24 September	W. P. XI/2 (Digital systems)	Geneva
18-25 September	W. P. XI/3 (Programming languages)	Geneva
26 Sept.-3 Oct.	W. P. XIII/1 (Maintenance; service quality)	Geneva
27 Sept.-4 Oct.	W. P. XIII/2 (Traffic studies)	Geneva
23-25 September	Ad hoc Working Party S.G. IV/S. G. XIII	Geneva
23-27 September	W. P. I TLX	Geneva
30 Sept.-4 Oct.	W. P. I TGM	Geneva
2-8 October	S. G. XII (Telephone transmission performance and local telephone networks)	Munich
11 October		
9-10 October		
14-16 October		
17-22 October	Joint Special Study Group C (Noise)	Munich
23-30 October	Plan Committee for Asia and Oceania and TAS Group	Tokyo
28 Oct.-1 Nov.	W. P. IV/3 (Sound programme and television circuits)	Geneva
4-15 November	S. G. IV (Transmission maintenance of international lines, circuits and chains of circuits)	Geneva
18-22 November	GAS/5 (Economic conditions and telecommunication development) . . .	Paris
18-19 November	Joint meeting of S. G. VII and S. G. X on Recommendations V.12 and X.70	Geneva
20-29 November	W. P. of S. G. VII (New networks for data transmission) in 2 simultaneous series of meetings	Geneva
25-29 November	Editing Group of S. G. VI (Protection and specification of cable sheaths and poles)	Geneva
4-11 December	W. P. of Special S. G. A (Data transmission) in 2 simultaneous series of meetings	Geneva

c) It will be seen from this list that the total number of working days of meetings was 292, in order to meet the requirements of Study Group Chairmen, thus exceeding the 245 days originally provided for by 19%.

It should also be noted that interpreters had to be paid for 30 week-ends (Saturdays and Sundays) included in the meeting time.

Nevertheless, the total expenditure on meetings only amounted to approximately 1,622,900 Swiss francs, or about 425,100 Swiss francs (20.7%) less than the credits allocated for the purpose, partly owing to the organizational measures taken and partly because, during the first half of the year, interpretation for some Study Groups and especially Working Parties was provided in only two working languages (instead of the four taken into account in calculating the necessary credits): Decision No. 356 of the

Administrative Council (24th Session, 1969), now cancelled, stipulated that interpretation into a given language should not be provided unless it was requested on behalf of at least three participants; the situation in this respect has now changed with the application of Decision No. 372, adopted by the Council at its 29th Session (1974).

The Study Group meetings held outside Geneva (S.G. XV and GAS/5 in Paris, S.G. XII and XVI and Special S.G. C in Munich) entailed reimbursement by the host administrations of the additional expenses incurred by the I.T.U. as the result of holding the meetings away from Geneva.

6.4.2.2 *Participation in meetings*

a) The participation of Member countries of the I.T.U. in meetings of C.C.I.T.T. Study Groups and their Working Parties in 1974, when they were represented by an administration or recognized private operating agency, is summarized in Table 2 on page 58.

It will be seen that unfortunately the number of countries represented never exceeded about 30 and that certain meetings were attended by only 12 to 15 representatives.

Nevertheless, a total of 65 countries participated in the meetings of at least one Study Group.

b) Table 3 contains numerical data by Study Group and type of organization, of the participation of administrations, recognized private operating agencies, scientific or industrial organizations and various international organizations. It also shows the total number of participants in each Study Group (obtained by adding up the number of delegates attending various meetings of the same Study Group and its Working Parties): the figures thus obtained are mostly high, sometimes amounting to several hundred (in spite of the remark in *a)* above on the inadequate number of countries represented).

c) The following were admitted to participation in the work of C.C.I.T.T. meetings in 1974:

- one recognized private operating agency, of the United States of America:
American Satellite Corporation (Germantown)
- two international organizations:
the International Chamber of Shipping (I.C.S.), London,
the International Radio-Maritime Committee (C.I.R.M.), London
- 15 scientific or industrial organizations (which all chose a class of contribution of 1/2 unit):

Belgium : Telindus (Brussels)

Spain : Rank Xerox Española S.A. (Madrid)

United States of America :

Anaconda Telecommunications (Anaheim, California)
Computer Transmission Corporation (El Segundo, Cal.)
Databit Incorporated (Hauppauge, N.Y.)
GTE International Inc. (Stamford, Conn.)
Hekimian Laboratories Inc. (Rockville, Maryland)
Rapifax Corporation (Valhalla, N.Y.)

France : Société Datatel (Boulogne-Billancourt)
 Société Lannionnaise d'électronique (Lannion)
 Société Kalle Infotec (Nanterre)
 Société Rank Xerox (Puteaux)

Italy : Alfacavi S.p.A. (Quattordio, Alessandria)

United Kingdom :

Hewlett-Packard Limited (South Queensferry, West Lothian, Scotland)
 Kalle Infotec (London)

This list shows, in particular, the increasing interest in the work of the C.C.I.T.T. shown by manufacturers of telecommunication equipment, more and more of whom are taking part in the meetings of certain Study Groups (especially Study Groups VII, XI, XIV, XV, Special A and Special D), as will be seen from Table 3.

6.4.2.3 *Contributions submitted for meetings*

a) Table 3 also shows the number of contributions sent to the C.C.I.T.T. Secretariat in 1974 for various Study Groups by the administrations and other bodies participating in the work of the C.C.I.T.T.: they were particularly numerous for certain Study Groups (VII, XI, Special A, Special D). As in the case of statistics for previous years, contributions relating to several Study Groups were counted for each of these Study Groups; in the total, therefore, these contributions account for as many units as there were interested Study Groups.

A total of 1,662 contributions was received in 1974 (1,237 regular so-called "white" documents and 425 delayed contributions), or appreciably more than have ever been received in a single year. This is yet a further proof of the increasing interest that the work of the C.C.I.T.T. is arousing throughout the world.

Approximately 80% of the contributions were drafted in English, 18% in French and 2% in Spanish; very few were sent to the C.C.I.T.T. Secretariat in several languages.

b) In accordance with the recommendations of the Vth Plenary Assembly of the C.C.I.T.T. (Geneva, 1972) in its Resolution No. 1 (Green Book, Volume I, page 207, paragraph 5 *c*), the timetable of meetings, prepared by the Director of the C.C.I.T.T. in agreement with the Chairmen of the Study Groups and after consultation with the Secretary-General concerning the availability of the necessary rooms at the Union Headquarters buildings, was distributed in a circular by the Director of the C.C.I.T.T. to all the administrations and organizations participating in the work of the C.C.I.T.T. in July 1973, i.e., as soon as possible after the Administrative Council, at its 28th Session in May 1973, had established the provisional budget of the Union for 1974.

The long period thus provided between the announcement of the meetings and the time when they were held gave the participating administrations and organizations sufficient time to prepare the contributions they wished to submit to the C.C.I.T.T. Secretariat for circulation to all the members of the C.C.I.T.T. (after translation into the three working languages of the Union, typing and publication by the Common Services of the General Secretariat) under the conditions provided for in Resolution No. 1 of the Vth Plenary Assembly of the C.C.I.T.T. (Green Book, Volume I, page 206, paragraph 4); this indeed took place to a large extent.

c) Unfortunately, this year again, as will be seen from the last two lines of Table 3, an unduly large number of contributions (nearly 29%) were received by the C.C.I.T.T. Secretariat too late to be processed in the way described above and to be circulated in the right languages to all the members of the Study Groups before the meetings, so that they could be given preliminary study in all the countries concerned; some of them were even received only a few days before the meetings. In those circumstances

they could be circulated only at the opening of meetings, only to the delegates present and only in their original language version.

The attention of all the Member countries of the Union is once again drawn to the inconvenience caused by these delayed contributions which impair the efficiency and quality of the work of Study Groups. It would be desirable for administrations to see to it that their countries observe as far as possible the provisions which they themselves adopted at the C.C.I.T.T. Plenary Assembly; it is self-evident that certain contributions, owing to their very nature, can be submitted only a very short time before meetings, but the number of such contributions should be much smaller than it is at present.

6.4.3 *Work of the C.C.I.T.T. Study Groups and Plan Committees*

The studies conducted in 1974 and the principal results achieved are summarized below:

6.4.3.1 *Telegraphy and data transmission*

A. *Telegraph operation and tariffs*

Study Group I (Telegraph operations and tariffs) met once in 1974 and, in accordance with the study programme adopted at the Vth Plenary Assembly (Geneva, 1972) and Resolutions 1 and 3 of the World Administrative Telegraph and Telephone Conference (Geneva, 1973), continued its study of the simplification and revision of the Recommendations for the international telex and telegram services.

With regard to the telegram service, the primary goals of Study Group I are to simplify the present complex rules for the counting of words for charging and accounting purposes and to develop a set of telegram instructions suitable for the operating services using Recommendations F.1 and F.42 as a basis. Study of these matters has been started by Working Party I/TGM which met twice in 1974 and made great progress.

In telex, a thorough revision and rationalization of the relevant Recommendations have been started, inter alia, to serve as a basis — as in the case of the telegraph service — for the formulation of a set of telex instructions for operating and supervisory staff. This work was assigned to Working Party I/TLX which made good progress at its two meetings.

Study Group I also proposed the examination of two new questions: Question 7/I on the inter-connection of maritime satellite communication services with the international telex network and Question 12/I on operational and tariff provisions for proposed new services and facilities for telex. These Questions were approved by members in accordance with No. 190 of the Montreux Convention. The World Administrative Maritime Radio Conference, Geneva, 1974, issued Recommendation Mar2-19 on the same subject and this Conference requested the C.C.I.T.T. by Resolutions Nos. Mar2-22 and Mar2-23 and Recommendation Mar2-18 to undertake the study of two questions concerning operation and accounting in the maritime services. A maritime services joint working party of Study Groups I and II was set up to prepare proposals for consideration by the two Study Groups.

B. *Telegraph transmission and switching*

In telegraph transmission, the principal point examined by Study Group IX at its sole meeting was the development of time division multiplexing techniques suitable for deriving telegraph and asynchronous data channels. Discussion on conventional frequency division techniques centred on the reduction of

transmission levels and on improved ways of detecting and signalling the various types of bearer failure. A complementary study was started on the necessary adaptation of present transmission plans.

Study Group X (Telegraph switching) held one meeting in 1974 where good progress was made on the broad range of questions set for study. Significant items included further refinement of both type D signalling for telex and the automatic retest facilities in types A, B and C signalling. In accordance with No. 190 of the Montreux Convention, Study Group X added two new questions to its programme: Question 4/X on the interconnection of maritime satellite communication services with the international telex network, and Question 6/X on the interworking of telex networks and combined networks carrying both telex and switched data services.

C. Facsimile telegraphy

Study Group XIV introduced a number of amendments in existing Recommendations which had become necessary and urgent after practical experience of transmission impairments. These amendments were submitted to a letter ballot in accordance with Resolution No. 2 of the Vth Plenary Assembly and were provisionally approved.

The Study Group also decided on a classification system for facsimile apparatus based on the time required for transmission of an I.S.O. A4 page (6, 3, 1 minutes). It drafted a study programme for these three classes of machine and appointed special rapporteurs to convene groups for the further study of the various items with a view to submitting draft Recommendations to the VIth Plenary Assembly.

D. Data transmission over dedicated data networks

New Study Group VII, which has become one of the biggest C.C.I.T.T. Study Groups, organized its work by forming three working parties and a number of rapporteur groups to study specific items. These held two meetings in 1974. The results are as follows:

- in the list of international user classes of service, a new class (300 bit/s) has been added to take account of the recent development of data terminal equipment operating at this rate. The class 2 range was abandoned in favour of a few, structured signalling rates to rationalize the design of transmission equipment;
- the list of international user facilities was reviewed and the network parameters were transferred to a separate list in order to distinguish between the facilities that are available on request and the parameters which are invariable features of the network;
- further study on the two proposed transmission multiplexing schemes was undertaken with a view to facilitating interworking between them. The final wording of both Recommendations will depend upon the interworking approach yet to be agreed;
- the matter of the bearer rate to be offered to Study Group IX for sub-multiplexing telegraph channels is still under study.

For decentralized synchronous signalling, two systems have been identified according to the two transmission multiplexing schemes. Further study is under way with the aim of achieving a single system which satisfies all requirements.

- For centralized synchronous signalling, studies were based on the work in Study Group XI to achieve a commonality approach for both data and telephone digital signalling systems;

- Recommendations X.20 and X.21 were further improved and the basic principles were established for V-series compatible interfaces to permit connection to data networks of data terminals intended for operation on modems over the telephone network.

E. *Data transmission over analogue circuits*

Special Study Group A, in close cooperation with I.S.O., issued two provisional Recommendations in application of Resolution No. 2 of the Vth Plenary Assembly, namely, Recommendations X.27 and X.28 on unbalanced and balanced interfaces in integrated circuit technology in order to take account of modern semi-conductor techniques.

In the field of modems, a draft Recommendation for a group band modem at 64 kbit/s was prepared which will offer this basic bit rate for a multiplicity of applications, e.g., for leased point-to-point connections, as a bearer for data networks, for telegraph TDM equipment, for common channel signalling systems, for the digital extension of PCM channels, etc.

Extensive studies were undertaken of leased telephone-type modems at 9 600 bit/s and modems on the switched telephone network at 4 800 bit/s. The results obtained so far are very promising and if a compromise can be achieved among the various designs suggested, draft Recommendations on both subjects may be expected for the VIth Plenary Assembly.

Finally, Special Study Group A laid down more stringent line signal spectra for existing modems in order to improve interworkability of certain modem makes.

6.4.3.2 *Telephone transmission*

A. *Transmission systems*

Study Group XV and most of its Working Parties met in Paris at the beginning of the year. Additions and amendments to the Recommendations on sound programme transmissions were proposed and forwarded immediately to the CMTT. It was decided in principle to orient the study concerning the visual telephone service with a view to developing a system compatible with television broadcasting standards.

The Study Group also investigated questions relating to coaxial pairs for analogue transmission, submarine cables and various transmission equipments.

The LTG Joint Working Party, which deals with the use of telephone-type lines for purposes other than telephony and which met once, examined in liaison with Study Group IX the possibility of reducing the signal power in certain VF telegraph systems in order to reduce the load of carrier systems.

B. *Digital transmission*

The CNC Joint Working Party met once and defined its sphere of activity, which relates to line circuits for digital transmission over cable, excluding all multiplexing equipment. It proposed standardization of a new type of coaxial cable pair (0.7/2.9 mm) and recommendation of a line code for 8 448 kbit/s cable systems.

Special Study Group D (Pulse code modulation) held one meeting and approved the report of the CNC Joint Working Party. It examined various questions concerning digital systems, such as:

- definition of hypothetical reference connections and admissible error rates,
- multiplexing equipments and their hierarchy,
- switching and signalling,
- maintenance principles,
- network synchronization,
- definition of interfaces, use of radio-relay and satellite systems for digital transmission,
- digital coding of wideband signals.

C. *Telephone transmission quality*

The Laboratory Working Party of Study Group XII met once and drew up the programme of general tests to be used to define and measure telephone transmission quality and to be conducted by the C.C.I.T.T. Laboratory at the end of 1974 and in the first half of 1975.

Study Group XII held a meeting at Munich in October and examined mainly the new test methods which should replace the reference equivalent method, using the results of general tests.

The Laboratory also carried out special tests, for which charges are made, at the request of administrations, recognized private operating agencies and industrial organizations on telephone sets supplied by them for the purpose of determining the reference equivalent.

D. *Telephone circuits*

Study Group XVI also met at Munich in October and studied the transmission characteristics of telephone circuits and connections. A special effort was made to clarify the recommendations on circuit noise. The Study Group also approved the text of the new handbook on transmission planning in switching networks.

E. *Circuit noise and reliability*

Joint Special Study Group C, which also met at Munich in October, approved a general report on the studies relating to reliability and availability now being conducted by the C.C.I.T.T. and C.C.I.R. It examined the loading of carrier systems and various questions relating to circuit noise.

F. *Economic and technical comparison of transmission systems*

The GAS/3 Editorial Group held one meeting and examined the draft text prepared by its members in order to supplement and update the handbook entitled "Economic and technical aspects of the choice of transmission systems", and it organized the work entailed in finalizing the text which will be submitted to GAS/3 in June/July 1975. The new or amended texts will relate particularly to PCM systems and to national or regional communication-satellite systems.

6.4.3.3 *Switching and quality of the automatic service in international telephony*

The Study Group XI and XIII meetings in November 1973 organized work required in the 1973-1976 study period by assigning it to a number of working parties.

A. *Telephone switching and signalling*

With regard to Study Group XI, three of these Working Parties (XI/2, XI/3, XI/6) held one or two meetings in 1974.

A.1 Working Party XI/3 was appointed to standardize programming languages for SPC exchanges and to define a man/machine language (MML). These questions by now are of primary importance for the development of modern switching techniques. At its two meetings the Working Party:

- defined the criteria required to assess the specification methods for SPC exchanges;
- defined the elements and structure of a procedure for functional specification and description of software for such exchanges;
- agreed on a detailed method for assessing 27 SPC exchange programming languages which were submitted to it, and which later were reduced to seven. It proved impossible at the September meeting in Geneva to agree on the adoption of one of these languages, even in amended form, and it was decided to develop a new, high-level programming language;
- to assess 9 man/machine languages submitted to the Working Party.

The importance of a standard language for SPC exchanges of the 1975-2000 generation, the economies that will result from a universal language and the enormous amount of investment these exchanges will represent, are sufficient justification for this effort by the C.C.I.T.T. which will be extremely valuable, even if not immediately, to countries wishing to order their modern switching systems from manufacturers in various foreign countries.

A.2 Working Party XI/2 is making a study of a common channel system of signalling between processors that can be applied to switching and transmission on integrated telephone networks and also, in cooperation with Special Study Group D, of a number of digital switching equipment characteristics for which international specifications will have to be drawn up.

At its meeting in 1974, the Working Party scrutinized the numerous replies received to two highly detailed questionnaires prepared at the meeting of Study Group XI in November 1973. From these it was able to derive a number of principles relating, for example, to the system to be employed for error detection and correction, the formats of signal units, and the use as a matter of priority of a 64 kbit/s rate for the common signalling channel.

A.3 Working Party XI/6 was set up to draw up specifications for the digital version of C.C.I.T.T. Signalling System No. 6. This work was successfully carried out by a small team of experts which met at Copenhagen in June 1974 and at Ottawa in October 1974.

B. *Automatic and semi-automatic telephone networks*

In 1973, Study Group XIII assigned its work to two working parties which held one meeting each.

B.1 Working Party XIII/1—Quality of service and maintenance for signalling and switching:

- took note of the report of a Joint Working Party of Study Groups IV and XIII (prepared at three meetings held at Copenhagen, Stockholm and Geneva) which proposed a rearrangement of the Recommendations on switching and transmission maintenance;
- examined the question of service quality on automatic and semi-automatic international relations which in many cases is considered unsatisfactory, and drew attention to the desirability of having the observation results dealt with centrally by the C.C.I.T.T. Secretariat;
- began a study of the interconnection of the maritime mobile service with the automatic international telephone network (numbering, etc.);

- examined the conditions applicable to the use of the man/machine language being defined by Study Group XI.

B.2 Working Party XIII/2 on network planning and traffic engineering:

- defined the criteria for the application of network management actions;
- made progress with the study of repeat calls and how to make allowance for them in traffic engineering, a delicate question of vital importance for service quality;
- defined general principles for the specification of internal blocking characteristics in digital exchanges.

C. *Working Parties of Study Groups XI and XIII*

As in 1973, in accordance with the general directives of the Vth Plenary Assembly, the meetings of Study Group XI and XIII Working Parties were held together in September/October 1974, so that a substantial amount of information was exchanged directly and interpretation costs were reduced to a strict minimum.

6.4.3.4 *Operation and tariffs—economic studies*

A. *Telephone operation and tariffs*

A.1 At its first meeting in the 1973-1976 study period, Study Group II reviewed the ten Questions assigned to it, adopted the working programmes for the period and appointed rapporteurs-coordinators for specific questions. It also set up two autonomous working parties.

A.2 Working Party II/1 was instructed to define the conditions of application of the remuneration procedures for telecommunication facilities made available between administrations (transmission lines and exchanges) in international operation. It held one meeting and drew up a draft Recommendation on the flat-rate procedure; it also adopted certain principles on the use of data transmission for the exchange by administrations of information on the billing of subscribers and international accounts.

A.3 Working Party II/5 on Human Factors held its first meeting in 1974 immediately after the meeting of Study Group II. The main points dealt with were the difficulties encountered by users in dialling numbers in automatic international operation, the standardization of symbols and pictograms and procedures for ordering special facilities.

B. *General tariff principles*

B.1 Study Group III held its first meeting in the current period. This Study Group controls not only the 4 Regional Tariff Groups—TAF (Africa), TAL (Latin America), TAS (Asia and Oceania) and TEUREM (Europe and the Mediterranean Basin)—but also 2 Working Parties which were set up at the January meeting:

III/1—Conditions governing the lease of international circuits for private use;

III/2—Tariff principles for data transmission on public networks dedicated to this type of transmission.

At the January meeting, rapporteurs-coordinators were appointed to deal with questions not assigned to the two Working Parties. The Study Group made a general examination of the questions under study, drew up a detailed questionnaire for the work of Working Party III/1 and answered a number of questions raised by Study Group VII (Data Transmission) and falling within the purview of Working Party III/2.

B.2 Working Party III/1 met in June 1974 and, on the basis of the answers to the questionnaire mentioned above, completely revised the three Recommendations on the highly controversial subject of the conditions governing the lease of private use circuits. These conditions apply to all telephone, telex and telegraph circuits and the provisions in the draft Recommendations also cover intercontinental circuits in detail.

B.3 Two of the Regional Tariff Groups met in 1974.

The TEUREM Group had to deal not only with the problems connected with the two Questions assigned to it on the costs of the public telegraph service and of sound and television programme transmissions but also with the difficulties, created by the sudden and unforeseeable developments in the economic situation, in applying the tariff standards recommended for the telephone and telex services in Europe and the Mediterranean Basin (Recommendations D.300 R and D.301 R). It was therefore decided to make a new cost study of these services and the working party had to prepare three questionnaires, the answers to which will be examined at its meeting in 1975.

The Regional Tariff Group for Asia and Oceania (TAS Group) met at Tokyo at the same time as the Plan Committee for that Region. Adopting a very pragmatic approach, it decided to use a consolidated method, based on a comprehensive inquiry into the accounting rates (rates used for international accounts) in force in the Region, so that it will be able to propose a scale of rates for the international telephone and telex services.

C. *Economic studies and telecommunication development*

Special Autonomous Working Party No. 5 (GAS/5) met at Paris. After examination, it introduced some minor amendments in the 5 draft chapters of the future handbook “Telecommunications—Economic studies—1976” prepared by the authors and co-authors appointed in 1973, namely:

- Planning,
- Personnel policy,
- Analytical accounting system,
- Costs and results for the various telecommunication services,
- Importance of telecommunications for development and technology in the industrial sector.

A previous meeting of these authors and co-authors had made it possible to organize their work and to revise or expand the initial outline of the chapters drawn up in 1973.

6.4.3.5 *Maintenance*

Study Group IV which is responsible for studying the transmission maintenance aspects of lines, circuits and chains of circuits, continued its work in this connection, assisted by its five Working Parties and an ad hoc Group set up to effect the necessary collaboration with Study Group XIII.

Its studies covered such general aspects as the transmission stability of the lines making up the international network, the maintenance of the circuits, groups, supergroups, etc., set up over these lines and the development of basic specification clauses for measurement equipment necessary to carry out such maintenance with the greatest possible economy in manpower. In the detailed application of these principles, the Study Group gave particular attention to methods for testing echo suppressors, to access requirements and measurement requirements for circuits routed over PCM systems, telecommunication satellite systems, circuits for digital network data transmission, demand assignment circuits, stereophonic music circuits,

and television circuits. It studied the basic specification clauses for measurement equipment for all of these, and also methods for the rapid restoration of service in the event of faults. Confirmation that the transmission quality of the international network is being maintained was obtained by means of statistical analysis of fault reports effected by an expert in both maintenance and statistics.

Finally, the Study Group collaborated, through a special rapporteur, in the general study of reliability being carried out in C.C.I.T.T. Special Study Group C.

The Study Group made great use of the services of special rapporteurs without whom it could not have discharged its duties.

During the year, the Head of the Department on Maintenance, Protection and Means of Expression acted as an observer at the meeting of the Technical Committee of the European Broadcasting Union, with which the C.C.I.T.T. maintains close liaison.

6.4.3.6 *Protection*

Of the two Study Groups responsible for studies concerning the protection of telecommunication lines, Study Group V has not yet met during the present study period. Its Chairman has decided to make extensive use of the system of special rapporteurs.

There was, however, a meeting of Joint Working Party CDF for which Study Group V is the controlling study group and this has led to the preparation of further draft texts for the handbook on the protection of telecommunication lines against lightning discharges, Chapters I to V of which have now been published.

Study Group VI, responsible for Recommendations on the protection and construction of underground cables and for the preservation of wooden poles for overhead telecommunication lines, met during the year. The protection aspects involved concern largely protection against electrolytic and electrochemical corrosion. It cooperated in the meeting of the Joint CDF Working Party mentioned above and there was also a meeting of a group responsible for studies concerning a handbook to be published on jointing methods, using sleeves for plastic covered cables. Other activities by the Study Group included the examination of proposed new texts for the “ Recommendations concerning the construction, installation and protection of telecommunication cables in public networks ”, notably in connection with the use of metals other than lead for the sheaths of cables and other than copper for their conductors. Attention was also given to the question of attacks on sheaths by rodents and bacteria.

Study Groups V and VI have close relations with CIGRE (International Conference on Large Electric Systems), UNIPED (International Union of Producers and Distributors of Electrical Energy), I.U.R. (International Union of Railways), I.G.U. (International Gas Union) and U.I.T.P. (International Union of Public Transport), and during the year a member of the Department concerned took part as observer in a meeting of CIGRE.

Besides the publication mentioned above, the following were issued:

- a revision of the booklet on “ The preservation of wooden poles carrying overhead telecommunication lines ”;
- new or revised pages for the “ Directives concerning the protection of telecommunication lines against harmful effects from electricity lines ”;
- new or revised pages for the “ Recommendations concerning the construction, installation and protection of telecommunication cables in public networks ”; and
- a Guide to use of the Directives in a special case.

6.4.3.7 *Means of expression*

This part of the Secretariat's activities concerns work on terminology and graphical symbols for telecommunications. In this field the work of the C.C.I.T.T. is now largely carried out in the Study Groups, the Joint CCI/IEC Working Group on graphical symbols for telecommunications and, latterly, the Joint

C.C.I.R./C.C.I.T.T. Study Group for Vocabulary (CMV), managed by the C.C.I.R. The Department on Means of Expression retains responsibility in the C.C.I.T.T. Secretariat for liaison functions, for sending an observer to the Vocabulary and Symbols Working Parties and for the two publications "Vocabulary: Line Transmission" and the "List of Definitions of Essential Telecommunication Terms". However, activities in these fields are limited through lack of staff.

6.4.3.8 *Activities of the Plan Committees in 1974*

In 1974, meetings were held only by the Regional Plan Committees for Europe and the Mediterranean Basin and for Asia and Oceania. In preparation for the meeting of the Plan Committee for Africa at Kinshasa in 1975, the pertinent Coordination Committee met at the beginning of 1974.

A. Plan Committee for Europe and the Mediterranean Basin

At its meeting held in September 1974 at Léon (Spain), the Committee, taking into account the proposals made by its Coordination Committee, amended the questionnaire and discussed the various problems posed by the use of the I.T.U. computer in present working conditions.

With regard to future work, the Committee agreed that it would be useful to review at meetings the effect on network planning of the emergence of new techniques or the introduction of new services. It was further agreed that, in addition to traffic, routing, circuit and artery data, the Plan documents should include information on the trends discernible in countries of the Region with regard to the planning and coordination of telecommunication development. The Committee laid down the procedures to be followed to attain these objectives and retained its Coordination Committee with broader terms of reference. The importance of bilateral and multilateral contact on the occasion of Plan meetings was emphasized.

B. Plan Committee for Asia and Oceania

At its meeting at Tokyo in October 1974, the Committee arrived at decisions on the presentation of data in the Plan Book and made slight amendments to the Plan questionnaire. Another questionnaire to collect information on the national telephone network plans of countries in the Region was adopted.

With regard to future activities, after administrations' contributions on the subject had been examined and extensively debated, the Committee unanimously agreed that it should continue its activities with a view to assembling reliable data that would assist administrations in network planning and that it should try to coordinate the various sub-regional plans as one stage in the establishment of a general plan for the development of telecommunications in the Region.

On the other hand, it considered that all proposals to amend its terms of reference should be submitted to the I.T.U. Administrative Council.

To ensure continuity of activity in accordance with instructions during the interval between meetings, the Committee reappointed its Coordination Committee and gave it new, broader terms of reference to increase its effectiveness.

The Committee took note of the action which had been taken on the questions submitted by it to the CCIs and of the contribution made by I.T.U. to the development of telecommunication networks in the Region under the United Nations Development Programme.

The next meeting of the Committee will be held in 1978.

C. Coordination Committee of the Plan Committee for Africa

At its meeting in Geneva in January 1974, the Coordination Committee prepared a new questionnaire for the collection of data for the 1975 Plan and drew up the agenda of the Plan Committee's meeting in Kinshasa at the beginning of 1975.

D. It will be seen that both of the Regional Plan Committees which met in 1974 seriously discussed the question of their activities in coming years and, after unanimously recognizing that the work of the Plan Committees was of unquestionable value for all countries, developed appropriate methods for each Region in order to render their work more useful and effective.

6.4.4 Other aspects of C.C.I.T.T. Secretariat activity

6.4.4.1 Use of the I.T.U. computer

Following the guidance of the Ad Hoc Working Party of the World Plan with respect to the reproduction and circulation of World Plan documentation, the Secretariat collaborated closely with the General Secretariat in the processing of traffic data and forecasts received from administrations on bi-laterally oriented reply forms. This data was rearranged into a form suitable for administrations with the help of the computer so that it could be published by I.T.U. Headquarters with the shortest delay and at the lowest overall cost.

The results of this work were also presented to the Asia/Oceania Plan Committee (Tokyo, November 1974) as this Plan Committee had adopted a completely analogous approach to the one foreseen for the World Plan. The Committee adopted on a trial basis, for further examination at a forthcoming meeting, the same form of presentation for the Asia/Oceania Plan traffic data and forecasts as was used for the supplement (1972/1980) to the World Plan Book (Venice, 1971).

Furthermore, the C.C.I.T.T. Secretariat used the I.T.U. computer in 1974 for the following purposes:

- to calculate the crowflight (geodetic) distances between international centres from their longitude and latitude coordinates in order to draw up tables showing the correlation between these distances for countries in Asia and Oceania and the international rates (charge unit) for the work of the Regional Tariff Group for Asia (TAS Group). The computer was used for the same purpose in 1973 in connection with the work of the Tariff Group for Latin America (TAL Group);
- to make a detailed analysis of the processing (drafting of summary records of meetings, translation, typing, reproduction and dispatch) of the contributions of a C.C.I.T.T. department by way of example and test.

The C.C.I.T.T. Secretariat also took an active part in preparing directives for the introduction of programmes for an I.T.U. "address bank" to be kept by the computer.

6.4.4.2 Technical cooperation

The C.C.I.T.T. Secretariat continued to cooperate closely with the Technical Cooperation Department both in the choice of experts and in the purchase of equipment for ITU/UNDP telecommunication projects.

In November 1974, an official of the C.C.I.T.T. Secretariat took part as lecturer (3 papers) in the Lusaka seminar on switching equipments for international centres of the PANAFTTEL network. The C.C.I.T.T. was also represented at the seminar by a number of lecturers members of Study Group XI, which gave the officials of African countries attending the seminar an opportunity to become better acquainted with the C.C.I.T.T. Recommendations and the handbook on "National Automatic Networks".

Another C.C.I.T.T. official, while on home leave, carried out a technical cooperation mission in Sri Lanka concerning methods of modernizing that country's international telegraph service, and visited Singapore to examine switching centre plans for the telex, telegraph and data transmission services.

6.4.4.3 *Cooperation with the C.C.I.R.*

Efforts were made to improve coordination and achieve closer, more direct, relations between the C.C.I.T.T. and the C.C.I.R. both within the Joint Study Groups managed by the C.C.I.T.T. (Special Study Group C, GAS/3, Plan Committees) and by the C.C.I.R. (CMTT, CMV) and at large meetings such as the World Administrative Maritime Radio Conference, and to work out joint positions vis-à-vis other organizations (I.E.C., I.S.O., E.B.U., etc.) dealing with subjects of interest to the CCIs.

Particular attention was paid in 1974 to the problems of digital encoding of television sound and picture signals for pulse transmission.

6.4.4.4 *Cooperation with other International Organizations*

The Director and technical staff of the C.C.I.T.T. attended various meetings of international organizations (I.E.C., C.E.P.T., CIGRE, I.C.C.C., I.E.E., I.S.O., I.M.C.O., E.B.U.) to meet the general desire for the closest possible coordination with regard to the work carried out by these organizations which is of interest to the C.C.I.T.T.

TABLE 2
Participation of Member countries in C.C.I.T.T. meetings in 1974
— Study Groups and Plan Committees and their Working Parties
— Joint Working Parties
— Special Autonomous Working Parties

Countries (Administrations or recognized private operating agencies)	Study Groups and Working Parties																		Plan			Joint Working Parties					Special Autonomous Working Parties		TOTAL			
	I	II	III	IV	VI	VII	IX	X	XI	XII	XIII	XIV	XV	XVI	Sp. A	Sp. C	Sp. D	Africa Plan	Asia Plan	Europe Plan												
	CDF	CNC	LTG	TAS	TEUR	GAS/3	GAS/5																									
Algeria	x										x									x										3		
Germany (Fed. Rep. of)	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x	x		x	x	x	x	x	25	
Saudi Arabia																			x					x							2	
Argentina														x								x									3	
Australia	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x	x		x			x	x	x	x		x		x		22	
Austria	x	x	x	x		x	x	x		x			x	x	x	x	x		x	x						x					16	
Belgium	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x			x		x				x					19	
Brazil	x	x	x																												3	
Bulgaria						x										x				x											3	
Canada	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x				x	x	x			x	x		x	x	21	
Central African Republic																		x													1	
Chile																			x												1	
Cyprus																										x					1	
Congo (Brazzaville)			x																													1
Korea (Rep. of)																			x												1	
Denmark	x	x	x	x	x	x	x	x	x	x	x		x	x			x			x		x				x			x		18	
Dominican Republic						x								x		x		x													4	
Spain		x	x	x	x	x	x		x	x	x		x	x	x		x		x	x	x	x	x			x			x	x	19	
United States	x	x	x	x		x	x	x	x	x	x		x	x	x	x	x		x	x	x	x	x				x	x			22	
Finland	x					x			x	x		x	x	x	x	x	x					x									11	
France	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x	x	26	

Greece	x	x	x														x				x	x			x			7
Hungarian People's Republic	x	x	x			x	x		x	x			x	x	x		x			x	x		x		x			15
India						x							x		x				x					x				5
Indonesia		x	x																x					x				4
Iran			x																x					x				3
Iraq																				x								1
Ireland						x									x													2
Israel																				x								1
Italy	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	27
Japan	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	26
Jordan				x															x					x				3
Kenya		x	x																									2
Kuwait																			x					x				2
Laos																			x					x				2
Libya																				x								1
Malaysia																			x					x				2
Morocco																				x								1
Mexico																										x		1
Nigeria	x	x	x				x	x	x	x				x	x	x		x									x	12
Norway	x	x	x		x	x	x	x	x	x	x	x	x	x	x	x	x			x	x	x	x		x			21
New Zealand										x				x		x												3
Oman																			x					x				2
Uganda		x																										1
Pakistan																			x					x				2
Paraguay																												1
Netherlands	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x				x		x	x		x		x	20
Philippines																			x					x				2
Poland (People's Republic of)		x	x	x		x					x				x					x		x						8
German Democratic Republic						x			x		x									x	x							5

TABLE 2 (concluded)

Countries (Administrations or recognized private operating agencies)	Study Groups and Working Parties																	Plan			Joint Working Parties					Special Autonomous Working Parties		TOTAL
	I	II	III	IV	VI	VII	IX	X	XI	XII	XIII	XIV	XV	XVI	Sp. A	Sp. C	Sp. D	Africa Plan	Asia Plan	Europe Plan								
																					CDF	CNC	LTG	TAS	TEUR	GAS/3	GAS/5	
United Kingdom	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x	x	x	x	x	26
Senegal																		x										1
Singapore																			x					x				2
Sri Lanka (Ceylon)																			x					x				2
Sweden	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x			x	x	x	x		x		x	22
Switzerland	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x			x	x	x	x		x		x	23
Tanzania		x																										1
Czechoslovakia	x	x	x	x		x			x	x				x		x		x			x				x			12
Thailand																			x						x			2
Turkey	x																											1
U.S.S.R.	x	x			x					x								x			x		x					7
Viet-Nam (Rep. of)																			x						x			2
Yugoslavia	x	x	x		x	x					x						x				x		x					10
Zaire																			x									1
Papua New Guinea																				x								1
Total	25	28	27	18	15	26	18	17	21	21	18	10	22	20	25	16	24	6	27	26	14	21	13	20	17	8	14	

TABLE 3
Participation by organizations and delegates in C.C.I.T.T. meetings and contributions received

	Study Groups and their Working Parties																			Plan			Joint Working Parties					Special Autonomous Working Parties		
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	Sp. A	Sp. C	Sp. D	Africa Plan	Asia Plan	Europe Plan								
	CDF	CNC	LTG	TAS	TEUR	GAS/3	GAS/5																							
Administrations	19	24	25	14	—	11	21	—	13	12	13	18	12	7	19	16	21	12	20	4	23	24	8	20	8	18	15	5	8	
Recognized private operating agencies	15	16	21	14	—	4	27	—	10	8	15	8	15	4	15	10	15	9	14	2	18	5	6	5	6	5	6	3	9	
Scientific or industrial organizations	4	6	5	8	—	10	38	—	18	9	28	13	12	16	33	11	36	14	39	2	4	3	4	21	9	—	—	4	5	
International organizations	1	—	5	2	—	—	6	—	1	1	1	1	1	2	—	—	6	1	—	—	3	2	—	—	1	—	—	—	—	
Total number of participants	143	140	148	191	—	47	390	—	63	44	185	83	122	47	273	75	262	63	191	10	129	71	30	90	34	37	41	16	49	
Contributions received	} regular delayed	77	43	37	45	10	20	132	9	46	32	122	57	69	24	71	54	104	32	135	3	11	8	8	41	11	2	5	18	10
		30	22	11	4	—	—	94	—	18	4	41	13	17	—	23	4	83	1	30	—	6	—	—	7	5	—	2	9	1

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7. TECHNICAL COOPERATION ACTIVITIES

7.1 *General features of activities in 1974*

In 1974, as in past years, the Union's technical cooperation activities were in conformity with the provisions of Article 4, point 23, of the International Telecommunication Convention (Montreux, 1965). To this end, the Union continued to: "foster the creation, development and improvement of telecommunication equipment and networks in new or developing countries by every means at its disposal, especially its participation in the appropriate programmes of the United Nations".

The Union's technical cooperation activities in 1974 were directed towards the realization of the above-mentioned objectives through the implementation of projects which could be grouped under three main headings:

a) The promotion of development of telecommunication networks in Africa, the Americas and Asia

The Union continued its efforts to promote the development of telecommunication networks in Africa, the Americas and Asia with a view to their integration into the world-wide telecommunication system, in accordance with the objectives established by the Union's world and regional plan committees. To this end, studies and surveys were carried out by experts engaged by the Union working in collaboration with Member administrations. For the same purpose, the Union has endeavoured to further its collaboration with the various governments concerned, the United Nations regional economic commissions, other regional and sub-regional (telecommunication) bodies and organizations, the World Bank and regional banks.

i) In Africa

During 1974, the Union has concentrated its efforts towards the completion of the Pan-African Telecommunication Network Survey and the preparation of the implementation phases. The major part of the final reports and technical specifications were reviewed and then sent to the governments concerned for follow-up action. Thanks to financial assistance from Canada, Norway and Sweden, the Union organized two seminars on transmission and one on switching during 1974, with a view to assisting African telecommunication cadres in the technical planning and financial management of the regional network. For the same purpose the Union is preparing a seminar on tariffs and signalling in 1975, the main financial assistance being provided by the Government of Denmark.

The Coordinating Committee for the Implementation of the Pan-African Telecommunication Network—comprising the Secretary-General of the I.T.U., the Administrative Secretary-General of the O.A.U., the Executive Secretary of the E.C.A., and the President of the African Development Bank (A.D.B.) (the I.T.U. being the coordinating body on the technical side and the A.D.B., the coordinating body for the financial aspects)—met in Geneva in May and July with main potential donors (bilateral and multilateral financing institutions) in order to secure funds for the whole Pan-African Network. At the same time, the Union has encouraged sub-regional coordination for financing and implementation of the work. Various meetings of a sub-regional character were arranged under I.T.U. auspices, or by administrations acting collectively with I.T.U. assistance, for the implementation of the recommendations

of the Pre-investment Study and to effect the necessary coordinated planning for the effective installation of the international and national trunk systems for the network.

During its last meeting, held in Addis Ababa on 12-13 December 1974, the Coordinating Committee noted with satisfaction that financial arrangements were already negotiated for approximately 80 % of the total amount required for implementation of the entire network. It is anticipated that finances will be obtained early in 1975 for the remaining portions. In addition the Coordination Committee suggested to convene before the end of 1975, a Pan-African conference on the implementation, maintenance, operation and future development of the Pan-African Network. In February 1975 the Council of Ministers of the O.A.U. approved, in principle, a synoptic report prepared by the Coordination Committee. This report will be submitted to the heads of African States for final approval during their regular meeting next June.

In reply to requests from ten countries of Central and East Africa, the Union started preparatory work for the U.N.D.P. financed Pre-investment Survey for sub-regional links to commence in February 1975.

The U.N.D.P. has also agreed to finance a team of experts for coordination and technical advice to enable the I.T.U. to assist in the implementation of the Pan-African project.

ii) *In the Americas*

The implementation of the Inter-American Telecommunication Network continued to progress satisfactorily.

Among the regional projects in which the Union participated, mention should be made of the study for a regional educational television system for nine countries of South America. During 1974, work continued on the modification of the report with respect to the presentation of chapters in accordance with the wishes of the participating countries. A supplementary study was made at the end of the year on an Initial Stage for the Educational Television Model which will be included as an annex to the main report to be prepared by UNESCO.

Within the framework of the regional project on rural telecommunications, a meeting of high-ranking government officials, responsible for the development of rural telecommunications in their respective countries, was held in Quito, Ecuador in September 1974 to examine the current situation in each country and determine the principles on which the future development of rural telecommunications should be based.

iii) *In Asia*

During 1974, the I.T.U. Regional Experts stationed in Bangkok continued to assist in the implementation of the recommendations of the Asian Telecommunication Feasibility Study, which was completed in 1972. A second round of coordination meetings was held in five of the six sub-regions. One of the basic objectives of these meetings was the preparation of time schedules for implementation of programmes in the countries concerned. Close liaison was maintained by the I.T.U. Coordinator with the Asian Development Bank and certain participating countries which are also donors.

A feasibility study of the telecommunication links in the South Pacific region was begun in July 1974 under a UNDP/ITU Preparatory Assistance project. Simultaneously, in connection with this project, Australia and New Zealand are providing direct bilateral inputs to several island countries to assist them in improving existing high-frequency radio links between the island countries and Australia and New Zealand.

Considerable work was carried out for the Feasibility Study and Pre-investment Survey for the Middle East and Mediterranean Telecommunication Network (comprising all the Arab League member countries as well as some neighbouring countries). Discussions were held with the Arab Fund for Economic and Social Development concerning its participation in the financing of the Survey, as well as in the financing of the implementation of telecommunication investment projects in the area.

In 1974, 36 expert missions were carried out on this type of project in Africa, the Americas and Asia.

b) The strengthening of national telecommunication technical and administrative services in developing countries

The improvement and modernization of telecommunication facilities made it indispensable in many developing countries to reorganize and/or reinforce administrative and technical services. Ninety-six missions were devoted to this type of activity. The experts concerned acted as advisers or O.P.A.S. officials in the following specialities: telephony, telegraphy, radiocommunications, radio-relay systems, telecommunication management, transmission, operations and maintenance, training matters, accounting operations, etc.

The O.P.A.S. officers held operational and executive posts such as: Director of Posts, Telecommunications and Civil Aviation, Director of Telecommunications, Chief Engineer, Operations Manager, Financial Controller, Telephone Manager, Telecommunications Controller, Staff Engineer and Training Manager.

c) The development of human resources for telecommunications

As in previous years, almost two-thirds of the total field expenditure of the Union's technical co-operation programmes was disbursed for the training of staff to meet the manpower demand in various sectors of telecommunications in developing countries. This type of assistance was in the form of assistance in the establishment and/or improvement of national training institutions, as well as in-service and on-the-job training, organization of short-term specialist meetings and seminars, and implementation of fellowships. The Union acted as Executing Agency for important training projects in:

Africa :

Country projects : Algeria, Cameroon, Egypt, Nigeria, Somalia, Zambia

Multinational projects : Kenya (Kenya, Uganda, Tanzania), Malawi (Botswana, Lesotho, Malawi, Swaziland), Senegal (Ivory Coast, Dahomey, Guinea, Upper Volta, Mali, Mauritania, Niger, Senegal and Togo)

Note : The Kenya and Malawi multinational projects also comprise schools in the countries listed in brackets.

Americas :

Country projects : Bolivia, Brazil, Chile, Ecuador, Jamaica, Paraguay, Venezuela

Multinational projects : El Salvador (Costa Rica, El Salvador, Guatemala, Nicaragua)

Asia :

Country projects : Afghanistan, Saudi Arabia, Indonesia, Iran, Iraq, Jordan, Kuwait, Laos, Lebanon, Mongolia, Nepal, Pakistan, Singapore, Sri Lanka, Viet-Nam

Europe :

Country project : Turkey

All the above projects were financed by the U.N.D.P. with the exception of those in Costa Rica and Kuwait, which were implemented on the basis of Funds-in-Trust agreements signed by the Union with the authorities of these countries. It is also to be noted that only one of these projects was subcontracted (Lebanon).

Furthermore, there were several small training projects within the framework of which one or two experts ran training schools (Costa Rica, Guinea, Upper Volta, Niger, Papua New Guinea and Chad).

Sixty-six per cent (253) of all the expert missions in 1974 (385), dealt directly with the development of human resources in telecommunications, the experts serving as instructors, lecturers, training experts or project managers. On a regional basis, the percentage of missions devoted to the field of training was 64 % in Africa, 58 % in Asia and 71 % in the Americas.

Another significant point to be mentioned in this respect is the fact that the Union, in 1974, continued to recruit experts specialized in modern training methods. Prospection for this particular type of expertise proved to be difficult (see also Section 7.8).

The Union also organized seven seminars in the course of the year (see Section 7.4.6).

7.2 *Quantitative appraisal of 1974 achievements*

A significant aspect of the Union's activities in the field of technical cooperation in 1974 was further growth in the volume of aid rendered to developing countries. This is evidenced by the following figures:

- a) 385 expert missions were carried out, against 345 in 1973 (these figures include associate expert assignments);
- b) 683 fellows (including 314 participants in short-term group training) underwent training abroad, against 457 in 1973;
- c) 270 projects were assigned to the Union against 245 in 1973;
- d) US\$2,765,318 worth of equipment was delivered to various field projects against US\$2,144,848 in 1973;
- e) 11 projects were being implemented, partially or entirely, under sub-contracts, against 9 in 1973.

The total expenditure for project implementation amounted to US\$12,688,512 against US\$10,742,667 in 1973 (an increase of 18 %) and was the highest attained so far in any one year. (It deserves mention that several other Agencies executing U.N.D.P. projects were not able to increase the figures for implementation in 1974 above those of 1973).

The total expenditure for all types of project, by region, was as follows:

Africa	US\$ 4,311,811 (34 %) against US\$ 3,861,161 (36 %) in 1973
Americas	US\$ 2,785,403 (22 %) against US\$ 2,203,883 (21 %) in 1973
Asia	US\$ 5,278,658 (42 %) against US\$ 4,401,440 (41 %) in 1973
Europe	US\$ 238,129
Interregional	US\$ 74,511
	(2 %) against US\$ 276,183 (2 %) in 1973
	against —
Total	US\$12,688,512
	US\$10,742,667

The US\$12,688,512 field expenditure for 1974, broken down by project component and by region, is as follows:

Project components	Africa	Americas	Asia	Europe	Inter-regional	Total
Experts and Associate Experts . . .	2,320,269	1,801,022	3,134,155	82,500	—	7,337,946
Administrative Support Personnel . .	80,144	59,549	163,551	8,478	—	311,722
Subcontracts	405,189	—	303,293	—	—	708,482
Fellowships	462,363	192,257	255,161	32,848	—	942,629
Group Training	382,271	46,489	30,061	—	74,511	533,332
Equipment	583,562	621,993	1,266,807	109,393	—	2,581,755 ¹
Miscellaneous	78,013	64,093	125,630	4,910	—	272,647
Total	4,311,811	2,785,403	5,278,658	238,129	74,511	12,688,512

¹ Plus equipment to a value of US\$183,563 delivered under subcontracts.

7.3 Financial resources

In providing technical assistance to developing countries, the Union remained fully dependent on external financial resources, except for the assistance rendered by the Group of Engineers (Section 7.7.) and the contributions made by the specialized secretariats of the C.C.I.R., the C.C.I.T.T. and the I.F.R.B. Thus, in 1974, US\$11,067,248 (87,2%) of the total value (US\$12,688,512) of assistance rendered to developing countries, was financed by the United Nations Development Programme (U.N.D.P.), while the remainder (US\$1,621,264) came from other sources (Funds-in-Trust and associate expert arrangements, FUNDWI, etc.).

The table below shows the source of financing in 1974, classified by region:

Programmes	Africa	Americas	Asia	Europe	Inter-regional	Total
UNDP	3,699,658	2,522,797	4,532,153	238,129	74,511	11,067,248
Funds-in-Trust	119,100	77,908	420,602	—	—	617,610
Associate Experts	240,415	131,244	320,643	—	—	692,302
FUNDWI	—	—	5,260	—	—	5,260
Other Programmes	252,638	53,454	—	—	—	306,092
Total	4,311,811	2,785,403	5,278,658	238,129	74,511	12,688,512

7.3.1 United Nations Development Programme (U.N.D.P.)

In 1974, 253 projects were assigned to the Union by the U.N.D.P., 215 of which were country projects (66 in Africa, 59 in the Americas, 69 in Asia and 21 in Europe), the remaining 38 consisting of 37 regional/multinational projects (17 in Africa, 8 in the Americas and 12 in Asia) and one interregional project. During the year under report, the U.N.D.P. gave formal authorization to the Union to commence operations on 77 new projects. During the same period, 73 projects were completed.

Out of 253 UNDP/ITU projects, 29 required major contributions by the governments concerned and the U.N.D.P. Twenty-seven of these 29 projects were in the training sphere, the others concerned a network planning project and an experimental satellite earth station project.

Furthermore, the U.N.D.P. provided funds for the organization of three regional seminars, and financed the services of eight I.T.U. Regional Experts (three in Africa, two in the Americas and three in Asia).

It should be noted that there was remarkable development in the UNDP/ITU technical assistance activities of regional (sub-regional/multinational) character. Thus, one interregional and 30 regional projects were operational in 1974. The total input under these projects amounted to US\$2,448,754, which represents 19% of the I.T.U. total field expenditure in 1974, an increase of 15% over 1973.

More than half of the UNDP/ITU projects operational in 1974 were small-scale projects (involving U.N.D.P. expenditure up to US\$100,000 for the whole duration of the project) as can be seen from the table below:

Total U.N.D.P. input per project (in US dollars)	Percentage of the total number of UNDP/ITU operational projects in each range
less than 20,000	23.38
20,000- 50,000	13.42
50,000- 100,000	19.48
100,000- 200,000	16.45
200,000- 500,000	9.52
500,000-1,000,000	7.79
more than 1,000,000	9.96

Details on the implementation of UNDP/ITU projects are given in Annex 6, Table 1.

In 1974, the Union continued its collaboration with other U.N.D.P. Executing Agencies on the implementation of U.N.D.P.-assisted projects as follows:

- on the basis of agreements with the Universal Postal Union (U.P.U.), the U.P.U. was associated with the I.T.U., for the postal section, in execution of the following projects, for which the I.T.U. is Executing Agency:

Training Centres in Afghanistan, Turkey, Cameroon, Kenya, Malawi and Zambia. The I.T.U. was associated with an advisory services project in Venezuela for which the U.P.U. is Executing Agency (I.T.U. assistance within the latter project amounted to US\$49,178);

- until July 1974, the International Civil Aviation Organization (I.C.A.O.) was associated with the Union in the implementation of a training centre project in Nepal;
- the Union was associated with the feasibility study for a regional educational television system for South America, for which the United Nations Educational, Scientific and Cultural Organization (UNESCO) was the Executing Agency (total expenditure for the Union's participation amounted to US\$4,119).

In 1973/74, the Union identified the needs for assistance in telecommunications in several of the 25 least-developed countries. The assistance provided by the Union (under the U.N.D.P. Special Fund for the Least-Developed Countries) during the year under report was as follows:

- the services of an expert for 11 months to act as adviser to the Director of Posts and Telecommunications in Botswana. This project is scheduled to continue for a further year;
- the financing of one fellowship for Chad, for participation in the I.F.R.B. Seminar at I.T.U. Headquarters.

7.3.1.1 *FUNDWI (Funds of the United Nations for the Development of West Irian)*

As from July 1972, this project was incorporated in the U.N.D.P.'s normal activities in Indonesia. However, during 1974, expenditures were made for the implementation of one fellowship.

7.3.2 *Funds-in-Trust*

Under the Funds-in-Trust arrangements between the Union and each of the following countries: Saudi Arabia, Costa Rica, Jamaica, Kuwait, Somalia, Surinam and Zaire, assistance was provided to these countries in the form of 23 expert missions and 4 fellowships. The total cost of the Funds-in-Trust projects amounted to US\$617,610.

7.3.3 *Associate expert scheme*

The costs of 42 associate expert missions were borne by the donor countries, i.e.:

Germany (Federal Republic of) . . .	US\$268,388
Denmark	US\$ 25,218
Netherlands	US\$ 99,644
Sweden	US\$299,052
Total	<u>US\$692,302</u>

7.3.4 *Seminars financed from sources other than the U.N.D.P.*

For the first time I.T.U. seminars were financed from sources other than the U.N.D.P., i.e.:

Canada	US\$ 82,076
Norway	US\$ 85,662
Sweden	US\$ 78,519

(see also Section 7.4.6).

7.3.5 *Bilateral and U.N. volunteers*

The costs of volunteers' services provided by the Government of Switzerland, the United States Peace Corps and by the United Nations Association (U.N.A.) of the United Kingdom were borne by the respective sponsoring governments/organizations, while the costs relating to the services of the United Nations Volunteers (U.N.V.) were partly covered by the volunteer sponsoring organizations, partly by the UNDP/ITU projects concerned and partly by the governments of the countries in which the volunteers served.

7.3.6 *Technical assistance in kind*

A number of Member countries provided lecturers for seminars organized by the Union, as did the Asian Broadcasting Union (A.B.U.), the Arab States Broadcasting Union (A.S.B.U.), the European Broadcasting Union (E.B.U.), the Union of National Radio and Television Organizations of Africa (U.R.T.N.A.), the Inter-American Development Bank (I.D.B.) and the Organization of American States (O.A.S.). Details are given below in tabular form.

NUMBER OF LECTURERS AT I.T.U. SEMINARS IN 1974

Country or organization sponsoring the lecturers	Seminars						
	Abidjan	Kuwait	Quito	Dar-es-Salaam	I.T.U. ¹ Geneva	Lusaka	Total
Germany (FR)		3			1	1	5
Argentina			1				1
Brazil			1	2			3
Canada	6	1					7
Chile			1				1
Colombia			1				1
Denmark						1	1
Ecuador			1				1
Spain					1		1
United States					1		1
France	1	1		2	4	1	9
Italy		1					1
Japan		1					1
Mexico			1				1
Norway				6	1		7
United Kingdom		1			1	1	3
Sweden		1			3	1	5
Switzerland					1		1
Venezuela			1				1
Zambia					1		1
ABU		1					1
ASBU		1					1
EBU		1					1
URTNA		1					1
IDB			1				1
OAS			1				1
Total	7	13	9	10	14	5	58

¹ Vocational training in telecommunications.

The second meeting of the Working Group on Training Standards was held in Geneva during May 1974 to map out a strategy for the design of training aids (see Section 7.8.). The following countries were represented by one or more training specialists whose participation was without cost to the Union:

Australia, Canada, Ivory Coast, Spain, the United States of America, France, Japan, Malaysia, the Federal Republic of Germany, the United Kingdom, Sweden and Switzerland.

7.4 Analysis of I.T.U. inputs

7.4.1 Experts in the field in 1974

In 1974, 385 expert missions were executed by 352 experts (as against 345 missions executed by 326 experts in 1973) comprising:

- 315 missions, including 12 O.P.A.S. assignments, under U.N.D.P. (100 in Africa, 82 in the Americas, 127 in Asia and 6 in Europe);

- 23 missions under Funds-in-Trust (F.I.T.), including 6 FIT/OPAS assignments (4 in Africa, 3 in the Americas and 16 in Asia);
- 42 associate expert assignments (15 in Africa, 7 in the Americas and 20 in Asia);
- 5 short missions financed by the Union under Resolution No. 17 of the Plenipotentiary Conference, Torremolinos, 1973.

In addition to the expert missions listed above, various projects were implemented under sub-contracts, carrying a manpower element. (See Table 2 of Annex 6.)

The 352 experts mentioned above were nationals of 42 countries, Members of the Union. These experts executed the 385 missions as detailed in the table below which gives classification by nationality. Each national has only been counted once, irrespective of the number of missions carried out.

No. experts	Nationals of (country)	No. experts	Nationals of (country)
61 (71)	United Kingdom	3	Denmark ⁴
48 (52)	Germany (Federal Republic of) ¹	3	Ethiopia
36 (39)	Sweden ²	2 (3)	Uruguay
21 (26)	France	2	Bulgaria
21	Japan	2	Chile
20 (22)	India	1	Afghanistan
16 (18)	Netherlands ³	1	Cameroon
13	Pakistan	1	Spain
10 (11)	United States of America	1	Fiji
10 (11)	Italy	1	Guyana
9 (10)	Australia	1	Israel
8 (9)	Egypt	1	Morocco
8	Switzerland	1	Peru
7 (8)	Argentina	1	Poland
7 (8)	Canada	1	Syria
6	USSR	1	Roumania
4 (5)	Belgium	1	Sri Lanka
4 (5)	Colombia	1	Tunisia
4 (5)	New Zealand	1	Turkey
4	Ireland	1	Venezuela
3 (4)	Norway	1	Yugoslavia

Note: Figures in brackets denote the number of missions accomplished by the nationals of the country concerned. Where no such additional figure is indicated, the experts carried out only one mission each.

¹ Including 15 associate experts.

² Including 17 associate experts.

³ Including 8 associate experts.

⁴ Including 2 associate experts.

One hundred and sixty-six new expert missions were commenced in 1974 (as against 129 in 1973). This figure includes:

- 39 missions undertaken by experts already in the field who were transferred to new posts or projects, one expert being transferred twice during the year;
- 25 short-term highly-specialized missions were executed under special service agreements. (This type of contracting of experts, already utilized to a lesser degree in previous years, enabled the Union to respond to urgent requests from governments for highly-qualified specialists for short advisory or consultancy missions.);
- 23 associate expert assignments.

The following table compares the periods required for the recruitment of experts in 1969, 1970, 1971, 1972, 1973 and 1974:

Period required	Number of experts					
	1969	1970	1971	1972	1973	1974
up to 6 months	14	33	28	46	61	80
7 to 8 months	13	16	17	15	15	19
9 to 10 months	13	15	20	23	15	26
11 to 12 months	14	7	7	19	10	14
13 to 18 months		6	15	14	13	25
more than 18 months	4	2	5	6	15	2
Total	58	79	92	123	129	166

(The recruitment period is defined as the time gap between the date of commencement of prospection and the date on which the expert takes up his assignment.)

From this table it can be seen that, despite the greater demand for expertise during 1974 the period of time required for recruitment of experts has not increased—in fact, the proportion of experts appointed within a period of six months has slightly improved in relation to 1973, reaching 48% of the total number appointed in 1974.

In general it can be said that the delays in the recruitment of experts are no different from those of other organizations participating in the U.N. development system. The fact that the Union has permanent and direct access to the telecommunication administrations of Member countries in regard to prospection for expert posts puts the Union in an advantageous position.

As a point of comparison, the prospection period for associate expert assignments varied between 3½ and 15 months and averaged just over 7 months. This prospection is carried out by the donor governments on the basis of requests received from the Union.

The average time lapse between the date of advertisement of a post and the date of commencement of a mission may be broken down further as follows:

- a) between the advertisement and the submission of qualified candidatures to requesting governments—3 to 4 months;
- b) between the submission of qualified candidatures to requesting governments and the receipt of notification of governments' choice—1½ to 2½ months;
- c) between the offer of post to selected candidate and the commencement of assignment—1 to 3 months.

In some instances, the delays experienced in the prospection of experts were excessive due to a real shortage of expertise in certain "classical" fields and new and more sophisticated fields, to language requirements, particularly for training expert posts (French and Spanish), to environmental conditions, availability of educational facilities for experts' children, etc. In addition, as already reported in previous years, some of the bilateral aid programmes were able to offer more enticing incentives in regard to leave, allowances for certain duty stations, housing, etc., than the UNDP/ITU system.

During the year under report, prospection was carried out for 224 posts (against 197 in 1973). For 54 of these posts further prospection was found necessary, as the original prospection, commenced in 1974 and previous years, had not brought forth the required expertise. In a great number of cases, recourse

to the Union's register of possible candidates for expert posts has enabled the provision of suitably qualified candidates.

Field vacancy notices continued to be sent to more than 400 different addresses (administrations, U.N.D.P. field offices, national committees on technical assistance, operating agencies participating in the work of the Union, diplomatic missions in Geneva and some professional institutions, etc.) and were followed up by special contacts whenever necessary.

A total of 881 (783 in 1973) candidatures were examined by the Union for 192 (152 in 1973) posts. Only 302 (321 in 1973) of these candidatures were considered suitable for the posts in question—rejection of approximately 66% of the candidatures.

The greater part of the 881 candidatures examined by the Union in 1974 were presented by the following countries:

United Kingdom	155	Philippines	22
India	133	Canada	21
Pakistan	119	Italy	20
France	51	Ireland	19
Sweden	42	Bangladesh	17
United States of America	41	Netherlands	17
Germany (Federal Republic of)	29	Sri Lanka	15
Japan	25	Sudan	12
Norway	24	Argentina	10
Egypt (Arab Republic of)	22	USSR	10

The remaining 77 candidates were nationals of 23 Member countries. Contrary to the experience of previous years, only 140 of the 881 candidatures (424 of 783 in 1973) were presented for more than one post.

7.4.2 *Associate expert scheme*

On the basis of agreements for the provision of associate experts concluded between the Union and the Governments of Germany (Federal Republic of), Denmark, Finland, the Netherlands, Norway and Sweden, 42 associate experts (15 from Germany (Federal Republic of), two from Denmark, eight from the Netherlands and 17 from Sweden) served on the Union's projects in 1974. All except one, who executed a technical mission in Lesotho, were engaged in the training of local staff at the Union's training centre projects in Afghanistan (2), Botswana (1), Chile (1), East African Community (7) (5 in Kenya and 2 in Tanzania), El Salvador—INCATEL Regional (1), Iran (4), Jamaica (2), Lesotho (1), Malawi (1), Malaysia (3), Nigeria (1), Singapore (9), Somalia (1), Sri Lanka (2), Swaziland (1), Venezuela (3) and Zambia (1).

The services rendered by the associate experts continued to be extremely beneficial to the Union's projects.

During the year under review two further agreements for the provision of associate experts were signed with the Governments of Germany (Federal Republic of) and Finland. In anticipation thereof, the Government of Germany (Federal Republic of) had already offered to the Union 11 associate experts for assignment early in 1974. The Governments of Norway and Finland had presented one candidate each towards the end of 1974 for fielding early in 1975.

7.4.3 *Volunteers*

During 1974, the Union benefited from the services of 12 volunteers, four of whom were provided by the Government of Switzerland, three by the United States Peace Corps, one by the United Nations Association (U.N.A.) of the United Kingdom and four under the United Nations Volunteer programme (U.N.V.).

While the three Peace Corps and the U.N.A. volunteers gave instruction in English at the UNDP/ITU telecommunication training centre project in Afghanistan, all four Swiss volunteers gave classes in basic telecommunication subjects. Three of these Swiss volunteers served at the telecommunication school in the Central African Republic and the fourth volunteer worked with the UNDP/ITU instructor at the telecommunication school in Chad. The cost of this assistance was borne by the sponsoring governments/organizations, the recipient governments providing such facilities as housing and medical services in accordance with separate agreements.

Three of the volunteers provided under the programme of United Nations Volunteers served at the High Institute of Telecommunications in Iran, and the fourth was assigned to the Swaziland Industrial Training Institute in M'Babane. All are graduates of universities or technical colleges.

7.4.4 *Administrative support personnel*

During the year under report, 72 administrative support personnel (administrative assistants, secretaries and drivers) were employed at I.T.U. projects in 30 different countries. Of these, 68 were engaged at UNDP/ITU projects and four at a project financed under Funds-in-Trust arrangements.

7.4.5 *Fellowships*

In 1974, the Union dealt with 863 fellowships, compared with 620 during the previous year. The geographical distribution of these fellowships was as follows:

Africa	463 (53.65%) against 294 in 1973
Americas	159 (18.42%) against 111 in 1973
Asia	204 (23.53%) against 163 in 1973
Europe	37 (4.29%) against 52 in 1973

The above figure comprises:

- 858 under the U.N.D.P. (this includes 314 short-term awards to participants in the I.T.U. seminars and three workshops, i.e. Damascus, Beirut and Nairobi);
- 4 fellowships under Funds-in-Trust;
- 1 fellowship under FUNDWI.

The total man-months of fellowships, excluding group training, was 1,224 man-months in 1974 as against 1,152 in 1973.

In the course of the year under review, 683 (79%) of the 863 fellowships dealt with were under implementation (fellows commenced, continued or completed their study programmes abroad) against 457 in 1973. This high implementation ratio was due to the relatively large number of short-term awards.

	1973	1974
Standard fellowships	261	281
Multinational Schools Senegal, Malawi, Kenya	104	114
Group training	92	314

For the purpose of this analysis, the term “standard fellowship” has been employed to denote those fellowships necessitating the organization of individual study programmes in host countries as opposed to participation in group training (seminars, workshops, etc.) or attending full-time courses at a UNDP/ITU Training Centre in Senegal, Malawi or Kenya.

The 1974 figures in the above table include 26 fellows who were counted under both “group training” and “standard fellowship”, due to their attendance at either the I.F.R.B. or interregional seminars followed by short individual study programmes at I.T.U. Headquarters or elsewhere.

As reported already in previous years, the saturation of training facilities in the principal host countries has made it difficult to secure placement for all the standard fellowships planned for a given year. However, despite the saturation of training facilities, host countries again spared no effort during 1974 to accommodate Union fellows, holders of standard fellowships, and a total of 351 programmes were implemented in 47 host countries. Sixty-nine of the fellows followed programmes of study in more than one host country. During the year, the principal host countries, accounting for 74.1% (260) of study/training programmes, were the following:

Host countries	No. of programmes implemented	Percentage of programmes implemented
United Kingdom	47	13.2
France	41	11.5
Germany (Federal Republic of)	31	8.7
United States of America	24	6.7
Sweden	22	7.2
Italy	19	5.3
Spain	17	4.8
Switzerland	17	4.8
Canada	11	3.1
Japan	11	3.1
Australia	10	2.8
Venezuela	10	2.8

7.4% (26) of the study programmes were implemented in a further seven industrialized countries, and the remaining 18.5% (65) programmes were arranged in 27 developing countries, i.e. 8 in Argentina; 7 in Mexico; 5 in Costa Rica; 4 each in Colombia, Iran, Madagascar and Malaysia; 3 each in Lesotho, Singapore and Sudan; 2 each in Fiji, India and Thailand; and one each in Algeria, Brazil, Chile, Ecuador, Egypt, El Salvador, Hong Kong, Indonesia, Morocco, Nicaragua, Paraguay, Senegal, Turkey and Zaire.

7.4.6 *Seminars*

During 1974 (in addition to the I.F.R.B. Seminar) six seminars were organized by the Union; three of these were within the framework of the Pan-African Telecommunication Network (PANAFTEL project). It should also be mentioned that for the first time seminars were financed from sources other than the U.N.D.P., i.e. the Governments of Canada, Norway and Sweden. A list showing the host countries, dates and themes of these seminars is given below:

<i>Host country</i>	<i>Dates</i>	<i>Theme</i>
Ivory Coast (Abidjan)	11-22 March	Transmission I (PANAFTTEL)
Kuwait (Kuwait)	21-30 April	Planning of broadcasting systems
Ecuador (Quito)	2-13 September	Planning and development of rural telecommunications
Tanzania (Dar-es-Salaam)	30 September-11 October	Transmission II (PANAFTTEL)
I.T.U. (Geneva)	14-25 October	Vocational training in telecommunications
Zambia (Lusaka)	4-15 November	Switching (PANAFTTEL)

At a meeting on the implementation of the Pan-African Telecommunication Network held in Addis Ababa in 1972, the representatives of the African administrations requested the I.T.U. to organize a series of four seminars on radio-relay techniques, switching technology and tariffs, intended to allow senior engineering staff of the administrations to further their knowledge of the latest developments in those fields. The Abidjan seminar, which was financed by the Canadian International Development Agency (C.I.D.A.), was the first of this series and was attended by 80 participants from 31 African countries. Six specialists in transmission from Canada and two engineers from I.T.U. Headquarters lectured at the seminar and a specialist in this field from the French Administration served as discussion leader. In addition, radio-relay equipment as well as supervisors' control equipment was demonstrated by representatives of Canadian companies.

The Kuwait seminar was the last in a series on planning of broadcasting systems, organized as part of the preparations for the Conference on LF/MF broadcasting in Regions 1 and 3 which began in 1974. It was financed by the participating countries and to a minor extent by the U.N.D.P.; 43 high-level officials from the broadcasting and telecommunication authorities of 16 Middle Eastern countries participated. Lectures were given by specialists from Canada, France, the Federal Republic of Germany, Italy, Japan, the United Kingdom and Sweden, as well as from the international broadcasting organizations such as the Arab States Broadcasting Union (A.S.B.U.), the European Broadcasting Union (E.B.U.), the Asian Broadcasting Union (A.B.U.), the Union of National Radio and Television Organizations of Africa (U.R.T.N.A.), and the specialized secretariats of the C.C.I.R. and I.F.R.B.

Within the framework of a UNDP/ITU project, a Seminar on Rural Telecommunications for Latin America and the Caribbean Area was held in Quito, Ecuador. Sixty-six participants from the administrations of 23 Latin American countries attended. In addition, representatives of nine national agencies and five international organizations, as well as of eight industrial enterprises, attended the seminar as observers. Lectures were delivered by specialists from Argentina, Brazil, Chile, Colombia, Ecuador, Mexico, Venezuela, the Organization of American States (O.A.S.) and the Inter-American Development Bank (I.D.B.).

The Dar-es-Salaam seminar on transmission, the second in the PANAFTTEL series, was attended by 71 participants from 24 African countries. Lectures were given by six Norwegian, two French and two Brazilian specialists, as well as by two engineers from I.T.U. Headquarters. The seminar was financed by the Norwegian Agency for International Development (N.O.R.A.D.).

The Interregional Seminar on Vocational Training in Telecommunications held at I.T.U. Headquarters was attended by 95 participants from 67 countries as well as one I.T.U. expert and several project managers. Papers were prepared by participants from Costa Rica, Ecuador, the United States of America, Spain, France, Nigeria, Norway, the Federal Republic of Germany, the United Kingdom, Sweden, Switzerland and Zambia and by I.T.U. staff members. Financing was provided by the U.N.D.P. Lecturers were provided by all but three (Costa Rica, Ecuador and Nigeria) of the above-mentioned countries.

The Lusaka seminar on switching was the third PANAFTEL seminar and was financed by the Swedish International Development Authority (S.I.D.A.). Fifty-one participants from 27 African countries took part and papers were presented by specialists provided by Denmark, France, the Federal Republic of Germany, the United Kingdom, Sweden and from the I T U. Headquarters.

The table below shows the number of fellowships awarded, number of participants and source of financing for each of the above seminars:

Seminar	I.T.U. fellowship holders	Other participants	Total No. participants/ countries origin	Source of financing
Abidjan	56	24	80/31	C.I.D.A.
Kuwait	5	38	43/16	U.N.D.P.
Quito	42	24	66/23	U.N.D.P.
Dar-es-Salaam	38	33	71/24	N.O.R.A.D.
Geneva ¹	55	40	95/67	U.N.D.P.
Lusaka	45	6	51/27	S.I.D.A.

¹ Concerns only fellowships awarded to participants in the Seminar on Vocational Training in Telecommunications. The I.T.U. also awarded 35 fellowships (funded by the U.N.D.P.) to participants in the seminar organized by the I.F.R.B. in Geneva. These latter are not included in the above table.

7.4.7 Procurement of equipment

During the year under report equipment was ordered from suppliers located in:

	US \$
Algeria	50
Germany, Federal Republic of	637,481
Australia	23,133
Austria	3,000
Belgium	11,211
Bolivia	6,000
Brazil	2,816
Canada	21,117
Denmark	47,597
Spain	184
United States of America	422,900
France	204,645
Hong Kong	1,381
India	47,845
Italy	89,029
Jamaica	3,376
Japan	521,749
Jordan	6,876
Kenya	30,685
Mexico	11,000
Nigeria	8,221
Norway	24,515
Netherlands	92,563
German Democratic Republic	2,225
United Kingdom	459,881

	US \$
Singapore	1,904
Sweden	337,792
Switzerland	226,752
Czechoslovakia	300
Thailand	2,471
USSR	90,513
Zambia	2,636
Total	<u>3,341,848</u>

More than 80 % was ordered from manufacturers in the following seven countries: Germany (Federal Republic of), the United States of America, France, Japan, the United Kingdom, Sweden and Switzerland.

The US\$3,341,848 worth of equipment ordered represents an increase of just over 15 % when compared with that for 1973 (US\$2,898,429).

The value of equipment delivered during 1974 to field projects was US\$2,765,318 against US\$2,144,848 in 1973. This figure also includes equipment ordered in 1973 or before but not delivered until 1974. As at 31 December 1974, the value of purchase orders still pending amounted to US\$2,190,205, and the Union had received new requisitions for a total of US\$1,638,215. In 1974 the Union dealt with the procurement of equipment for 60 projects, five of which were multinational.

Field experts and U.N.D.P. Resident Representatives concerned were kept constantly informed by the Union of the status of equipment procurement.

The table below gives details on the equipment ordered and delivered in the course of 1974 listed by country of destination.

EQUIPMENT DELIVERED AND ORDERED IN 1974
(listed by country or area of destination)
(in US dollars)

Country projects	Equipment and supplies delivered	Equipment ordered
Afghanistan	34,424	31,423
Albania	7,038	8,428
Algeria	34,447	30,601
Saudi Arabia ¹	29,740	34,490
Bangladesh	3,785	3,785
Bolivia	196,996	252,939
Cameroon	59,509	23,591
Chile	106,515	55,684
Cuba	132,516	248,016
Dahomey	327	—
Egypt	144,669	226,839
Ecuador	47,375	214,383
El Salvador ²	51,804	114,084
Fiji ³	1,367	1,367
Guinea	1,992	3,856
Upper Volta	21,053	—
India	250,900	371,698
Indonesia	54,870	48,111
Iran	120,045	64,553
Iraq	1,944	45,154
Israel	168,634	220,089
Jamaica	26,134	39,731
Jordan	49,958	136,778

Country projects	Equipment and supplies delivered	Equipment ordered
Kenya ⁴	75,258	110,543
Kuwait ⁵	7,932	9,327
Laos	48,808	56,583
Lebanon	2,891	2,923
Malawi ⁶	47,955	112,907
Maldives	—	82,700
Mongolia	37,055	94,855
Nepal	76,523	—
Niger	1,303	—
Nigeria	77,522	63,269
Pakistan	83,765	—
Paraguay	34,546	111,261
Roumania	801	5,001
Rwanda	10	10
Western Samoa	44,295	49,152
Senegal ⁷	65,734	—
Singapore	59,450	21,219
Somalia ⁸	41,015	93,006
Sudan	—	12,000
Sri Lanka	135,346	59,466
Swaziland	1,490	1,490
Turkey	101,554	110,174
Uruguay	14,392	13,102
Venezuela	11,714	2,714
Viet-Nam	55,079	92,968
Yemen (A.R./P.D.R. of) ⁹	183,563	42,663
Zaire	933	11,583
Zambia	10,342	7,332
Total	2,765,318	3,341,848

¹ Equipment supplied under cost-sharing arrangement.

² Multinational project/Costa Rica, El Salvador, Guatemala, Nicaragua.

³ Multinational project/Cook Islands, Fiji, Gilbert and Ellice Islands, British Solomon Islands, Tonga and Western Samoa.

⁴ Multinational project/Kenya, Uganda, Tanzania.

⁵ Funds-in-Trust project.

⁶ Multinational project/Botswana, Lesotho, Malawi, Swaziland.

⁷ Multinational project/Ivory Coast, Dahomey, Guinea, Upper Volta, Mali, Mauritania, Niger, Senegal, Togo.

⁸ Includes equipment under Funds-in-Trust agreement for US\$34,793 (delivered) and US\$79,033 (ordered).

⁹ Equipment supplied under subcontracts (Sana'a Aden pilot telecommunication link).

7.4.8 Subcontracting

During the course of the year, the Union signed four new contracts, bringing the total number of operational contracts to 17. Thirteen companies were involved and 11 UNDP/ITU projects were being partially or entirely operated under subcontracting (see Annex 6, Table 2).

7.5 Simplification of U.N.D.P. procedures and new reporting system

In 1974, the U.N.D.P. introduced certain simplifications in project formulation and monitoring of project execution, so that a project lasting over a relatively long period could be more easily adapted according to changing needs and circumstances.

The U.N.D.P. also introduced a new reporting system, which is expected to provide more timely information on the progress in and results of project activities, enabling those concerned (the Government,

U.N.D.P. and Executing Agency) to take and put into effect any decisions required with regard to the project. The necessary instructions concerning the new reporting system, including the Union's specific requirements, were elaborated at the Union's Headquarters during the year under report and sent to all I.T.U. project personnel. However, the key monitoring devices for project management as regards the Union remain:

- a) progress reports prepared by the experts/project managers;
- b) Resident Representatives' reports to U.N.D.P. Headquarters and the Union;
- c) inspection of projects by the Union's Headquarters' staff, which also permits on-the-spot action whenever deemed necessary.

(Thirty-four such missions were effected in 1974 by the members of the Technical Cooperation Department, to 51 developing countries.)

7.6 Preparation of new projects

During 1974, the Union was in continuous contact with the administrations and U.N.D.P. Resident Representatives in developing countries, in order to assist them in the preparation of requests for new projects as well as for the continuation of existing projects, where this was felt appropriate. Thus the Union, in addition to the tasks resulting from the implementation of approved projects, was called upon to execute a large volume of work in the form of "sectoral support" to the U.N.D.P. field offices—studies and assessments of project requests, technical assistance and advice to various administrations regarding the identification and formulation of requests for UNDP/ITU assistance.

Particularly significant progress was made in the preparation of requests for the following important UNDP/ITU projects, for some of which it is hoped to obtain U.N.D.P. approval in 1975:

Africa

- Radio Circuit Maseru/Nairobi, Lesotho/Kenya
- National Telecommunication Training School, Mauritania
- Training Institute for Posts, Telecommunications and Audio-visual Techniques, Morocco
- National Telecommunication Training Institute, Somalia
- Telecommunication Training Centre, Tunisia
- Pre-investment Surveys of National and Inter-country Links (Burundi, Cameroon, Congo, Equatorial Guinea, Kenya, Malawi, Somalia, Tanzania, Zaire, Zambia)
- Training Project in Radio Frequency Management and Monitoring (regional project—Africa)

Americas

- National Laboratory of Communications, Argentina
- Telecommunication Research and Development, Brazil
- Training of Teaching Personnel and Promotion of Telecommunication Research, Colombia
- Telecommunication Training Centre, Mexico
- National Institute for Telecommunications, Panama

- Development and Training in Telecommunications, Peru
- Telecommunication Training Centre, Trinidad
- Telecommunication Training Centre, Netherlands Antilles
- Telecommunication Training Centre, Uruguay
- Radio Frequency Management, Infrastructure and Follow-up (Regional Telecommunication Integration and Development, Central America) (regional project—Americas)

Asia

- Telecommunication Network Planning, Afghanistan
- Establishment of a Telecommunication Training Centre, Bangladesh
- Telecommunication Test and Development Centre, Indonesia
- Domestic Satellite Earth Station (Training Project), Indonesia
- Long-term Telecommunication Planning Project, Iran
- Radio-relay Maintenance Project, Iran
- Telecommunication Test and Development Centre, Singapore
- Project for Improvement of Radio Frequency Management and Monitoring, Thailand
- Telecommunication Training Centre, Yemen Arab Republic
- Telecommunication Advisory Team, Yemen Arab Republic
- Feasibility Study for the Middle East, Mediterranean and Arab League Countries (regional project—Asia)

7.7 Activities under Resolution No. 29 of the Plenipotentiary Conference (Montreux, 1965)

A considerable part of the activities of the Group of Engineers resulted from direct requests from administrations, and in this context, assistance and/or advice was provided as follows:

- | | |
|--------------------------|--|
| Algeria | — maintenance of telephone exchanges |
| Saudi Arabia | — preparation guidelines for satellite earth station planning |
| | — planning satellite earth station |
| | — participation in discussions with manufacturers on satellite earth station |
| | — non-standard earth station test |
| Bangladesh | — setting up a radio broadcasting time schedule |
| Bhutan | — frequency allocation |
| Burma | — transmission planning |
| | — numbering plan for a national telephone network |
| Central African Republic | — planning automatic telephone network |
| | — television broadcasting |
| Costa Rica | — system selection and tender specification telephone exchanges |
| Cyprus | — satellite earth station planning |
| Ethiopia | — rentals leased telephone and telegraph circuits |
| Guatemala | — tender evaluation telephone network |
| Guinea | — planning automatic telephone network |
| Kuwait | — specification for 2nd satellite earth station |
| | — specifications for international switching centre |
| Lebanon | — outside plant |
| | — system selection automatic telephone exchanges |
| | — investigations TCOM system |

Lesotho	— tender specifications for telephone exchanges
Malawi	— timed local metering telephone exchanges
Oman	— small diameter coaxial cable for colour television
Senegal	— documentation service radio broadcasting and television
Sudan	— general conditions tenders
Sri Lanka	— preparation tender specifications for message switching centre
	— MFC receivers for telephone exchanges
	— technical specifications for a multi-channel music link
Yemen	— planning automatic telephone network
(People's Dem. Rep. of)	

In the majority of these cases, it was necessary to visit the administrations in order to provide the technical assistance required; in a number of cases, it was possible to advise the administrations by correspondence, and in some cases advice was given to officials of the administrations visiting I.T.U. Headquarters.

The Group of Engineers provided assistance requested by the Technical Cooperation Department itself to the following countries:

Liberia/Sierra Leone	— establishment joint telecommunication training centre
Nigeria	— national planning project, independent check of technical specifications
Sudan	— radiocommunications for health services (with the World Health Organization)

The Group of Engineers were requested to contribute to and participate in the following regional conferences and seminars:

Ivory Coast	— First PANAFTEL Seminar on Transmission
Central African Republic	— Coordination Meeting of Central African Countries
Tanzania	— Second PANAFTEL Seminar on Transmission
Zambia	— PANAFTEL Seminar on Switching Techniques

Work on special subjects was undertaken by the Group of Engineers on the instruction of the Secretary-General and the Chief of the Technical Cooperation Department. This concerned the following activities:

- missions to the Federal Republic of Germany, France, the Netherlands, the United Kingdom and Sweden, for a maritime communications project;
- participation in a meeting sponsored by UNESCO (Paris), on training;
- visit to telecommunication equipment manufacturers in the United States of America, the Federal Republic of Germany, Japan, and the United Kingdom;
- mission to France for discussions with consultants on switching specifications;
- mission to the United States of America in connection with the air-transportable earth station for relief in case of natural disasters and communications for the United Nations;
- visit to France (earth station) for information on satellite earth stations and the "Symphonie" project.

The members of the Group of Engineers spent approximately 70 % of their time on activities requiring missions outside Geneva. The Group maintained close contacts with the specialized secretariats of the C.C.I.s and the I.F.R.B. when preparing information and technical assistance for administrations.

Due to the heavy workload and the fact that sometimes specialities were required which were not available within the Group of Engineers, it was necessary to call upon the services of outside specialists in five cases (Sw. frs. 103,228 were disbursed for these missions out of the I.T.U. ordinary budget in accordance with Resolution No. 17 of the Plenipotentiary Conference, Torremolinos, 1973).

7.8 Application of Resolution No. 31 of the Plenipotentiary Conference (Montreux, 1965)

The Working Party on training standards formed in December 1972 met for the second time in May 1974. It considered the results obtained in relation to the recommendations of two sub-groups which met in 1973 to standardize the training of linesmen and to map out a very advanced strategy for the design of training aids.

The Working Party recommended that the activities in progress should be continued, with particular reference to the classification and codification of training tasks and aids with a view to a more or less partial standardization. This work will be continued, particularly in connection with the training of linesmen, and will be conducted in a similar way for the training of crossbar switching centre maintenance staff. These activities were immediately started in 1974 and will be continued in 1975.

To allow the design of training aids which can be standardized and which are in keeping with the performance objectives of the trainees at the end of the course, the Union has submitted for U.N.D.P. approval an ad hoc project involving the participation of an experts' team and six Union training centres in developing countries. The U.N.D.P. response is favourable and the project may be launched at the beginning of 1975. The production of the training aids will be based on systematic procedures in line with the principles of modern educational technology. The phases of this project were defined by the second sub-group in 1973 and were approved by the Working Party in May 1974.

The Training Division provided the necessary impetus and the directives required for the instructors' guides to be prepared by the Union's training centres. It has kept in very close touch with this process and has circulated the first guides to appear so far.

The Division has participated in the briefing of several dozens of experts or project managers on their visits to Geneva. During the briefing, the experts were able to familiarize themselves with the use of the most recent media assembled in a laboratory established in 1974.

The Division has continued to promote exchanges of teaching aids and to procure equipment on request. It has continued to take an active part in the efforts to renew training strategies and programmes in East Africa and, in particular, took part in the Nairobi Conference held for this purpose from 18-22 November 1974 (attended by representatives of Botswana, the East African Community, Ethiopia, Lesotho, Malawi, Mauritius, Somalia, Swaziland, Sudan and Tanzania).

The Training Division has made its services available to the Regional Divisions of the Technical Cooperation Department as required for the drafting of technical assistance projects relating to training.

One of the officials of the Division visited various training centres assisted by the Union in order to examine with the experts and their counterparts the special problems relating to training and to make available to them the experience acquired by the Division, while emphasizing the standardization objectives pursued by the Union. In the case of the Khartoum centre (former UNDP/ITU project), a series of written recommendations was submitted. The centres at Rufisque, Kuwait, Cairo, Dar-es-Salaam and Nairobi were also visited.

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8. ADMINISTRATION OF THE UNION

8.1 STAFF MATTERS

8.1.1 On 31 December 1974, the staff of the various organs of the Union, excluding staff on short-term contracts, was distributed as shown in the following table (for purposes of comparison the figures for the end of 1973 are given in parentheses).

TABLE 1

Distribution of staff (excluding staff on short-term contracts) between the organs of the Union

Organ	Elected officials	Number of contracts		Total
		Permanent	Fixed-term	
General Secretariat	2	326	58	386
I.F.R.B.	5	97	3	105
C.C.I.T.T.	1	31	4	36
C.C.I.R.	1	28	—	29
Total	9	482 (453)	65 (91)	556 (553)

8.1.2 The manning table in the 1974 budget comprised 587 posts, 547 of them permanent. The following changes occurred during the year among staff with permanent or fixed-term contracts: 6 retirements, 6 terminations of contract, 10 resignations or transfers and 3 deaths.

8.1.3 The size of the Union staff is such that it must be supplemented or reinforced when the volume of work increases temporarily, when regular staff is not available or when jobs have to be done for which the corresponding posts do not exist: 1) Conferences and meetings ¹ obviously account for the major proportion of temporary staff, whether they are language staff, staff to carry out all the operations connected with document production and distribution, simultaneous interpretation equipment operators, and so on. 2) A temporary increase in urgent work—for example, a service document which has to be published by a certain date or computer programmes that have to be transcribed—must be absorbed by short-term staff. 3) Sometimes it is more economical to supplement frequently, but on a short-term basis, the staff of a section working in shifts (telephonists) rather than to increase the permanent staff or to incur the high cost of overtime. 4) It has not yet been possible to create permanent posts in every case where the duties performed are of a permanent nature. 5) While the duties of staff who are temporarily absent (on pro-

¹ In 1974 : 29th Session of the Administrative Council — World Administrative Maritime Radio Conference — Regional Administrative LF/MF Broadcasting Conference (First Session) — Public relations (one meeting) — Technical Cooperation (10 meetings) — I.F.R.B. (seminar) — C.C.I.R. (Final Meeting of 13 Study Groups; XIIIth Plenary Assembly) — C.C.I.T.T. (38 meetings).

longed sick or maternity leave, for example) are usually shared by colleagues, temporary assistance is sometimes essential. 6) When a permanent post falls vacant, it may be necessary to recruit someone for a short period until the post is filled.

The assignment of short-term staff in 1974 is shown in the table below. When comparison with the number of established posts is possible (which is not always the case because the pertinent duties either are not covered by established posts or are divided among a number of sections, whereas only one section is supplemented), the corresponding figure is shown in parentheses after the title of the post.

TABLE 2

Staff engaged on short-term contracts

	Number of contracts	Total number of working days
Interpreters	431 (151)	6,964 (2,281½)
Engineers (21 Technical Cooperation)	1 (3)	44 (288)
Analyst/programmers (12)	2 (1)	138 (72)
Translators (18), précis-writers (1), revisers (8)	97 (69)	3,829 (2,787½)
Administrative officers (4), Associate Administrative officers (11)	4 (2)	700 (605)
Proof-readers	21 (27)	951 (2,927½)
Calculator	1 (1)	187 (169)
Prof. assistants, text assemblers, photocomposition-typists	29 (1)	3,584 (183)
Draughtsmen (5), designers (3)	10 (10)	1,010 (1,163)
Carpenters (2), electricians (4), electronics technician	5 (2)	770 (230)
Secretaries, office assistants, bookkeepers, assistants, checkers, heads of teams	162 (107)	12,946 (9,233)
Shorthand-typists, typists (pool 23), clerks	267 (245)	16,633 (18,415)
Telephone operators (3)	30 (46)	714 (335)
Offset operators (8)	9 (2)	1,400 (258)
Punch-card operators (9)	2 (1)	333 (243)
Duplicator operators (9), document assembly staff (6)	49 (32)	4,739 (3,053)
Simultaneous interpretation equipment operators	20 (11)	218 (105)
Documents distribution/dispatching staff (11), other document staff (8), messengers (17), chauffeurs (2), storekeepers (3)	132 (75)	6,617 (4,151)
Total	1,272 (786)	61,777 (46,499½)

(In columns 2 and 3 the 1973 figures are in parentheses).

8.1.4 The distribution of staff according to grade in the various organs is given in Table 3. Most of the posts under the heading "General Secretariat" belong to services which, in fact, work for all the organs of the Union or are posts in the Technical Cooperation Department.

TABLE 3

Distribution of staff according to grade

Grade	General Secretariat		I.F.R.B.		C.C.I.T.T.		C.C.I.R.		Total	
Elected officials	2		5		1		1		9	
	P	FT	P	FT	P	FT	P	FT	P	FT
D.1	4	—	—	—	2	—	2	—	8	—
P.5	5	—	3	—	2	—	2	—	12	—
P.4	17	8	9	—	4	—	5	—	35	8
P.3	22	19	16	1	5	1	3	—	46	21
P.2	22	3	5	—	3	—	—	—	30	3
P.1	5	1	4	—	2	—	1	—	12	1
G.7	15	—	8	—	1	—	2	—	26	—
G.6	49	2	19	—	3	1	4	—	75	3
G.5	58	6	12	1	8	2	4	—	82	9
G.4	47	3	13	—	—	—	5	—	65	3
G.3	39	5	8	1	1	—	—	—	48	6
G.2	35	7	—	—	—	—	—	—	35	7
G.1	8	4	—	—	—	—	—	—	8	4
	326	58	97	3	31	4	28	—	482	65
Total	386		105		36		29		556	

(P = Permanent; FT = Fixed-term)

Note: The above table shows the grades of staff members, those receiving a special post allowance granted upon a recommendation by the Appointment and Promotion Board being shown in the grade for which they receive the allowance.

8.1.5 The principle of geographical distribution applies to elected officials and staff in the following categories: senior counsellors, professional category (excluding language staff), and technical posts in grades G.7, G.6 and G.5. (The principle does not apply to other posts in the general service category.) The geographical distribution at the end of 1974 is shown in three tables. Table 4 concerns the staff whose salaries are paid from the ordinary budget of the Union; the number of nationalities represented was 38 in 1974 (for 137 officials). Table 5 concerns the Headquarters staff whose salaries are paid from the technical cooperation budget and Table 6 concerns technical cooperation experts.

TABLE 4

Geographical distribution on 31 December 1974

(Officials at headquarters whose salary is paid from the ordinary budget of the Union)

Country	Elected officials	D.1	P.5	P.4	P.3	P.2	P.1	G.7	G.6	G.5	Total
<i>Region A — America</i>											
Argentina (Rep.)	1		1								2
Canada					1		1				2
United States of America	1	1		4 (3)	1						6 (5)
Haiti (Rep. of)					1						1
Mexico				1							1
Paraguay (Rep. of)				1							1
<i>Region B — Western Europe</i>											
Germany (Fed. Rep. of)		1		1	2	1	1		1		7
Belgium					1	1					2
Denmark				1							1
Spain					2 (3)	2	2				6 (7)
France	2	2	2	4 (1)	4 (5)	3 (2)	1	2		1	21 (18)
Italy				1	1		1				3
Norway										1	1
Netherlands				1		1					2
United Kingdom		1	3 (4)	3 (2)	1	3 (2)	— (1)	1			12
Sweden					2 (1)		1				3 (2)
Switzerland			1	6 (5)	8 (7)	10 (6)	4 (7)	1	1(—)		31 (27)
Turkey			1			1					2
<i>Region C — Eastern Europe and Northern Asia</i>											
Bulgaria (People's Rep. of)					1						1
Hungarian People's Republic					1						1
Poland (People's Rep. of)					1 (2)						1 (2)
Czechoslovak Socialist Republic		1			— (1)						1 (2)
USSR	1			1	1 (2)						3 (4)
Yugoslavia (Socialist Fed. Rep. of)			1								1
<i>Region D — Africa</i>											
Algeria			1 (—)								1 (—)
Egypt (Arab Rep. of)						1					1
Morocco (Kingdom of)	1				1						2
Tunisia	1										1
<i>Region E — Asia and Australasia</i>											
Afghanistan				1							1
Australia	1			1	1						3
China			1		1						2
India (Rep. of)		1		1	— (1)		1				3 (4)
Indonesia (Rep. of)					1						1
Iran					1						1
Iraq (Rep. of)					1						1
Israel (State of)						1					1
Japan	1			2	2	1					6
Pakistan				1 (—)	— (1)						1
Syrian Arab Republic						— (1)					— (1)
Total	9	7	11	30 (23)	35 (40)	25 (20)	12 (16)	4	2 (1)	2	137 (133)

(Wherever changes have taken place, the figure for 1973 appears in parentheses).

TABLE 5

Geographical distribution on 31 December 1974

(Officials at headquarters whose salary is paid from the technical cooperation budget)

Country	D.1	P.4	P.3	P.2	P.1	Total
<i>Region A — America</i>						
Argentina (Rep.)			1			1
Canada		— (1)		1		1 (2)
United States of America				1		1
<i>Region B — Western Europe</i>						
Germany (Fed. Rep. of)			1			1
France		— (1)	2	1 (2)		3 (5)
Greece			1			1
Ireland			1			1
Italy		1	1 (—)	— (1)		2
United Kingdom		— (1)	— (1)	2 (1)		2 (3)
Sweden	1		1 (2)			2 (3)
Switzerland			1	2		3
<i>Region C — Eastern Europe and Northern Asia</i>						
USSR			1			1
Yugoslavia (Socialist Fed. Rep. of)		1				1
<i>Region D — Africa</i>						
Central African Republic			1			1
Egypt (Arab Rep. of)			1			1
Ethiopia		1				1
<i>Region E — Asia and Australasia</i>						
Saudi Arabia (Kingdom of)					1	1
Korea (Rep. of)			1 (—)	— (1)		1
India (Rep. of)		1	1			2
Japan			1			1
Total	1	4 (7)	15	7 (9)	1	28 (33)

(The figures for 1973 appear in parentheses).

TABLE 6

Geographical distribution on 31 December 1974

(Experts whose salary is paid from the technical cooperation budget)

Country	P.1	P.2	P.3	P.4	P.5	P.6	Total
<i>Region A — America</i>							
Argentine Republic				2 (3)	1 (2)	1 (1)	4 (6)
Canada			— (1)	2 (1)	3 (1)	1 (1)	6 (4)
Chile				— (1)	1 (1)		1 (2)
Colombia				2 (2)	2 (1)		4 (3)
United States of America				1 (2)	4 (3)	2 (2)	7 (7)
Guyana				1 (1)			1 (1)
Peru						1 (1)	1 (1)
Uruguay					1 (2)		1 (2)
Venezuela					1 (1)		1 (1)
<i>Region B — Western Europe</i>							
Germany (Fed. Rep. of)		15 (—)		15 (17)	7 (6)	2 (1)	39 (24)
Belgium				1 (3)	— (1)		1 (4)
Denmark	— (2)			— (1)			— (3)
Spain					1 (1)		1 (1)
France				11 (14)	6 (5)	— (1)	17 (20)
Ireland				2 (2)	2 (2)		4 (4)
Italy				4 (3)	3 (1)		7 (4)
Norway				1 (1)		2 (2)	3 (3)
Netherlands	4 (4)	3 (1)		5 (6)	4 (2)		16 (13)
United Kingdom			1 (1)	26 (24)	11 (14)	4 (3)	42 (42)
Sweden	5 (9)	7 (3)	1 (—)	11 (6)	2 (1)	1 (1)	27 (20)
Switzerland			— (1)	2 (1)	1 (1)		3 (3)
Turkey				1 (1)			1 (1)
<i>Region C — Eastern Europe and Northern Asia</i>							
Bulgaria (People's Rep. of)				2 (1)			2 (1)
Poland (People's Rep. of)				1 (—)			1 (—)
Roumania (Socialist Rep. of)					1 (—)		1 (—)
USSR				2 (1)	3 (2)		5 (3)
Yugoslavia (Socialist Fed. Rep. of)				1 (—)			1 (—)
<i>Region D — Africa</i>							
Cameroon (United Rep. of)					1 (1)		1 (1)
Egypt (Arab Rep. of)				3 (4)	5 (2)		8 (6)
Ethiopia					1 (1)	1 (—)	2 (1)
Morocco (Kingdom of)						1 (1)	1 (1)
Tunisia					1 (—)		1 (—)
<i>Region E — Asia and Australasia</i>							
Afghanistan				— (1)			— (1)
Australia				3 (4)	2 (3)		5 (7)
Fiji					1 (1)		1 (1)
India (Rep. of)		1 (1)	2 (—)	7 (6)	8 (5)	2 (1)	20 (13)
Israel (State of)				— (1)			— (1)
Japan				15 (11)	3 (3)	1 (1)	19 (15)
New Zealand				4 (2)			4 (2)
Pakistan				5 (6)	5 (3)		10 (9)
Total	9 (15)	26 (5)	4 (3)	130 (126)	81 (66)	19 (16)	269 (231)

(The figures for 1973 appear in parentheses).

8.2 FINANCIAL MATTERS

8.2.1 In accordance with Article 10, No. 146, of the Montreux Convention, 1965, and Article 46 of the I.T.U. Financial Regulations, the Secretary-General prepares and submits each year to the Administrative Council a financial operating report and the recapitulative accounts for the previous year. After the report has been examined and approved by the Council, it is sent to the Members and Associate Member of the Union. Nevertheless, to give an idea of the credits allocated to the different activities of the Union and of the position of the accounts of the financial year, the budget and the accounts for 1974 are reproduced in Annex 2 to this Report.

8.2.2 In accordance with Article 16 of the Montreux Convention, 1965, and Articles 2 and 6 of the I.T.U. Financial Regulations, the budget of the Union comprises, on the one hand, recurrent expenditure (Administrative Council, General Secretariat, International Frequency Registration Board, the Secretariats of the International Consultative Committees and the Union's laboratories and technical equipment) and, on the other, expenditure on plenipotentiary conferences, world administrative conferences and all the meetings of the International Consultative Committees. There are also two supplementary budgets, namely, the Technical Cooperation special accounts budget (administrative costs) and the supplementary publications budget.

8.2.3 Additional Protocol I to the Montreux Convention, 1965, fixes the limits within which the Administrative Council was authorized to establish the annual budgets of the Union. For 1974, however, a limit was adopted for recurrent expenditure only which was 3% higher than the amount of 21,642,300 Swiss francs fixed for 1973. The limit for recurrent expenditure in 1974 was therefore 22,291,600 Swiss francs. Paragraph 5 of this Additional Protocol authorizes the Administrative Council to exceed this limit to take account of the increases in the salary scales, pension contributions or allowances, including post adjustments, established by the United Nations for application to its staff employed in Geneva, and fluctuations in the exchange rate between the Swiss franc and the U.S. dollar which would involve additional expenses for the Union.

8.2.4 At its 28th Session, under Resolution No. 720, the Administrative Council, in view of the approach of the Plenipotentiary Conference, approved provisional budgets for 1974 amounting to:

30,101,100 Swiss francs for recurrent expenditure including 22,255,100 Swiss francs within the expenditure limit, and

7,846,000 Swiss francs outside the limit,

1,622,000 Swiss francs for non-recurrent expenditure with respect to installation in the new premises,

8,280,000 Swiss francs for conferences and meetings, including seminars,

29,000 Swiss francs for expenses covered by the Renewal Fund for simultaneous interpretation and other electro-acoustical equipment and by the C.C.I.T.T. Reserve Fund,

5,906,000 Swiss francs for Technical Cooperation administrative costs,

5,082,000 Swiss francs for the supplementary publications budget.

8.2.5 In the same Resolution, the Administrative Council provisionally fixed the amount of the contributory unit for 1974 at 75,500 Swiss francs on the basis of the classification chosen by Members and the Associate Member in accordance with Nos. 212 and 213 of the Montreux Convention, 1965, i.e. on the basis of a total of 485 units.

8.2.6 Finally, in accordance with Article 16, No. 230, of the Montreux Convention, the Administrative Council fixed a figure of 14,400 Swiss francs as the annual unit of contribution towards defraying the expenses of C.C.I.R. and C.C.I.T.T. meetings payable in 1974 by recognized private operating agencies, scientific or industrial organizations and international organizations not exempt by virtue of Council Resolution No. 574.

8.2.7 The Plenipotentiary Conference which met in Torremolinos in September/October 1973 took a number of decisions having financial implications. Furthermore, under Additional Protocol I to the new Convention, it fixed new limits for expenditure for the period 1974 to 1979. These limits were as follows for 1974:

35,000,000 Swiss francs for recurrent expenditure,

6,600,000 Swiss francs for conferences and meetings, including seminars, but not including regional conferences.

Paragraph 4 of this Additional Protocol authorizes the Administrative Council to exceed these limits to take into account increases in salary scales, pension contributions or allowances, including post adjustments, established by the United Nations for application to its staff in Geneva, and fluctuations in the exchange rate between the Swiss franc and the U.S. dollar which would involve additional expenses for the Union. As regards the expenditure limit for conferences and meetings, paragraph 3.3 of Additional Protocol I authorizes the Administrative Council to exceed the annual limits if the excess can be compensated by sums within the expenditure limits accrued from a previous year or foreseen in a future year.

8.2.8 Taking into account the decisions adopted by the Torremolinos Plenipotentiary Conference and the new limits of expenditure fixed, the Administrative Council, during its 29th Session, under Resolution No. 740, approved the final budgets for 1974 as follows:

36,883,900 Swiss francs for recurrent expenditure, including 34,943,900 Swiss francs within the expenditure limit (margin 56,100 Swiss francs) and 1,940,000 Swiss francs outside the limit,

8,318,000 Swiss francs for conferences and meetings, including seminars, of which 6,726,000 Swiss francs were to be met within the expenditure limit for 1974 of 6,600,000 Swiss francs and 126,000 Swiss francs drawn from the limit for 1975, 462,000 Swiss francs outside the limit and 1,130,000 Swiss francs were for expenditure outside the limit for holding a regional conference,

29,000 Swiss francs for expenditure covered by the Renewal Fund for simultaneous interpretation and other electro-acoustical equipment and by the C.C.I.T.T. Reserve Fund,

6,174,400 Swiss francs for Technical Cooperation administrative costs,

5,389,000 Swiss francs for the supplementary publications budget.

8.2.9 Under Resolution No. 740, the Administrative Council also decided to fix the final amount of the contributory unit at 87,000 Swiss francs, on the basis of the classification chosen by Members and the Associate Member in accordance with Nos. 212 and 213 of the Montreux Convention, 1965, and taking into account Resolutions Nos. 10 and 15 of the Torremolinos Plenipotentiary Conference, 1973, i.e. on the basis of 474¼ units.

8.2.10 Under the same Resolution, the Administrative Council further decided to maintain 14,400 Swiss francs as the annual unit of contribution to defrayal of the expenses of the C.C.I.s payable by recog-

nized private operating agencies, scientific or industrial organizations and international organizations not exempt by virtue of Resolution No. 574.

8.2.11 Under Resolution No. 647, the Administrative Council instructed the Secretary-General to introduce changes in the basic salary scales of staff in the senior counsellor, professional and general service categories and in the rates and classes of post adjustment as and when such changes were applied by the United Nations for staff of the United Nations Office in Geneva.

8.2.12 The salary scale of staff in the general service category was changed by the United Nations in August 1974 and this change was applied on the same date to the staff of the Union. This measure resulted in an increase in the ordinary budget of 254,000 Swiss francs, in the Technical Cooperation special accounts budget of 49,400 Swiss francs and in the supplementary publications budget of 4,400 Swiss francs.

On the other hand, changes in the exchange rate of the U.S. dollar which occurred in November and December 1974 resulted in a reduction in the ordinary budget of 38,000 Swiss francs and in the Technical Cooperation special accounts budget of 5,400 Swiss francs.

8.2.13 The budgets of the Union for 1974 therefore finally amounted to:

45,446,900 Swiss francs for the ordinary budget,
6,218,700 Swiss francs for the Technical Cooperation special accounts budget,
5,389,000 Swiss francs for the supplementary publications budget (unchanged).

8.2.14 Furthermore, during its 29th Session, the Administrative Council, under Resolution No. 738, approved the budget for 1975 amounting to:

39,741,400 Swiss francs for recurrent expenditure,
5,946,000 Swiss francs for conferences and meetings, including seminars,
50,000 Swiss francs for expenses covered by the Renewal Fund for simultaneous interpretation and other electro-acoustical equipment and by the C.C.I.T.T. Reserve Fund,
6,415,200 Swiss francs for Technical Cooperation administrative costs,
6,440,000 Swiss francs for the supplementary publications budget.

8.2.15 Under the same Resolution, the Administrative Council fixed the amount of the contributory unit at 98,600 Swiss francs on the basis of the classification chosen by Members in accordance with Nos. 92 and 93 of the Torremolinos Convention, 1973, i.e. on the basis of a total of 415½ units.

8.2.16 The Administrative Council also decided to adopt a figure of 16,600 Swiss francs as the annual unit of contribution in 1975 towards the defrayal of expenses of the C.C.I.R. and the C.C.I.T.T. for recognized private operating agencies, scientific or industrial organizations and international organizations not exempt by virtue of Administrative Council Resolution No. 574.

Classification of the Members of the Union for the apportionment of Union expenditure in 1974

8.2.17 At the end of 1973, the Union had 146 Members and one Associate Member contributing on the basis of a total of 473½ units, bearing in mind Resolutions Nos. 10 and 15 of the Torremolinos Plenary Conference.

8.2.18 Following the accession of two new Members in 1974, the I.T.U. on 31 December 1974 had 148 Members and one Associate Member contributing to the defrayal of Union expenses on the basis of a total of 474 units.

Cash resources

8.2.19 In 1974, for the fourth year running, the Union found itself in a difficult financial position and already in May (compared with June in 1973), advances had to be requested from the Government of the Swiss Confederation. These advances amounted in all to 12,000,000 Swiss francs (as against 6,500,000 Swiss francs in 1973, 4,000,000 Swiss francs in 1972 and 3,000,000 Swiss francs in 1971). These loans were partially repaid in December 1974 following the receipt of the remainder of contributions for 1974 and of contributions for 1975. On 31 December 1974 the amount due to the Government of the Swiss Confederation was 3,000,000 Swiss francs.

Contributions in arrear

8.2.20 Total amounts due on 31 December of the years 1972, 1973 and 1974 were as follows:

31 December 1972	11,318,136.— Swiss francs
31 December 1973	1,918,890.92 Swiss francs
31 December 1974	1,420,083.80 Swiss francs

8.2.21 It should be noted that, as from 1973, the total of the amounts due takes into account the cancellation of interest on arrears decided by the Torremolinos Plenipotentiary Conference under Resolution No. 10 (3,058,271.83 Swiss francs) and the transfer to a special interest on arrears account of amounts unpaid by the nine principal debtors (6,560,016.18 Swiss francs).

8.2.22 On 31 December 1974 the amounts entered in this special interest on arrears account and not yet paid totalled 5,456,010.68 Swiss francs. Since the Plenipotentiary Conference this special account has therefore been reduced by the payment of 1,104,005.50 Swiss francs by the Members concerned.

8.2.23 Annex 7 to the present Report shows the situation of the main debtors of the Union on 31 December 1974.

9. RELATIONS WITH THE UNITED NATIONS AND OTHER INTERNATIONAL ORGANIZATIONS

UNITED NATIONS

During 1974 the I.T.U. was represented, within the limits of available resources, at meetings of the United Nations when matters of common interest were under discussion. As in the past, the work of the Economic and Social Council and its Committees was closely followed during the summer session which is held in Geneva. At the 57th Session, the Secretary-General presented the I.T.U. annual report. A discussion followed in which the Secretary-General replied to comments and questions raised by delegations concerning the I.T.U. structure, financial matters, the Plan Committees, the I.T.U. computer, etc. The I.T.U. also continued to participate in the work of the Administrative Committee on Coordination (A.C.C.) and a number of its sub-committees and in that of the Consultative Committee on Administrative Questions (C.C.A.Q.), the International Civil Service Advisory Board (I.C.S.A.B.), the Consultative Committee on Public Information (C.C.P.I.) and the Inter-Organization Board for Information Systems and Related Activities (I.O.B.).

In accordance with Administrative Council Resolution No. 636, the I.T.U. continued to pay special attention to meetings dealing with the peaceful uses of outer space and in 1974 was represented at meetings of the Scientific and Technical Sub-Committee of the United Nations Committee on the Peaceful Uses of Outer Space and of the latter's Working Group on Direct Broadcast Satellites. An official of the I.T.U. also attended an ad hoc Inter-Agency Meeting on Outer Space Applications.

Pursuant to General Assembly Resolution 2130 (XX), the 13th Annual Report on Telecommunications and the Peaceful Uses of Outer Space was presented to the Economic and Social Council and to the Committee on the Peaceful Uses of Outer Space. Information on activities in 1974 is contained in the 14th Report.

In the field of science and technology, officials of the I.T.U. attended meetings of the Advisory Committee on the Application of Science and Technology to Development (A.C.A.S.T.) and some of its regional groups.

The I.T.U. has closely collaborated with the High Commissioner for Refugees (U.N.H.C.R.) with particular reference to relief assistance to Southern Sudan.

The only Joint Inspection Unit report of concern to the I.T.U. issued in 1973 was one entitled "Report on the need for a revised concept of U.N.D.P. regional training programmes in the least-developed countries: the East African case". (Report on Technical Cooperation)

REGIONAL ORGANIZATIONS

Africa

Very fruitful collaboration and cooperation continued between the I.T.U. and the regional and sub-regional organizations in Africa.

The PANAFTEL Coordinating Committee composed of E.C.A., O.A.U., A.D.B. and I.T.U. met on four occasions at the head of agency level in order to stimulate and harmonize investments and to expedite the execution of the Pan-African Telecommunication Network. This Committee has become an effective

forum to channel investments from bilateral and multilateral sources. The concerned countries and organizations have entrusted to the I.T.U. the responsibility for technical coordination of this Network.

The I.T.U. continued to be invited to all major meetings of the O.A.U., E.C.A. and A.D.B. where it was represented at appropriate levels.

Latin America

The Union continued to maintain contact with the Economic Commission for Latin America (E.C.L.A.) through one of the regional experts stationed in the area. In particular, this expert provided information on the activities carried out by the Union in the various countries of the continent and on the general situation of telecommunication development. Discussions were also held on the measures to be taken to strengthen the links of cooperation between the two organizations.

The relations established between the I.T.U. and the Organization of American States and, in particular, its Inter-American Telecommunication Conference (C.I.T.E.L.) were maintained during 1974. A permanent contact is ensured at the level of the President of COM/CITEL through one of the I.T.U. regional experts in the area. Furthermore, I.T.U. representatives attended the meeting of COM/CITEL organized in Quito, Ecuador in September 1974.

In accordance with U.N.D.P. policy concerning support to organizations on the continent whose aims are regional and sub-regional integration, contacts were also maintained through the I.T.U. regional experts with other regional organizations such as A.L.A.L.C. (Acuerdo Latino Americano de Libre Comercio), C.I.C. (Comité Intergubernamental de los países de la Cuenca del Plata), I.N.T.A.L. (Instituto para la Integración de América Latina), Junta del Acuerdo de Cartagena (Pacto Andino) and the Caribbean Common Market (CARICOM).

Periodic contacts were made by one of the I.T.U. regional experts with representatives of the I.D.B. (Inter-American Development Bank) Headquarters or with representatives stationed in countries receiving financial assistance by the Bank.

A meeting of the Ministries of Communications of the Andean countries which was attended by two I.T.U. regional experts took place in Cali, Colombia in May 1974. A decision was taken by the Ministries to create the A.S.E.T.A. (Asociación de Empresas Estatales de Telecomunicaciones del Acuerdo Sub-regional Andino) whose General Secretariat began its activities as from the end of 1974. Plans are being made to strengthen the cooperation of the Union with the member countries of A.S.E.T.A. through its General Secretariat established in Quito.

Europe, Mediterranean and Middle East Region

As during previous years, there was close cooperation between the I.T.U. and the two regional telecommunications organizations, the Arab Telecommunication Union and the Arab States Broadcasting Union in connection with the execution of ITU/UNDP projects. The preliminary studies of the regional network survey of the Mediterranean Arab League and neighbouring countries as well as in the planning of advanced level courses in modern telecommunication techniques, a broadcasting LF/MF seminar and other regional training projects were carried out in close connection with these two organizations. Both of the organizations attended a resumé meeting held in Broumana, Lebanon, where the progress of the study of the regional network survey was discussed. The I.T.U. was represented at the Eleventh Arab Telecommunication Union Plenipotentiary Congress in Tunis as well as at the joint meeting between special consultative committees of the Arab Telecommunication Union and the Arab States Broadcasting Union dealing with questions concerning the regional telecommunications network and, in particular, the use of a regional telecommunication satellite.

Contact was made with the Arab League concerning coordination of future technical assistance in the field of telecommunications in the Arab region.

The newly established Economic Commission for Western Asia, with headquarters in Beirut, emphasized the important role of telecommunications in the region. It is expected that the I.T.U. will actively assist the E.C.W.A. in the field of telecommunications.

The regional telecommunication network survey project was financed during 1974 on a cost-sharing arrangement between the U.N.D.P. and the Arab Fund for Economic and Social Development and the I.T.U. had close cooperation with the A.F.E.S.D. during the execution of the project.

Asia and the Pacific Regions

Close contact and cooperation was maintained with the Economic and Social Commission for Asia and the Pacific (E.S.C.A.P.) through the three regional experts stationed at Bangkok, together with officials from I.T.U. Headquarters. In particular, significant I.T.U. contributions were made to the first meeting of the E.S.C.A.P. Intergovernmental Working Party of Telecommunication Experts held in Bangkok in November 1974, at which time the nature and the framework of future technical assistance to be rendered by the I.T.U. in the region was the subject of formal resolutions.

Increased contact was made with the Asian Development Bank (A.S.D.B.) in 1974 through the senior regional expert, who was requested by some countries in the region to assist them in preparation or discussions leading to financial support to development projects in relation to the regional network. The A.S.D.B. was also represented at most of the coordinating meetings held by the I.T.U. regional experts and the representatives of the countries involved in the implementation programme.

The I.T.U. was represented at the General Assembly of the Asian Broadcasting Union held in Tokyo in October 1974, where areas of I.T.U. cooperation with the A.B.U. were discussed, particularly in relation to the A.B.U. supported UNESCO Regional Broadcasting Training Centre in Malaysia.

SPECIALIZED AGENCIES

Officials of the Union continued to maintain close relations with the agencies which have a special interest in telecommunications, i.e. the United Nations Educational, Scientific and Cultural Organization (UNESCO), the International Civil Aviation Organization (I.C.A.O.), the World Meteorological Organization (W.M.O.) and the Intergovernmental Maritime Consultative Organization (I.M.C.O.).

The I.T.U. was represented at a UNESCO Seminar on Training of Communications Planners in Asia and at a Meeting of Experts on the International Standardization of Statistics on Radio and Television.

An I.T.U. official attended the 8th Africa-Indian Ocean Regional Air Navigation Meeting of I.C.A.O.

As regards the W.M.O., I.T.U. officials attended the 6th Session of the Regional Association V (South West Pacific).

The I.T.U. was represented at the 30th Session of the I.M.C.O. Maritime Safety Committee, at two sessions of its Sub-Committee on Radiocommunications and at two sessions of the Panel of Experts on Maritime Satellites.

I.T.U. officials attended the XVIIth Universal Postal Congress of the U.P.U.

RELATIONS WITH OTHER INTERNATIONAL ORGANIZATIONS

Apart from the specialized agencies and the regional organizations mentioned above, the Headquarters of the Union maintained close collaboration with a number of international organizations, among which mention should be made of the following:

African and Malagasy Postal and Telecommunication Union (U.A.M.P.T.)
Arab Telecommunication Union
Asia Electronics Union (A.E.U.)
Asian Broadcasting Union (A.B.U.)
Committee on Space Research (COSPAR)
Danube Commission
European Broadcasting Union (E.B.U.)
European Conference of Postal and Telecommunications Administrations (E.P.T.)
Inter-American Association of Broadcasters (I.A.A.B.)
International Astronautical Federation (I.A.F.)
International Chamber of Commerce (I.C.C.)
International Council of Scientific Unions (I.C.S.U.)
International Criminal Police Organization (INTERPOL)
International Electrotechnical Commission (I.E.C.)
International Organization for Standardization (I.S.O.)
International Radio and Television Organization (O.I.R.T.)
International Red Cross Committee (C.I.C.R.)
International Marine Radio Association (C.I.R.M.)
International Union of Radio Science (U.R.S.I.)
International Special Committee on Radio Interference (C.I.S.P.R.)
International Telecommunications Satellite Consortium (INTELSAT)
Inter-Union Committee on Allocation of Frequencies for Radio Astronomy and Space Science (I.U.C.A.F.)
Union of National Radio and Television Organizations of Africa (U.R.T.N.A.)

A complete list of meetings of the United Nations and other international organizations in which officials of the Union participated in 1974 appears in Annex 5 to this Report.

ANNEX 1

**POSITION ON 31 DECEMBER 1974
OF MEMBERS AND ASSOCIATE MEMBERS IN RELATION TO THE ACTS OF THE UNION**

Table I. *Montreux Acts (1965) and Regulations annexed thereto:*

- International Telecommunication Convention, Montreux, 1965;
- Optional Additional Protocol to the International Telecommunication Convention, Montreux, 1965, on the Compulsory Settlement of Disputes;
- Radio Regulations and Additional Radio Regulations (A.R.C., Geneva, 1959);
- Partial Revision of the Radio Regulations (E.A.R.C., Geneva, 1963) (space);
- Partial Revision of the Radio Regulations (E.A.R.C., Geneva, 1966) (aeronautical);
- Partial Revisions of the Radio Regulations and of the Additional Radio Regulations (W.A.R.C., Geneva, 1967) (maritime);
- Partial Revision of the Radio Regulations (W.A.R.C., Geneva, 1971) (space-2);
- Telegraph and Telephone Regulations (Geneva, 1973).

Table II. *African Regional Agreements:*

- Regional Agreement for the African Broadcasting Area concerning the use of frequencies by the broadcasting service in the very high frequency and ultra high frequency bands (Geneva, 1963);
- Regional Agreement concerning the use of frequencies by the broadcasting service in the medium frequency band in the African Broadcasting Area (Geneva, 1966).

Table III. *American Regional Agreements:*

- Inter-American Radio Agreement (FIAR) (Washington, 1949);
- North-American Regional Broadcasting Agreement (NARBA) (Washington, 1950).

Table IV. *European Regional Conventions, Arrangements and Agreements:*

- European Broadcasting Convention (Copenhagen, 1948);
- European Regional Convention for the Maritime Mobile Radio Service (Copenhagen, 1948);
- Regional Arrangement concerning Maritime Radiobeacons in the European Area of Region 1 (Paris, 1951);
- Regional Agreement for the Use of Frequencies in the Bands 68-73 MHz and 76-87.5 MHz by the Broadcasting Service on the one hand and by the Fixed and Mobile Services on the other (Geneva, 1960);
- Regional Agreement for the European Broadcasting Area (Stockholm, 1961);
- Regional Agreement Concerning the Radiotelephone Service for the Rhine (Brussels, 1970).

Tables V.1 to V.6. *Special Agreements:*

- Special Regional Agreement Concerning the Use of the 100-104 MHz Band by the Broadcasting Service (1962);
- Special Agreement for Use of the 582-606 MHz Band for Radionavigation Purposes (Brussels, 1962);
- Special Agreement in Connection with the Use of VHF and UHF in Fixed and Mobile Services in Frontier Areas (Brussels, 1963);
- Special Agreement Concerning the Use of Frequencies for Additional low-power Television Transmitters operating in the ultra high-frequency Range (Band IV, 472-582 MHz and Band V, 582-960 MHz) in the Frontier Areas (Karlsruhe, 1966);
- Special Agreements Concerning the Coordinated Use of Frequencies between 29.7 and 470 MHz by the Fixed and Land Mobile Services (Vienna, 1969 and 1970);
- Special Agreement Concerning the Introduction of the Broadcasting Service in the Frequency Band 100-104 MHz (Darmstadt, 1971).

Table I. Convention, Regulations

POSITION ON 31 DECEMBER, 1974

The letter S means that the Act concerned has been signed.
The letter A in columns 3 or 5 means accession; in the other columns, it means approval.

Country or group of territories (In the alphabetical order of the French version of the country names)	CONVENTION, etc.				
	Plenipotentiary Conference, Montreux, 1965				
	Class of contribution No. of units	Convention, etc.*	Date on which the instrument of rati- fication or accession was deposited with the General Secretariat	Opt. Add. Protocol**	Date on which the instrument of rati- fication or accession was deposited with the General Secretariat
1	2	3	4	5	6
MEMBERS					
Afghanistan (Republic of) ⁶⁸⁾	1/2	S ¹⁾	31. I. 1969	S	31. I. 1969
Albania (People's Republic of)	1/2	A	5. V. 1969 ⁴⁰⁾	—	
Algeria (Algerian Democratic and Po- pular Republic)	3	S ¹⁾	24. IX. 1968 ²⁾	—	
Germany (Federal Republic of) ⁶¹⁾	20	S ¹⁾	16. XII. 1968 ³⁰⁾	—	
Saudi Arabia (Kingdom of)	1	S ¹⁾	6. IX. 1968 ²⁾	—	
Argentine Republic	15	S ¹⁾	17. V. 1967	—	
Australia ⁷¹⁾	18	S ¹⁾	25. I. 1967 ⁶⁵⁾	S	25. I. 1967
Austria	1	S ¹⁾	23. I. 1969	S	23. I. 1969
Bahamas (Commonwealth of the)	1/2	A	19. VIII. 1974	—	
Bangladesh (People's Republic of)	1	A	5. IX. 1973	—	
Barbados	1/2	A	16. VIII. 1967	—	
Belgium	8	S ¹⁾	23. VI. 1971	S	23. VI. 1971
Byelorussian Soviet Socialist Republic	1	S ¹⁾	29. V. 1969 ²⁾	—	
Burma (Socialist Republic of the Union of) ⁷⁰⁾	1	S ¹⁾	16. VII. 1970	S	
Bolivia (Republic of) ⁷²⁾	1/2 ⁷⁷⁾	S ¹⁾	24. IX. 1970	S	
Botswana (Republic of)	1/2	A	2. IV. 1968	—	
Brazil (Federative Republic of) ⁶⁶⁾	5	S ¹⁾	12. VII. 1968	S	
Bulgaria (People's Republic of)	1	S ¹⁾	5. VIII. 1969 ⁴³⁾	—	
Burundi (Republic of) ¹⁷⁾	1/2	A	21. IV. 1971	—	
Cameroon (United Republic of) ⁶²⁾	1/2	S ¹⁾	24. IV. 1968	—	
Canada	18	S ¹⁾	31. VIII. 1966 ²⁾	S	30. I. 1967
Central African Republic	1/2	S ¹⁾	15. VIII. 1966	S	15. VIII. 1966

*) Convention, Final Protocol, Additional Protocols.
**) Optional Additional Protocol on the Compulsory Settlement of Disputes.

ADMINISTRATIVE REGULATIONS																	
Administrative Radio Conferences														World Administrative Telegraph and Telephone Conference Geneva (1973)			
Radio Regulations										Additional Radio Regulations							
A.R.C. Geneva (1959)		Partial Revision E.A.R.C. Geneva (1963) (space)		Partial Revision E.A.R.C. Geneva (1966) (aeronautical)		Partial Revision W.A.R.C. Geneva (1967) (maritime)		Partial Revision W.A.R.C. Geneva (1971) (space-2)		A.R.C. Geneva (1959)		Partial Revision W.A.R.C. Geneva (1967) (maritime)		Telegraph Regulations		Telephone Regulations	
7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
S	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—		—		S	A ⁴⁾	—		—		—	
S	⁴⁰⁾	—	⁴⁰⁾	—	⁴⁰⁾	—	⁴⁰⁾	—		S	⁴⁰⁾	—	⁴⁰⁾	S		S	
—	A ⁴⁾	S	A	S	A ⁴⁾	S	A	S		—	A ⁴⁾	S	A	S		S	
S	A ²³⁾	S	A ³²⁾	S	A ⁴¹⁾	S	A ⁴¹⁾	S	A ⁶³⁾	S	A	S	A ⁴¹⁾	S		S	
S	A ⁴⁾	—	A ⁴⁾	S	A ⁴⁾	—		S		S	A ⁴⁾	—		S		S	
S	A ²⁴⁾	S	A ³⁾	S	A	S	A	S	A	S	A ²⁴⁾	S	A	S		S	
S	A	S	A	S	A	S	A	S	A	S	A	S	A	S	A	S	A
S	A	S	A	—	A	S	A	S		S	A	S	A	S		S	
—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—		—	
—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—		—	
—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—		—		—	A ⁴⁾	—		—		—	
S	A	S	A	S	A	S	A	S		S	A	S	A	S		S	
S	¹⁾	S	A	—	A ³⁴⁾	—	¹⁾	S	A	S	¹⁾	—	¹⁾	S		S	
S	A	—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—		S	A	—	A ⁴⁾	—		—	
S	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—		S	A ⁴⁾	—	A ⁴⁾	—		—	
—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—		—		—	A ⁴⁾	—		—		—	
S	A	—	A ⁴⁾	S	A ⁴⁾	S		S		S	A	S		S		S	
S	¹⁾	S	¹⁾	S	A ¹²⁾	S	¹⁾	S		S	¹⁾	S	¹⁾	S		S	
—	A ⁴⁾	—	A	—	A ⁴⁾	—	A ⁴⁾	—		—	A ⁴⁾	—	A ⁴⁾	—		—	
—	A	—	A	—	A ⁴⁾	S		S		—	A	S		S		S	
S	A	S	A ³⁾	S	A	S	A	S	A	S	A ³⁾	S	A	S	A	S	A
—	A	—	A	—		—		S		—	A	—		S		S	

Convention, Regulations (cont.)

[illegible]

*) Convention, Final Protocol, Additional Protocols.
**) Optional Additional Protocol on the Compulsory Settlement of Disputes.

Table I.

Convention, Regulations (cont.)

Country or group of territories (In the alphabetical order of the French version of the country names)	CONVENTION, etc.				
	Plenipotentiary Conference, Montreux, 1965				
	Class of contribution No. of units	Convention, etc.	Date on which the instrument of rati- fication or accession was deposited with the General Secretariat	Opt. Add. Protocol **	Date on which the instrument of rati- fication or accession was deposited with the General Secretariat
1	2	3	4	5	6
Ghana	1	S ¹⁾	24. I. 1973	S	24. I. 1973
Greece	1	S ¹⁾	26. VII. 1968	S	26. VII. 1968
Guatemala	1	S ¹⁾	12. X. 1972	S	
Guinea (Republic of)	½	S ¹⁾	3. X. 1966	—	
Equatorial Guinea (Republic of)	½	A	2. VII. 1970	—	
Guyana	½	A	8. III. 1967	—	
Haiti (Republic of)	½ ⁷⁷⁾	S		S	
Upper Volta (Republic of)	½	S ¹⁾	5. IV. 1968	—	
Honduras (Republic of)	½	A	14. XI. 1973	—	
Hungarian People's Republic	1	S ¹⁾	20. I. 1969 ³⁹⁾	—	
India (Republic of)	13	S ¹⁾	1. XII. 1967	—	
Indonesia (Republic of)	1	S ¹⁾	12. I. 1970 ⁴⁹⁾	—	
Iran	1	S ¹⁾	11. II. 1969	—	
Iraq (Republic of)	1	S ¹⁾	15. VII. 1969 ²⁾	—	
Ireland	3	S	17. V. 1967	—	
Iceland	½	S ¹⁾	8. III. 1967	—	
Israel (State of)	1	S ¹⁾	20. III. 1968	—	
Italy	10	S ¹⁾	28. X. 1968	—	
Jamaica	1	S ¹⁾	2. IV. 1969 ²⁾	—	
Japan	20	S	30. VIII. 1967	S	30. VIII. 1967
Jordan (Hashemite Kingdom of)	½	S ¹⁾	1. III. 1967	—	
Kenya (Republic of) ⁷³⁾	½	S ¹⁾	25. X. 1968	—	
Khmer Republic ⁸⁰⁾	1	A	13. IX. 1968	—	
Kuwait (State of)	1	S ¹⁾	11. IV. 1968 ²⁾	—	
Laos (Kingdom of)	½	S	27. IX. 1967	—	
Lesotho (Kingdom of)	½	A	26. V. 1967	—	

*) Convention, Final Protocol, Additional Protocols.
**) Optional Additional Protocol on the Compulsory Settlement of Disputes.

ADMINISTRATIVE REGULATIONS																	
Administrative Radio Conferences														World Administrative Telegraph and Telephone Conference Geneva (1973)			
Radio Regulations										Additional Radio Regulations				Telegraph Regulations		Telephone Regulations	
A.R.C. Geneva (1959)	Partial Revision E.A.R.C. Geneva (1963) (space)	Partial Revision E.A.R.C. Geneva (1966) (aeronautical)	Partial Revision W.A.R.C. Geneva (1967) (maritime)	Partial Revision W.A.R.C. Geneva (1971) (space-2)						A.R.C. Geneva (1959)	Partial Revision W.A.R.C. Geneva (1967) (maritime)						
7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
S	A	S	A	S	A ⁴⁾	S	A ⁴⁾	S	A ⁴⁾	S	A	S	A ⁴⁾	—		—	
S	A	S	A	—	A ⁴⁾	S	A	S		S	A	S	A	S		S	
—	A ²¹⁾	—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—		—	A	—	A ⁴⁾	—		—	
—	A ⁴⁾	—	A	—	A	—	A	—		—	A ⁴⁾	—	A	—		—	
—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—		—	A ⁴⁾	—	A ⁴⁾	—		—	
—	A ⁴⁾	—	A ⁴⁾	—	A	S	A	—		—	A ⁴⁾	S	A	—		—	
—		—		—		—		—		—		—		—		—	
—	A ⁴⁾	—	A	—	A ⁴⁾	—	A	S		—	A ⁴⁾	—	A	—		—	
—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—		—	
S	A ⁴⁾ ³⁹⁾	S	A ⁴⁾	S	A ⁴⁾ ⁴²⁾	S	A	S	A	S	A ⁴⁾	S	A	S	A	S	A
S	A	S	A	S	A	S	A	S	A	S	A	S	A	S	A	S	A
S	A	S	A ⁴⁾	S	A ⁴⁾	S	A ⁴⁾	S		S	A	S	A ⁴⁾	S		S	
S	A	—	A ⁴⁾	—	A ⁴⁾	—		S		S	A	—	A ⁴⁾	S		S	
S	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	S		S	A ⁴⁾	—	A ⁴⁾	—		—	
S	A	S	A	S	A	S	A	S	A	S	A	S	A	S		S	
S	A	S	A	—	A ⁴⁾	S		S		S	A	S		S		S	
S	A ²¹⁾	S	A	S	A	S		S		S	A ²¹⁾	S		S		S	
—	A ⁴⁾	S	A ²⁰⁾	S	A ⁴⁾	S	A ⁴⁾	S	A	—	A ⁴⁾	S	A ⁴⁾	S	A	S	A
S	A	S	A	S	A	S	A	S	A	S	A	S	A	S	A	S	A
S	A	—	A ⁴⁾	—		S		—		S	A	S		—		—	
—	A ⁴⁾	—	A	—	A	—	A	S		—	A ⁴⁾	—	A	S		S	
S	A	S	A	—	A ⁴⁾	—		—		S	A	—		—		—	
S	A	S	A	S	A ⁴⁾	S	A	S	A	S	A	S	A	S		S	
—	A	—	A	—	A ⁴⁾	—	A	—		—	A	—	A	—		—	
—	A ⁴⁾	—	A ⁴⁾	—		—		—		—	A ⁴⁾	—		—		—	

Table I.

Country or group of territories (In the alphabetical order of the French version of the country names)	CONVENTION, etc.				
	Plenipotentiary Conference, Montreux, 1965				
	Class of contribution No. of units	Convention, etc.	Date on which the instrument of rati- fication or accession was deposited with the General Secretariat	Opt. Add. Protocol **	Date on which the instrument of rati- fication or accession was deposited with the General Secretariat
1	2	3	4	5	6
Lebanon	1	S ¹⁾	10. I. 1967	—	
Liberia (Republic of)	1	S ¹⁾	27. IV. 1973	—	
Libyan Arab Republic ⁴⁴⁾	½	A	15. VIII. 1968	—	
Liechtenstein (Principality of)	½	S ¹⁾	12. XII. 1967	S	12. XII. 1967
Luxembourg	½	S ¹⁾	31. XII. 1968	S	31. XII. 1968
Malaysia	3	S ¹⁾	6. IX. 1968	—	
Malawi	½	S ¹⁾	17. I. 1969	A	16. XII. 1966
Maldives (Republic of) ¹⁵⁾	½	A	28. II. 1967	—	
Malagasy Republic	1	S ¹⁾	18. VIII. 1967	S	30. IX. 1970
Mali (Republic of)	½	S ¹⁾	14. III. 1968	—	
Malta (Republic of) ⁷⁹⁾	½	S ¹⁾	9. V. 1969	S	9. V. 1969
Morocco (Kingdom of)	1	S ¹⁾	17. X. 1968	—	
Mauritius	½	A	30. VII. 1969	—	
Mauritania (Islamic Republic of)	½	S ¹⁾	13. VIII. 1969	S	13. VIII. 1969
Mexico	5	S ¹⁾	2. XI. 1967	S	
Monaco	½	S	22. IV. 1969	S	
Mongolian People's Republic	½	S ¹⁾	29. X. 1971 ²⁾	S	
Nauru (Republic of)	½	A	10. VI. 1969	—	
Nepal	½	S ¹⁾	1. VII. 1967 ²⁾	—	
Nicaragua	— ⁷⁸⁾	S ¹⁾	30. I. 1969	S	
Niger (Republic of the)	½	S ¹⁾	22. VI. 1967	—	
Nigeria (Federal Republic of)	2	S ¹⁾	21. I. 1967	—	
Norway	5	S ¹⁾	13. IX. 1968	A	13. IX. 1968
New Zealand	5	S ¹⁾	13. IV. 1967 ¹⁴⁾	A	18. VIII. 1969
Oman (Sultanate of)	½	A	28. IV. 1972	—	
Uganda (Republic of) ⁷⁴⁾	½	S ¹⁾	1. IV. 1967	—	

*) Convention, Final Protocol, Additional Protocols.
**) Optional Additional Protocol on the Compulsory Settlement of Disputes.

Convention, Regulations (cont.)

ADMINISTRATIVE REGULATIONS																	
Administrative Radio Conferences														World Administrative Telegraph and Telephone Conference Geneva (1973)			
Radio Regulations										Additional Radio Regulations				Telegraph Regulations		Telephone Regulations	
A.R.C. Geneva (1959)	Partial Revision E.A.R.C. Geneva (1963) (space)	Partial Revision E.A.R.C. Geneva (1966) (aeronautical)	Partial Revision W.A.R.C. Geneva (1967) (maritime)	Partial Revision W.A.R.C. Geneva (1971) (space-2)						A.R.C. Geneva (1959)	Partial Revision W.A.R.C. Geneva (1967) (maritime)			Telegraph Regulations	Telephone Regulations		
7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
S	A	S	A	—	—	—	—	—	—	S	A	—	—	S	—	S	—
—	A	S	A ⁴⁾	—	A ⁴⁾	S	A ⁴⁾	S	A ⁴⁾	—	A	S	A ⁴⁾	—	—	—	—
S	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—	—	S	—	S	A ⁴⁾	—	—	S	—	S	—
—	A ⁴⁾	S	A ⁴⁾	—	A ⁴⁾	—	—	S	—	—	A ⁴⁾	—	—	—	—	—	—
S	A	S	A	S	A	—	A	S	—	S	A	—	A	S	A	S	A
S	A	S	A	S	A	S	A ³⁾	S	—	S	A	S	A ³⁾	S	—	S	—
—	A ⁴⁾	—	A	—	A ⁴⁾	—	—	—	—	—	A ⁴⁾	—	—	—	—	—	—
—	A ⁴⁾	—	A ⁴⁾	—	—	—	—	—	—	—	A ⁴⁾	—	A	S	A	S	A
—	A	—	A	—	A ⁴⁾	—	—	S	—	—	A	—	—	S	—	S	—
—	A ⁴⁾	—	A ⁴⁾	S	A ⁴⁾	S	A ⁴⁾	—	—	—	A ⁴⁾	S	A ⁴⁾	—	—	—	—
S	A ³⁾	S	A	—	A ⁴⁾	—	—	S	—	S	A	—	—	S	—	S	—
—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—	—	—	A ⁴⁾	—	A ⁴⁾	—	—	—	—
—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	S	—	—	A ⁴⁾	—	A ⁴⁾	—	—	—	—
S	A	S	A	S	A ⁴⁾	S	—	S	—	S	A	S	—	S	—	S	—
S	A	S	A ⁴⁾	—	A ⁴⁾	S	A ⁴⁾	S	—	S	A	S	A ⁴⁾	S	—	S	—
—	¹⁾	—	¹⁾	—	¹⁾	—	¹⁾	—	—	—	¹⁾	—	¹⁾	—	—	—	—
—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—	—	—	A ⁴⁾	—	A ⁴⁾	—	—	—	—
S	A	—	A ⁴⁾	—	A ⁴⁾	—	—	—	—	S	A	—	—	—	—	—	—
S	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—	—	S	—	S	A ⁴⁾	—	—	—	—	—	—
—	A	—	A ⁴⁾	—	A	—	A	S	—	—	A	—	A	—	—	—	—
—	A	—	A	—	—	—	—	S	—	—	A	—	—	S	—	S	—
S	A	S	A ⁴⁾	S	A	S	—	S	—	S	A	S	—	S	A	S	A
S	A	S	A	S	A	S	A	S	A ⁶⁷⁾	S	A	S	A	S	A	S	A
—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—	—	—	A ⁴⁾	—	A ⁴⁾	S	—	S	—
—	A ⁴⁾	S	A	—	A	—	A	S	—	—	A ⁴⁾	—	A	S	—	S	—

Table I.

Country or group of territories (In the alphabetical order of the French version of the country names)	CONVENTION, etc.				
	Plenipotentiary Conference, Montreux, 1965				
	Class of contribution No. of units	Convention, etc. *	Date on which the instrument of rati- fication or accession was deposited with the General Secretariat	Opt. Add. Protocol **	Date on which the instrument of rati- fication or accession was deposited with the General Secretariat
1	2	3	4	5	6
Switzerland (Confederation of)	10	S ¹⁾	5. I. 1967	S	5. I. 1967
Swaziland (Kingdom of)	½	A	11. XI. 1970	—	
Tanzania (United Republic of)	½	S ¹⁾	7. X. 1967	—	
Chad (Republic of the)	½	S ¹⁾	30. X. 1968	S	30. X. 1968
Czechoslovak Socialist Republic	3	S ¹⁾	3. I. 1968 ²⁾	—	
Spanish Saharian Territory ⁴⁷⁾	1	S	6. VI. 1967	—	
Territories of the United States of America	25	S ¹⁾	29. V. 1967 ²⁾	—	
Overseas Territories for the International relations of which the Government of the United Kingdom of Great Britain and Northern Ireland are responsible ²²⁾	1	S	7. III. 1968 ³⁷⁾	S	7. III. 1968
Thailand	2	S ¹⁾	28. II. 1969 ²⁾	S	
Togolese Republic	½	S ¹⁾	8. VIII. 1967	S	
Tonga (Kingdom of)	½	A	7. I. 1972	—	
Trinidad and Tobago	1	S ¹⁾	13. XII. 1967	S	
Tunisia	2	S ¹⁾	1. IV. 1967	—	
Turkey	2	S ¹⁾	29. VIII. 1968	—	
Union of Soviet Socialist Republics . . .	30	S ¹⁾	16. IV. 1969 ²⁾	—	
Uruguay (Oriental Republic of)	½ ⁷⁷⁾	A	12. VI. 1971 ⁸²⁾	—	
Venezuela (Republic of)	3	S ¹⁾	2. IV. 1969	—	
Viet-Nam (Republic of)	1	A	15. I. 1968 ³⁵⁾	A	15. I. 1968 ³⁵⁾
Yemen Arab Republic ⁵³⁾	½ ⁷⁷⁾	A	12. V. 1972 ⁶⁷⁾	—	
Yemen (People's Democratic Republic of) ⁵⁴⁾	½	A	15. VIII. 1968	—	
Yugoslavia (Socialist Federal Republic of) ¹⁰⁾	1	S ¹⁾	22. XII. 1967	—	
Zaire (Republic of) ⁵⁶⁾	1	S ¹⁾	21. IV. 1971	S	
Zambia (Republic of)	1	S ¹⁾	13. XII. 1967	S	
ASSOCIATE MEMBER					
Papua New Guinea	½	—	10. IX. 1973 ⁶⁹⁾	—	

*) Convention, Final Protocol, Additional Protocols.

**** Optional Additional Protocol on the Compulsory Settlement of Disputes.**

Convention, Regulations (*end*)

[illegible]

1) See the statement or statements appearing in the Final Protocol annexed to the International Telecommunication Convention (Montreux, 1965).

2) In ratifying the Convention, the country concerned confirmed the reservation(s) made at the time of signature.

3) This approval was given subject to the reservation(s) made at the time of signature.

4) Regulations approved *ipso facto*, since they were in force when the country concerned acceded to the International Telecommunication Convention (Geneva, 1959) or ratified the International Telecommunication Convention (Montreux, 1965) or acceded thereto.

5) See the statement or statements appearing in the Final Protocol annexed to the International Telecommunication Convention (Geneva, 1959).

6)-9)

10) Formerly: Yugoslavia (Federal Socialist Republic of).

11) See Administrative Council Resolution No. 599.

12) See Notification No. 1000.

13) The signature on behalf of the United States of America is valid also for the Territories of the United States of America.

14) The Government of New Zealand declared that this ratification also applies to the Cook Islands, Niue and the Tokelau Islands pursuant to Article 20 of the Convention.

15) Formerly: Maldive Islands.

16) Formerly: Singapore.

17) Formerly: Burundi (Kingdom of).

18) See Administrative Council Resolution No. 619.

19) The Government of the Kingdom of the Netherlands declared that the Convention was ratified on behalf of the Kingdom in Europe, of Surinam and of the Netherlands Antilles.

20) In approving this partial Revision of the Radio Regulations, the Government of Jamaica reaffirmed the reservation entered by its delegation at the ninth Plenary Meeting of the Conference, i.e.:

"The Jamaican Delegation declares that it reserves the right of the Jamaican Government to take any action it deems necessary to safeguard its interests, should Members or Associate Members in any way fail to comply with the requirements of the Radio Regulations of the Administrative Radio Conference, Geneva, 1959, as added to and amended by the Extraordinary Administrative Radio Conference, Geneva, 1963, or should reservations by other countries jeopardize its telecommunication services."

21) The Italian Administration declared that Italy, by ratifying the International Telecommunication Convention (Geneva, 1959) on 7 November 1962 (the instrument of ratification being deposited with the General Secretariat on 28 December 1962), had, in accordance with No. 193 of the Convention, approved *ipso facto* the Administrative Regulations annexed thereto which were in force on that date, i.e. the Telegraph and Telephone Regulations (Geneva, 1958), which came into force on 1 January 1960, and the Radio Regulations (Geneva, 1959) which came into force on 1 May 1961.

22) The Government of the United Kingdom of Great Britain and Northern Ireland ratified the International Telecommunication Convention, Montreux, 1965, in respect of the following Overseas Territories for the international relations of which they are responsible (Notification No. 1004):

Associated States

Antigua
Dominica
Grenada b)
St. Christopher, Nevis and Anguilla
St. Lucia

Protected States

Brunei
Swaziland a)
Tonga a)

Other Territories

The Bahama Islands a)
Hermuda
British Antarctic Territory (including South Orkney Islands, South Shetland Islands and Graham Land)
British Honduras (present name: Belize)
British Virgin Islands
Cayman Islands
Falkland Islands (Colony and Dependencies, including South Georgia and the South Sandwich Islands)
Fiji a)
Gibraltar
Hong Kong
Mauritius a)
Montserrat
Pitcairn Islands Group
St. Helena (including Ascension Island and Tristan da Cunha)
St. Vincent
Seychelles
Turks and Caicos Islands
Western Pacific High Commission territories including:
British Solomon Islands Protectorate
Central and Southern Line Islands

Gilbert and Ellice Islands Colony
New Hebrides (United Kingdom - French Condominium)

a) Now an independent State, Member of the I.T.U.

b) Now an independent State, Member of the O.N.U.

23) See Notifications Nos. 855, 876 and 880.

24) In approving these Regulations, the Argentine Government declared that the Argentine Administration, in its relations with other Administrations, will not accept any provisions or obligations of the said Radio Regulations, its Appendices and Resolutions or the Additional Radio Regulations which the corresponding Administrations have not accepted or have accepted subject to reservations.

25) In a note the United States Embassy in Berne declared that "the deposit of the instrument of ratification of the Radio Regulations (Geneva, 1959) and Additional Protocol thereto, constitutes notifications of approval by the United States of America, including all territories under the jurisdiction of the United States of America." (Notification No. 878.)

26)

27)

28)

29)

30) In approving the Radio Regulations, the Republic of the Ivory Coast, referring to Article 9 of the Regulations and to the procedure defined in Article 10, reserved the right to take any measures necessary for the development and proper operation of its broadcasting service, should the procedure in question fail to give it satisfaction. (Notification No. 908.)

31) See Notification No. 911.

32) See Notification No. 977.

33) Comprising the following territories:

Comoro Islands,
New Caledonia and Dependencies,
French Polynesia,
St. Pierre and Miquelon,
French Territory of the Afars and Issas,
French Southern and Antarctic Territories,
Wallis and Futuna.

This ratification also applies to the Anglo-French Condominium of the New Hebrides.

34) See Notifications Nos. 1004 and 1013.

35) See Notifications Nos. 1007, 1009 and 1010.

36) See Notifications Nos. 1014, 1016, 1020, 1021, 1023, 1024, 1025, 1027, 1035, 1036 and 1037.

37) See Notification No. 1004.

38) See Notification No. 834.

39) In ratifying the Convention, the Government of the Hungarian People's Republic confirmed the statements Nos. XI, XIV and XXV contained in the Final Protocol to the aforementioned Convention.

It also confirmed some of the statements appearing in the Additional Protocol to the Radio Regulations, Geneva, 1959, in the following terms:

"The Hungarian People's Republic reserves the right to use the frequency bands attributed to the "radio-location" service mentioned in Article 5 of the Radio Regulations, Geneva, 1959, in conformity with the requirements of its radio services.

The Hungarian People's Republic also reserves the right to use the frequency band 415-490 kHz mentioned in Article 5 of the Radio Regulations, Geneva, 1959, on its territory for the aeronautical radionavigation service.

The Hungarian People's Republic accepts the use of the broadcasting schedules in the broadcasting frequency bands 5 950-26 100 kHz mentioned in Article 5 of the Radio Regulations, Geneva, 1959, only insofar as they facilitate the preparation of the final frequency allocation plan for the bands concerned."

40) In acceding to the Convention, the Government of the People's Republic of Albania made the following statements and reservations:

1. The Government of the People's Republic of Albania declares that the decision adopted by the Plenipotentiary Conference of the International Telecommunication Union, Montreux, 1965, to recognize the credentials of Chiang Kai-shek's representative to take part in the Conference and to sign the Final Acts on behalf of China is illegal since the only legitimate representatives of China entitled to undertake commitments on its behalf are those appointed by the Government of the People's Republic of China.

2. The Government of the People's Republic of Albania declares that it does not consider the Saigon authorities as representing the interests of the people of South Viet-Nam.

3. The Government of the People's Republic of Albania declares that it does not recognize the claims of the representatives of South Korea to speak on behalf of the whole Korean people.

4. The Government of the People's Republic of Albania declares that its accession to this Convention in no way implies recognition of the present Government of the Republic of South Africa and does not entail any obligation towards that Government.

5. The Government of the People's Republic of Albania reserves the right to accept or not to accept the Radio Regulations, in whole or in part.

6. The Government of the People's Republic of Albania reserves the right to take any measures it deems necessary to safeguard its interests should reservations made by other countries lead to an increase in its contributory share in defraying the expenses of the Union or should any Members of the Union fail to pay their share of those expenses.

41) See Notifications Nos. 1023, 1024, 1034, 1035 and 1036.

42) See Notification No. 1019.

43) In ratifying the Convention, the Government of the People's Republic of Bulgaria confirmed the reservation made when the Final Protocol was signed (No. XIII).

44) Formerly: Libya (Kingdom of).

45) The instrument was accompanied by a letter from the Ambassador Extraordinary and Plenipotentiary of the Socialist Republic of Roumania in Berne, reading as follows:

"In depositing the instrument of ratification of the International Telecommunication Convention signed at Montreux on 12 November 1965, I have the honour to make the following declaration on the instructions of my Government:

The Council of State of the Socialist Republic of Roumania considers that

a) the continuation of the dependent status of certain territories referred to in Article 20 of the Convention is not in accordance with the Declaration on the Granting of Independence to Colonial Countries and Peoples adopted by the General Assembly of the United Nations on 14 December 1960 in resolution 1514 (XV), which proclaims the necessity to put an end, rapidly and unconditionally to colonialism in all its forms and manifestations;

b) the provisions of Article 1, Nos. 6 and 7, of the Convention are not in accordance with the principle that all States have the right to become parties to multilateral treaties governing questions of general interest.

The Government of the Socialist Republic of Roumania considers that the Federal Republic of Germany is not competent to extend to West Berlin the application of the International Telecommunication Convention signed at Montreux on 12 November 1965, because West Berlin is not a part of the territory of the Federal Republic of Germany."

46) In ratifying the Convention, the Government of the Republic of Rwanda confirmed the reservation which appears in the Final Protocol to the aforesaid Convention under No. LI and supplemented it as follows:

"The Government of the Republic of Rwanda reserves the right to take such action as it considers necessary to protect its interests, should Members or Associated Members fail to observe in any way the provisions of the International Telecommunication Convention (Montreux, 1965) or of the Annexes and Regulations, or should the reservations made by other countries jeopardize the proper operation of its telecommunication services or entail any increase in its contributory share in the defrayal of Union expenses."

47) Formerly: Spanish Province in Africa.

48) Formerly: Congo (Republic of the) (Brazzaville).

49) In ratifying the Convention, the Government of the Republic of Indonesia specified that it has withdrawn the part of its statement concerning the Government of the "Federation of Malaysia" which appears in paragraph 1 of statement No. XXXIII in the Final Protocol to the aforesaid Convention.

50) Formerly: Cambodia (Kingdom of).

51) Formerly: Somali Republic.

52) In acceding to the Convention, the Government of the Oriental Republic of Uruguay stated specifically that it did not accept the principle that Members of the Union not belonging to the region concerned should take part in regional conferences and meetings with voting rights. (See Final Protocol No. VI).

53) Formerly: Yemen.

54) Formerly: Southern Yemen (People's Republic of).

55) Formerly: United Arab Republic.

56) Formerly: Congo (Democratic Republic of the).

57) In acceding to the Convention, the Government of the Yemen Arab Republic has made the following statement:

"We have acceded to this Convention *in toto*, reserving the right to take such action as we may consider necessary to protect our interests, should a Member or Associate Member of the Union fail in any way to observe the provisions of the said Convention, or should the reservations made by such Member or Associate Member jeopardize our telecommunication services.

This accession is not valid with respect to the Member appearing in Annex 1 to this Convention under the name of Israel, and in no way implies its recognition. It also in no way implies recognition of the present Government of the Republic of South Africa, and does not entail any obligation towards that Government."

58) See Administrative Council Resolution No. 693.

59) Formerly: Ceylon.

60) The notification of accession contains the following statements:

1. The Government of the People's Republic of China has decided to accede to the International Telecommunication Convention signed in Montreux, Switzerland, on November 12, 1965, but makes reservations on the articles concerning the assignment and utilization of radio frequencies in the Radio Regulations annexed to the Convention.

2. The signatures on the International Telecommunication Convention and the ratification thereof made by the Chiang Kai-shek clique in the past by usurping the name of China are illegal and therefore null and void.

3. The representatives of the so-called "Republic of Vietnam" and the "Republic of Korea" have no right to sign the above-mentioned Convention on behalf of the Vietnamese and the Korean peoples.

61) Formerly: Federal Republic of Germany.

62) Formerly: Cameroon (Federal Republic of).

63) See Notification No. 1063.

64) Formerly: Sudan (Republic of the).

65) In accordance with paragraph 1 of article 20 of the International Telecommunication Convention, Montreux, 1965, the Government of Australia have declared that the above-mentioned Convention extends to the Territories of Australia and to the Trust Territory administered by Australia. The declaration is dated 27 February 1973.

66) Formerly: Brazil.

67) The Government of New Zealand has announced that this approbation also applies to the Cook Islands, Niue and the Tokelau Islands.

68) Formerly: Afghanistan.

69) Date at which the General Secretariat has received a communication from the Prime Minister of Papua New Guinea announcing that its country fully accepts the rights and obligations of Associate Membership of the International Telecommunication Union, as set out in the Montreux Convention (1965). (See Notification No. 1071.)

70) Formerly: Burma (Union of).

71) Formerly: Australia (Commonwealth of).

72) Formerly: Bolivia.

73) Formerly: Kenya.

74) Formerly: Uganda.

75) Formerly: Panama.

76) Formerly: Paraguay.

77) See Resolution No. 10 of the Plenipotentiary Conference, Torremolinos, 1973.

78) See Resolution No. 15 of the Plenipotentiary Conference, Torremolinos, 1973.

79) Formerly: Malta.

Table II. African Regional Agreements

Cols. 2 and 3: Regional Agreement for the African Broadcasting Area concerning the use of frequencies by the broadcasting service in the very high frequency and ultra high frequency bands (Geneva, 1963);

Cols. 4 and 5: Regional Agreement concerning the use of frequencies by the broadcasting service in the medium frequency band in the African Broadcasting Area (Geneva, 1966).

The letter S means that the Agreement has been signed and the letter A means approval of the Agreement or accession to it.

Country or group of territories	Broadcasting Agreement VHF/UHF (Geneva, 1963)		Broadcasting Agreement MF (Geneva, 1966)	
1	2	3	4	5
Algeria (Algerian Democratic and Popular Republic)	—		S	
Botswana (Republic of)	—		—	
Burundi (Republic of)	—		S	
Cameroon (United Republic of)	S		S	
Central African Republic	—		S	
Congo (People's Rep. of the)	S		S	
Ivory Coast (Republic of the)	S		S	
Dahomey (Republic of)	S		S	
Egypt (Arab Republic of)	—	A	S	A
Group of Territories represented by the French Overseas Post and Telecomm. Agency ¹⁾	S	A	S	
Spain	S	A	S	
Ethiopia	S	A	S	
France ²⁾	S	A	S	
Gabon Republic	S		S	A
Ghana	S		S	
Guinea (Republic of)	S		S	
Equatorial Guinea (Rep. of)	—		—	
Upper Volta (Republic of)	S		S	
Kenya (Republic of)	S	A	S	A
Lesotho (Kingdom of)	—		—	
Liberia (Republic of)	S		S	
Libyan Arab Republic	S		—	
Malawi	—		S	
Malagasy Republic	S		S	

Country or group of territories	Broadcasting Agreement VHF/UHF (Geneva, 1963)		Broadcasting Agreement MF (Geneva, 1966)	
1	2	3	4	5
Mali (Republic of)	S		S	
Morocco (Kingdom of)	—		S	
Mauritius	—		—	
Mauritania (Islamic Republic of)	S		S	
Niger (Republic of the)	S		S	
Nigeria (Federal Republic of)	S	A	S	
Uganda (Republic of)	S	A	S	A
Portuguese Oversea Provinces	S	A	S	
Rhodesia	S ³⁾	A	—	
Rwanda (Republic of)	S		S	
Senegal (Republic of the)	S	A	S	
Sierra Leone	S	A	—	
Somali Democratic Republic	S		—	
Sudan (Democratic Rep. of the)	—		—	
South Africa (Republic of) ⁴⁾	S	A	—	
Swaziland (Kingdom of)	—		—	
Tanzania (United Republic of)	S	A	S	A
Chad (Republic of the)	S		S	
Spanish Saharian Territory	S	A	S	
Overseas Territories for the international relations of which the Government of the U.K. of Great Britain and Northern Ireland are responsible	S		S	A
Togolese Republic	S		S	
Zaire (Republic of)	S		S	
Zambia (Republic of)	—		S	A

¹⁾ With respect to French Somaliland (*new denomination: French Territory of the Afars and Issas*) and the Comoro Islands.

²⁾ With respect to the Department of Reunion.

³⁾ The Agreement was signed on behalf of the Federation of Rhodesia and Nyasaland.

⁴⁾ See Administrative Council Resolution No. 619.

Table III. American Regional Agreements

The letter S means that the Agreement has been signed; the letter R means that the Agreement has been ratified; the letter A means acceptance of the Agreement or accession thereto.

Country or territories	Inter-American Radio Agreement (FIAR) (Washington, 1949)		North-American Regional Broadcasting Agreement (NARBA) (Washington, 1950)	
1	2	3	4	5
Argentina Republic	S		—	
Bolivia (Republic of)	S		—	
Brazil (Federative Republic of)	S		—	
Canada	S		S	R
Chile	S		—	
Colombia (Republic of)	S		—	
Costa Rica	S	A	—	
Cuba	S		S	R
Dominican Republic	S	A	S	R
El Salvador (Republic of)	S		—	
Ecuador	S		—	
United States of America	S	A	S	R

Country or territories	Inter-American Radio Agreement (FIAR) (Washington, 1949)		North-American Regional Broadcasting Agreement (NARBA) (Washington, 1950)	
1	2	3	4	5
Guatemala	S		—	
Haiti (Republic of)	—	A	—	
Honduras (Republic of)	S	A	—	
Mexico	S	A	—	
Nicaragua	S	A	—	
Panama (Republic of)	S		—	
Paraguay (Republic of)	—	A	—	
United Kingdom of Great Britain and Northern Ireland	—		S*)	R**)
Uruguay (Oriental Republic of)	S		—	
Venezuela (Republic of)	S		—	

*) For the Territories in the North-American Region (the Bahamas and Jamaica).

**) For the Bahamas only.

Table IV. European Regional Conventions, Arrangements and Agreements

The letter S means that the Convention, Agreement or Arrangement has been signed; the letter R means that the Convention has been ratified; the letter A means that the Agreement has been approved or acceded to; in column 7, it means that the Agreement has been approved.

Country or group of territories	European Broadcasting Convention (Copenhagen, 1948)	European Regional Convention for the mari- time mobile radio service (Copenhagen, 1948)	Regional Arrangement concerning Maritime Radiobeacons in the Euro- pean Area of Region 1 (Paris, 1951)	Regional Agreement in the bands 68-73 MHz and 76- 87.5 MHz (Geneva, 1960) *)	Regional Agreement for the Euro- pean Broad- casting Area (Stockholm, 1961)	Regional Agreement concerning the radio- telephone service for the Rhine (Brussels, 1970)						
1	2	3	4	5	6	7	8	9	10	11	12	13
Albania (People's Republic of)	S	R	—	—	—	—	S	—	—	—	—	—
Algeria (Algerian Democratic and Popular Republic)	—	—	—	—	—	—	—	—	—	—	—	—
Germany (Federal Republic of)	—	—	—	—	—	—	S	A	S	A ⁴⁾	S	—
Austria	—	—	—	—	—	—	S	A	S	A	—	—
Belgium	S	R	S	R	S	A	—	—	S	A	S	—
Byelorussian Soviet Socialist Republic	S	R	—	—	—	—	S	—	S	A ⁵⁾	—	—
Bulgaria (People's Republic of)	S	R	—	1)	—	—	S	—	S	—	—	—
Cyprus (Republic of)	—	—	—	—	—	—	—	—	S	A	—	—
Vatican City State	S	R	—	—	—	—	—	—	S	—	—	—
Denmark	S	R	S	R	S	A	S	A	S	—	—	—
Egypt (Arab Republic of)	—	—	—	—	—	—	—	—	—	—	—	—
Spain	—	—	—	—	S	—	—	—	S	A ²⁾	—	—
Finland	S	R	—	—	—	—	—	—	S	A	—	—
France	S	R	S	R	S	A	S	A	S	A	S	—
Greece	S	R	S	R	—	—	S	—	S	—	—	—
Hungarian People's Republic	S	R	—	—	—	—	S	A	S	—	—	—
Iraq (Republic of)	—	—	—	—	—	—	—	—	—	—	—	—
Ireland	S	R	S	R	—	A	—	—	S	A	—	—
Iceland	—	—	S	R	—	—	—	—	S	—	—	—
Israel (State of)	—	—	—	—	—	—	—	—	S	—	—	—
Italy	S	R	S	R	S	A	S	A	S	A	—	—
Jordan (Hashemite Kingdom of)	—	—	—	—	—	—	—	—	—	—	—	—
Lebanon	—	—	—	—	—	—	—	—	S	—	—	—
Libyan Arab Republic	—	—	—	—	—	—	—	—	—	—	—	—
Liechtenstein (Principality of)	—	—	—	—	—	—	—	—	—	—	—	—
Luxembourg	—	—	—	—	—	—	—	—	S	—	S	—
Malta (Republic of)	—	—	—	—	—	—	—	—	—	—	—	—
Morocco (Kingdom of)	S	R	S	R	S	A	—	—	S	A	—	—
Monaco	S	R	S	R	S	A	—	—	S	—	—	—
Norway	S	R	S	R	S	A	S	A	S	—	S ⁴⁾	—
Netherlands (Kingdom of the)	S	R	S	R	S	A	—	—	S	A	S	—
Poland (People's Republic of)	S	R	—	—	—	—	S	—	S	—	—	—
Portugal	S	—	S	—	S	—	—	—	S	A	—	—
Portuguese Oversea Provinces	—	—	—	—	S	—	—	—	—	—	—	—
Syrian Arab Republic	—	—	—	—	—	—	—	—	—	—	—	—
German Democratic Republic	—	—	—	—	—	—	—	—	—	A	—	—
Ukrainian Soviet Socialist Republic	S	R	—	—	—	—	S	A	S	A ⁵⁾	—	—
Roumania (Socialist Republic of)	S	R	—	—	—	—	S	A	S	—	—	—
United Kingdom of Great Britain and Northern Ireland	S	R	S	R	S	A	—	—	S	A	—	—
Sweden	—	—	S	R	S	A	S	A	S	—	—	—
Switzerland (Confederation of)	S	R	—	—	—	—	S	A	S	A	S	—
Czechoslovak Socialist Republic	S	R	—	—	—	—	S	A	S	—	—	—
Overseas Territories for the international relations of which the Government of the United Kingdom of Great Britain and Northern Ireland are responsible	—	—	—	—	—	—	—	—	S	A	—	—
Tunisia	S	R	S	R	S	A	—	—	—	—	—	—
Turkey	—	—	S	—	S	A	S	—	S	—	—	—
Union of Soviet Socialist Republics	S	R	—	3)	—	—	S	A	S	A ⁵⁾	—	—
Yugoslavia (Socialist Federal Republic of)	S	R	—	—	—	A	S	—	S	A	—	—

*) Regional Agreement for the use of frequencies in the bands 68-73 MHz and 76-87.5 MHz by the broadcasting service on the one hand and by the fixed and mobile services on the other (Geneva, 1960).

¹⁾ The People's Republic of Bulgaria has given notice that its coast stations use the frequencies assigned to them in the Copenhagen Plan.

²⁾ The Spanish Government has approved this Agreement while maintaining the three reservations which appear in paragraph I (A, B and C) of the Final Protocol.

³⁾ The Union of Soviet Socialist Republics has given notice that its coast stations use the frequencies assigned to them in the Copenhagen Plan.

⁴⁾ As a participating Administration.

⁵⁾ Considering that, when the plans for the assignment of frequencies to television stations in the 645-960 MHz band were established at the Stockholm Conference in 1961, the requirements of the air radionavigation services of the USSR, the Ukrainian SSR and the Byelorussian SSR were not sufficiently taken into consideration, and in view of the special nature of the air radionavigation services, the Telecommunication Administrations of the USSR, the Ukrainian SSR and the Byelorussian SSR cannot assure countries using this range for television of the necessary means to prevent interference from the air radionavigation services of the USSR, the Ukrainian SSR and the Byelorussian SSR.

⁶⁾ In giving its approval, the Administration of the Federal Republic of Germany expressed the following considerations:

"According to the frequency plan for television stations in the frequency band 162-230 MHz (Annex 2, Chapter 2, of the Agreement), the frequencies 224.25/229.75 MHz are assigned to the Sonneberg television station appearing in the plan with an effective radiated power of 30/6 kW and an effective radiated power of 5 kW for the television carrier permitted in the sector between 45 and 135 degrees.

This assignment is capable of causing harmful interference to the aeronautical radionavigation service stations which operate in the frequency band 223-235 MHz in accordance with Article 5 of the Radio Regulations, Geneva, 1959.

Harmful interference to stations operating in the frequency band 223-235 MHz, which is allocated to the aeronautical radionavigation service on a primary basis, can only be avoided if the effective radiated power of the Sonneberg television station does not exceed 0.5/0.1 kW in the sector between 135 and 345 degrees."

Tables V.1 to V.6. Special Agreements

V.1. Special Regional Agreement concerning the use of the 100-104 MHz band by the broadcasting service (1962)

This Agreement was concluded between the following Administrations: Austria, *Italy*, *Switzerland (Confederation of)*, *Yugoslavia (Socialist Federal Republic of)*.

The countries mentioned in italics have approved the Agreement.

Note by the General Secretariat: this Agreement will be terminated by mutual consent when these Administrations have approved the Special Agreement concerning the introduction of the Broadcasting Service in the frequency band 100-104 MHz (Darmstadt, 1971).

V.2. Special Agreement for use of the 582-606 MHz band for radionavigation purposes (Brussels, 1962)

This Agreement was concluded between the following Administrations: Germany (Federal Republic of), Belgium, Denmark, France, Netherlands (Kingdom of the), United Kingdom of Great Britain and Northern Ireland and Switzerland (Confederation of).

**V.3. Special Agreement in connection with the use of VHF and UHF
in fixed and mobile services in frontier areas
(Brussels, 1963)**

This Agreement was concluded between the following Administrations: Germany (Federal Republic of), Belgium, Luxembourg and Netherlands (Kingdom of the).

**V.4. Special Agreement concerning the use of frequencies for additional low-power television
transmitters operating in the ultra high-frequency range (Band IV, 472-582 MHz
and Band V, 582-960 MHz) in the frontier areas
(Karlsruhe, 1966)**

This Agreement was concluded between the following Administrations: Germany (Federal Republic of), Austria, Belgium, France, Italy, Luxembourg and Kingdom of the Netherlands.

This Agreement was approved without reservation by all these Administrations.

**V.5. Special Agreements concerning the coordinated use of frequencies
between 29.7 and 470 MHz by the fixed and land mobile services**

One such Agreement was signed at Vienna on 18 July 1969 by the following Administrations: Germany (Federal Republic of), Austria, Italy and Confederation of Switzerland.

This Agreement, which was approved without reservation by these Administrations, came into force on 1 December 1969.

Another such Agreement was signed at Vienna on 25 April 1969 by the following Administrations: Austria, Hungarian People's Republic and Czechoslovak Socialist Republic.

This Agreement, which was approved without reservation by these Administrations, came into force on 1 January 1970.

A third such Agreement was signed at Vienna on 24 October 1969 by the following Administrations: Austria and Socialist Federal Republic of Yugoslavia.

This Agreement, which was approved without reservation by these Administrations, came into force on 1 March 1970.

**V.6. Special Agreement Concerning the Introduction
of the Broadcasting Service in the Frequency Band 100-104 MHz (Darmstadt, 1971)**

This Agreement was concluded between the following Administrations: *Germany (Federal Republic of)*, Austria, *Belgium*, Denmark, Spain, Finland, *France*, Hungarian People's Republic, Italy, *Luxembourg*, Norway, *Kingdom of the Netherlands*, *United Kingdom of Great Britain and Northern Ireland*, Sweden, *Confederation of Switzerland* and Socialist Federal Republic of Yugoslavia.

This Agreement came into force on 1 January 1973.

The countries mentioned in italics have approved the Agreement.

ANNEX 1bis

**POSITION OF MEMBERS
IN RELATION TO THE FINAL ACTS OF TORREMOLINOS (1973)**

POSITION ON 1 JANUARY 1975

The letter S means that the Act concerned has been signed; the letter A means accession.

Countries (In the alphabetical order of the French version of the country names)	Plenipotentiary Conference of Torremolinos (1973)				
	Class of contribution No. of units	Convention, etc. *	Date on which the instrument of rati- fication or accession was deposited with the General Secretariat	Opt. Add. Protocol **	Date on which the instrument of rati- fication or accession was deposited with the General Secretariat
1	2	3	4	5	6
Afghanistan (Republic of)	½	S ¹⁾		S	
Albania (People's Republic of)	½	—		—	
Algeria (Algerian Democratic and Po- pular Republic)	1	S ¹⁾		—	
Germany (Federal Republic of)	20	S ¹⁾		—	
Saudi Arabia (Kingdom of)	1	S ¹⁾		—	
Argentina Republic	3	S ¹⁾		—	
Australia	18	S ¹⁾		S	
Austria	1	S ¹⁾		S	
Bahamas (Commonwealth of the)	½	—		—	
Bahrain (State of)	½	A	21. X. 1974 ²⁾	—	
Bangladesh (People's Republic of)	1	S ¹⁾		—	
Barbados	½	S ¹⁾		—	
Belgium	5	S ¹⁾		S	
Byelorussian Soviet Socialist Republic	1	S ¹⁾		—	
Burma (Socialist Republic of the Union of) ³⁾	½	S ¹⁾		S	
Bolivia (Republic of)	½	S ¹⁾		—	
Botswana (Republic of)	½	S ¹⁾		—	
Brazil (Federative Republic of)	5	S		S	
Bulgaria (People's Republic of)	1	S ¹⁾		—	
Burundi (Republic of)	½	S ¹⁾		S	
Cameroon (United Republic of)	½	S ¹⁾		S	

*) Convention, Final Protocol, Additional Protocols.

**) Optional Additional Protocol on the Compulsory Settlement of Disputes.

Countries (In the alphabetical order of the French version of the country names)	Plenipotentiary Conference of Torremolinos (1973)				
	Class of contribution No. of units	Convention, etc. *	Date on which the instrument of rati- fication or accession was deposited with the General Secretariat	Opt. Add. Protocol **	Date on which the instrument of rati- fication or accession was deposited with the General Secretariat
1	2	3	4	5	6
Canada	18	S		S	
Central African Republic	1/2	S ¹⁾		S	
Chile	1	S ¹⁾		—	
China (People's Republic of)	20	S ¹⁾		—	
Cyprus (Republic of)	1/2	S ¹⁾		S	
Vatican City State	1/2	S		—	
Colombia (Republic of)	3	—		—	
Congo (People's Republic of the)	1/2	S ¹⁾		S	
Korea (Republic of)	1	S ¹⁾		S	
Costa Rica	1/2	S		S	
Ivory Coast (Republic of the)	1	S ¹⁾		S	
Cuba	1	S ¹⁾		—	
Dahomey (Republic of)	1/2	S ¹⁾		S	
Denmark	5	S ¹⁾	12. XI. 1974	—	
Dominican Republic	1/2	S		S	
Egypt (Arab Republic of)	2	S ¹⁾		S	
El Salvador (Republic of)	1/2	S ¹⁾		S	
United Arab Emirates	1	S ¹⁾		S	
Ecuador	1	S		—	
Spain	3	S ¹⁾		—	
United States of America	30	S ¹⁾		—	
Ethiopia	1	S		—	
Fiji	1/2	—		—	
Finland	3	S ¹⁾		S	
France	30	S ¹⁾		—	
Gabon Republic	1/2	S ¹⁾		S	
Gambia (Republic of the)	1/2	—		—	
Ghana	1	S ¹⁾		—	

*) Convention, Final Protocol, Additional Protocols.

**) Optional Additional Protocol on the Compulsory Settlement of Disputes.

Countries (In the alphabetical order of the French version of the country names)	Plenipotentiary Conference of Torremolinos (1973)				
	Class of contribution No. of units	Convention, etc. *	Date on which the instrument of rati- fication or accession was deposited with the General Secretariat	Opt. Add. Protocol **	Date on which the instrument of rati- fication or accession was deposited with the General Secretariat
1	2	3		5	6
Greece	1	S ¹⁾		S	
Guatemala	1	S ¹⁾		—	
Guinea (Republic of)	1/2	S ¹⁾		—	
Equatorial Guinea (Republic of)	1/2	S ¹⁾		—	
Guyana	1/2	—		—	
Haiti (Republic of)	1/2	—		—	
Upper Volta (Republic of)	1/2	S ¹⁾		S	
Honduras (Republic of)	1/2	—		—	
Hungarian People's Republic	1	S ¹⁾		—	
India (Republic of)	13	S ¹⁾		—	
Indonesia (Republic of)	1	S ¹⁾		S	
Iran	1	S ¹⁾		—	
Iraq (Republic of)	1/2	S ¹⁾		—	
Ireland	2	S		—	
Iceland	1/2	S ¹⁾		—	
Israel (State of)	1	S ¹⁾		—	
Italy	10	S ¹⁾		—	
Jamaica	1/2	S ¹⁾		—	
Japan	20	S		S	
Jordan (Hashemite Kingdom of)	1/2	—		—	
Kenya (Republic of)	1/2	S ¹⁾		—	
Khmer Republic	1/2	S ¹⁾		S	
Kuwait (State of)	1	S ¹⁾		—	
Laos (Kingdom of)	1/2	S ¹⁾		S	
Lesotho (Kingdom of)	1/2	S ¹⁾		—	
Lebanon	1	S ¹⁾		S	
Liberia (Republic of)	1	S ¹⁾		S	
Libyan Arab Republic	1/2	S ¹⁾		—	

*) Convention, Final Protocol, Additional Protocols.

**) Optional Additional Protocol on the Compulsory Settlement of Disputes.

Countries (In the alphabetical order of the French version of the country names)	Plenipotentiary Conference of Torremolinos (1973)				
	Class of contribution No. of units	Convention, etc. *	Date on which the instrument of rati- fication or accession was deposited with the General Secretariat	Opt. Add. Protocol **	Date on which the instrument of rati- fication or accession was deposited with the General Secretariat
1	2	3	4	5	6
Liechtenstein (Principality of)	1/2	S ¹⁾	8. VII. 1974	S	
Luxembourg.	1/2	S ¹⁾		S	
Malaysia	3	S ¹⁾		—	
Malawi	1/2	S ¹⁾		S	
Maldives (Republic of)	1/2	—		—	
Malagasy Republic	1	S ¹⁾		S	
Mali (Republic of)	1/2	S ¹⁾		S	
Malta (Republic of) ⁴⁾	1/2	—		—	
Morocco (Kingdom of)	1	S ¹⁾		S	
Mauritius	1/2	S ¹⁾		S	
Mauritania (Islamic Republic of)	1/2	S ¹⁾		S	
Mexico	3	S		—	
Monaco	1/2	S ¹⁾		—	
Mongolian People's Republic	1/2	S ¹⁾		—	
Nauru (Republic of)	1/2	—		—	
Nepal.	1/2	S ¹⁾		S	
Nicaragua	1	S ¹⁾		S	
Niger (Republic of the)	1/2	S ¹⁾		—	
Nigeria (Federal Republic of)	2	S ¹⁾		—	
Norway	5	S ¹⁾		—	
New Zealand	3	S ¹⁾		S	
Oman (Sultanate of)	1/2	S ¹⁾		—	
Uganda (Republic of)	1/2	S ¹⁾		—	
Pakistan	2	S ¹⁾		—	
Panama (Republic of)	1/2	S ¹⁾		—	
Paraguay (Republic of)	1/2	S		—	
Netherlands (Kingdom of the)	10	S ¹⁾	31. XII. 1974 ⁵⁾	S	
Peru	1/2	S ¹⁾		S	

*) Convention, Final Protocol, Additional Protocols.

**) Optional Additional Protocol on the Compulsory Settlement of Disputes.

Countries (In the alphabetical order of the French version of the country names)	Plenipotentiary Conference of Torremolinos (1973)				
	Class of contribution No. of units	Convention, etc. *	Date on which the instrument of rati- fication or accession was deposited with the General Secretariat	Opt. Add. Protocol **	Date on which the instrument of rati- fication or accession was deposited with the General Secretariat
1	2	3	4	5	6
Philippines (Republic of the)	1	S ¹⁾		S	
Poland (People's Republic of)	3	S ¹⁾		—	
Portugal	1/2	—		—	
Qatar (State of)	1/2	—		—	
Syrian Arab Republic	1/2	—		—	
German Democratic Republic	3	S ¹⁾		—	
Ukrainian Soviet Socialist Republic . . .	3	S ¹⁾		—	
Roumania (Socialist Republic of) . . .	1	S ¹⁾		—	
United Kingdom of Great Britain and Northern Ireland	30	S ¹⁾	31. XII. 1974 ⁶⁾	S	31. XII. 1974 ⁶⁾
Rwanda (Republic of)	1/2	S ¹⁾		—	
Senegal (Republic of the)	1	S ¹⁾		S	
Sierra Leone.	1/2	S ¹⁾		S	
Singapore (Republic of)	1	S ¹⁾	16. IX. 1974	—	
Somali Democratic Republic	1/2	S ¹⁾		—	
Sudan (Democratic Republic of the) . .	1	S ¹⁾		—	
Sri Lanka (Ceylon) (Republic of)	1/2	S ¹⁾		S	
South Africa (Republic of)	8	A	23. XII. 1974 ⁷⁾	—	
Sweden	10	S ¹⁾		—	
Switzerland (Confederation of)	10	S ¹⁾		S	
Swaziland (Kingdom of)	1/2	—		—	
Tanzania (United Republic of)	1/2	S ¹⁾		—	
Chad (Republic of the)	1/2	S ¹⁾		S	
Czechoslovak Socialist Republic	3	S ¹⁾		—	
Thailand	1 1/2	S ¹⁾		S	
Togolese Republic	1/2	S ¹⁾		S	
Tonga (Kingdom of)	1/2	—		—	
Trinidad and Tobago	1	S ¹⁾		—	

*) Convention, Final Protocol, Additional Protocols.

**) Optional Additional Protocol on the Compulsory Settlement of Disputes.

Countries (In the alphabetical order of the French version of the country names)	Plenipotentiary Conference of Torremolinos (1973)				
	Class of contribution No. of units	Convention, etc. *	Date on which the instrument of rati- fication or accession was deposited with the General Secretariat	Opt. Add. Protocol **	Date on which the instrument of rati- fication or accession was deposited with the General Secretariat
1	2	3	4	5	6
Tunisia	2	S ¹⁾		S	
Turkey	2	S ¹⁾		—	
Union of Soviet Socialist Republics	30	S ¹⁾		—	
Uruguay (Oriental Republic of)	1/2	S ¹⁾		—	
Venezuela (Republic of)	3	S		—	
Viet-Nam (Republic of)	1/2	S ¹⁾		—	
Yemen Arab Republic	1/2	S ¹⁾		S	
Yemen (People's Democratic Republic of)	1/2	S ¹⁾		S	
Yugoslavia (Socialist Federal Republic of)	1	S ¹⁾		—	
Zaire (Republic of)	1	S		S	
Zambia (Republic of)	1/2	S		—	
Papua New Guinea ⁸⁾	1/2	S ¹⁾		S	

*) Convention, Final Protocol, Additional Protocols.

**) Optional Additional Protocol on the Compulsory Settlement of Disputes.

1) See the statement or statements appearing in the Final Protocol annexed to the International Telecommunication Convention (Torremolinos, 1973).

2) In acceding to the Convention, the State of Bahrain has made the following reservations:

"1. The State of Bahrain wishes to reserve the right of its Government to take such action as it may consider necessary to protect its interests, should Members or Associated Members in any way fail to comply with the requirements of the International Telecommunication Convention (Torremolinos, 1973) or should the reservations made by such Members jeopardise its telecommunication services or lead to an increase in Bahrain's share in defraying the expenses of the Union.

2. The accession of the State of Bahrain to the International Telecommunication Convention (Torremolinos, 1973) shall in no way imply recognition of the Member appearing in Annex 1 to the said Convention under the name of "Israel"."

Further to the above statement, the General Secretariat has received, from the Government of Israel, a Note the text of which has been published in Notification N° 1087.

3) Formerly: Burma (Union of)

4) Formerly: Malta.

5) The Government of the Kingdom of the Netherlands declared that the Convention was ratified on behalf of the Kingdom in Europe, of Surinam and of the Netherlands Antilles.

6) In ratifying the Convention and the Optional Additional Protocol, the Government of the United Kingdom has declared that the instrument of ratification is in respect of the United Kingdom of Great Britain and Northern Ireland, the Associated States (Antigua, Dominica, Saint Christopher-Nevis-Anguilla, Saint Lucia and Saint Vincent) and Territories under the territorial sovereignty of the United Kingdom, as well as the State of Brunei, the British Solomon Islands Protectorate and, within the limits of United Kingdom jurisdiction therein, the Condominium of the New Hebrides.

The Government of the United Kingdom has also declared that the provisions of the Convention and of the Optional Additional Protocol shall not apply to Southern Rhodesia unless and until the Government of the United Kingdom inform the Secretary-General that they are in a position to ensure that the obligations imposed by the Convention and the Optional Additional Protocol, in respect of that territory can be fully implemented.

7) The Government of the Republic of South Africa has acceded to the Convention subject to the proviso that it will reserve to itself the right to take any action it may deem necessary to protect its interests, should other Members of the Union in any way fail to comply with the obligations under the International Telecommunication Convention (Torremolinos, 1973) in respect of South Africa.

8) Country having a special status comparable to that of Associate Member as defined in the Montreux Convention 1965, under Additional Protocol IV to the International Telecommunication Convention, Torremolinos, 1973.

**Lists of Countries * which signed the Final Acts of the
World Maritime Administrative Radio Conference of Geneva (1974)**

(These Final Acts will come into force on 1 January 1976)

1. Partial Revision of the Radio Regulations

Algeria (Algerian Democratic and Popular Republic)	Iraq (Republic of)
Germany (Federal Republic of)	Ireland
Saudi Arabia (Kingdom of)	Iceland
Argentine Republic	Israel (State of)
Australia	Italy
Bangladesh (People's Republic of)	Jamaica
Belgium	Japan
Brazil (Federative Republic of)	Khmer Republic
Bulgaria (People's Republic of)	Kuwait (State of)
Cameroon (United Republic of)	Lebanon
Canada	Liberia (Republic of)
Central African Republic	Luxembourg
Chile	Malaysia
China (People's Republic of)	Malagasy Republic
Cyprus (Republic of)	Morocco (Kingdom of)
Colombia (Republic of)	Mauritius
Congo (People's Republic of the)	Mauritania (Islamic Republic of)
Korea (Republic of)	Mexico
Costa Rica	Monaco
Ivory Coast (Republic of the)	Nicaragua
Cuba	Nigeria (Federal Republic of)
Dahomey (Republic of)	Norway
Denmark	New Zealand
El Salvador (Republic of)	Pakistan
Group of Territories represented by the French Overseas Post and Telecommunication Agency	Panama (Republic of)
Ecuador	Paraguay (Republic of)
Spain	Netherlands (Kingdom of the)
United States of America	Peru
Finland	Philippines (Republic of the)
France	Poland (People's Republic of)
Ghana	German Democratic Republic
Greece	Roumania (Socialist Republic of)
Upper Volta (Republic of)	United Kingdom of Great Britain and Northern Ireland
Hungarian People's Republic	Senegal (Republic of the)
India (Republic of)	Singapore (Republic of)
Indonesia (Republic of)	Sri Lanka (Ceylon) (Republic of)
Iran	Sweden
	Switzerland (Confederation of)
	Tanzania (United Republic of)

* In the alphabetical order of the French version of the country names.

Czechoslovak Socialist Republic	Tunisia
Territories of the United States of America	Turkey
Overseas Territories for the international relations of which the Government of the United Kingdom of Great Britain and Northern Ireland are responsible	Union of Soviet Socialist Republics
Thailand	Venezuela (Republic of)
Togolese Republic	Viet-Nam (Republic of)
	Yugoslavia (Socialist Federal Republic of)
	Papua New Guinea

2. *Partial Revision of the Additional Radio Regulations*

The countries which signed the Partial Revision of the Additional Radio Regulations are the same as those which signed the Partial Revision of the Radio Regulations, with the exception of the United States of America and the Territories of the United States of America.

ANNEX 2A

BUDGET FOR 1974

SUMMARY OF ESTIMATED EXPENDITURE FOR 1974

Expenditure	Expenditure 1973	Provisional budget 1974	Final budget 1974	Additional credits under Res. 647	Budget 1974 including addl. credits
Swiss francs					
I. BUDGET OF THE UNION					
<i>Section 1</i> — Administrative Council.	580,911	579,000	702,000	—	702,000
Common headquarters expenditure:					
<i>Section 2</i> — Staff	21,823,695	21,958,000	25,605,000	180,000	25,785,000
<i>Section 3</i> — Social security	4,221,544	4,304,000	5,232,800	36,000	5,268,800
<i>Section 4</i> — Premises	2,746,279	2,892,600	3,186,600	—	3,186,600
<i>Section 5</i> — Missions	127,607	128,000	148,000	—	148,000
<i>Section 6</i> — Office and miscellaneous	1,914,828	1,861,500	1,909,500	—	1,909,500
<i>Section 6bis</i> — Technical aid for the Group of Engineers	—	—	100,000	—	100,000
	31,414,864	31,723,100	36,883,900	216,000	37,099,900
<i>Section 7</i> — Conferences under No. 208 of the Convention:					
Plenipotentiary Conference	2,476,282	—	—	—	—
World Administrative Tg and Tf Conference	266,175	—	—	—	—
World Administrative Maritime Radio Con- ference	—	3,100,000	2,848,000	—	2,848,000
<i>Section 8</i> — C.C.I. meetings under No. 209 of the Convention:					
C.C.I.R.	465,766	1,650,000	2,062,000	—	2,062,000
C.C.I.T.T.	338,949	1,950,000	2,048,000	—	2,048,000
A.C. Decision No. 356.	695,104	730,000	—	—	—
<i>Section 9</i> — Regional Administrative Confer- ence under No. 210 of the Convention:					
LF/MF Broadcasting Conference	—	700,000	1,130,000	—	1,130,000
<i>Section 10</i> — Other expenditure:					
I.T.U. seminars	—	50,000	50,000	—	50,000
Seminars of Member Administrations	62,147	100,000	180,000	—	180,000
	35,719,287	40,003,100	45,201,900	216,000	45,417,900
Expenditure on fitting out the C.C.I.T.T. Labor- atory	33,920	20,000	20,000	—	20,000
Maintenance and renewal of simultaneous inter- pretation and other electro-acoustical equipment	1,453	9,000	9,000	—	9,000
	35,754,660	40,032,100	45,230,900	216,000	45,446,900
Transfer to I.T.U. Reserve Account	465,451	—	—	—	—
	36,220,111	40,032,100	45,230,900	216,000	45,446,900
II. TECHNICAL COOPERATION SPECIAL ACCOUNTS BUDGET					
<i>Section 11</i> — Administrative costs	5,956,818	5,906,000	6,174,700	44,000	6,218,700
III. SUPPLEMENTARY PUBLICATIONS BUDGET					
Total expenditure	4,073,535	5,059,300	5,362,100	4,400	5,366,500
Surplus income	26,609	22,700	26,900	(4,400)	22,500
	4,100,144	5,082,000	5,389,000	—	5,389,000

SUMMARY OF ESTIMATED INCOME FOR 1974

Income	Income 1973	Provisional budget 1974	Final budget 1974	Additional income under Res. 647	Budget 1974 including addl. income
Swiss francs					
I. BUDGET OF THE UNION					
Contributions:					
— Contributions of Members and Associate Members of the Union to defrayal of expenditure for the current year	31,884,666	36,617,500	41,259,750	—	41,259,750
— Contributions of private operating agencies and scientific or industrial organizations to defrayal of expenses of conferences and meetings under Sections 7 to 9:					
— World Administrative Tg and Tf Conference	1,500	—	—	—	—
— World Administrative Maritime Radio Conference	—	—	18,500	—	18,500
— C.C.I.R.	954,167	1,101,600	1,101,600	—	1,101,600
— C.C.I.T.T.	1,383,854	1,576,800	1,576,800	—	1,576,800
— Regional Administrative LF/MF Conference	—	700,000	1,130,000	—	1,130,000
Sundry income	203,801	7,200	115,250	—	115,250
	34,427,988	40,003,100	45,201,900	—	45,201,900
Withdrawal from C.C.I.T.T. Reserve Fund for fitting out C.C.I.T.T. Laboratory	33,920	20,000	20,000	—	20,000
Withdrawal from Renewal Fund for maintenance and renewal of simultaneous interpretation and other electro-acoustical equipment.	1,453	9,000	9,000	—	9,000
Withdrawal from I.T.U. Reserve Account	1,756,750	—	—	216,000	216,000
	36,220,111	40,032,100	45,230,900	216,000	45,446,900
II. TECHNICAL COOPERATION SPECIAL ACCOUNTS BUDGET					
Contributions to Technical Cooperation administrative costs and sums brought forward from previous years	5,956,818	5,906,000	6,174,700	44,000	6,218,700
III. SUPPLEMENTARY PUBLICATIONS BUDGET					
Total income	4,100,144	5,082,000	5,389,000	—	5,389,000

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ANNEX 2B

ACCOUNTS FOR 1974

PROFIT AND LOSS ACCOUNT FOR 1974

(Management account) (in Swiss francs)

Expenditure	Budget 1974 ¹	Accounts 1974
I. BUDGET OF THE UNION		
<i>Section 1</i> — Administrative Council	702,000.—	682,369.87
Common Headquarters expenditure:		
<i>Section 2</i> — Staff	25,785,000.—	25,899,632.40
<i>Section 3</i> — Social security	5,268,800.—	5,133,714.15
<i>Section 4</i> — Premises	3,186,600.—	3,055,080.15
<i>Section 5</i> — Missions	148,000.—	147,493.05
<i>Section 6</i> — Office and miscellaneous	1,909,500.—	2,089,799.41
<i>Section 6bis</i> — Technical aid for the Group of Engineers . . .	100,000.—	103,228.30
	37,099,900.—	37,111,317.33
<i>Section 7</i> — Conferences under No. 208 of the Convention: World Admin. Maritime Radio Conf.	2,848,000.—	2,682,469.15
<i>Section 8</i> — C.C.I. meetings under No. 209 of the Convention: C.C.I.R. C.C.I.T.T.	2,062,000.— 2,048,000.—	2,022,897.75 1,622,879.50
<i>Section 9</i> — Reg. Admin. Conf. under No. 210 of the Convention: LF/MF Broadcasting Conf.	1,130,000.—	931,134.—
<i>Section 10</i> — Other expenditure: I.T.U. seminars Seminars of Member Admins.	50,000.— 180,000.—	63,114.30 227,388.25
	45,417,900.—	44,661,200.28
Fitting out the C.C.I.T.T. Laboratory	20,000.—	19,464.20
Maintenance and renewal of simultaneous interpretation and other electro-acoustical equipment	9,000.—	7,832.05
	45,446,900.—	44,688,496.53
Surplus income paid into I.T.U. Reserve Account		755,643.92
	45,446,900.—	45,444,140.45

¹ Final budget for 1974 including additional credits.

PROFIT AND LOSS ACCOUNT FOR 1974

(Management account) (in Swiss francs)

Income	Budget 1974 ¹	Accounts 1974
I. BUDGET OF THE UNION		
Contributions:		
— Contributions of Members and Associate Members of the Union to defrayal of expenditure for the current year . .	41,259,750.—	41,285,125.—
— Contributions of private operating agencies and scientific or industrial organizations to defrayal of expenses of conf. and meetings under Sections 7 and 8:		
— World Admin. Maritime Radio Conference	18,500.—	18,510.—
— C.C.I.R.	1,101,600.—	1,090,200.—
— C.C.I.T.T.	1,576,800.—	1,694,770.85
— Contributions of Members and recognized private operating agencies to defrayal of expenses of regional administrative conferences:		
— LF/MF Broadcasting Conf.	1,130,000.—	931,134.—
Sundry income	115,250.—	118,104.35
	45,201,900.—	45,200,844.20
Withdrawal from C.C.I.T.T. Reserve Fund for fitting out C.C.I.T.T. Laboratory	20,000.—	19,464.20
Withdrawal from Renewal Fund for maintenance and renewal of simultaneous interpretation equipment	9,000.—	7,832.05
Withdrawal from I.T.U. Reserve Account	216,000.—	216,000.—
	45,446,900.—	45,444,140.45

¹ Final budget for 1974 including additional credits

PROFIT AND LOSS ACCOUNT FOR 1974
(Management account) (in Swiss francs)

Expenditure	Budget 1974 ¹	Accounts 1974
II. TECHNICAL COOPERATION SPECIAL ACCOUNTS BUDGET		
<i>Section 11</i> — Technical Cooperation — Administrative costs . .	6,218,700.—	6,247,964.20
Excess expenditure brought forward from 1973	—	681,439.36
Excess withdrawals for administrative costs prior to 1971 ² . . .		1,199,204.85
	6,218,700.—	8,128,608.41
III. SUPPLEMENTARY PUBLICATIONS BUDGET		
<i>Section 24</i> } — Publications issued in 1974, including overheads	4,279,500.—	7,939,313.58
<i>Section 25</i> }		
<i>Section 26</i> — Publications sold at a loss.	990,000.—	1,260,359.60
<i>Section 27</i> — Miscellaneous	97,000.—	156,682.15
	5,366,500.—	9,356,355.33
Surplus income credited to the Publications Capital Account . .	22,500.—	1,634,850.05
	5,389,000.—	10,991,205.38

¹ Final budget for 1974 including additional credits.

² Amount in abeyance awaiting U.N.D.P. decision.

PROFIT AND LOSS ACCOUNT FOR 1974

(Management account) (in Swiss francs)

Income	Budget 1974 ¹	Accounts 1974
II. TECHNICAL COOPERATION SPECIAL ACCOUNTS BUDGET		
Contribution by U.N.D.P. to defrayal of expenditure on projects }	6,218,700.— }	5,244,766.70
Technical assistance, contribution for Funds-in-Trust }		451,584.65
Other income:		
— Balance of unused credits, 1973		1,500.—
— Sundry income		18,637.20
	6,218,700.—	5,716,488.55
Excess of expenditure carried forward to 1975		2,412,119.86
	6,218,700.—	8,128,608.41
III. SUPPLEMENTARY PUBLICATIONS BUDGET		
Sale of publications issued in 1974	4,469,000.—	9,931,573.15
Sale of publications issued in previous years.	20,000.—	(171,971.10)
Sale of publications sold at a loss	200,000.—	292,776.40
Advertisements in the <i>Telecommunications Journal</i>	600,000.—	767,948.65
Miscellaneous	100,000.—	170,878.28
	5,389,000.—	10,991,205.38

¹ Final budget for 1974 including additional credits.

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ANNEX 3

LIST OF PUBLICATIONS ISSUED BY THE UNION IN 1974

		<i>No. of copies</i>
1.	12 Notifications, Nos. 1074 to 1085	F 500 E 600 S 150
2.	20 General Secretariat Circulars, Nos. 117 to 136	F 500 E 800 S 200
3.	International Telecommunication Convention, Malaga-Torremolinos, 1973	F 3,600 E 6,000 S 1,700
4.	Compulsory Settlement of Disputes (Optional Additional Protocol to the International Telecommunication Convention), Malaga-Torremolinos, 1973	F 1,300 E 1,800 S 550
5.	Minutes of the Plenipotentiary Conference, Malaga-Torremolinos, 1973	F 400 E 600 S 250
6.	Supplement No. 9 to the Volume of Resolutions and Decisions of the Administrative Council, 29th Session 1974	F 400 E 500 S 200
7.	Financial Operating Report for 1973	F 500 E 600 S 230
8.	Report on the Activities of the Union 1973	F 650 E 750 S 350
9.	Telecommunication Journal, 12 numbers.	F 1,850 E 3,800 S 850
10.	12 Operational Bulletins, Nos. 97 to 108	F 500 E 600 S 170
11.	List of Addresses, 4th edition 1972: Supplements Nos. 4 to 7, trilingual	1,700
12.	Telecommunication Statistics, 1973, trilingual	1,200
13.	Yearbook of Common Carrier Telecommunication Statistics, 1st edition 1974, trilingual	1,200
14.	Instructions for the Operation of International Telegram Service, 1974.	F 4,000 E 5,000 S 1,000
15.	Final Acts of the World Administrative Telegraph and Telephone Conference, Geneva, 1973	F 1,500 E 2,000 S 500

			<i>No. of copies</i>
16.	List of Telegraph Offices, 23rd edition 1971: Supplements Nos. 11 to 14, trilingual		20,000
17.	List of International Telephone Routes, 14th edition 1974, trilingual		1,000
18.	List of Destination Indicators and Telex Identification Codes, 3rd edition 1973, trilingual		1,600
19.	Table of International Telex Relations and Traffic, 1973, trilingual		750
20.	Routing Table for Offices Taking Part in the Gentex Service, 4th edition 1972: Supplements Nos. 3 and 4, trilingual		1,000
21.	T.A. Table, Transferred Account Telegraph Service, 4th edition 1973: Supplements Nos. 2 and 3, trilingual		700
22.	List of Coast Stations, 5th edition 1973, trilingual.		31,000
23.	List of Ship Stations, 14th edition 1974 and Supplement No. 1, trilingual		20,000
24.	List of Radiodetermination and Special Service Stations, 5th edition 1971: Supplements Nos. 5 and 6, trilingual		23,100
25.	List of International Monitoring Stations, 3rd edition 1971: Supplement No. 1, trilingual		1,000
26.	Chart in Colours Showing Frequency Allocations 10 kHz-275 GHz, 1973 edition and Posters	F E S	1,450 3,300 700
27.	Alphabetical List of Call Signs of Stations Used by the Maritime Mobile Service, 6th edition 1972: Supplements Nos. 6 and 7, multilingual		23,500
28.	Alphabetical List of Call Signs of Stations Used by the Maritime Mobile Service, 7th edition 1974, multilingual.		21,500
29.	Alphabetical List of Call Signs of Stations other than Amateur Stations, Experimental Stations and Stations of the Maritime Mobile Service, 5th edition 1972: Supplements Nos. 7 and 8, trilingual		3,200
30.	Alphabetical List of Call Signs of Stations other than Amateur Stations, Experimental Stations and Stations of the Maritime Mobile Service, 6th edition 1974, trilingual . . .		3,100
31.	New pages of the Directives Concerning the Protection of Telecommunication Lines Against Harmful Effects from Electricity Lines, 1974 edition	F E	1,700 1,500
32.	Guide for the Application in a Simple Case of the Directives, 1974 edition	F E	1,700 1,500
33.	New pages of the Recommendations Concerning the Construction, Installation and Pro- tection of Telecommunication Cables in Public Networks, 1974 edition	F E	1,100 1,500
34.	Selected C.C.I.T.T. Recommendations Relating to International Sound and Television Programme Transmissions, 1974 edition	F E S	450 600 250
35.	Preservation of Wooden Poles Carrying Overhead Telecommunication Lines, 1974 edition	F E S	500 600 300
36.	The Protection of Telecommunication Lines and Equipment Against Lightning Discharges, 1974 edition	F E S	600 750 300

No. of copies

37.	General Plan for the Development of the Regional Latin-American Network, 1972-1974-1976-1982, Brasilia 1973, trilingual		750
38.	Documents of the Vth Plenary Assembly of the C.C.I.T.T., Geneva 1972:		
	Volume I	F	1,000
		E	2,400
		S	300
	Volume II-A	F	1,000
		E	2,500
		S	500
	Volume II-B	F	1,100
		E	2,700
		S	500
	Volume III	S	600
	Volume IV-1	S	600
	Volume IV-2	S	600
	Volume V	S	500
	Volume VI	F	1,000
		E	3,100
		S	600
	Volume VII	S	500
	Volume VIII	S	600
39.	C.C.I.R. Report 440-1, General Graphical Symbols for Radiocommunications, Geneva, 1973	F	900
		E	1,600
		S	350
40.	International Frequency List, 7th edition 1973:		
	Preface : Supplements Nos. 3 to 5, trilingual		1,250
	Volume I : Supplements Nos. 3 to 6, multilingual		1,100
	Volume II : Supplements Nos. 3 to 6, multilingual		1,100
	Volume III : Supplements Nos. 3 to 6, multilingual		1,100
	Volume IV : Supplements Nos. 3 to 6, multilingual		1,150
	Volume Va) : Supplements Nos. 3 to 6, multilingual		900
	Volume Vb) : Supplements Nos. 3 to 6, multilingual		900
	Volume Vc) : Supplements Nos. 3 to 6, multilingual		900
	Volume Vd) : Supplements Nos. 3 to 6, multilingual		900
41.	List of Fixed Stations Operating International Circuits, 7th edition 1973:		
	Supplements Nos. 3 to 6, trilingual		1,300
42.	List of Broadcasting Stations Operating in Bands below 5 950 kHz, 7th edition 1973:		
	Supplements Nos. 2 and 3, trilingual		1,000
43.	List of Stations in the Space Service and in the Radioastronomy Service, 4th edition 1973 (Supplement No. 1 enclosed), trilingual		950
44.	51 I.F.R.B. Weekly Circulars, Nos. 1093 to 1143:		
	Parts I-II-III and Special, trilingual		400
	Part IV, trilingual.		450
45.	5 Summaries of Monitoring Information Received by the I.F.R.B., Nos. 179 to 183, trilingual		600
46.	Tentative High Frequency Broadcasting Schedules, May 1974, September 1974, November 1974, trilingual		600
47.	High Frequency Broadcasting Schedules, September 1972, November 1973, March 1974, May 1974, trilingual		470

		<i>No. of copies</i>	
48.	Seminar on the Planning of Broadcasting Systems, São Paulo, 1973	S	500
49.	Seminar on the Planning and Development of Telecommunication Networks Outside of Large Cities and the Maintenance of Telecommunication Service, Kuala Lumpur, 1972 (Case Study)	E	700
50.	Information Booklet No. 13: PANAFTEL — The Pan-African Telecommunication Network, 1974	F E	1,000 1,000
51.	Information Booklet No. 14: Symposium “ Space and Radiocommunication ”, Paris, 1973	F E	1,000 2,000
52.	Information Booklet No. 15: Thirteenth Report by the International Telecommunication Union on Telecommunication and the Peaceful Uses of Outer Space, 1974	F E S	4,300 6,400 2,300

ANNEX 4

DATA PROCESSING ACTIVITIES AT THE I.T.U. IN 1974

1. The I.T.U. computer was used 2,540 CPU¹ hours during 1974. The relative monthly statistics in terms of applications and tests, as well as the percentage of total use made by different organs, are shown below.

Month	CPU ¹ hours used			Percentage of total use				
	Total	Appl.	Tests	I.F.R.B.	G.S.	C.C.I.R.	C.C.I.T.T.	Misc.
January	201	151	50	55.2	37.0	3.3	—	4.5
February	242	159	83	33.3	57.7	3.2	—	5.8
March	215	146	69	41.7	42.3	7.2	—	8.8
April	206	156	50	49.2	38.7	3.8	—	8.3
May	250	172	78	47.4	44.5	3.2	—	4.9
June	222	131	91	34.8	47.2	4.0	0.2	13.8
July	186	120	66	29.3	46.4	10.8	0.2	13.3
August	208	147	61	27.8	39.1	16.4	—	16.7
September	208	174	34	33.0	25.3	23.5	0.3	17.9
October	220	172	48	40.2	44.4	3.6	2.3	9.5
November	197	128	69	38.4	51.2	4.0	1.4	5.0
December	185	135	50	37.6	58.5	2.9	0.4	0.6
Total	2,540	1,791	749					
Monthly average . .	212	150	62	39.0	44.3	7.2	0.4	9.1
Monthly 1973 average	207	147	60	43.1	42.0	6.7	—	8.2

¹ CPU = Central Processing Unit.

2. The monthly averages for the previous year are also given in this table. However, a simple comparison of the use of the computer based on these figures is not entirely correct, as some of the programmes and procedures for applications that consume a sizeable machine time were modified during 1974 to improve the efficiency of the task and cut down the throughput time, i.e. to occupy the computer less for producing the same results. Taking into account these improvements, there was an increase in the use of the computer during 1974. There were a total of 40,237 applications, tests and system operations during the year, representing an increase of 22% over the previous year.

3. The Union continued to make use of external computers for some of its specific non-repetitive tasks which require a computer of bigger capacity than the I.T.U. in-house services need, or to meet special demands such as trials of programmes obtained from some institutions before being adapted to the I.T.U. computer. However, this use was very limited during 1974 (about an hour on various external computers)

as the new computer, owing to its greater flexibility and capacity, absorbs much of the work which could not be performed on the previous computer.

4. At present there are over 60 tasks as regular applications on the computer. Apart from its routine work, the Computer Department continues to study various tasks lending themselves to computer applications. After preliminary feasibility studies, if it is decided to computerize a task from the point of view of service to the Union, the efficiency and also the economic aspects, a detailed system analysis is carried out, the relevant programmes are written and tested, necessary manuals developed and procedures explained to the user. The system in question is then put into a final test in parallel with the manual system and when the results are fully satisfactory to the user, the system is implemented. Activities in this line, during 1974, can be summarized as follows:

- An integrated Salary/Personnel System for Finance and Personnel Departments including T.C.D. experts in the field has been developed, and thoroughly tested. It will be implemented in January 1975.

- An Address Bank has been developed with a view to maintaining one central file to be used by all organs and all the different I.T.U. services and to allowing its exploitation according to the concerned services' requirements. The Bank, which has been tested, will contain about 35,000 addresses and will enter into service at the beginning of 1975.

- Development work continued with the aim of producing I.T.U. publications (especially for the publication of the CCI Recommendations) in text form with the help of the computer. This consisted mainly in modification and extension to the system of programmes provided by the computer's suppliers in order to adapt these programmes to the I.T.U.'s specific needs. The first pilot production is expected to be in early 1975.

- A programme has been developed to supply the U.N.D.P. Final Year-End Expenditure Reports to New York U.N.D.P. Headquarters on magnetic tape, and at the same time to produce a statistical list for the Technical Cooperation Department.

Technical help has been given to the Technical Cooperation Department for the Pre-investment Survey for the Middle East Telecommunication Network in processing statistical data and calculating alternative routings by the computer.

- Studies started in order to improve the supplements to the List of Call-Signs for the Maritime Mobile Service (List VIIA) and to control the formation of Call-Signs for the non-Maritime Services (List VIIB) at the source.

- The system used for the List of Ship Stations was amended in order to enable the master file to be up-dated more frequently.

- A computer file was created to provide an index to the Coast Stations with the objective of statistical processing which was already of service during the Maritime Conference and is being used at present in the preparation of List VIIA.

- The existing Sales-Debtors-Dispatch System has been modified, as an interim solution, to improve the preparation of invoices by using more intensively the facilities of the computer. A development is under way to expand the use of labels produced by the computer for the Dispatch Service.

- A detailed study was carried out for the Reproduction Service to obtain statistics by organs for this Service before, during and after conferences.

- Studies are being carried out with the C.C.I.R. and C.C.I.T.T. for an indexing system for C.C.I. books.
- A programme has been developed which, for the C.C.I.T.T., calculates crowflight (geodetic) distances between international exchanges (capitals) using a vectorial method and establishes a matrix for fixed unit cost.
- Studies started for a possibility to establish an authoritative multilingual telecommunication lexicon to meet the needs of interpreters and translators.
- A programme has been developed to make it possible to have the computer output on micro-fiche directly from the magnetic tape. This is with a view to replacing the supply on paper of information from the computer output by micro-fiche when feasible, which will limit expenditure on computer supplies, and give the possibility of the choice of micro-fiche to requests from outside Headquarters which might require I.T.U. publications in other form than the printed form.

5. Some of the work mentioned above had to cease at the feasibility study stage. Other work such as developments did not progress as fast as might be desired. There are other tasks waiting for computer help but which could not yet be studied. Most of this is due to the limited systems analyst and programming staff available.

6. The system of photo-composition for I.T.U. books in the form of lists prepared with the help of the computer, i.e. to produce films for offset directly from a magnetic tape instead of reducing the computer print-out, is continuing to be applied to more I.T.U. publications, since it results in better quality of printing and presentation at a reduced cost. The necessary steps have been taken to produce by photo-composition, early in 1975, the International Frequency List directly from magnetic tapes. An arrangement has been made with one administration to produce the films for this publication of over 6,000 pages, through their photo-composer, a machine compatible with the I.T.U. computer. This will result in an important economy of paper supply, staff time (assembling and control) and other expenses. At the same time, the presentation and readability of the list will be improved, and the publishing delay shortened. During 1974, Call-Sign Lists VIIA and VIIB were produced by the same method and through the same arrangements with substantial economy.

7. Following the discretion given to the Director of the C.C.I.T.T. and the Secretary-General by a special Ad Hoc Working Party and as a result of the adoption of a simplified form for submitting World and Regional Plans data, the computer was used to assemble this information for publication by types of service and relation. The resulting treatment and representation of the traffic data from the bilaterally orientated input sheets ensured substantial economy with respect to the size and consequently the cost of the Supplement to the World Plan, Venice, 1971, and the General Plan for the development of the International Network in the Region Asia and Oceania, Tokyo, 1974. Moreover, the traffic is now reproduced in a form which facilitates the analysis and work of the appropriate authorities within administrations, the new concepts being endorsed by the Tokyo Plan Meeting, 1974.

The general concepts are being further developed so that information on arteries can be handled as well as the more detailed data required for the European and Mediterranean Basin Regional Plan. It is hoped that with further development there would be some reduction in the work of administrations as

regards assembling and furnishing data of a similar nature for different publications—even if reproduced in different forms for their subsequent use.

8. Work continued in developing new procedures, utility programmes and existing programming conventions so as to improve further the efficiency of operation of the computer. At the same time steps are being taken, such as the introduction of “ Decision Tables ”, to increase the effectiveness of the programming tasks.

9. Contributions have been made to the work of the Coordination Committee on Administrative Questions (C.C.A.Q.) to develop a computerized U.N. Family Staff Roster.

10. The Department is contributing to the activities of the Working Party on Implementation of Resolution No. 47 of the Plenipotentiary Conference (Creation of a Telecommunication Documentation Centre).

11. Seven seminars and information sessions were organized to inform the staff connected with computer use about new developments and recently-developed procedures applied in the I.T.U. computer.

12. Explanations and, when requested, advice were given to administrations and visitors to Headquarters about the computer work of the Union and on computer problems.

ANNEX 5

CONFERENCES AND MEETINGS
AT WHICH THE UNION WAS REPRESENTED IN 1974

		<i>Number of participants¹</i>	
		<i>Officials from Head- quarters</i>	<i>Regional experts</i>
A. UNITED NATIONS			
1.	Economic and Social Commission for Asia and the Pacific: 22nd Session of the Transport and Communications Committee, Bangkok, 15-22 January . . .	—	1
2.	Economic and Social Commission for Asia and the Pacific: 64th Session (Plenary) of the Mekong Committee, Bangkok, 30 January-4 February	—	1
3.	2nd Session of the Sub-Committee on Education and Training of the Administrative Committee on Coordination, Geneva, 6-8 February	3	—
4.	14th Session of the Sub-Committee on Marine Science and its Applications of the Administrative Committee on Coordination, Geneva, 13-15 February	2	—
5.	39th Session of the Consultative Committee on Administrative Questions, Geneva, 4-14 March	3	—
6.	Working Group on Direct Broadcast Satellites, Geneva, 11-22 March	4	—
7.	6th Session of the Inter-Organization Board for Information Systems and Related Activities (I.O.B.), Paris, 19-22 March	1	—
8.	Ad Hoc Inter-Agency Meeting on Space Applications, Geneva, 25-26 March . . .	5	—
9.	30th Session of the Economic and Social Commission for Asia and the Pacific, Colombo, 27 March-8 April	1	1
10.	76th Session of the Preparatory Committee of the Administrative Committee on Coordination, Paris, 27 March-9 April	2	—
11.	11th Session of the Scientific and Technical Sub-Committee of the Committee on the Peaceful Uses of Outer Space, New York, 15-26 April	1	—
12.	United Nations Environment Programme — 3rd Session of the Environment Coordination Board, New York, 16-17 April	1	—
13.	61st Session of the Administrative Committee on Coordination, New York, 17-19 April	1	—
14.	13th Session of the Legal Sub-Committee of the Committee on the Peaceful Uses of Outer Space, Geneva, 6-31 May	4	—
15.	United Nations Environment Programme: 1st Meeting of the Inter-Agency Task Force, Geneva, 10-14 June	1	—
16.	Meeting of the Sub-Committee on Science and Technology of the Administrative Committee on Coordination, Geneva, 28 June	1	—
17.	22nd Session of the International Civil Service Advisory Board, Geneva, 1-12 July	2	—
18.	United Nations Conference on Trade and Development: 3rd Session of the Intergovernmental Group on Transfer of Technology, Geneva, 15-26 July	2	—
19.	57th Session of the Economic and Social Council, Geneva, 3 July-2 August . . .	6	—
20.	Inter-Agency Meeting on Language Arrangements, Publications and Documentation, Vienna, 15-18 July	1	—

¹ These participants attended as necessary during the meetings concerned.

		<i>Number of participants</i> ¹	
		<i>Officials from Head- quarters</i>	<i>Regional experts</i>
21.	19th Session of the United Nations Staff Pension Board, Copenhagen, 15-19 July	1	—
22.	42nd Session of the Consultative Committee for Public Information, Rome, 2-4 September	1	—
23.	11th Session of the Programme Committee of the Centre for Economic and Social Information, Rome, 5-6 September	1	—
24.	Economic Commission for Western Asia: 1st Special Session, Beirut, 9-10 September	—	1
25.	40th Session of the Consultative Committee on Administrative and Budgetary Questions, Vienna, 9-11 September	1	—
26.	Meeting of the Sub-Committee on Marine Science and its Applications of the Administrative Committee on Coordination, London, 26-27 September	1	—
27.	78th Session of the Preparatory Committee of the Administrative Committee on Coordination, New York, 12-22 October	2	—
28.	Office of the High Commissioner for Refugees: 25th Session of the Executive Committee, Geneva, 14-22 October	1	—
29.	Economic Commission for Latin America: 9th Extraordinary Session of the Committee of the Whole, New York, 21-22 October	1	—
30.	63rd Session of the Administrative Committee on Coordination, New York, 29-30 October	2	—
31.	Meeting of the Sub-Committee on the Second Development Decade of the Administrative Committee on Coordination, New York, 9-10 December	1	—
32.	Economic and Social Commission for Asia and the Pacific: 23rd Session of the Transport and Communications Committee, Bangkok, 16-23 December	1	1

B. SPECIALIZED AGENCIES

*United Nations Educational, Scientific and Cultural Organization
(UNESCO)*

33.	Meeting of Experts on the International Standardization of Statistics on Radio and Television, Paris, 22-24 April	1	—
34.	Special Committee of Governmental Experts to examine the draft revised Recommendation concerning Technical and Vocational Education, Paris, 13-22 May	1	—
35.	Meeting of Experts on Communication Policies and Planning in Latin America, Bogotá, 4-13 July	—	1
36.	Seminar on Training of Communication Planners in Asia, Kuala Lumpur, 16-21 December	—	1

World Meteorological Organization (W.M.O.)

37.	6th Session of Regional Association V (South-West Pacific), Manila, 11-23 February	—	1
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Intergovernmental Maritime Consultative Organization (I.M.C.O.)

38.	4th Session of the Panel of Experts on Maritime Satellites, London, 7-11 January	2	—
39.	30th Session of the Maritime Safety Committee, London, 25-29 March	1	—
40.	5th Session of the Panel of Experts on Maritime Satellites, London, 2-6 September	3	—
41.	13th Session of the Sub-Committee on Radiocommunications, London, 9-13 September	2	—
42.	31st Session of the Maritime Safety Committee, London, 3-4 October	2	—

¹ See page 145.

		<i>Number of participants¹</i>	
		<i>Officials from Head- quarters</i>	<i>Regional experts</i>
<i>Universal Postal Union (U.P.U.)</i>			
43.	Session of the Executive Board, Berne, 19-23 February	1	—
44.	XVIIth Universal Postal Congress, Lausanne, 22 May-3 July	3	—
<i>International Civil Aviation Organization (I.C.A.O.)</i>			
45.	6th Meeting of the ASTRA Panel, Montreal, 21 January-4 February	1	—
46.	8th Air Navigation Conference, Montreal, 17 April-11 May	1	—
C. INTERNATIONAL ORGANIZATIONS			
<i>European Broadcasting Union (E.B.U.)</i>			
47.	26th Session of the Technical Committee, Paris, 25-29 March	3	—
48.	Working Group C: 4th Meeting on Digital Coding of Sound and Television, Munich, 14-15 May	1	—
<i>Inter-Union Commission on Allocation of Frequencies for Radio Astronomy and Space Science (I.U.C.A.F.)</i>			
49.	Meeting of I.U.C.A.F., Bonn, 29 July	1	—
<i>International Electrotechnical Commission (I.E.C.)</i>			
50.	Meeting of Technical Committee No. 29: Electroacoustics, Moscow, 1-6 April. .	1	—
51.	Meeting of Study Group 1: Terminology, Bucharest, 19-20 September	1	—
52.	Meeting of Working Group 1: Radio-relay systems, Rome, 30 September-4 October	1	—
<i>International Radio and Television Organization (O.I.R.T.)</i>			
53.	Plenary Meeting of Study Group VI, Erfurt (German Democratic Republic), 10-13 December	1	—
<i>Organisation for Economic Cooperation and Development (O.E.C.D.)</i>			
54.	Seminar on Policy Issues on Data Protection, Paris, 24-26 June	1	—
<i>International Committee for Weights and Measures</i>			
55.	7th Meeting of the Consultative Committee for the Definition of the Second, Sèvres, 9-11 July	1	—
<i>European Conference of Postal and Telecommunications Administrations (C.E.P.T.)</i>			
56.	Plenary Assembly of the Telecommunications Committee, Puerto de la Cruz, 14-21 March	1	—
57.	Meeting of the Sub-Group on "Signalling", Paris, 19 May-1 June	1	—
58.	Meeting of the Sub-Group on "Pulse Code Modulation", London, 5-14 June . .	1	—
59.	Meeting of the Working Group on "Telegraph", London, 5-15 November	1	—
60.	Meeting of the Sub-Group on "Pulse Code Modulation", Paris, 17-19 December .	1	—

¹ See page 145.

		Number of participants ¹	
		Officials from Head- quarters	Regional experts
<i>International Organization for Standardization (I.S.O.)</i>			
61.	8th Meeting of ISO/TC 97 — Computers and Information Processing, Geneva, 15-17 May	4	—
62.	Meeting of Technical Committee 97, Sub-Committee 6, Working Group 3, C.C.I.T.T. Special Study Group A matters, Paris, 8-12 September	1	—
63.	Meeting of Technical Committee 97, Sub-Committee 6, "Data Communication", Tokyo, 14-18 October	1	—
<i>Council of Europe</i>			
64.	Colloquium on the Role and Administration of Telecommunications in a Democratic Society, Munich, 24-26 June	1	—
<i>Federation of Telecommunication Engineers of the European Community (F.I.T.C.E.)</i>			
65.	13th Meeting of the European Days on Telecommunications, Luxembourg, 2-7 September.	1	—
<i>Danube Commission</i>			
66.	XXXIIInd Session of the Commission, Budapest, 12-13 March	1	—
<i>International Chamber of Shipping (I.C.S.)</i>			
67.	39th Meeting of the I.C.S. Radio and Navigation Committee, London, 17 December	1	—
<i>International Marine Radio Association (C.I.R.M.)</i>			
68.	55th Meeting of the Technical Committee, Amsterdam, 11-13 June.	2	—
69.	56th Meeting of the Technical Committee, London, 3-5 December	3	—
<i>European Space Research Organization (E.S.R.O.)</i>			
70.	Development of a Computer Programme for the Analysis and Elaboration of Frequency Plans in the Band 11.7-12.5 GHz, Neuilly-sur-Seine, 3 October	1	—
<i>International Astronautical Federation (I.A.F.)</i>			
71.	27th Session of the Bureau, Paris, 8 April.	1	—
<i>International Conference on Large High Tension Electric Systems (C.I.G.R.E.)</i>			
72.	Meeting of the C.I.G.R.E., Paris, 21-29 August	1	—
<i>International Computer Communication Conference (I.C.C.C.)</i>			
73.	2nd Conference, Stockholm, 12-14 August	2	—
<i>International Switching System</i>			
74.	Symposium I.S.S., Munich, 9-13 September	1	—
<i>International Society on Biotelemetry (I.S.O.B.)</i>			
75.	2nd International Symposium on Biotelemetry: Round Table, Davos, 23 May	1	—

¹ See page 145.

		<i>Number of participants¹</i>	
		<i>Officials from Head- quarters</i>	<i>Regional experts</i>
<i>African Development Bank (A.D.B.)</i>			
76.	10th Anniversary, Abidjan, 14-16 November	—	1
<i>Organization for African Unity (O.A.U.)</i>			
77.	23rd Session of the Council of Ministers, Mogadiscio, Somalia, 6-11 June . . .	—	1
<i>Union of National Radio and Television Organizations of Africa (U.R.T.N.A.)</i>			
78.	Annual Meetings, Benghazi, 22 January-4 February	1	—
<i>Arab Telecommunication Union (A.T.U.)</i>			
79.	Meeting of the Special Consultative Committee, Beirut, 16-30 April	1	1
80.	Meeting of the Special Consultative Committee, Broumana, Lebanon, 16-23 September	1	1
81.	11th Plenipotentiary Conference, Tunis, 21 November-11 December	2	—
<i>Arab Fund for Economic and Social Development</i>			
82.	Meeting of the Board of Governors, Beirut, 16-18 April	—	1
<i>Asian Broadcasting Union (A.B.U.)</i>			
83.	11th General Assembly, Tokyo, 7-11 October	—	1
<i>Organization of American States (O.A.S.)</i>			
84.	IVth Meeting of the Permanent Executive Committee, IIInd Meeting of the Permanent Technical Committee I (Inter-American Telecommunication System) and IIInd Meeting of the Permanent Technical Committee III (Resources), Quito, 16-21 September.	—	2
<i>Western Union International (W.U.I.)</i>			
85.	Seminar "International Digital Data Service", New York, 20-28 February . . .	1	—
<i>International Civil Defence Organization (I.C.D.O.)</i>			
86.	VIIth World Conference on Civil Defence, Caracas, 13-16 February	—	1
<i>Sociedad Interamericana de Planificación</i>			
87.	Xth Interamerican Planning Congress, Panama, 8-14 September	—	1
D. OTHER MEETINGS			
<i>Indian Telephone Industries Ltd.</i>			
88.	International Symposium on Digital Communication, Allahabad, 15-17 November	1	—
<i>Ministry of Communications of the Republic of Colombia</i>			
89.	Meeting of Telecommunications Ministers for Coordinating the Technological Progress and Development of Telecommunications in Countries Members of the Sub-Regional Andean Pact, Cali, Colombia, 7-11 May	—	2

¹ See page 145.

		<i>Number of participants</i> ¹	
		<i>Officials from Head- quarters</i>	<i>Regional experts</i>
<i>Association of Engineers of the Telephone Enterprise of Bogotá</i>			
90.	First National Telecommunication Congress, Bogotá, 9-19 October	—	1
<i>Swiss Federal Political Department</i>			
91.	Diplomatic Conference on Human Rights, Geneva, 20 February-29 March	4	—
<i>Swiss Federal Institute of Technology</i>			
92.	Seminar on Digital Transmission, Zurich, 12-15 March	1	—
<i>British Broadcasting Corporation (B.B.C.)</i>			
93.	Frequency Coordination Conference, London, 25-29 March	1	—
<i>Canadian Telecommunication Carriers' Association</i>			
94.	Symposium on " Human Factors ", Montreal, 23-27 September	1	—

Note : Invitations to a considerable number of other meetings were declined either due to lack of credits or since the agenda did not, in the opinion of the Coordination Committee, justify I.T.U. representation.

¹ See page 145.

ANNEX 6

TABLE 1

TECHNICAL ASSISTANCE RENDERED IN 1974 UNDER U.N.D.P.

(classified by region, country and project—amounts shown in US dollars)

AFRICA

COUNTRY, Title of Project and No.	Starting date	Duration y/m	Total U.N.D.P. Contribution	Assistance Rendered in 1974			
				Expert m/m	Fellow m/m	a) Equipm. b) Subcont.	Total Expenditure
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Algeria</i>							
ALG/72/009 — Institute of the Technology of Telecommunications and Electronics	01/01/72	5/0	1,533,700	7/66.5	7/13	a) 34,447	230,034
<i>Botswana</i>							
BOT/72/024 — International Telecommunication Tariffs & Rates . .	01/02/73	0/06	15,263				15 ¹
BOT/73/002 — Adviser to Director of Posts & Telecommunications .	01/02/74	2/06	60,000	1/11			27,848
<i>Burundi</i>							
BDI/72/001 — Telecommunications	01/02/72	2/11	21,975		3/30		14,150
<i>Cameroon</i>							
CMR/68/015 — Telecommunication Adviser	01/01/71	3/02	132,490	1/7.5			18,913
CMR/71/525 — Postal & Telecommunication Training Institute . . .	01/12/71	5/01	1,070,759	4/46	5/43	a) 59,509	202,520
CMR/74/016 — Frequency Management	09/09/74	1/01	2,900		2/2		3,480
<i>Central African Republic</i>							
CAF/68/012 — Telephone Installations Instructor	01/01/69	4/10	172,903				509 ¹
CAF/72/016 — Higher School of Telecommunications	27/11/72	1/01	2,587				
CAF/74/009 — Telecommunication Training	01/09/74	2/0	64,000		4/10		10,031
<i>Ivory Coast</i>							
IVC/74/009 — Telecommunications	09/09/74	1/01	1,450		1/1		1,546
<i>Dahomey</i>							
DAH/71/001 — Posts and Telecommunications	01/01/71	3/08	132,001		5/32	a) 327	17,134

AFRICA (continued)

COUNTRY, Title of Project and No.	Starting date	Duration y/m	Total U.N.D.P. Contribution	Assistance Rendered in 1974			
				Expert m/m	Fellow m/m	a) Equipm. b) Subcont.	Total Expenditure
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Egypt</i>							
EGY/69/577 — Technical Training & Research Institute Telecommunication	01/03/70	6/10	1,753,923	4/42	6/28	a) 144,669	287,829
EGY/73/021 — Upgrading Cairo Telephone Cable Networks	01/07/73	1/00	70,500				
<i>Gabon</i>							
GAB/74/003 — Frequency Management	01/09/74	0/02	2,900		1/1		3,621
<i>Gambia</i>							
GAM/68/006 — Telecommunication Training	01/01/69	6/03	170,124		2/18.5		10,462
<i>Ghana</i>							
GHA/64/512 — Telecommunication Training Centre, Accra	01/10/64	8/03	979,396		1/8		5,651
GHA/68/018 — Air-Conditioning Maintenance	01/04/69	5/06	107,256				
GHA/68/020 — Telecommunications	01/01/69	6/00	18,728				
GHA/72/015 — Assistance to the Posts & Telecommunications Administration	01/11/73	2/00	122,851		14/85.5		90,771
GHA/74/008 — Frequency Management	09/09/74	0/01	2,900		2/2		3,345
<i>Guinea</i>							
GUI/68/028 — Telecommunications	01/10/70	4/03	203,203		6/52.5		35,111
GUI/72/005 — Telecommunications Network	01/07/72	2/03	70,000			b) 7,440	7,440
GUI/72/016 — Development of Telecommunications	01/07/72	2/00	690,000	1/1		a) 1,992	4,492
<i>Equatorial Guinea</i>							
EQG/69/006 — Telecommunications	01/02/70	4/09	152,511		2/8		6,944
<i>Upper Volta</i>							
UPV/69/010 — Telecommunications Adviser	01/01/69	5/03	83 251		1/3		1,962
UPV/71/004 — Development of the National P & T Training School .	01/01/72	2/10	87,585	1/9	1/2	a) 21,053	44,991
UPV/74/012 — Frequency Management	09/09/74	0/02	2,900		2/2		2,911

AFRICA (continued)

COUNTRY, Title of Project and No.	Starting date	Duration y/m	Total U.N.D.P. Contribution	Assistance Rendered in 1974			
				Expert m/m	Fellow m/m	a) Equipm. b) Subcont.	Total Expenditure
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Lesotho</i>							
LES/70/001 — General Telecommunication Adviser	01/10/70	4/01	74,455				101 ¹
LES/72/006 — Director, Posts, Telecommunications & Civil Department (OPAS) and Consultant	01/04/72	4/00	95,565	1/12			23,030
LES/72/064 — Chief Engineer, Telecommunications	01/02/73	2/00	45,325	1/12			22,876
LES/74/009 — Expertise on Telecommunications	06/05/74	0/04	16,250	3/6.5			16,727
LES/74/020 — Telecommunication Financial Management	01/07/74	2/00	48,000				
LES/74/029 — Frequency Management	09/09/74	0/03	3,800		2/3		4,986
<i>Malagasy Republic</i>							
MAG/64/505 — National Institute of Telecommunications & Posts, Antanetibé	01/01/65	9/02	1,171,654	1/1			2,663
<i>Malawi</i>							
MLW/73/001 — Telecommunication Training	01/10/73	1/09	47,268		6/21		13,391
<i>Mali</i>							
MLI/74/008 — Frequency Management	01/09/74	0/01	1,450		1/1		1,558
<i>Morocco</i>							
MOR/74/007 — Institute of Postal Telecommunications	01/10/74	0/02	5,050				
<i>Mauritania</i>							
MAU/71/001 — Telecommunications	01/10/71	4/00	114,809	1/12	1/3		32,784
MAU/73/006 — Telecommunications	01/07/74	3/03	106,550		4/12		8,057
<i>Niger</i>							
NER/69/006 — Telecommunications	01/01/70	4/10	120,259	1/5	2/15.5	a) 1,303	22,863
NER/73/010 — Telecommunications Training	01/09/73	2/00	11,800		1/12		5,237

AFRICA (continued)

COUNTRY, Title of Project and No.	Starting date	Duration y/m	Total U.N.D.P. Contribution	Assistance Rendered in 1974			
				Expert m/m	Fellow m/m	a) Equipm. b) Subcont.	Total Expenditure
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Nigeria</i>							
NIR/68/534 — Posts and Telecommunications Training Centre, Oshodi	01/10/69	7/01	1,145,339	7/84		a) 67,287	296,330
NIR/69/028 — Telecommunications	01/08/70	6/06	433,951	1/12	4/16.5		51,220
NIR/72/010 — National Telecommunications Development Planning.	01/05/73	2/04	857,450	11/63.5	7/21.5	a) 10,235 b) 224,183	429,677
<i>Rwanda</i>							
RWA/68/011 — Telecommunication Adviser	01/07/69	5/06	180,621	1/12	10/34.5		53,751
<i>Senegal</i>							
SEN/71/003 — Telecommunications	01/12/71	3/00	29,306				271 ¹
SEN/72/011 — Telecommunications Planning & Training of Personnel	01/09/73	4/04	186,288		5/30		14,952
<i>Sierra Leone</i>							
SIL/68/011 — Telecommunications	01/01/69	6/00	74,938		2/16		10,833
SIL/73/006 — Telecommunications Advisory Services	01/01/74	2/00	106,000	3/11			27,973
<i>Somalia</i>							
SOM/68/019 — Telecommunication Training	01/05/69	7/00	167,635	1/12		a) 6,043	36,581
SOM/72/009 — Telecommunications	01/01/73	1/06	7,835	2/13.5			11,732
<i>Sudan</i>							
SUD/71/012 — Telecommunication Planning	01/01/72	2/06	92,244	2/2			6,147
SUD/71/552 — Test, Repair & Maintenance Centre, Khartoum . . .	01/10/73	2/00	148,150		7/26		20,925
SUD/74/016 — Space Communications	01/09/74	2/01	68,100				
SUD/74/017 — Microwave Systems	01/09/74	2/00	67,600				
SUD/74/020 — Telecommunication Development	01/05/74	1/11	236,300	1/1			2,500

AFRICA (continued)

COUNTRY, Title of Project and No.	Starting date	Duration y/m	Total U.N.D.P. Contribution	Assistance Rendered in 1974			
				Expert m/m	Fellow m/m	a) Equipm. b) Subcont.	Total Expenditure
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Swaziland</i>							
SWA/68/011 — Telecommunication Training	01/11/69	5/02	76,666			a) 1,491	2,872
SWA/72/008 — Financial Controller (OPAS)	01/11/72	3/00	69,958	1/12			22,762
SWA/73/008 — Chief Engineer Telecommunications	01/10/73	3/00	76,737	2/13			25,079
<i>Chad</i>							
CHD/68/012 — Telecommunication Training	01/01/69	7/06	338,008	1/7	3/36		31,559
CHD/74/004 — Development of Telecommunications	01/09/74	2/00	188,500	1/5			12,600
CHD/74/015 — Frequency Management	01/09/74	0/01	1,450		1/0.5		1,387
<i>Togolese Republic</i>							
TOG/70/007 — Telecommunication Training	01/01/70	4/09	22,706		1/8		4,944
<i>Zaire</i>							
ZAI/66/510 — National School of Telecommunications	01/01/66	10/00	1,560,593	1/6.5		a) 933	19,802
<i>Zambia</i>							
ZAM/68/019 — Telecommunication Adviser	01/01/70	6/00	173,338	1/12			30,227
ZAM/71/516 — National Telecommunication & Postal Training Institute	01/03/71	3/10	498,741	5/52.5	2/3.5	a) 10,342	142,565
ZAM/73/003 — Adviser on Rates & Tariffs	01/08/73	0/03	12,672	1/1			2,500
<i>Regional projects</i>							
RAF/68/853 — Telecommunication Network Training	01/01/69	6/00	242,017	1/12			32,384
RAF/69/857 — Telecommunications	01/01/70	6/00	154,972	1/11			28,812
RAF/70/002 — Telecommunication Traffic	01/01/70	5/00	89,942		1/9		4,305
RAF/70/116 — Telecommunications	01/09/68	6/04	766,616			b) 76,261	76,982
RAF/70/851 — Regional Telecommunication Adviser (Central Africa)	01/01/71	4/05	114,462	1/12			31,305

AFRICA (concluded)

COUNTRY, Title of Project and No.	Starting date	Duration y/m	Total U.N.D.P. Contribution	Assistance Rendered in 1974			
				Expert m/m	Fellow m/m	a) Equipm. b) Subcont.	Total Expenditure
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Regional projects (Concluded)</i>							
RAF/71/155 — Multinational Posts & Telecommunications Training Scheme (Kenya, Uganda, Tanzania)	01/02/71	7/06	2,156,139	9/86	Group Training	a) 75,258	315,810
RAF/71/170 — Regional Telecommunication Training Centre	01/07/71	6/00	1,387,097	6/51.5	3/8.5 + Group Training	a) 65,734 b) 23,216	308,925
RAF/71/208 — National Telecommunications & Postal Training Centre	01/03/71	6/00	1,677,032	8/85	1/1 Group Training	a) 49,293	314,383
RAF/71/231 — Telecommunications	01/07/71	3/00	916,910	1/9	Group Training	b) 74,089	112,825
RAF/71/232 — Radio Monitoring and Frequency Management . . .	01/04/74	1/00	32,000	1/8.5			22,058
RAF/71/255 — Telecom Link Gambia-Senegal	01/02/74	2/00	356,900				354 ¹
RAF/71/858 — Planning Broadcasting System (Seminar)	01/12/73	1/01	41,000		Group Training		6,249
RAF/72/122 — Survey of Maritime Radiocommunication	01/11/72	4/02	113,941				
RAF/73/076 — Investment Survey of National and Inter-Country links	01/08/74	0/03	30,000				88 ¹
RAF/74/003 — Identification Mission for the Establishment of Special Telecom Services.	01/04/74	0/08	72,450				6 ¹
RAF/74/071 — Transmission Systems (Seminar)	30/09/74	0/01	22,500				

AMERICAS

COUNTRY, Title of Project and No.	Starting date	Duration y/m	Total U.N.D.P. Contribution	Assistance Rendered in 1974			
				Expert m/m	Fellow m/m	a) Equipm. b) Subcont.	Total Expenditure
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Antigua</i>							
ANT/74/009 — Telephone System Management	01/07/74	1/03	30,370	1/2			4,275
<i>Argentina</i>							
ARG/70/022 — Training & Specialization of Telecommunication Personnel	01/04/72	3/02	38,882	3/12.5			9,008
<i>Barbados</i>							
BAR/68/008 — Adviser in Telecommunication Administration & Tariffs	01/02/69	6/03	68,475	3.5			8,922
BAR/74/004 — Frequency Management	01/09/74	0/01	1,450		1/0.5		1,122
<i>Bolivia</i>							
BOL/71/518 — Telecommunication Training Institute	01/11/71	4/03	952,670	9/66	5/21.5	a) 196,996	405,282
<i>Brazil</i>							
BRA/71/011 — Management & Monitoring of Radio Frequencies . .	01/04/72	3/07	102,639	1/6.5	4/5		21,772
BRA/71/520 — Development of Telecommunication Research & Human Resources	01/11/73	1/01	15,800	1/4			19,152
<i>Chile</i>							
CHI/67/521 — Telecommunication Training Centre, Phase I	01/07/68	5/09	1,279,935	—	3/11	a) 12,337	23,120
CHI/73/003 — Telecommunication Training Centre, Phase II	01/06/73	3/01	608,600	6/59	1/4	a) 94,179	260,980
CHI/74/013 — Frequency Administration	09/09/74	0/01	5,100		3/3		2,185
<i>Colombia</i>							
COL/72/035 — Training of Teaching Personnel and Promotion of Research in Telecoms	01/07/73	4/10	562,500				218 ¹

AMERICAS (continued)

COUNTRY, Title of Project and No.	Starting date	Duration y/m	Total U.N.D.P. Contribution	Assistance Rendered in 1974			
				Expert m/m	Fellow m/m	a) Equipm. b) Subcont.	Total Expenditure
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Costa Rica</i>							
COS/72/014 — Telecommunications	01/01/73	3/02	86,800	5/8.5	1/4.5		27,110
<i>Cuba</i>							
CUB/73/004 — Development of Communication Services	01/01/74	3/00	450,000	2/2	1/2	a) 132,516	139,970
<i>Dominica</i>							
DMI/72/001 — Telecommunications	27/01/72	3/01	10,081		1/1		2,520
<i>Dominican Republic</i>							
DOM/72/006 — Telecommunications Adviser	01/05/72	2/03	81,725	1/7	6/21		33,531
<i>El Salvador</i>							
ELS/73/010 — Telecommunications	01/01/73	4/00	180,900	5/15.5	4/14		52,486 ²
ELS/74/012 — Technical Assistance in Telecommunications	01/01/75	2/00	48,225				
<i>Ecuador</i>							
ECU/68/020 — Frequency Management & Monitoring	01/10/69	5/03	159,500				105 ¹
ECU/72/006 — National Telecommunication Training Centre	01/11/72	5/04	654,722	3/19	9/68	a) 47,375	132,297
ECU/73/008 — Rural Telecommunications	01/11/73	1/00	30,000	1/10			25,370
ECU/73/009 — Unification of the Telecommunications Network . .	01/11/73	1/00	30,000	1/10.5			27,000
<i>Guatemala</i>							
GUA/73/002 — Telecommunications	01/08/73	1/11	153,250	5/13	2/6		35,186
<i>Guyana</i>							
GUY/68/012 — Telecommunications	01/01/69	6/00	24,696		1/1.5		1,568
GUY/73/003 — Telecommunication Training Centre	01/07/73	2/00	63,150	1/12			31,557
<i>Haiti</i>							
HAI/69/001 — Telecommunications	01/08/69	5/05	64,791	—	1/7.5		3,299
HAI/72/007 — Telecommunication Administration & Planning . . .	01/07/73	3/06	158,000	2/23	1/4		62,894

AMERICAS (continued)

COUNTRY, Title of Project and No.	Starting date	Duration y/m	Total U.N.D.P. Contribution	Assistance Rendered in 1974			
				Expert m/m	Fellow m/m	a) Equipm. b) Subcont.	Total Expenditure
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Honduras</i>							
HON/73/004 — Telecommunications	01/08/73	1/00	65,794	3/9.5			24,250
<i>Jamaica</i>							
JAM/72/009 — Telecommunication Training Centre	01/11/72	4/00	397,900	2/18		a) 26,134	78,299
JAM/74/004 — Frequency Management	09/09/74	0/01	1,450		1/0.5		1,138
<i>Mexico</i>							
MEX/70/032 — Telecommunications	01/07/70	4/00	190,683	—	6/11		10,196
<i>Montserrat</i>							
MOT/74/001 — Telecommunication Administration and Tariffs . . .	02/02/74	1/00	5,050	1/1.5			3,781
<i>Nicaragua</i>							
NIC/71/006 — Administration & Organization of Telecommunications	03/01/72	3/00	43,530	—	—	—	—
NIC/73/010 — Telecommunications	01/01/73	4/00	109,222	4/3.5	1/7		12,856
NIC/73/011 — Rehabilitation of Telecommunications Services	01/05/73	1/00	31,000	2/7			17,871
<i>Panama</i>							
PAN/73/001 — Telecommunications	01/04/73	2/06	86,991	5/16	5/5		46,135
<i>Paraguay</i>							
PAR/68/519 — Institute of Telecommunications Centre, Phase I . .	01/11/69	5/04	575,366	2/8		a) 34,546	60,634
PAR/70/001 — Administration of Radio Electric Frequencies	01/08/71	3/05	128,499		2/6		6,918
PAR/72/011 — Institute of Telecommunications	01/01/74	3/00	500,000	4/30.5			81,062
<i>Peru</i>							
PER/69/007 — Telecommunications Development Training	01/03/70	4/10	305,031	3/32	1/6		83,725
PER/73/024 — Telecommunications Development Training	01/09/74	2/04	400,000	—	—	—	—

AMERICAS (continued)

COUNTRY, Title of Project and No.	Starting date	Duration y/m	Total U.N.D.P. Contribution	Assistance Rendered in 1974			
				Expert m/m	Fellow m/m	a) Equipm. b) Subcont.	Total Expenditure
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Surinam</i>							
SUR/68/005 — Telecommunications	01/03/69	5/00	25,407	—	—	—	—
<i>Belize</i>							
BZE/70/001 — Telecommunications	01/12/70	4/03	54,332	2/2			5,063
BZE/72/003 — Assistance to Belize Telephone Authority (OPAS) . .	01/07/72	4/00	74,547	2/7	1/1.5		17,299
<i>St. Kitts</i>							
STK/68/007 — Telecommunications	01/03/69	6/00	19,606	1/2.5			6,301
STK/74/014 — Frequency Management	01/09/74	0/01	1,225		1/0.5		1,122
<i>St. Lucia</i>							
STL/69/002 — Telecommunication Administration & Tariffs	01/04/71	2/11	14,632	1/2			5,041
<i>St. Vincent</i>							
STV/73/002 — Telecommunication Administration & Tariffs	01/01/73	3/00	10,139	1/1.5			3,781
<i>Trinidad</i>							
TRI/72/010 — Telecommunication Administration and Management.	01/07/73	3/06	86,100	1/5			12,900
TRI/73/005 — Telecommunications	01/09/74	4/00	389,100	—	—	—	—
<i>Uruguay</i>							
URU/71/004 — Telecommunications	01/07/71	4/06	106,641	1/8.5		a) 14,392	36,274
URU/73/001 — Telecommunication Training Centre	01/08/73	3/00	256,400	—	4/7		11,314
<i>Venezuela</i>							
VEN/70/529 — Training Centre for Telecommunications Technicians.	01/01/71	5/04	1,030,074	9/87	1/1	a) 11,714	261,844

AMERICAS (concluded)

COUNTRY, Title of Project and No.	Starting date	Duration y/m	Total U.N.D.P. Contribution	Assistance Rendered in 1974			
				Expert m/m	Fellow m/m	a) Equipm. b) Subcont.	Total Expenditure
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Regional projects</i>							
RLA/68/851 — Regional Telecommunication Planning	01/01/70	4/08	496,175	3/16			41,649
RLA/69/856 — Radio Frequency Management	01/01/70	6/00	245,718	3/24			62,604
RLA/70/853 — Rural Feeder Networks	01/01/71	4/00	99,793	1/12			30,597
RLA/71/860 — Seminar—Planning of Broadcasting Systems.	11/06/73	1/01	59,000				(599) ¹
RLA/72/094 — Central American Institute of Telecommunications (INCATEL).	01/01/73	6/00	1,372,700	5/52.5	1/2	a) 51,804	197,309
RLA/73/045 — Planning and Development of Rural Telecommunications (Seminar)	01/09/74	0/01	55,000				47,088
RLA/74/016 — Regional Integration of Telecommunications	01/07/74	1/06	88,000	2/10			25,416
RLA/74/023 — Transport and Communications	01/03/75	2/08	88,800	—	—	—	—

ASIA

COUNTRY, Title of Project and No.	Starting date	Duration y/m	Total U.N.D.P. Contribution	Assistance Rendered in 1974			
				Expert m/m	Fellow m/m	a) Equipm. b) Subcont.	Total Expenditure
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Afghanistan</i>							
AFG/68/017 — Telecommunication Services	01/01/69	7/00	607,877	3/30	1/6	a) 10,232	91,678
AFG/70/525 — Telecommunication Training Centre (Phase II)	01/01/70	5/08	1,362,557	7/77	1/2.5	a) 24,483	259,910
<i>Saudi Arabia</i>							
SAU/67/516 — Telecommunication & Broadcasting Training Centres	01/10/68	9/03	1,138,632	7/53		a) 29,740	189,980 ³
SAU/73/002 — Telecommunication Planning & Programme Adviser	01/06/73	2/07	60,281	1/12			30,250
<i>Bangladesh</i>							
BGD/72/022 — Telecom Training Centre	01/01/74	1/00	33,500	1/3		a) 3,785	11,791
BGD/74/013 — Telecom Administration	14/10/74	0/01	1,800	—	1/0.5		1,744
<i>Burma</i>							
BUR/70/003 — Telecommunication Training	01/01/72	3/02	19,592		1/6		5,787
<i>Cambodia</i>							
KHR/72/033 — Telecommunication Training	01/03/73	2/00	96,500	2/5.5			14 221
<i>Korea</i>							
ROK/71/010 — Telecommunication Operations	01/03/72	2/10	7,850		—	—	—
<i>United Arab Emirates</i>							
UAE/73/005 — Telecommunication Adviser	01/05/74	2/00	34,300	1/2			5,047 ⁴
<i>India</i>							
IND/70/028 — Intercontinental Telecommunication	01/01/71	3/02	65,342			a) 10,140	10,140
IND/70/039 — Telecommunications	01/01/71	3/06	136,423	—	3/5		5,390
IND/70/609 — Expansion of the Satellite Communication Earth Station	01/08/71	4/00	1,094,904	1/12	7/17	a) 240,761 b) 38,036	332,938

ASIA (continued)

COUNTRY, Title of Project and No.	Starting date	Duration y/m	Total U.N.D.P. Contribution	Assistance Rendered in 1974			
				Expert m/m	Fellow m/m	a) Equipm. b) Subcont.	Total Expenditure
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>India (contd.)</i>							
IND/72/037 — Telecommunication Training Centre	22/08/73	5/00	1,124,900				1,416 ¹
IND/74/029 — Signal and Telecommunications	01/08/74	1/00	10,302	—	—	—	—
IND/74/044 — Fellowships Trunk Exchange	01/07/74	0/06	7,474	—	—	—	—
IND/74/049 — Frequency Management	09/09/74	0/01	2,929		2/2		3,576
<i>Indonesia</i>							
INS/70/006 — Telecommunications Equipment & Maintenance Planning	01/04/71	3/00	133,667				12 ¹
INS/71/536 — Telecommunications Training Centre	01/01/72	4/01	1,395,000	10/109.5	2/5	a) 51,049	346,100
INS/72/012 — Telecommunications Coordination Study	01/09/72	1/05	128,417	1/1			3,765
INS/72/066 — Preparation of Specifications for a National Telephone Switching System	01/11/72	2/05	80,400	—	—	—	—
INS/72/067 — Telecommunications Services	01/10/72	1/09	99,407				19 ¹
INS/73/015 — Telecommunications Installation and Maintenance . .	01/07/73	2/10	265,240	4/19.5		a) 3,750	57,332
<i>Fiji</i>							
FIJ/74/005 — Frequency Management	08/09/74	0/01	550		1/0.5		557
<i>Iran</i>							
IRA/70/522 — Telecommunication Training Institute	01/12/69	6/04	1,502,699	8/72	2/2	a) 120,045	331,269
IRA/74/002 — Frequency Management	01/03/74	0/01	2,500		1/1		2,500
<i>Iraq</i>							
IRQ/68/018 — Telecommunications	01/11/69	5/08	135,875	1/12			30,289
IRQ/71/521 — Telecommunication Training	01/05/72	3/08	493,200	3/14.5	6/23.5	a) 1,944	72,122
<i>Israel</i>							
ISR/73/029 — Institute of Telecommunications	01/08/73	3/05	799,750	1/2		a) 168,634	175,306
ISR/73/043 — Economic Analysis for Development of Telecommunication Systems	01/08/73	1/05	12,513		1/11		7,789

ASIA (continued)

COUNTRY, Title of Project and No.	Starting date	Duration y/m	Total U.N.D.P. Contribution	Assistance Rendered in 1974			
				Expert m/m	Fellow m/m	a) Equipm. b) Subcont.	Total Expenditure
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Jordan</i>							
JOR/68/006 — Telecommunications	01/01/69	6/06	357,995	1/12	1/6		30,694
JOR/72/030 — Digital Analog Circuit Design	01/01/73	2/08	8,400	—	—	—	—
JOR/72/031 — System Analysis	01/01/73	2/08	8,400	—	—	—	—
JOR/73/007 — Telecommunication Training Centre	27/05/73	5/09	1,452,800	6/43		a) 49,958	164,114
<i>Laos</i>							
LAO/71/506 — National Telecommunication Training Centre . . .	01/01/71	5/09	625,863	4/48		a) 48,809	173,654
<i>Lebanon</i>							
LEB/72/005 — Telecommunication Maintenance	01/08/73	1/00	100,000			b) 81,693	81,709
LEB/72/006 — Telecommunication Training	01/05/74	0/05	34,000	2/10	—	—	25,247
LEB/74/008 — Telecommunication Maintenance	01/10/74	1/05	101,700	—	—	—	—
<i>Malaysia</i>							
MAL/69/007 — Computer Techniques and Management	01/01/71	4/00	36,762				343 ¹
MAL/70/014 — Telecommunications	01/02/71	4/11	205,795	2/12			30,495
MAL/72/018 — Crossbar Switching Maintenance.	01/08/72	2/00	67,949	1/12			30,310
<i>Maldives</i>							
MDV/72/001 — Establishment of an HF Communications Station . .	01/10/74	0/09	99,500	1/0,5			1,315
<i>Mongolia</i>							
MON/71/510 — Establishment of a Faculty of Telecommunications at the State Polytechnic & Telecommunications Training Centre	01/01/71	7/08	1,204,000	3/21	2/6	a) 37,055	96,711
<i>Nepal</i>							
NEP/68/017 — Telecommunications	01/05/69	5/02	77,803		2/11		10,419
NEP/71/521 — Telecommunication & Civil Aviation Training Centre.	01/05/71	6/03	1,264,933	4/41.5	3/10.5	a) 76,523	279,394

ASIA (continued)

COUNTRY, Title of Project and No.	Starting date	Duration y/m	Total U.N.D.P. Contribution	Assistance Rendered in 1974			
				Expert m/m	Fellow m/m	a) Equipm. b) Subcont.	Total Expenditure
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Oman</i>							
OMA/72/006 — General Telecommunication Adviser	01/08/72	1/00	25,695				13 ¹
OMA/73/002 — Director of Telecommunications (OPAS)	01/12/73	4/07	612,700	2/17.5			33,135
<i>Pakistan</i>							
PAK/68/539 — Telecommunication College	01/04/70	5/09	937,426	4/33	8/54.5	a) 83,765	230,347
<i>Papua-New Guinea</i>							
PNG/73/002 — Telecommunication Technical Training	01/01/74	1/00	30,000	1/2			5,365
<i>Western Samoa</i>							
WES/71/011 — Telecommunication Controller.	01/03/72	4/10	259,215	2/10.5		a) 44,290	66,913
WES/73/004 — Telecommunication Training	01/04/73	1/09	35,500	—	8/73.5		29,388
<i>Singapore</i>							
SIN/71/514 — Telecommunication Training Centre TELECENTRE	24/07/71	5/05	1,150,640	8/68.5	4/15.5	a) 59,450	251,366
<i>Sri Lanka (Ceylon)</i>							
SRL/71/527 — Telecommunication Training School	01/07/71	3/10	450,100	3/26	1/5	a) 135,346	216,185
SRL/73/039 — Supervision of Installation and Training in Maintenance of Telex Exchange	01/05/74	1/08	30,000	1/2			5,003
SRL/74/003 — Study Tour of Satellite Earth Stations	01/03/74	0/01	1,900	—	—	—	—
SRL/74/004 — Study Tour of Satellite Earth Stations	01/01/74	0/01	800		1/1		1,111
SRL/74/043 — Frequency Management	09/09/74	0/02	2,900		2/1.5		3,246
<i>Thailand</i>							
THA/69/532 — Telecommunication Training Test & Development Centre (Phase II)	01/07/69	4/08	585,629		3/4		2,534
THA/72/001 — Telecommunication Maintenance Organization Adviser	01/01/72	4/00	60,389	1/12			30,327

ASIA (concluded)

COUNTRY, Title of Project and No.	Starting date	Duration y/m	Total U.N.D.P. Contribution	Assistance Rendered in 1974			
				Expert m/m	Fellow m/m	a) Equipm. b) Subcont.	Total Expenditure
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Tonga</i>							
TON/74/003 — Radio Technician	01/01/75	4/00	15,400	—	—	—	—
<i>Viet-Nam</i>							
RVN/72/007 — Telecommunication Training Centre	01/03/72	4/04	604,000	5/35	4/24.5	a) 55,079	162,755
<i>Yemen Arab Republic</i>							
YEM/68/009 — Radio Adviser, Radio-Telecommunications & Telephone	01/01/69	8/00	300,009	1/2			5,000
<i>Yemen (People's Democratic Republic)</i>							
PDY/70/001 — General Telecommunication Adviser	01/07/70	4/01	95,070		2/12		5,708
PDY/74/001 — Senior Telephone Adviser	01/05/74	1/00	30,000	—	—	—	9 ¹
<i>Regional Projects (Asia)</i>							
RAS/68/852 — Telecommunication Advisory Services	01/01/69	7/00	484,269	3/36			97,419
RAS/69/164 — Feasibility Studies for the Asian Telecommunications Network	01/12/69	5/01	478,615				65 ¹
RAS/71/859 — Workshop on Broadcasting Radio Frequency Management and Programme Transmission System	01/11/73	1/01	39,100	—	—	—	(1,619) ¹
RAS/71/864 — Investigation of the Telecommunication Technical Assistance in the South Pacific.	01/08/72	1/08	109,823	2/6			20,639
RAS/72/134 — Frequency Management	01/07/74	1/12	49,850	1/5			12,663
RAS/74/004 — Telecommunication Training (South Pacific)	01/09/74	0/04	14,800	1/9			28,300
RAS/74/005 — Feasibility Study—Reg. Telecom. Network in South Pacific	01/05/74	1/00	47,500	1/3		a) 1,367	10,375
<i>Regional Projects (Middle East)</i>							
REM/71/197 — Sana'a/Aden Pilot Telecommunication Link	01/12/69	5/08	955,362	1/12	2/9.5	b) 183,564	224,376
REM/71/296 — New Telecommunications Techniques	01/12/73	2/03	123,900	3/4.5			25,029
REM/72/038 — Pre-investment Survey for the Middle East Telecommunications Network	01/09/73	1/00	75,800	5/38.5		a) 2,891	142,665 ⁵
REM/72/048 — Radio Frequency Planning (Seminar)	01/08/74	0/02	9,800		Group Training		8,503

EUROPE

COUNTRY, Title of Project and No.	Starting date	Duration y/m	Total U.N.D.P. Contribution	Assistance Rendered in 1974			
				Expert m/m	Fellow m/m	a) Equipm. b) Subcont.	Total Expenditure
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Albania</i>							
ALB/71/001 — Radio-Diffusion & Television	01/01/72	2/03	8,527				77 ¹
ALB/71/002 — School of Telecommunications	01/01/72	2/06	19,980			a) 7,038	7,038
<i>Bulgaria</i>							
BUL/70/007 — Development of Telephone Communications	01/07/70	3/10	13,680		1/3		1,606
BUL/71/019 — Broadcasting Development	01/01/72	2/04	8,099				79 ¹
BUL/71/020 — Development of Television	01/01/72	2/04	10,602				94 ¹
BUL/71/074 — Exchange of Information and Data Transmission . . .	01/10/73	1/03	1,729		1/2		1,038
BUL/72/051 — Application of Mathematical and Economic Models .	01/01/73	1/03	1,352		1/3		1,362
BUL/73/010 — Development of Television	01/05/73	1/04	8,100		3/6		4,149
BUL/73/011 — Organization, Construction and Operation of Radio Centres broadcasting several programmes	01/08/73	1/03	1,400		—	—	—
BUL/74/034 — Maintenance of International Networks.	01/05/74	0/02	1,530		—	—	—
BUL/74/050 — Use of Telephone Channels for Data Transmission . .	01/01/75	0/03	1,800		—	—	—
<i>Spain</i>							
SPA/68/006 — Telecommunications	01/01/71	4/00	8,655				158 ¹
<i>Hungary</i>							
HUN/70/001 — Telecommunications Industry	01/04/70	3/10	17,349		1/1		(722) ¹
<i>Malta</i>							
MAT/74/005 — Planning of Broadcasting	01/04/74	0/01	2,800		2/1		2,269
<i>Poland</i>							
POL/69/011 — Telecommunications	01/06/69	4/11	25,891		4/11.5		6,268
<i>Roumania</i>							
ROM/69/014 — Data Transmission Technique	01/09/69	4/09	55,525		2/6	a) 801	4,562

EUROPE (*concluded*)

COUNTRY, Title of Project and No.	Starting date	Duration y/m	Total U.N.D.P. Contribution	Assistance Rendered in 1974			
				Expert m/m	Fellow m/m	a) Equipm. b) Subcont.	Total Expenditure
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Czechoslovakia</i>							
CZE/73/001 — Modern Techniques in Telecommunications	01/01/74	1/06	49,120				
CZE/74/002 — Seminar on Frequency Management	01/09/74	0/01	800		1/1		872
<i>Turkey</i>							
TUR/67/528 — Telecommunication Training	01/11/67	8/02	1,862,317	8/47	5/17.5	a) 103,075	194,161
TUR/74/018 — Automatic Telex and Gentex Networks	01/07/74	0/06	26,200	1/6			15,118

INTERREGIONAL

COUNTRY, Title of Project and No.	Starting date	Duration y/m	Total U.N.D.P. Contribution	Assistance Rendered in 1974			
				Expert m/m	Fellow m/m	a) Equipm. b) Subcont.	Total Expenditure
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Interregional</i>							
INT/72/060 — Interregional Seminar on Telecommunication Training	14/10/74	0/01	75,200		Group Training		74,511
INT/74/017 — Curriculum Development in Telecommunication Training	01/02/75	0/06	36,500				

Note: The figure indicated in column (8) shows the total expenditure on each project during the year and includes also miscellaneous expenses not specified in columns (5), (6) and (7). The abbreviations "y/m" and "m/m" in columns (3), (5) and (6) stand for "years/months" and "man/months", respectively.

¹ Amounts shown in column (8) without corresponding information on assistance rendered in columns (5), (6) and (7) cover either the liquidation of prior years, commitments or advance cost of assistance to be rendered in 1975.

² Includes a Government cost sharing contribution of \$ 5,812.
³ Includes a Government cost sharing contribution of \$ 58,825.
⁴ Includes a Government cost sharing contribution of \$ 2,500.
⁵ Includes a Government cost sharing contribution of \$ 17,700.

TABLE 2

Projects implemented by subcontracting during 1974

(amounts given in US dollars)

A. CONTRACTS SIGNED IN PRIOR YEARS:

Title of Project	Participating Countries	Value of Contracts	Contractor	Man/months 1974 ¹	Amounts paid 1974
Pre-investment survey for the Pan-African telecommunication network (East Africa) — RAF/70/116	Ethiopia, Kenya, Somalia, Sudan (Project I)	240,877	NORCONSULT <i>Oslo, Norway</i>		44,571 ²
	Botswana, Kenya, Tanzania, Zambia (Project II)	200,356	PREECE, CARDEW & RIDER <i>London, United Kingdom</i>		31,691
Pre-investment survey for the Pan-African telecommunication network (West and Central Africa) — RAF/71/231	Dahomey, Gambia, Guinea, Upper Volta, Mali, Mauritania, Niger, Senegal (Projects 1 and 2)	265,566	ACRES INTERTEL LTD. <i>Montreal, Canada</i>		54,072
	Cameroon, Congo, Central African Republic, Equatorial Guinea (Projects 3/4 and 5/6)	208,725	SOFRECOM <i>Paris, France</i>		3
	Dahomey, Nigeria (Project 4B)	46,480	SWEDTEL <i>Stockholm, Sweden</i>		20,017 ²
	Zaire/Rwanda (Project 5/6 <i>bis</i>)	15,143	SOFRECOM <i>Paris, France</i>		3
Prospecting and study for a national telecommunication network in Guinea — GUI/72/005	Guinea	62,530	ACRES INTERTEL LTD. <i>Montreal, Canada</i>		7,440

TABLE 2 (continued)

Title of Project	Participating Countries	Value of Contracts	Contractor	Man/months 1974 ¹	Amounts paid 1974
Sana'a-Taiz-Aden pilot link — REM/71/197	People's Democratic Republic of Yemen, Yemen Arab Republic	654,530 ⁴	ARE-Applicazioni Radio Eletttroniche <i>Milan, Italy</i>	14/14	136,342
Ropeway — Installation — REM/71/197	Yemen Arab Republic	139,781 ⁴	WYSSEN-SEILBAHNEN <i>Reichenbach, Switzerland</i>	3/4.5	47,221
Expansion of the experimental satellite communication earth station (ESCES) Ahmedabad — IND/70/609	India	160,000	HUGHES AIRCRAFT, <i>Palo Alto, U.S.A.</i>	1/1	7,662
		47,371	BRITISH AIRCRAFT CORP. <i>Bristol, United Kingdom</i>	3/6	30,374
Telecommunication maintenance in-service training — LEB/72/005	Lebanon	98,018 ⁵	SWEDTEL <i>Stockholm, Sweden</i>	3/30	81,693
National telecommunication development planning — NIR/72/010	Nigeria	224,183 ^{4,5}	SWEDTEL <i>Stockholm, Sweden</i>	10/84	224,183

TABLE 2 (concluded)

B. NEW CONTRACTS AWARDED IN 1974

Title of Project	Participating Countries	Value of Contracts	Contractor	Man/months 1974 ¹	Amounts paid 1974
Expansion of the experimental satellite communication earth station (ESCES) — Ahmedabad — IND /70/609	India	267,600	NIPPON ELECTRIC CO., LTD. <i>Tokyo, Japan</i>		⁶
Multinational training centre, Rufisque — RAF/71/170	Senegal	24,000	ASSOCIATION DU CENTRE UNIVERSITAIRE DE COOPÉRATION ÉCONOMIQUE ET SOCIALE (ACUCES) <i>Nancy, France</i>	3/3	23,216
Supervision of installation of Pentaconta telex exchange in Colombo — SRL/73/039	Sri Lanka	11,104	BELL TELEPHONE MANUFG. CO. <i>Antwerp, Belgium</i>	1/2	⁶
Telecommunication link between Banjul and Koalack — RAF/71/255	Gambia and Senegal	436,000	THOMSON-CSF <i>Levallois-Perret, France</i>		⁶

¹ Where no man/months are indicated the field work has either terminated or not yet started.² Includes payments for participation in seminars in Africa.³ Final payment not yet made.⁴ Revised in 1974.⁵ Further revision foreseen in 1975.⁶ These contracts have just been signed before year end.

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ANNEX 7

PRINCIPAL DEBTORS OF THE UNION ¹
(situation on 31 December 1974)

	Year	Contributions	Publications	Total
DG Argentina	1973	—	15,069.—	15,069.—
DG Australia	1973	—	7,613.90	7,613.90
DG Burundi	1971-1973	47.40	8,322.70	8,370.10
DG Cameroon	1973	—	6,580.85	6,580.85
DG Colombia	1971-1973	13,393.95	39,861.75	53,255.70
DG Korea	1971-1973	—	24,387.40	24,387.40
DG Costa Rica	1973	5,012.35	1,181.70	6,194.05
DG Cuba	1973	816.85	13,085.70	13,902.55
DG Dominican Republic	1973	37,417.45	3,074.70	40,492.15
DG Egypt	1969-1973	—	5,673.10	5,673.10
DG Ecuador	1973	—	9,378.65	9,378.65
DG Gambia	1972-1973	—	5,641.90	5,641.90
DG Guatemala	1971-1972	38,793.45	1,054.40	39,847.85
DG Khmer Republic	1971-1973	25,293.07	8,963.38	34,256.45
DG Laos	1971-1973	41,316.80	5,437.60	46,754.40
DG Liberia	1972-1973	12,793.60	3,383.05	16,176.65
DG Mauritania	1972-1973	8,137.34	—	8,137.34
DG Pakistan	1973	—	15,377.50	15,377.50
DG Paraguay	1972-1973	3,042.—	6,774.55	9,816.55
DG Philippines	1972-1973	—	5,250.35	5,250.35
DG Rwanda	1972-1973	1,160.45	6,695.45	7,855.90
DG Sudan	1970-1973	5,094.—	17,809.30	22,903.30
DG Chad	1970-1973	81,485.70	5,507.10	86,992.80
DG Uruguay	1973	1,521.—	11,956.05	13,477.05
DG Venezuela	1968-1973	121,180.55	28,180.85	149,361.40
DG Zaire	1973	—	8,066.20	8,066.20
DG Comores	1972-1973	—	6,162.90	6,162.90
DG Rhodesia	1968-1973	402,600.—	—	402,600.—
Entel SA, Brasilia	1964-1968	35,354.25	—	35,354.25
SEMA Electronics, Lisbon	1972-1973	—	10,393.50	10,393.50
CCA Electronics Corp., Silver Spring, USA	1973	6,072.90	—	6,072.90
Navsat Systems Inc., Salt Lake City, USA	1970-1973	22,383.40	—	22,383.40
US Army, Washington	1970-1973	—	19,637.45	19,637.45
US Underseas Cable Corp., Washington	1971	5,437.50	—	5,437.50
Electroniska Industrije, Belgrade	1971-1973	32,266.35	—	32,266.35
Other debtors		900,620.36 8,139.99	300,520.98 210,802.47	1,201,141.34 218,942.46
		908,760.35	511,323.45	1,420,083.80

¹ This list mentions only amounts above 5,000 Sw. frs.