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REPORT
ON THE ACTIVITIES OF
THE INTERNATIONAL
TELECOMMUNICATION UNION

in

1975



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1. INTRODUCTION

Under the terms of an Agreement signed in Lake Success in 1947, the United Nations recognized the ITU — 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 (Malaga-Torremolinos, 1973), 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 is convened at more or less regular intervals, usually 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. Annexed to the Convention are the Administrative 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 is composed of thirty-six Members of the Union, meets annually. It is responsible for taking all steps to facilitate the implementation by the Members of the Union of the provisions of the Convention, the Administrative Regulations, the decisions of the Plenipotentiary Conference and, where appropriate, the decisions of other conferences and meetings of the Union.

The Union has four permanent organs:

the General Secretariat, the International Frequency Registration Board (IFRB), the International Radio Consultative Committee (CCIR), and the International Telegraph and Telephone Consultative Committee (CCITT), the activities of which in 1975 are reviewed in Section 5 of this Report.

The Technical Cooperation activities of the Union are outlined in Section 6.

2. MEMBERSHIP OF THE UNION

1. In 1975, the following four countries became Members of the Union:

- the State of Bahrain
- the Democratic People's Republic of Korea
- Papua New Guinea (former Associate Member which became a full Member)
- the People's Republic of Mozambique.

2. At 31 December 1975, the number of Members of the Union — which was reduced by 6 units at the time of the entry into force of the Malaga-Torremolinos Convention (1973) owing to the fact that Rhodesia and the five Members consisting of territories were not listed in Annex 1 to the new Convention — was 146, namely:

- a)* the 140 countries mentioned in Annex 1 to the Malaga-Torremolinos Convention, 1973,
- b)* the following 2 countries which became Members on the deposit of an instrument of accession to the International Telecommunication Convention of Montreux, 1965:

	which became a Member on
Republic of the Gambia	27.5.74
Commonwealth of the Bahamas	19.8.74

- c)* the following 4 countries which became Members on the deposit of an instrument of accession to the International Telecommunication Convention of Malaga-Torremolinos, 1973:

	which became a Member on
State of Bahrain	1.1.75
Democratic People's Republic of Korea	24.9.75
Papua New Guinea	31.10.75
People's Republic of Mozambique	4.11.75

3. On 31 December 1975, the General Secretariat had registered the deposit of
21 instruments of ratification, and
15 instruments of accession
to the Convention of Malaga-Torremolinos, 1973.

4. The position on 31 December 1975 of Members with respect to the Malaga-Torremolinos Convention (1973) and to the Administrative Regulations annexed thereto 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.

3. THE ADMINISTRATIVE COUNCIL

3.1 The 30th session of the Administrative Council was held at ITU Headquarters from 7 to 27 June 1975.

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), Zaïre, (Republic of).

3.2 Mr. Maurice Ghazal (Lebanon) was elected Chairman of the Council, Dr. László Katona Kis (Hungarian People's Republic) was elected Vice-Chairman, and the following Committees were constituted:

Committee 1 — Finance

Chairman : Mr. Rudolph Rüttschi (Switzerland)

Vice-Chairman : Mr. José J. Hernandez-G. (Mexico)

Committee 2 — Staff and Pensions

Chairman : Mr. Tom Ulrik Meyer (United Kingdom)

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

Committee 3 — Technical Cooperation

Chairman : Mr. J. O'Neill (United States of America)

Vice-Chairman : Mr. Jean Jipguep (Cameroon)

3.3 The resolutions and decisions adopted by the Council are summarized below:

3.3.1 Financial matters

3.3.1.1 Financial Operating Report of the ITU for 1974

The Council approved the Financial Operating Report and the Management Report of the ITU Staff Superannuation and Benevolent Funds for 1974.

(Resolution No. 744)

3.3.1.2 External audit of ITU accounts for the period 1 January to 31 December 1974

The Council approved the accounts of the ITU for the period 1 January to 31 December 1974 as drawn up and audited by the External Auditor of the Swiss Confederation.

(Resolution No. 749)

3.3.1.3 *Budgets of the Union for 1976*

The budgets for 1976 were approved. For details, see under Section 7.2 of this report.

(Resolution No. 760)

3.3.1.4 *Financial regulations of the Union*

The Council carried out a general revision of the Financial Regulations of the Union. The revised Financial Regulations came into force on 1 July 1975.

(Resolution No. 755)

3.3.1.5 *Final budgets for 1975*

The Council approved the final budgets for 1975. For details see Section 7.2 of this report.

(Resolution No. 757)

3.3.1.6 *Amount owed by U.S. Underseas Cable Corporation*

The Council decided that the amount of 5,437.50 Swiss francs owed by the U.S. Underseas Cable Corporation on 31 December 1974 should be written off and offset by the withdrawal of an equivalent amount from the ITU Reserve Account.

(Resolution No. 756)

3.3.2 *Staff matters*

3.3.2.1 *Salaries of elected officials*

The Council approved new salary rates for elected officials with effect from 1 January 1975.

(Resolution No. 748)

3.3.2.2 *Creation, abolition, extension and regrading of posts*

The Council approved:

1. The *creation* of the following posts:

1.1 permanent posts from 1 January 1976

— General Secretariat	6 G.5 ¹
— CCITT	2 G.6

1.2 fixed-term posts

1.2.1 from 1 October 1975 to 31 December 1976

— General Secretariat	1 G.6
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1.2.2 with immediate effect, for a period of two years

— General Secretariat	1 P.5
-----------------------	-------

1.2.3 from 1 January 1976 to 31 December 1979

— General Secretariat	1 P.4 ¹ , 1 P.3 ¹
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2. The *abolition* of the following posts:

2.1 with effect from 30 September 1975

— IFRB	1 G.6
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¹ Charged to the Technical Cooperation Budget.

2.2 with effect from 31 December 1975

- General Secretariat 1 P.3
- IFRB 1 P.3, ½ of one G.6
1 G.5, 1 G.3

2.3 with effect from 31 December 1976

- IFRB 1 P.5

2.4 with effect from 31 December 1977

- IFRB 1 G.7

2.5 with effect from 31 December 1978

- IFRB 1 P.4

3. The *extension* until 31 December 1976 of 1 G.4 post in the General Secretariat (this post is charged to the Supplementary Publications budget).

4. The *transformation* of the following fixed-term posts into permanent posts from 1 January 1976:

- General Secretariat 1 P.4¹, 2 P.3¹, 2 P.2¹

5. *Regrading* of the following posts, from 1 January 1976:

- CCIR 1 post from P.5 to D.1 and
1 post from P.3 to P.4
(Resolution No. 759)

3.3.2.3 *Posts in grades G.1—G.7*

The Council instructed the Secretary-General, after ascertaining the views of the Coordination Committee

- a) to create, regrade or abolish established posts in grades G.1 to G.7, within the limits of credits allocated in the budget of the Union; the rate of increase in the credits for these posts not to exceed 2½% per year;
- b) to regrade established posts in grades G.1 to G.7 within the limits of credits allocated for this purpose in the Supplementary Publications budget and the Technical Cooperation Special Accounts budget; the rate of increase in the credits for these posts not to exceed 1% per annum.

(Resolution No. 753)

3.3.2.4 *Effects of exchange rate fluctuations on employment conditions*

The Council noted that the fluctuations in the exchange rate of the United States dollar in terms of other currencies, and in particular of the Swiss franc, adversely affect employment conditions and instructed the Secretary-General to request the competent bodies of the United Nations Common System to examine and adopt urgent provisional measures designed to remedy this situation.

(Resolution No. 752)

3.3.2.5 *Amendments to the Staff Regulations and Staff Rules*

The Council approved amendments to the Staff Regulations and Staff Rules relating more particularly to the elimination of all discrimination between staff members on the basis of sex, to education allowances and to part-time employment.

(Resolutions Nos. 745, 746 and 758)

¹ Charged to the Technical Cooperation Budget.

3.3.2.6 *Membership of the ITU Staff Pension Committee*

The following persons were appointed to represent the Council on the ITU Staff Pension Committee:

Members	Alternate members	Term
Miss J. Menier	Mr. K. Sase	Until the end of the 31st ordinary session of the Council
Mr. F. Molina Negro	Mr. José J. Hernandez-G.	Until the end of the 32nd ordinary session of the Council
Mr. C. Baudazzi	Mr. J. Dunin	Until the end of the 33rd ordinary session of the Council

(Resolution No. 769)

3.3.3 *Administrative Conferences*

3.3.3.1 *World Administrative Radio Conference for the Planning of the Broadcasting-Satellite Service in the 12 GHz band*

3.3.3.1.1 The Council resolved,

1. that the Conference would meet in Geneva on 10 January 1977 for five weeks;
2. that its agenda should be as follows:

2.1 to establish the sharing criteria for the bands 11.7-12.2 GHz (in Regions 2 and 3) and 11.7-12.5 GHz (in Region 1) between the Broadcasting-Satellite Service and the other services to which these bands are allocated, namely:

- the Fixed Service;
- the Mobile Service (except the Aeronautical Mobile);
- the Broadcasting Service;
- the Fixed Satellite Service (Space-to-Earth) in Region 2.

2.2 to plan for the Broadcasting-Satellite Service in the above-mentioned bands in accordance with Resolution No. 27 of the Plenipotentiary Conference (Torremolinos, 1973) and Resolution No. Spa2-2 of the World Administrative Conference for Space Telecommunications (Geneva, 1971);

2.3 to establish procedures to govern the use of these bands by the Broadcasting-Satellite Service and by the other services mentioned in point 2.1 to the extent considered necessary by the Conference.

(Resolution No. 762)

3.3.3.1.2 The Council invited the CCIR to continue to take action for timely provision of all available technical information relevant to planning the use of the 12 GHz band by

the Broadcasting-Satellite Service, and concerning technical criteria for sharing among various services in this band, so that the WARC-BS 12 GHz may have adequate technical bases for its work.

(Resolution No. 761)

3.3.3.2 *World Administrative Radio Conference on the Aeronautical Mobile (R) Service*

3.3.3.2.1 The Council resolved,

1. that the Conference would meet in Geneva on 7 March 1977 for four weeks;
2. that its agenda would be as follows:

2.1 Matters relating to Aeronautical Mobile (R) Service

2.1.1 to revise, on the basis of single sideband operation the Frequency Allotment Plan for the Aeronautical Mobile (R) Service (Appendix 27 to the Radio Regulations) to satisfy within the minimum amount of spectrum necessary the needs of that service;

2.1.2 to consider and review, as necessary, the provisions of the Radio Regulations and the Additional Radio Regulations governing the Aeronautical Mobile (R) Service which are consequential to item 2.1.1 above;

2.1.3 to adopt such resolutions and recommendations related to the foregoing as may be necessary;

2.2 matters relating to the rearrangement of the Radio Regulations; in addition, pursuant to Recommendation Mar2-21 of the World Maritime Administrative Radio Conference (Geneva, 1974) to consider the results of the work of the Group of Experts on the possible rearrangement of the Radio Regulations and make recommendations to Administrations on the use of the proposed structure in the presentation of their proposals to the World Administrative Radio Conference in 1979.

(Resolution No. 763)

3.3.3.2.2 The Council instructed the Director, CCIR to arrange for the technical bases to be studied for a revision of Part I of Appendix 27 to the Radio Regulations (Frequency Allotment Plan for the Aeronautical Mobile (R) Service and Related Information) and to submit a report to the World Administrative Radio Conference on the Aeronautical Mobile (R) Service. It also instructed the Secretary-General to invite the International Civil Aviation Organization (ICAO) to provide the necessary information to assist administrations in the formulation of an accurate assessment of the HF requirements for revision of Appendix 27 to the Radio Regulations.

(Resolution No. 764)

3.3.3.3 *World Administrative Radio Conference (1979)*

The Council invited the CCIR to carry out the studies necessary to assure timely provision of the technical information likely to be needed as bases for the work of the WARC-1979, and to envisage, as

may be needed, a special joint meeting to take place at an appropriate date so that definitive results may be in the hands of administrations not later than eight months in advance of the Conference.

(Resolution No. 766)

3.3.3.4 *Miscellaneous*

The Council instructed the Secretary-General to carry out a consultation with Members in 1980 on the advisability of revising the Regional Agreement for the European Broadcasting Service in the VHF and UHF bands (Stockholm, 1961).

(Resolution No. 767)

3.3.4 *Administrative Council*

3.3.4.1 *Date and duration of the 31st session of the Administrative Council*

The Council decided that its 31st session should be held from 14 June 1976 to 2 July 1976.

(Decision No. 374)

3.3.4.2 *Travel expenses of members of the Administrative Council*

The Council decided that as from the 31st session the air travel expenses of its members would be reimbursed at the economy class rate.

(Decision No. 375)

3.3.5 *Other meetings*

3.3.5.1 *Setting up of a group of Experts from administrations to study a possible re-arrangement of the Radio Regulations and the Additional Radio Regulations*

The Council resolved that a Group of Experts be set up to prepare the draft of a possible re-arrangement of the structure of the Radio Regulations and the Additional Radio Regulations. The Group of Experts is to meet in Geneva on 19 January 1976 for four weeks and the Council will examine at its 31st Session whether a second meeting of the Group should be convened.

The work of the Group will have to be completed before 17 September 1976 so that the results may be submitted to the World Administrative Radio Conference for the Aeronautical Mobile (R) Service.

The Council also invited administrations to nominate experts qualified in the relevant fields to participate in the work of the Group, or to communicate to the Secretary-General, for the consideration of the Group of Experts, their views on the possible re-arrangement of the structure of the Radio Regulations and the Additional Radio Regulations.

Lastly, the Secretary-General was instructed to address the above invitation to Administrations, to send them copies of Resolution No. 768 and to ensure that the necessary documentation for the work of the Group of Experts is prepared and distributed to administrations.

(Resolution No. 768)

3.3.5.2 *Delayed contributions to the work of the CCITT*

The Council noted with regret the increasing number of delayed contributions to the work of the CCITT Study Groups submitted by participating administrations and organizations and urgently drew the attention of all Administrations to the need to adhere much more strictly to the provisions adopted by the Vth Plenary Assembly of the CCITT, Geneva 1972. The Director of the CCITT was instructed

to submit a report to the VIth Plenary Assembly of the CCITT (Geneva, 1976) and to the 32nd Session of the Administrative Council on the submission of contributions.

(Resolution No. 750)

3.3.6 *Miscellaneous*

3.3.6.1 *International Civil Service Commission*

The Council resolved to accept the Statute of the International Civil Service Commission established by the General Assembly of the United Nations at its XXIXth Session in Resolution 3357 (XXIX).

(Resolution No. 747)

3.3.6.2 *Applications for Membership of the Union*

The Council brought Resolution No. 216 up-to-date.

3.3.6.3 *Resolution No. 30 of the Plenipotentiary Conference (Malaga-Torremolinos, 1973)*

The Council unanimously resolved that the Government of Portugal be invited to all conferences and meetings of the Union.

(Resolution No. 765)

3.3.6.4 *Enlargement of Union headquarters building*

The Council approved the accounts for the enlargement of the headquarters building as audited by the external auditor appointed by the Swiss Government, the final expenditure being 291,291.11 Swiss francs less than the credits allocated by the Members of the Union.

(Resolution No. 751)

3.3.6.5 *Conditions for the renting of rooms and offices in the ITU buildings*

The Council revised the rates charged for rooms and offices of the ITU buildings that are rented out to other organizations.

It also instructed the Secretary-General to adjust these rates periodically in the light of the actual costs defrayed by the Union and of the rates charged by the other international organizations in Geneva.

(Resolution No. 754)

3.4 *Review of organization, methods and grading at ITU headquarters*

The Council discussed in detail the report submitted by the three experts provided by the Administrations of the Federal Republic of Germany, Canada and Sweden in pursuance of Resolution No. 4 adopted by the Plenipotentiary Conference (Malaga-Torremolinos, 1973) and Resolution No. 737 adopted by the 29th session of the Administrative Council. Some of the proposals formulated by the experts were adopted by the Council, others were deferred to the next session in order to enable the Secretary-General and the Heads of the other permanent organs concerned to examine them thoroughly and to submit a report to the Council on the subject. Some proposals were rejected.

The Council also decided to create the post of grading expert for two years, with the possibility of extension if required, and to abolish certain posts (with immediate effect or spaced out over a certain period).

3.5 *Other matters examined by the Council*

To avoid overburdening this report, only the most important other questions which were examined by the Council at the 1975 Session are listed below:

- Provisional conference and meeting programme,
- Terms of reference of the World Plan Committee and the Regional Plan Committees,
- Accounts in arrear,
- International monetary unit for the settlement of accounts,
- Resolutions adopted by the United Nations General Assembly and relevant to the work of the Union,
- Re-arrangement of the CCIR Secretariat and modification of the organization of the Technical Cooperation Department.

For these questions, reference should be made to the summary records of the Council's meetings copies of which have been sent to Members of the Union.

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

4.1 At its 29th Session, the Administrative Council decided, by Resolution No. 743, that the Second Session of the Regional Administrative Conference (Regions 1 and 3) to draw up frequency assignment plans for LF/MF broadcasting should open in Geneva on 6 October 1975, with the following agenda:

- 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.

4.2 The First Session of the Conference was held in Geneva from 7 to 25 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;
- 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.

The Report of the First Session was used by the Second Session for its work.

4.3 One hundred and three Members of the Union, belonging to Regions 1 and 3, were represented at the Conference, which was also attended by observers from nine international organizations.

4.4 Mr. Derek C. Rose (New Zealand) was elected Chairman of the Conference. Mr. M. Harbi (Algerian Democratic and Popular Republic), Mr. Irfan Ullah (Pakistan), Mr. H. Probst (Confederation of Switzerland) and Mr. Wassili Chamchine (Union of Soviet Socialist Republics) were elected Vice-Chairmen.

4.5 The following six committees were established:

Committee 1 — Steering

(consisting of the Chairman and Vice-Chairmen of the Conference and of the Chairmen and Vice-Chairmen of the other Committees)

Committee 2 — Credentials

Chairman : Mr. A. H. Antar (Arab Republic of Egypt)

Vice-Chairman : Mr. D. S. Variyan (Malaysia)

Committee 3 — Budget Control

Chairman : Mr. M. K. Basu (Republic of India)

Vice-Chairman : Dr. L. Horvath (Hungarian People's Republic)

Committee 4 — Planning

Chairman : Mr. V. Žagar (Socialist Federal Republic of Yugoslavia)

Vice-Chairman : Mr. N. Morishima (Japan)

Committee 5 — Agreement

Chairman : Mr. A. Petti (Italy)

Vice-Chairman : Mr. D. Aithnard (Togolese Republic)

Committee 6 — Editorial

Chairman : Miss M. Huet (France)

Vice-Chairman : Mr. J. M. Arto Madrazo (Spain)

Vice-Chairman : Mr. J. Dromgoole (United Kingdom of Great Britain and Northern Ireland)

4.6 The Conference ended its work on 22 November 1975 with the signature of the Final Acts of the Conference.

The Final Acts comprise:

4.6.1 Regional Agreement concerning the Use by the Broadcasting Service of Frequencies in the Medium Frequency Bands in Regions 1 and 3 and in the Low Frequency Bands in Region 1.

This Agreement, which was signed by 100 delegations, has two Annexes:

Annex 1 : Plan for the assignment of frequencies to broadcasting stations in the medium frequency bands (other than to stations using low-power channels) in Regions 1 and 3 and in the low frequency bands in Region 1.

There are two Appendices to this Annex:

— *Appendix 1 :* Frequency assignments to stations in the low-power channels;

— *Appendix 2 :* Antenna gain (dB) for different azimuths and angles of elevation.

Annex 2 : Technical data used in the preparation of the Plan and to be used in the application of the Agreement.

4.6.2 The final Protocol, which was signed by 99 delegations.

4.6.3 Additional Protocols I, II and III. Additional Protocol I, signed by 25 delegations, relates to the abrogation of the European Broadcasting Convention (Copenhagen, 1948) and the annexed Copenhagen Plan. Additional Protocol II, signed by 32 delegations, abrogates the Regional Agree-

ment concerning the Use by the Broadcasting Service of Frequencies in the Medium Frequency Band in the African Broadcasting Area (Geneva, 1966) and the Plan annexed thereto. Additional Protocol III, signed by 46 delegations, relates to the use of the frequency 522 kHz by the broadcasting service in Austria.

4.6.4 Nine Resolutions on the following subjects:

- No. 1 — Updating of the Master International Frequency Register on the date of the entry into force of the Agreement.
- No. 2 — Frequency assignments in low-power channels (LPC).
- No. 3 — Continued coordination of frequency requirements of countries not represented at the Conference.
- No. 4 — Determination of the service areas of the stations in the Plan.
- No. 5 — Accession to the Agreement of countries not represented at the Conference which did not send their frequency requirements.
- No. 6 — Use of low frequencies in the African Broadcasting Area.
- No. 7 — Use of LF bands shared between the broadcasting service and the other radiocommunication services.
- No. 8 — Use of bandwidth saving modulation systems.
- No. 9 — Member countries not represented at the Conference and non-Member countries.

4.6.5 Five Recommendations on the following subjects:

- No. 1 — Improvements to the Plan.
- No. 2 — Sharing of the LF band between the broadcasting service and the other radiocommunication services (Region 1).
- No. 3 — Methods of predicting sky-wave propagation.
- No. 4 — Convening of a conference competent to revise the Regional Agreement concerning the Use by the Broadcasting Service of Frequencies in the Medium Frequency Bands in Regions 1 and 3 and in the Low Frequency Bands in Region 1.
- No. 5 — Publication of a handbook of radiation diagrams of directional antennae that can be used in the broadcasting service.

4.7 The Agreement will enter into force on 23 November 1978 at 0001 hours GMT.

The Agreement and the Plan annexed thereto have been drawn up to meet the requirements of broadcasting services in the bands concerned for a period of 11 years after the date of the entry into force of the Agreement. The Agreement will remain in force until it is revised by a competent conference of Members of the Union belonging to Regions 1 and 3.

5. ACTIVITIES OF THE PERMANENT ORGANS

5.1 ACTIVITIES OF THE GENERAL SECRETARIAT

The General Secretariat comprises six departments: personnel; finance; conferences and common services; computer; external relations; technical cooperation.

Personnel Department

The recruitment and administration of supernumerary staff required to service conferences and meetings entailed almost as much work in 1975 as in 1974; the same observation applies to Technical Cooperation experts. The Department devoted an appreciable amount of time to analyzing and preparing comments on the report of the Organization, Methods and Grading experts and to the implementation of the decisions taken by the Administrative Council on the basis of some of the experts' proposals. In particular, a job classification specialist was recruited and attached to the Department to review the grading system and establish a classification plan for all posts. The Department took an especially active part in the work of CCAQ, its Standing Committee on job classification and the newly created International Civil Service Commission.

Finance Department

The activities of the Finance Department were affected by the expansion of the Union's activities, particularly in the field of Technical Cooperation and also — especially as regards work on the budget and salaries and accounting for Technical Cooperation projects — by the monetary fluctuations which have persisted for a number of years.

Mechanization of the Finance Department's work was continued and the billing of publications sold by the Union is now entirely computerized.

Department of Conferences and Common Services

1. The programme of meetings for 1975 might have appeared to have been lighter than that for 1974, a peak year, but the total number of pages translated rose by 4.5%, while the volume of typing dropped by 20%. The reprography workload decreased by 17% but it still substantially exceeded the volume of work handled during the years prior to 1974. The CCITT held 416 days of meetings which accounted for approximately 50% of all the Department's activities. Other work included routine tasks and documentation for three seminars organized by the Technical Cooperation Department. The only large conference held in 1975 was the second session of the Regional Administrative LF/MF Broadcasting Conference, which met for seven weeks in Geneva. This conference demanded a sustained round-the-clock effort from all services, particularly for offset reproduction of the extensive analyses of frequencies made by computer. The assistance of outside printers in handling the overflow of offset reproduction, with very short deadlines, was invaluable.

2. Staff was reinforced by temporary recruitment during meeting periods, but with greater mechanization it was possible to keep the number of permanent staff to the 1970 level. However, with present trends, a review will be necessary.

3. Thanks to careful advance preparation by the CCIR editors and close collaboration between the editors and this Department, the thirteen volumes of the 1974 CCIR XIIIth Plenary Assembly were published during 1975 within the set time-limit of thirteen months. *The Publications and Reprography Division* arranged for the total production of 49,971,299 A4-size offset sheets and 198 publications (which amounted to 46,472 pages in 679,860 copies). New methods, including composition from magnetic tape and photo-composition, are being used both inside and outside the ITU.

4. *The languages Division* translated 14,990 pages into French (38% of the total), 6,777 into English (17%) and 17,968 into Spanish (45%), which represented an increase of 1,713 pages (4.5%) over the total figure for 1974.

5. During the year, the *Stenographic Pool* produced 35,179 pages in French, 23,313 in English and 29,202 in Spanish, making a total of 87,694 pages, 20% less than for 1974, typed in 52,444 working hours. The typists and heads of team worked 823 hours overtime, a decrease of 74% over 1974.

6. *The Conference Documents, Stocks and Dispatch Section* dealt with 3,704,218 copies of documents, dispatched 461,200 printed documents by post (cost: 1,208,000 Swiss francs) and 1,400 parcels by freight (cost: 212,000 Swiss francs — weight: 146,000 kg) and received 6,075 packages (506,000 kg). It organized 156 local conveyances (removals, hauling) and prepared 223 customs papers.

7. *The Supplies Section* carried out market studies, particularly for new machines and products to meet the organization's varied requirements. Group purchasing in conjunction with other international organizations continued to be advantageous. Building and maintenance services functioned smoothly; security measures in buildings used by the ITU were strengthened for the protection of staff and delegates.

8. Implementation of the experts' proposals approved by the Administrative Council proceeded. As far as was possible given the limited expenditure available, the recommendations made by the Joint Inspection Unit on office accommodation in the ITU were applied.

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 ITU Administrative Council taking due account of outside computer facilities, including particularly the possibilities offered by the ICC, decided that an in-house computer, suitable for its purposes and under its management, was needed to enable the ITU to meet its statutory obligations. In 1975, the ITU continued to process data to facilitate international coordination in the planning and operation of the telecommunication services of Member governments and administrations. Improvements were made in the exchange of information with Members, including data on magnetic tapes and other 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 ICC and CERN in Geneva and from time to time it makes use of the services of the Institute of Telecommunication Science (ITS) at Boulder in the USA, particularly

for certain non-regularly recurring tasks which require a larger computer than the ITU in-house facility. There has to be close collaboration with administrations in the development and use of programmes which are based on technical standards adopted by the Union's organs and used by administrations. The ITU also makes use of the ILO facility for certain administrative work in connection with health and medical benefits within the framework of a joint scheme with the ILO.

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 1975, the staff of the Department continued to keep in close touch with the work of the United Nations on matters of common interest and coordination among the specialized agencies. Special attention was devoted to the discussions held in the United Nations and in other organizations on subjects relating to the peaceful uses of outer space, particularly the work of the Technical Sub-Committee and more specifically the Legal Sub-Committee of the Committee on Outer Space, where discussions sometimes dealt with certain aspects of the Union's legislative texts having a bearing on the work of the latter Sub-Committee.

Legal business has mainly involved preparing, examining and formalizing Technical Cooperation contracts and preparing draft agreements. It has also involved providing assistance to ITU conferences and meetings: the Administrative Council, the Regional Administrative LF/MF Broadcasting Conference for Regions 1 and 3, and the group responsible for preparing an annotated edition of the International Telecommunication Convention.

The *AC and Conferences Section* made the administrative arrangements for the 30th Session of the Administrative Council and the 2nd Session of the Regional Broadcasting Conference (see Sections 3 and 4 of this Report) and provided the executive secretariats for these two meetings.

These administrative arrangements included more particularly dealing with invitations, processing proposals and preparing the final manuscript of the Regional Broadcasting Conference's Final Acts.

The Section also did some preparatory work for the 31st Session of the Administrative Council, 1976 (preparation of the preliminary draft agenda) and for the Satellite Broadcasting Conference, 1977 (dispatch of invitations).

RM Division

As part of its normal work programme the Division "Relations with Members of the Union" collected and coordinated data and prepared manuscripts for 8 editions of service documents or tables, 22 supplements to such publications, and the monthly Notification and Operational Bulletin.

A considerable effort was made during the year in connection with new or completely revised publications.

The amendments made to the Radio Regulations by the World Maritime Administrative Radio Conference, 1974, were so numerous and so scattered throughout the text that a completely new edition of the Regulations was necessary. Both the current text and modified text had to be included in view of the various dates for the entry into force of new provisions. The opportunity was also taken to re-number the pages sequentially and to establish a new alphabetical index.

The RM Division also embarked on the compilation of the new “ Manual for Use by the Maritime Mobile and Maritime Mobile-Satellite Service ”. Resolution No. Mar2-17 of the Maritime Conference, 1974, provided that this Manual was to include the provisions of the Radio Regulations, Telegraph and Telephone Regulations, International Telecommunication Convention and the Recommendations of the VIth CCITT Plenary Assembly which were applicable or useful to stations in such services.

Special mention should be made of work on preparation of the Map of Coast Stations. The previous edition dated from 1965, since when the numbers of coast stations and the areas of concentration had increased considerably. For these reasons different scales and divisions of maps were necessary. As a result of the experience gained in publishing this Map in its new form, the intention is for it now to be published at two-year intervals like the List of Coast Stations.

There has been a marked but not easily quantifiable increase in work on the preparation of lists. This was particularly true of maritime mobile service publications. The additions and modifications received during 1975 for inclusion in the List of Coast Stations were so numerous as to necessitate the preparation of a new edition of the List rather than a further supplement. It was also necessary to divide the work of preparing the 6th edition of the List of Radiodetermination and Special Service Stations into two parts in order to be able to complete the task in an acceptable time span.

The number of individual amendments to the List of Ship Stations (23,124) was also the highest for any year which was not the subject of a special correction campaign. Administrations are now complying closely with the notification requirements laid down in the Radio Regulations and it is foreseen that the situation will improve further in 1976.

The texts concerned with the detailed operation of the telegraph service are now contained in the Recommendations of the CCITT. A publication entitled “ General information relating to the operation of the international telegraph service ” giving information on compliance by administrations and private operating agencies with the provisions governing services provided, etc. was assembled and coordinated by the Division by means of questionnaires.

In accordance with a Recommendation of the CCITT, the Cable and Wireless Ltd. Service Code was included in the 3rd edition of “ Codes and abbreviations for use of the international telecommunication services ” which was published during the year.

A fresh task for the Division was the preparation, from information provided as a result of CCITT activities, of a new publication entitled “ Directory containing information on programme booking centres, international sound programme centres, international television programme centres and centres for maintaining sound and television programme circuits ”.

As one of the principal publication services of the ITU the Division is very concerned by rising publication costs and the possible impact of these on sales. Ways and means of improving the quality of its publications have been constantly under review, while at the same time every endeavour has been made to reduce production costs.

A new departure has been an attempt to explain the breakdown of publication prices (apportionment of costs between main edition and supplements) to customers in subscription Circulars as well as to indicate the print run on which the estimated price is calculated. A special series of subscription Circulars for the maritime publications addressed to a specialized clientele has also been very successful.

On the systems analysis and systems developments side, work took place within the Division on preparation of a data base system for maintenance and production of the List of Ship Stations, taking account of the changes in the specified information requirements decided upon by the Maritime Conference, 1974.

A revised system for processing the List of Telegraph Offices was put in hand by the Computer Department for the Division and work was also carried out on the programmes necessary to check call

sign formation (these programmes are required to check automatically compliance of call signs notified to the Union with Article 19 of the Radio Regulations).

Studies and trials also took place to determine the best type of system for storing and maintaining the files of the smaller service documents. It was found that a magnetic card typewriter with memory gave very good results for the "Routing table for offices connected to the Gentex Service". Efforts will be made to use this technique for other work of a similar nature.

The Division furthermore prepared the sample re-arrangement of the operational provisions of the Radio Regulations for the meeting of the Group of Experts for the possible re-arrangement of the Radio Regulations and Additional Radio Regulations.

The ITU has been active in connection with the development of the Common Register for Development Projects (CORE) by the Inter-Organization Board (IOB). The ITU considers CORE to be a useful means of assisting coordination and improving project programming and management in view 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.

Technical Cooperation Department

The activities of this Department are discussed in Section 6 of the Report.

5.2 INTERNATIONAL FREQUENCY REGISTRATION BOARD (IFRB)

5.2.1 Treatment of frequency assignment notices

The Board continued to carry out its duties as prescribed in the Convention, Malaga-Torremolinos, 1973, and the Radio Regulations annexed thereto. These duties in relation to the co-ordination, utilization, notification, technical examination and registration of frequencies involved steps to ensure the application both by the administrations and the IFRB of the provisions of the Radio Regulations. During the year 1975, the Board dealt with a total number of 70,710 frequency assignment notices.

5.2.2 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 recording in the Master International Frequency Register:

- 12,558 assignments notified under Article 9 of the Radio Regulations.
- 1,327 assignments notified under Article 9A.
- 26,712 assignments notified under Article 10.

5.2.3 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 give 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.

5.2.4 *High frequency bands allocated exclusively to the Broadcasting Service*

The Board continued to apply the procedure specified in Article 10 of the Radio Regulations for the HF bands allocated exclusively to the Broadcasting Service. In conformity with its terms of reference, it published the four Tentative High Frequency Broadcasting 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 20,000 in November 1975. Despite the increasing use of the frequency bands, the number of apparent incompatibilities remains limited owing in particular to preliminary co-ordination measures taken by some administrations.

5.2.5 *Monitoring*

Four periodic Summaries of Monitoring Information, numbered 184 (for the period November 1974 to January 1975) to No. 187 (for the period July to October 1975) inclusive and totalling 1,632 pages were issued in 1975. 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 Summary immediately preceding the Summary under preparation. (For further detailed explanations in this connection reference may be made to IFRB Circular-letters No. 241, dated 25 May 1970, and No. 248, dated 23 November 1970).

5.2.6 *Use of the ITU computer*

The IFRB used the ITU computer in 1975 for about 47% of its total utilization time (excluding the time used for programme tests) to carry out the following work:

- a) data processing to bring the information on frequency assignments recorded in the Master Register up to date;
- b) data processing for the preparation of the weekly IFRB Circular, service documents and other publications mentioned in this report; 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 International Frequency 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. 470NGA and 470NK 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.

Furthermore the IFRB prepared other computer programmes and undertook associated studies in which most of the time was devoted to the development of the programmes for the execution of the tasks given to the Board by the Regional Administrative Broadcasting Conference involving computations of usable field strength and distance for the bands 150 - 285 kHz and 525 - 1 605 kHz (LF/MF-Broadcasting) which included data processing (lists of requirements, antenna patterns, distances to the coast) and computations for ground-waves, sky-waves, antenna gains, sea-gain, etc. A reasonable compromise had to be found between the accuracy of the methods and the operation time on the computer, as more than 10,000 requirements had to be processed.

Some of the existing programmes for data processing for the Master International Frequency Register, for HF Broadcasting and for space applications have been reviewed and improved. Many tests were made using the new plotter device installed in the computer room (mainly geographical maps and space applications).

5.2.7 *Publications*

The documents prepared by the IFRB in 1975 for publication are listed hereafter.

	Number of pages
1. IFRB Circular (weekly airmail)	3,190
2. Eighth Edition of the International Frequency List and Recapitulative Supplements Nos. 1, 2 and 3	6,930
3. Eighth Edition of the List of Fixed Stations Operating International Circuits and Recapitulative Supplements Nos. 1, 2 and 3	565
4. Eighth Edition of the List of Broadcasting Stations Operating in Bands below 5 950 kHz (List IIIA) and Supplement No. 1	263
5. Fifth Edition of the List of Space Radiocommunication Stations and Radio Astronomy Stations and Supplement No. 1	199
6. Periodic Summaries of Monitoring Information (Nos. 184 to 187 inclusive)	1,632
7. Prefaces to the documents mentioned above in three languages	675
8. Tentative High Frequency Broadcasting Schedules	1,041
9. High Frequency Broadcasting Schedules	661
10. IFRB Circular-letters No. 317 of 19 February 1975 to No. 341 of 7 October 1975 inclusive to administrations	1,610
<i>Total</i>	<hr/> 16,766

5.2.8 *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 International Frequency 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.

5.2.9 *Implementation of the decisions of the World Administrative Maritime Radio Conferences, Geneva, 1967 and 1974*

a) 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.

b) With a view to assisting administrations in taking the appropriate measures for implementing in due time the various decisions of the Maritime Conference, Geneva, 1974, the Board published in annexes to IFRB Circular-letter No. 320 of 20 March 1975 an analytical summary of these decisions followed by a chronological index of the various stages of their implementation. Further IFRB Circular-letters were announced for each stage of implementation to serve as reminders as each date for the specified implementation of a decision approaches.

c) In IFRB Circular-letter No. 334 of 22 August 1975, the Board reminded administrations of the action to be taken in pursuance of Resolutions Nos. Mar2-9 and Mar2-10 of the Maritime Conference, Geneva, 1974, concerning the power limits for radiotelephone coast stations operating in the bands allocated to the Maritime Mobile Service between 1 605 kHz and 23 000 kHz.

d) In Resolution No. Mar2-11, the Conference requested administrations to send, by 1 January 1976, provisional notices of frequency assignments in conformity with Appendix 25 Mar2 which they propose to bring into use on 1 January 1978; it also instructed the IFRB to examine the possibilities of sharing in each channel between the administrations concerned and to submit to them by 1 January 1977 appropriate recommendations. To enable administrations to submit this information in a uniform manner, the Board prepared a form of provisional notice together with a detailed explanation on each of the items to be entered thereon and communicated these to all administrations by IFRB Circular-letter No. 331 of 23 July 1975.

e) In this connection, the list of information to be provided by administrations had been defined by the Board taking into account the results of the work of an Interim Working Party (IWP 8/2) of Study Group 8 of CCIR which was established pursuant to a request made by the IFRB to the CCIR in which representatives of the IFRB took an active part. The Board also began the necessary technical preparations with a view to be able to discharge in due course the related tasks entrusted to it by the Conference.

5.2.10 *Second Session of the Regional Administrative LF/MF Broadcasting Conference (Regions 1 and 3), Geneva, 1975*

In Resolution B of the First Session, the IFRB was given specific tasks in preparation for the Second Session involving the assembly, publication and study of frequency assignment requirements to be submitted by all countries in Regions 1 and 3. The Board organized the work of its Specialized Secretariat on the basis of an estimated 6,000 frequency requirements; however, over 9,500 frequency requirements were received. These were processed and assembled in due time and published in IFRB Circular-letter No. 324 dated 23 May 1975. The Board carried out detailed studies and calculations required by Resolution B and published the results in IFRB Circular-letter No. 327 dated 1 July 1975. In response to the last paragraph of Resolution B, the IFRB submitted a report to the Conference containing the results of its studies sent to administrations on 1 July 1975 together with the comments thereon received from administrations (Conference Document No. 10).

The Conference met during seven weeks from 6 October to 22 November 1975. The members of the Board took an active part in the Conference. The technical secretariat of the Conference was constituted by the secondment of a substantial number of staff members from the Specialized Secretariat. In addition to furnishing the Technical Secretariat of the Conference and three engineers, analyst-programmers, the Board seconded engineers to assist the Conveners of each of the eleven frequency planning groups and three regional mediation groups, as well as a co-Secretary and assistants to the Agreement's Committee. These staff members participated in all meetings of Committee 4 (Planning), of Committee 5 (Agreement), and their respective working groups as well as in meetings of Committee 6 (Editorial).

The Plan together with Appendix 1 contains 10,248 frequency assignments with a total carrier power of 559 MW. For contrast it may be noted that 4,745 frequency assignments are reported as presently being in service, with a total of 243 MW carrier power.

The Conference adopted a number of Resolutions requiring continuing action by the IFRB in particular of providing assistance to administrations which did not send frequency requirements for inclusion in the Plan or those which were not represented at the Conference with a view to finding solutions for their medium-wave broadcasting requirements.

5.2.11 *Review of entries in the Master International Frequency Register of frequency assignments for international circuits in the Fixed Service in the high frequency bands (3-30 MHz) with a view to ascertaining the use actually made of them*

In 1975, in accordance with Nos. 476 and 477 of the Radio Regulations, the Board continued to apply a procedure it had set up in 1974 to determine which frequency assignments to international links in the Fixed Service recorded in the Master Register no longer reflected actual usage of the radio spectrum in the 3 to 30 MHz range, with a view to making the necessary changes or cancellations under Nos. 620 and 622 of the Radio Regulations.

The Board considered, in fact, that the use of other high-capacity telecommunication media such as satellite networks, submarine cables, etc. means that there is now less need for frequencies in the HF bands

(3-30 MHz) for handling traffic on international links. The Board therefore decided to apply the above-mentioned investigation procedure and to examine the frequency assignments to Fixed Service stations recorded in the Master Register on behalf of countries which, according to the information available to the Board, are also using other telecommunication media.

In 1975 the Board examined the frequency assignments to Fixed Service stations open to public correspondence which are recorded in the Master Register on behalf of a number of countries, using the procedure described above. The results were sent to these administrations in the form of annotated extracts from the Master Register. The extracts included the Board's remarks on the existence in respect of certain circuits of telecommunication media other than those operating on high frequencies and the administrations were invited to delete or change as necessary the pertinent entries.

In 1975, the Board received replies to this investigation from 37 Administrations.

It has been possible to make a study of 27 of these replies. Thanks to the co-operation of administrations, the results of the enquiry which are given below has proved most satisfactory.

	<i>Number</i>	<i>Percentage</i>
1. Total number of assignments recorded in the Master Register subject to this enquiry	13,981	100.00
2. Total number of recordings		
2.1 which <i>have been cancelled</i>	5,662	40.50
2.2 for which other means of telecommunication normally are used (entry retained in Master Register)	3,583	25.63
2.3 used only occasionally	565	4.04
2.4 for which modifications have been notified (other than under 2.2 and 2.3 above)	316	2.26
2.5 which are maintained unchanged	3,855	27.57

5.2.12 *Technical planning for the forthcoming World Administrative Radio Conferences*

In conformity with its mandate contained in Article 10 of the Convention and Article 8 of the Radio Regulations in particular No. 482 which reads:

"The functions of the Board shall include . . .

"j) the technical planning for radio Conferences with a view to reducing their duration; . . .", the Board reviewed the matters of substance to be dealt with by the Conferences listed hereunder and initiated studies which may be the subjects of reports by the IFRB to Members of the Union:

the World Administrative Broadcasting-Satellite Conference, 1977;

the World Administrative Aeronautical Mobile (R) Conference, 1977, and

the General World Administrative Radio Conference, 1979.

5.2.13 *Preparation of a Seminar on Frequency Management and the Use of the Radio Frequency Spectrum*

Pursuant to Administrative Council Resolution No. 528, the Board commenced its preparations for a Seminar to be held from 13-24 September 1976 and issued IFRB Circular-letter No. 332 of 18 July 1975 for the information of administrations. Further arrangements concerning the Seminar are in progress.

5.2.14 *Visits and training for administration officials at the IFRB*

Representatives from the Federal Republic of Germany, Argentina, Australia, Chile, Bahrein, Egypt, France, India, Indonesia, Italy, Laos, Madagascar, Mexico, Norway, the United Kingdom, Sweden, South Africa, Venezuela, the Yemen Arab Republic, ten experts from the Technical Cooperation Department of the ITU General Secretariat, and three visitors from the European Space Agency, Paris, underwent training in the IFRB Specialized Secretariat during 1975. They studied and became familiar with the procedures for dealing with frequency assignment notices. Their stays varied from a few days to three months.

5.2.15 *Technical Cooperation*

In accordance with No. 312 of the Convention, important questions concerning ITU technical co-operation are dealt with by the Coordination Committee. The IFRB therefore participated in dealing with

those questions concerning technical cooperation which had been submitted by the Secretary-General to the Coordination Committee. In addition, in 1975, the Board studied 25 reports of ITU experts dealing with questions concerning a tele-education system in Latin America, technical specifications of equipment for Pan-African Telecommunication Network, development of the broadcasting service in several countries in Asia and Africa, proposals to establish Earth stations in some countries in Latin America, an HF radiocommunication network in a country in the Middle-East and associated subjects concerning training and planning in the same field, and offered its comments thereon.

The IFRB also assisted in the initial briefing of six experts, in the final briefing of one expert and in finalising the agency terminal reports of the Union for two countries. Further, the IFRB participated in the Seminar on maritime radiocommunications organized by the ITU Technical Cooperation Department in Accra, Ghana, in September-October 1975.

Following the decision in the Coordination Committee, the IFRB prepared a document on the subject of "Efficient use of the radio frequency spectrum in the Pan-African Telecommunication Network" and nominated its representative to participate in the Conference of African Telecommunication Administrations at Kinshasa in December 1975. In the interests of economy, the IFRB did not send its representative at the beginning of the Conference. Later, on the basis of a communication from the Secretary-General who was present informing that the subject had already been dealt with, the IFRB could not participate in that meeting.

5.2.16 *Other activities*

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

5.3 INTERNATIONAL RADIO CONSULTATIVE COMMITTEE (CCIR)

5.3.1 *Introduction*

During 1975, the CCIR completed publication of the volumes of the results of the XIIIth Plenary Assembly, prepared technical contributions for the Interim Study Group Meetings to be held in the first half of 1976, held meetings of Interim Working Parties, and participated in several joint CCIR/CCITT activities as well as those of cooperating international organizations.

The Secretariat, besides carrying out the technical editorial work for the volumes, assisted the ITU Technical Cooperation programme, undertook technical computations requested by the Plenary Assembly, contributed to the Second Session of the Region 1-3 LF/MF Broadcasting Conference and joint CCIR/CCITT meetings, and participated in meetings of several cooperating international organizations. The major efforts from September onwards were devoted to the organization of the Interim Study Group Meetings to take place in February-March and May-June 1976. Some 2500 pages of preparatory documentation was dispatched by the end of the year. Participation in the meetings is estimated to reach 800 delegates. More than 500 contributions are expected to be distributed before the opening of the meetings.

5.3.2 *Contributions to Administrative Radio Conferences*

The Second Session of the Regional Administrative LF/MF Broadcasting Conference (Regions 1 and 3) was held in Geneva from 6 October to 22 November, 1975. This Conference made extensive use of the technical material presented to its First Session by the CCIR and a substantial part of this material was incorporated into the Final Acts of the Conference. The Secretariat assisted in the work of the Committees on Planning and Agreements.

In addition, a new computer programme established by the CCIR in pursuance of Resolution 60 for the direct production of antenna radiation diagrams from input information on the configuration

of the antenna was found to be of considerable assistance to the Conference in dealing with questions of possible interference in various directions relative to the antenna of a broadcasting transmitter.

5.3.3 *Activities of the Study Groups*

During 1975 the principal activity was the preparation for Interim Study Group Meetings scheduled for the first half of 1976. Several Interim Working Parties of Study Groups 4 and 8 held meetings, and others worked by correspondence.

5.3.3.1 *Study Group 1 (Spectrum utilization and monitoring)*

Study has continued on definitions of interference, on development of mathematical models to facilitate interference studies, on classification and designation of emissions, and on methods for monitoring and measuring emissions and spectrum occupancy. Some 50 contributions are expected to be distributed in advance of the meeting.

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

Increased attention has been given to questions of frequency sharing with and protection of the radioastronomy service, frequency sharing between deep space research and other space systems, radiocommunications for meteorological and earth exploration satellites, antennae used in space research service, and the subject of hazards of non-ionizing radiation from earth stations and possible wireless energy transmission systems. More work has been done on space-vehicle attitude control technology, station keeping, and multiple spot-beam antennae, topics of considerable importance to efficient use of the geostationary orbit. More than 80 documents are expected as contributions to the Interim Study Group meeting.

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

Though most point-to-point communications now use satellite, cables or microwave links, HF radio continues to be one of the valuable means for ensuring long-distance communications. Consequently, Study Group 3 continues its studies in this field on a more selective basis, concerned with recent advances and improvements for HF telephony, printing telegraphy, data and facsimile services. Study Group 3 expects to hold only a Final Study Group meeting in the current study period.

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

The needs identified by the WARC-ST, June 1971, continued to occupy the attention of Study Group 4. With these needs in view, contributions are being prepared, with particular emphasis on ways and means to overcome deficiencies in the use of frequencies higher than 10 GHz for the fixed service using satellites, for submission to the Interim Meeting of that Study Group scheduled to take place in May/June 1976. One interesting topic under study is the design of a diversity interconnection link with a configuration of two or more earth stations situated tens of kilometers apart. By high speed switching arrangements, the Earth stations which suffer the least attenuation due to rain or clouds are connected to the satellite in service.

The study of the efficient use of geostationary satellite orbit, a subject which occupied the attention of an Interim Working Party of Study Group 4 since 1968, is being pursued. In June 1975, this IWP, by kind invitation of the Administration of the Federal Republic of Germany, held a meeting in Munich. The report adopted by that meeting will form part of the documentation submitted to the Interim Meeting of Study Group 4.

Approximately 100 documents are expected to be contributed to the Interim Study Group meeting. A large part of these have already been received treating such subjects as the communication capacity of the geostationary satellite orbit, propagation factors affecting coordination distance and interference estimation, frequency sharing with terrestrial services, and digital coding techniques. In matters of propagation study, cooperation with Study Group 5 continued.

During TELECOM-75, several transportable Earth station antennae were demonstrated. These are realised in part due to the effort of studies carried out in Study Group 4 following the adoption of a new Question on this subject, in the framework of relief operations as well as special needs of developing countries.

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

Among the more than 80 contributions for the Interim Meeting is the report from Interim Working Party 5/2 on the critical subject of propagation factors in coordination distance calculations. This aspect of sharing between space and terrestrial services has been under study for several years, and the calculation procedures have been considerably refined. The new text to be considered by Study Group 5 pays particular attention to the effect of precipitation in the atmosphere, and is expected to be of major importance among the planning parameters adopted by the satellite broadcasting conference set down for 1977.

Another Interim Working Party of the Study Group has also been active during the year, being Interim Working Party 5/1 on ground-wave propagation. The output of this IWP, via Study Group 5, was of value in the work of the LF/MF Broadcasting Conference held in Geneva in 1975, and following this success the IWP is now going on with a plan for producing a fully computerized method for calculating field strengths based on ground-wave propagation. The first version of this new method is expected to be discussed at the Interim Meeting in 1976.

5.3.3.6 *Study Group 6 (Ionospheric propagation)*

Principal subjects under study are field strength calculation in the HF band and the VLF/LF bands, propagation by sporadic-E, atmospheric and man-made radio noise, ionospheric modification by high-power transmitters, and ionospheric scintillation effects on transmission between satellites and earth. Approximately 90 documents have been contributed for the Interim meeting.

The monthly publication by the CCIR Secretariat of long-term ionospheric prediction indices continues.

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

The "Coordinated Universal Time" (UTC) developed by Study Group 7 is in almost universal use and forms the basis for civil time in legal use in most countries. The 15th General Conference of Weights and Measures has recommended in 1975 such a utilization. New methods of time and frequency dissemination were studied, e.g. by television synchronisation pulses, additional phase modulation of the carrier of amplitude broadcast transmitters.

Interim Working Party 7/3 studies the problems of mutual interference between emissions of the standard-frequency and time signal service in the HF bands and shall propose possible administrative measures to solve the problems.

5.3.3.8 *Study Group 8 (Mobile services)*

Studies on aeronautical and maritime satellite systems were continued actively during 1975.

Interim Working Party 8/1 on maritime satellites held an important meeting in Oslo, October 1975. From the 55 contributions to the meeting, 10 new draft Reports were prepared and five existing texts were modified. A considerable part of the work of the IWP was devoted to the problems of the inter-connection of maritime satellite systems and the public telephone network, a field in which close collaboration with the CCITT is necessary. The Interim Working Party has therefore requested that the following 6 texts be transmitted to the CCITT for information and comment by the relevant Study Groups:

- Quality objectives for circuits in the maritime mobile satellite service;
- Overall transmission characteristics of telephone circuits in the maritime mobile satellite service;
- Systems in the maritime mobile satellite service — Hypothetical reference circuit;
- Hypothetical reference connections in the maritime mobile satellite service;
- Methods for the subjective assessment of speech quality in the maritime mobile satellite service;
- Use of echo suppressors and voice activation in maritime mobile satellite systems.

Among the topics on the radiocommunication aspect of maritime satellites which retained the attention of Interim Working Party 8/1, the following should be mentioned:

- the efficient utilization of the allocated frequency bands;
- satellite-to-ship margins;
- interference problems.

The texts prepared by Interim Working Party 8/1 will be among more than 110 contributions submitted to the Interim Meeting of Study Group 8.

Other Interim Working Parties which met and produced substantial results were:

Interim Working Party 8/2 was set up to study the problems of the “ improved use of the HF radio-telephone channels for coast stations in the bands allocated exclusively to the maritime mobile service ”.

The CCIR was requested by the World Maritime Administrative Radio Conference, Geneva 1974, by its Recommendation Mar2-7 to make every effort to obtain provisional results of this study not later than 1 July 1976.

During two meetings of Interim Working Party 8/2, the first held in London at the invitation of the United Kingdom Administration and the second held at the ITU Headquarters, provisional advice was worked out to enable the IFRB to start the studies concerning the sharing possibilities of the HF channels in App. 25 Mar2 of the Radio Regulations.

Interim Working Party 8/3 is studying the operational and technical characteristics of a general-purpose digital selective calling system for the maritime mobile service. The Interim Working Party drafted a revision of Recommendation 493 giving technical characteristics, and identified the operational topics on which additional information is requested from IMCO.

Important new contributions (22) among the 100 documents submitted for the Interim Meeting of Study Group 8 concern land mobile communications and deal with frequency utilization, system characteristics and measurements and radio paging systems.

Contributions (some 40) concerning the maritime mobile services, other than satellite, deal with:

Technical and operational characteristics of systems including direct-printing, telegraphy and facsimile and automated VHF systems. Frequency utilization for communications, including the choice of frequencies for distress and safety purposes and for on board use.

Methods of assessing the efficiency of ship's aerial installations.

As regards aeronautical mobile radio, a special meeting of Study Group 8 has been scheduled in March 1976, immediately following the Interim Study Group meeting, to prepare the necessary technical information for the WARC-Aeronautical (R) Mobile to be held in early 1977.

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

Intensive work is being carried out in administrations and by equipment manufacturers with the view to prepare contributions for submission to the forthcoming Interim Meeting of Study Group 9 scheduled for May/June 1976. The emphasis is on digital techniques.

Among the more than 75 documents contributed for the meetings, many concern digital transmission, especially at frequencies above 10 GHz, and matters of frequency sharing with the satellite fixed service.

The CCITT Special Study Group D, on digital techniques, held a meeting in Kyoto in May 1975, by kind invitation of the Japanese Administration. While studies carried out by that Special Study Group are mainly in the framework of the questions adopted by the CCITT, the transmission of digital signals via the radio-relay system is of concern to the CCIR Study Group 9. Thus, at the Kyoto meeting the division of responsibilities between the work of the CCITT Special Study Group D and that of the CCIR on digital transmission using radio-relay system or satellites became a topic of discussion. Interventions were made on several occasions to call the attention of the meeting to the fact that in the work of the CCIR interference is one of the most important factors to be taken into consideration, and hence it is also interested in the pattern of the wave train to be transmitted, since this would have an important bearing on interference patterns.

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

The series of Reports and Recommendations submitted to the first session of the LF/MF Broadcasting Conference was examined by the Conference and a selection of them was transmitted to the second session, after which some of them were annexed to the Final Acts.

The subjective assessment of sound programme quality has now become a CCIR Report, and the criteria for assessment have been so devised that they are applicable to both sound broadcasting and television. The system has been transmitted to the CCITT in view of its possible adoption for the evaluation of telephony circuits.

The Reports concerning sound broadcasting from satellites have been brought up-to-date. This information is, at present, contained within Reports dealing with both sound-broadcasting and television emissions from satellites.

The question of digital modulation has been further examined and a procedure has been established whereby relevant information can be transmitted to CCITT Special Study Group D through an Interim Working Party CMTT/1.

The Secretariat has developed the computing programme and initiated computations of directional antennae for broadcasting, as required by Resolution 59.

Among more than 65 documents for the Interim Meeting, important contributions concern broadcasting-satellite service in the 12 GHz band, measurement of audio-frequency noise, transmission of more than one sound or information channel in television systems, and stereophonic systems.

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

Study Group 11 has now produced a Recommendation giving the viewing conditions for the subjective assessment of the quality of television pictures, together with scales of assessment applicable not only to television but also to sound broadcasting. This is an essential first step in obtaining direct correlation between the impairment of the image as seen by the viewer and disturbances in the broadcasting system.

Systems are still 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 an Interim Working Party CMTT/1, which will serve as liaison between the CCIR Study Groups and Special Study Group D of the CCITT.

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 CCIR 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 has also been prepared.

Among more than 110 documents for the Study Group meeting, contributions concern standards for the international exchange of television programmes on magnetic tape, subjective assessment of the quality of television pictures, terrestrial television broadcasting at 12 GHz, broadcasting of still images, and of course a large number of contributions related to planning of satellite television broadcasting and shared use of the 12 GHz band.

5.3.3.12 *CMTT (CCIR/CCITT 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). Studies are being finalized which will lead to a new Recommendation for unified methods of measurement and performance objectives for international circuits using analogue transmission which may carry, at different times, signals using any of the current standards for colour television. 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.

The newly formed Interim Working Party CMTT/1 is studying digital systems for the transmission of sound programme and television signals and acts as a coordinating body between CCIR Study Groups 10, 11 and CMTT and Special Study Group D.

5.3.3.13 *CMV (CCIR/CCITT Joint Study Group for Vocabulary)*

The work of the Joint Coordinating Group, IEC¹/CCI on vocabulary continued throughout 1975; the greater part of the joint groups of experts which were set up in 1974 have held one or two meetings for the choice of terms and their definition.

The Joint IEC/CCI Group, dealing with graphical symbols for telecommunications, prepared new drafts of symbols (particularly in relation to community-antennae networks).

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

Established under Resolution 38 at the XIIth Plenary Assembly, New Delhi, 1970, this Interim Working Party has been very active and its mandate has been extended for the 1974-1978 period. At the XIIIth Plenary Assembly, the Interim Working Party presented a draft report summarizing the technical and economic factors which enter into the choice of a system for satellite broadcasting. This draft has now been brought up-to-date and circulated to the Chairmen and Vice-Chairmen of all the CCIR Study Groups concerned, in order that they may make propositions for its further updating during the meeting of Interim Working Party PLEN/2 in May/June 1976 on the basis of data emanating from the Interim Meetings of CCIR Study Groups held in the first half of 1976.

5.3.4 *Editorial work*

Before the end of August, 1975, the CCIR Editorial Section published all thirteen volumes of the Conclusions of the XIIIth Plenary Assembly; a total of over 4,000 pages in each of the ITU working languages. During 1975, an advance edition of an index to the technical terms contained in these Volumes was prepared (some 2,500 terms). The editing of a draft Report on possible satellite broadcasting systems (some 350 pages) was completed.

¹ International Electrotechnical Commission.

5.3.5 *Other activities of the Secretariat*

5.3.5.1 *Computer usage*

The Secretariat has begun a project for the complete computerization of a method for plotting the directivity patterns of all LF and MF antennae, which of course will be of particular value to the Broadcasting Service. The well-known Antenna Handbook of the CCIR having been long out of print, and as well it having become urgent to include data of further varieties of antenna, the task of converting the general expressions used into computer language was begun in August 1975. As a result of the efforts made, an effective contribution to the LF/MF Broadcasting Conference of 1975 was possible.

The advantages of using a computer for this purpose include the possibility of allowing for the whole range of ground conductivity values that are met with in practice, and so the curves resulting from this work will include practical values of this parameter for the first time. They will thus constitute a major contribution by the CCIR Secretariat to radiocommunications. The programming work is being carried out in the Secretariat in liaison with Study Group 5. It is hoped that the work will be completed toward the end of 1976.

5.3.5.2 *Technical cooperation*

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

During the year extensive consulting and review work was done by the Secretariat with respect to the various projects of the PANAFTEL network. This involved in the main detailed analysis of reports submitted by consultants, and covered in particular the close examination of siting data of repeater and terminal stations of microwave systems, together with evaluation of propagation parameters adopted. Apart from the financial implications, this related specifically to the estimated reliability of the links. During the month of December, the CCIR Secretariat was represented at the meeting of the African telecommunication administrations at Kinshasa where a decision was taken to set up the African Telecommunication Union.

The continuing interest of the Secretariat in the transhorizon link Sana'a-Taiz-Aden resulted in the institution of a long-term programme of analysis of the propagation data obtained over the two diffraction paths making up this overall profile, and liaison was maintained with Government and UNDP officials in both Sana'a and Aden to this end.

A programme of measurements of ground-wave and sky-wave propagation was also begun in Africa by UNDP/TCD in association with the CCIR Secretariat, the purpose being to increase the effectiveness of MF broadcasting planning. This work is continuing into 1976, and the Secretariat is coordinating the work of the survey teams.

5.3.6 *Relations with other Organizations*

5.3.6.1 *Cooperation with the CCITT*

The CCIR Secretariat participated in the following CCITT/CCIR Plan Committee meetings:

1. Plan Committee for Africa, Kinshasa, 12-20 February, 1975
2. Coordination Committee meeting for Africa — Geneva, 18-19 September, 1975

3. Coordination Committee meeting for Europe, 22 September, 1975
4. Working Group of the World Plan Committee, 23-24 September, 1975
5. World Plan Committee, 25 September — 2 October, 1975.

5.3.6.2 *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 CCIR being carried out by such organizations.

Close contact during this period was maintained with the:

- International Union of Radio Science (URSI)
- Intergovernmental Maritime Consultative Organization (IMCO)
- International Civil Aviation Organization (ICAO)
- International Electrotechnical Commission (IEC)
- European Broadcasting Union (EBU)
- International Radio and Television Organization (OIRT)
- Asian Broadcasting Union (ABU)
- International Special Committee on Radio Interference (CISPR)
- International Maritime Radio Association (CIRM)

5.4 INTERNATIONAL TELEGRAPH AND TELEPHONE CONSULTATIVE COMMITTEE (CCITT)

5.4.1 *Introduction*

The activity of the CCITT Study Groups and Working Parties was even greater in 1975 than in 1974.

Two Study Groups (XVI and Special C) and the two Special Autonomous Working Parties (GAS 3 and GAS 5) held their final meetings, preparatory to the VIth Plenary Assembly (September-October 1976), during the second half of 1975.

5.4.2 *General information on Study Group activities*

5.4.2.1 *List of meetings held*

The number of working days of meetings of all kinds totalled 416 (compared with 292 in 1974, an increase of 42.5%), and comprised:

- 254 days of meetings with interpretation, in Geneva
- 56 days of meetings with interpretation, outside Geneva (Kinshasa, Kyoto, Rio de Janeiro)
- 83 days of restricted meetings (drafting groups, subgroups, groups of experts) without interpretation, in Geneva
- 23 days of restricted meetings, without interpretation, outside Geneva (on the invitation of the country of the group chairman).

The restricted meetings (the last two categories mentioned above) were organized at the request of the chairmen concerned, in order to speed up the work of the Study Groups.

It should be noted that the interpreters had to be paid for 37 weekends (Saturday and Sunday) included in the meeting time.

For the meetings of Study Groups XV and Special D and Joint Working Parties CNC and SGO in Kyoto, in April-May 1975, the host Administration, Japan, bore the major part of the additional cost incurred by holding the meetings outside Geneva.

Table I gives a complete list of meetings organized in 1975. All the Study Groups, Joint Working Parties and Special Autonomous Working Parties held meetings.

5.4.2.2 *Participation in meetings*

a) The participation of Member countries of the ITU in meetings of the CCITT Study Groups and their Working Parties in 1975, when they were represented by an administration or recognized private operating agency, is summarized in Table II.

It will be seen that unfortunately (just as in 1974) the number of countries represented never exceeded about thirty, with the exception of the Plan Committee for Africa (37 countries) and particularly the World Plan Committee, attended by the representatives of 70 countries, which is an achievement.

Nevertheless, a total of 89 countries (compared with only 65 in 1974) participated in the meetings of at least one Study Group; the difference between the two years is due mainly to the convening of the World Plan Committee.

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

The total number of delegates registered at the meetings was 3 794 (as against 2 974 in 1974, an increase of 27.5%, essentially due to the greater number of meetings in 1975).

In particular, participation in the meetings of the Joint Working Party on the Maritime Mobile Service (GM SMM) was large (137 delegates). The Working Party was set up to answer the questions assigned to the CCITT by the World Administrative Radio Conference (Geneva, April-June 1974) on the operation, accounting and tariffs of public correspondence of the Maritime Radio Services; it met for the first time in 1975 (twice) after a small preparatory meeting in 1974. The delegates included specialists who hitherto had attended only the meetings of the CCIR, as well as representatives of the International Chamber of Shipping and the International Radio-Maritime Committee, these two organizations having requested on that occasion to take part in the work of the CCITT.

c) The following were admitted to participation in the work of CCITT meetings in 1975:

— 4 recognized private operating agencies (which chose the $\frac{1}{2}$ unit class of contribution)

United States of America :

Telenet Communications Corporation, Washington, D.C.

Philippines :

Philippine Communications Satellite Corporation, Makati, Rizal

Philippine Global Communications, Inc., Makati, Rizal

Philippine Long Distance Telephone Company, Makati, Rizal

— 8 *scientific or industrial organizations* (all of which chose the $\frac{1}{2}$ unit class of contribution)

United States of America :

General DataComm Industries, Inc., Wilton (Connecticut)
Intertel, Inc., Burlington (Massachusetts)
Timeplex, Inc., Hackensack (New Jersey)

France :

Société Intertechnique, Plaisir (Yvelines)
Société L.E.A., Laboratoire Electro-Acoustique, Rueil-Malmaison (Hauts-de-Seine)
Société Tekelec-Airtronic, Sèvres (Hauts-de-Seine)

Italy :

Rank Xerox, S.P.A., Milan

United Kingdom :

M.G.V.S. (Fax Communications) Company Limited, London

— 2 *international or regional organizations*

- European Organization for Nuclear Research (CERN), Geneva
- Asociación de Empresas Estatales de Telecomunicaciones del Acuerdo Sub-Regional Andino (ASETA), Quito.

This list again shows the increasing interest in the work of the CCITT taken by manufacturers of telecommunication equipment, a large number of whom participate in the meetings of certain Study Groups (especially Study Groups VII, IX, XI, XIV, XV, Sp.A, Sp.D) as shown in Table III.

5.4.2.3 *Contributions submitted for meetings*

a) Table III also shows the number of contributions sent to the CCITT Secretariat in 1975 for the various Study Groups by the administrations and other bodies participating in the work of the CCITT; they were particularly numerous for certain Study Groups (VII, XI, XV, Sp.A, Sp.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 2 024 contributions were received in 1975 compared with 1 662 in 1974, an increase of 21.8%. This figure is unprecedented; it provides further evidence of the interest which the work of the CCITT arouses in many countries.

b) However, in 1975, while there were 1 366 regular contributions, ("white" documents), there were as many as 658 delayed contributions; the latter thus represent 32.5% of the total compared with only 25.5% in 1974. There is a clear deterioration in the situation this year in this respect; it has been particularly bad in the case of Study Groups VII and XI.

The timetable of meetings in 1975, moreover, was distributed to all participants in a CCITT circular as early as 13 July 1974 (i.e. just after the 29th Session of the Administrative Council). Administrations thus had sufficient time to prepare and submit most of their contributions before the deadline so that they could be translated into the three working languages of the Union and sent to all participating bodies before the meetings. The delayed contributions could not be distributed until the meetings opened, and therefore only in their original language to the delegates present.

c) Resolution No. 750, adopted by the administrative Council at its 30th Session, particularly drew the attention of all administrations to the inconvenience caused by these delayed contributions. The Resolution was brought to the notice of all the administrations and all organizations (recognized private operating agencies, scientific or industrial organizations, international organizations) participating in the work of the CCITT in Circular No. 164 of 17 September 1975 from the Director of the CCITT.

Administrations should make every effort to prevent a recurrence of this regrettable situation.

TABLE I

List of meetings held in 1975

* Meetings marked with one asterisk were held in Geneva without interpretation (drafting groups or restricted working parties).

** The restricted meetings marked with two asterisks were held outside Geneva, on the invitation of the chairman of the working party or sub-group, without entailing any additional expenditure for the ITU apart from the participation of one engineer from the CCITT Secretariat.

<i>Date</i>	<i>Subject of the meeting</i>	<i>Place</i>
15-17 January	**Sub-Group XI/3-2 (High-level programming language)	Berne
20-24 January	WP II/1 (International Telephone Accounting)	Geneva
27 Jan.-4 Feb.	JWP SMM (Maritime mobile service)	Geneva
3-7 February	WP XI/1 (Interworking of signalling systems)	Geneva
10-14 February	WP IV/2 (Measuring equipment)	Geneva
10-19 February	SG XI (Telephone switching and signalling)	Geneva
12-20 February	Plan Committee for Africa	Kinshasa
18-20 February	Joint Tariff Group for Africa	Kinshasa
20-26 February	SG XIII (Automatic and semi-automatic telephone networks)	Geneva
24-26 February	**Editing Group of JWP SMM	The Hague
10-14 March	WP III/2 (Data transmission tariffs on dedicated public networks)	Geneva
10-21 March	*Editing Group, Volume IV	Geneva
11-13 March	WP I/TGM (Telegram service)	Geneva
17-21 March	SG I (Telegraph operation and tariffs)	Geneva
1-10 April	SG V (Protection against dangers and disturbances of electromagnetic origin)	Geneva
7-9 April	Tariff Group for Latin America	Rio de Janeiro
11-15 April	JWP CDF (Protection against lightning)	Geneva
14-25 April	Various Working Parties of SG XV	Kyoto
29 April-2 May		
6-9 May		
17-23 April	JWP CNC (Digital paths over cable)	Kyoto
24-25 April	JWP SGO (Waveguide systems)	Kyoto
28 April,		
13, 14 and 16 May	SG Sp.D (Pulse code modulation)	Kyoto
29 April-12 May	Various Working Parties of SG Sp.D	Kyoto
5, 12 and 15 May	SG XV (Transmission systems)	Kyoto
14-15 April	JWP MAT (Automatic telegraph maintenance)	Geneva
16-18 April	SG VI (Protection and specifications of cable sheaths and poles)	Geneva
16-21 April	WP of SG X (Telegraph switching)	Geneva
22-25 April	WP of SG IX (Telegraph transmission quality)	Geneva
28 April-7 May	*Rapporteurs of SG XIV (telegraph transmission and equipment)	Geneva
28 April-9 May	Tariff Group for Europe and the Mediterranean Basin	Geneva
29 April-1 May	SG VIII (Telegraph apparatus, data terminal equipment)	Geneva
12-16 May	WP XI/3 (Programming languages)	Geneva

TABLE I (concluded)
List of meetings held in 1975

Date	Subject of the meeting	Place
20-27 May	SG Sp.A (Data transmission)	Geneva
26-30 May	WP II/5 (Human factors in international telephony)	Geneva
26-30 May	WP IV/4 (Stability of the international network)	Geneva
28 May-6 June	SG VII (New networks for data transmission)	Geneva
2-6 June	WP IV/3 (Sound programme and television circuits)	Geneva
2-6 June	*Restricted WP of GAS 5	Geneva
2-6 June	Laboratory WP of SG XII	Geneva
16-19 June	**WP IX/1 on Question 24/IX	Hauppauge
17-19 June	**Restricted WP of SG XIII on repeated attempts	Stockholm
30 June-2 July	WP of the Plan Committee for Latin America	Rio de Janeiro
30 June-8 July	WP III/1 (Lease of circuits) and ad hoc WP on Question 4/III (Lease of data transmission facilities)	Geneva
30 June-11 July	GAS 3 (Economic and technical comparison of transmission systems)—(final meeting)	Geneva
8-10 July	ITU/UPU JWP on money order telegrams	Geneva
9-10 July	Joint Tariff Group for Asia	Geneva
14-18 July	*GAS 3 Editing Group	Geneva
25 Aug.-5 Sept.	*Team of Specialists XI/3/2 (High-level programming language)	Geneva
1-10 September	WP XI/2 (Digital systems)	Geneva
4-5 September	*SG VII and XI experts on definitions	Geneva
4-12 September	WP XI/3 (Programming languages)	Geneva
11-12 September	Team of Experts (of SG VII, Sp.D and XI) on Common-Channel Signalling	Geneva
15-16 September	Meeting of the Chairmen and Vice-Chairmen of SG VII, X, XI and Sp.D	Geneva
15-19 September	*WP XI/1 (Interworking of signalling systems)	Geneva
16-18 September	**Meeting of the Chairmen of SG IV and its Working Parties	Copenhagen
16-19 September	*Group of Rapporteurs of SG VII on Question 1, point C	Geneva
17-18 September	*Meeting of Chairmen and Vice-Chairmen of SG Sp.D and JWP CNC (Digital paths over cable)	Geneva
17-18 September	*Meeting of the Chairman and Vice-Chairmen of SG VII and of WP Chairmen	Geneva
18-19 September	*Meeting of Chairmen and Vice-Chairmen of SG Sp.A	Geneva
19 September	Coordination Committee, Africa Plan	Geneva
22 September	Coordination Committee, Europe and the Mediterranean Basin Plan	Geneva
22-26 September	*WP of SG VII on Question 1/A	Geneva
23-24 September	WP of World Plan	Geneva
25 Sept.-2 Oct.	World Plan Committee	Geneva
29 Sept.-7 Oct.	WP XIII/2 (Network planning and traffic engineering)	Geneva
2-10 October	WP XIII/1 (Maintenance of switching and service quality)	Geneva
13-17 October	WP IV/5 (Maintenance of groups, supergroups, etc., and of new systems)	Geneva
13-17 October	WP I/TLX (Telex service)	Geneva
20-24 October	WP IV/1 (Maintenance of telephone-type circuits)	Geneva
20-24 October	WP I/TGM (Telegram service)	Geneva
27-31 October	JWP SMM (Maritime mobile service)	Geneva
27-31 October	Restricted WP of Special Rapporteurs of SG XII	Geneva
28-30 October	**Editing Group of WP XI/2 (Digital signalling systems)	Bruges
3-6 November	SG XVI (Telephone circuits)—(final meeting)	Geneva
4-5 November	*WP of SG Sp.C on reliability	Geneva
7-11 November	SG Sp.C (Noise)—(final meeting)	Geneva
10-21 November	*Editing Group, Volume IV	Geneva
17-21 November	*Rapporteurs of SG XIV	Geneva
18-20 November	*Restricted Group of GAS 3	Geneva
24-25 November	**Editing Group of WP XI/1 (Interworking)	Darmstadt
24-28 November	GAS 5 (Economic conditions and telecommunication development)—(final meeting)	Geneva
1-4 December	*Experts of Sub-Group XI/3-3 (Man-machine language)	Geneva

- Study Groups and Plan Committees and their Working Parties
- Joint Working Parties
- Special Autonomous Working Parties

[illegible]

TABLE II (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	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	Sp. A	Sp. C	Sp. D	World	Africa	Latin Am.											Europe	GAS 3	
	CDF	CNC	MAT	SGO	SMM	TAF	TAL	TAS	TEUR																										
Uganda																					x							x							2
Pakistan																				x															1
Paraguay																						x								x					2
Netherlands	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	29	
Philippines			x																	x		x								x					4
Poland (People's Rep. of)		x		x					x		x		x	x				x		x			x				x				x				11
Portugal													x			x				x															3
German Democratic Rep.					x	x	x				x		x							x			x	x								x			9
Roumania											x		x							x			x												4
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	x	x		x	x	x	x	32
Senegal											x									x	x														3
Sierra Leone																					x														1
Singapore																				x															1
Sweden	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	29
Switzerland	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
Tanzania																				x	x														3
Chad																				x	x														3
Czechoslovakia		x							x											x													x		5
Thailand																				x															1
Togo																				x	x														3
Tunisia					x	x														x	x			x									x		7
Turkey																				x													x		2
U.S.S.R.	x	x	x	x	x	x	x		x	x	x		x		x		x		x	x					x	x	x	x					x		21
Uruguay																																			1
Venezuela																																			2
Yugoslavia					x	x	x		x	x										x													x		8
Zaire																				x	x														3
Total	27	25	24	20	19	20	24	11	19	16	24	10	26	9	20	16	21	16	21	70	37	7	15	17	16	13	13	23	28	12	7	23	15	14	/

TABLE III
Participation by organizations and delegates in CCITT 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	World	Africa	Latin Am.	Europe												
	CDF	CNC	MAT	SGO	SMM	TAF	TAL	TAS	TEUR	GAS 3	GAS 5																								
Administrations	23	18	19	13	15	17	21	8	16	13	17	7	21	7	15	13	18	12	16	70	31	7	12	13	12	9	10	19	21	7	4	19	14	11	
Recognized private operating agencies	17	12	17	13	6	5	14	4	7	5	15	3	12	4	15	10	9	8	14	24	22	4	4	4	8	4	8	16	14	8	4	7	5	8	
Scientific or industrial organizations	2	5	7	10	14	11	27	8	22	8	30	3	15	20	19	7	28	15	21	4	4	—	—	11	16	5	14	1	—	—	—	—	12	10	
International organizations	3	—	7	—	2	2	4	—	—	—	1	—	1	1	—	—	4	—	—	3	2	—	—	—	—	—	—	2	1	1	—	—	—	—	
Total number of participants	210	86	176	196	62	57	168	23	74	42	323	28	206	68	379	52	117	69	284	356	134	13	21	43	86	31	74	137	60	31	11	61	58	58	
Contributions received	{ Regular Delayed	51	37	37	68	17	25	200	7	46	22	112	43	41	31	125	30	158	32	151	9	2	1	2	7	49	7	13	14	1	2	2	1	14	9
		26	25	—	—	—	—	129	1	16	16	153	1	38	—	23	11	55	19	49	8	18	10	2	—	12	—	7	24	—	—	—	—	15	—

5.4.3 *Results of the work of the CCITT Study Groups and the Plan Committees*

A summary of the main results obtained and the studies carried out in 1975 is given below.

5.4.3.1 *Telegraphy and data transmission*

A. Telegraph operation and tariffs

Working Party TGM of Study Group I (Telegraph operation and tariffs) concluded the revision of its basic texts on the telegram service (Recommendations F.1 and F.42) and prepared, inter alia, proposals for a new word count rule to be submitted to the VIth Plenary Assembly. In parallel to this work, a complete set of telegram instructions suitable for the operating services has been elaborated.

Working Party TLX finalized the new text of the general provisions for the international telex service and of the telex instructions. The new version of the Recommendation on charging and accounting in the international telex service is also available now for final approval.

After approval by the VIth Plenary Assembly of the texts mentioned, Study Group I will have disposed of the two specific tasks entrusted to it by Resolutions Nos. 1 and 3 of the World Administrative Telegraph and Telephone Conference (Geneva, 1972).

B. Maritime mobile service

Pursuant to Resolutions Mar2-22, Mar2-23 and Recommendations Mar2-18 and Mar2-19 of the World Maritime Administrative Radio Conference (Geneva, 1974) a Joint Working Party Maritime Mobile Service (JWP/SMM) of CCITT Study Groups I and II has been set up to study the operational and tariff aspects of the radiotelegram, radiotelex and radiotelephone service.

Joint Working Party SMM started its activity in 1975 and made good progress during the course of the year. It was able to draft a Recommendation on charging and accounting for the radiotelegram service and the manual radiotelex and radiotelephone service, and a further Recommendation on the operational provisions for radiotelegrams and for the manual, semi-automatic and fully-automatic radiotelex and radiotelephone service. These texts will be finalized at the final meeting of Joint Working Party SMM and subsequently submitted to the controlling Study Groups I and II.

C. Alphabetic telegraph and data apparatus

Study Group VIII's main activity was directed towards alignment of the Recommendations on data terminals with the amendments to the user classes of service as decided by Study Group VII. A further important subject was adoption of a conversion table between the International Telegraph Alphabet No. 2 and the International Alphabet No. 5 for data in order to enable on an international basis communication between the two kinds of terminals. The source of the draft table was ISO. It is also worth mentioning that study of standards on data display units was taken up with a view to the ever increasing use of such devices in telegraphy and data transmission.

D. Telegraph transmission

Study Group IX has two main tasks before it during the current Study Period i.e. the drafting of technical standards for a code and speed independent telegraph time division multiplexer and for a code-dependent TDM system. Work in Study Group IX towards standardization is progressing fast. A draft Recommendation on the code independent multiplex for application on 64 kbit/s bearers has been ap-

proved, its extension to use on lower bearer bit rates is proposed in order to establish a whole family of telegraph TDM equipment (main and sub-multiplexers). On the subject of a code-dependent multiplex in principal two conceptions have been submitted mainly differing in the synchronization procedure and a final choice will have to be taken at the 1976 final meeting of Study Group IX.

E. *Telegraph switching*

Study Group X continued its study of expanding Recommendation V.11 (automatic calling/answering on the telex network) to include keyboard dialling and to possibly simplify the interface in aligning it with data network interfaces (i.e. Recommendation X.20). Further ameliorations were put to the new telex signalling system type D (Recommendation U.12) and new investigations were started into new services and facilities now available with this new system or by expanding existing systems.

F. *Facsimile telegraphy*

Work was carried on in Special Rapporteur Groups of Study Group XIV which studied 3-minute and 1-minute document facsimile machines as well as procedures for automatic calling/answering of facsimile calls on the switched network.

G. *Data transmission over dedicated data networks*

Study Group VII continued its studies and much effort was devoted to facilitate interworking between the four principal network designs which, in the domain of signalling, led to commonality approaches between the circuit switched systems and which also permitted developing of a general purpose common channel signalling system which can be used by the various services such as telephony, data, telex, etc.

As to the user facilities, it was agreed that there should be a common set of generally available facilities regardless of the kind of network to be used but that there might be additional facilities which can only be provided by certain, more complex systems. In order to offer public data network service also to terminal equipment which is designed to draft work over the switched telephone network (via V-series interfaces), special provisions have been elaborated (Recommendations X.20bis, X.21bis).

Studies in the field of packet-switched networks led to a new draft Recommendation on a DTE/DCE interface for this service. As a next step, the international interface (packet transfer control principles, signalling) will have to be defined.

H. *Data transmission over analogue circuits*

Special Study Group A, after careful consideration of all submitted proposals, was able to take a decision on the modulation scheme to be chosen for a 9 600 bit/s modem on leased telephone-type circuits and the complete text of a Recommendation is now available. Work on a parallel data transmission system using the push-button telephone signalling frequencies and on modems for transmission of medical data have advanced to a stage where final texts can be expected for the last meeting of Special A during this Study Period. At this final meeting, a decision by Special A is also to be expected on a 4 800 bit/s modem for use over the switched telephone network.

In the field of maintenance methods, a draft Recommendation on loop test devices for modems is now available for final approval.

5.4.3.2 *Telephone transmission*

A. *Transmission systems*

Study Group XV (Transmission systems) and most of its Working Parties met in Kyoto. The Recommendations relating to 2.6/9.5 mm coaxial pairs and to 60 MHz systems were supplemented. Noise objectives and permissible values for carrier leaks in modulation equipment were revised. A new Recommendation relating to submarine cables was proposed.

The Study Group approved the reports of Joint Working Parties CNC (see point B) and SGO (waveguide systems). Working Party SGO proposed a Recommendation on waveguide sizes for long-distance transmission and a detailed study programme on these waveguides and optical fibres.

Study Group XV also examined matters relating to sound programme transmission, the visual telephone service, the reliability and availability of transmission systems, echo suppressors, regulators and various transmission equipments.

B. *Digital transmission*

Joint Working Party CNC (Digital paths over cable) also met in Kyoto. It proposed draft Recommendations on a new type of coaxial pair cable (0.7/2.9 mm), the use of existing coaxial pairs (1.2/4.4 and 2.6/9.5 mm) for digital transmission, symmetric cable pairs and an 8 448 kbit/s cable system.

Special Study Group D (Pulse code modulation) likewise met in Kyoto and approved the reports of Joint Working Parties CNC and SGO (see point A). It also prepared draft Recommendations relating to hypothetical reference connections and hypothetical reference digital paths, interfaces, network synchronisation, various multiplexing equipments and their hierarchy.

It studied various matters relating to digital systems, including:

- quality objectives (particularly admissible error rates),
- maintenance principles,
- use of radio-relay systems and satellites for digital transmission,
- digital coding of wideband signals.

C. *Telephone transmission quality*

The Laboratory Working Party of Study Group XII (Telephone transmission quality and local telephone networks) drew up the programme of general tests to be used for defining and measuring telephone transmission quality and to be conducted by the CCITT Laboratory in the second half of 1975 and the beginning of 1976.

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.

Study Group XII will hold its final meeting in March 1976; its main task will be to study new test methods to replace the reference equivalent method, basing itself on the most recent results of the general tests mentioned above. A Working Party met in 1975 in order to ensure further progress in the study of all the other matters to be dealt with by the Study Group. This Working Party prepared draft Recommendations relating to reference equivalents, crosstalk and subscriber reaction in the presence of echoes. It examined problems concerning in particular the limits for circuit noise and attenuation distortion, subscribers' equipment and digital transmission quality.

D. *Telephone circuits*

Study Group XVI (Telephone circuits), during its final meeting, submitted an amendment to the existing Recommendation relating to instructions for using echo suppressors (based on the studies relating to subscriber reaction mentioned in point C). It began to prepare a revision of the Recommendations relating to circuit noise and other causes of deterioration in transmission quality, in order to make a clear distinction between system and equipment design objectives, on the one hand, and network and circuit performance objectives, on the other.

E. *Circuit noise and reliability*

At its final meeting Joint Special Study Group C approved a general report on the studies relating to reliability and availability now being conducted by the CCITT and the CCIR. It also examined the loading of carrier systems and various questions relating to circuit noise.

F. *Economic and technical comparison of transmission systems*

At its final meeting, GAS 3 approved with some amendments the draft texts prepared by its Editorial Group in order to supplement and update the handbook entitled "Economic and technical aspects of the choice of transmission systems". The new or amended texts relate particularly to PCM systems and to domestic or regional communication-satellite systems.

After consultation with administrations, the terms of reference of GAS 3 were broadened to include two new tasks:

- updating of the handbook on local networks, particularly the chapters on network planning;
- preparation of a handbook on rural telecommunications.

GAS 3 set up two editorial groups and gave them guidelines so that this work could be started without delay.

5.4.3.3 *Switching and automatic international telephone network*

In 1975, parallel meetings were held of Working Parties of Study Groups XI and XIII covering related fields of study, their dates having been adjusted accordingly in order to facilitate travel, particularly for delegations from countries outside Europe, and to reduce interpretation expenses to a strict minimum.

At the end of 1975, most of the studies conducted by the two Study Groups were successfully completed and will enable draft Recommendations to be adopted at their final meetings in 1976.

The work accomplished may be summarized as follows:

A. *Telephone switching and signalling*

Study Group XI defined:

- the interworking specifications of standardized signalling systems;
- the digital versions of systems Nos. 6, R1 and R2;
- the principles governing the preparation of functional specifications for SPC exchanges, high-level programming language for these exchanges and man/machine language;

The guidelines for the study of common channel signalling for integrated networks were agreed by Study Groups XI, VII and Sp.D, since this signalling is intended to be used not only for integrated services but also for telephony and data transmission, which are considered to be special “ users ”.

B. *Automatic and semi-automatic telephone networks*

In Study Group XIII:

- the Recommendations concerning switching and transmission maintenance were completely revised;
- an ever-increasing number of observations (dealt with centrally by the CCITT Secretariat) of service quality on automatic and semi-automatic international relations were carried out;
- the broad lines of numbering plan for the interconnection of the maritime mobile service with the automatic international telephone network were established;
- further studies were carried out on repeat calls, a delicate and difficult question of vital importance for service quality;
- provisional standards were laid down for internal blocking characteristics in a digital exchange.

5.4.3.4 *Operation and tariffs — Economic studies*

A. *Telephone operation and tariffs*

In addition to the “ Maritime Service ” Joint Working Party of Study Groups I and II (see 5.4.3.1 B above), two Working Parties of Study Group II met. They defined:

- principles for applying the flat-rate price procedure for accounts between administrations;
- procedures for the exchange by administrations of monthly international accounting information in encoded form.

They drew up:

- a draft Recommendation entitled “ Pictograms and symbols for users ”;
- a draft Recommendation entitled “ Subscriber control procedures for supplementary telephone services ”.

B. *General tariff principles and costs*

a) During their meetings the two Working Parties of Study Group III drew up:

- a draft Recommendation entitled “ Tariff principles for data transmission on public networks ”;
- a revision of basic Recommendation D.1 entitled “ Lease of private use international circuits ”.

b) Two Regional Tariff Groups, TAL (Latin America) and TEUREM (Europe and the Mediterranean Basin), held meetings in Rio de Janeiro and Geneva and drafted respectively 2 and 5 draft Regional Tariff Recommendations (Recommendations of Series D...R).

C. *Economic studies and telecommunication development*

In November 1975, Special Autonomous Working Party No. 5 (GAS 5) definitively approved the Chapters of the Handbook entitled “Telecommunication-Economic Studies” which will be published in 1976. The final version of these texts was established during a restricted meeting of the “authors” in June 1975.

5.4.3.5 *Transmission maintenance*

No new studies were begun during this year by Study Group IV but existing studies were pushed towards a successful conclusion. In particular, studies tended towards simplifying the procedures for setting-up long circuits and for fault location and fault clearance on such circuits. The very successful collaboration established by an ad hoc Joint Working Party of Study Group IV and Study Group XII was continued. New draft recommendations have been drawn up concerning maintenance centres dealing with transmission and signalling maintenance. Certain maintenance procedures for circuits passing via communications satellites (which are owned and operated by organizations other than PTT Administrations or recognized private operating agencies) have been clarified. Basic specification clauses have been established in the sphere of measurement equipment for group delay distortion measurement, automatic measurements on monophonic and stereophonic programme circuits.

Analysis by the Special Rapporteur designated by the French Administration has been continued in respect of measurement results on circuits in the international network. The CNET computer is specially programmed for this work.

Plans have been established for tests of short interruptions on international circuits using measurement equipment standardized by the Study Group IV. Interested Study Groups have been asked to specify the significant limits for level changes and the duration of such changes in level for circuits in the international network.

Various proposals are in hand for modifying the wording of existing questions to enable studies to be directed to new, important aspects during the next study period.

An Editing Group is used to draw up the revised form of Volume IV of the CCITT Book to be published after the Plenary Assembly.

Study Group IV is one which has a close relationship with the activities of the European Broadcasting Union.

5.4.3.6 *Protection*

A. *Protection against dangers and interference of electro magnetic origin*

Texts of Study Group V on the following subjects, for publication, are now near their final form:

a) *Handbook on earthing*

Although in principle several CCITT Study Groups should be concerned with earthing (grounding) methods, the work on this handbook has been done by the members of Study Group V, using a certain amount of basic information originally collected by Study Group IV. The text of the handbook appears to be now ready for publication, and it may happen that once published, other study groups may realize that they have special interests that might be covered in a future edition.

b) *Chapters 6-8 of the handbook on lightning*

c) Text for a new Recommendation K. 17 (Test on power-fed transistorized repeaters for checking the arrangements for protection from external interference)

B. Protection and specifications of cable sheaths and poles

The work of Study Group VI has mainly been concentrated on:

a) Draft of a Handbook on the jointing of plastic sheathed cables

The increasing use of such cables involves new jointing processes which are continually being developed and the Study Group has not seen fit to recommend a particular process at this stage but has preferred to give short descriptions of processes having similar characteristics as used in various countries. Interested administrations are left free to approach the countries concerned for a more detailed description of individual processes.

b) Modifications to the Handbook on the pressurization of cables

The Handbook was first published in 1969. A text giving a more comprehensive description of the flow of gas in cables has been drawn up.

c) New and amended pages for the “ Recommendations ”

The “ Recommendations concerning the construction, installation and protection of telecommunication cables in public networks ” are under continuous review, in order to keep them up to date. New texts have been drawn up.

d) Continued study of aluminium used for cables sheaths and conductors and the jointing of such cables

e) Continued study of cathodic protection and the voltage criterion for the application of such protection

Cathodic protection may be applied in joint protection schemes involving the pipes and conduits of authorities other than those for telecommunications. The development of such schemes is to the advantage of all concerned, but the expense of installation must be justified by a knowledge of the risk of corrosion danger involved. A criterion based on the voltage difference between the various structures has been under study for many years and the provisional value adopted remains under continuous review.

f) Termination of study of alternating current corrosion and establishment of draft Recommendations

Study Group VI has now concluded that corrosion can be caused by alternating current alone. The effect, however, is slight and the text of a Recommendation has been drawn up to bring the study of the question to a conclusion.

5.4.3.7 Means of expression

Due to lack of staff in the Department in charge of these questions, no member of the CCITT Secretariat was able to be present as an observer in the activities of the Joint CCIR/CCITT CMV Study Group on Vocabulary nor in the Joint IEC/CCI Symbols group. However, work on means of expression has been carried out by representatives of the CCITT designated by administrations.

5.4.3.8 *Activities of the Plan Committees in 1975*

In 1975, meetings were held by the Regional Plan Committee for Africa (Kinshasa, 12-20 February) and the World Plan Committee (Geneva, 25 September-2 October). The Coordination Committees of the Africa Plan and the Europe and Mediterranean Basin Plan, as well as the Working Party of the World Plan Committee, held short meetings immediately before the meeting of the World Plan Committee. At the end of June 1975, the Coordination Committee of the Latin America Plan met briefly at Rio de Janeiro.

A. *Regional Plan Committee for Africa*

During its meeting, the Regional Committee noted with interest the documents submitted by 17 administrations of the Region (out of 26 represented) on the development of national and regional telecommunication networks. In view of the decisions on the future orientation of the Regional Committee's activities, this type of information exchange will be continued and the Coordination Committee of the Plan Committee for Africa will use it as a basis for determining the main points of regional interest requiring further discussion by the Regional Committee.

Seventy per cent of the Administrations of the Region completed the Plan Questionnaire; most of the answers were finalized in bilateral talks during the meeting period outside working hours.

Matters relating to the Committee's terms of reference and the participation of all ITU permanent organs in its work were raised during the Kinshasa meeting. The Committee adopted Resolutions for submission to the Administrative Council which were discussed at the latter's 30th Session.

At its meeting in Geneva (19 September 1975), the Coordination Committee of the Plan for Africa adopted a Recommendation on the choice of signalling systems for the African networks and took note of the Council's discussions on the Kinshasa Resolutions and the outlook for the PANAFTEL project.

B. *Coordination Committee of the Plan for Latin America*

At its meeting at Rio de Janeiro, the Coordination Committee carried out an overall analysis of the answers given to the Plan Questionnaire for the Region and made some improvements in the Guide and the Questionnaire. It also drew up a draft agenda for the next meeting of the Plan Committee for Latin America; it is suggested that this meeting be held in 1977 in Peru.

C. *Coordination Committee of the Plan for Europe and the Mediterranean Basin*

At its meeting (22 September 1975), the Coordination Committee made the necessary arrangements for implementing the decisions taken by the Regional Plan Committee at its meeting in Leon (Spain) in 1974. It established the outline of the synoptic documents on planning trends and submitted a question to the CCITT on the use of the R2 Signalling System.

D. *World Plan Committee*

The Working Party of this Committee drew up a report for the attention of the Committee on the publication of Plan data and amended the Guide and the Questionnaire.

At the meeting held in Geneva from 25 September to 2 October 1975, the World Plan Committee, in accordance with the request by the Administrative Council, devoted most of its time to examining the documents on the terms of reference and the organization of meetings of the Plan Committees and to considering the action to be taken.

These discussions formed the subject of a special report by the Director of the CCITT to the Administrative Council.

In addition, the Committee noted that a large number of answers were received to the World Plan Questionnaire and dealt with requests for the allocation of country telephone codes and telex destination codes. Finally, it submitted questions to the relevant CCITT Study Groups on matters relating to planning (numbering for the international telephone service; international telephone routing plan).

5.4.4 *Other aspects of CCITT Secretariat activity*

5.4.4.1 *Technical editing*

The Technical Editorial Division, which the 29th Session of the Administrative Council decided to set up in the CCITT (following the example of the CCIR), began to function on 1 June 1975, although it is not yet fully staffed.

Its first task was to determine its working methods and orientation, making use of the several years of experience acquired in this field in the CCIR.

Its objectives are:

- to check and to ensure the consistency of the technical terminology used in CCITT documents, books and handbooks;
- on the basis of translations by the language service, to establish the technical alignment and concordance of texts in the three working languages of the Union;
- to improve in this way the technical quality of CCITT publications and at the same time to reduce the time required for publication.

It was necessary to establish new working relations with the CCITT technical departments as well as with the common services (translation, typing, production) of the General Secretariat.

A number of CCITT Study Group reports and handbooks to be published were revised technically in 1975. The 1976 work programme was coordinated with the schedule of final Study Group meetings and the VIth Plenary Assembly in order to hasten the subsequent publication of the CCITT Book.

5.4.4.2 *Use of the ITU computer*

As in 1974, the ITU computer was used for processing and printing the data on traffic and circuits supplied by administrations in reply to the Plan Questionnaires and published in the Plan Books. However, the entire first part of these Books (arteries, numbering plans, leased services) still has to be dealt with manually.

The Plan Books for Asia and Oceania, for Europe and the Mediterranean Basin and for Africa were thus published in 1975. The Supplement to the Plan for Latin America and the World Plan Book were prepared for publication at the beginning of 1976.

5.4.4.3 *Technical Cooperation*

As in the past, the CCITT Secretariat continued to cooperate closely with the Technical Cooperation Department both in the selection of experts and in the purchase of technical equipment for ITU/UNDP telecommunication projects. It also made recommendations for the fellowship programmes.

In view of its effectiveness, the Technical Cooperation Department is continuing its practice of consulting the CCITT technical departments frequently on matters involving the application of certain CCITT Recommendations to ITU telecommunication projects. For this purpose, the Group of Technical Cooperation Engineers in the General Secretariat remains in direct and permanent liaison with the CCITT technical departments.

In addition, CCITT engineers read papers at seminars organized by the Technical Cooperation Department (Yaoundé, May-June: international tariffs and R2 Signalling in Africa) or participated in conferences (Kinshasa Intergovernmental Conference in December); they also carried out one-man missions in connection with special Technical Cooperation projects (New York: project concerning a message switching centre for Mongolia).

Finally, the CCITT Handbooks (particularly those of GAS 3 and GAS 5) constitute a significant and effective contribution by the CCITT to ITU technical assistance.

5.4.4.4 *Cooperation with the CCIR*

The constant development of new terminology in certain fields, particularly in data transmission is such that cooperation between the CCITT and the CCIR in the Joint Study Group on Vocabulary (CMV) is increasingly important.

Special Study Group C and GAS 3, managed by the CCITT, are joint groups which work for both the CCITT and the CCIR.

Study Group XVI and a Working Party of Study Group XII participated in the study of transmission characteristics carried out by CCIR Study Group 8 in connection with a communication-satellite system for the maritime service.

5.4.4.5 *Cooperation with other international organizations*

Everyone recognizes that the scope of application of Recommendation A.12 of the CCITT Vth Plenary Assembly (Collaboration with the International Electrotechnical Commission on the subject of definitions for telecommunications) should be extended to include the ISO, which also actively prepares definitions on data transmission.

In the field of telegraphy, the excellent cooperation carried on with UPU led to the preparation of draft regulations on the money order telegram service which satisfy both organizations; this question peculiar to the UPU and the CCITT can therefore be regarded as settled.

The traditionally excellent cooperation between the CCITT and the ISO on the study of data transmission continues to produce good results and the participation of the ISO in CCITT meetings in order to represent users has proved most useful.

In addition to meetings of the IEC, ISO and UPU, CCITT Secretariat engineers attended meetings of various organizations in 1975 — CEPT, FASE (Federation of European Acoustic Societies), IEE, IMCO, WMO, EBU — when they discussed problems related to those of the CCITT or of interest to the CCITT.

6. TECHNICAL COOPERATION ACTIVITIES

6.1 *General features of activities in 1975*

In 1975, as in past years, the Union's technical cooperation activities were in conformity with the provisions of Article 4, point 19, of the International Telecommunication Convention (Malaga-Torremolinos, 1973). To this end, the Union continued to: " Foster the creation, development and improvement of telecommunication equipment and networks in 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 1975 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, Asia, the Pacific and the Middle East

The Union continued its efforts to promote the development of telecommunication networks in Africa, the Americas, Asia, the Pacific and the Middle East with a view to their integration into the worldwide 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 1975, the Union intensified its efforts towards the coordination of the implementation of Pan African Telecommunication Network (PANAFTEL). The main event in this connection was the Second Conference of African Telecommunication Administrations, held in Kinshasa (Zaire) from 3 to 16 December 1975. This Conference brought together representatives of 41 countries in Africa, the Organization for African Unity (OAU), the Economic Commission for Africa (ECA) and the African Development Bank (ADB).

The Conference fully supported the continuous efforts made by the Union to encourage sub-regional and continental coordination in order to consider all technical, administrative and financial issues relating to the implementation of PANAFTEL as a fully integrated network. Recommendations were therefore made for the adoption of policies to facilitate the coordination, planning and programming of the realization of the regional network, the extension of UNDP preliminary assistance, initially provided by only two experts during 1975 and for an increase in the number of regional advisers.

The Union undertook additional pre-investment surveys for subregional links. These surveys were carried out by an engineering consultant firm in six countries of East and Central Africa during 1975 (Kenya, Malawi, Somalia, Tanzania, Zaire, Zambia).

Great interest was shown in the mission of the regional expert on radio monitoring and frequency management who gave valuable assistance to nine countries during 1975 (Cameroon, Central African Republic, Gabon, Kenya, Madagascar, Mauritius, Senegal, Sudan, Tanzania).

In the field of maritime radiocommunications, two experts visited some 18 seaboard countries, carried out a detailed survey of existing facilities and provided assistance for improvement in construction operations and coordination.

Special assistance was also given by the Union to several countries in identifying their frequency requirements for submission to the 1975 Regional Administrative LF/MF Broadcasting Conference.

ii) IN THE AMERICAS

During 1975, the Union's experts collaborated with the Telecommunication Commission for Central America (COMTELCA) and individual countries to enlarge the regional network and expand national and international services. The Central American Telecommunication Institute (INCATEL) continued to contribute considerably to the training requirements of the participating countries.

In the Caribbean, the continuation, until 1978, of multinational assistance in Tariffs and Regulations of the international services to a majority of member countries of the Caribbean Community (CARICOM) was assured by the approval of a new regional project for this purpose.

Several ITU experts, including regional experts, assisted in the achievement of an Inter-American Telecommunication Network by collaborating in the expansion of national networks or the establishment of new services. It is worth mentioning that, in addition to a terrestrial microwave network, a new earth station for satellite communications will be installed in the near future. This means that almost all the countries of the Caribbean area have, or will have, direct access to a satellite system.

Also in 1975, the implementation of a new regional project concerning the collection of data on soil conductivity and radioelectric noise commenced. A regional seminar was held on this subject in Lima in October within the framework of this project during which 36 participants representing 20 countries agreed to adopt common procedures for the measurements to be performed and for the establishment of a work plan for the campaign to be conducted as from 1976.

iii) IN ASIA

During 1975, considerable progress was made in the implementation of the Asian Telecommunication Network, assisted by the team of regional experts stationed in Bangkok. Two meetings of the national coordinators and one special meeting were held during the year. These meetings and studies in depth, with the help of national staff, have been effective in dealing not only with technical inputs but also with questions of technical coordination, resources and schedules.

A survey was carried out for the Afghanistan part of the microwave route, connecting Kabul with Teheran, via Herat and Tayyebad. The survey team consisted of trainees from the Telecommunication Training Centre, Kabul, an ITU expert and two bilateral experts, made available by the Japanese Government.

Further assistance was provided for the implementation of the Asian Telecommunication Network by the provision of survey equipment, under the UNDP/ITU project, valued at US\$ 25,000. Activities comprised site surveys, assistance in drawing up specifications, acceptance testing, multiplex plans, tower foundation designs and training of maintenance personnel.

Initial steps were taken to establish a UNDP/ITU project to assist in preliminary surveys, path testing and pilot operation regarding the feasibility of establishing a troposcatter link between Jalalabad,

Afghanistan and Dalhousie, India. This link would serve as a secondary route between the two countries and thus would form part of the Asian network.

A regional project on frequency management and monitoring was started in Singapore in 1974. The preparatory phase of the project was over in 1975. A large number of countries of the region have shown interest in participating in the full project, which is scheduled to start in 1977.

iv) IN THE PACIFIC

A project for the Feasibility Study of the Telecommunication Network in the South Pacific, interrupted for about a year due to the sudden demise of the expert, was resumed in September 1975 with the posting of the new expert. This study was expected to last until the end of 1978.

A regional expert in maritime telecommunication has been assigned to the South Pacific Region, and his recommendations for improving the maritime telecommunication services and coordinating the operation thereof are expected to be extremely useful to this region, which is vitally dependent on maritime operations.

A regional training centre for the South Pacific countries is under establishment in Fiji. Considerable bilateral inputs from Australia and New Zealand have been contributed for this project. The Commonwealth Fund for Technical Cooperation is expected to contribute a substantial amount of fellowship content to the project.

v) IN THE MIDDLE EAST

During 1975, work was continued on the Feasibility Study/Pre-investment Survey for the Middle East Telecommunication Network (comprising all the Arab League Member countries as well as Bulgaria, Cyprus, Spain, Ethiopia, Greece, Malta, Turkey, Yugoslavia) and the first preliminary phase was completed in July 1975 when a meeting of all the interested countries was held in Algiers in order to agree to the report on a master plan for the telecommunication network in the region. From 1 August 1975 the second phase of the study has been in progress and this will include more detailed studies of certain links and will provide technical documentation and specifications giving sufficient information to enable governments to identify the investments required for provision of the services concerned.

A mention should also be made of a small-scale UNDP/ITU inter-regional project on maritime radiocommunications which complemented the Union's activities in this field in Africa and the Pacific by collecting data on existing facilities in other geographical regions.

In 1975, 43 experts missions were carried out in connection with the promotion of development of telecommunication networks in Africa, the Americas, Asia and the Pacific, and the Middle East.

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. The projects with such objectives covered practically all branches of telecommunications and included, in addition to expertise, substantial amounts for fellowships and equipment.

The following are selected examples of projects falling within this specific category:

- Establishment of planning units (Nigeria, Senegal, Sierra Leone, Tchad): this involved actual planning and development of long-term strategy as well as carrying out of specific short and medium term plans complemented with technical specifications whenever appropriate. At the

same time assistance was given to establish planning units in the administrations and train national staff, abroad and on site, to follow-up activities started with external assistance. The contribution made by ITU was so appreciated that the Kinshasa Conference requested that similar assistance be provided to more countries;

- Maintenance organization and training which included assistance in the upgrading and improvement of the Cairo network, assistance in the maintenance of the newly completed country-wide network, coupled with on-the-job training for national staff in Somalia, and the establishment of a test, development and maintenance centre in the Sudan;
- The provision of management consultancy services in the reorganization of financial and accounting procedures of the Zambian Administration which converted its status into a Government corporation;
- Planning of national telecommunication development in Nigeria, involving the work of eight experts and of one sub-contractor;
- Development of rural telecommunications in Argentina and Ecuador;
- Research and development in the field of telecommunications in Brazil;
- Assistance to the experimental satellite communication earth station in India;
- Planning, programming and introduction of new techniques in Saudi Arabia and Kuwait; and
- Telecommunication feasibility study in the Yemen Arab Republic.

In 1975, 157 expert missions were devoted to this type of activity. The experts concerned acted as advisers or OPAS officials. These latter held operational and executive posts, such as: Director of Posts, Telecommunications and Civil Aviation, Financial Controller, Telephone Manager, Telecommunications Controller, Staff Engineer, Training Manager, Operations and Maintenance Engineer, Traffic Superintendent and Senior Telecommunications Engineer.

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 cooperation 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 consisted in establishing and/or improving national and multinational 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 aim was to meet immediate requirements in specialized staff and to cover new services and techniques introduced by the countries concerned. In more advanced environments training activities centred around new technologies, recent system developments and possible new services based thereon.

The Union acted as Executing Agency for important training projects in:

AFRICA

Country projects: Algeria, Cameroon, Egypt, Nigeria, Somalia, Zambia. (In addition preparatory activities were carried out for training projects in Guinea, Morocco, Tunisia)

Multinational projects: Kenya (East African Community: Kenya, Uganda, Tanzania). *Malawi* (Botswana, Lesotho, Malawi, Swaziland). The Kenya and Malawi multinational projects also comprise national schools in the countries listed in brackets. Specialized courses of the Kenya project were also attended by students from other Eastern and Southern African countries. *Senegal* (Benin, Ivory Coast, Guinea, Upper Volta, Mali, Mauritania, Niger, Senegal, Togo). Other French-speaking countries in Central Africa also sent trainees for some courses.

AMERICAS

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

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

ASIA AND PACIFIC

Country projects: Afghanistan, India, Indonesia, Iran, Laos, Mongolia, Nepal, Pakistan, Singapore, Sri Lanka, Viet-Nam

Multinational projects: Fiji (South Pacific territories)

MIDDLE EAST

Country projects: Saudi Arabia, Iraq, Jordan, Kuwait, Lebanon.

All the above projects were financed by the UNDP with the exception of that in Kuwait which was implemented on the basis of a Funds-in-Trust arrangement, signed by the Union with the authorities of that country. It is to be noted that the project in the Lebanon was sub-contracted.

Furthermore, there were several small training projects providing for one to two experts or instructors who assisted with the development or activities of national training schools (Netherlands Antilles, Bangladesh, Colombia, Costa Rica, Guyana, Libya, Mauritania, Mexico, Nicaragua, Papua New Guinea, Somalia, Chad, Uruguay).

Sixty-two per cent (327) of all the expert missions in 1975 (526), 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 63% in Africa, 62% in the Americas, 71% in Asia and the Pacific and 48% in the Middle East, and 75% in inter-regional activities.

Another significant point to be mentioned in respect of the development of human resources in the field of telecommunication is the commencement of operation of the UNDP/ITU inter-regional project on curriculum development, in the field of telecommunications. The project provides for five specialists and the participation of training institutions/centres in Algiers, Caracas, Dakar, Nairobi, San Salvador, Singapore, Yaounde.

In June 1975, the ITU in collaboration with the Arab States Broadcasting Union, organized a three-weeks course in measuring and evaluating ground conductivity and sky wave propagation. The course which was funded under UNDP Project REM/72/038, was attended by 31 participants from 11 countries in the region.

The Union also organized four seminars in the course of the year (see Section 6.4.6).

6.2 Quantitative appraisal of 1975 achievements

A significant aspect of the Union's activities in the field of technical cooperation in 1975 was further growth in the volume of aid rendered to developing countries. This is evidenced by the following figures:

- a) 526 expert missions were carried out, against 385 in 1974 (these figures include associate expert assignments);
- b) 666 fellows (including 180 participants in short-term group training) underwent training abroad, against 683 in 1974;
- c) 245 projects were assigned to the Union against 270 in 1974;
- d) US\$3,959,865 worth of equipment was delivered to various field projects against US\$2,765,318 in 1974;
- e) 19 projects were being implemented, partially or entirely, under sub-contracts, against 11 in 1974.

The total expenditure for project implementation amounted to US\$18,837,775 against US\$12,688,512 in 1974 (an increase of 48.5%) and was the highest attained so far in any one year.

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

Africa	US\$ 6,092,580 (32%)	against US\$ 4,311,811 (34%) in 1974
Americas	US\$ 4,516,860 (24%)	against US\$ 2,785,403 (22%) in 1974
Asia and Pacific	US\$ 4,786,189 (25%)	} against US\$ 5,516,787 (43%) in 1974
Europe and Middle East	US\$ 3,295,147 (18%)	
Inter-regional	US\$ 146,999 (1%)	against US\$ 74,511 (1%) in 1974
Total	US\$ 18,837,775	US\$ 12,688,512

The US\$18,837,775 field expenditure for 1975 broken down by project component and by region is as follows:

Project component	Africa	Americas	Asia & Pacific	Europe & Middle East	Inter-regional	Total
Experts and associate experts	3,613,873	2,898,452	3,148,992	2,188,233	112,000	11,961,550
Administrative support personnel	115,004	56,807	92,659	93,102	6,896	364,468
Sub-contracts	789,855	—	52,030	95,164	6,000	943,049
Fellowships	373,125	198,750	167,475	110,679	—	850,029
Group training	266,112	49,110	49,863	35,534	16,644	417,263
Equipment	844,814	1,254,903	1,192,798	666,454	896	3,959,865
Miscellaneous	89,797	58,838	82,372	105,981	4,563	341,551
Total	6,092,580	4,516,860	4,786,189	3,295,147	146,999	18,837,775 ¹

¹ This amount does not include the sum of US\$100,000 spent from the ordinary budget within the framework of Resolution No. 17 (Malaga-Torremolinos, 1973).

6.3 Financial resources

In providing technical assistance to developing countries, the Union remained fully dependent on external financial resources. Complementary work was rendered by the group of engineers (item 6.7) and the contributions were made by the specialized secretariats of the CCIR, the CCITT and the IFRB. Thus, in 1975, US\$16,604,528 (88.5%) of the total value (US\$18,837,775) of assistance rendered to developing countries, was financed by the United Nations Development Programme (UNDP), while the remainder (US\$2,233,247) came from other sources (Funds-in-Trust and associate expert arrangements).

The table below shows the source of financing in 1975, classified by region:

Programmes	Africa	Americas	Asia and Pacific	Europe and Middle East	Inter-regional	Total
UNDP	5,195,863	4,205,989	4,457,544	2,598,133	146,999	16,604,528
Funds-in-Trust	379,290	75,206	—	643,361	—	1,097,857
Associate experts	418,349	148,038	292,806	53,653	—	912,846
Other programmes	99,078	87,627	35,839	—	—	222,544
Total	6,092,580	4,516,860	4,786,189	3,295,147	146,999	18,837,775

6.3.1 United Nations Development Programme (UNDP)

In 1975, 228 projects were assigned to the Union by the UNDP, 195 of which were country projects (63 in Africa, 49 in the Americas, 42 in Asia and the Pacific and 41 in Europe and the Middle East), the remaining 33 consisting of 31 regional/multinational projects (15 in Africa, 6 in the Americas, 6 in Asia and the Pacific and 4 in Europe and the Middle East) and 2 inter-regional projects. During the year under report, the UNDP gave formal authorization to the Union to commence operations on 49 new projects. During the same period, 43 projects were completed.

Out of 228 UNDP/ITU projects, 23 required major contributions by the governments concerned, and the UNDP. Twenty of these 23 projects were in the training sphere, the remainder concerned two network planning projects and an experimental earth station project.

Furthermore, the UNDP provided funds for the organization of two regional seminars and financed the services of nine regional experts (three in Africa, two in the Americas and four in Asia and the Pacific).

It should be noted that there was remarkable development in the UNDP/ITU technical assistance activities of regional (sub-regional/multinational) character. Thus, one inter-regional and 26 regional projects were operational in 1975. The total input under these projects amounted to US\$3,406,415, which represents 20.5 per cent of the ITU total UNDP field expenditure in 1975, an increase of 39 per cent over 1974.

Ninety UNDP/ITU projects operational in 1975 were small-scale projects (involving UNDP expenditure up to US\$100,000 for the whole duration of the project).

There were 33 projects with UNDP allocations exceeding US\$500,000.

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

In 1975, the Union continued its collaboration with other UNDP Executing Agencies on the implementation of UNDP-assisted projects, as follows:

- on the basis of agreements with the Universal Postal Union (UPU), the UPU was associated with the ITU, for the postal section, in execution of the following projects for which the ITU is the Executing Agency:
Training Centres in Afghanistan, Cameroon, Kenya, Malawi and Zambia. The ITU was associated with an advisory services project in Venezuela for which the UPU is Executing Agency (ITU assistance within the latter project amounted to US\$87,627)
- the Union was associated with the United Nations Trust Fund for Sudano Sahelian Activity (UNSO) during 1975, and undertook preparatory activity for the missions of two specialists early in 1976 (total expenditure for the Union's participation amounted to US\$1,595).

In 1973/1974, the Union identified the needs for assistance in telecommunications in several of the 29 least-developed countries. The assistance provided by the Union (under the UNDP Special Fund for the Least-Developed Countries) during the year under report was as follows:

- the services of an expert for 12 months to act as adviser to the Director of Posts and Telecommunications in Botswana. This project is scheduled to continue for a further period in 1976, see also section 6.8.

6.3.2 *Funds-in-Trust*

Under the Funds-in-Trust arrangements between the Union and each of the following countries: Saudia Arabia, Costa Rica, Jamaica, Kuwait, Lesotho, Libya, Somalia, Surinam, Zaire and Zambia, assistance was provided to these countries in the form of 33 expert missions and 4 fellowships. Five experts were also provided under UNDP/SIDA/FT projects in Lesotho and Swaziland. The total cost of the Funds-in-Trust project amounted to US\$1,097,857.

6.3.3 *Associate expert scheme*

The costs of the 57 associate expert missions were borne by the donor countries, i.e.,

Germany (Federal Republic of) . . .	US\$344,916
Denmark	US\$ 29,329
Finland	US\$ 20,751
Norway	US\$ 12,927
Netherlands	US\$186,325
Sweden	US\$318,598
Total	US\$912,846

6.3.4 *Seminars financed from sources other than the UNDP*

For the second time, ITU seminars were financed from sources other than the UNDP, i.e.,

Denmark	US\$ 80,000
Sweden	US\$ 56,830

6.4 Analysis of ITU inputs

6.4.1 Experts in the field in 1975

In 1975, 526 expert missions (totalling 3555 man-months of service) were executed by 462 experts (as against 385 missions executed by 352 experts in 1974) comprising:

- 411 missions, including 14 OPAS assignments, under UNDP (133 in Africa, 110 in the Americas, 90 in Asia and the Pacific, 70 in Europe and the Middle East and 8 inter-regional);
- 38 missions under Funds-in-Trust (FIT), including 6 FIT/OPAS assignments as also 5 UNDP/SIDA/FT missions (9 in Africa, 3 in the Americas, 26 in Europe and the Middle East);
- 57 associate expert assignments (24 in Africa, 11 in the Americas, 20 in Asia and the Pacific and 2 in Europe and the Middle East);
- 18 short missions financed by the Union under Resolution No. 17 of the Plenipotentiary Conference, Torremolinos, 1973.
- 2 missions under an UNSO project (United Nations Trust Fund for Sudano-Sahelian Activities).

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).

Number of experts	Nationals of (country)	Number of experts	Nationals of (country)
69 (80)	United Kingdom	1 (3)	Lebanon
59 (65)	Germany (Federal Republic of) ¹	2	Bulgaria
47 (51)	Sweden ²	2	Denmark ⁵
42 (49)	France	2	Ethiopia
30 (33)	Japan	2	Peru
27 (33)	India	2	Spain
25 (26)	Netherlands ³	1 (2)	Austria
17 (19)	United States of America	1	Algeria
16 (20)	Italy	1	Bangladesh
15 (17)	Switzerland	1	Belgium
13 (16)	Australia	1	Cameroon
12 (13)	Pakistan	1	Fiji
11	Canada	1	Finland ⁶
10 (12)	USSR	1	Guyana
8 (12)	Norway ⁴	1	Upper Volta
9	Egypt	1	Jordan
6 (8)	Ireland	1	Roumania
6	Argentina	1	Tunisia
5 (6)	Colombia	1	Turkey
5	New Zealand	1	Uruguay
2 (3)	Poland	1	Yugoslavia
2 (3)	Venezuela		
		462 (526)	

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 22 associate experts.

³ Including 13 associate experts.

⁵ Including 2 associate experts.

² Including 18 associate experts.

⁴ Including 1 associate expert.

⁶ Including 1 associate expert.

The 462 experts mentioned above were nationals of 43 countries, Members of the Union. These experts executed the 526 missions as detailed in the table above which gives classification by nationality. Each national has only been counted once, irrespective of the number of missions carried out.

Two hundred and seventy-three new expert missions were commenced in 1975 (as against 166 in 1974). This figure includes:

- fifty-five missions undertaken by experts already in the field who were transferred to new posts or projects;
- eighty-three short-term highly-specialized missions executed under special service agreements (against 25 in 1974). (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);
- twenty-two associate expert assignments, including one associate expert who was transferred to a new duty station for his third year of service.

The following table compares the periods required for the recruitment of experts from 1971 to 1975.

Period required	Number of experts				
	1971	1972	1973	1974	1975
up to 6 months	28	46	61	80	158
7 to 8 months	17	15	15	19	30
9 to 10 months	20	23	15	26	26
11 to 12 months	7	19	10	14	16
13 to 18 months	15	14	13	25	30
more than 18 months	5	6	15	2	13
Total	92	123	129	166	273

(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 1975, 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 improved in relation to 1974, reaching just over 61% of the total number appointed in 1975 (against 48% in 1974).

The period required for recruitment was comparable to that of other UN Agencies and was on an average shorter than that required for bilateral programmes, including also the associate expert scheme for which the average time is 10½ months. The time required for the various stages of the recruitment process remained more or less the same as in previous years for the longer term posts but was infinitely more rapid in the case of appointments under Special Service Agreements, 57 of the 83 missions being arranged (from commencement of prospection to entry on duty) in a period of one to two months, the longest time factor was the need for vaccinations.

The longer delays experienced in some instances continued to be engendered by factors such as:

- the ever increasing requirement for experts in the more sophisticated and very recent technologies for which relatively few specialists exist thus rendering their release for prolonged periods more difficult;
- the growing demand for experts having prior experience in modern educational technology in addition to their specialist telecommunication knowledge;
- the combination of the solicited technical qualifications with the requisite language knowledge (French or Spanish);
- the environmental conditions, availability of educational facilities for experts' children, as also the uncertainty as regards further employment inherent in the UN system as opposed to the relative security and greater incentives offered by the bilateral programmes.

From the candidate's own view point the lapse of time (3 to 5 months) between his application for a given post and the communication of the outcome (following the receipt of the requesting Government's decision) is discouraging for specialists not in secure employment. The personal availability of a candidate on selection and the time required (an average of two to three months from receipt of formal offer) to serve notice for release and make the necessary arrangements for a prolonged absence are factors which are very easily overlooked in all estimates of recruitment time. The Union, with its direct access to telecommunication administrations of Member countries, is certainly in a more advantageous position than some of the other UN agencies both as regards sources of expertise at the time of prospection, as also in respect of the selected candidate's release, which latter was confined to a period of one to two months in the large majority of cases.

During the year under report, prospection was carried out for 388 posts (against 224 in 1974) — a total of 432 prospection actions. For 66 of these posts further prospection was found necessary (81 readvertisements, 10 posts being readvertised more than once in 1975), as the original prospection, commenced in 1975 and previous years, had not brought forth the required expertise. In twenty-four 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, UNDP 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 1,103 (881 in 1974) candidatures were examined by the Union for 277 (192 in 1974) posts for which date limits were reached during 1975. Only 459 (302 in 1974) of these candidatures were considered suitable for the posts in question — rejection of approximately 60 per cent of the candidatures.

The greater part of the 1,103 candidatures examined by the Union in 1975 were presented by the following countries:

United Kingdom	258	Netherlands	34
India	182	Belgium	33
Pakistan	62	Australia	31
France	53	Italy	29
Sweden	53	Canada	25
United States of America	43	Norway	25
Japan	43	Ireland	18
Germany (Federal Republic of)	41	Poland	13
Argentina	34	USSR	11

The remaining 116 candidates were nationals of 30 Member countries. 193 of the 1,103 candidatures, as against 140 of 881 in 1974, were presented for more than one post.

6.4.2 *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, 57 associate experts (22 from Germany (Federal Republic of), 2 from Denmark, one from Finland, 13 from the Netherlands, 1 from Norway and 18 from Sweden) served on the Union's projects in 1975. All except 3, who executed technical missions in Lesotho, were engaged in the training of local staff at the Union's training centre projects in Afghanistan (2), Algeria (4), Saudi Arabia (2), Botswana (1), Chile (1), East African Community (7) (6 in Kenya and 1 in Tanzania), El Salvador — INCATEL Regional (1), Indonesia (1), Iran (4), Jamaica (5), Lesotho (1), Malawi (4), Malaysia (1), Nepal (1), Nigeria (1), Papua New Guinea (2), Paraguay (1), Singapore (7), Somalia (1), Sri Lanka (2), Swaziland (1), Venezuela (3) and Zambia (1).

During the year under report 3 associate experts (2 from Germany (Federal Republic of) and 1 from Sweden) were nominated to expert posts and a further associate expert from Germany (Federal Republic of) was to be promoted to expert as from 1 January 1976.

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

During the year under review one further agreement for the provision of associate experts was signed with the Government of Japan.

6.4.3 *Volunteers*

During 1975, the Union benefited from the services of 11 volunteers, 4 of which were provided by the Government of Switzerland, 3 by the United States Peace Corps and 4 under the United Nations Volunteer programme (UNV).

While the 3 Peace Corps volunteers gave instruction in English at the UNDP/ITU telecommunication training centre project in Afghanistan, all 4 Swiss volunteers gave classes in basic telecommunication subjects. 3 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.

Two of the volunteers provided under the programme of United Nations volunteers served at the High Institute of Telecommunications in Iran, the third UN volunteer took up duties at the Telecommunication Training College in Papua New Guinea and the fourth was assigned to the Swaziland Industrial Training Institute in M'Babane. All are graduates of universities or technical colleges.

6.4.4 *Administrative support personnel*

During the year under report, 88 administrative support personnel (administrative assistants, secretaries and drivers) were employed at ITU projects in 38 different countries. Of these, 82 were engaged at UNDP/ITU projects and 6 at a project financed under Funds-in-Trust arrangements.

6.4.5 Fellowships

In the course of 1975 the Union dealt with 666 fellows who actually underwent training (i.e. commenced, continued or completed their study programmes abroad) in one or more host countries (683 in 1974).

The geographical distribution of the fellowship holders who realized 1,189 man/months of studies/training was the following:

Africa	386	58.0%
Americas	118	17.7%
Asia	102	15.3%
Europe	10	1.5%
Middle East	50	7.5%

The above figures comprise:

- 560 fellowships awarded under the UNDP (this includes 78 short-term awards) to participants in:
 - A seminar on maritime communication held in Accra, Ghana from 29 September to 10 October 1975 in which 18 fellows participated;
 - A technical work meeting on Propagation Soil Conductivity and Radioelectric Noise held in Lima, Peru from 13 to 24 October 1975 for which 36 fellowships were awarded;
 - A meeting on Pre-Investment Survey, National and Intercountry Links, Central & East Africa held in Nairobi, Kenya on 19 June 1975 in which 4 fellows participated;
 - A course in Groundwave Propagation, Sky Wave Propagation and Measurement Technique given in Khartoum from 2 to 22 June 1975 for which 10 fellowships were awarded;
 - A feasibility study pre-investment survey meeting held in Algiers, Algeria from 7 to 12 July 1975 in which 6 fellows participated;
 - A training workshop held in Nairobi, Kenya from 24 November to 14 December 1975 in which 4 fellows participated;
- 4 fellowships awarded under Funds-in-Trust;
- 36 fellowships financed by the Swedish International Development Authority (SIDA);
- 66 fellowships financed jointly by UNDP and the Danish International Development Agency (DANIDA).

The fellowships implemented during 1975 may be grouped as follows:

Standard fellowships	320
Fellowships carried out in the UNDP/ITU assisted multinational schools: Senegal, Kenya, Malawi	166
Group training	180

For the purpose of the above, *standard fellowships* designate the awards requiring 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, Kenya or Malawi.

In spite of training facilities in the host countries being heavily committed with bilateral programmes, the good cooperation offered by the Administrations of these countries made it possible for ITU to overcome difficulties and in 1975 to place 320 standard fellowship holders of whom 92 went for training in more than one country. The principal host countries, accounting for 92.7% of the programmes, were the following:

Host country	Number of programmes implemented	% of standard fellowships
France	70	21.8
United Kingdom	52	16.2
Italy	31	9.7
Germany (Federal Republic of)	28	8.7
Japan	21	6.6
Switzerland	21	6.6
Sweden	19	5.9
Singapore	16	5.0
Australia	14	4.4
Sudan	13	4.1
Canada	12	3.7
Total	297	92.7

The remaining 8.3% of the programmes were organized in 6 other industrialized countries and in 21 developing countries: Algeria, Argentina, Brazil, Costa Rica, Ecuador, Ethiopia, Fiji, Guatemala, India, Indonesia, Iran, Malaysia, Madagascar, Mexico, Uganda, Pakistan, Sri Lanka, Tanzania, Thailand, Venezuela and Yemen Arab Republic.

6.4.6 Seminars

During 1975, 4 seminars were organized by the Union and a list showing the host country, dates and theme of each is given below:

Host country	Dates	Theme
Cameroon (Yaounde)	26 May-6 June	Tariffs and signalling
Ghana (Accra)	29 September-10 October	Maritime telecommunications in Africa
Peru (Lima)	13-24 October	Collection of radio propagation and noise data
India (New Delhi)	24 November-5 December	Traffic engineering and network planning

The *Yaounde* seminar was the last in a series of four organized in relation with the establishment of the Pan-African Telecommunication Network. It was financed by the Danish International Development Agency (DANIDA).

The proceedings were divided into two distinct parts, the first being devoted to tariffs and the second to signalling. Sixty-one participants from 35 African countries attended the tariffs section and lectures were given by specialists from France, Germany (Federal Republic of), Switzerland and the United King-

dom, as well as by an official from the specialized secretariat of the CCITT. The signalling section had as its objective to discuss, agree on and formulate a uniform R2 signalling system to be used for national networks in Africa; it was attended by 54 participants from 38 African countries and papers were presented by lecturers from Denmark, France and Germany (Federal Republic of) and by an engineer from ITU headquarters.

The *Accra* seminar was part of an ITU/UNDP regional development project for the benefit of the coastal countries of west, east and central Africa and Madagascar. It was attended by 31 participants from 19 countries and lectures were given by specialists from Japan, Norway and Sweden, as well as by a representative of the International Marine Radio Association (CIRM), the International Chamber of Shipping (ICS) and the Inter-Governmental Maritime Consultative Organization (IMCO) and by four ITU officials.

The regional seminar in *Lima*, which was in fact a regional technical work meeting, was held in the framework of the UNDP/ITU project RLA/74/028 and represented a technical forum dealing with the programming of a campaign of measurements of ground conductivity and radioelectric noise in order to reach a coordinated planning of MF and HF radiocommunication services at regional level. Thirty-six representatives of 20 countries of the region attended the seminar, which established common standards for measuring methods and instruments. Fourteen lectures were given by ITU experts, an engineer from ITU Headquarters and specialists from Argentina (1), Brazil (1) and Mexico (2).

Fifty participants from 17 countries of Asia and the Pacific attended the *New Delhi* seminar and lecturers were provided by Australia, France, India, Japan, Malaysia, Singapore, Sweden and the United Kingdom. One ITU official also presented a paper. The seminar was financed by the Swedish International Development Authority (SIDA).

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

Seminar	ITU fellows	Other participants	Total number of participants/ countries of origin	Financing provided by
Yaounde: tariffs.	34	27	61/35	DANIDA
signalling	31	23	54/38	DANIDA
Accra	18	13	31/19	UNDP
Lima	36	13	49/20	UNDP
New Delhi	36	14	50/17	SIDA

As mentioned above, a number of Member countries provided lecturers for seminars organized by the Union, as did the International Marine Radio Association (CIRM), the International Chamber of Shipping (ICS) and the Inter-Governmental Maritime Consultative Organization (IMCO). Details are given below in tabular form.

Country or organization sponsoring the lecturer	Seminar				Total	
	Yaounde		Accra	Lima		New Delhi
	Tariffs	Signalling				
Germany (Fed. Rep. of) . . .	1	1				2
Argentina				1		1
Australia					1	1
Brazil				1		1
Denmark		1				1
France	1	1			1	3
India					2	2
Japan			2		1	3
Malaysia					1	1
Mexico				2		2
Norway			1			1
United Kingdom	1				1	2
Singapore					1	1
Sweden			1		4	5
Switzerland	1					1
CIRM			1 ¹⁾			1 ¹⁾
ICS			1 ¹⁾			1 ¹⁾
IMCO			1 ¹⁾			1 ¹⁾
	4	3	5	4	12	28

¹ The same lecturer represented all three organizations.

6.4.7 Procurement of equipment

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

	US \$
Argentina	9,332
Germany (Federal Republic of)	707,890
Australia	11,986
Austria	1,080
Bahrein	4,453
Belgium	12,584
Bolivia	1,600
Brazil	13,701
Canada	45,184
Chile	7,500
Denmark	72,656
Spain	48,951
USA	1,063,552
Fiji	19,437
France	162,373
Guinea	3,751
Hong Kong	3,739
Indonesia	11,713
Italy	26,100
Japan	400,529
Kenya	2,349

Mexico	817
Nigeria	2,992
Norway	358
Netherlands	173,465
United Kingdom	752,461
Senegal	18,554
Sierra Leone	4,819
Singapore	7,345
Somalia	1,605
Sudan	6,000
Sri Lanka	1,382
Sweden	256,827
Switzerland	394,585
Swaziland	972
Czechoslovakia	50
USSR	310,495
Zambia	7,313
Total	<u>4,570,500</u>

Almost 80 per cent was ordered from manufacturers in the following seven countries: Germany (Federal Republic of), the United States, France, Japan, the United Kingdom, USSR and Switzerland.

The US\$4,570,500 of equipment ordered represents an increase of just over 36 per cent when compared with that for 1974 (US\$3,341,848).

The value of equipment delivered during 1975 to field projects was US\$3,959,865 against US\$2,765,318 in 1974. This figure also includes equipment ordered in 1974 or before but not delivered until 1975. As at 31 December 1975, the value of purchase orders still pending amounted to US\$2,376,591, and the Union has received new requisitions of the order of US\$1,714,545. In 1975 the Union dealt with the procurement of equipment for 76 projects, 10 of which were multinational.

Field experts and UNDP 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 1975 listed by country of destination.

EQUIPMENT DELIVERED AND ORDERED IN 1975
(in US dollars)

Projects carried out in the following countries/region(s)	Equipment and supplies delivered	Equipment ordered
Afghanistan	45,012	46,335
Albania	1,245	—
Algeria	54,763	32,228
Saudi Arabia	295,973 ¹	697,067
Argentina	81,489	102,326
Bolivia	220,884	145,602
Brazil	5,217	20,272
Cameroon	45,889	46,059
Chile	66,092	23,082
Colombia	16,680	52,120
Cuba	294,498	225,742
Egypt	166,415	133,649
El Salvador ²	184,961	120,933
United Arab Emirates	4,454	4,513

¹ Includes US\$26,332—equipment supplied under the terms of a Funds-in-Trust technical assistance agreement.

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

Projects carried out in the following countries/region(s)	Equipment and supplies delivered	Equipment ordered
Ecuador	169,971	42,681
Ethiopia ³	185	6,910
Fiji ⁴	3,749	35,970
Guinea	73,458	156,221
Upper Volta	1,133	—
India	578,090	610,826
Indonesia	64,017	42,416
Iran	42,983	44,551
Iraq	53,646	45,636
Israel	99,233	120,050
Jamaica	26,984	16,769
Jordan	152,482	116,772
Kenya ⁵	87,251	66,297
Khmer (Republic of)	714	714
Kuwait ⁶	20,416	117,517
Laos	55,993	7,743
Lesotho	1,010	—
Malawi ⁷	121,870	50,239
Maldives	8,379	17,275
Mauritania	23,109	23,109
Mongolia	132,378	368,378
Nepal	715	—
Niger	91	—
Nigeria	129,791	197,692
Pakistan	79,861	235,428
Paraguay	64,353	25,161
Peru	24,752	53,102
Romania	3,860	—
Western Samoa	5,500	9,640
Senegal ⁸	34,172	32,022
Sierra Leone	4,490	4,955
Singapore	35,703	74,629
Somalia ⁹	67,445	69,106
Sudan	17,901	120,274
Sri Lanka	87,117	48,536
Viet-Nam	52,587	—
Swaziland	1,272	1,271
Chad	—	6,000
Turkey	20,959	—
Uruguay	76,422	98,943
Venezuela	22,600	22,599
Yemen (A.R.)	1,431	1,431
Yemen (A.R.)/(P.D.R. of) ¹⁰	3,902	5,102
Zaire	4,963	(5,338)
Zambia	9,604	19,449
Project REM/75/027 ¹¹	8,853	9,060
Project INT/74/017 ¹²	898	1,436
Total	3,959,865	4,570,500

³ Regional project: including all the countries of the African continent (implementation of Panafrican Telecommunication Network).

⁴ Multinational projects: Cook Islands, Fiji, Gilbert and Ellice Islands, British Solomon Islands, Tonga and Western Samoa.

⁵ Multinational project: Kenya, Uganda, Tanzania.

⁶ Funds-in-Trust technical assistance project.

⁷ Multinational project: Botswana, Lesotho, Malawi, Swaziland.

⁸ Multinational project: Benin, Ivory Coast, Guinea, Upper Volta, Mali, Mauritania, Niger, Senegal, Togo.

⁹ Includes material supplied under the terms of a Funds-in-Trust technical assistance agreement, for an amount of US\$15,080 (material delivered) and US\$1,660 (material ordered).

¹⁰ Sana'a-Aden pilot circuit.

¹¹ Regional project (Feasibility study/preinvestment survey for the Middle East telecommunication network)—REM/72/027.

¹² Interregional project for Curriculum Development in the field of Telecommunications—INT/74/017.

6.4.8 *Sub-contracting*

During the course of 1975, the Union signed 10 new contracts, which now brings the total number of operational contracts to 19. Sixteen companies were involved and 13 UNDP and 2 Funds-in-Trust projects were being implemented, partially or entirely, by Sub-Contractors (see Annex 6, Table 2).

6.5 *Preparation of new projects*

During 1975, the Union was in continuous contact with the administrations and UNDP 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 UNDP 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.

In addition, particular attention was given to the preparation of regional project proposals for the forthcoming UNDP programming cycle. This exercise was based on a thorough review of priority areas where assistance could best be provided on a sub-regional and/or regional basis for harmonious and integrated development of telecommunications. It entailed special consultations with the administrations concerned to determine and formulate requirements for UNDP/ITU assistance during the next five years. The integration of these proposals into the overall regional development programme has been scheduled to be examined by governments and by the Governing Council of the UNDP during 1976, giving high priority to telecommunications as an important factor of socioeconomic development.

Thus, about forty brief regional project proposals were submitted by the Union to the UNDP for the 1977-1981 cycle. Regarding the formulation of these proposals, the Union was in contact with the UNDP. This latter has encouraged the Union to develop the profile of its future regional programme for more formal consideration, keeping in mind that the resources and priorities must undergo further examination. The above-mentioned proposals comprised among others regional requirements reviewed during the 2nd Conference of African Telecommunication Administrations (Kinshasa, 3-16 December 1975). The Conference endorsed twelve project proposals geared towards the implementation of the Pan-African Telecommunication Network and its use for services other than common carrier telecommunications. A further sixteen project proposals concerning future regional assistance in Asia and the Pacific were submitted to the UNDP. These proposals dealt with the implementation of the Asian Telecommunication Network, development of telecommunications in the South Pacific, planning, maritime radio-communications, frequency management, development of rural telecommunications, broadcasting, satellite communications, etc. The remaining project proposals concern similar regional assistance planned for the Americas and feasibility/pre-investment studies for the Middle East.

As far as assistance to countries is concerned, the following represents selected titles of important projects proposed to the UNDP for implementation in 1976 and years to come:

Africa

- Planning of sound and television broadcasting network, Cameroon
- Telecommunications Training Institute, Central African Republic
- National Telecommunication Training School, Chad

- Rural Radio-call Service, Ethiopia
- Pre-investment study of national routes (Niamey-Agadez-Arlit) Niger
- Test, Research and Development Centre, Nigeria
- Development of telecommunication and broadcasting services, Rwanda
- National Telecommunication Training School, Togo
- Assistance in creation of a telecommunication centre in Dodoma, United Republic of Tanzania
- Planning and implementation of microwave systems, East African Community (Kenya, Tanzania, Uganda)

Americas

- National Training Centre in Guatemala
- National Training Centre in Honduras
- National Training Centre in Guyana
- National Training Centre in Surinam
- Message handling centre, Argentina
- Pilot centre for radio frequency monitoring, Argentina
- Improvement of training in the “ Empresa Nacional de Telecomunicaciones ” (ENTEL), Argentina
- Institute of telecommunications — organization of advanced training, Paraguay
- Assistance to Correos y Telégrafos del Estado — Chile
- Telecommunications training centre, Trinidad
- Integral development of telecommunications, Venezuela

Asia and Pacific

- Telecommunication Training Centre, Afghanistan
- Telecommunication Media Planning Survey, Afghanistan
- Establishment of a Telecommunication Training Centre, Bangladesh
- Feasibility Study for the Establishment of a Broadcasting Station, Bhutan
- Telecommunication and Postal Training Centre, Burma
- Assistance in the Development of Telephone and Telegraph System, Burma
- Research and Development Programme of the Experimental Satellite Earth Station (ESCES), India
- Establishment of a Standard Frequency and Time Service, India
- Expansion of Radio Frequency Monitoring Facilities, India
- Telecommunication Training Centre, Phase II Extension, Indonesia
- Telecommunication Test and Development Centre (Preparatory Assistance), Indonesia
- Training Operation and Maintenance Staff for Domestic Satellite Communication System (Preparatory Assistance), Indonesia
- Telecommunication Systems Maintenance Organization Procedures and Practices, Indonesia
- Telecommunications Test and Development Centre, Korea (Rep. of)
- Telecommunication Test and Development Centre, Malaysia
- Expert Services for the Establishment of a Development Plan, Maldives
- Planning of Radio Broadcasting Services, Nepal
- Expansion of Regional Telecommunication Schools, Pakistan
- Telecommunication Training Centre, Papua New Guinea
- HF Radio Receiving Station, Singapore
- Updating Long-Term Plans in Telecommunications, Singapore
- Telecommunication Engineers Training, Singapore

- Telecommunications Test and Development Centre, Sri Lanka
- Establishment of a Radio Frequency Monitoring Station at Kadirana, Sri Lanka

Europe and Middle East

- Institute for scientific Research on Telecommunications, Bulgaria
- Telecommunication Training Centre (Follow-up), Iraq
- Network Planning and Development, Lebanon
- Telecommunication Training Centre, Lebanon
- Telecommunication Planning Advisory Team, P.D.R. of Yemen
- Telecommunication Training Centre, P.D.R. of Yemen
- Telecommunication Feasibility Study, P.D.R. of Yemen and Yemen Arab Republic
- Planning of Telecommunication Network, Yemen Arab Republic
- Telecommunication Training Centre, Yemen Arab Republic
- Training in Telecommunications, Yemen Arab Republic

6.6 *Financial constraints of the UNDP*

At the end of 1975 the UNDP faced a serious liquidity crisis mainly due to

- a) an accelerated ratio of programme delivery during the year under report, and
- b) inflation which resulted in considerable price increase of expert services, fellowships, equipment, sub-contracting, etc.

The Administrator of the UNDP issued in December 1975 directives to executing agencies and resident representatives which imposed restrictions on the implementation of projects.

Simultaneously with the year-end liquidity crisis it became evident that the UNDP must establish budgetary ceilings for the 1976 programme delivery in order to complete the last year of the first Development Cycle within the limits of the available financial resources. The executing agencies, including the Union, participated in all the consultations and meetings organized by the UNDP in order to elaborate proposals regarding cutbacks to be operated on a project-by-project basis. The Administrator, following analysis of the situation by his advisors, was in a position to propose to the Governing Council for its consideration a series of exceptional measures concerning the reduction of the programme delivery in 1976. Briefly, these measures comprise setting-up 1976 ceilings expressed in US dollars of the UNDP assistance for each recipient country and for each regional, interregional and global project. Furthermore, the governments concerned are requested to decide on the priorities and curtailment of whole projects or of some elements of given projects. In this respect the governments have at their disposal the assistance and advice of resident representatives and executing agencies.

Without any doubt these exceptional measures will have negative repercussions on the volume of assistance to be delivered by the Union in the course of 1976 and the fate of many projects listed in the preceding section remains questionable, at least for the near future.

Since December 1975 the major preoccupation of the Union has been directed towards effecting programme cut-backs and exercising financial control while at the same time endeavouring to protect the integrity of the programme.

6.7 *Activities under Resolution No. 17 of the Plenipotentiary Conference (Malaga-Torremolinos, 1973)*

In 1975, the group of engineers responded to a large number of requests from the following Administrations:

Afghanistan	— MF Radio planning
Algeria	— telephone planning
Andean countries	— preinvestment study Andean telecommunication system
Bahamas	— maintenance organization
Benin	— international telephone exchange
Burma	— microwave specifications — telephone switching specifications
Burundi	— radiobroadcasting
Central African Republic	— planning telecommunication network
Congo	— specifications local telephone exchanges, radio broadcasting
Gambia/Senegal	— signalling interface problems
Guatemala	— preparation of a programme for a national training centre
Jordan	— revisions of draft microwave specification for the link Amman — Damascus
Lesotho	— tender evaluation telephone switching equipment
Malaysia	— setting up staff procedures — lectures on sound broadcasting
Maldives	— telephone and telegraph accounting
Mali	— tender evaluation microwave system and telephone switching equipment
Morocco	— professional training — reorganization press agency
Mongolia	— advise on the establishment of a message switching centre in Ulan Bator
Oman	— evaluation offers international telephone exchange
Solomon Islands	— broadcasting survey, evaluation transmission systems
Somalia	— broadcasting
Sri Lanka	— management Intelsat earth station — planning radio and transmission
Swaziland	— planning transmission systems
Yemen Arab Republic	— troposcatter link maintenance
Yemen (People's Rep. of)	— evaluation tenders — radio equipment

In nearly all the cases it was necessary to undertake missions to the countries concerned in order to provide the required assistance in an effective way. Only in a few cases could the requests be handled by correspondence with the Administration.

The group of engineers have been participating in the following seminars:

Cameroon	— seminar PANAFTEL on signalling
Kuwait	— Seminar of the Arab States Broadcasting Union on colour television

On request of the Technical Cooperation Department assistance was provided to the following countries:

- | | |
|-----------------|---|
| Saudi Arabia | — supervision of a team of three switching experts for advice on electronic switching systems |
| Comores Islands | — fact-finding mission on technical assistance in telecommunications and broadcasting |
| Nigeria | — technical specifications for switching and transmission systems |

For the Panafrican Telecommunications Network advice was given on the technical specifications for various international telephone switching centres.

The group of engineers was involved in work on special activities on the instruction of the Secretary-General and the Chief of the technical cooperation Department. This concerned:

- missions to the UK and the USA on the effect of telecommunications on national progress;
- visits to equipment manufacturers in France, Netherlands, Germany (Federal Republic of), and the United States;
- missions to Germany (F.R.) in connection with the air-transportable earth station for relief in case of natural disasters and communications for the United Nations in view of the TELECOM 75 exhibition;
- meetings in Geneva on satellite communications systems;
- mission for France for discussions with the Administration on the organization of press agencies.

On various occasions, the members of the group of engineers were consulted by staff of administrations visiting Geneva, in particular on satellite application, signalling and switching systems.

About 70% of the time of the group of engineers was spent on activities related to requests of administrations for advice on short-term assistance. When necessary, close contacts were kept with the permanent organs (CCITT, CCIR and IFRB) when preparing information and technical assistance to the administrations.

Thanks to the increased provision of funds in the ITU ordinary budget in accordance with Resolution 17 of the Plenipotentiary Conference (Malaga-Torremolinos, 1973), it was possible to extend the assistance provided to developing countries and to recruit more outside specialists than in the previous years. The recruitment of one or more outside specialists occurred in 17 cases and 258,943.45 Swiss francs were disbursed for these missions out of the ITU ordinary budget during 1975.

6.8 *Application of Resolution No. 19 of the Plenipotentiary Conference (Malaga-Torremolinos, 1973) — Special measures for the least developed countries*

The General Assembly of the United Nations, by its Resolution 2768 (XXVI) of 18 November 1971, approved the list of the 25 least developed countries.

In 1975, by its Resolution 3487 (XXX), the General Assembly supplemented this list by adding the following countries: Bangladesh, Central African Republic, Gambia, Yemen (People's Democratic Republic of).

In January 1973, the Governing Council of UNDP fixed the sum to be devoted to these countries during the period 1973-1976 at 35 million United States dollars; at the same time, it specified the fundamental criteria for the supplementary assistance to be given.

The special measures covered by this amount of 35 million dollars were to constitute only an interim solution, designed to pave the way for overall activities that would be coordinated but would be carried out within the framework of country programmes, starting at the beginning of the second United Nations Development Cooperation Cycle.

In 1975, the assistance provided by the Union (under the UNDP Special Fund for the least developed countries — 35 million United States dollars) took the form of the services of an expert for 12 months in Botswana.

It is interesting to note that, in 1975, the least developed of the developing countries received UNDP/ITU assistance provided under their indicative planning figures (IPF).

The assistance given to the least developed countries in 1975 can be summed up as follows: 48 experts provided 345.5 months of assistance, 52 fellows received training totalling 320 fellowship months, equipment to a value of 295,150 United States dollars was supplied and the total value of the assistance provided amounted to 1,816,184 United States dollars. The details of this assistance are given below:

Country	Experts m/m	Fellows m/m	a) Equipment b) Contractors US \$	Total value of assistance rendered US \$
<i>Africa</i>				
Benin	—	1/ 3	—	1,800
Botswana	1/ 12	—	—	42,308
Burundi	—	—	—	—
Central African Republic	2/ 1,4	4/ 44,5	—	31,800
Ethiopia	—	—	—	—
Gambia	—	2/ 8	—	4,800
Guinea	—	1/ 12	a) 73,458	117,820
Upper Volta	1/ 1	3/ 25	a) 1,133	19,753
Lesotho	—	1/ 2,5	—	8,819
Malawi	—	6/ 21,5	—	15,985
Mali	—	—	—	—
Niger	1/ 2,8	4/ 24	a) 91	23,543
Uganda	—	—	—	—
Rwanda	1/ 12	7/ 41	—	57,832
Somalia	5/ 38,9	—	a) 67,446	206,058
Sudan	6/ 39,4	5/ 14	a) 17,901	168,952
Tanzania	—	—	—	—
Chad	1/ 12	4/ 42,5	a) 23,591	91,853
<i>Latin America</i>				
Haiti	2/ 2,9	1/ 5	—	13,243
<i>Asia and the Pacific</i>				
Afghanistan	10/ 93,1	—	a) 45,012	389,540
Bangladesh	1/ 3	—	—	10,951
Bhutan	—	—	—	—
Laos	4/ 48	1/ 1	a) 55,993	231,927
Maldives	1/ 0,9	2/ 5,5	a) 8,379	13,828
Nepal	3/ 14,3	7/ 26	a) 715	80,914
Western Samoa	2/ 23	2/ 7	—	79,914
Sikkim	—	—	—	—
<i>Middle East</i>				
Yemen, Arab Rep.	7/ 41,2	11/ 37,5	a) 1,431	204,544
Yemen, P. Dem. Rep. of	—	—	—	—
	48/345,5	52/320	295,150	1,816,184

Note: This table does not include assistance provided under multinational and regional projects.

Owing to the meagre resources made available to the Union, it has not been possible to undertake far-ranging activities in order to speed up the economic and social development of the least favoured countries. It has, however, been possible to put in hand a study covering six countries in the Sudanese-Sahelian zone affected by the drought (Gambia, Upper Volta, Mali, Mauritania, Niger, Senegal, Chad). This project of the Inter-State Committee for Drought Control in the Sahel (CILSS) is financed by the United Nations Sahelian Office (UNSO). The study, which is being carried out by two experts, is to help the heads of the telecommunication and broadcasting services to ascertain and define the most urgent needs. Once priority areas have been determined, simple and economic solutions will have to be proposed for the preparation of a programme of action and the question of finance will have to be tackled.

As UNDP approved funds for a similar project, the necessary preparations were made to organize a mission of experts to the least developed countries of East and South-East Africa in 1976 and the two experts have taken up duty.

6.9 *Activities under Resolution No. 23 of the Plenipotentiary Conference (Malaga-Torremolinos, 1973)*

UNDP approval was obtained for the commencement of an interregional project on course development in telecommunications, its immediate objectives being to produce a certain amount of course material, to train nationals of some developing countries in the techniques of course development, to prepare course development standards and guidelines, and to standardize certain core material. During 1975 the first of three planned training workshops was held; this was for the staff of the English-language training centres participating in the project and will be followed by similar workshops in French and Spanish.

As recommended by the Working Group on Training Standards, a pilot project on the exchange of training material in the field of line plant was continued and a similar pilot project begun in the field of crossbar switching.

A system for the coding of training material was designed and widely disseminated. All training material held at ITU has now been classified according to this system and a start made on microfilming the most useful documentation with a view to its distribution.

Work has also begun on the preparation of a reference manual for training establishments and a series of articles on various aspects of training is being published in the Telecommunication Journal.

The professional staff of the Training Division of the Technical Cooperation Department continued to participate in the briefing of training experts leaving on mission (over 100 during the period under review). In this respect, the training laboratory established at the headquarters in 1974 proved to be a useful adjunct in demonstrating new teaching aids and several additions were made to the equipment collected.

Professional staff of the Training Division of the Technical Cooperation Department participated in conferences and working groups in educational technology held in France, Germany (Federal Republic of) and the United Kingdom, as well as in Geneva. The attendance at the meetings in France and the United Kingdom was followed by visits to various training establishments in order to discuss the latest training strategies.

Close contacts were maintained with Regional Divisions of the Technical Cooperation Department and periodic meetings held to ensure that the Training Division was fully aware of the areas where its assistance was needed most urgently.

6.10 *Application of Resolution No. 21 of the Plenipotentiary Conference (Malaga-Torremolinos, 1973) — The Special Fund for Technical Cooperation*

During 1975 a request for equipment, under the provisions of the Special Fund for technical cooperation, was made to various governments to help restore basic telecommunication services disrupted by hurricane Fifi in some of the north coast and island communities of Honduras. In response to this request, the Government of the Federal Republic of Germany provided four generators (valued at approximately DM 15,000) and the Government of Japan provided two transceivers (valued at approximately Y 2.60 million). This equipment was delivered to Honduras early in 1975.

During the course of the year, 1,538.55 Swiss francs from this Fund were used to defray the expenses (excluding travel) of a participant from Bangladesh in the Regional Administrative LF/MF Broadcasting Conference, Geneva, 6 October-22 November 1975.

Liquid assets of this Fund totalled 49,649.70 Swiss francs at the end of 1975.

7. ADMINISTRATION OF THE UNION

7.1 STAFF MATTERS

7.1.1 On 31 December 1975 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 1974 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	347	60	409
IFRB	5	98	2	105
CCITT	1	35	2	38
CCIR	1	27	—	28
Total	9	507 (482)	64 (65)	580 (556)

7.1.2 The manning table in the 1975 budget comprised 611 posts, 578 of them permanent. The following changes occurred during the year among staff with permanent or fixed-term contracts: 10 retirements, 6 departures on end of contract, and 18 resignations or transfers.

7.1.3 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 prolonged sick or maternity leave, for example) are usually shared by colleagues, temporary

¹ In 1975: 30th Session of the Administrative Council—Regional Administrative LF/MF Broadcasting Conference (Second Session)—CCITT (52 meetings)—Technical Cooperation (6 meetings)—Public Relations (5 meetings).

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 1975 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	401	(431)	6,080	(6,964)
Engineers (24 Technical Cooperation)	3	(1)	235	(44)
Analyst/programmers (13)	3	(2)	566	(138)
Translators (18), précis-writers (1), revisers (8)	84	(97)	4,018	(3,829)
Administrative officers (8), Associate Administrative officers (14)	5	(4)	869	(700)
Proof-readers	3	(21)	171	(951)
Calculators	2	(1)	331½	(187)
Prof. assistants, text assemblers, photocomposition-typists	48	(29)	6,411	(3,584)
Draughtsmen (5), designers (3)	7	(10)	755	(1,010)
Electricians (4), electronics technician	3	(5)	657	(770)
Secretaries, office assistants, bookkeepers, assistants, checkers, heads of teams	141	(162)	14,406	(12,946)
Shorthand-typists, typists (pool 23), clerks	161	(267)	13,133½	(16,633)
Telephone operators (3)	29	(30)	770	(714)
Offset operators (8)	5	(9)	570	(1,400)
Punch-card operators (9)	3	(2)	553	(333)
Reprography (17)	29	(49)	2,418	(4,739)
Simultaneous interpretation equipment operators	32	(20)	323	(218)
Documents distribution/dispatching staff (11), other document staff (8), messengers (17), chauffeurs (3), storekeepers (3)	63	(132)	4,658	(6,617)
Total	1,022	(1,272)	56,925	(61,777)

(In columns 2 and 3 the 1974 figures are in parentheses).

7.1.4 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		IFRB		CCITT		CCIR		Total	
Elected officials	2		5		1		1		9	
	P	FT	P	FT	P	FT	P	FT	P	FT
D.1	2	—	—	—	2	—	2	—	6	—
P.5	6	1	3	—	2	—	2	—	13	1
P.4	18	5	9	—	5	—	5	—	37	5
P.3	26	21	17	—	8	—	3	—	54	21
P.2	23	3	5	—	3	—	—	—	31	3
P.1	5	—	4	—	2	—	1	—	12	—
G.7	14	—	8	—	1	—	2	—	25	—
G.6	52	1	18	—	3	1	4	—	77	2
G.5	61	7	13	1	8	1	4	—	86	9
G.4	50	8	12	—	—	—	4	—	66	8
G.3	45	5	8	1	1	—	—	—	54	6
G.2	37	5	1	—	—	—	—	—	38	5
G.1	8	4	—	—	—	—	—	—	8	4
	347	60	98	2	35	2	27	—	507	64
Total	409		105		38		28		580	

(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.

7.1.5 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 1975 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 1975 (for 145 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 1975

(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	(1)		1								1 (2)
Brazil					1 (—)	1 (—)					2 (—)
Canada	1 (—)			1 (—)	(1)		1				3 (2)
United States	1	1	1 (—)	3 (4)							6
Haiti					1						1
Mexico				1							1
Paraguay				1							1
<i>Region B — Western Europe</i>											
Germany (Fed. Rep. of)		1		1	3 (2)	1	1		1		8 (7)
Belgium					1	1					2
Denmark				1							1
Spain					3 (2)	2	3 (2)				8 (6)
France	1 (2)	2	2	3 (4)	5 (4)	4 (3)	1	2		1	21
Italy				1	1		2 (1)				4 (3)
Norway										1	1
Netherlands				1	1 (—)	1					3 (2)
United Kingdom	1 (—)	(1)	3	2 (3)	1	3		1			11 (12)
Sweden					1 (2)		1				2 (3)
Switzerland			1	7 (6)	8	12 (10)	2 (4)	1	1		32 (31)
Turkey			1			1					2
<i>Region C — Eastern Europe and Northern Asia</i>											
Bulgaria					1						1
Hungarian People's Republic					1						1
Poland (People's Rep. of)		1 (—)			1						2 (1)
Czechoslovakia		(1)									— (1)
U.S.S.R.	1			1	2 (1)						4 (3)
Yugoslavia			1								1
<i>Region D — Africa</i>											
Algeria			1								1
Egypt						1					1
Morocco	1			1 (—)	1						3 (2)
Tunisia	1										1
<i>Region E — Asia and Australasia</i>											
Afghanistan				1							1
Australia	1			1	1						3
China			1		1						2
India		1		1			1				3
Indonesia					1						1
Iran					1						1
Iraq					1						1
Israel					1 (—)	(1)					1
Japan	1			2	2	1					6
Pakistan				1							1
Total	9	6 (7)	12 (11)	30	40 (35)	28 (25)	12	4	2	2	145 (137)

(Wherever changes have taken place, the figures for 1974 appear in parentheses)

TABLE 5

Geographical distribution on 31 December 1975

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

Country	D.1	P.5	P.4	P.3	P.2	P.1	Total
<i>Region A — America</i>							
Argentina				1			1
Canada					1		1
United States				1 (—)	(1)		1
<i>Region B — Western Europe</i>							
Germany (Fed. Rep. of)				1			1
France				2	1		3
Greece				1			1
Ireland				(1)			— (1)
Italy			1	2 (1)			3 (2)
Netherlands				1 (—)			1 (—)
United Kingdom				1 (—)	2		3 (2)
Sweden	(1)		1 (—)	(1)			1 (2)
Switzerland				2 (1)	1 (2)		3
<i>Region C — Eastern Europe and Northern Asia</i>							
USSR				(1)			(1)
Yugoslavia		1 (—)	(1)				1
<i>Region D — Africa</i>							
Central African Republic				1			1
Egypt				1			1
Ethiopia			1				1
<i>Region E — Asia and Australasia</i>							
Saudi Arabia						(1)	— (1)
Bangladesh				1 (—)			1 (—)
Korea				1			1
India			1	1			2
Japan				1			1
Total	(1)	1	4	18 (15)	5 (7)	— (1)	28

(The figures for 1974 appear in parentheses)

TABLE 6

Geographical distribution on 31 December 1975

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

Country	Total per region	P.6	P.5	P.4	P.3	P.2	P.1	Total
<i>Region A — America</i>								
Argentina		1 (1)	3 (1)	1 (2)				5 (4)
Canada		1 (1)	5 (3)	1 (2)				7 (6)
Chile			— (1)					— (1)
Colombia			2 (2)	2 (2)				4 (4)
United States		3 (2)	5 (4)	2 (1)				10 (7)
Guyana				1 (1)				1 (1)
Peru		— (1)	1 (—)					1 (1)
Uruguay			1 (1)					1 (1)
Venezuela			— (1)					— (1)
	29 (26)							
<i>Region B — Western Europe</i>								
Germany (Fed. Rep. of)		2 (2)	9 (7)	11 (15)		7 (15)		29 (39)
Belgium				— (1)				— (1)
Denmark							2 (—)	2 (—)
Spain			2 (1)					2 (1)
Finland							1 (—)	1 (—)
France		1 (—)	11 (6)	10 (11)				22 (17)
Ireland			3 (2)	3 (2)				6 (4)
Italy			4 (3)	4 (4)				8 (7)
Norway		2 (2)	2 (—)	2 (1)		1 (—)		7 (3)
Netherlands			4 (4)	5 (5)		5 (3)	4 (4)	18 (16)
United Kingdom		4 (4)	17 (11)	21 (26)	— (1)			42 (42)
Sweden		2 (1)	5 (2)	11 (11)	2 (1)	8 (7)	1 (5)	29 (27)
Switzerland			5 (1)	1 (2)				6 (3)
Turkey			1 (—)	— (1)				1 (1)
	173 (161)							
<i>Region C — Eastern Europe and Northern Asia</i>								
Bulgaria (People's Rep. of) . .				— (2)				— (2)
Poland (People's Rep. of) . .			2 (—)	— (1)				2 (1)
Roumania			1 (1)					1 (1)
USSR			2 (3)	5 (2)				7 (5)
Yugoslavia				— (1)				— (1)
	10 (10)							
<i>Region D — Africa</i>								
Cameroon			1 (1)					1 (1)
Egypt			2 (5)	5 (3)				7 (8)
Ethiopia		1 (1)	1 (1)					2 (2)
Morocco		— (1)						— (1)
Sudan						1 (—)		1 (—)
Tunisia			1 (1)					1 (1)
	12 (13)							
<i>Region E — Asia and Austral- asia</i>								
Australia		1 (—)	5 (2)	3 (3)				9 (5)
Bangladesh				1 (—)				1 (—)
Fiji			1 (1)					1 (1)
India		2 (2)	11 (8)	11 (7)	— (2)	— (1)		24 (20)
Japan		1 (1)	8 (3)	13 (15)				22 (19)
Jordan				1 (—)				1 (—)
New Zealand			2 (—)	3 (4)				5 (4)
Pakistan			5 (5)	6 (5)				11 (10)
	74 (59)							
Total	298 (269)	21 (19)	122 (81)	123 (130)	2 (4)	22 (26)	8 (9)	298 (269)

(The figures for 1974 appear in parentheses)

7.2 FINANCIAL MATTERS

7.2.1 In accordance with Article 56, No. 288, of the Malaga-Torremolinos Convention, 1973, and Article 49 of the ITU 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 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 1975 are reproduced in Annex 2 to this Report.

7.2.2 In accordance with Article 15 of the Malaga-Torremolinos Convention, 1973, and Articles 2 and 6 of the ITU Financial Regulations, the budget of the Union comprises, on the one hand, the costs of the Administrative Council and the permanent organs of the Union (General Secretariat, International Frequency Registration Board, the International Radio Consultative Committee and the International Telegraph and Telephone Consultative Committee) and, on the other, the costs of Plenipotentiary Conferences and World Administrative Conferences. There are also two supplementary budgets, namely, the technical cooperation special accounts budget (administrative and operational costs of technical cooperation projects) and the supplementary publications budget.

7.2.3 Additional Protocol I to the Malaga-Torremolinos Convention, 1973, fixes the limits within which the Administrative Council is authorized to establish the annual budgets of the Union. For 1975, these limits were:

36,650,000 Swiss francs for recurrent expenditure,

2,900,000 Swiss francs for conferences and meetings, including seminars but excluding regional conferences.

Paragraph 4 of this Additional Protocol authorizes the Administrative Council to exceed these limits to take account of increases in 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 US dollar which would involve additional expenses for the Union. Paragraph 2 of this Additional Protocol authorizes the Administrative Council to exceed the limits laid down for recurrent expenditure in order to cover expenditure arising from the replacement of members of the International Frequency Registration Board.

7.2.4 At its 29th Session, under Resolution No. 738, the Administrative Council approved the budgets for 1975 amounting to:

39,741,400 Swiss francs for recurrent expenditure including 36,486,400 Swiss francs within the expenditure limit (margin of 163,600 Swiss francs) and 3,255,000 Swiss francs outside the limit,

2,856,000 Swiss francs for conferences and meetings including 2,642,000 Swiss francs within the expenditure limit (margin of 258,000 Swiss francs) and 214,000 Swiss francs outside the limit,

3,090,000 Swiss francs for a regional administrative conference the expenses of which, under No. 95 of the Convention, are borne by all the Members in the region concerned,

50,000 Swiss francs for expenditure covered by the renewal fund for simultaneous interpretation and other electroacoustical equipment and by the CCITT Reserve Fund,

1,570,000 Swiss francs as a transfer to the ITU Reserve Account, in accordance with Resolution No. 11 of the Malaga-Torremolinos Conference, 1973, making a total of:

47,307,400 Swiss francs for the ordinary budget,

6,415,200 Swiss francs for technical cooperation administrative costs,

6,408,800 Swiss francs for the supplementary publications budget.

7.2.5 In the same Resolution, the Administrative Council fixed the amount of the contributory unit for 1975 at 98,600 Swiss francs on the basis of the classification chosen by Members in accordance with Nos. 92 and 93 of the Malaga-Torremolinos Convention, 1973, i.e. on the basis of a total of 415½ units.

7.2.6 Finally, in accordance with Article 79, No. 553, of the Malaga-Torremolinos Convention, 1973, the Administrative Council fixed a figure of 16,600 Swiss francs as the annual unit of contribution towards defraying the expenses of CCIR and CCITT meetings payable in 1975 by recognized private operating agencies, scientific or industrial organizations and international organizations not exempt by virtue of Council Resolution No. 574.

7.2.7 At its 30th Session, in Resolution No. 757, the Administrative Council authorized inclusion in the 1975 budget of additional credits, mainly to cover expenses resulting from fluctuations in the exchange rate between the United States dollar and the Swiss franc and changes in the employment conditions of the common system of the United Nations and its specialized agencies:

1,817,300 Swiss francs for the ordinary budget,

213,500 Swiss francs for the technical cooperation special accounts budget,

146,000 Swiss francs for the supplementary publications budget.

7.2.8 The budgets finally adopted by the Administrative Council thus amounted to:

41,140,700 Swiss francs for recurrent expenditure including 36,486,400 Swiss francs within the expenditure limit (margin of 163,600 Swiss francs) and 4,654,300 Swiss francs outside the limit,

2,927,000 Swiss francs for conferences and meetings including 2,642,000 Swiss francs within the expenditure limit (margin of 258,000 Swiss francs) and 285,000 Swiss francs outside the limit,

3,417,000 Swiss francs for a regional administrative conference,

70,000 Swiss francs for expenses covered by the renewal fund for simultaneous interpretation and other electroacoustical equipment and by the CCITT Reserve Fund,

1,570,000 Swiss francs as payment into the ITU Reserve Account, making a total of

49,124,700 Swiss francs for the ordinary budget,

6,628,700 Swiss francs for technical cooperation administrative costs,

6,554,800 Swiss francs for the supplementary publications budget.

7.2.9 In the same Resolution the Administrative Council decided to maintain the amount of the contributory unit of Members of the Union at 98,600 Swiss francs.

7.2.10 In 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 class of post adjustment as and when these changes were introduced by the United Nations for the staff of the United Nations Office at Geneva. The changes which occurred in the interval between the Administrative Council's approval of Resolution No. 757 on additional credits for 1975 and the end of the 1975 financial year obliged the Secretary-General to increase the budget by:

- 643,000 Swiss francs for the ordinary budget,
- 118,000 Swiss francs for the technical cooperation special accounts budget,
- 25,100 Swiss francs for the supplementary publications budget.

7.2.11 The Union budgets for 1975 thus finally amounted to:

- 49,767,700 Swiss francs for the ordinary budget,
- 6,746,700 Swiss francs for the technical cooperation special accounts budget,
- 6,579,900 Swiss francs for the supplementary publications budget.

7.2.12 Also at its 30th Session the Administrative Council, in Resolution No. 760, approved the provisional budget for 1976, amounting to:

- 50,231,500 Swiss francs for the ordinary budget,
- 7,317,200 Swiss francs for the technical cooperation special accounts budget,
- 5,953,200 Swiss francs for the supplementary publications budget.

In the same Resolution, the Administrative Council fixed the contributory unit for 1976 at 111,800 Swiss francs for Members of the Union and 18,800 Swiss francs for recognized private operating agencies, scientific or industrial organizations and international organizations not exempt under Administrative Council Resolution No. 574.

Classification of the Members of the Union for the apportionment of Union expenditure in 1975

7.2.13 At the end of 1974, the Union had 148 Members and one Associate Member contributing on the basis of a total of 475 units.

7.2.14 As a result of certain decisions adopted by the Plenipotentiary Conference, Malaga-Torremolinos, 1973, regarding the status of Member, and the accession to the Malaga-Torremolinos Convention of a new Member with effect from 1 January 1975, on 1 January 1975 the Union had 143 Members and 1 Member with a special status (Additional Protocol IV to the Malaga-Torremolinos Convention, 1973).

7.2.15 In accordance with Additional Protocol II to the Convention, each Member was to inform the Secretary-General of the class of contribution it had chosen for the period of validity of the Torremolinos Convention, 1973, to take effect on 1 January 1975. As a result of this choice of class of contribution, on 1 January 1975, the Members of the Union were contributing to the defrayal of Union expenses on the basis of 416½ units.

7.2.16 Following the accession of two new Members in 1975, and the transformation of the Member with a special status into a full Member, on 31 December 1975 the Union had 146 Members contributing to the defrayal of Union expenses on the basis of a total of 417½ units.

Cash resources

7.2.17 In 1975, for the fifth year running, the Union found itself in a difficult financial position and already in July advances had to be requested from the Government of the Swiss Confederation. These advances amounted in all to 14,000,000 Swiss francs, as against 12,000,000 Swiss francs in 1974 and 6,500,000 Swiss francs in 1973. These loans were repaid entirely in November and December 1975 following the payment of contributions for 1976.

Contributions in arrear

7.2.18 Total amounts due on 31 December of the years 1973, 1974 and 1975 were as follows:

31 December 1973	1,918,890.92 Swiss francs
31 December 1974	1,420,083.80 Swiss francs
31 December 1975	3,800,311.69 Swiss francs

7.2.19 The sums entered in the special interest on arrears account created pursuant to Resolution No. 10 of the Malaga-Torremolinos Conference 1973, and not yet settled at 31 December 1975, amounted to 5,199,726.17 Swiss francs. Since the Plenipotentiary Conference this special interest on arrears account has therefore been reduced by the payment by the Members concerned, of 1,360,290.01 Swiss francs, 256,284.51 Swiss francs of which were paid in 1975.

7.2.20 Annex 7 to this report shows the situation of the main debtors of the Union on 31 December 1975.

8. RELATIONS WITH THE UNITED NATIONS AND OTHER INTERNATIONAL ORGANIZATIONS

UNITED NATIONS

In September 1975, the Seventh Special Session of the General Assembly, devoted to development and international economic cooperation, decided on a series of measures as the basis and framework for the work of the competent bodies and organizations of the United Nations system. The implementation of these measures, and particularly those relating to the restructuring of the United Nations system could affect the future relations between the Union and the United Nations.

Within the limit of available resources, the ITU participated in the preparations for the Seventh Special Session of the General Assembly and is continuing to collaborate in the system-wide effort to implement the decisions. Representatives of the Union have attended meetings of the Economic and Social Council and its Committees, including a special intersessional meeting of the Policy and Programme Coordination Committee to consider revision of the existing agreements between the United Nations and the specialized agencies. The Union also participated in the Seventh Special Session of the General Assembly and in meetings of the Ad Hoc Committee of the General Assembly on the Restructuring of the United Nations System.

Officials of the ITU participated in the Third Session of the Third United Nations Conference on the Laws of the Sea, in Geneva.

The ITU continued to participate in the Administrative Committee on Coordination and in a number of its Sub-Committees dealing with subjects of particular interest to the Union. The work of the Consultative Committee on Administrative Questions has continued to receive the support of the Union. The work of this Committee has grown substantially during the year in support of studies on the UN common system being undertaken by the International Civil Service Commission, the statute of which was accepted by the Administrative Council in Resolution No. 747.

The ITU continued to pay particular attention to meetings dealing with the peaceful uses of outer space in accordance with Administrative Council Resolution No. 636. During 1975, the ITU was represented at the 12th Session of the Scientific and Technical Sub-Committee and the 14th Session of the Legal Sub-Committee of the Committee on the Peaceful Uses of Outer Space. Officials of the Union also participated in an Ad hoc Inter-Agency Meeting on Space Applications concerned with the coordination of United Nations system activities in outer space. The views expressed by the Scientific and Technical Sub-Committee of the Committee on the Peaceful Uses of Outer Space and by the agencies during the Ad Hoc Inter-Agency Meeting were considered by the Administrative Committee on Coordination (ACC) which agreed that continuous coordination of activities in this area was required and accordingly decided that an ACC Sub-Committee on Outer Space Activities should be established. The Union will participate in the work of this new ACC Sub-Committee which will hold its first meeting in September 1976.

Pursuant to General Assembly Resolution 2130 (XX) the 14th 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 1975 is included in the 15th Report.

During 1975, officials of the Union attended the 21st Session of United Nations Advisory Committee on the Application of Science and Technology to Development (ACAST) and participated in preparatory work for the third Session of the Committee on Science and Technology for Development (CSTD). It is anticipated that the Union will be required to undertake a certain amount of preparatory work for a United Nations Conference on Science and Technology for Development which will be convened in 1979.

The Union continued to collaborate with the United Nations in the area of public information and participated in meetings of the Joint United Nations Information Committee (JUNIC). Officials of the Union also attended meetings of the Inter-Organisation Board for Information Systems and Related Activities (IOB) and provided continuing support to United Nations activities in the development of management information systems.

Five of the Joint Inspection Unit Reports issued during 1975 are currently receiving the attention of the Union. These reports may be identified as follows:

<i>Report (abridged title)</i>	<i>Origin</i>
Regional structures (JIU/REP/75/2)	Request of ECOSOC
Office accommodation at ITU Headquarters (JIU/REP/75/5)	Request of General Assembly
Office accommodation provided for extra-budgetary staff in the UN system (JIU/REP/75/6)	Request of General Assembly
Utilization of office accommodation in the UN system (JIU/REP/75/7)	Request of General Assembly
Technical Cooperation Programme of ITU (JIU/REP/75/9)	Decision of the Joint Inspection Unit

ITU officials have participated in numerous meetings in the course of Union collaboration with the United Nations Development Programme (UNDP). Technical cooperation activities and the relations of the Union with the UNDP are the subject of detailed comment in section 6 of this report.

REGIONAL ORGANISATIONS

Africa

Very fruitful collaboration and cooperation continued between ITU and regional and sub-regional organisations in Africa.

Close contacts were maintained among members of the Pan-African Telecommunication Network (PANAFTEL) Coordinating Committee composed of the Economic Commission for Africa (ECA), the Organization of African Unity (OAU), the African Development Bank (ADB) and the ITU, whose representatives met on several occasions. The ITU continued to be invited to all major meetings of these three regional organisations, where it was represented at appropriate levels. The second Conference of African Telecommunication Administrations was convened and met from 3 to 16 December 1975 in Kinshasa (Zaire). This Conference, which gathered some 41 countries in Africa and a number of observers

from other Continents, was also attended by the Secretary General of ITU and representatives of ECA, OAU and ADB. The Conference decided to create a Panafrican Telecommunication Union (PATU) to be constituted in 1976 under the aegis of OAU.

The three regional experts had periodic contacts and consultations with organisations located in their respective areas, leading to fruitful exchanges of information and collaboration on activities of mutual interest. In addition to the principal regional organisations already mentioned, relations were also maintained with the Union of National Radio and Television Organizations of Africa (URTNA) and various sub-regional organisations including the African Postal and Telecommunications Union (APTU), the “ Union douanière et économique de l'Afrique centrale ” (UDEAC), the Senegambian Secretariat, the Mano River Union Secretariat, the “ Agence pour la Sécurité de la Navigation aérienne ” (ASECNA) and the Lake Chad Basin Commission (CBLT). These relations were assured by periodic contacts through the ITU regional experts in their respective areas. These experts also attended all subregional meetings on the coordination of PANAFTEL.

In cooperation with URTNA, the ITU developed joint action to organise a preliminary study of the staff and training needs for Radio and Television Broadcasting Services.

Latin America

The continuation of the relations between the ITU and the Economic Commission for Latin America (ECLA) was assured during 1975 through one of the ITU regional experts in Latin America. Contact was maintained with the Economic Commission on activities of mutual interest in all countries of the continent.

The established collaboration between the ITU and the Organisation of American States (OAS), and in particular with its Inter-American Telecommunication Conference (CITEL), was continued during 1975. Contact with the President of the permanent organ COM/CITEL was maintained throughout the year and two officials from ITU Headquarters and one regional expert attended the Second Conference of CITEL in Rio de Janeiro in November 1975. The subject of future technical cooperation between ITU/UNDP and CITEL was debated during this Conference. The Conference expressed its appreciation of past cooperation and adopted a resolution in favour of a continued programme of assistance from the Union.

ITU/UNDP collaboration with the Central American Telecommunications Commission (COMTELCA) continued to develop throughout 1975. In accordance with the UNDP policy concerning sectoral support to organisations whose aims are regional and sub-regional integration, the ITU continued to collaborate with regional organisations such as the “ Junta del Acuerdo de Cartagena (Pacto Andino) ”, the “ Asociación de Empresas Estatales de Telecomunicaciones del Acuerdo Subregional Andino ” (ASETA) and the Caribbean Common Market (CARICOM).

Relations with organisations having an interest in financing development projects in Latin America were maintained through periodic contacts with the Inter-American Development Bank (IDB) and the Central American Bank for Economic Integration (CABEI).

Contacts were also established with the “ Corporación Andina de Fomento ” through its head office in Caracas. A request was received for ITU assistance and collaboration in the appraisal of the financing of a preinvestment study in the Andean region.

Asia and the Pacific

Close contact and cooperation were maintained with the Economic and Social Commission for Asia and the Pacific (ESCAP) through the three regional experts stationed in Bangkok. Continued liaison was also maintained by the ITU Headquarters through the visits of officials. During the year, ITU was represented in the 31st Session of the ESCAP and the 23rd and 24th Sessions of the Transport and Communication Committee.

The ITU was represented in the General Assembly of the Asian Broadcasting Union held in Australia in November 1975 and, in addition to discussion of matters of mutual interest and cooperation, particular consideration was given to the organisation of a Seminar on Satellite Broadcasting.

The ITU has maintained close contact with the South Pacific Bureau for Economic Cooperation (SPEC) and was represented at a meeting of this organisation dealing with regional telecommunications which was held in Tonga in September 1975.

Europe, the Mediterranean and the Middle East

A number of fruitful contacts were established with the Economic Commission for Western Asia (ECWA) throughout the year.

Close cooperation continued during the year between the ITU and the Arab League, the Arab Telecommunication Union (ATU), the Arab States Broadcasting Union (ASBU) and the Permanent Telecommunication Committee for the Gulf Area and the Sultanate of Oman, particularly in connection with the execution of the Feasibility Study/Preinvestment Survey Project for the Middle East Telecommunication Network. Delegates from all of these organisations participated in the second Project Resumé Meeting, which was held in Algiers in July 1975, at which the survey progress report was presented and discussed. In connection with the project, contacts of an information-gathering nature were made with the European Conference of Postal and Telecommunications Administrations (CEPT), INTELSAT, COMSAT, the European Space Agency (ESA), the European Satellite Research Organisation (ESRO) and the International Bank for Reconstruction and Development (IBRD).

Contacts were also made with the Arab Telecommunication Union (ATU) and the Arab States Broadcasting Union (ASBU) in the preparatory work for the establishment of a Regional Telecommunication Institute, and the ITU was represented at the Third Executive Conference of the ATU held in Cairo in November 1975 and at the General Assembly of the ASBU held in Qatar in April 1975.

The Union maintained relations with regional institutions concerned with the financing of development projects. The Arab Fund for Economic and Social Development (AFESD) participated in the Feasibility Study/Preinvestment Survey for the Middle East Telecommunication Network project and was represented at the meeting held in Algiers.

SPECIALISED AGENCIES

In addition to contacts with all specialized agencies of the United Nations system, designed to facilitate the operation and coordination of system-wide policies and activities, the Union maintained close relations with agencies which have a particular interest in telecommunications. These agencies participated in the work of the Union by attending ITU meetings and conferences when subjects of mutual interest were debated. Officials of the Union attended conferences, meetings and seminars of these agencies when telecommunication matters were discussed.

In September 1975, the ITU participated in a joint UN/UNESCO (United Nations Educational, Scientific and Cultural Organization) Regional Seminar on Satellite Broadcasting Systems for Education and Development for the benefit of Latin America and the Caribbean countries. This seminar provided a useful follow-up to UNESCO/ITU operational activities in Latin America concerning a feasibility study on the application of satellite broadcasting to education. Meetings of UNESCO/ASBU were attended by ITU officials on the subject of educational satellite broadcasting systems in the Middle East and UNESCO has participated in ITU sponsored meetings on the technical assistance project concerning the Middle East Telecommunication Network.

Other UNESCO meetings which were attended by ITU officials dealt with “ Technical and Economic Studies related to Educational Technology ” and “ Documentation, Libraries and Archives ”.

During 1975, the ITU continued its traditional collaboration with ICAO (International Civil Aviation Organisation) and, in particular, in accordance with Resolution No. 764 of the Administrative Council, made contact with this agency on preparations for the 1977 World Administrative Radio Conference on the Aeronautical Mobile (R) Service. Officials of ICAO participated in a number of the meetings of the ITU and in the Second Session of the Broadcasting Conference of the Union.

Officials of the WMO (World Meteorological Organisation) attended a number of the meetings of the Union and the ITU was represented at the Seventh Congress of the WMO and at the 8th Session of the Working Group on Meteorological Telecommunications of the WMO Regional Association I (Africa).

A particularly important aspect of ITU collaboration with IMCO (Intergovernmental Maritime Consultative Organisation) during the year concerned the establishment of an international maritime satellite system. The Consultative Committees of the Union are undertaking studies relating to the establishment and operation of this system and ITU officials have attended meetings of the First Session of the International Conference on the Establishment of an International Maritime Satellite System convened by IMCO. As a follow-up to participation in this conference, the ITU was also represented at the First Session of the Inter-Sessional Working Group to prepare for the second session of the International Conference.

The Union continued to participate in the work of IMCO concerning maritime radiocommunications and the safety of life at sea and was represented at the 14th and 15th Sessions of the Sub-Committee on Radiocommunications and the 32nd Session of the Maritime Safety Committee.

OTHER INTERNATIONAL ORGANISATIONS

In addition to the United Nations organs, the specialized agencies and regional organisations already mentioned, the Headquarters of the Union maintained relations with a large number of other international organisations. Among these organisations, which have an interest in the development of regulations or standards and in the utilisation of telecommunications, mention should be made of the following:

Committee on Space Research (COSPAR)
Danube Commission
European Broadcasting Union (EBU)
European Conference of Postal and Telecommunications Administrations (CEPT)
European Space Agency (ESA)
European Space Research Organisation (ESRO)
Inter-American Association of Broadcasters (IAAB)
International Air Transport Association (IATA)
International Association of Lighthouse Authorities (IALA)
International Astronautical Federation (IAF)
International Chamber of Commerce (ICC)
International Council of Scientific Unions (ICSU)
International Criminal Police Organisation (INTERPOL)
International Electrotechnical Commission (IEC)
International Organisation for Standardisation (ISO)
International Radio and Television Organisation (OIRT)
International Red Cross Committee (CICR)

International Marine Radio Association (CIRM)

International Time Bureau (BIH)

International Union of Radio Science (URSI)

International Special Committee on Radio Interference (CISPR)

International Telecommunications Satellite Organization (INTELSAT)

Inter-Union Committee on Allocation of Frequencies for Radio Astronomy and Space Science (IUCAF)

Organisation for Economic Cooperation and Development (OECD)

The collaboration of the ITU with these, and other organisations, has been the subject of comment in various sections of this report and in other detailed reports dealing with individual meetings and activities.

A list of meetings of the United Nations and other international organisations in which officials of the Union participated in 1975 appears in Annex 5 to this report.

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ANNEX 1

**POSITION OF MEMBERS IN RELATION TO THE ACTS OF THE UNION
ON 31 DECEMBER 1975**

Table I. *Malaga-Torremolinos Acts (1973) and Regulations annexed thereto :*

- International Telecommunication Convention, Malaga-Torremolinos, 1973;
- Optional Additional Protocol to the International Telecommunication Convention, Malaga-Torremolinos, 1973, on the Compulsory Settlement of Disputes;
- Telegraph and Telephone Regulations (Geneva, 1973).
- 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);
- Partial Revisions of the Radio Regulations and of the Additional Radio Regulations (W.A.R.C., Geneva, 1974) (maritime-2).

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).

Table V. *Regional Agreement concerning the use by the broadcasting service of frequencies in the medium frequency bands in Regions 1 and 3 and in the low frequency bands in Region 1 (Geneva, 1975).*

VI. *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);
- 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, 1975

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.

Countries (In the alphabetical order of the French version of the country names)	CONVENTION, etc.					ADMINISTRATIVE REGULATIONS			
	Plenipotentiary Conference of Malaga-Torremolinos, 1973					World Administrative Telegraph and Telephone Conference			
	Class of contribution No. of units	Convention, etc. *	Date on which the instrument of ratification or accession was deposited with the General Secretariat	Opt. Add. Protocol **	Date on which the instrument of ratification or accession was deposited with the General Secretariat	Geneva (1973)			
						Telegraph Regulations		Telephone Regulations	
1	2	3	4	5	6	7	8	9	10
Afghanistan (Republic of)	½	S ¹)		S		—		—	
Albania (People's Republic of)	½	—		—		S		S	
Algeria (Algerian Democratic and Po- pular Republic)	1	S ¹)		—		S		S	
Germany (Federal Republic of)	20	S ¹)		—		S	A ⁵)	S	A ⁵)
Saudi Arabia (Kingdom of)	1	S ¹)		—		S		S	
Argentine Republic	3	S ¹)		—		S		S	
Australia	18	S ¹)	23. VI. 1975	S	23. VI. 1975	S	A	S	A
Austria	1	S ¹)		S		S		S	
Bahamas (Commonwealth of the)	½	A	16. X. 1975 ³⁰)	—		—	A ⁴)	—	A ⁴)
Bahrain (State of)	½	A	21. X. 1974 ¹¹)	—		—	A ⁴)	—	A ⁴)
Bangladesh (People's Republic of)	1	S ¹)		—		—		—	
Barbados	½	S ¹)		—		—		—	
Belgium	5	S ¹)		S		S		S	
Benin (People's Republic of) ¹²)	½	S ¹)		S		S		S	
Byelorussian Soviet Socialist Republic . .	1	S ¹)		—		S		S	
Burma (Socialist Republic of the Union of) ¹³)	½	S ¹)		S		—		—	
Bolivia (Republic of)	½	S ¹)		—		—		—	
Botswana (Republic of)	½	S ¹)		—		—		—	
Brazil (Federative Republic of)	5	S		S		S	A	S	A
Bulgaria (People's Republic of)	1	S ¹)		—		S		S	
Burundi (Republic of)	½	S ¹)		S		—		—	
Cameroon (United Republic of)	½	S ¹)		S		S		S	

ADMINISTRATIVE REGULATIONS																	
Administrative Radio Conferences																	
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)		Partial Revision W.A.R.C. Geneva (1974) (maritime-2)		A.R.C. Geneva (1959)		Partial Revision W.A.R.C. Geneva (1967) (maritime)		Partial Revision W.A.R.C. Geneva (1974) (maritime-2)	
11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
S	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—		—		—		S	A ⁴⁾	—		—	
S		—		—		—		—		—		S		—		—	
—	A ⁴⁾	S	A	S	A	S	A	S		S		—	A ⁴⁾	S	A	S	
S	A ⁶⁾	S	A ⁷⁾	S	A ⁸⁾	S	A ⁸⁾	S	A ⁹⁾	S	A ¹⁰⁾	S	A	S	A ⁸⁾	S	A ¹⁰⁾
S	A ⁴⁾	—	A ⁴⁾	S	A ⁴⁾	—		S		S		S	A ⁴⁾	—		S	
S	A ²⁴⁾	S	A ³⁾	S	A	S	A	S	A	S		S	A ²⁴⁾	S	A	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	—	
—	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⁾	—	A ⁴⁾	S		—	A ⁴⁾	—	A ⁴⁾	S	
—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—		—		—		—	A ⁴⁾	—		—	
S	A	S	A	S	A	S	A	S		S		S	A	S	A	S	
—	A	—	A	—	A ⁴⁾	—		—		S		—	A	—		S	
S	¹)	S	A	—	A ¹³⁾	—	¹)	S	A	—		S	¹)	—	¹)	—	
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	A	S		S	A	S		S	
S	¹)	S	¹)	S	A ¹⁵⁾	S	¹)	S		S		S	¹)	S	¹)	S	
—	A ⁴⁾	—	A	—	A ⁴⁾	—	A ⁴⁾	—		—		—	A ⁴⁾	—	A ⁴⁾	—	
—	A	—	A	—	A ⁴⁾	S		S		S		—	A	S		S	

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

Table I. Convention, Regulations (continued)

Countries (In the alphabetical order of the French version of the country names)	CONVENTION, etc.					ADMINISTRATIVE REGULATIONS			
	Plenipotentiary Conference of Malaga-Torremolinos, 1973					World Administrative Telegraph and Telephone Conference			
	Class of contribution No. of units	Convention, etc. *	Date on which the instrument of ratification or accession was deposited with the General Secretariat	Opt. Add. Protocol **	Date on which the instrument of ratification or accession was deposited with the General Secretariat	Geneva (1973)			
						Telegraph Regulations		Telephone Regulations	
1	2	3	4	5	6	7	8	9	10
Canada	18	S	20. I. 1975	S	20. I. 1975	S	A	S	A
Central African Republic	1/4	S ¹⁾		S		S	A	S	A
Chile	1	S ¹⁾		—		—		—	
China (People's Republic of)	20	S ¹⁾		—		S		S	
Cyprus (Republic of)	1/2	S ¹⁾		S		—		—	
Vatican City State	1/4	S		—		S		S	
Colombia (Republic of)	3	A	21. II. 1975	A	21. II. 1975	—	A ⁴⁾	—	A ⁴⁾
Congo (People's Republic of the)	1/4	S ¹⁾		S		S		S	
Korea (Republic of)	1	S ¹⁾		S		—		—	
Korea (Democratic People's Republic of)	1/4	A	24. IX. 1975	—		—	A ⁴⁾	—	A ⁴⁾
Costa Rica	1/4	S		S		—		—	
Ivory Coast (Republic of the)	1	S ¹⁾		S		—		—	
Cuba	1	S ¹⁾		—		—		—	
Denmark	5	S ¹⁾	12. XI. 1974	—		S	A	S	A
Dominican Republic	1/4	S		S		—		—	
Egypt (Arab Republic of)	2	S ¹⁾		S		—		—	
El Salvador (Republic of)	1/4	S ¹⁾		S		—		—	
United Arab Emirates	1	S ¹⁾		S		—		—	
Ecuador	1	S	24. I. 1975	—		—	A ⁴⁾	—	A ⁴⁾
Spain	3	S ¹⁾		—		S	A	S	A
United States of America	30	S ¹⁾		—		S		S	
Ethiopia	1	S		—		S		S	
Fiji	1/4	A	17. IV. 1975	A	17. IV. 1975	—	A	—	A
Finland	3	S ¹⁾	28. VII. 1975	S	5. XII. 1975	S	A	S	A
France	30	S ¹⁾		—		S		S	
Gabon Republic	1/4	S ¹⁾		S		S		S	
Gambia (Republic of the)	1/4	A	3. XI. 1975	A	3. XI. 1975	—	A ⁴⁾	—	A ⁴⁾
Ghana	1	S ¹⁾		—		—		—	

ADMINISTRATIVE REGULATIONS																		
Administrative Radio Conferences																		
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)		Partial Revision W.A.R.C. Geneva (1974) (maritime-2)		A.R.C. Geneva (1959)		Partial Revision W.A.R.C. Geneva (1967) (maritime)		Partial Revision W.A.R.C. Geneva (1974) (maritime-2)		
11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
S	A	S	A ³⁾	S	A	S	A	S	A	S	A	S	A ³⁾	S	A	S	A	
—	A	—	A	—		—		S		S		—	A	—		S		
—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	S	A ⁴⁾	S		S		—	A ⁴⁾	S	A ⁴⁾	S		
—		—		—		—		—		S		—		—		S		
—	A	S	A	—	A ⁴⁾	S	A ⁴⁾	S		S		—	A	S	A ⁴⁾	S		
S	A	S	A	—	A	—	A	S	A	—		S	A	—	A	—		
S	A ⁴⁾	S	A ⁴⁾	S	A ⁴⁾	S	A ⁴⁾	S	A ⁴⁾	S		S	A ⁴⁾	S	A ⁴⁾	S		
—	A	—	A	—		—	A	S		S		—	A	—	A	S		
S	A	S	A	—	A	S	A	S	A	S	A	S	A	S	A	S	A	
—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—		—	A ⁴⁾	—	A ⁴⁾	—		
S	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	S		S	A ⁴⁾	—	A ⁴⁾	S		
—	A ¹⁸⁾	—	A	—	A ⁴⁾	S		S		S		—	A	S		S		
S	¹⁾	S	A	S	A	S	¹⁾	S		S		S	¹⁾	—	¹⁾	S		
S	A	S	A	S	A	S	A	S	A	S	A	S	A	S	A	S	A	
S	A	—	A ⁴⁾	—	A ⁴⁾	—		—		—		S	A	—		—		
S	A ⁴⁾	S	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	S		—		S	A ⁴⁾	—	A ⁴⁾	—		
S	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—		S	A ⁴⁾	—	A ⁴⁾	S		
—	A ⁴⁾	—	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		
S	A ³⁾	S	A	S	A	S	A	S		S	A	S	A	S	A	S	A	
S	A ²⁵⁾	S	A	S	A	S	A	S	A	S		—	¹⁾	—	¹⁾	—	¹⁾	
S	A	S	A	S	A	S		S		—		S	A	S		—		
—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—	A	—	A ⁴⁾	—	A ⁴⁾	—	A	
S	A	S	A	—	A	S	A	S	A	S		S	A	S	A	S		
S	A	S	A	S	A	S	A	S		S		S	A	S	A	S		
—	A	—	A	—	A ⁴⁾	—	A ⁴⁾	S		—		—	A	—	A ⁴⁾	—		
—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—		—	A ⁴⁾	—	A ⁴⁾	—		
S	A	S	A	S	A ⁴⁾	S	A ⁴⁾	S	A ⁴⁾	S		S	A	S	A ⁴⁾	S		

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

Table I. Convention, Regulations (continued)

Countries (In the alphabetical order of the French version of the country names)	CONVENTION, etc.					ADMINISTRATIVE REGULATIONS				ADMINISTRATIVE REGULATIONS																	
	Plenipotentiary Conference of Malaga-Torremolinos, 1973					World Administrative Telegraph and Telephone Conference				Administrative Radio Conferences																	
	Class of contribution No. of units	Convention, etc. *	Date on which the instrument of ratification or accession was deposited with the General Secretariat	Opt. Add. Protocol **	Date on which the instrument of ratification or accession was deposited with the General Secretariat	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)	Partial Revision W.A.R.C. Geneva (1974) (maritime-2)	A.R.C. Geneva (1959)	Partial Revision W.A.R.C. Geneva (1967) (maritime)	Partial Revision W.A.R.C. Geneva (1974) (maritime-2)											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Greece	1	S 1)		S		S	A	S	A	S	A	S	A	—	A 4)	S	A	S	A	S		S	A	S	A	S	
Guatemala	1	S 1)		—		—		—		—	A 17)	—	A 4)	—	A 4)	—	A 4)	—		—		—	A	—	A 4)	—	
Guinea (Republic of)	½	S 1)		—		—		—		—	A 4)	—	A	—	A	—	A	—		—		—	A 4)	—	A	—	
Equatorial Guinea (Republic of)	½	S 1)		—		—		—		—	A 4)	—	A 4)	—	A 4)	—	A 4)	—		—		—	A 4)	—	A 4)	—	
Guyana	½	—		—		—		—		—	A 4)	—	A 4)	—	A	S	A	—		—		—	A 4)	S	A	—	
Haiti (Republic of)	½	—		—		—		—		—		—		—		—		—		—		—		—		—	
Upper Volta (Republic of)	½	S 1)		S		—		—		—	A 4)	—	A	—	A 4)	—	A	S		S		—	A 4)	—	A	S	
Honduras (Republic of)	½	—		—		—		—		—	A 4)	—	A 4)	—	A 4)	—	A 4)	—	A 4)	—		—	A 4)	—	A 4)	—	
Hungarian People's Republic	1	S 1)		—		S	A	S	A	S	A 4) 23)	S	A	S	A 16)	S	A	S	A	S		S	A 4)	S	A	S	
India (Republic of)	13	S 1)		—		S	A	S	A	S	A	S	A	S	A	S	A	S	A	S		S	A	S	A	S	
Indonesia (Republic of)	1	S 1)		S		S		S		S	A	S	A 4)	S	A 4)	S	A 4)	S		S		S	A	S	A 4)	S	
Iran	1	S 1)		—		S		S		S	A	—	A 4)	—	A 4)	—		S		S		S	A	—		S	
Iraq (Republic of)	½	S 1)		—		—		—		S	A 4)	—	A 4)	—	A 4)	—	A 4)	S		S		S	A 4)	—	A 4)	S	
Ireland	2	S		—		S	A	S	A	S	A	S	A	S	A	S	A	S	A	S		S	A	S	A	S	
Iceland	½	S 1)		—		S		S		S	A	S	A	—	A	S	A	S		S		S	A	S	A	S	
Israel (State of)	1	S 1)	28. V. 1975	—		S	A 4)	S	A 4)	S	A	S	A	—	A	S	A 4)	S	A 4)	S		S	A	S	A 4)	S	
Italy	10	S 1)		—		S		S		S	A 21)	S	A	S	A	S		S		S		S	A 21)	S		S	
Jamaica	½	S 1)	25. IV. 1975 2)	—		S	A	S	A	—	A 4)	S	A 20)	S	A 4)	S	A 4)	S	A	S		—	A 4)	S	A 4)	S	
Japan	20	S	17. VI. 1975	S	17. VI. 1975	S	A	S	A	S	A	S	A	S	A	S	A	S	A	S	A	S	A	S	A	S	A
Jordan (Hashemite Kingdom of)	½	A	28. V. 1975	A	28. V. 1975	—	A 4)	—	A 4)	S	A	—	A 4)	—	A 4)	S	A 4)	—	A 4)	—		S	A	S	A 4)	—	
Kenya (Republic of)	½	S 1)		—		S		S		—	A 4)	—	A	—	A	—	A	S		—		—	A 4)	—	A	—	
Khmer Republic	½	S 1)		S		—		—		S	A	S	A	—	A 4)	—		—	S		S	A	—			S	
Kuwait (State of)	1	S 1)		—		S		S		S	A	S	A	S	A 4)	S	A	S	A	S		S	A	S	A	S	
Laos (Kingdom of)	½	S 1)		S		—		—		—	A 4)	—	A	—	A 4)	—	A	—		—		—	A	—	A	—	
Lesotho (Kingdom of)	½	S 1)		—		—		—		—	A 4)	—	A 4)	—		—		—	—	—		—	A 4)	—		—	
Lebanon	1	S 1)		S		S		S		S	A	S	A	—		—		—	S		S	A	—			S	
Liberia (Republic of)	1	S 1)	22. IX. 1975	S		—	A 4)	—	A 4)	—	A	S	A 4)	—	A 4)	S	A 4)	S	A 4)	S		—	A	S	A 4)	S	
Libyan Arab Republic	½	S 1)		—		S		S		S	A 4)	—	A 4)	—	A 4)	—		S		—		S	A 4)	—		—	

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

Table I. Convention, Regulations (continued)

Countries (In the alphabetical order of the French version of the country names)	CONVENTION, etc.					ADMINISTRATIVE REGULATIONS				ADMINISTRATIVE REGULATIONS																		
	Plenipotentiary Conference of Malaga-Torremolinos, 1973					World Administrative Telegraph and Telephone Conference				Administrative Radio Conferences																		
	Class of contribution No. of units	Convention, etc.	Date on which the instrument of ratification or accession was deposited with the General Secretariat	Opt. Add. Protocol **	Date on which the instrument of ratification or accession was deposited with the General Secretariat	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)	Partial Revision W.A.R.C. Geneva (1974) (maritime-2)	A.R.C. Geneva (1959)	Partial Revision W.A.R.C. Geneva (1967) (maritime)	Partial Revision W.A.R.C. Geneva (1974) (maritime-2)												
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
Liechtenstein (Principality of)	½	S 1)		S		—		—		—	A 4)	S	A 4)	—	A 4)	—		S		—		—	A 4)	—		—		
Luxembourg	½	S 1)		S		S	A	S	A	S	A	S	A	—	A	—	A	S		S		S	A	—	A	S		
Malaysia	3	S 1)		—		S		S		S	A	S	A	S	A	S	A 3)	S		S		S	A	S	A 3)	S		
Malawi	½	S 1)		S		—		—		—	A 4)	—	A	—	A 4)	—		—		—		—	A 4)	—		—		
Maldives (Republic of)	½	A	16. I. 1975	—		—	A 4)	—	A 4)	—	A 4)	—	A 4)	—	A 4)	—	A 4)	—	A 4)	—	—		—	A 4)	—	A 4)	—	
Malagasy Republic	1	S 1)		S		S	A	S	A	—	A 4)	—	A	—	A	—	A	—	S		—		—	A 4)	—	A	S	
Mali (Republic of)	½	S 1)		S		S		S		—	A	—	A	—	A 4)	—		S		—		—	A	—		—		
Malta (Republic of) 26)	½	A	30. I. 1975 27)	A	30. I. 1975	—	A 4)	—	A 4)	—	A 4)	—	A 4)	S	A 4)	S	A 4)	—	A 4)	—	—		—	A 4)	S	A 4)	—	
Morocco (Kingdom of)	1	S 1)		S		S		S		—	A 3)	S	A	—	A 4)	—		S		S		S	A	—		S		
Mauritius	½	S 1)	8. VII. 1974	S	9. IV. 1975	—	A 4)	—	A 4)	—	A 4)	—	A 4)	—	A 4)	—	A 4)	—	A 4)	S	A	—	—	A 4)	—	A 4)	S	A
Mauritania (Islamic Republic of)	½	S 1)		S		—		—		—	A 4)	—	A 4)	—	A 4)	—	A 4)	S		S		—	—	A 4)	—	A 4)	S	
Mexico	3	S	23. VII. 1975	—		S	A 4)	S	A 4)	S	A	S	A	S	A	S	A 4)	S	A 4)	S		S	A	S	A 4)	S		
Monaco	½	S 1)		—		S		S		S	A	S	A 4)	—	A 4)	S	A 4)	S		S		S	A	S	A 4)	S		
Mongolian People's Republic	½	S 1)		—		—		—		—	1)	—	1)	—	1)	—	1)	—	1)	—	—		—	1)	—	1)	—	
Mozambique (People's Republic of)	½	A	4. XI. 1975	—		—	A 4)	—	A 4)	—	A 4)	—	A 4)	—	A 4)	—	A 4)	—	A 4)	—	A	—	—	A 4)	—	A 4)	—	A
Nauru (Republic of)	½	—		—		—		—		—	A 4)	—	A 4)	—	A 4)	—	A 4)	—	—	—	—	—	—	A 4)	—	A 4)	—	
Nepal	½	S 1)		S		—		—		—	A	—	A 4)	—	A 4)	—		—	—	—		S	A	—		—		
Nicaragua	1	S 1)		S		—		—		—	A 4)	—	A 4)	—	A 4)	—		S		S		S	A 4)	—		S		
Niger (Republic of the)	½	S 1)		—		—		—		—	A	—	A 4)	—	A	—	A	S	—	—		—	A	—	A	—		
Nigeria (Federal Republic of)	2	S 1)		—		S		S		—	A	—	A	—		—		S		S		—	A	—		S		
Norway	5	S 1)		—		S	A	S	A	S	A	S	A 4)	S	A	S		S		S	A	S	A	S		S	A	
New Zealand	3	S 1)		S		S	A	S	A	S	A	S	A	S	A	S	A	S	A 28)	S		S	A	S	A	S		
Oman (Sultanate of)	½	S 1)		—		S		S		—	A 4)	—	A 4)	—	A 4)	—	A 4)	—	—	—	—		—	A 4)	—	A 4)	—	
Uganda (Republic of)	½	S 1)		—		S		S		—	A 4)	S	A	—	A	—	A	S		—	A	—	—	A 4)	—	A	—	A
Pakistan	2	S 1)		—		S	A	S	A	S	A 3)	S	A 3)	S	A	S	A 3)	S	A 3)	S		S	A	S	A 3)	S		
Panama (Republic of)	½	S 1)		—		—		—		—	A	—	A 4)	—	A 4)	—	A 4)	—	S		—		—	A	—	A 4)	S	
Papua New Guinea	½	A	31. X. 1975 31)	—		—	A 4)	—	A 4)	—	A 4)	—	A 4)	—	A 4)	—	A 4)	—	A 4)	—	—		—	A 4)	—	A 4)	—	
Paraguay (Republic of)	¼	S		—		—		—		—	A	—	A	—	A	—	A	S		S		S	A	—	A	S		
Netherlands (Kingdom of the)	10	S 1)	31. XII. 1974 18)	S	17. IV. 1975	S	A	S	A	S	A	S	A	S	A	S	A	S	A	S		S	A	S	A	S		
Peru	½	S 1)		S		S	1)	S	1)	S	1)	—	1)	—	1)	—	1)	S	1)	S		S	1)	—	1)	S		

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

Table I. Convention, Regulations (continued)

Countries (In the alphabetical order of the French version of the country names)	CONVENTION, etc.					ADMINISTRATIVE REGULATIONS			
	Plenipotentiary Conference of Malaga-Torremolinos, 1973					World Administrative Telegraph and Telephone Conference Geneva (1973)			
	Class of contribution No. of units	Convention, etc. *	Date on which the instrument of ratification or accession was deposited with the General Secretariat	Opt. Add. Protocol **	Date on which the instrument of ratification or accession was deposited with the General Secretariat	Telegraph Regulations		Telephone Regulations	
1	2	3	4	5	6	7	8	9	10
Philippines (Republic of the)	1	S ¹⁾	13. VIII. 1975	S		S	A	S	A
Poland (People's Republic of)	3	S ¹⁾		—		S		S	
Portugal.	½	A	12. XI. 1975	—		S	A ⁴⁾	S	A ⁴⁾
Qatar (State of)	½	A	24. X. 1975	A	24. X. 1975	—	A ⁴⁾	—	A ⁴⁾
Syrian Arab Republic	½	—		—		—		—	
German Democratic Republic	3	S ¹⁾		—		S	A	S	A
Ukrainian Soviet Socialist Republic . . .	3	S ¹⁾		—		S		S	
Roumania (Socialist Republic of)	1	S ¹⁾		—		S		S	
United Kingdom of Great Britain and Northern Ireland	30	S ¹⁾	31. XII. 1974 ²⁾	S	31. XII. 1974 ²⁾	S	A	S	A
Rwanda (Republic of)	½	S ¹⁾		—		—	A	—	A
Senegal (Republic of the)	1	S ¹⁾		S		S		S	
Sierra Leone	½	S ¹⁾		S		—		—	
Singapore (Republic of)	1	S ¹⁾	16. IX. 1974	—		—	A ⁴⁾	—	A ⁴⁾
Somali Democratic Republic	½	S ¹⁾		—		S		S	
Sudan (Democratic Republic of the) . . .	1	S ¹⁾		—		S		S	
Sri Lanka (Ceylon) (Republic of)	½	S ¹⁾		S		—		—	
South Africa (Republic of)	8	A	23. XII. 1974 ³⁾	—		S	A ⁴⁾	S	A ⁴⁾
Sweden	10	S ¹⁾		—		S	A	S	A
Switzerland (Confederation of)	10	S ¹⁾		S		S		S	
Swaziland (Kingdom of)	½	A	20. I. 1975 ²⁾	—		—	A ⁴⁾	—	A ⁴⁾
Tanzania (United Republic of)	½	S ¹⁾	2. IX. 1975	—		S	A ⁴⁾	S	A ⁴⁾
Chad (Republic of the).	½	S ¹⁾		S		—		—	
Czechoslovak Socialist Republic.	3	S ¹⁾		—		S		S	
Thailand	1½	S ¹⁾	8. X. 1975 ²⁾	S		S	A	S	A
Togolese Republic	½	S ¹⁾		S		S		S	
Tonga (Kingdom of)	½	—		—		—		—	
Trinidad and Tobago	1	S ¹⁾	13. III. 1975	—		—	A ⁴⁾	—	A ⁴⁾

¹⁾ Convention, Final Protocol, Additional Protocols.
²⁾ Optional Additional Protocol on the Compulsory Settlement of Disputes.

ADMINISTRATIVE REGULATIONS																	
Administrative Radio Conferences																	
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)		Partial Revision W.A.R.C. Geneva (1974) (maritime-2)		A.R.C. Geneva (1959)		Partial Revision W.A.R.C. Geneva (1967) (maritime)		Partial Revision W.A.R.C. Geneva (1974) (maritime-2)	
11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
S	A ⁴⁾	S	A	—	A	—	A	S	A	S		S	A ⁴⁾	—	A	S	
S	¹⁾	S	¹⁾	S	¹⁾	S	¹⁾	S	¹⁾	S		S	¹⁾	S	¹⁾	S	
S	A	S	A	S	A ⁴⁾	S	A ⁴⁾	S	A ⁴⁾	—		S	A	S	A ⁴⁾	—	
—	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⁾	—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	S	A	—	A ⁴⁾	—	A ⁴⁾	S	A
S	¹⁾	S	A	—	A ¹³⁾	—	¹⁾	S	A	—		S	¹⁾	—	¹⁾	—	
S	¹⁾	S	¹⁾	S	¹⁾	S	¹⁾	S	¹⁾	S		S	¹⁾	S	¹⁾	S	
S	A	S	A	S	A	S	A	S	A	S	A ³²⁾	S	A	S	A	S	A ³²⁾
—	A ⁴⁾	—	A	—	A	—	A	S		—		—	A ⁴⁾	—	A	—	
—	A	—	A	—	A	S	A	S		S		—	A	S	A	S	
—	A ⁴⁾	—	A	—	A ⁴⁾	—	A	—		—		—	A ⁴⁾	—	A	—	
—	A ⁴⁾	—	A ⁴⁾	S	A ³⁾	S	A ³⁾	S	A ³⁾	S	A	—	A ⁴⁾	S	A ³⁾	S	A
—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—		—		—	A ⁴⁾	—	A ⁴⁾	—	
S	A	—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—		S	A	—	A ⁴⁾	—	
S	A ⁴⁾	—	A ⁴⁾	—	A	S	A	S		S		S	A ⁴⁾	S	A	S	
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		S	A	S	A	S	
—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—		—	A ⁴⁾	—	A ⁴⁾	—	
—	A ⁴⁾	S	A	—	A	—	A	S	A ⁴⁾	S		—	A ⁴⁾	—	A	S	
—	A	—	A	—	A ⁴⁾	S		—		—		—	A	S		—	
S	¹⁾	S	¹⁾	S	¹⁾	S	¹⁾	S	¹⁾	S		S	¹⁾	S	¹⁾	S	
S	A	—	A	S	A ⁴⁾	—	A ⁴⁾	S	A	S	A	S	A	—	A ⁴⁾	S	A
—	A ⁴⁾	—	A	—	A ⁴⁾	S		S		S		—	A ⁴⁾	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⁾	—	

Table I.

Countries (In the alphabetical order of the French version of the country names)	CONVENTION, etc.					ADMINISTRATIVE REGULATIONS			
	Plenipotentiary Conference of Malaga-Torremolinos, 1973					World Administrative Telegraph and Telephone Conference			
	Class of contribution No. of units	Convention, etc.	Date on which the instrument of ratification or accession was deposited with the General Secretariat	Opt. Add. Protocol **	Date on which the instrument of ratification or accession was deposited with the General Secretariat	Geneva (1973)			
						Telegraph Regulations		Telephone Regulations	
1	2	3	4	5	6	7	8	9	10
Tunisia	2	S ¹⁾	25. IV. 1975	S		S	A ⁴⁾	S	A ⁴⁾
Turkey	2	S ¹⁾		—		S		S	
Union of Soviet Socialist Republics	30	S ¹⁾		—		S	A	S	A
Uruguay (Oriental Republic of)	½	S ¹⁾		—		—		—	
Venezuela (Republic of)	3	S		—		—		—	
Viet-Nam (Republic of)	½	S ¹⁾		—		S		S	
Yemen Arab Republic	½	S ¹⁾		S		—		—	
Yemen (People's Democratic Republic of)	½	S ¹⁾		S		—		—	
Yugoslavia (Socialist Federal Republic of)	1	S ¹⁾	22. IX. 1975	—		S	A	S	A
Zaire (Republic of)	1	S		S		—		—	
Zambia (Republic of)	½	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 (Malaga-Torremolinos, 1973).

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 or acceded to the International Telecommunication Convention of Montreux, 1965 or to that of Malaga-Torremolinos, 1973.

5) See Notification No. 1088.

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

7) See Notification No. 977.

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

9) See Notification No. 1063.

10) See Notification No. 1097.

11) 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 jeopardize 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 No. 1087.

12) Formerly: Dahomey (Republic of).

13) See Notifications Nos. 1004 and 1013.

14) Formerly: Burma (Union of).

15) See Notification No. 1000.

16) See Notification No. 1019.

17) See Notification No. 911.

18) 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).

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.

*) Surinam is now an independent State, Member of the UN.

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 Radio Regulations (Geneva, 1959) which came into force on 1 May 1961.

22) 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 Solomon Islands and, within the limits of

Convention, Regulations (end)

ADMINISTRATIVE REGULATIONS																		
Administrative Radio Conferences																		
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)		Partial Revision W.A.R.C. Geneva (1974) (maritime-2)		A.R.C. Geneva (1959)		Partial Revision W.A.R.C. Geneva (1967) (maritime)		Partial Revision W.A.R.C. Geneva (1974) (maritime-2)		
11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
S	A	—	A	—	A ⁴⁾	S	A ⁴⁾	S	A ⁴⁾	S		S	A	S	A ⁴⁾	S		
S	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	S		S		S		S	A ⁴⁾	S		S		
S	1)	S	A	S	A ¹³⁾	S	1)	S	A	S		S	1)	S	1)	S		
S	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	S		—		S	A ⁴⁾	—	A ⁴⁾	—		
S	A ⁴⁾	—	A ⁴⁾	S	A ⁴⁾	S	A ⁴⁾	S	A	S		S	A ⁴⁾	S	A ⁴⁾	S		
—	A	—	A	—	A ⁴⁾	S		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	S	A	S	A	S	A	S	A	S		S	A	S	A	S		
—	A ⁴⁾	S	A	S	A ⁴⁾	—	A ⁴⁾	S		—		—	A ⁴⁾	—	A ⁴⁾	—		
—	A ⁴⁾	—	A	—	A ⁴⁾	—		—		—		—	A ⁴⁾	—		—		

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.

23) In ratifying the Montreux Convention 1965, the Government of the Hungarian People's Republic 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 radio-navigation 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."

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) Formerly: Malta.

27) In acceding to the Convention, the Government of the Republic of Malta has reserved the right to take such action as it may consider

necessary to protect its interests, should Members in any way fail to comply with the requirements of the Convention, Annexes, Protocols etc., or should the reservations made by such Members jeopardize its telecommunication services or lead to an increase in Malta's share in defraying the expenses of the Union.

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

29) In acceding to the Convention, the Government of the Kingdom of Swaziland confirmed the statement contained in No. II of the Final Protocol to the aforementioned Convention.

30) In acceding to the Convention, the Government of the Commonwealth of the Bahamas has reserved the right not to accept any financial measure which might lead to an increase in its contributory share to defraying the expenses of the Union, and the right to take such action as it may consider necessary to safeguard its interests should certain Members not share in defraying the expenses of the Union, or should they fail in any other way to comply with the requirements of the Convention or its Annexes or the Protocols attached thereto or should reservations by other countries jeopardize the telecommunication services of the Commonwealth of the Bahamas.

31) In acceding to the Convention, the Government of Papua New Guinea has reserved the right to take such action as it may consider necessary to safeguard its interest should certain Members not share in defraying the expenses of the Union, or should they fail in any other way to comply with the requirements of the Convention or its Annexes or the Protocols attached thereto, or should reservations by other countries jeopardize their telecommunication services.

32) The approval is in respect of the United Kingdom of Great Britain and Northern Ireland, the Associated States (Antigua, Dominica, St. Christopher-Nevis-Anguilla, St. Lucia and St. Vincent) and Territories under the territorial sovereignty of the United Kingdom, as well as the State of Brunei, the Solomon Islands and, within the limits of jurisdiction therein, the Condominium of the New Hebrides.

33) 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.

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	Broadcasting Agreement VHF/UHF (Geneva, 1963)		Broadcasting Agreement MF (Geneva, 1966)	
	2	3	4	5
Algeria (Algerian Democratic and Popular Republic)	—		S	
Benin (People's Rep. of)	S		S	
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	
Egypt (Arab Republic of)	—	A	S	A
Spain ¹⁾	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	
Upper Volta (Republic of)	S		S	
Kenya (Republic of)	S	A	S	A
Liberia (Republic of)	S		S	
Libyan Arab Republic	S		—	
Malawi	—		S	

Country	Broadcasting Agreement VHF/UHF (Geneva, 1963)		Broadcasting Agreement MF (Geneva, 1966)	
	2	3	4	5
Malagasy Republic	S		S	
Mali (Republic of)	S		S	
Morocco (Kingdom of)	—		S	
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
Portugal ³⁾	S	A	S	
United Kingdom of Great Britain and Northern Ireland ⁴⁾	S		S	A
Rwanda (Republic of)	S		S	
Senegal (Republic of the)	S	A	S	
Sierra Leone	S	A	—	
Somali Democratic Republic	S		—	
South Africa (Republic of)	S	A	—	
Tanzania (United Republic of)	S	A	S	A
Chad (Republic of the)	S		S	
Togolese Republic	S		S	
Zaire (Republic of)	S		S	
Zambia (Republic of)	—		S	A

¹⁾ With respect to the Canarias and on behalf of the Spanish Saharian Territory.

²⁾ With respect to the Department of Reunion and on behalf of the Group of Territories represented by the French Overseas Post and Telecommunication Agency; with respect to French Somaliland (*new denomination: Afars and Issas*) and the Comoros.

³⁾ On behalf of the Portuguese Overseas Provinces.

⁴⁾ On behalf of the Overseas Territories for the international relations of which the Government of the United Kingdom of Great Britain and Northern Ireland are responsible.

Note: The Agreement of Geneva, 1963, was also signed on behalf of the Federation of Rhodesia and Nyasaland.

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	Inter-American Radio Agreement (FIAR) (Washington, 1949)		North-American Regional Broadcasting Agreement (NARBA) (Washington, 1950)	
	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	Inter-American Radio Agreement (FIAR) (Washington, 1949)		North-American Regional Broadcasting Agreement (NARBA) (Washington, 1950)	
	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	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 in the bands 68-73 MHz and 76-87.5 MHz (Geneva, 1960) *)		Regional Agreement for the European Broadcasting 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	—	—	—	—	—
Germany (Federal Republic of)	—	—	—	—	—	—	S	A	S	A ⁶⁾	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	—	—	—
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	—	—	—
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	—	—
Lebanon	—	—	—	—	—	—	—	—	S	—	—	—
Luxembourg	—	—	—	—	—	—	—	—	S	—	S	—
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 ⁷⁾	—	—	—	S	A	—	—
German Democratic Republic	—	—	—	—	—	—	—	—	—	A ⁹⁾	—	—
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 ⁸⁾	A ⁸⁾	—	—
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	—	—	—
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."

⁷⁾ Also signed on behalf of the Portuguese Oversea Provinces.

⁸⁾ Also signed and approved on behalf of the Overseas Territories for the international relations of which the Government of the United Kingdom are responsible.

⁹⁾ In acceding to that Agreement, the Government of the German Democratic Republic made the following statement:

"The Ministry of Posts and Telecommunications of the German Democratic Republic joins the delegations of the Byelorussian Soviet Socialist Republic, the People's Republic of Bulgaria, the Hungarian People's Republic, the People's Republic of Poland, the Socialist Republic of Roumania, the Union of Soviet Socialist Republics, the Ukrainian Soviet Socialist Republic and the Czechoslovak Socialist Republic in their statement included in the Final Protocol of the Regional Agreement for the European Broadcasting Area, in keeping with the principles of the Four-Power Agreement of 3 September 1971, to the effect that West Berlin is not a part of the Federal Republic of Germany and may not be governed by it."

**Table V. Regional Agreement concerning the use by the broadcasting service
of frequencies in the medium frequency bands in Regions 1 and 3
and in the low frequency bands in Region 1
(Geneva, 1975)**

This Agreement, which will come into force on 23 November 1978, was signed on 22 November 1975 by the delegates of the following Members *):

Afghanistan (Republic of)	Cameroon (United Republic of)
Algeria (Algerian Democratic and Popular Republic)	Central African Republic
Germany (Federal Republic of)	China (People's Republic of)
Saudi Arabia (Kingdom of)	Cyprus (Republic of)
Australia	Vatican City State
Austria	Congo (People's Republic of the)
Bangladesh (People's Republic of)	Korea (Republic of)
Belgium	Ivory Coast (Republic of the)
Benin (People's Republic of) **	Denmark
Byelorussian Soviet Socialist Republic	Egypt (Arab Republic of)
Botswana (Republic of)	United Arab Emirates
Bulgaria (People's Republic of)	Spain
Burundi (Republic of)	Ethiopia
	Fiji

*) In the alphabetical order of the French version of the country names.

**) Denomination at time of signature: Dahomey (Republic of).

Finland	Niger (Republic of the)
France	Nigeria (Federal Republic of)
Gabon Republic	Norway
Gambia (Republic of the)	New Zealand
Ghana	Uganda (Republic of)
Greece	Pakistan
Guinea (Republic of)	Papua New Guinea
Hungarian People's Republic	Netherlands (Kingdom of the)
India (Republic of)	Philippines (Republic of the)
Indonesia (Republic of)	Poland (People's Republic of)
Iran	Portugal
Iraq (Republic of)	Qatar (State of)
Ireland	Syrian Arab Republic
Iceland	German Democratic Republic
Israel (State of)	Ukrainian Soviet Socialist Republic
Italy	Roumania (Socialist Republic of)
Japan	United Kingdom of Great Britain and Northern Ireland
Jordan (Hashemite Kingdom of)	Senegal (Republic of the)
Kenya (Republic of)	Singapore (Republic of)
Kuwait (State of)	Sudan (Democratic Republic of the)
Lesotho (Kingdom of)	Sri Lanka (Ceylon) (Republic of)
Lebanon	Sweden
Liberia (Republic of)	Switzerland (Confederation of)
Libyan Arab Republic	Tanzania (United Republic of)
Liechtenstein (Principality of)	Chad (Republic of the)
Luxembourg	Czechoslovak Socialist Republic
Malaysia	Thailand
Malawi	Togolese Republic
Malagasy Democratic Republic	Tunisia
Mali (Republic of)	Turkey
Morocco (Kingdom of)	Union of Soviet Socialist Republics
Mauritius	Yemen Arab Republic
Mauritania (Islamic Republic of)	Yemen (People's Democratic Republic of)
Monaco	Yugoslavia (Socialist Federal Republic of)
Mongolian People's Republic	Zaire (Republic of)
Mozambique (People's Republic of)	Zambia (Republic of)
Nepal	

VI. Special Agreements

VI.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).

**VI.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).

**VI.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 and Netherlands (Kingdom of the).

By letter dated 6 June 1974, the Administration of Belgium announced that the Administration of Luxembourg has acceded to this Agreement.

**VI.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.

**VI.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.

**VI.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 2A

BUDGET FOR 1975

SUMMARY OF ESTIMATED EXPENDITURE FOR 1975

Expenditure	Expenditure 1974	Budget 1975	Budget 1975 including additional credits	Additional credits under Res. No. 647	Budget 1975 including additional credits
Swiss francs					
I. BUDGET OF THE UNION					
<i>Section 1</i> — Administrative Council	682,370	723,000	750,000	1,900	751,900
Common Headquarters expenditure:					
<i>Section 2</i> — Staff	25,899,633	27,320,400	28,619,800	394,500	29,014,300
<i>Section 3</i> — Social security	5,133,714	5,518,000	5,590,900	225,000	5,815,900
<i>Section 4</i> — Premises	3,055,080	3,651,000	3,651,000	—	3,651,000
<i>Section 5</i> — Missions	1,147,493	150,000	150,000	—	150,000
<i>Section 6</i> — Office and miscellaneous	2,089,799	2,079,000	2,079,000	—	2,079,000
<i>Section 7</i> — Technical aid for the Group of Engineers	103,228	300,000	300,000	—	300,000
	37,111,317	39,741,400	41,140,700	621,400	41,762,100
<i>Section 11</i> — Conferences under No. 91 of the Convention:					
World Administrative Maritime Radio Con- ference	2,682,469	—	—	—	—
<i>Section 12</i> — CCIR meetings	2,022,898	200,000	200,000	—	200,000
<i>Section 13</i> — CCITT meetings	1,622,880	2,476,000	2,547,000	21,600	2,568,600
<i>Section 14</i> — Regional Administrative LF/MF Broadcasting Conference	931,134	3,090,000	3,417,000	—	3,417,000
<i>Section 15</i> — ITU seminars	63,114	—	—	—	—
<i>Section 16</i> — Seminars of Member administrations	227,388	180,000	180,000	—	180,000
	44,661,200	45,687,400	47,484,700	643,000	48,127,700
Expenditure on fitting out the CCITT Laboratory	19,464	40,000	60,000	—	60,000
Maintenance and renewal of simultaneous inter- pretation and other electro-acoustical equipment	7,832	10,000	10,000	—	10,000
	44,688,496	45,737,400	47,554,700	643,000	48,197,700
Transfer to ITU Reserve Account (Resolution No. 11, Convention, 1973)	755,644	1,570,000	1,570,000	—	1,570,000
	45,444,140	47,307,400	49,124,700	643,000	49,767,700
II. TECHNICAL COOPERATION SPECIAL ACCOUNTS BUDGET					
<i>Section 21</i> — Technical Cooperation:					
Administrative costs	6,929,404	6,415,200	6,628,700	118,000	6,746,700
III. SUPPLEMENTARY PUBLICATIONS BUDGET					
Total expenditure	9,356,355	6,408,800	6,554,800	25,100	6,579,900
Surplus income	1,634,850	31,200	—	—	—
	10,991,205	6,440,000	6,554,800	25,100	6,579,900

SUMMARY OF ESTIMATED INCOME FOR 1975

Income	Income 1974	Budget 1975	Budget 1975 including additional income	Additional income under Res. No. 647	Budget 1975 including additional income
Swiss francs					
I. BUDGET OF THE UNION					
Contributions:					
— Contributions of Members of the Union to defrayal of expenditure for the current year . .	41,285,125	40,968,300	40,968,300	—	40,968,300
— Contributions of private operating agencies and scientific or industrial organizations to defrayal of expenses of conferences and meetings (Sections 11 to 13):					
— World Administrative Maritime Radio Conference	18,510	—	—	—	—
— CCIR	1,090,200	1,211,800	1,211,800	—	1,211,800
— CCITT	1,694,771	1,850,900	1,850,900	—	1,850,900
— Contributions of Members to defrayal of expenditure of the Regional Administrative LF/MF Broadcasting Conference	931,134	3,090,000	3,417,000	—	3,417,000
Sundry income	181,104	56,400	56,400	—	56,400
	45,200,844	47,177,400	47,504,400	—	47,504,400
Staff seconded to the Regional Administrative LF/MF Broadcasting Conference	—	80,000	80,000	—	80,000
Withdrawal from CCITT Reserve Fund for fitting out the CCITT Laboratory	19,464	40,000	60,000	—	60,000
Withdrawal from Renewal Fund for maintenance and renewal of simultaneous interpretation and other electro-acoustical equipment	7,832	10,000	10,000	—	10,000
	45,228,140	47,307,400	47,654,400	—	47,654,400
Withdrawal from ITU Reserve Account	216,000	—	1,470,300	643,000	2,113,300
	45,444,140	47,307,400	49,124,700	643,000	49,767,700
II. TECHNICAL COOPERATION SPECIAL ACCOUNTS BUDGET					
Contributions to Technical Cooperation administrative costs and sums brought forward from previous years	6,929,404	6,415,200	6,628,700	118,000	6,746,700
III. SUPPLEMENTARY PUBLICATIONS BUDGET					
Total income	10,991,205	6,440,000	6,440,000	—	6,440,000
Excess expenditure	—	—	114,800	25,100	139,900
	10,991,205	6,440,000	6,554,800	25,100	6,579,900

ANNEX 2B

ACCOUNTS FOR 1975

PROFIT AND LOSS ACCOUNT FOR 1975

(Management account) (in Swiss francs)

Expenditure	Budget 1975 ¹	Accounts 1975
I. BUDGET OF THE UNION		
<i>Section 1</i> — Administrative Council	751,900.—	856,744.89
Common Headquarters expenditure:		
<i>Section 2</i> — Staff	29,014,300.—	28,818,456.25
<i>Section 3</i> — Social security	5,815,900.—	5,738,579.75
<i>Section 4</i> — Premises	3,651,000.—	3,528,258.14
<i>Section 5</i> — Missions	150,000.—	149,611.60
<i>Section 6</i> — Office and miscellaneous	2,079,000.—	2,200,300.03
<i>Section 7</i> — Technical aid for the Group of Engineers.	300,000.—	299,538.90
	41,762,100.—	41,591,489.46
<i>Section 11</i> — World Administrative Conferences	—	—
<i>Section 12</i> — CCIR meetings	200,000.—	311,329.25
<i>Section 13</i> — CCITT meetings	2,568,600.—	2,730,041.18
<i>Section 14</i> — Regional Administrative Conferences: LF/MF Broadcasting Conference	3,417,000.—	3,496,022.—
<i>Section 16</i> — Other expenditure: Seminars of Member administrations	180,000.—	183,547.30
	48,127,700.—	48,312,429.19
Fitting out the CCITT Laboratory	60,000.—	59,743.85
Maintenance and renewal of simultaneous interpretation and other electroacoustical equipment	10,000.—	5,276.40
Cancellation of amounts payable by US Underseas Cable	—	5,437.50
	48,197,700.—	48,382,886.94
Transfer to ITU Reserve Account (Res. No. 11—Torremolinos Conf.)	1,570,000.—	1,570,000.—
	49,767,700.—	49,952,886.94
Surplus income paid into ITU Reserve Account	—	343,563.10
	49,767,700.—	50,296,450.04

¹ Budget for 1975 including additional credits.

PROFIT AND LOSS ACCOUNT FOR 1975

(Management account) (in Swiss francs)

Income	Budget 1975 ¹	Accounts 1975
I. BUDGET OF THE UNION		
Contributions:		
— Contributions of Members of the Union to defrayal of expenditure for the current year	40,968,300.—	41,091,550.05
— Contributions of private operating agencies and scientific or industrial organizations to defrayal of expenses of conf. and meetings under Sections 12 and 13:		
— CCIR	1,211,800.—	1,231,858.35
— CCITT	1,850,900.—	1,984,666.55
— Contributions of Members to defrayal of expenses of regional administrative conferences	3,417,000.—	3,496,022.—
Sundry income.	56,400.—	188,595.34
	47,504,400.—	47,992,692.29
— Staff seconded to regional administrative conferences	80,000.—	120,000.—
— Withdrawal from CCITT Reserve Fund for fitting out CCITT Laboratory	60,000.—	59,743.85
— Withdrawal from Renewal Fund for maintenance and renewal of simultaneous interpretation equipment	10,000.—	5,276.40
— Withdrawal from ITU Reserve Account due to cancellation of debts of US Underseas Cable	—	5,437.50
— Withdrawal from ITU Reserve Account to cover additional credits	2,113,300.—	2,113,300.—
	49,767,700.—	50,296,450.04
	49,767,700.—	50,296,450.04

¹ Budget for 1975 including additional credits.

PROFIT AND LOSS ACCOUNT FOR 1975

(Management account) (in Swiss francs)

Expenditure	Budget 1975 ¹	Accounts 1975
II. TECHNICAL COOPERATION SPECIAL ACCOUNTS BUDGET		
<i>Section 21</i> — Technical Cooperation—Administrative costs . .	6,746,700.—	6,951,003.75
Excess expenditure brought forward from 1974.	—	2,412,119.86
	6,746,700.—	9,363,123.61
	6,746,700.—	9,363,123.61
III. SUPPLEMENTARY PUBLICATIONS BUDGET		
<i>Section 24</i> } — Publications issued in 1975, including overheads	5,382,900.—	8,387,696.03
<i>Section 25</i> }		
<i>Section 26</i> — Publications sold at a loss.	1,102,000.—	1,483,711.90
<i>Section 27</i> — Miscellaneous	95,000.—	170,004.20
	6,579,900.—	10,041,412.13
Surplus income credited to the Publications Capital Account . . .	—	334,496.67
	6,579,900.—	10,375,908.80

¹ Budget for 1975 including additional credits.

PROFIT AND LOSS ACCOUNT FOR 1975

(Management account) (in Swiss francs)

Income	Budget 1975 ¹	Accounts 1975
II. TECHNICAL COOPERATION SPECIAL ACCOUNTS BUDGET		
Contribution by UNDP to defrayal of expenditure on projects . . }	6,746,700.—	7,264,696.35
Contribution for Funds-in-Trust }		
Other income:		
— Balance of unused credits, 1974		2,271.95
— Sundry income		27,305.30
Cancellation of excess withdrawals for administrative costs prior to 1971		1,199,204.85
	6,746,700.—	8,493,478.45
Excess expenditure carried forward to 1976		869,654.16
	6,746,700.—	9,363,123.61
III. SUPPLEMENTARY PUBLICATIONS BUDGET		
Sale of publications issued in 1975	5,310,000.—	9,293,823.70
Sale of publications issued in previous years	30,000.—	(230,184.65)
Sale of publications sold at a loss	200,000.—	260,555.80
Advertisements in the Telecommunication Journal	800,000.—	859,463.65
Miscellaneous	100,000.—	169,116.30
Balance of unused credits, 1974		23,134.—
	6,440,000.—	10,375,908.80
Excess expenditure withdrawn from Publications Capital Account	139,900.—	—
	6,579,900.—	10,375,908.80

¹ Final budget for 1975 including additional credits.

ANNEX 3

LIST OF PUBLICATIONS ISSUED BY THE UNION IN 1975

		<i>No. of copies</i>	
1.	12 Notifications, Nos. 1086 to 1097	F	500
		E	600
		S	150
2.	26 General Secretariat Circulars, Nos. 1 to 26	F	560
		E	920
		S	250
3.	Supplement No. 10 to the Volume of Resolutions and Decisions of the Administrative Council, 30th Session, 1975	F	400
		E	500
		S	200
4.	Financial Operating Report for 1974	F	500
		E	600
		S	230
5.	Report on the Activities of the Union 1974	F	650
		E	750
		S	350
6.	Telecommunication Journal, 12 numbers	F	1.850
		E	3.800
		S	850
7.	11 Operational Bulletins, Nos. 109 to 119	F	500
		E	600
		S	170
8.	List of Addresses, 4th edition 1972: Supplement No. 8, trilingual		1.700
9.	Yearbook of Common Carrier Telecommunication Statistics, 2nd edition, 1975, trilingual		1.300
10.	Codes and Abbreviations for the use of the international Telecommunication Services, 3rd edition, 1975	F	1.800
		E	2.200
		S	500
11.	Final Acts of the World Administrative Maritime Radio Conference, Geneva, 1974	F	1.100
		E	2.700
		S	600
12.	Appendix 25 Mar2 to the Radio Regulations, Geneva, 1974	F	1.100
		E	2.700
		S	600
13.	List of Telegraph Offices, 23rd edition 1971: Supplements Nos. 15 to 18, trilingual		20.000
14.	List of International Telephone Routes, 15th edition 1975, trilingual		1.150
15.	List of Destination Indicators and Telex Identification Codes, 3rd edition, 1973: Supplements Nos. 1 to 3, trilingual		1.600
16.	Table of International Telex Relations and Traffic, 1974, trilingual		750

No. of copies

17.	Routing Table for Offices connected to the Gentex Service, 4th edition 1972: Supplement No. 5 and Amendment No. 27, trilingual		1.000
18.	T.A. Table, Transferred Account Telegraph Service, 4th edition 1973: Supplements Nos. 4 and 5, trilingual		700
19.	Table of Telegraph Rates, 1975 edition and supplement No. 1, trilingual		850
20.	Directory of Information on Programme Booking Centres, International Sound Programme Centres, International Television Programme Centres and Centres for maintaining Sound and Television Programme Circuits, 1st edition, 1975, trilingual.		1.300
21.	Manual for Use by the Maritime Mobile and Maritime Mobile Satellite Services, Geneva, 1976	F E S	4.500 26.000 5.000
22.	List of Coast Stations, 5th edition 1973: Supplements Nos. 1 and 2, trilingual		30.000
23.	List of Ship Stations, 15th edition 1975 and Supplement, trilingual		20.000
24.	Alphabetical List of Call Signs of Stations used by the Maritime Mobile Service, 7th edition 1974: Supplements Nos. 1 to 4, multilingual		21.500
25.	Alphabetical List of Call Signs of Stations other than Amateur Stations, Experimental Stations and Stations of the Maritime Mobile Service, 6th edition 1974: Supplements Nos. 1 to 4, trilingual		3.100
26.	Supplement No. 1 to the World Plan, Venezia, 1971, trilingual		1.300
27.	General Plan for the Development of the regional Asian and Oceanian Network, Tokyo, 1974, trilingual		900
28.	General Plan for the Development of the regional Network in the Region Europe and Mediterranean Basin, León (Spain), 1974, Parts 1 and 2, trilingual		850
29.	General Plan for the Development of the regional Network in Africa, Kinshasa, 1975, trilingual		700
30.	Documents of the XIIIth Plenary Assembly of the CCIR, Geneva, 1974:		
	Volume I	F E S	1.100 4.500 650
	Volume II	F E S	1.150 5.000 650
	Volume III	F E S	1.100 3.500 650
	Volume IV	F E S	1.150 5.000 650
	Volume V	F E S	1.100 5.000 700
	Volume VI	F E S	1.150 4.500 650
	Volume VII	F E S	1.100 3.000 650
	Volume VIII	F E S	1.050 4.000 650

		<i>No. of copies</i>	
Volume IX	F	1.100	
	E	5.000	
	S	650	
Volume X	F	1.100	
	E	4.400	
	S	650	
Volume IX	F	1.100	
	E	4.500	
	S	650	
Volume XII	F	1.100	
	E	5.000	
	S	650	
Volume XIII	F	800	
	E	3.000	
	S	550	
31.	International Frequency List, 7th edition 1973:		
	Preface : Supplement No. 7 (including supplement No. 6), trilingual	1.600	
	Volume I : Supplement No. 7, multilingual	1.300	
	Volume II : Supplement No. 7, multilingual	1.300	
	Volume III : Supplement No. 7, multilingual	1.250	
	Volume IV : Supplement No. 7, multilingual	1.300	
	Volume V a) : Supplement No. 7, multilingual	1.100	
	Volume V b) : Supplement No. 7, multilingual	1.100	
	Volume V c) : Supplement No. 7, multilingual	1.000	
	Volume V d) : Supplement No. 7, multilingual	1.050	
32.	International Frequency List, 8th edition 1975:		
	Volume I and Supplements Nos. 1 and 2, multilingual	1.200	
	Volume II and Supplements Nos. 1 and 2, multilingual	1.200	
	Volume III and Supplements Nos. 1 and 2, multilingual	1.100	
	Volume IV and Supplements Nos. 1 and 2, multilingual	1.100	
	Volume V a) and Supplements Nos. 1 and 2, multilingual	1.000	
	Volume V b) and Supplements Nos. 1 and 2, multilingual	900	
	Volume V c) and Supplements Nos. 1 and 2, multilingual	800	
	Volume V d) and Supplements Nos. 1 and 2, multilingual	800	
33.	List of Fixed Stations operating international Circuits, 7th edition 1973:		
	Supplement No. 7, trilingual	1.300	
34.	List of Fixed Stations operating international Circuits, 8th edition 1975 and Supplements Nos. 1 and 2, trilingual		
		1.300	
35.	List of Broadcasting Stations operating in Bands below 5950 KHz, 8th edition 1975 and Supplement No. 1, trilingual		
		1.000	
36.	List of Stations in the Space Service and in the Radioastronomy Service, 4th edition 1973: Supplement No. 2, trilingual		
		1.000	
37.	List of Stations in the Space Service and in the Radioastronomy Service, 5th edition 1975, trilingual		
		800	
38.	51 IFRB Weekly Circulars, Nos. 1144 to 1194:		
	Parts I-II-III and Special, trilingual	400	
	Part IV, trilingual	450	
39.	4 Summaries of Monitoring Information Received by the IFRB, Nos. 184 to 187, trilingual		
		500	

No. of copies

40.	Tentative High Frequency Broadcasting Schedules, May 1975, September 1975, November 1975, trilingual		600
41.	High Frequency Broadcasting Schedules, September 1974, November 1972, March 1975, November 1974, trilingual		480
42.	Seminar on Frequency Management, Mexico, 1971	E	550
		S	200
43.	Seminar on Switching and Signalling systems, PANAFTEL III, Lusaka, 1974	F	500
		E	500
44.	Seminar on Tariffs and Signalling Systems, PANAFTEL IV, Yaoundé, 1975	F	500
		E	500
45.	Information Booklet No. 16: What is ITU ?	F	7.000
		E	10.000
		S	5.000
46.	Information Booklet No. 17: Fourteenth Report by the International Telecommunication Union on Telecommunication and the peaceful Uses of Outer Space, 1975	F	4.300
		E	6.400
		S	2.300
47.	Information Booklet No. 18: Space Radiocommunication System for Aid following natural Disasters	F	3.500
		E	4.500
		S	2.000

ANNEX 4

DATA PROCESSING ACTIVITIES AT THE ITU IN 1975

1. The ITU Computer was used for 3,289 hours in 1975. The relative monthly statistics in terms of applications and tests, as well as the percentage of total use by different organs, are shown below.

Month	Hours used			Percentage of total use				
	Total	Appl.	Tests	IFRB	GS	CCIR	CCITT	Misc.
January	239	149	90	33.5	60.3	2.9	0.6	2.7
February	208	146	62	44.8	54.2	0.6	—	0.4
March	246	140	106	43.6	56.1	0.3	—	—
April	265	130	135	33.7	64.9	0.2	—	1.2
May	251	172	79	52.6	44.0	0.2	0.2	3.0
June	355 ¹	284	71	72.8	22.4	0.2	1.3	3.3
July	266	215	51	50.7	43.8	3.8	0.7	1.0
August	232	171	61	41.0	44.1	8.3	1.4	5.2
September	335	229	106	45.4	40.5	7.0	0.3	6.8
October	346 ¹	231	115	47.6	41.5	4.9	0.8	5.2
November	349 ¹	302	47	58.1	33.3	0.6	1.2	6.8
December	197	150	47	39.7	47.0	0.6	2.9	9.8
Total	3,289	2,319	970					
Monthly Average (1975)	274	193	81	46.9	46.0	2.5	0.8	3.8
Monthly Average (1974)	212	150	62	39.0	44.6	7.2	0.1	9.1

¹ Work done on outside computers by ITU staff for Technical Cooperation Department and the Broadcasting Conference which is not included in the monthly totals: 227 hours (June 75 hours, October 88 hours, November 64 hours).

2. The monthly averages for the previous year also are given in the Table, paragraph 1. 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 which consume a sizeable machine-time were modified in 1975 to improve the efficiency of the task and cut down the throughput time, i.e. to occupy the computer less and produce the same results.

3. There was an increase of 25% in the use of the computer during 1975. This was mainly due to a heavy workload for the Broadcasting Conference. Total use of the machine in 1975 was 3,289 hours, compared to 2,540 hours in 1974. There was a total of 46,841 applications, tests and system operations

during the year, compared to 40,237 operations in 1974. During the year, the computer staff had to do over 3,300 hours of overtime in order to meet the requests for assistance of different services.

4. The Union continued to use outside computers for some of its specific non-repetitive tasks which require a computer of greater capacity than that required by ITU in-house services, or to meet special demands such as trials of programmes obtained from certain institutions before being adapted to our computer, or conference work. Apart from the ITU computer, a very powerful outside computer was used for 23 hours in October for the optimization of the Middle East and Mediterranean Telecommunication Network Project and for 205 hours in June, October and November for the LF/MF Broadcasting Conference. (Altogether 946 computer hours were used for the LM/MF Broadcasting Conference.)

5. At present there are over 60 tasks as regular applications on the computer. For the details concerning the IFRB and the CCIs, see Sections 5.2, 5.3 and 5.4 respectively. 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, a computer system is designed, the relevant programmes are written and tested, the necessary manuals compiled and procedures explained to the user. The system in question is then put through 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 1975, are summarized in the following paragraphs.

6. The integrated Salary/Personnel System for Finance and Personnel Departments, including technical cooperation experts in the field, developed and tested in 1974, was implemented in January 1975. During the year, eight major modifications were required due to changes imposed by the common UN system. Yearly statistics to CCAQ were also produced by the computer.

7. The Address Bank, developed with a view to maintaining one central file to be used by all Organs and all the different ITU services and to permitting exploitation according to the requirements of the services concerned, was implemented for most of the address files used at Headquarters. A special effort is being made to transfer all address files to the bank. At present there are about 37,000 addresses in the bank.

8. Development work continued with the aim of producing the ITU publications with the help of the computer. The first pilot production (English version of Preface to International Frequency List) was carried out in May 1975. A programme to integrate the ITU Photon photo-composer on the overall text treatment system was developed (a similar programme was offered to the ITU for 40,000 Sw. frs.).

9. A detailed study of the data entry terminal market was carried out. This study led to the acquisition of terminals mainly for the data capture of text but keeping in mind also some preliminary processing by the user.

10. The system for the List of Telegraph Offices was redesigned to meet the new requirements of service and take advantage of the facilities offered by new computer techniques. Its implementation is under way. It will be used for the production of the 24th Edition.

11. The system of photo-composition for ITU books as lists prepared with the help of the computer continues to be applied to more publications since it results in better quality of printing and presentation at a lower cost. In 1975, the International Frequency List (over 6,000 pages) was produced by this method. In 1976, the List of Telegraph Offices will be produced by the same method.
12. A computerized system is being developed to produce an index for the CCIR Books.
13. Technical assistance has been given to the Technical Cooperation Department for the Middle East Telecommunication Network in processing statistical data and calculating alternative routings by the computer.
14. A feasibility study has been carried out to apply a computerized standard procedure in checking all call-signs with regard to their allocation and formation in accordance with the Radio Regulations.
15. A new procedure has been added to the existing Sales-Debtors-Dispatch System as an interim solution to produce all the invoices by the computer.
16. A feasibility study for the development of a new Sales Information System was carried out. The proposed new system will simplify the sales-dispatch-invoicing-collection process and allow for earlier invoicing, then earlier payments.
17. A procedure was implemented to expand the use of labels produced by the computer for the Dispatch Service.
18. It is now possible, in the computerized system, for the reproduction service also to obtain statistics by organ for this service before, during and after conferences.
19. A preliminary study was carried out on a Project Management Information System for the Technical Cooperation Department.
20. The computer was used, as in 1974, to process and print the traffic and circuit data for the Plan Books for Asia and Oceania, for Europe and the Mediterranean Basin and for Africa, supplied by administrations in reply to the Plan Questionnaires. The computer system for Europe Plan 1973 was designed and developed by the Computer Department.
21. The programme developed to make it possible to have the computer output on micro-fiche directly from the magnetic tape, with a view to replacing the supply on paper of information from the computer output, when feasible, is being applied to Headquarters applications. This system, besides improving efficiency, will also limit expenditure on computer supplies. Already substantial economies have been achieved. Furthermore, it will also make it possible to choose micro-fiches in meeting requests from outside Headquarters for publications in forms other than the printed form.
22. 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 desired. There are other tasks waiting for computer assistance

which it has not yet been possible to tackle. Most of this is due to the limited Systems Analysis and Programming staff available.

23. Work continued in developing new procedures, utility programmes and existing programming conventions for the further improvement of computer operating efficiency. At the same time, steps continue to be taken to increase the effectiveness of the programming tasks.

24. Contributions have been made to the work of the International Computing Centre Task Force on EDP Costing.

25. The Department is contributing to the activities of the Working Party on Implementation of Resolution 47 of the Plenipotentiary Conference (creation of a Telecommunication Documentation Centre).

26. Eight seminars and information sessions were organized during the year to inform the staff connected with computer use about new developments and recently-developed procedures applied in the ITU computer.

27. Explanations and, when requested, advice were given to administrations and visitors to Headquarters concerning the computer work of the Union and computer problems.

ANNEX 5

CONFERENCES AND MEETINGS
AT WHICH THE UNION WAS REPRESENTED IN 1975

		<i>Number of participants</i>	
		<i>Officials from Head- quarters</i>	<i>Regional experts</i>
A. UNITED NATIONS			
1.	Meeting of the Inter-Organization Board for Information Systems and Related Activities (IOB), New York, 5-7 February	1	—
2.	Administrative Committee on Coordination (ACC), Sub-Committee on Education and Training (third session), Geneva, 5-7 February	2	—
3.	14th Session of the Legal Sub-Committee of the Committee on the Peaceful Uses of Outer Space, New York, 10 February-10 March.	2	—
3A.	15th Session of the United Nations Administrative Committee on Coordination, Sub-Committee on Marine Science and its Applications, Paris, 12-14 February	1	—
4.	Economic Commission for Africa, 5th Meeting of the Technical Committee of Experts, Addis Ababa, 17-21 February	—	1
5.	Ad hoc Inter-Agency Working Group, New York, 19-21 February 1975	1	—
6.	Economic Commission for Africa (ECA), 3rd Meeting of the Conference of Ministers and 12th Session of the ECA, Nairobi, 24-28 February	—	1
7.	United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), 31st Session, New Delhi, 26 February-7 March 1975	—	1
8.	Ad hoc Inter-Agency Meeting on Space Applications, Geneva, 6-7 March	1	—
9.	Administrative Committee on Coordination (ACC) Preparatory Committee, Rome, 12-25 March	1	—
10.	3rd Session of the Third United Nations Conference on the Laws of the Sea, Geneva, 17 March-10 May	2	—
11.	United Nations Development Programme, 19th Session of the Inter-Agency Consultative Board (IACB), Rome, 2 April	2	—
12.	Administrative Committee on Coordination (ACC), Rome, 3-4 April	1	—
13.	12th Session of the Scientific and Technical Sub-Committee of the Committee on the Peaceful Uses of Outer Space, New York, 21 April-2 May	1	—
14.	Economic Commission for Latin America (ECLA), 16th Session, Port-of-Spain, Trinidad and Tobago, 6-15 May—ITU representation from 12-15 May	—	1
15.	United Nations Development Programme 20th Session of the Governing Council, Geneva, 11-27 June	3	—
16.	Inter-Agency Meeting to review experts' report on structure of the United Nations, Geneva, 28 June	1	—
17.	Meeting to mobilize financial resources for medium- and long-term recovery and rehabilitation projects in the Sahel, Geneva, 1 July	1	—
18.	59th Session of the Economic and Social Council, Geneva, 2 July-1 August	4	—
19.	Ad hoc Inter-Agency Meeting on Language Arrangements Documentation and Publications, Geneva, 15 July	2	—
20.	7th Special Session of the General Assembly, New York, 1 September	1	—

		<i>Number of participants</i>	
		<i>Officials from Head- quarters</i>	<i>Regional experts</i>
21.	Joint UN/UNESCO Regional Seminar on Satellite Broadcasting Systems for Education and Development for the benefit of Latin America and the Caribbean countries, Mexico City, 2-11 September	2	—
22.	Ad hoc Inter-Agency Meeting on Outer Space Activities, Geneva, 15-18 September	1	—
23.	81st Session of the Preparatory Committee of the Administrative Committee on Coordination, New York, 9-15 October	1	—
24.	66th Session of the Administrative Committee on Coordination, New York, 21-22 October	1	—
25.	Ad hoc Working Group on the Administrative Committee on Coordination, Sub-Committee on Science and Technology, Geneva, 10-13 November	1	—
26.	21st Session of the Advisory Committee on the Application of Science and Technology to Development, Geneva, 17-28 November	1	—
27.	Economic and Social Commission for Asia and the Pacific—24th Session of the Transport and Communications Committee, Bangkok, 24 November-1 December	1	1
28.	20th Session of the Sub-Committee on Science and Technology, Geneva, 27-28 November	1	—

B. SPECIALIZED AGENCIES

*United Nations Educational, Scientific and Cultural Organization
(UNESCO)*

29.	Working Group on Information Exchange on Technical and Economic Studies related to educational technology, Paris, 14-16 January	2	—
30.	(Number not used)		
31.	5th Session of the International Advisory Committee on Documentation, Libraries and Archives, Paris, 10-13 June	1	—

World Meteorological Organization (WMO)

32.	7th Session of the WMO Congress, Geneva, 28 April-23 May	2	—
33.	8th Session of the Working Group on Meteorological Telecommunications of the WMO Regional Association I (Africa)	1	—

Intergovernmental Maritime Consultative Organization (IMCO)

34.	14th Session of the Sub-Committee on Radiocommunications, London, 24-28 February	2	—
35.	32nd Session of the Maritime Safety Committee, London, 17-21 March	1	—
36.	International Conference on the Establishment of an International Maritime Satellite System, London, 23 April-9 May	4	—
37.	1st Session of the Inter-Sessional Working Group to prepare for the second session of the International Conference on the Establishment of an International Maritime Satellite System, London, 4-8 August	1	—
38.	15th Session of the Sub-Committee on Radiocommunications, London, 15-19 September	2	—

World Health Organization (WHO)

39.	Study Group on the Review of the WHO Educational Technology Programme, Geneva, 18-25 March	1	—
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C. INTERNATIONAL ORGANIZATIONS

European Broadcasting Union (EBU)

40.	Technical Committee of the EBU, Athens, 8-11 April	1	—
41.	Meeting of the EBU Working Party on Digital Coding, Perugia, 1-4 July	1	—

		<i>Number of participants</i>	
		<i>Officials from Head- quarters</i>	<i>Regional experts</i>
<i>European Conference of Postal and Telecommunications Administrations (CEPT)</i>			
42.	Meeting of the Videophone Sub-Group of the Telecommunications Committee of CEPT, Florence, 11-14 March	1	—
43.	Meeting of the Signalling Sub-Group of the Telecommunications Committee of CEPT, Athens, 11-18 March	1	—
44.	Meeting of the Data Transmission Working Party of CEPT, Paris, 2-11 April . . .	1	—
45.	8th Session of the Plenary Assembly, Malaga-Torremolinos, 8-18 April	2	—
46.	Meeting of the Telegraph Working Party of CEPT, Torquay, 8-19 September . . .	1	—
47.	Meeting of the Pulse Code Modulation Sub-Group of CEPT, Copenhagen, 24-30 September	1	—
48.	Meeting of the Services and Facilities Working Party of CEPT, Oslo, 29 September-3 October	1	—
49.	Working Group "Monetary Unit", Paris, 4-5 December	1	—
<i>Danube Commission</i>			
50.	Experts radiocommunications meeting, Budapest, 14-18 January	1	—
51.	33rd Session of the Danube Committee, Budapest, 14-25 April	1	—
<i>European Space Research Organization (ESRO)</i>			
52.	Symposium on radiodiffusion by satellite, Esrin (Frascati-Italy), 12-14 February . .	3	—
<i>International Astronautical Federation (IAF)</i>			
53.	29th Session of the Bureau, Paris, 26 March	1	—
54.	XXVIth International Astronautical Congress, Lisbon, 21-27 September	1	—
<i>International Marine Radio Association (CIRM)</i>			
55.	57th Meeting of the Technical Committee, Houston, 22-24 April	1	—
56.	58th Meeting of the Technical Committee, London, 2-4 December	1	—
<i>African Development Bank (ADB)</i>			
57.	11th Annual Assembly and 2nd Annual Assembly of the African Development Fund, Dakar, (Senegal), 5-9 May	1	—
<i>Arab States Broadcasting Union (ASBU)</i>			
58.	General Assembly, Doha (Qatar), 3-6 April	1	1
<i>Union of National Radio and Television Organizations of Africa (URTNA)</i>			
59.	Annual Meetings, Dakar (Senegal), 21 January-4 February	—	1
<i>Organization of American States (OAS)</i>			
60.	Meeting of representatives of the centres responsible for carrying out the Multi-national Project on Electronic Computation Technology of the Regional Scientific and Technological Development Programme of the Organization of American States, Mexico City, 28-30 July	1	—
61.	2nd Inter-American Telecommunications Conference, Rio de Janeiro, 19-27 November	2	1

Number of participants

<i>Officials from Head- quarters</i>	<i>Regional experts</i>
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Arab Telecommunication Union

62.	Meeting of the Committee of Experts to prepare a draft Agreement for establishing an independent Arab Corporation for Space Communications, Cairo, 25 January-5 February	1	—
63.	Extraordinary Executive Conference, Kuwait, 17-23 May	1	—
64.	3rd Executive Conference, Cairo, 6-19 November	3	—

Asian Broadcasting Union

65.	12th General Assembly, Adelaide (Australia), 19-22 November	1	—
66.	Meeting of the Engineering Committee, Kuala Lumpur, 7-9 September	1	—

D. OTHER MEETINGS*Swiss Federal Political Department*

67.	2nd Session of Diplomatic Conference on the Reaffirmation and Development of International Humanitarian Law Applicable in Armed Conflicts, Geneva, 3 February-18 April	4	—
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Popov Society

68.	Popov Society Meeting, Moscow, 3-5 June	1	—
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Eurospace

69.	6th US-Eurospace Conference, Monte Carlo, 13-16 October	1	—
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*International Council of Scientific Unions Abstracting Board
(ICSU AB)*

70.	Symposium on Scientific and Engineering Secondary Information Transfer for Developing Countries, Brussels, 23-24 June	1	—
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Ministry of Post and Telecommunications of France

71.	French Telecommunications Day for Africa, Yaoundé, 22-25 January	—	1
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*Inter-Union Commission on Allocation of Frequencies for Radio Astronomy and Space Science
(IUCAF)*

72.	Inter-Union Commission on Allocation of Frequencies for Radio Astronomy and Space Science Meeting, Paris, 10 October	1	—
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International Standards Organization (ISO)

73.	Meeting of Sub-Committee 2 "Character Sets and Coding" of Technical Committee 97 of the ISO, Berlin, 12-17 May	1	—
74.	Meeting of the Data Communications Sub-Committee of Technical Committee 97 of the ISO and ad hoc groups, Washington, 7-18 October	1	—

International Conference on Communications

75.	Annual meeting of the ICC, San Francisco, 16-18 June	1	—
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Federation of Acoustical Societies of Europe

76.	FASE Colloquium No. 1 "Acoustics in Telecommunications", Paris, 29 September-4 October	3	—
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ANNEX 6

TABLE 1

LIST OF UNDP/ITU PROJECTS IN 1975

AFRICA

COUNTRY, Title of Project and No.	Date of project approval month/year	Probable date of end of project month/year	Total U.N.D.P. Contribution \$	Assistance Rendered in 1975 ¹			
				EXPERT m/m	FELLOWS a) ind. m/m b) group \$	a) Equipment Subcontr.	Total Expend. \$
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Algeria</i>							
ALG/72/009 — Institute of the Technology of Telecommunications and Electronics	12/72	01/77	1,654,200	11/93.4	a) 17/21.5	a) 54,763	413,172
<i>Benin</i>							
BEN/71/001 — Posts and Telecommunications	03/71	06/77	135,724	—	a) 1/3	—	1,800
<i>Botswana</i>							
BOT/73/002 — Adviser to Director of Posts & Telecommunications .	01/74	01/77	67,148	1/12	—	—	42,308
<i>Burundi</i>							
BDI/75/010 — Telecommunications Adviser	10/75	12/78	127,500	—	—	—	—
<i>Cameroon</i>							
CMR/71/525 — Postal and Telecommunication Training Institute . .	01/72	01/77	1,115,587	4/48	a) 2/9.5	a) 45,889	233,768
<i>Central African Republic</i>							
CAF/72/016 — Higher School of Telecommunications	12/72	01/74	2,587	—	—	—	—
CAF/74/009 — Telecommunication Training	09/74	01/78	90,431	—	a) 4/44.5	—	26,900
CAF/75/013 — Development of Telecommunications	07/75	12/76	21,000	2/1.4	—	—	4,900
<i>Egypt</i>							
EGY/69/577 — Telecommunications Training and Research Institute	06/69	01/78	1,775,789	2/12	a) 9/32	a) 166,415	249,054
EGY/73/021 — Upgrading Cairo Telephone Cable Networks . . .	04/73	01/77	88,000	—	—	b) 61,809	61,809
<i>Gabon</i>							
GAB/74/003 — Frequency Management	08/74	11/74	3,621	—	—	—	—

AFRICA (continued)

COUNTRY, Title of Project and No.	Date of project approval month/year	Probable date of end of project month/year	Total U.N.D.P. Contribution \$	Assistance Rendered in 1975 ¹			
				EXPERT m/m	FELLOWS a) ind. m/m b) group \$	a) Equipment b) Subcontr.	Total Expend. \$
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Gambia</i>							
GAM/68/006 — Telecommunication Training	12/68	01/76	173,034	—	a) 2/8	—	4,800
<i>Ghana</i>							
GHA/68/018 — Air-Conditioning Maintenance	03/69	03/76	114,942	—	a) 2/24	—	25,390
GHA/68/020 — Telecommunications	12/68	10/76	20,200	—	a) 2/10.5	—	7,875
GHA/72/015 — Assistance to the Posts and Telecommunications Admin.	11/73	01/77	205,168	2/6	a) 9/49.5	—	66,500
<i>Guinea</i>							
GUI/68/028 — Telecommunications	10/69	01/76	83,663	—	a) 1/2	—	600
GUI/72/005 — Telecommunication Network	11/72	12/75	70,000	—	—	—	—
GUI/72/016 — Development of Telecom.	03/75	06/77	117,220	1/12	—	a) 73,458	117,220
<i>Guinea-Bissau</i>							
GBS/75/006 — Restoration and Reorganization of Telecom.	03/75	09/77	296,000	1/1	—	—	3,500
GBS/75/007 — Special Assistance to Broadcasting Service	03/75	12/77	114,800	—	—	—	—
<i>Equatorial Guinea</i>							
EQG/74/001 — Development of Telecom.	09/75	12/77	556,100	—	—	—	—
EQG/74/004 — Telecommunication training Programme	07/75	12/78	75,600	—	—	—	—
<i>Upper Volta</i>							
UPV/69/010 — Telecommunications Adviser	12/69	12/75	85,182	—	—	—	—
UPV/71/004 — Organization of the National P and T Training School	05/71	12/76	116,829	—	a) 3/25	a) 1,133	16,253
UPV/75/012 — Planning of the Broadcasting Service	07/75	12/76	18,700	1/1	—	—	3,500
<i>Kenya</i>							
KEN/74/036 — Telecommunications Expert	03/75	12/75	12,000	1/4	—	—	14,090

AFRICA (continued)

COUNTRY, Title of Project and No.	Date of project approval month/year	Probable date of end of project month/year	Total U.N.D.P. Contribution \$	Assistance Rendered in 1975 ¹			
				EXPERT m/m	FELLOWS a) ind. m/m b) group \$	a) Equipment b) Subcontr.	Total Expend. \$
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Lesotho</i>							
LES/72/006 — Director, Posts, Telecom. and Civil Aviation Dept. (OPAS) and Consultant	02/72	12/75	103,595	—	—	—	—
LES/72/064 — Chief Engineer, Telecom.	10/72	10/75	103,054	—	—	—	—
LES/74/071 — Broadcasting Adviser	07/75	12/76	64,800	—	—	a) 1,010 b) 6,309	7,319
LES/75/024 — Telecommunications Engineer	07/75	12/77	58,664	—	—	—	—
LES/75/041 — Fellowship—counterpart to Director of Posts and Telecommunications	07/75	02/76	1,500	—	a) 1/2.5	—	1,500
<i>Malawi</i>							
MLW/73/001 — Telecommunication Training	07/73	04/77	62,464	—	a) 6/21.5	—	15,985
<i>Morocco</i>							
MOR/74/007 — Establishment of a Postal and Telecom. Institute using Audio-visual Techniques	07/74	06/78	1,107,600	1/2.2	a) 5/15	—	16,829
<i>Mauritania</i>							
MAU/71/001 — Telecommunications	02/71	06/76	128,718	1/6	a) 3/9	—	26,604
MAU/73/006 — Telecommunications	03/74	07/79	136,858	1/3	a) 5/47	—	39,029
MAU/74/009 — National Telecommunications School, Nouakchott	02/75	12/77	131,400	1/6	—	a) 23,109	44,652
MAU/75/004 — Planning of the Broadcasting network	12/74	12/75	3,000	1/0.8	—	—	2,800
<i>Niger</i>							
NER/69/006 — Telecommunications	07/70	12/77	243,124	1/2.8	a) 3/18	a) 91	20,943
NER/73/010 — Telecommunications Training	09/73	12/75	12,205	—	a) 1/6	—	3,600

AFRICA (continued)

COUNTRY, Title of Project and No.	Date of project approval month/year	Probable date of end of project month/year	Total U.N.D.P. Contribution \$	Assistance Rendered in 1975 ¹			
				EXPERT m/m	FELLOWS a) ind. m/m b) group \$	a) Equipment b) Subcontr.	Total Expend. \$
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Nigeria</i>							
NIR/68/534 — Posts and Telecommunications Training Centre, Oshodi	06/68	12/78	2,242,735	8/84	a) 4/19.5	a) 125,345	460,689
NIR/69/028 — Telecommunications	11/69	06/77	460,714	1/12	—	—	42,343
NIR/72/010 — National Telecommunications Development Planning	08/73	06/77	1,126,060	6/34.4	—	a) 4,446 b) 77,503	224,195
<i>Rwanda</i>							
RWA/68/011 — Telecommunications Adviser	11/68	12/76	281,404	1/12	a) 7/41	—	57,832
<i>Sao Tome and Principe</i>							
STP/75/001 — Telecommunication Training	08/75	12/77	28,800	—	—	—	—
<i>Senegal</i>							
SEN/72/011 — Telecommunications Planning and Training of Personnel	12/74	01/78	196,138	4/19.8	a) 4/30.5	—	88,735
<i>Sierra Leone</i>							
SIL/73/006 — Telecommunications Advisory Services	10/73	06/77	187,650	3/33	—	a) 4,490	122,003
<i>Somalia</i>							
SOM/68/019 — Telecommunication Training	12/68	11/76	171,073	—	—	a) 9,147	9,147
SOM/74/021 — National Institute of Telecommunication Training	03/75	12/76	125,000	2/18	—	a) 43,219	108,273
SOM/75/021 — System of Telecommunication Maintenance	01/75	06/76	169,500	3/20.9	—	—	73,638

AFRICA (continued)

COUNTRY, Title of Project and No.	Date of project approval month/year	Probable date of end of project month/year	Total U.N.D.P. Contribution \$	Assistance Rendered in 1975 ¹			
				EXPERT m/m	FELLOWS a) ind. m/m b) group \$	a) Equipment b) Subcontr.	Total Expend. \$
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Sudan</i>							
SUD/71/552 — Test, Repair and Maintenance Centre, Khartoum	08/73	01/77	187,709	3/17.6	a) 4/11	a) 4,613	74,638
SUD/74/016 — Space Communications	08/74	01/78	108,800	1/11	a) 1/3	a) 867	42,981
SUD/74/017 — Microwave Systems	08/74	01/78	85,800	—	—	—	—
SUD/74/020 — Telecommunication Development	05/74	01/77	260,700	2/10.8	—	a) 12,421	51,334
<i>Swaziland</i>							
SWA/68/011 — Telecommunication Training	07/69	01/78	91,066	—	a) 1/4	a) 300	7,057
SWA/72/008 — Financial Controller (OPAS)	07/72	01/77	79,258	1/12	a) 2/2.5	a) 972	37,777
SWA/73/008 — Chief Engineer, Telecom.	08/73	12/76	120,900	2/15	—	—	47,562
<i>Chad</i>							
CHD/68/012 — Telecommunication Training	11/68	01/77	359,067	—	a) 4/42.5	—	25,693
CHD/74/004 — Development of Telecom.	09/74	01/79	196,100	1/12	—	b) 23,591	66,160
<i>Tunisia</i>							
TUN/72/006 — Postal and Telecom., School, Tunis	07/75	12/78	620,500	—	a) 5/15	—	12,722
<i>Zaire</i>							
ZAI/66/510 — National School of Telecom.	01/66	01/76	1,276,217	—	—	a) 4,963	4,213
<i>Zambia</i>							
ZAM/68/019 — Telecommunications Adviser	03/69	06/76	192,788	1/12	—	—	46,328
ZAM/71/516 — National Postal Telecom. Training Centre	01/71	12/77	498,741	6/54	a) 2/13.5	a) 9,604	218,851
ZAM/74/024 — Strengthening of GPO Microwave Section	01/75	12/77	69,300	1/3	—	—	8,348

AFRICA (concluded)

COUNTRY, Title of Project and No.	Date of project approval month/year	Probable date of end of project month/year	Total U.N.D.P. Contribution \$	Assistance Rendered in 1975 ¹			
				EXPERT m/m	FELLOWS a) ind. m/m b) group \$	a) Equipment b) Subcontr.	Total Expend. \$
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Regional Projects</i>							
RAF/68/853 — Telecommunication Network	03/69	01/77	326,017	1/12	—	—	49,794
RAF/69/857 — Telecommunications	03/70	01/77	226,084	1/12	—	—	42,723
RAF/70/116 — Telecommunications	06/70	01/77	766,616	—	—	b) 18,074	18,640
RAF/70/851 — Regional Telecommunications Adviser (Central Africa)	12/70	12/76	114,462	1/12	—	—	43,693
RAF/71/155 — Multinational Posts & Telecommunications Training Scheme (Kenya, Uganda, Tanzania)	07/71	08/78	2,441,281	11/98.5	a) 2/4 b) 9/241	a) 87,251	469,720
RAF/71/170 — Regional Telecommunication Training Centre . . .	01/71	01/78	1,465,645	3/26	a) 1/6 b) 56.137	a) 34,172 b) 5,394	202,291
RAF/71/208 — National Postal Telecom. Training Centre, Malawi .	10/70	03/79	1,858,811	7/75.6	a) 1/9 b) 59.763	a) 121,870	452,578
RAF/71/231 — Telecommunications	06/71	07/76	916,910	—	—	b) 11,830	13,861
RAF/71/232 — Radio Monitoring and Frequency Management . .	06/74	04/77	32,000	1/12	—	—	42,401
RAF/71/255 — Telecom. Link Gambia—Senegal	01/72	02/77	356,900	—	a) 4/6	b) 157,678	162,490
RAF/72/122 — Survey of Maritime Radiocommunication	11/72	01/77	125,941	2/17	b) 32,905	—	97,883
RAF/73/023 — Transport and Communications	03/75	03/77	139,700	2/14.5	—	a) 185	52,416
RAF/73/076 — Investment Survey of National and Inter-Country links	07/74	01/77	30,000	—	b) 1,972	a) 220,000	223,755
RAF/74/003 — Identification Mission for the Establishment of Special Telecommunications Services	04/74	12/77	87,200	—	—	—	—
RAF/74/071 — Transmission System (seminar)	09/74	12/76	22,500	—	a) 20,399	—	20,399

LATIN AMERICA

COUNTRY, Title of Project and No.	Date of project approval month/year	Probable date of end of project month/year	Total U.N.D.P. Contribution \$	Assistance Rendered in 1975 ¹			
				EXPERT m/m	FELLOWS a) ind. m/m b) group \$	a) Equipment Subcontr.	Total Expend. \$
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Antigua</i>							
ANT/74/009 — Telephone system management	05/74	12/76	56,055	1/12	a) 1/9	—	47,404
<i>Netherlands Antilles</i>							
NAN/74/007 — Telecommunication Training Centre	02/75	09/78	305,700	2/4.4	—	—	16,065
<i>Argentina</i>							
ARG/70/022 — Training and Specialization of Telecom. Personnel .	05/71	06/76	35,410	1/1.7	a) 4/12.5	—	15,146
ARG/74/007 — Communications	03/75	12/77	136,000	1/2	—	a) 81,489	89,208
<i>Barbados</i>							
BAR/68/008 — Adviser in Telecom. Administration and Tariffs . .	11/68	12/76	70,574	1**/6.7	—	—	24,054
<i>Belize</i>							
BZE/70/001 — Telecommunications	12/70	12/76	48,832	7*/1.7	a) 2/3	—	7,807
BZE/72/003 — Assistance to the Belize Telephone Authority (OPAS)	05/72	01/78	149,961	2/12.3	a) 7/20.5	—	52,408
<i>Bolivia</i>							
BOL/71/518 — Telecommunication Training Institute ²	01/72	12/77	1,245,429	7/58.8	a) 4/13.5	a) 220.884	449,127
<i>Brazil</i>							
BRA/71/011 — Management and Monitoring of Radio Frequencies .	05/71	01/77	125,460	1/0.4	—	—	1,400
BRA/71/520 — Development of Telecom. Research and Human Resources	11/73	01/76	29,018	1/2	—	—	8,390
BRA/74/009 — Telecommunication Research and Development. . .	03/75	03/79	1,111,600	6/20.2	—	—	72,390
BRA/74/010 — Human Resources—Telecom. Training	01/75	03/79	973,650	7/43.8	—	a) 5,217	165,342

LATIN AMERICA (continued)

COUNTRY, Title of Project and No.	Date of project approval month/year	Probable date of end of project month/year	Total U.N.D.P. Contribution \$	Assistance Rendered in 1975 1			
				EXPERT m/m	FELLOWS a) ind. m/m b) group \$	a) Equipment b) Subcontr.	Total Expend. \$
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Chile</i>							
CHI/67/521 — Telecommunication Training Centre, Phase I . . .	01/67	12/75	1,264,109	—	—	—	—
CHI/73/003 — Telecommunication Training Centre, Phase II . . .	06/73	12/76	641,046	5/44.5	a) 1/2	a) 66,092	235,623
CHI/75/011 — Assistance to ENTEL	06/75	12/76	16,000	1/1	—	—	3,529
<i>Colombia</i>							
COL/72/035 — Training of Teaching Personnel and Promotion of Research in Telecommunications	01/75	12/78	600,000	2/14.3	a) 4/14	a) 16,680	82,698
<i>Costa Rica</i>							
COS/72/014 — Telecommunications	05/73	01/77	101,970	6/7.3	a) 1/18	—	30,652
<i>Cuba</i>							
CUB/73/004 — Development of Telecom. Services	12/73	01/78	620,114	1/11.1	a) 1/2	a) 294,498	337,107
<i>Dominica</i>							
DMI/72/001 — Telecommunications	01/72	01/76	10,601	1**/0.1	—	—	350
<i>Dominican Republic</i>							
DOM/72/006 — Telecommunications Adviser	05/72	12/76	86,656	—	a) 2/2	—	1,200
<i>El Salvador</i>							
ELS/73/010 — Telecommunications ³	07/74	01/77	224,660	5*/20.6	a) 2/8	—	79,783
ELS/74/012 — Technical Assistance in Telecommunications . . .	12/74	01/78	58,200	1/8.8	—	—	24,110
<i>Ecuador</i>							
ECU/72/006 — National Telecommunication Training Centre . . .	08/72	03/78	854,000	5/57.5	a) 2/11	a) 169,971	383,703
ECU/73/008 — Rural Telecommunications	11/73	01/77	67,370	1/12	—	—	42,341
ECU/73/009 — Unification of the Telecommunication Network . .	10/73	01/77	67,800	1/12	—	—	42,341

LATIN AMERICA (continued)

COUNTRY, Title of Project and No.	Date of project approval month/year	Probable date of end of project month/year	Total U.N.D.P. Contribution \$	Assistance Rendered in 1975 1			
				EXPERT m/m	FELLOWS a) ind. m/m b) group \$	a) Equipment b) Subcontr.	Total Expend. \$
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Guatemala</i>							
GUA/73/002 — Telecommunications	05/74	12/76	184,684	7*/21.5	a) 7/19	—	87,208
<i>Guyana</i>							
GUY/68/012 — Telecommunications	11/68	12/76	32,364	—	a) 1/11	—	6,600
GUY/73/003 — Telecommunication Training Centre	07/73	01/77	106,900	1/12	—	—	43,285
<i>Haiti</i>							
HAI/72/007 — Telecommunication Administration and Planning . .	07/73	12/75	87,905	2/2.9	a) 1/5	—	13,243
<i>Honduras</i>							
HON/73/004 — Telecommunications	03/74	01/76	69,594	6*/2.5	—	—	8,834
<i>Jamaica</i>							
JAM/72/009 — Telecommunication Training Centre	05/73	11/77	442,200	3/30	a) 1/12	a) 26,984	153,880
<i>Mexico</i>							
MEX/70/032 — Telecommunications	10/70	01/76	223,059	—	a) 4/14.5 b) 4,992	—	17,647
MEX/74/041 — National Telecommunication School	01/75	06/76	85,000	2/15.4	—	—	54,530
<i>Montserrat</i>							
MOT/74/001 — Telecommunication Administration and Tariffs . . .	06/74	01/76	5,300	1**/0.3	—	—	1,072
<i>Nicaragua</i>							
NIC/71/006 — Administration and Organization of Telecommunica- tions	03/72	01/77	45,130	—	a) 1/8	—	4,800
NIC/73/010 — Telecommunications	06/74	01/77	124,442	4*/11.7	a) 4/13	—	49,359

LATIN AMERICA (continued)

COUNTRY, Title of Project and No.	Date of project approval month/year	Probable date of end of project month/year	Total U.N.D.P. Contribution \$	Assistance Rendered in 1975 ¹			
				EXPERT m/m	FELLOWS a) ind. m/m b) group \$	a) Equipment Subcontr. b)	Total Expend. \$
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Panama</i>							
PAN/73/001 — Telecommunications	06/73	10/75	90,511	6*/9.7	—	—	34,322
<i>Paraguay</i>							
PAR/72/011 — Institute of Telecommunications	01/74	06/77	621,250	6/60	—	a) 64,353	287,432
<i>Peru</i>							
PER/69/007 — Telecommunications Development and Training . .	12/69	12/75	291,629	1/1	—	—	3,500
PER/73/024 — Telecommunications Development and Training . .	08/74	12/77	458,850	4/38.7	a) 2/6	a) 24,752	166,453
<i>St. Kitts</i>							
STK/68/007 — Telecommunications	01/69	01/76	20,358	1**/0.3	—	—	1,072
<i>St. Vincent</i>							
STV/73/002 — Telecommunication Administration and Tariffs . .	12/73	01/76	10,639	1**/0.6	—	—	2,142
<i>Trinidad</i>							
TRI/72/100 — Telecommunication Administration and Management	12/72	01/78	106,800	1/12	—	—	42,620
TRI/73/005 — Telecommunications	10/74	09/79	482,000	1/1	—	—	3,500
<i>Uruguay</i>							
URU/71/004 — Telecommunications	03/71	01/76	107,523	—	—	a) (396)	(132)
URU/73/001 — Telecommunication Training Centre	08/73	04/77	267,055	1/9.2	a) 14/37.5	a) 76,818	137,451

LATIN AMERICA (concluded)

COUNTRY, Title of Project and No.	Date of project approval month/year	Probable date of end of project month/year	Total U.N.D.P. Contribution \$	Assistance Rendered in 1975 ¹			
				EXPERT m/m	FELLOWS a) ind. m/m b) group \$	a) Equipment b) Subcontr.	Total Expend. \$
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Venezuela</i>							
VEN/70/529 — Training Centre for Telecommunications Technicians	06/70	05/76	1,042,429	8/38	a) 7/17.5	a) 22,600	183,409
VEN/75/004 — Overall Telecommunication Development	10/75	12/77	450,625	—	—	—	—
<i>Regional projects</i>							
RLA/69/856 — Radio Frequency Management	06/69	12/76	264,218	1/12	—	—	42,340
RLA/70/853 — Rural Feeder Networks	01/71	12/75	99,926	—	—	—	—
RLA/72/094 — Central American Institute of Telecommunications (INCATEL)	06/73	01/79	1,599,881	6/58.9	a) 6/27.5	a) 184,961	426,350
RLA/74/016 — Regional Integration of Telecommunications	06/74	06/76	100,000	2/24	—	—	85,091
RLA/74/023 — Transport and Communications	12/74	01/78	106,300	1/10	—	—	35,681
RLA/74/028 — Radio Frequency Management Infrastructure and follow-up	04/75	12/77	162,105	2/12.7	b) 42,618	—	87,924
<i>Caribbean region</i>							
CAR/75/002 — Telecommunication Administration and Management	07/75	12/77	84,750	1**/4	—	—	14,198

ASIA AND PACIFIC

COUNTRY, Title of Project and No.	Date of project approval month/year	Probable date of end of project month/year	Total U.N.D.P. Contribution \$	Assistance Rendered in 1975 ¹			
				EXPERT m/m	FELLOWS a) ind. m/m b) group \$	a) Equipment b) Subcontr.	Total Expend. \$
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Afghanistan</i>							
AFG/68/017 — Telecommunication Services	11/68	01/76	607,877	1/12	—	—	42,359
AFG/70/525 — Telecommunication Training Centre (Phase II) . .	01/70	12/77	1,884,629	7/76.9	—	a) 45,012	332,428
AFG/74/039 — Telecommunication Network Planning Unit	08/75	01/77	99,100	2/4.2	—	—	14,753
<i>Bangladesh</i>							
BGD/72/022 — Telecom. Training Centre	09/73	01/77	51,711	1/3	—	—	10,951
<i>Burma</i>							
BUR/70/003 — Telecommunication Training	12/71	01/76	24,119	—	a) 1/6	—	6,300
<i>Khmer</i>							
CAM/72/033 — Telecommunication Training	03/73	01/76	115,050	2/18.5	—	a) 714	67,447
<i>Korea</i>							
ROK/71/010 — Telecommunication Operations	04/72	01/76	5,400	—	a) 2/9	—	5,400
<i>Fiji</i>							
FJI/75/012 — Telecommunications—attendance at international technical symposium	07/75	01/76	4,000	—	b) 3,140	—	3,141
<i>India</i>							
IND/70/039 — Telecommunications	11/70	01/76	136,495	—	a) 4/18	—	16,264
IND/70/609 — Expansion of the Satellite Communication Earth Station	06/70	01/77	1,551,713	1/12	a) 1/2	a) 479,933 b) 40,133	571,008
IND/72/037 — Telecommunication Training Centre	08/73	08/78	1,215,600	1/11.9	b) 2,080	a) 98,157	151,439
IND/74/029 — Signals and Telecommunications	06/74	12/76	10,302	—	—	—	—
IND/74/044 — Fellowships—Trunk Exchanges	08/74	01/77	54,540	—	—	—	—

ASIA AND PACIFIC (continued)

COUNTRY, Title of Project and No.	Date of project approval month/year	Probable date of end of project month/year	Total U.N.D.P. Contribution \$	Assistance Rendered in 1975 ¹			
				EXPERT m/m	FELLOWS a) ind. m/m b) group \$	a) Equipment b) Subcontr.	Total Expend. \$
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Indonesia</i>							
INS/71/536 — Telecommunication Training Centre	01/72	02/77	1,479,169	10/107.6	a) 8/20	a) 51,516	459,142
INS/72/066 — Preparation of Specifications for a National Telephone Switching System	01/73	04/75	2,547	—	—	—	—
INS/73/015 — Telecommunications Installation and Maintenance .	06/73	05/77	347,490	4/48	—	a) 12,501	186,945
INS/74/036 — Testing and Development Centre	09/75	01/77	56,900	—	—	—	—
INS/74/037 — Training and Operation and Maintenance Personnel for Domestic Satellite Communication System . . .	10/75	06/77	119,500	—	—	—	—
<i>Iran</i>							
IRA/70/522 — Telecommunication Training Institute ⁴	11/68	12/76	1,491,042	7/73.5	a) 4/6	a) 42,983	329,536
<i>Laos</i>							
LAO/71/506 — National Telecommunication Training Centre . . .	03/72	12/76	669,136	4/48	a) 1/1	a) 55,993	231,927
<i>Malaysia</i>							
MAL/70/014 — Telecommunications	01/71	06/76	211,795	1/12	—	—	42,150
MAL/72/018 — Crossbar Switching Maintenance	06/72	01/77	114,090	1/7	a) 1/2	—	26,672
<i>Maldives</i>							
MDV/72/001 — Establishment of an HF Communications Station .	10/74	01/77	121,250	1/0.9	a) 2/5.5	a) 8,379	13,828
<i>Mongolia</i>							
MON/71/510 — Establishment of a Faculty of Telecommunications at the State Polytechnic and Telecommunications Training Centre	06/72	09/78	1,443,051	7/54.1	a) 4/18	a) 132,378	354,823

ASIA AND PACIFIC (continued)

COUNTRY, Title of Project and No.	Date of project approval month/year	Probable date of end of project month/year	Total U.N.D.P. Contribution \$	Assistance Rendered in 1975 ¹			
				EXPERT m/m	FELLOWS a) ind. m/m b) group \$	a) Equipment b) Subcontr.	Total Expend. \$
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Nepal</i>							
NEP/71/521 — Telecommunication and Civil Aviation Training Centre	01/71	08/77	1,421,263	2/12	a) 7/26	a) 715	71,945
NEP/74/025 — Planning of Broadcasting Services	05/75	12/75	8,800	1/2.3	—	—	8,979
<i>Pakistan</i>							
PAK/68/539 — Telecommunication College	01/68	12/76	1,102,826	6/53.9	—	a) 79,861	279,960
<i>Papua New Guinea</i>							
PNG/73/002 — Telecommunication Technical Training	12/73	01/77	142,165	1/12	—	—	44,086
<i>Western Samoa</i>							
WES/71/011 — Telecommunication Senior Technician	02/72	10/77	287,742	2/23.2	—	a) 5,500	75,714
WES/73/004 — Telecommunication Training	09/73	01/77	44,157	—	a) 2/7	—	4,200
<i>Singapore</i>							
SIN/71/514 — Telecommunication Training Centre TELECENTRE	01/72	12/77	1,422,611	8/89.7	a) 6/25.5	a) 35,703	375,824
SIN/74/011 — Ponggol Radio Receiving Station	08/75	12/76	11,100	—	—	—	—
SIN/74/018 — Drafting of Stored Programme Control Exchange Specification	08/75	01/77	12,000	—	—	—	—
SIN/74/019 — Updating of long-term telecommunication plans . .	08/75	06/77	36,000	—	—	—	—
SIN/74/020 — Training of Telecommunication Engineers	08/75	12/78	31,500	—	—	—	—

ASIA AND PACIFIC (concluded)

COUNTRY, Title of Project and No.	Date of project approval month/year	Probable date of end of project month/year	Total U.N.D.P. Contribution \$	Assistance Rendered in 1975 ¹			
				EXPERT m/m	FELLOWS a) ind. m/m b) group \$	a) Equipment b) Subcontr.	Total Expend. \$
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Sri Lanka</i>							
SRL/71/527 — Telecommunication Training School.	01/71	12/76	548,219	3/36	a) 6/33.5	a) 87,117	250,330
SRL/73/039 — Supervision of Installation and Training in Maintenance of Telex Exchange	05/74	12/76	30,000	1/2	a) 3/9	b) 11,897	24,472
SRL/74/003 — Study Tour of Satellite Earth Stations	04/74	12/75	1,200	—	a) 1/1	—	600
<i>Thailand</i>							
THA/72/001 — Telecommunication Maintenance Organization Adviser	02/72	01/76	61,716	1/2	—	—	7,000
<i>Tonga</i>							
TON/74/002 — Development of Telecommunications	03/75	04/77	144,000	—	—	—	—
TON/74/003 — Radio technician	11/74	06/79	28,800	—	a) 1/11	—	6,600
<i>Viet-Nam</i>							
RVN/72/007 — Telecommunication Training Centre	03/72	08/75	600,000	5/33.9	a) 1/1	a) 52,587	177,767
<i>Regional Projects</i>							
RAS/68/852 — Telecommunication Advisory Services	01/68	01/76	621,285	4/32	—	—	118,870
RAS/69/164 — Feasibility Studies for the Asian Telecommunication Network	06/69	12/76	508,258	—	a) 6/16	—	11,870
RAS/72/134 — Frequency Management	01/74	06/76	36,663	1/7	—	—	24,661
RAS/74/003 — Coordination of Maritime Telecommunication Services and Facilities	04/75	01/77	59,000	1/8.4	—	—	30,488
RAS/74/004 — Telecommunication Training (South Pacific)	04/74	12/78	130,900	1/12	b) 2,292	a) 3,909	57,780
RAS/74/005 — Feasibility Study—Reg. Telecom. Network in South Pacific	05/74	01/78	61,300	1/3.4	b) 5,888	a) (160)	19,885

EUROPE AND MIDDLE EAST

COUNTRY, Title of Project and No.	Date of project approval month/year	Probable date of end of project month/year	Total U.N.D.P. Contribution \$	Assistance Rendered in 1975 1			
				EXPERT m/m	FELLOWS a) ind. m/m b) group \$	a) Equipment b) Subcontr.	Total Expend. \$
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Albania</i>							
ALB/71/001 — Sound Broadcasting and Television	12/71	06/76	8,858	—	—	—	—
ALB/71/002 — School of Telecommunications	12/71	06/76	18,605	—	—	a) 1,245	1,245
<i>Saudi Arabia</i>							
SAU/67/516 — Broadcasting and Telecommunication Training Centres ⁵	01/67	01/78	1,357,706	10/101.7	—	a) 269,641	646,722
SAU/73/002 — Adviser, Telecommunication Planning and Programmes.	06/73	06/76	64,031	1/7	—	—	24,500
<i>Bulgaria</i>							
BUL/70/007 — Development of Telephone Communications	04/70	06/76	12,886	—	a) 1/3	—	1,800
BUL/71/019 — Broadcasting Development	07/71	12/75	8,717	—	a) 2/6	—	3,600
BUL/71/020 — Development of Television	07/71	12/76	11,096	—	—	—	—
BUL/73/010 — Development of Television	05/73	12/76	8,949	—	a) 2/2.5	—	1,500
BUL/73/011 — Organization, Construction and Operation of Radio Centres broadcasting several programmes	05/73	12/76	1,800	—	—	—	—
BUL/74/034 — Maintenance of International Networks	04/74	12/76	1,200	—	a) 1/1	—	600
BUL/74/050 — Use of Telephone Channels for Data Transmission .	09/74	12/76	1,800	—	—	—	—
BUL/75/015 — Acoustic conditions and apparatus for correction in sound recording	05/75	12/75	1,800	—	a) 1/3	—	1,800
BUL/75/020 — Telecommunication Research Adviser	10/75	12/76	3,000	—	—	—	—
<i>United Arab Emirates</i>							
UAE/73/005 — Telecommunication Adviser ⁶	05/74	12/76	34,300	1/12	—	a) 4,454	46,757
<i>Spain</i>							
SPA/68/006 — Telecommunications	01/70	06/75	4,377	—	—	—	—

EUROPE AND MIDDLE EAST (continued)

COUNTRY, Title of Project and No.	Date of project approval month/year	Probable date of end of project month/year	Total U.N.D.P. Contribution \$	Assistance Rendered in 1975 ¹			
				EXPERT m/m	FELLOWS a) ind. m/m b) group \$	a) Equipment Subcontr.	Total Expend. \$
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Greece</i>							
GRE/75/002 — Telecommunication fellowships	06/75	01/77	12,600	—	—	—	—
<i>Hungary</i>							
HUN/70/001 — Telecommunications Industry	02/70	06/75	15,219	—	—	—	—
HUN/74/003 — Mathematical models of non-linear circuits	02/75	12/76	3,600	—	—	—	—
<i>Iraq</i>							
IRQ/68/018 — Telecommunications	11/68	06/76	138,979	1/ 6.5	—	—	22,912
IRQ/71/521 — Telecommunication Training	04/72	01/77	564,016	6/52.6	a) 11/35	a) 53,646	290,213
<i>Israel</i>							
ISR/73/029 — Institute of Telecommunications	08/73	01/77	812,650	2/20.2	a) 2/6	a) 99,233	179,834
ISR/75/020 — Economic Analysis of Telecommunication System Management	10/75	01/77	3,675	—	—	—	—
<i>Jordan</i>							
JOR/68/006 — Telecommunications	11/68	01/76	360,941	1/6	—	—	21,281
JOR/72/030 — Digital and analogue circuit design	12/72	12/76	8,400	—	a) 1/8.5	—	8,925
JOR/73/007 — Telecommunication Training Centre	09/73	05/79	1,656,147	6/71.7	a) 6/13	a) 152,482	426,491
<i>Lebanon</i>							
LEB/72/005 — Telecom. Maintenance.	10/73	08/75	101,458	—	—	—	—
LEB/72/006 — Telecommunication Training	06/74	10/75	29,500	—	—	—	—
LEB/74/008 — Telecom. Maintenance.	10/74	03/76	125,150	—	—	b) 96,717	97,502
<i>Malta</i>							
MAT/75/011 — Expert Services for Telemalta.	06/75	01/76	3,050	2/1	—	—	3,545
<i>Oman</i>							
OMA/73/002 — Director of Telecommunications (OPAS).	06/73	07/78	777,868	4/37	—	—	113,425

EUROPE AND MIDDLE EAST (concluded)

COUNTRY, Title of Project and No.	Date of project approval month/year	Probable date of end of project month/year	Total U.N.D.P. Contribution \$	Assistance Rendered in 1975 1			
				EXPERT m/m	FELLOWS a) ind. m/m b) group \$	a) b) Equipment Subcontr.	Total Expend. \$
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Poland</i>							
POL/69/011 — Telecommunications	03/69	06/76	40,509	—	—	—	—
<i>Yemen Arab Republic</i>							
YEM/68/009 — Adviser, Radiocommunications and Telephony . . .	01/70	01/78	322,509	2/18	—	—	64,626
YEM/73/016 — Telecommunications Feasibility Study	06/74	12/76	61,950	5/23.2	—	a) 1,431	116,893
YEM/74/011 — Training in Telecommunication Systems, Technology and Administration	02/75	01/77	68,400	—	a) 11/37.5	—	23,005
<i>Yemen (People's Democratic Republic of)</i>							
PDY/74/001 — Senior Telephony Adviser	06/74	01/77	36,000	—	—	—	—
<i>Romania</i>							
ROM/69/014 — Data Transmission technique	05/69	01/76	54,486	—	—	a) 3,860	3,860
<i>Czechoslovakia</i>							
CZE/73/001 — Modern Techniques in Telecommunications	01/74	06/76	14,100	—	a) 3/ 3.5	—	2,550
<i>Turkey</i>							
TUR/67/528 — Telecommunication Training	01/67	01/76	1,589,830	—	—	a) 20,959	22,870
TUR/74/018 — Automatic Telex and Gentex Networks	06/74	06/76	50,318	1/8	—	—	28,192
TUR/74/039 — Development, Design and Manufacture of Long Distance Telecommunications Equipment	04/75	10/77	85,800	—	—	—	—
<i>Regional Projects (Middle East)</i>							
REM/71/197 — Sana'a/Aden Pilot Telecommunication Link	01/71	08/77	973,543	2/15.6	a) 3/15.5	a) 3,902 b) (1,553)	56,292
REM/71/296 — New Telecommunications Techniques	01/74	12/76	133,286	1/ 0.5	—	—	1,962
REM/72/038 — Preinvestment Survey for the Middle East Telecommunications Network	09/73	12/75	357,550	9/44.6	b) 33,620	a) 6,850	243,777
REM/75/027 — Feasibility Study/Preinvestment Survey of the Middle East Telecommunications Network	06/75	12/78	141,464	6/34.5	b) 1,914	a) 2,003	141,464

INTERREGIONAL PROJECTS

[illegible]

TABLE 2

Projects implemented by subcontractors during 1975

A. CONTRACTS SIGNED IN PRIOR YEARS

Title of Project	Participating country(ies)	Value of Contracts US\$	Contractor	Man/ months 1975 ¹	Amounts paid 1975 US\$
Expansion of the experimental satellite communications earth station (ESCES) Ahmedabad — IND/70/609	India	160,000.—	HUGHES AIRCRAFT SYSTEMS INTERNATIONAL <i>Los Angeles, U.S.A.</i>	1/2	27,347.—
Television studio and transmitter station, Ahmedabad — (ESCES) IND/70/609	India	267,600.—	NIPPON ELECTRIC CO., LTD. <i>Tokyo, Japan</i>	2/3	154,471.— ²
Expertise in the field of environmental engineering and reliability engineering to the space application centre, Ahmedabad (ESCES) — IND/70/609	India	47,371.—	BRITISH AIRCRAFT CORPORATION <i>Filton, Bristol, United Kingdom</i>	—	9,512.—
National Telecommunications development planning — NIR/72/010	Nigeria	300,000.— ³	SWEDTEL <i>Stockholm, Sweden</i>	9/40	77,503.—
Multinational training centre, RUFISQUE — RAF/71/170	Senegal	24,000.—	ACUCES <i>Nancy, France</i>	—	5,394.—
Preinvestment survey for the Pan-African telecommunication network (PANAFTEL) in West & Central Africa — RAF/71/231	Cameroon, Congo, Central African Republic, Equatorial Guinea	208,725.—	SOFRECOM <i>Paris, France</i>	—	11,830.—
Telecommunication link between Banjul and Koalack — RAF/71/255	Gambia and Senegal	436,000.—	THOMSON-CSF <i>Levallois-Perret, France</i>		157,678.—

¹ Where no man/months are indicated the field work has either terminated or not yet started.³ Revised in 1975.² Concerns equipment only and is consequently included in the amount of US\$ 3,959,865 (points 6.2 and 6.4.7.).

TABLE 2(continued)

Title of Project	Participating country(ies)	Value of Contracts US\$	Contractor	Man/ months 1975 ¹	Amounts paid 1975 US\$
Supervision of installation of pentaconta telex exchange in Colombo — SRL/73/039	Sri Lanka	11,897.—	BELL TELEPHONE MANUFACTURING CO., <i>Antwerp, Belgium</i>	1/1	11,897.—
Preinvestment survey for the Pan-African telecommunication network (PANAFTEL) in East Africa — RAF/70/116	Ethiopia, Kenya, Somalia, Sudan	240,877.—	NORCONSULT <i>Oslo, Norway</i>	—	18,074.—

B. NEW CONTRACTS AWARDED IN 1975

Title of Project	Participating country(ies)	Value of Contracts US\$	Contractor	Man/ months 1975 ¹	Amounts paid 1975 US\$
Telecommunication maintenance and On-the-job training — LEB/74/008	Lebanon	102,735.—	SWEDTEL <i>Stockholm, Sweden</i>	3/28	96,717.—
Finance & accounts — Reorganisation of the general post office, Zambia — Zambia (FIT)	Zambia	183,700.—	W. D. SCOTT & CO., <i>Sydney, Australia</i>	4/27	139,897.—
Preinvestment surveys in central and East Africa (Project 1) — RAF/73/076 Sub-Project 1	Kenya, Malawi, Somalia, Tanzania, Zaïre and Zambia	319,375.—	PREECE, CARDEW & RIDER <i>Brighton, United Kingdom</i>	4/16	220,000.—
Cairo telecommunication network — upgrading of telephone cable networks — EGY/73/021	Egypt	84,023.—	SWEDTEL <i>Stockholm, Sweden</i>	2/22.5	61,809.—

TABLEAU 2 (*concluded*)

Title of Project	Participating country(ies)	Value of Contracts US\$	Contractor	Man/ months 1975 ¹	Amounts paid 1975 US\$
Supply and installation of an HF radio telephone and telex link between Lesotho and Kenya — (FIT)	Lesotho and Kenya	388,850.—	CABLE & WIRELESS CO. <i>London, United Kingdom</i>	—	67,770.—
National plan for MF/LF sound broadcasting — LES/74/071	Lesotho	6,309.—	BRITISH BROADCASTING CORPORATION, <i>London, United Kingdom</i>	1/1	6,309.—
Expert study to establish a long-term and a short-term plan for the development of telecommunications in the Republic of Chad — CHD/74/004	Chad	59,980.—	MORCOM SYSTEMS INC., <i>Washington D.C., U.S.A.</i>	6/3	23,591.—
Advisory services to the Govt. of India — adjustment, operation and maintenance of video tape-recorders — IND/70/609	India	10,000.—	INTERNATIONAL VIDEO CORPORATION <i>Sunnyvale (California), U.S.A.</i>	1/2	3,274.—
Expert lecturer for regional sound broadcasting training centre — GRE/ADM-51	Kuala Lumpur, Malaysia	3,773.— ⁴	BRITISH BROADCASTING CORPORATION <i>London, United Kingdom</i>	1/1	3,773.—
Codevtel — workshops Nos. 1 & 2 — training courses — INT/74/017	Geneva and Nairobi, Kenya	30,000.—	THE CONSULTING SERVICES GROUP OF BELL CANADA <i>Montreal, Canada</i>	2/2	6,000.—

⁴ Paid for from ITU ordinary budget (Resolution No. 17 (Malaga-Torremolinos, 1973)).

ANNEX 7

PRINCIPAL DEBTORS OF THE UNION ¹
(situation on 31 December 1975)

Name of debtor	Year	Contributions	Publications	Total
Benin (People's Rep. of)	1971-1974	7,909.—	3,858.20	11,767.20
Bolivia (Rep. of)	1973-1974	12,531.70	1,827.85	14,359.55
Burundi (Rep. of)	1971-1974	12,689.60	14,001.40	26,691.—
Cameroon (United Republic of)	1973-1974		10,890.30	10,890.30
Central African Republic	1974	7,245.45		7,245.45
Chile	1974	11,730.—	8,740.—	20,470.—
Colombia (Rep. of)	1971-1974	35,190.—	79,420.05	114,610.05
Costa Rica	1973-1974	13,203.05	1,705.60	14,908.65
Ivory Coast (Rep. of)	1974	80,030.—		80,030.—
Dominican Republic	1973-1974	87,286.25	6,439.20	93,725.45
Egypt (Arab Rep. of)	1974		21,695.45	21,695.45
Ecuador	1974		9,671.70	9,671.70
Ethiopia	1971-1974		9,727.50	9,727.50
Ghana	1974	11,730.—		11,730.—
Guatemala	1972-1974	37,243.25	6,471.85	43,715.10
Haiti (Rep. of)	1973-1974	7,034.50	4,951.60	11,986.10
Iran	1974		51,138.—	51,138.—
Iceland	1974		6,876.—	6,876.—
Israel (State of)	1974	11,730.—		11,730.—
Italy	1974		121,938.—	121,938.—
Khmer Republic	1971-1974	124,768.12	17,126.43	141,894.55
Laos (Kingdom of)	1971-1974	92,795.40	10,558.35	103,353.75
Liberia (Rep. of)	1972-1974	45,200.35	6,357.95	51,558.30
Mauritania (Islamic Rep. of)	1972-1974	18,764.17		18,764.17
Nicaragua	1973-1974	148.10	5,965.—	6,113.10
Niger	1973-1974	14,117.94		14,117.94
Nigeria (Fed. Rep. of)	1974	28,981.80		28,981.80
Uganda (Rep. of)	1973-1974	1,380.45	8,778.05	10,158.50
Panama (Rep. of)	1973-1974	47,655.25	6,093.75	53,749.—
Paraguay (Rep. of)	1973-1974	98,352.35	18,337.25	116,689.60
Philippines (Rep. of the)	1973-1974		11,195.25	11,195.25
Rwanda (Rep. of)	1972-1974	1,160.45	14,692.55	15,853.—
Sierra Leone	1972-1974	30,092.94	3,761.35	33,854.29
Somalia (Dem. Rep. of)	1974	12,446.85	1,825.—	14,271.85
Sudan (Dem. Rep. of)	1970-1974	95,579.90	29,770.75	125,350.65
South Africa (Rep. of)	1974	762,483.10		762,483.10
Chad (Rep. of)	1970-1974	135,340.65	9,016.20	144,356.85
Tunisia	1974	5,521.80	2,500.—	8,021.80
Uruguay (Orient. Rep. of)	1973-1974		24,354.70	24,354.70
Venezuela (Rep. of)	1969-1974	10,351.15	28,218.34	38,569.49
Yemen Arab Republic	1973-1974	8,681.70	5,376.—	14,057.70
Zaire (Rep. of)	1973-1974	14,780.20	28,314.60	43,094.80

¹ This list mentions only amounts above 5,000 Swiss francs.

Name of debtor	Year	Contributions	Publications	Total
ENTEL S.A., Brasilia	1964-1968	37,445.35		37,445.35
Empresa Brasileira de Telecom., Rio de Janeiro	1974		6,876.—	6,876.—
Bangladesh Telegr. and Teleph., Dacca	1974		7,417.—	7,417.—
Canadian Overseas Telecom. Corp., Montreal	1973-1974		91,455.65	91,455.65
Bell Canada, Ottawa	1974		6,384.75	6,384.75
Canadian Telecom. Carriers Ass., Ottawa	1974		8,213.60	8,213.60
Empresa Nacional de Telecomunic., Bogota	1971-1974		25,104.55	25,104.55
S.A. lignes télégr. et téléph., Conflans	1973-1974		8,574.05	8,574.05
SECRE, Paris	1971-1974	8,192.35		8,192.35
Standard Telecom. Lab. Ltd., Harlow	1974		28,857.75	28,857.75
BBC, London	1974		14,894.—	14,894.—
Potter Ltd., London	1973-1974		30,159.10	30,159.10
Japan Radio Co. Ltd., Tokyo	1973-1974		24,288.—	24,288.—
Nigerian External Telecom. Ltd., Lagos	1973-1974	7,970.55	28,295.45	36,266.—
SEMA Electronicas, Lisbon	1972-1974		22,345.90	22,345.90
LM Ericsson, Stockholm	1974		18,995.20	18,995.20
Transp. Officer, Fort George USA	1973-1974		7,525.85	7,525.85
American TT Co., New York	1973-1974		18,511.95	18,511.95
CCA Electronics Corp., Silver Springs	1973-1974	14,402.65		14,402.65
NAVSAT Systems Inc., Salt Lake City	1970-1974	31,678.05		31,678.05
US Coast Guard, Washington	1973-1974		12,084.05	12,084.05
US Army, Washington	1971-1973		11,513.25	11,513.25
TRT Telecommunications Corp., Washington	1971-1974		6,305.75	6,305.75
Elektronska Industrija, Beograd	1971-1974	50,116.20		50,116.20
Rhodesia	1966-1974	489,600.—		489,600.—
Other debtors		2,523,560.62 19,395.15	969,396.07 287,959.85	3,492,956.69 307,355.—
Total		2,542,955.77	1,257,355.92	3,800,311.69