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REPORT
ON THE ACTIVITIES OF
THE INTERNATIONAL
TELECOMMUNICATION UNION

in

1969



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1. INTRODUCTION

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

The basic instrument of the I.T.U. is the International Telecommunication Convention, the current version of which, signed in Montreux in November 1965, entered into force on 1 January 1967. Annexed thereto are the Regulations, established by World Administrative Conferences, which govern, on an international basis, the use of radio, the telegraph and the telephone.

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

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

The supreme organ of the Union is the *Plenipotentiary Conference*. It meets 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.

In intervals between Plenipotentiary Conferences the *Administrative Council*, composed of twenty-nine Members of the Union, meets annually. It is responsible for taking all steps to facilitate the implementation by the Members and Associate Members of the Union of the provisions of the Convention, of the Regulations, of the decisions of the Plenipotentiary Conference and, where appropriate, of the decisions of other conferences and meetings of the Union.

The Union has four permanent organs, the *General Secretariat*, the *International Frequency Registration Board (I.F.R.B.)*, the *International Radio Consultative Committee (C.C.I.R.)* and the *International Telegraph and Telephone Consultative Committee (C.C.I.T.T.)*, the activities of which, in 1969, are reviewed in Section 4 of this report.

The activities of the Union in the field of Technical Cooperation are outlined in Section 5.

2. MEMBERSHIP OF THE UNION

1. On 31 December 1969, there were 137 Members of the Union, i.e.:

- a) the 129 countries or groups of territories mentioned in Annex 1 to the Montreux Convention, 1965;
- b) the following 8 countries which became Members on the deposit of an instrument of accession to the Convention:

	which became a Member on
Republic of Maldives	28.2.1967
Guyana	8.3.1967
Kingdom of Lesotho	26.5.1967
Barbados	16.8.1967
Republic of Botswana	2.4.1968
People's Republic of Southern Yemen .	15.8.1968
Republic of Nauru	10.6.1969
Mauritius	30.7.1969

There were no Associate Members.

2. By 31 December 1969, 97 countries had ratified the International Telecommunication Convention, Montreux, 1965, and 14 countries had acceded thereto.

3. The position of Members on 31 December 1969 in relation to the Montreux Convention, 1965, and to the Administrative Regulations annexed thereto, is indicated in Table I of Annex 1 to this Report. Annex 1 also contains information concerning certain other Conventions and Agreements relating to telecommunications.

3. THE ADMINISTRATIVE COUNCIL

3.1 The 24th Session of the Administrative Council was held at I.T.U. Headquarters from 3 to 23 May 1969.

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

Algeria (Algerian Democratic and Popular Republic), the Kingdom of Saudi Arabia, the Argentine Republic, the Commonwealth of Australia, Brazil, Canada, China, the Republic of Dahomey, the United States of America, Ethiopia, France, the Republic of India, Ireland, Italy, Japan, Lebanon, the Malagasy Republic, the Kingdom of Morocco, Mexico, the Federal Republic of Nigeria, Uganda, Pakistan, the People's Republic of Poland, the Federal Republic of Germany, the United Kingdom of Great Britain and Northern Ireland, the Confederation of Switzerland, the Union of Soviet Socialist Republics, the Republic of Venezuela and the Socialist Federal Republic of Yugoslavia.

3.2 Mr. William J. Wilson (Canada) was elected Chairman and Mr. Mohammed Ben Abdellah (Morocco) Vice-Chairman and the following Committees were constituted:

Committee 1 — Finance

Chairman: Mr. R. Rüttschi (Switzerland)
Vice-Chairman: Mr. M.M. Husain (Pakistan)

Committee 2 — Personnel and Pensions

Chairman: Mr. C. E. Lovell (United Kingdom)
Vice-Chairman: Mr. A. Zaidan (Saudi Arabia)

Committee 3 — Technical Cooperation

Chairman: Mr. Thomas E. Nelson (United States)
Vice-Chairman: Mr. V. A. Haffner (Nigeria)

The major resolutions and decisions adopted either by the Plenary Meeting or by Committees are summarized below.

3.3 *Financial matters*

3.3.1 Coordination of budgetary and financial activities in the United Nations Organizations

Having examined the report of the Secretary-General on the recommendations of the Ad Hoc Committee of Experts to examine the Finances of the United Nations and the Specialized Agencies, the Council instructed the Secretary-General to submit reports to the 25th Session of the Council on:

- a) the inter-agency discussions that are taking place, the results thereof, and their implications for the I.T.U.;
- b) the implications for the I.T.U. of the adoption of a biennial budget cycle;
- c) the implications for the Union of the adoption of the principle of full budgeting.

(Resolution No. 639)

3.3.2 *Final budgets for the year 1969*

After providing certain additional credits, the final budgets for 1969 were approved as follows:

- 24,149,000 Swiss francs for the budget of the Union;
- 3,129,700 Swiss francs for the Technical Cooperation Special Accounts budget;
- 3,072,300 Swiss francs for the supplementary publications budget;
- 5,105,450 Swiss francs for the supplementary budget for the addition of a wing to the I.T.U. building.

The contributory unit for 1969 was maintained at 46,200 Swiss francs.

(Resolution No. 640)

3.3.3 *Budgets for the year 1970*

The budgets for 1970 were approved as follows:

- 26,045,700 Swiss francs for the budget of the Union;
- 3,918,300 Swiss francs for the Technical Cooperation Special Accounts budget;
- 3,629,620 Swiss francs for the supplementary publications budget;
- 4,466,910 Swiss francs for the supplementary budget for the addition of a wing to the I.T.U. building.

The contributory unit for 1970 was fixed at 47,800 Swiss francs. This amount had been kept down at the cost of a large withdrawal from the Reserve Fund.

(Resolution No. 641)

3.3.4 The Council also adopted resolutions with respect to:

- External audit of I.T.U. accounts for the period 1 January to 31 December 1968 (Resolution No. 642).
- Financial operating report of the I.T.U. for the year 1968 (Resolution No. 643).
- Amounts owed by the Cuban Telephone Company (Resolution No. 644).

3.4 *Personnel matters*

3.4.1 *Grading of posts*

On the basis of the recommendations of the two experts appointed pursuant to Resolution No. 581, the Council at its 23rd Session had modified the grading of 142 I.T.U. posts.

Staff members who considered that their posts had been incorrectly described or graded were subsequently able to request reconsideration. Such requests were reviewed and recommendations for further adjustments were made to the Council at the 24th Session. As a result, the Council agreed to modify the grading of a further 18 posts but decided that no other upgrading would be made to Union posts as a direct result of the experts' enquiry and the review of their recommendations.

(Resolution No. 645)

3.4.2 *Creation of posts*

The Council decided to approve the creation, with effect from 1 January 1970, of eight posts in the General Secretariat, two in the specialized secretariat of the I.F.R.B. (in replacement of two temporary posts existing since 1960) and two in the specialized secretariat of the C.C.I.T.T.

(Resolution No. 646)

3.4.3 *Changes in the United Nations Common System—Conditions of Remuneration*

The Council authorized the Secretary-General to introduce, as a temporary measure, changes in the basic salary scales of staff in the Senior Counsellor, Professional and General Service categories, the rates and class of adjustments, the overtime rates and the various allowances as and when these changes are put into force by the United Nations for the staff of the United Nations Office at Geneva.

Resolutions were adopted putting into effect decisions already taken by the General Assembly of the United Nations at its XXIIIrd Session.

(Resolutions Nos. 647, 649 and 650)

3.4.4 *Changes in the Conditions of Remuneration of Elected Officials*

The Council modified the conditions of remuneration of elected officials after consultation of the Membership.

(Resolution No. 648)

3.4.5 The Council also adopted a Resolution and a Decision with respect to:

— Membership of the I.T.U. Staff Pension Committee

(Resolution No. 651)

— Grading of the post of Head of the Computer Department

(Decision No. 353)

3.5 *Conferences and meetings*

3.5.1 *Frequency planning for LF/MF broadcasting*

Having examined a memorandum by the I.F.R.B. and a report by the Director of the C.C.I.R. submitted in pursuance of Resolution No. 635, the Council considered that a conference should

be held, in principle, not later than 1974, for the purpose of regional frequency planning for LF/MF broadcasting as envisaged in Resolution No. 5 of the African LF/MF Broadcasting Conference, Geneva, 1966. The Secretary-General was instructed to forward the memorandum by the I.F.R.B. and the report by the Director of the C.C.I.R. to Member countries for information and to invite the Administrations of the countries interested to present their views on the desirability of holding the Conference not later than 1974.

(Resolution No. 652)

3.5.2 *World Administrative Radio Conference for Space Telecommunications*

Having consulted the Members of the Union by circular-telegram, the Council decided that the World Administrative Radio Conference for Space Telecommunications would meet in Geneva on 7 June 1971 for a duration of six weeks, provision being made for one additional week if necessary, with the following agenda:

- To consider, revise and supplement as necessary, existing administrative and technical provisions of the Radio Regulations and adopt, as necessary, new provisions for radio-communication services, insofar as they use space radio techniques, including those for manned space vehicles, and for the radioastronomy service, so as to ensure the efficient use of the spectrum;
- To consider, revise and supplement as necessary, the Radio Regulations to provide for the use of space radio techniques by the Aeronautical Mobile and Maritime Mobile Services, for communication as well as for radio-determination purposes;
- To consider, revise and supplement as necessary, the existing Table of Radio Frequency Allocations in the Radio Regulations for radiocommunication services, insofar as they may use space radio techniques, and the radioastronomy service;
- To consider, revise and supplement as necessary, the existing provisions pertaining to the technical criteria and the procedures for frequency sharing between space and terrestrial services, and to establish technical criteria and procedures for frequency sharing between space systems;
- To consider the feasibility at this time of coordinated frequency planning for radio-communication satellites, including those placed on the geostationary orbit, and to take such action as is deemed appropriate;
- To make only such consequential changes to the Radio Regulations as are essential for the effective implementation of the decisions of the Conference;
- To adopt such Resolutions and such Recommendations related to the foregoing, as may be necessary.

(Resolution No. 653)

3.5.3 *Date and duration of the 25th Session of the Administrative Council*

The Council decided that, as for the three preceding sessions the duration of the 25th Session, due to open in Geneva on 23 May 1970, would be limited to three weeks.

(Decision No. 354)

3.6 *Matters relating to the Permanent Organs*

3.6.1 *Group of Experts for the study of the organization and methods of work of the C.C.I.T.T.*

Under its Resolution No. 7, the IVth Plenary Assembly of the C.C.I.T.T., Mar del Plata, 1968, requested the Council to set up as soon as possible a study team of experts for the preparation of a draft proposal on the organization and working methods of the C.C.I.T.T. The Council decided that the membership of the study team should be composed of one expert from each country which had submitted a nomination in accordance with the Mar del Plata resolution, provided they still wished to participate and that other administrations should be invited to nominate an expert if they so desired. The Director of the C.C.I.T.T. was requested to transmit the draft proposals prepared by the team at least six months prior to the Vth Plenary Assembly of the C.C.I.T.T.

(Resolution No. 656)

3.6.2 *Electronic Computer Requirements*

Having carefully examined lack of flexibility and limitations of the present computer and the doubts about its ability to give continuous service to the Union's Headquarters, the Council instructed the Secretary-General:

- a) to forecast computer needs of the Headquarters of the Union for the next five to seven years;
- b) to conduct a detailed study of possible alternatives in meeting these needs; and
- c) to make a recommendation for future action.

(Resolution No. 654)

3.6.3 *Organization of the C.C.I.R. Specialized Secretariat*

The Council approved proposals for the division of the C.C.I.R. Specialized Secretariat under two Senior Counsellors between broadcasters, television and mobile services and editorial work on the one hand and fixed and special services and general spectrum studies on the other hand. The Council adjusted the grading of certain of the posts.

(Resolution No. 655)

3.7 *Technical Cooperation matters*

3.7.1 *Posts charged against U.N.D.P. Funds*

The Council approved proposals regarding the organization of the Technical Cooperation Department including the numbers and grading of posts charged against U.N.D.P. funds.

(Resolution No. 657)

3.8 *Miscellaneous*

3.8.1 *Distribution of Union publications through specialized agents*

With a view to a wide distribution of Union publications in the different parts of the world, the Secretary-General was authorized to establish a programme for their sale through authorized distributors and to negotiate distribution contracts based on accepted standards in the countries concerned and on the relevant practices of other organizations in the United Nations family.

(Resolution No. 658)

3.8.2 *Action on United Nations General Assembly Resolutions Nos. 2395, 2396, 2426 and 2465 (XXIII)*

Having carefully examined the above resolutions, the Council instructed the Secretary-General to collaborate fully with the United Nations High Commissioner for Refugees, in particular:

- by providing advice, and possibly arranging for the provision by Members of equipment, when representatives of U.N.H.C.R. are called upon to establish emergency telecommunication circuits;
- by facilitating the participation of refugees holding fellowships from U.N.D.P. or other organizations, in courses in telecommunication training centres sponsored by I.T.U.;
- by the participation of the I.T.U. in rural development projects which involve the establishment or development of a telecommunication network.

The Secretary-General was also instructed to examine with the Secretary-General of the United Nations what other steps could be taken by the Headquarters of the Union within the framework of the Convention to implement the Resolutions in question.

Members of the Union were invited by the Council to respond to the greatest extent possible, to the appeals contained in the Resolutions.

(Resolution No. 659)

3.8.3 *World Telecommunication Day*

The Council decided to designate 17 May 1970 as World Telecommunication Day with the theme "Telecommunications and Education".

(Resolution No. 660)

3.8.4. *Draft Constitution and General Regulations*

The Council noted reception of a draft Constitution and General Regulations for the Union, prepared by a Study Group according to the provisions of Resolution No 35 adopted by the I.T.U. Plenipotentiary Conference (Montreux, 1965). It instructed the Secretary-General that in transmitting the draft to the Members of the Union he should invite them to base any proposals for changes to the present I.T.U. Convention and General Regulations which they might make to

the next Plenipotentiary Conference on the marginal numbering appearing both in the draft and in the present Acts of the Union, and to follow the numerical sequence of the draft.

(Resolution No. 661)

3.8.5 *Gifts for the extension of the Headquarters building*

The Council decided that the Secretary-General might enquire of the Members of the Union whether they wished to contribute gifts for the extension to the I.T.U. Headquarters building.

(Decision No. 355)

3.8.6. *Working languages of the Union*

The Council authorized the Secretary-General to use additional credits to the extent of Swiss francs 800,000 for 1969 and 1970 for the purpose of placing Spanish language on a level equivalent to French and English, in accordance with Article 17 of the Convention (Montreux, 1965).

(Decision No. 356)

4. ACTIVITIES OF THE PERMANENT ORGANS

4.1 ACTIVITIES OF THE GENERAL SECRETARIAT

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

The work of the *Personnel* and *Finance Departments* continues to increase annually, but no particular activities in 1969 need be mentioned in this report.

As a periodic task the *Conference and General Services Department* serviced the Study Group meetings of the C.C.I.R. in 1969 and translated and published the considerable volume of preparatory documents for the XIIth Plenary Assembly. Publication and distribution of the C.C.I.T.T. White Book in loose-leaf form was commenced.

The *Computer Department* was organized following the transfer of the Computer from the I.F.R.B. to the General Secretariat on 1 June 1968. During 1969 computer services continued to be provided for the I.F.R.B. and the C.C.I.R. as well as for certain tasks of the General Secretariat. The computerization of the debtors' accounts and sales statistics as a first step towards an integrated system for financial administration was implemented in 1969. Studies were carried out relating to other computer applications such as the maintenance of publication subscriber status and production of corresponding postal labels, the publication of the List of Ship Stations and the Analytical Index of the Telecommunication Journal.

Following Council Resolution No. 654 special studies have been initiated with a view to forecasting the computer needs of the Union's Headquarters and to recommend the action to be taken to service those needs.

The *Department of External Relations* comprises three Divisions: Relations with the United Nations and other international organizations, Relations with Members of the Union and the Information Division.

During 1969 every attempt was made to follow the work of the United Nations, especially with respect to matters concerning inter-agency coordination. The General Secretariat was represented at a number of conferences and meetings where general policy matters were under discussion, particularly in the field of outer space. Among these mention should be made of the Plenipotentiary Conference to Establish Definitive Arrangements for the International Telecommunications Satellite Consortium (INTELSAT), and meetings of the « Application of Space Techniques Relating to Aviation » (ASTRA) Panel constituted by the Air Navigation Commission of the International Civil Aviation Organization.

In application of Resolution No. 652, administrations were consulted by the Division « Relations with Members of the Union » on the desirability of holding a conference, not later than 1974, for the purpose of regional frequency planning for LF/MF broadcasting, as envisaged in Resolution No. 5 of the African LF/MF Broadcasting Conference, Geneva, 1966. The results of this consultation are to be examined by the Council at its 25th session. This Division in addition to its regular programme also completed the publication of the re-edition of the 1959 Radio Regulations incorporating the partial revisions by the Space, Aeronautical and Maritime Conferences, continued the preparation for the publication of the List of Ship Stations with the assistance of the computer, published the Telegraph Telephone and Radiocommunication Statistics for the first time in a single booklet with the title "Telecommunication Statistics" and took action with a

view to the entry into force on 1 January 1970 of the provisions governing the transferred account telegraph service contained in C.C.I.T.T. Recommendation F.41

Among the activities of the Information Division should be mentioned the preparation for the celebration of the First World Telecommunication Day on 17 May 1969, the participation in the 28th International Air and Space Show, Paris, le Bourget, including the organization of a colloquium « Space and Radiocommunications », the organization in a Swiss regional exhibition of a Telecommunication Pavilion to celebrate the hundredth anniversary of the establishment of the Headquarters of the I.T.U. in Switzerland and the publication of the centenary issue of the Telecommunication Journal.

Mention should also be made of the activities of the *Legal Adviser*, who acted as Secretary to the Study Group for the preparation of a Draft Constitutional Charter and General Regulations which held its third session in February 1969 and completed its work. Negotiations were continued with the Swiss Government regarding the establishment of a new Headquarters Agreement in accordance with Montreux Resolution No. 41. The drawing-up and adjudication of contracts with respect to the construction of the extension to the I.T.U. building, excavations for which commenced on 15 July 1969, involved a considerable amount of work.

The activities of the *Technical Cooperation Department* are fully covered in Section 5 of this report.

4.2 ACTIVITIES OF THE INTERNATIONAL FREQUENCY REGISTRATION BOARD (I.F.R.B.)

4.2.1 *Treatment of frequency assignment notices*

The Board continued to carry out its duties as prescribed in the Convention, Montreux, 1965, and the attached Radio Regulations. These duties in relation to the utilization, notification, technical examination and registration of frequencies involved special steps to ensure the application both by the Administrations and the I.F.R.B. of the provisions of the Radio Regulations. During the year 1969, the Board dealt with a total number of 35,778 (in 1968, 46,293) frequency assignment notices.

4.2.2 *Technical examination of frequency assignment notices*

The required technical examinations or re-examinations of frequency assignments, as prescribed by the Administrative Radio Conference, Geneva, 1959, were made in respect of 14,379 (in 1968, 18,335) assignments notified according to the provisions of Article 9 of the Radio Regulations with a view to their recording in the Master International Frequency Register. With regard to the frequency bands allocated with equal rights to the Space Service and to the Fixed and Mobile Services, 890 (in 1968, 215) assignment notices were examined in accordance with Article 9A of the Radio Regulations.

4.2.3 *Interference cases, special assistance in frequency matters*

The Board issued a number of specific suggestions on the use of frequencies and made recommendations with a view to the clearance of harmful interference or to rendering special assistance to Administrations. This is an aspect of the Board's work to which Administrations attach particular importance and seems to be a field in which the Board's assistance is most valuable. In addition to the specific requests, many times when the representatives of the Board had the opportunity of meeting representatives of Administrations, they were able to shed useful light

on the procedures for notifying frequency assignments or on the use of frequencies that would ensure the most effective use of the radio frequency spectrum.

4.2.4 Broadcasting in the high frequency exclusive bands

The Board continued to apply the procedure specified in Article 10 of the Radio Regulations for the high frequency bands allocated exclusively to the Broadcasting Service. The prescribed Schedules were published together with recommendations for their improvement.

4.2.5 Monitoring

Monthly Summaries of monitoring information received were prepared and issued to Administrations, as well as special summaries of monitoring information on the use, by broadcasting stations, of the high frequency bands allocated exclusively to the Broadcasting Service. It must be noted, however, that there are still parts of the world from which little or no monitoring information is sent to the I.F.R.B. In the present state of the international monitoring system, this inadequate coverage makes it difficult for the Board to carry out certain of its functions for which wide data would be of utmost help in assisting Administrations to the extent to be desired.

4.2.6 Work involving the use of the computer

Several computer programmes were modified, either for the technical examination of notices, so as to incorporate the MUF values taken from the C.C.I.R. Atlas of Ionospheric Characteristics (Report 340), or for the preparation of the High Frequency Broadcasting Schedule and for the preparation of international monitoring services.

4.2.7 Technical standards and Rules of Procedure

The Board began its study of the revision of its Technical Standard B-2, which is drawn up in the form of curves for MUF values, with the aim of publishing a new set of curves with these values, calculated in conformity with the method recommended in the C.C.I.R. Atlas of Ionospheric Characteristics (C.C.I.R. Report 340, Oslo 1966 and addenda, New Delhi 1970).

The Board also began analyzing Report 252-2 of C.C.I.R. on a new computer method of calculating field strengths between 2 and 30 Mc/s.

The Board has completed the revision of the Chapter of its Rules of Procedure relating to the processing of notices of frequency assignments to stations which use the bands shared by the Space Service and the Terrestrial Service, and after 30 May 1969 these revised rules were regularly applied.

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

The Final Acts of the Maritime Conference came into force on 1 April 1969. The Board issued a circular-letter just before that date reminding Administrations of the main steps to be taken with a view to the implementation by stages of the new provisions adopted by the Conference. In addition, the rearrangement of subdivisions of the frequency bands allocated exclusively to the Maritime Mobile Service between 4,000 and 27,500 kc/s required many frequency changes in 1969, particularly for ship stations, changes which Administrations were obliged to make in conformity with a schedule adopted by the Conference.

Just before each step, the Board drew the attention of Administrations to the measures to be taken on the dates specified by the Conference. The Board also reminded Administrations of the

provisions adopted by the Conference for the gradual introduction of the single sideband technique in the Maritime Mobile Service, drawing attention to the steps which were applicable from the date of entry into force of the Final Acts.

The Board also carried out the task assigned to it by the Maritime Conference in Resolution No. Mar 15, namely the distribution, according to the criteria stipulated by the Conference, of the requirements submitted by Administrations for the use of the new channels to be made available for maritime radiotelephony on 1 March 1970.

4.2.9 Implementation of the Allotment Plan for the Aeronautical Mobile (R) Service in the exclusive bands between 2,850 kc/s and 17,970 kc/s — Appendix 27 to the Radio Regulations

During the first stage of implementation of the Plan the assistance supplied to Administrations involved a considerable amount of coordination work for the Board, namely the despatch of 220 letters, telegrams or messages, to which end the Board collaborated closely with the I.C.A.O. Secretariat.

To facilitate the task of Administrations, the Board drew up lists indicating the frequencies to be vacated by each Administration from 18 September 1969 and a list of the frequencies that it could bring into service from that date, according to requirements and in line with the agreed programme of implementation of the Plan.

The Board also prepared lists of frequency assignments entered on behalf of each Administration in the Master Register on 15 May 1969 in the bands in question and requested Administrations to return the extracts from the Master Register after they were brought up to date. The lists were sent to Administrations on 30 May 1969, accompanied by two copies of a detailed explanatory letter.

4.2.10 Participation of the I.F.R.B. in meetings of the Editorial Sub-Group of the E.B.U./O.I.R.T. UHF Television Offsets Planning Group

The Editorial Sub-Group was constituted by the London Planning Group of Experts from the European Broadcasting Union (E.B.U.) and the International Radio and Television Organization (O.I.R.T.). The Sub-Group prepared a report to Administrations on the comments received on the proposed frequency offsets established by the London meeting and drew up a procedure for the coordination and implementation of the proposed frequency offsets.

4.2.11 Application of the recommendations of the I.T.U. Panel of Experts, Geneva, 1963

The Board is studying a new method of presentation of the information received, in order to facilitate the work of Administrations in this matter in pursuance of Recommendation No. 37 of the Panel of Experts.

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

In pursuance of Administrative Council Resolution No. 528, the Board sent out Circular-letter No. 218 of 18 June 1969, informing all Administrations that the Board is organizing a Seminar from 7 to 18 September 1970.

By 31 December 1969, the Board had already received replies to this Circular-letter from 19 Administrations. The time limit for replies is 30 June 1970.

4.2.13 Participation of the I.F.R.B. in meetings of C.C.I.R. Study Groups (Geneva, September-October 1969)

Meetings of C.C.I.R. Study Groups I-XIV and the CMTT were held in Geneva from 3 September to 15 October 1969. Before the meetings began, the Board completed the studies which represented its contribution to the work of these Study Groups. In addition, the members of the Board and engineers in its Specialized Secretariat took an active part in the work of the Study Groups and their working parties. The work of the C.C.I.R. is of special importance for the Board since, in accordance with Nos. 636, 639CP and 684 of the Radio Regulations, the Technical Standards it uses are partly based on C.C.I.R. Recommendations.

4.2.14 Visits and training of Administration officials at the I.F.R.B.

During 1969, a large number of representatives of various Administrations visited the I.F.R.B. to study the procedures for the treatment of frequency assignment notices and to obtain advice on the assignment of frequencies suitable for their countries' radiocommunications. Such visits and on-the-spot training have been found to be one of the best ways of acquainting officials of Administrations with frequency management procedures, the use of the radio spectrum and the work of the Board.

4.2.15 Technical Cooperation

In accordance with No. 155 of the Convention, important questions concerning I.T.U. technical cooperation are dealt with by the Coordination Committee. The I.F.R.B. has therefore participated in dealing with those of the questions concerning technical cooperation which have been submitted by the Secretary-General to the Coordination Committee, including experts' reports. The Board also participated by lecturing at some of the I.T.U. seminars organized by the General Secretariat to which it was invited.

4.2.16 Preparatory work for the future World Administrative Radio Conference for Space Telecommunications (1971)

The Board has undertaken a study of technical problems and assembling data related to the forthcoming W.A.R.C., Space, and has closely followed and analyzed the work which has been done by the C.C.I.R. in this field.

4.2.17 Miscellaneous

In addition to the weekly circulars the Board issued to Administrations 30 (in 1968, 19) circular-letters concerning special studies, and prepared for publication a number of international lists of frequencies and related documents. In accordance with the Convention and the Radio Regulations, the members of the I.F.R.B. attended, either as representatives of the I.T.U. or of the I.F.R.B., 27 (in 1968, 24) conferences or meetings of international organizations whose activities with respect to the use of frequencies are closely connected with those of the I.F.R.B.

4.3 ACTIVITIES OF THE INTERNATIONAL RADIO CONSULTATIVE COMMITTEE (C.C.I.R.)

The principal activities of the C.C.I.R. Secretariat during 1969 were concerned with:

- a) the Study Group meetings held in September/October 1969 in Geneva;
- b) the preparations for the XIIth Plenary Assembly, scheduled to be held in New Delhi in January/February 1970.

Other activities will also be briefly reviewed below.

a) *Study Group meetings*

In conformity with Administrative Council Resolution No. 633, all the Study Groups of the C.C.I.R., including the CMTT, met in Geneva in September/October 1969, to prepare conclusions for consideration by the XIIth Plenary Assembly. To avoid too great a concentration, which would have placed a considerable strain both on premises and staff resources, the fifteen Study Groups involved let in groups of five during a period (3 September to 15 October) of some six weeks. As far as possible, Study Groups with common interests met in parallel, while, in addition, a certain amount of interleaving between the end of one group and the beginning of the following one was arranged to facilitate further discussions between Study Groups.

The results of these meetings are described in the Director's Report to the XIIth Plenary Assembly and will therefore not be reproduced here.

With regard to attendance at these meetings, the Table appearing in pages 21 and 22 gives some details. It should be mentioned that the total number of participants was 798.

Even though the final Study Group meetings were separated from the Plenary Assembly itself, Spanish was used throughout these meetings, both for interpretation and documentation, in accordance with Decision No. 356 adopted by the Council at its 24th session. The use of Spanish also materially facilitated the preparation of the conclusions of the Study Groups for presentation to the Plenary Assembly.

b) *Preparations for the XIIth Plenary Assembly*

1. *Agreement*

In accordance with Administrative Council Resolution No. 83 (amended), an Agreement was concluded with the Government of India relating to the organization of the XIIth Plenary Assembly. The text of this Agreement can be found in annex to the Director's Report to the XIIth Plenary Assembly.

2. *Preparatory documentation*

The findings of the Study Group meetings referred to above were prepared during the months of October and November, as contributions to the Plenary Assembly. The despatch of this documentation, except in answer to late requests, was terminated in the middle of December, thus ensuring that Administrations and others would have this documentation well before the opening of the Assembly.

This documentation contained 598 proposals for new texts or modifications to existing texts emanating from the Study Groups. A number of documents were also prepared for consideration by the plenary sessions in New Delhi, relating to the organization of the work of the C.C.I.R., the holding of a Preparatory Meeting for the Space Conference, the Report by the Director covering the period 1966-1969, etc.

The Director would here wish to pay tribute to the excellent collaboration with the various services of the General Secretariat, which made it possible to terminate in good time the work connected with the preparation of the some 4,500 pages of documentation in each of the three languages.

c) *Other activities*

1. *Manuals*

During the course of 1969, the technical staff of the C.C.I.R. has been responsible for coordinating the work of preparing the Manuals on Monitoring Services and on Tropical Broadcasting.

Moreover, following a request made in 1968 by Study Group X, production and distribution of (magnetic) standard reference loudness tapes was continued, due to the great demand which developed for them.

2. *Staffing*

With respect to the staffing arrangements within the C.C.I.R. Secretariat, the implementation of Administrative Council Resolution No. 655 was completed by the end of December 1969.

3. *I.W.P. PLEN./1*

In addition to the Study Group meetings referred to above, the International Working Party on the Organization of the C.C.I.R. (I.W.P. PLEN./1), established by Resolution No. 34 at the XIth Plenary Assembly of the C.C.I.R. (Oslo, 1966), met, under the Chairmanship of Mr. A. Bigi (Italy) in Geneva, in the latter part of May 1969, to prepare proposals on the subject for consideration by the Plenary Assembly.

4. *Computer programmes*

During 1969, several computer programmes were processed by the technical staff of the C.C.I.R. Secretariat, the most important one covering C.C.I.R. Report 340 (C.C.I.R. Atlas of Ionospheric Characteristics). This latter programme makes it possible, for instance, to determine the maximum usable frequency between any two points on earth, taking into account the relevant parameters, such as sunspot number, time of day, time of year, etc.

A far more complete programme, incorporating Report 340, is also being processed on the basis of work done by Interim Working Party VI/1, which will make it possible to determine the field-strength at any point on earth, resulting from a transmission from another given point, taking into account not only ionospheric characteristics, but also those of the transmitter, such as the antenna pattern, radiated power, etc. It is anticipated that this computer programme will greatly facilitate the consideration of requests concerning the usability of frequencies in the HF bands, including the interference potential of such use.

*Participation in C.C.I.R. Study Group meetings
Geneva, september/october 1969*

[illegible]

Administration	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	CMTT	Total
Czechoslovak S. R.	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	15
Turkey	—	—	—	—	—	×	—	—	—	×	×	—	—	—	—	3
U.S.S.R.	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	15
Yugoslavia	×	×	×	×	×	×	—	×	×	×	×	—	×	—	×	12
<i>Totals : 40</i>	31	31	32	35	31	32	22	31	35	35	35	22	33	21	30	

	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	CMTT	Total
Recognized private operating agencies	8	9	11	25	13	12	2	10	15	18	18	6	12	2	17	
International Organizations	3	3	4	7	2	2	3	1	2	2	2	3	5	—	2	
Specialized agencies of the United Nations	—	—	—	1	—	—	—	—	—	—	—	—	1	—	—	
Scientific and industrial organizations	4	7	6	15	6	2	1	3	13	8	8	4	10	3	14	
Organs of the I.T.U.	2	2	3	3	2	2	2	2	3	2	2	2	2	2	3	
Registration	91	92	104	277	107	110	59	86	172	175	179	68	151	48	163	

4.4 ACTIVITIES OF THE INTERNATIONAL TELEGRAPH AND TELEPHONE CONSULTATIVE COMMITTEE (C.C.I.T.T.)

The first part of 1969 was devoted largely to the consequences of the IVth Plenary Assembly, such as assignments to Study Groups and Working Parties, drafting of texts for the volumes of the White Book (sometimes with the help of an Editorial Committee) and preparation of tentative programmes for meetings to be held in 1969 and 1970.

In March, however, the meetings of Study Groups and Working Parties began again, although still at a fairly slow pace.

1. The meetings held in 1969 are listed below.

<i>Date</i>	<i>Purpose of the meeting</i>	<i>Place</i>
10 - 14 March	GAS 5 (Economic conditions and telecommunication development)	Geneva
13 - 18 March	Working Party IV/2 (Specifications for measuring equipment)	Geneva
17 - 21 March	Study Group III (General tariff principles; lease of telecommunication circuits)	Geneva
24 - 28 March	Study Group II (Telephone operation and tariffs)	Geneva
26 - 28 March	Study Group V (Protection)	Geneva
2 - 6 June	Working Party II/5 (Human factors)	Geneva
10 - 23 July	Working Party on revision of the Telegraph Regulations	Geneva
2 - 5 September	Joint C.C.I.T.T.—C.C.I.R. Special Study Group C (Noise)	Geneva
15 - 26 September	Joint C.C.I.T.T.—C.C.I.R. Regional Plan Committee for Latin America	Asuncion
18 - 24 September	Working Group TAL (Tariffs for Latin America)	Asuncion
29 September - 3 October	Working Party IV/3 (Maintenance programme)	Geneva

6 - 10 October	Working Party IV/4 (Network stability)	Geneva
27 October -		
7 November	Special Study Group D (Pulse code modulation)	Geneva
24 November -		
12 December	Working Party II/1 (International accounting)	Geneva
	Working Party II/2 (Instructions for the international telephone service)	Geneva
	Working Party II/3 (Telephone Regulations)	Geneva

2. As these meetings immediately followed the IVth Plenary Assembly, they dealt mainly with the organization and distribution of work during the new period. Nevertheless, some studies have already been begun.

The main results of these meetings, by broad spheres of activity, are as follows:

2.1 *Telegraphy*

The revision of the Telegraph Regulations was continued. It was proposed that everything concerning optional services should be omitted from the Regulations.

Proposals were made for the simplification of the counting of words. It was also proposed to permit secret language for letter telegrams and to eliminate the distinction between the European and the extra-European systems.

2.2 *Data transmission*

The standardization of certain control signals and the layout of keyboards is being studied with a view to applying the I.S.O. - C.C.I.T.T. alphabet, known as Alphabet No. 5.

2.3 *Telephone transmission*

The Laboratory Working Party of Study Group XII examined the results of many tests conducted in the C.C.I.T.T. Laboratory with a view to comparing reference equivalent values determined subjectively on telephone sets with the values measured objectively on the same sets.

At its first meeting, Special Study Group D considered all the problems relating to the use of pulse code modulation (PCM) and the methods to be used in dealing with these problems, in co-operation with the Study Groups concerned. It concentrated its attention on the following points: basic characteristics of primary multiplexes (including the speech code law for a telephone channel) and secondary multiplexes, signalling methods to be used in PCM systems, synchronous and asynchronous operation of digital networks and synchronization of these networks, and compatibility between digital switching systems. This initial study revealed differences of opinion on several points and an attempt will be made to eliminate them at subsequent meetings.

2.4 *Telephone operation and switching*

In March 1969, Study Group II made arrangements for the efficient study of the 17 new questions concerning operation which had been assigned to it by the IVth Plenary Assembly of the C.C.I.T.T. Four Working Parties met in 1969:

- the first on new procedures for international accounting between Administrations or recognized private operating agencies;
- the second to bring up to date the “ Instructions for the International Telephone Service ”;
- the third on questions relating to the Telephone Regulations;
- the fourth on human factors.

The fourth Working Party prepared a draft Recommendation laying down rules for the printing and layout of subscribers' numbers, both on business letter paper and in telephone direc-

tories. This Recommendation describes in great detail the spacing and other symbols to be used for the layout of these numbers.

With regard to tariffs, Study Group III prepared a questionnaire designed to collect the necessary data for studies to be carried out by the various regional Working Groups on international tariffs. The first of these Working Groups, the Working Group on International Tariffs for Latin America, met at Asuncion in September and at Caracas in December 1969.

Where switching is concerned, 1969 witnessed the beginning of tests of new Signalling System No. 6 (a common-channel system of signalling between control exchanges with stored programmes) defined by the IVth Plenary Assembly. The polygon of participating exchanges and the calendar for the tests, which will be conducted over four years, were decided upon at a meeting of a Joint Working Party of Study Groups XI and XIII in June 1969.

2.5 Maintenance, protection, definitions and symbols

In addition to Volume IV of the White Book and the supplements to that Volume, a manual of GAS 4 on "Primary power sources" was drafted, as well as a booklet on "Maintenance of cables by gas pressure".

Study Groups IV and V met to organize their programmes for the current period; Working Parties of Study Group IV met to draw up specifications for automatic maintenance equipment No. 2 (ATME No. 2), to prepare the routine maintenance programme for 1970 and to decide on the measures to be taken in 1970 for evaluating performance of the international network.

2.6 Plan for the development of international networks

The Regional Plan Committee for Latin America met at Asuncion. Seventeen out of twenty one Latin-American countries attended the meeting, whereas only 7 countries of the region took part in the IVth Plenary Assembly of the C.C.I.T.T. at Mar del Plata. This confirms the usefulness of the Plan Committee meetings.

The meeting prepared traffic forecasts for 1974 and 1978, deduced therefrom the number of circuits to be provided and drew up artery plans for 1974 and 1978, taking into account plans of the development of earth stations for satellite circuits.

The automatic telephone routing plan gave rise to discussion concerning the classification of certain transit centres and it was proposed that 5 should be chosen as the language identification digit for calling a Spanish-speaking operator.

3. Technical assistance work of the C.C.I.T.T.

In addition to the work done in this sphere by the various Study Groups and Working Parties of the C.C.I.T.T., 1969 witnessed:

- - publication of the GAS 3 manual (Economic and technical comparisons of transmission systems);
- publication of the GAS 4 manual (Primary power sources).

The C.C.I.T.T. took an active part in the seminar held in Geneva in August and September 1969 on the integration of satellite communications in the general network.

For its study of economic conditions and telecommunication development, Special Autonomous Working Party No. 5 prepared a questionnaire to collect the statistical data regarded as essential for its replies to the questions assigned to it by the IVth Plenary Assembly. A very large number of countries, especially developing countries, have filled in this questionnaire and their replies were examined by an analysis group in December 1969.

4. *C.C.I.T.T. publications*

The publication of 10 Volumes (18 books) of the White Book was undertaken and pursued as actively as possible. The loose-leaf section arrangement contributed to delay in publication; a disturbing factor was the low quality of the services provided by certain printers.

By the end of 1969, all the sections on questions to be studied had been published and the following books have come out in their entirety (apart from possible supplements):

Volume I	(Plenary Assembly)
Volume II A	(Telephone operation)
Volume II B	(Telegraph operation)
Volume IV	(Maintenance)
Volume VII	(Telegraph technique)
Volume VIII	(Data transmission)
Volume IX	(Protection)

These are the French and English editions; the Spanish edition will follow with some delay.

In addition to the Volumes of the White Book, other publications were two booklets on signalling systems (System R2 and System No. 6), the Book on the 1969 Plan for Latin America and the Instructions for the International Telephone Service.

This list gives an idea of the large volume of editorial work that the Secretariat had to perform in 1969.

5. *Relations with other international organizations*

As it does every year, the C.C.I.T.T. collaborated with W.M.O., the I.E.C., the I.S.O., and the E.B.U. It naturally maintained close relations with the General Secretariat and the C.C.I.R.

6. *Changes in the functioning of the Study Groups and the Secretariat*

There are few changes to report in the chairmanship of the Study Groups and Working Parties set up at Mar del Plata:

Mr. Faugeras (France) had to resign from the chairmanship of the Joint Working Party on the Alphabet and was succeeded by Mr. Baggenstos (Switzerland).

In the C.C.I.T.T. Secretariat, Mr. Kochegarov, an engineer in the Transmission Department, and Mr. Besseyre, Senior Counsellor of the C.C.I.T.T., resigned in 1969. Two posts for P3 engineers were created as from 1 January 1970, one in the Transmission Department and the other in the Telephone Operation and Signalling Department.

7. *Team of experts on the organization and working methods of the C.C.I.T.T.*

In accordance with Resolution No. 7 of the IVth Plenary Assembly and the resolution adopted by the Administrative Council in May 1969, the team of experts to study the organization and working methods of the C.C.I.T.T., has been established. It consists of 20 experts representing 19 Administrations. A set of proposals for improving the organization and working methods of the C.C.I.T.T. has been sent to each expert. The coordinator of the group, Mr. Bigi (Italy), will begin his work by correspondence.

5. TECHNICAL COOPERATION ACTIVITIES

5.1 *General appraisal of 1969 activities*

In 1969, the Union, through its various programmes of technical cooperation, provided assistance to developing countries in the form of 237 expert missions, 340 fellowships implemented or under implementation and U.S. \$560,588 equipment delivered. The expenditures incurred for the above field operations amounted to U.S. \$5,226,230.

During the year, the three main objectives of the Union's activity in the field of technical cooperation continued to be:

- a) *The promotion of development of regional telecommunication networks in Africa, Asia and the Americas.*

The Union made further efforts to develop a form of concerted action in regard to the planned and organized integration of telecommunication networks in Africa, Asia and the Americas into a world-wide telecommunication system, in accordance with the objectives established by the Union's World and Regional Plan Committees. To this end, the Union collaborated with the United Nations Economic Commissions, regional telecommunication organizations, banks and the Governments concerned in Africa, Asia and the Americas.

The outstanding achievements in this respect were the completion of the preliminary pre-investment survey report for Africa and the commencement of a feasibility study for the Asian telecommunication network in November 1969. Approximately 12% of all the Union's experts in the field in 1969 were engaged in this type of work.

- b) *The strengthening of telecommunications technical and administrative services in developing countries*

This type of activity was closely connected with the modernization and improvement of telecommunication facilities in many developing countries, which made it necessary to re-organize the administrative and technical services concerned. Approximately 30% of the experts have been employed for this purpose as advisers or as OPAS officers.

- c) *The development of human resources required for telecommunications*

In the year under review, approximately 58% of the Union's field experts were directly engaged in the training of telecommunication personnel in developing countries, as organizers, advisers, lecturers or instructors. In addition, most of the other experts gave on-the-job training to national counterparts while carrying out their other duties. Approximately 27% of the fellows studying abroad received training in subjects directly connected with the development of human resources, and 82% of the total value of equipment purchased by the Union was exclusively for training purposes.

The expenses incurred in connection with the training of telecommunication staff in 1969 represent approximately two-thirds of the total cost of the I.T.U. field programmes, as was the case also in the previous year.

In accordance with the decision of the I.T.U. Administrative Council in 1969, at its 24th Session, a Training Division was set up in the Department of Technical Cooperation.

5.2 *Field of activity*

The predominant field of activity, as in the past, continues to be the training of telecommunication personnel. The Union also provided considerable assistance in the specialized fields of telephony, telegraphy, radiocommunications, frequency management, satellite communications, planning, organization, administration and management, etc. The increasing interest of developing countries in satellite communications is to be noted and two experts were specifically assigned for this purpose. In addition, the United Nations Development Programme (U.N.D.P.) and the United Nations Educational, Cultural and Scientific Organization (UNESCO) sent teams of experts to nine different countries to advise in this speciality during the year under report. The I.T.U. collaborated in these missions by providing a specialist from its Headquarters as a team member.

5.3 *Some problems encountered in the recruitment of experts*

The shortage of qualified candidates for expert posts, which was experienced in the past, has been more notable in 1969. This seems, in particular, to be due to increasing difficulties of Administrations to release top quality personnel for I.T.U. appointments, taken together with the demand for an increasingly higher quality of expertise.

Certain posts continued to be difficult to fill due to the language and specialization requirements, as also the fact that they were less attractive.

5.4 *The Union's participation in the United Nations Development Programme (U.N.D.P.)*

5.4.1 *Technical Assistance component*

A new procedure, termed "continuous programming" has become effective as from 1 January 1969, in replacement of the two-year programming cycles.

The obligations incurred, during the year under review, for the implementation of the field projects, amounted to U.S. \$1,468,166, distributed by geographical regions as follows—U.S. \$604,152 for Africa, U.S. \$318,540 for Asia, U.S. \$434,383 for the Americas, U.S. \$40,380 for Europe and U.S. \$70,681 for inter-regional projects. The above figures do not include the commitments made in 1968 for the implementation of several expert missions approved under the 1967/1968 biennium in order to ensure a smooth changeover from biennial to continuous programming. The expenditures in 1969 for this purpose amounted to U.S. \$339,345.

Under this component, 69 countries received assistance during the year through country projects. Of these, 23 were in Africa, 17 in Asia, 23 in the Americas and 6 in Europe. In addition assistance was provided to various countries under regional projects and one inter-regional project.

During the year, 79 experts (including 11 OPAS officers) recruited from 22 countries, 11 of which were themselves receiving assistance from the Union, were on missions of varying duration in developing countries. Of these experts, 34 were working in Africa, 21 in Asia and 24 in the Americas. Details of expert missions are incorporated in Table 1 of Annex 5.

The above figures also include 10 experts, who served during the year as members of three regional missions (2 in Africa, 3 in Asia and 5 in the Americas), as well as three specialists hired from a Swedish Consulting Company in connection with the urgent rehabilitation of telecommunication services in Equatorial Guinea.

During the year, the Union dealt with 349 fellowships under this component, of which 219 were awarded in 1969 (this includes 142 fellowships to participants to I.T.U. seminars) and the remaining 130 under previous years' programmes. Holders of 280 of these fellowships (including fellowships for participants to seminars) were undergoing training in various host countries during

the year and the remaining fellowships have been carried forward into 1970 and subsequent years for completion.

Details concerning the fellowships under report are included in Table 2 of Annex 5.

Training and demonstration equipment was ordered during the year for six countries, namely Equatorial Guinea, Gambia, Jordan, Mali, Roumania and Somalia to a total value of U.S. \$33,790. Furthermore, equipment ordered in 1968 for Gambia, Hungary, Iran, Jordan, Niger, Panama and Rwanda was delivered during 1969.

5.4.1.1 *Seminars*

Within the framework of its regional and inter-regional projects under the Technical Assistance component, the Union held four seminars in 1969, i.e. in Addis Ababa and Caracas on management techniques, in Dakar on matters concerning the improvement of radio and television broadcasting in Africa and in Geneva on the integration of satellite communications into the telecommunication network. The Union granted 142 fellowships to the participants to these seminars. Administrations and broadcasting organizations from Australia, Canada, the Federal Republic of Germany, France, India, Italy, Japan, the Netherlands, Sweden, the United Kingdom, the U.S.A. and the U.S.S.R., as well as the International Labour Organisation (ILO) and the African Development Bank (ADB), contributed to the success of the seminars by seconding lecturers on a cost-free basis.

5.4.1.2 *Operational Assistance (OPAS)*

Eleven OPAS officers recruited under the Technical Assistance component, in addition to seven under the Funds-in-Trust/OPAS arrangements, served in seven different countries.

Thirteen of these were employed in Africa, three in Asia and two in the Americas, all carrying out duties of a managerial and/or operational nature.

5.4.2 *Special Fund component*

The Union, in 1969, acted as Executing Agency for 23 U.N.D.P./Special Fund assisted projects. Of these, 21 projects were in the training sphere, one was a pilot circuit project (Abidjan-Addis Ababa) and one a pre-investment survey project (Asian Feasibility Study). Three of these were new projects approved by the U.N.D.P. Governing Council in 1969, i.e. Feasibility Studies for the Asian Telecommunication Network; Telecommunication Training, Test and Development Centre (Phase II), Thailand; and Technical Training and Research Institute for Telecommunications, United Arab Republic. In addition, the Union continued preliminary operations on the pre-investment survey of the African Telecommunication Network (Regional Project) under the U.N.D.P. authorization issued in 1968. A similar authorization from U.N.D.P. enabled the appointment of a Project Manager designate, late in 1969, for the establishment of a training centre in Teheran, Iran. The U.N.D.P. also financed the Union's pre-project activities in connection with the establishment of multinational training schools for some countries of Eastern Africa and in Senegal under the Special Fund component, as also the services of a consultant, hired from a United Kingdom company, to carry out a feasibility study concerning the construction of a pilot radio link Sana'a-Taiz-Aden (Yemen and Southern Yemen).

Table 3 of Annex 5 gives a list of the projects for which the Union was Executing Agency on 31 December 1969.

In the course of the year, four projects came to an end, i.e. the first stage of the Pilot Telecommunication Circuit Project (Abidjan-Addis Ababa) was concluded in April 1969 when the

last expert left Addis Ababa; the delivery of equipment to the Centre for Research and Training on the use of Satellite Communications, Ahmedabad (India) was completed and the last fellowship implemented; the first phase of the Telecommunication Training Centre project in Kabul (Afghanistan) and that of the Telecommunication Training, Test and Development Centre in Bangkok (Thailand) were successfully completed and immediately followed by new projects (Phase II) for the continuation and expansion of the activities of the Centres.

During the year, 117 experts recruited under this component were in the field. Details of these expert assignments have also been incorporated in Table 1 of Annex 5.

Within the framework of U.N.D.P./Special Fund projects for which the I.T.U. is the Executing Agency, a total of 62 fellowships, including 35 awarded during previous years, were dealt with during 1969. Fifty-three holders of these fellowships were undergoing training abroad during the year under report and nine fellowships have been carried over to 1970. Details of the fellowships dealt with have been incorporated in Table 2 of Annex 5.

Equipment to the value of U.S. \$619,833 was ordered during the year and deliveries made to the value of U.S. \$490,800, which figure includes equipment ordered in 1968 and earlier years, delivered only in 1969.

In addition, the Union administered 37 General Service Category Staff (secretaries and drivers) engaged locally for various I.T.U./Special Fund projects.

The total expenditure incurred by the Union for the field operation under the Special Fund component in 1969 amounted to U.S. \$2,871,225.

The Union collaborated with the Food and Agriculture Organization (F.A.O.), in providing training for operators and maintenance personnel for the F.A.O. anti-locust programme at the I.T.U./U.N.D.P. (Special Fund) assisted training centres in Iraq and Algeria on equipment provided by the F.A.O. Twelve trainees were given a twelve-week course in Baghdad and eight trainees completed a fifteen week course in Algiers during 1969.

The Union also assisted the International Bank for Reconstruction and Development (I.B.R.D.) in the implementation of six telecommunication fellowships under a U.N.D.P./Special Fund project in Pakistan, for which the I.B.R.D. is the Executing Agency. The 1969 disbursement made in this respect was U.S. \$12,255.

Under an administrative arrangement concluded in 1968 with the Inter-American Development Bank (I.D.B.), concerning the execution of the pre-investment study for the Inter-American Telecommunication Network (a U.N.D.P./Special Fund project for which the I.D.B. is the Executing Agency in association with the Union), and I.T.U. expert-adviser was appointed to the I.D.B. in December 1969.

5.5 *Related aid programmes*

5.5.1 *Funds-in-Trust*

Nineteen experts served under the Funds-in-Trust arrangements, which figure includes seven OPAS officers employed under Funds-in-Trust/OPAS arrangements: six in the Democratic Republic of the Congo, four in Libya under Funds-in-Trust/OPAS arrangements, two in Saudi Arabia, six in Kuwait (3 of whom under Funds-in-Trust/OPAS arrangements) and one in Thailand.

One fellowship was dealt with under this scheme (Libya).

The total cost of these Funds-in-Trust projects in 1969 was U.S. \$322,613.

Details of Funds-in-Trust missions are incorporated in Table 1 of Annex 5 and the data concerning the fellowship mentioned above in Table 2 of Annex 5.

5.5.2 *Associate expert scheme*

On the basis of arrangements for the provision of associate experts, concluded between the Union and the Governments of Denmark, the Netherlands and Sweden, 22 associate experts served on I.T.U. projects in 1969, i.e. one in Afghanistan, one in Algeria, six in Colombia, one in Ghana, one in Iraq, one in Jamaica, six in Malaysia, three in Nigeria, one in the Sudan and one in Thailand. Sixteen of these associate experts were provided by the Government of Sweden, five by the Government of the Netherlands and one by the Government of Denmark.

The total value of assistance provided under this scheme in 1969 amounted to U.S. \$180,467.

5.5.3 *Technical assistance in kind*

Under this scheme, the Union continued to disseminate information on the assistance offered by the technically advanced countries during the course of the year. Two circular-letters were issued regarding courses of study open to nationals of developing countries (one in India and one in France) and information concerning advanced training courses in Yugoslavia was published in I.T.U. Notification No. 1018.

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

The Union acted as Executing Agency for the Telecommunication Repair and Rehabilitation Project in West Irian. The value of this field operation in 1969 was U.S. \$82,043.

The I.T.U. also assisted the United Nations Office of Technical Cooperation (U.N.O.T.C.) in matters concerning ship-to-shore telecommunications in connection with the latter's Coastal and River Transportation Project in West Irian.

Close contacts were also maintained with the International Civil Aviation Organization (I.C.A.O.), the World Meteorological Organization (W.M.O.) and U.N.O.T.C., in order to coordinate the assistance given in the field of telecommunications by the U.N. Agencies in West Irian.

5.6 *Preparation of new projects for 1970*

During the year under report, the Union was in continuous contact with the Administrations and Resident Representatives in recipient countries, in order to assist in the preparation of requests for new projects, as well as for the continuation of existing ones, where this was felt to be appropriate. At the end of the year, the following results had been obtained:

Technical Assistance Component

During the year, the creation of 16 new projects was successfully negotiated and approval obtained from the U.N.D.P. in New York. The implementation of these projects will commence early in 1970.

Five regional seminars had been planned for 1970, two in Asia, two in Africa and one in the Americas. The subjects to be treated by these seminars will be—satellite communications, telecommunication operation, organization and management, rural telecommunications and broadcasting technology.

The necessary steps have also been taken, and the preparatory work terminated, for the creation of three new regional expert posts, one in Dakar, one in Beirut and one in Quito.

Special Fund Component

In collaboration with the Resident Representatives concerned, the Union has been engaged in the preparation and submission of requests for the extension of operational training projects in Afghanistan, Algeria, Colombia, India, Iraq, Madagascar, Turkey and Venezuela. Furthermore,

the Union was involved in the preparatory work in regard to requests for U.N.D.P./Special Fund assistance in the training of telecommunication personnel in Bolivia, Cambodia, Ceylon, Iran, West and East Africa, Indonesia, Laos, Mongolia, Nepal, Peru, Syria, Singapore and Viet-Nam, as also in the construction of a pilot radio link between Yemen and Southern Yemen.

During the year, the Union, in collaboration with the Universal Postal Union (U.P.U.) was engaged in the preparatory work for the inclusion of training courses for postal staff at the I.T.U. training centres, under the Special Fund component, in Afghanistan, East Africa and Turkey. Preliminary contacts were, furthermore, made with the International Civil Aviation Organization (I.C.A.O.) regarding a concerted approach to the training of telecommunication staff in Somalia.

5.7 *Group of engineers*

In accordance with Resolution No. 29 of the Plenipotentiary Conference (Montreux, 1965), the four engineers have worked in their respective specialized fields. They dealt with various requests from Member countries during the year, either by examining them at headquarters or by going on mission to the countries concerned. The following subjects were considered: planning of national telephone networks, transmission, planning of the cable network, telex and frequency management. They also dealt with such special questions as satellite communication and the use of satellites for educational purposes.

The group of engineers also prepared technical specifications for a number of special projects and carried out studies connected with technical assistance.

They assisted the Technical Cooperation Department in various tasks, e.g. selection of experts, purchase of equipment, experts' reports, planning projects, preparation and conducting of seminars. They carried out a number of special missions and represented the I.T.U. at several conferences.

6. ADMINISTRATION OF THE UNION

6.1 STAFF MATTERS

6.1.1 On 31 December 1969, excluding persons engaged on short-term contracts, the staff of the Union was distributed as shown in the following table (for purposes of comparison, the figures for the end of 1968 are given between brackets).

TABLE 1

*Distribution of staff (excluding persons on short-term contracts)
throughout the various organs of the Union*

Organ	Elected officials	Number of contracts		Total
		Permanent	Fixed-term	
General Secretariat	2	250	26	278
I.F.R.B.	5	94	—	99
C.C.I.T.T.	1	29	2	32
C.C.I.R.	1	23	—	24
	9 (9)	396 (387)	28 (22)	433 (418)

6.1.2 The manning-table—or establishment—in the 1969 budget comprised 449 posts, of which 429 were permanent. The following separations from service of staff on permanent or fixed-term contracts took place during the year: 3 retirements, 16 resignations or transfers and 2 deaths.

6.1.3 Employment on a short-term basis in 1969 is shown in the table below:

TABLE 2

Staff engaged on short-term contracts

	Number of contracts	Total number of working days
Interpreters	197	3,103½
Engineers/Technicians	7	1,286
Translators/Revisers/Précis-Writers/Editors	45	2,052½
Associate Administrative Officers	2	529
Proof-readers	5	887
Draughtsmen, photographers	12	1,163
Secretaries, office assistants, book-keepers	75	5,350½
Shorthand-typists, typists and clerks	211	13,107½
Punch-card operators/Offset operators	6	923
Telephone operators	39	334½
Roneo operators/assembly staff	43	3,890
Simultaneous interpretation equipment operators	19	359
Distribution staff, messengers, chauffeurs, store-keepers	49	3,126½
	710	36,112

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

TABLE 3

Distribution of staff according to grade

Grade	General Secretariat		I.F.R.B.		C.C.I.T.T.		C.C.I.R.		Totals	
Elected officials	2		5		1		1		9	
	P	FT	P	FT	P	FT	P	FT	P	FT
D.1	3	—	—	—	1	—	1	—	5	—
P.5	5	—	3	—	3	—	1	—	12	—
P.4	12	6	5	—	—	—	5	—	22	6
P.3	22	10	17	—	6	—	2	—	47	10
P.2	14	1	5	—	4	—	—	—	23	1
P.1	5	—	3	—	2	—	1	—	11	—
G.7	12	1	4	—	—	—	—	—	16	1
G.6	21	—	14	—	2	2	4	—	41	2
G.5	45	1	19	—	10	—	5	—	79	1
G.4	39	1	13	—	—	—	3	—	55	1
G.3	40	2	9	—	1	—	1	—	51	2
G.2	24	3	2	—	—	—	—	—	26	3
G.1	8	1	—	—	—	—	—	—	8	1
	250	26	94	—	29	2	23	—	396	28
Total	276		94		31		23		424	

(P = Permanent; FT = Fixed-term)

Note: The grades shown in the above table are those of the 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.

6.1.5 The principle of equitable geographical distribution applies to elected officials and staff in the following categories: senior counsellors, professional category (excluding languages staff), and staff occupying posts of a technical nature in grades G.7, G.6 and G.5. (It does not apply to other posts in the General Service category.) The geographical distribution at the end of 1969 is shown in three Tables. Table 4 concerns the staff whose salaries are paid from the ordinary budget of the Union; 34 nationalities (for 117 officials) were represented in 1969. Table 5 concerns the headquarters staff whose salaries are paid from the technical cooperation budget and Table 6 concerns technical cooperation experts. In these categories of staff 45 nationalities (for 301 officials) were represented in 1969 compared with 40 (for 299 officials) in 1968.

TABLE 4

Geographical distribution on 31 December 1969

(Officials 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	Total
Afghanistan					1					1
Argentina	1		1		(1)					2 (3)
Australia	1				1					2
Belgium					1	1 (-)	(1)			2
Bulgaria					1 (-)	(1)				1
Canada				1 (-)			1			2 (1)
China				1	1					2
Denmark					1					1
Spain					3	1	2			6
United States	1	1		1	1					4
France	2	1	4	1	4 (3)	3 (5)	1	1 (-)	1 (3)	18 (20)
India		1		1 (-)	1	(1)				3
Iran					1					1
Iraq						1				1
Ireland						1				1
Italy				1		1	1			3
Japan	1				3					4
Morocco	1									1
Mexico					1					1
Norway									1	1
Pakistan					1					1
Paraguay				1						1
Netherlands				1		1			1	3
Poland (People's Rep. of)					1					1
Syrian Arab Rep.						1 (-)				1 (-)
United Arab Rep.						1				1
Fed. Rep. of Germany . .				1	2 (1)	(1)	1		1	5
United Kingdom		1	2	3 (2)	1	3	1	1	1	13 (12)
Switzerland			2 (1)	4 (6)	8	7 (5)	3 (6)	1	2	27 (29)
Czechoslovakia			1		1					2
Tunisia	1									1
Turkey				1						1
U.S.S.R.	1			1	(2)					2 (4)
Yugoslavia			1 (-)							1 (-)
	9	4	11 (9)	18 (17)	34	21 (22)	10 (14)	3 (2)	7 (9)	117 (120)

(Whenever changes have taken place, the figure for 1968 appears between brackets.)

TABLE 5

Geographical distribution on 31 December 1969

(Officials whose salary is paid from the Technical Cooperation budget)

Country	D.1	P.4	P.3	P.2	P.1	Total
Korea				1		1
France		1	1	1		3
Greece			1			1
Haiti.			1			1
Italy			1	1		2
Japan			1			1
Morocco		1				1
Norway			1			1
Fed. Rep. of Germany			1			1
United Kingdom			1			1
Sweden.	1		1			2
Switzerland			1		1	2
U.S.S.R.		1				1
Yugoslavia		1				1
	1	4	10	3	1	19

TABLE 6

Geographical distribution on 31 December 1969

(Experts whose salary is paid from the Technical Cooperation budget)

Country	P.1	P.2	P.3	P.4	P.5	P.6	Total
Argentina				1	2 (1)		3 (2)
Australia				4	1 (2)	1 (-)	6
Belgium			- (2)	1	1		2 (4)
Canada				2	2 (3)		4 (5)
Dahomey			1 (-)		1 (-)		2 (-)
Denmark	1			- (1)			1 (2)
Spain				1 (2)			1 (2)
United States				1	6 (4)		7 (5)
Ethiopia				1 (-)	- (1)		1 (1)
Finland				- (1)			- (1)
France		1 (-)	2 (5)	19 (18)	2	3 (2)	27
Greece				- (1)			- (1)
Guyana				1			1
India		1		5 (9)	4 (3)	1 (-)	11 (13)
Ireland				2	2		4
Italy			1	1 (2)	1 (-)		3
Japan				6 (1)	2 (1)	1	9 (3)
Norway				1 (2)	1		2 (3)
New Zealand			1 (-)				1 (-)
Pakistan				3 (2)	1 (2)		4
Netherlands	1 (4)	2 (-)		2 (4)	2	- (1)	7 (11)
Peru					1		1
Poland (People's Republic of)				1 (-)			1 (-)
United Arab Republic				3 (2)			3 (2)
Fed. Rep. of Germany			- (1)	10 (8)	2		12 (11)
United Kingdom			1	12 (14)	10 (5)	2 (1)	25 (21)
Sweden	9 (10)	- (3)	2 (-)	5	2 (1)	1 (2)	19 (21)
Switzerland				4 (5)			4 (5)
U.S.S.R.				1 (2)	2 (1)		3
Uruguay					1		1
	<u>11 (15)</u>	<u>4</u>	<u>8 (10)</u>	<u>87 (91)</u>	<u>46 (36)</u>	<u>9 (7)</u>	<u>165 (163)</u>

(Whenever changes have taken place, the figure for 1968 appears between brackets).

6.2 FINANCIAL MATTERS

In accordance with Article 10, number 146 of the Convention and Article 46 of the I.T.U. Financial Regulations, the Secretary-General prepares and submits each year to the Administrative Council a Financial Operating Report containing all relevant information on the financial administration and the accounting results of the past year. After the report has been examined by the Administrative Council it is sent to the Members and Associate Members. Nevertheless, to give an idea of the credits allocated to the different activities of the Union, the budget for 1969, including additional credits, is reproduced in Annex 2 hereto.

In accordance with the provisions of Article 16 of the Convention (Montreux, 1965) and Articles 2 and 6 of the I.T.U. Financial Regulations, the I.T.U. budget comprises, on the one hand, recurrent expenditure appertaining to the Administrative Council, the General Secretariat, the International Frequency Registration Board, the Secretariats of the International Consultative Committees and the Union's laboratories and technical equipment and, on the other, expenditure on plenipotentiary conferences, world administrative conferences and all meetings of the International Consultative Committees.

Additional Protocol I to the International Telecommunication Convention (Montreux, 1965) fixes the limits within which the Administrative Council is authorized to establish the annual budgets of the Union. The limits for 1969 are 19,185,000 Swiss francs for recurrent expenditure and 5,035,000 Swiss francs for the expenses of conferences and meetings. However, paragraph 5 of this Additional Protocol authorizes the Administrative Council to exceed these limits to take account of increases in the salary scales, pension contributions or allowances including post adjustments established by the United Nations for application to its staff employed in Geneva, and fluctuations in the exchange rate between the Swiss franc and the United States dollar which would involve additional expenses for the Union. The Administrative Council is also authorized to exceed the limits set for conferences and meetings if the excess expenditure can be compensated by credits accrued from a previous year or foreseen for a future year. However, the Additional Protocol also provided that the total amount authorized for conferences and meetings should be reduced by 1,500,000 Swiss francs if no world administrative conference dealing with telegraph or telephone questions was held during 1969.

At its 23rd Session, 1968, by Resolution No. 622, the Administrative Council approved the budget for 1969 amounting to:

20,416,900 Sw. frs. for recurrent expenditure, of which

18,572,900 Sw. frs. are within the limit of expenditure,
1,844,000 Sw. frs. are outside the limit;

2,162,000 Sw. frs. for conferences and meetings, of which

1,351,100 Sw. frs. are within the limit of expenditure,
70,000 Sw. frs. are outside the limit, and
740,900 Sw. frs. are covered by credits accrued from the years 1966 to 1968;

115,000 Sw. frs. for the preparation of the draft I.T.U. Charter;

35,000 Sw. frs. for expenses covered by the Renewal Fund for simultaneous interpretation and sound recording equipment and by the C.C.I.T.T. Reserve Account;

2,894,000 Sw. frs. for the special account for Technical Cooperation administrative expenses;
3,072,300 Sw. frs. for the supplementary publications budget; and
5,105,450 Sw. frs. for the supplementary budget for the construction of a new wing for the I.T.U. building.

By the same Resolution, the Administrative Council fixed the amount of the contributory unit for 1969 at 46,200 Swiss francs on the basis of the classification chosen by Members and Associate Members in accordance with numbers 212 and 213 of the Montreux Convention, i.e. on the basis of a total of 473½ units.

Finally, in accordance with Article 16, number 230, of the Convention (Montreux, 1965), the Administrative Council fixed a figure of 5,000 Swiss francs for 1969 as the annual unit of contribution towards defraying the expenses of meetings of the C.C.I.R. and the C.C.I.T.T. payable by the recognized private operating agencies, scientific or industrial organizations and those international organizations not exempt by virtue of Administrative Council Resolution No. 574.

At its 24th Session, by Resolution No. 640, the Administrative Council authorized additional credits for the 1969 budget mainly to cover expenditure arising from changes in the employment conditions of the common system of the United Nations and the specialized agencies. Under this Resolution the budget for 1969 was finally fixed at the following amounts:

21,737,000 Sw. frs. for recurrent expenditure, of which

18,602,200 Sw. frs. are within the limit of expenditure,
3,134,800 Sw. frs. are outside the limit;

2,262,000 Sw. frs. for the expenses of conferences and meetings, of which

1,344,700 Sw. frs. are within the limit of expenditure,
65,000 Sw. frs. are outside the limit, and
852,300 Sw. frs. are covered by credits accrued from the years 1966 to 1968;

115,000 Sw. frs. for the preparation of the draft I.T.U. Charter;

35,000 Sw. frs. for expenses covered by the Renewal Fund for simultaneous interpretation and sound recording equipment and by the C.C.I.T.T. Reserve Account;

3,129,700 Sw. frs. for the special account for Technical Cooperation administrative expenses;

3,072,300 Sw. frs. for the supplementary publications budget; and

5,105,450 Sw. frs. for the supplementary budget for the construction of a new wing for the I.T.U. building.

At its 24th Session, by Resolution No. 641, the Administrative Council also approved the 1970 budget for the following amounts:

23,268,700 Sw. frs. for recurrent expenditure;

2,742,000 Sw. frs. for conferences and meetings, including seminars;

35,000 Sw. frs. for expenses covered by the Renewal Fund for simultaneous interpretation equipment and sound recording equipment and by the C.C.I.T.T. Reserve Account;

3,918,300 Sw. frs. for Technical Cooperation administrative expenses;

3,629,620 Sw. frs. for the supplementary publications budget; and

4,466,910 Sw. frs. for the supplementary budget for the construction of a new wing for the I.T.U. building.

By the same Resolution, the Administrative Council fixed the amount of the contributory unit at 47,800 Swiss francs on the basis of the classification chosen by Members and Associate Members in accordance with numbers 212 and 213 of the Montreux Convention (1965), i.e. on the basis of a total of 474 units. This amount had been kept down at the cost of a large withdrawal from the Reserve Fund. The Administrative Council also decided to fix the annual unit of contribution towards defraying the expenses of meetings of the C.C.I.R. or the C.C.I.T.T. at 7,500 Swiss francs in 1970, for recognized private operating agencies, scientific or industrial organizations and those international organizations not exempt by virtue of Administrative Council Resolution No. 574.

Classification of the Members and Associate Members of the Union for the apportionment of Union expenditure in 1969

At the end of 1968, the Union had 135 Members (no Associate Members) contributing on the basis of a total of 474 units.

As a result of the accession of two new Members in 1969, the I.T.U. had 137 Members (no Associate Members) on 31 December 1969 contributing on the basis of 474½ units to the expenditure of the Union. At that date one of the Members had not informed the I.T.U. of the class in which it wished to contribute.

Cash resources

The liquid assets position of the Union continued to be very satisfactory in 1969, as can be judged from the fact that no advance from the Government of the Swiss Confederation was required and that it was possible to continue making short-term investments throughout the year. It was also possible to cover the expenses of the construction of the new wing for the I.T.U. building from the Union's liquid assets.

Contributions in arrear

Total amounts in arrear at 31 December 1969 for the years 1967, 1968 and 1969 were:

31 December 1967	5,739,456.66 Sw. frs.
31 December 1968	6,788,386.79 Sw. frs.
31 December 1969	6,153,242.76 Sw. frs.

These figures show that the amount of contributions in arrear was reduced considerably during 1969.

Annex 6 to this report shows the situation of the debtors to the Union at 31 December 1969.

I.T.U. Staff Superannuation and Benevolent Funds and membership of the United Nations Joint Staff Pension Fund

The following table shows the distribution of members among the various funds on 31 December 1969.

	Working staff	Retired staff	Widow's Pensions	Orphan's Pensions
<i>Provident Fund</i>	5	19	3	—
<i>Reserve and Complement Fund.</i>	—	11	3	3
<i>U.N. Joint Fund</i>				
Union staff:				
Full members	430	22	9	7
Associate members	—	—	—	—
Technical Cooperation experts:				
Full members	161	3	—	—
Associate members	4	—	—	—
<i>Total</i>	600	55	15	10

The Management Report of the I.T.U. S.S. & B. Funds, which constitutes the second part of the Financial Operating Report for 1969, gives full information on the activities of the Management Board of the S.S. & B. Funds.

7. RELATIONS WITH THE UNITED NATIONS AND OTHER INTERNATIONAL ORGANIZATIONS

UNITED NATIONS

Within the limits of available resources, I.T.U. Headquarters have been represented at meetings of the General Assembly and of the Economic and Social Council (ECOSOC) where matters of concern to the Union have been discussed. The I.T.U. also continued to participate in the work of the Administrative Committee on Coordination (A.C.C.) and a number of its subsidiary bodies and to cooperate with the Advisory Committee on Administrative and Budgetary Questions (ACABQ), the Consultative Committee on Administrative Questions (C.C.A.Q.), the International Civil Service Advisory Board (ICSAB), the Consultative Committee on Public Information (C.C.P.I.) and the Computer Users Committee. Every effort has been made to collaborate with the Joint Inspection Unit, to provide information requested by the inspectors and to follow their recommendations.

The Union continues to follow with attention the work of the Advisory Committee on Science and Technology, created by ECOSOC at its 36th session and that of the A.C.C. Sub-Committee on Science and Technology.

In accordance with Administrative Council Resolution No. 636, the I.T.U. has continued to pay special attention to meetings dealing with the peaceful uses of outer space and in 1969 was represented at meetings of the United Nations Committee on the Peaceful Uses of Outer Space and its Scientific and Technical Sub-Committee and Legal Sub-Committee and of the Working Group set up by the Committee to study the technical feasibility of communication by direct broadcast from satellites.

In pursuance of General Assembly Resolution No. 2130 (XX), the I.T.U. prepared an 8th Report on Telecommunication and the Peaceful Uses of Outer Space for presentation to ECOSOC and to the United Nations Committee on the Peaceful Uses of Outer Space.

COOPERATION WITH THE REGIONAL ECONOMIC COMMISSIONS

Cooperative arrangements with the *Economic Commission for Asia and the Far East* (ECAFE) have now been working satisfactorily for several years and the Executive Secretary, in his report to ECOSOC in July 1969, commended the continuing collaboration which existed between the Commission and the I.T.U. The United Nations Joint Inspection Unit also cited relations between the I.T.U. and ECAFE as an example of very successful cooperation.

Two I.T.U. regional experts are collaborating closely with ECAFE. Another expert, a specialist in economic questions, joined the mission at the end of 1969. Representatives from I.T.U. Headquarters also participated actively in February 1969 in the meetings of the Transport and Communications Committee and of the Telecommunication Sub-Committee of ECAFE.

As a result of a resolution adopted at the 24th session of the Economic Commission for Asia and the Far East, a request formulated in close collaboration between the I.T.U. and ECAFE was submitted to U.N.D.P. for the financing of the required preliminary technical studies for the establishment of a modern telecommunication network in Asia. The U.N.D.P. accepted the request and made Special Fund assistance available for a duration of two years. The I.T.U. appointed a project manager, who took up his post in November 1969. The work involved in

this project will certainly result in a series of reports and will include various stages. The headquarters of the project is Bangkok, where the ECAFE secretariat has provided premises and other facilities.

The I.T.U. has continued to have good cooperation with the *Economic Commission for Africa* (E.C.A.). It participated in the February, 1969 session of the Commission and in other meetings arranged by that body. The Regional Experts have had close liaison with officials of the Commission, which has been invited to seminars held in Africa and has been kept informed about the Union's technical cooperation activities in the Region.

With regard to the preinvestment survey for the installation of an African telecommunication network, which was undertaken by the I.T.U. within the Special Fund sector of the U.N.D.P., and was begun in 1968, contact was maintained with the E.C.A. partly through regular meetings of a particular Coordination Committee, comprising representatives of the E.C.A., the International Bank for Reconstruction and Development, the African Development Bank and the U.N.D.P., partly by correspondence and partly by direct discussions between the I.T.U.'s survey team and officials of the E.C.A.

REGIONAL ORGANIZATIONS

Relations with the regional organizations have been strengthened during the year and there is a more regular exchange of information of mutual interest between the I.T.U. and these organizations.

Special mention should be made of a resolution adopted by the Council of Ministers of the *Organization of African Unity* (O.A.U.) at its 13th Ordinary Session, which noted with satisfaction the energetic action undertaken by the I.T.U. to give African countries the technical assistance required for the development of their networks, to improve the training of staff and to study the action required for the rapid establishment of a pan-African telecommunication network.

In Latin America there are excellent relations between the I.T.U. and the *Organization of American States* (O.A.S.), particularly the Inter-American Telecommunication Committee (CITEL), an organ established by the Economic and Social Council of the O.A.S.

The I.T.U. has assigned under the technical assistance component of the U.N.D.P. (as is also the case of the regional experts in Africa and Asia), three regional experts who cooperate closely with the so-called regional coordinators of the CITEL. As in the two other regions, the experts in Latin America have been giving advice to countries on an ad hoc basis. For Latin America, the Governing Council of the U.N.D.P. at its session in January 1968 approved assistance from the Special Fund for a preinvestment study on a regional network. The project was to be executed by the Inter-American Development Bank in association with the I.T.U. The plan of operation was signed by 14 countries. Preliminary operations for the implementation of the project began towards the end of 1969. The Union appointed a specialist in the planning of telecommunication networks who has been assigned to the I.D.B. and is responsible for liaison between the I.D.B. and the Union.

Also on the regional level, there was close cooperation with the *Council of Europe* on matters of common interest.

SPECIALIZED AGENCIES

The I.T.U. maintains close relations with the agencies of a technical nature which have a special interest in telecommunications, i.e. the International Civil Aviation Organization (I.C.A.O.), the World Meteorological Organization (W.M.O.), the Inter-Governmental Maritime Consultative

Organization (I.M.C.O.) and the United Nations Educational, Scientific and Cultural Organization (UNESCO), many of which are examining the possibility of solving their particular problems by the use of space communication techniques.

The I.T.U. has continued to collaborate with the UNESCO Advisory Panel of Experts on Space Communications and attended a meeting of governmental experts on international arrangements in the space communication field.

The I.T.U. was represented at the 2nd meeting of the Panel on "Application of Space Techniques Relating to Aviation" (ASTRA), set up by the Air Navigation Commission of I.C.A.O.

The Union has also continued to collaborate with the International Oceanographic Commission (I.O.C.) of UNESCO and the Joint O.I.C./W.M.O. Group of Experts on Telecommunications. As in the past, the work of the Maritime Safety Committee of I.M.C.O. and of the sub-committees on safety of navigation and radiocommunications has been closely followed.

Since postal and telecommunication services are assured in a large number of countries by the same administration, every effort is made to collaborate with the U.P.U. with a view to finding a solution to common problems. The possibility of organizing joint U.P.U./I.T.U. training projects is also kept constantly under review.

RELATIONS WITH OTHER INTERNATIONAL ORGANIZATIONS

Apart from the specialized agencies, the Union has maintained close collaboration with a number of international organizations, among which special mention should be made of the following:

African and Malagasy Postal and Telecommunications Union (U.A.M.P.T.)
Arab Telecommunication Union
Asian Broadcasting Union (A.B.U.)
Committee on Space Research (COSPAR)
Danube Commission
European Broadcasting Union (E.B.U.)
European Conference of Posts and Telecommunications (C.E.P.T.)
Inter-American Association of Broadcasters (I.A.A.B.)
International Astronautical Federation (I.A.F.)
International Broadcasting and Television Organization (O.I.R.T.)
International Council of Scientific Unions (I.C.S.U.)
International Electrotechnical Commission (I.E.C.)
International Organization for Standardization (I.S.O.)
International Radio-Maritime Committee (C.I.R.M.)
International Scientific Radio Union (U.R.S.I.)
International Special Committee on Radio Interference (C.I.S.P.R.)
Union of National Radio and Television Organizations of Africa (U.R.T.N.A.)

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A list of meetings of the United Nations and other international organizations at which the Union was represented in 1969 appears in Annex 4 to this report.

ANNEX 1

**POSITION ON 31 DECEMBER 1969
OF MEMBER COUNTRIES IN RELATION TO THE ACTS OF THE UNION**

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

- International Telecommunication Convention, Montreux, 1965;
- Optional Additional Protocol to the International Telecommunication Convention, Montreux, 1965, on the Compulsory Settlement of Disputes;
- Radio Regulations and Additional Radio Regulations (A.R.C., Geneva, 1959);
- Partial Revision of the Radio Regulations (E.A.R.C., Geneva, 1963) (space);
- Partial Revision of the Radio Regulations (E.A.R.C., Geneva, 1966) (aeronautical);
- Partial Revisions of the Radio Regulations and of the Additional Radio Regulations (W.A.R.C., Geneva, 1967) (maritime);
- Telegraph and Telephone Regulations (Geneva, 1958).

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 relative to Maritime Radiobeacons in the European Area of Region 1 (Paris, 1951);
- Regional Agreement Concerning the Establishment of an International VHF Radio-telephone Mobile Service for Rhine Navigation (Brussels, 1957);
- Regional Agreement for the Use of Frequencies in the Bands 68-73 Mc/s and 76-87.5 Mc/s 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).

Tables V.1 to V.5. *Special Agreements:*

- Special Regional Agreement Concerning the Use of the 100-104 Mc/s Band by the Broadcasting Service (1962);
- Special Agreement for Use of the 582-606 Mc/s 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 Mc/s and Band V, 582-960 Mc/s) in the Frontier Areas (Karlsruhe, 1966);
- Special Agreement Concerning the Coordinated Use of Frequencies between 29.7 and 470 Mc/s by the Fixed and Land Mobile Services (Vienna, 1969).

Table I.

POSITION ON

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

Country or group of territories (In the alphabetical order of the French version of the country names)	CONVENTION, etc.				
	Plenipotentiary Conference, Montreux, 1965				
	Class of contribution No. of units	Convention, etc.*	Date on which the instrument of rati- fication or accession was deposited with the General Secretariat	Opt. Add. Protocol **	Date on which the instrument of rati- fication or accession was deposited with the General Secretariat
1	2	3	4	5	6
Afghanistan	½	S ¹⁾	31. I. 1969	S	31. I. 1969
Albania (People's Republic of)	½	A	5. V. 1969 ⁴⁰⁾	—	
Algeria (Algerian Democratic and Po- pular Republic)	3	S ¹⁾	24. IX. 1968 ²⁾	—	
Saudi Arabia (Kingdom of)	1	S ¹⁾	6. IX. 1968 ²⁾	—	
Argentine Republic	15	S ¹⁾	17. V. 1967	—	
Australia (Commonwealth of)	18	S ¹⁾	25. I. 1967	S	25. I. 1967
Austria	1	S ¹⁾	23. I. 1969	S	23. I. 1969
Barbados	½	A	16. VIII. 1967	—	
Belgium	5	S ¹⁾		S	
Bielorussian Soviet Socialist Republic . .	1	S ¹⁾	29. V. 1969 ²⁾	—	
Burma (Union of)	1	S ¹⁾		S	
Bolivia	3	S ¹⁾		S	
Botswana (Republic of)	½	A	2. IV. 1968	—	
Brazil	5	S ¹⁾	12. VII. 1968	S	
Bulgaria (People's Republic of)	1	S ¹⁾	5. VIII. 1969 ⁴³⁾	—	
Burundi (Republic of) ¹⁷⁾	½	—		—	
Cambodia (Kingdom of)	1	A	13. IX. 1968	—	
Cameroon (Federal Republic of)	½	S ¹⁾	24. IV. 1968	—	
Canada	18	S ¹⁾	31. VIII. 1966 ²⁾	S	30. I. 1967
Central African Republic	½	S ¹⁾	15. VIII. 1966	S	15. VIII. 1966
Ceylon	1	S	13. I. 1967	—	
Chile	3	S ¹⁾		—	

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

Convention, Regulations

31 DECEMBER, 1969

ADMINISTRATIVE REGULATIONS															
Administrative Radio Conferences												Administrative Telegraph and Telephone Conference			
Radio Regulations								Additional Radio Regulations				Geneva (1958)			
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)					A.R.C. Geneva (1959)	Partial Revision W.A.R.C. Geneva (1967) (maritime)			Telegraph Regulations	Telephone Regulations		
7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
S	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—		S	A ⁴⁾	—		—	A ⁴⁾	—	A ⁴⁾
S	40)	—	40)	—	40)	—	40)	S	40)	—	40)	—	A	—	A
—	A ⁴⁾	S	A	S	A ⁴⁾	S	A	—	A ⁴⁾	S	A	—	A ⁴⁾	—	A ⁴⁾
S	A ⁴⁾	—	A ⁴⁾	S	A ⁴⁾	—		S	A ⁴⁾	—		S	A ⁴⁾	S	A ⁴⁾
S	A ²⁴⁾	S	A ³⁾	S	A	S	A	S	A ²⁴⁾	S	A	—	A ²⁷⁾	—	A ²⁷⁾
S	A	S	A	S	A	S	A	S	A	S	A	S	A	S	A
S	A	S	A	—	A	S	A	S	A	S	A	S	A	S	A
—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—		—	A ⁴⁾	—		—	A ⁴⁾	—	A ⁴⁾
S	A	S	A	S	A	S	A	S	A	S	A	S	A ³⁾	S	A
S	1)	S	A	—	A ³⁴⁾	—	1)	S	1)	—	1)	S	A	S	A
S	A	—		—		—		S	A	—		S	A	S	A
S	—	—		—		—		S	—	—		—	—	—	
—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—		—	A ⁴⁾	—		—	A ⁴⁾	—	A ⁴⁾
S	A	—	A ⁴⁾	S	A ⁴⁾	S		S	A	S		—	A	—	A
S	1)	S	1)	S	A ¹²⁾	S	1)	S	1)	S	1)	S	A	S	A
—	A ⁴⁾	—	A	—		—		—	A ⁴⁾	—		—	A ⁴⁾	—	A ⁴⁾
S	A	S	A	—	A ⁴⁾	—		S	A	—		—	A	—	A
—	A	—	A	—	A ⁴⁾	S		—	A	S		—	A ⁴⁾	—	A ⁴⁾
S	A	S	A ³⁾	S	A	S	A	S	A ³⁾	S	A	S	A	—	1)
—	A	—	A	—		—		—	A	—		—	A ⁴⁾	—	A ⁴⁾
S	A ⁴⁾	—	A ⁴⁾	—		S		S	A ⁴⁾	S		S	A ⁴⁾	S	A ⁴⁾
—	A ⁴⁾	—	A ⁴⁾	—		S		—	A ⁴⁾	S		—	A ⁴⁾	—	A ⁴⁾

Table I.

Country or group of territories (In the alphabetical order of the French version of the country names)	CONVENTION, etc.				
	Plenipotentiary Conference, Montreux, 1965				
	Class of contribution No. of units	Convention, etc.*	Date on which the instrument of ratifi- cation or accession was deposited with the General Secretariat	Opt. Add. Protocol **	Date on which the instrument of ratifi- cation or accession was deposited with the General Secretariat
1	2	3	4	5	6
China	15	S ¹⁾	12. I. 1968	—	
Cyprus (Republic of)	½	S ¹⁾		S	
Vatican City State	½	S	6. IV. 1968	S	
Colombia (Republic of)	3	S ¹⁾		—	
Congo (Democratic Republic of the) . .	1	S ¹⁾		S	
Congo (Republic of the) (Brazzaville) . .	½	S ¹⁾	21. XII. 1966	S	24. I. 1969
Korea (Republic of)	1	S ¹⁾	14. III. 1967	S	14. III. 1967
Costa Rica	½	S ¹⁾		S	
Ivory Coast (Republic of the)	1	S ¹⁾	15. I. 1968	S	
Cuba	1	S ¹⁾	12. II. 1969	—	
Dahomey (Republic of)	½	S ¹⁾	10. XI. 1967	—	
Denmark	5	S ¹⁾	9. XI. 1966	A	9. XI. 1966
Dominican Republic	3	A	20. III. 1968	—	
El Salvador (Republic of)	3	—		—	
Group of Territories represented by the French Overseas Post and Telecom- munication Agency ³³⁾	1	S	29. V. 1967	S	
Ecuador	1	S ¹⁾	10. X. 1969	—	
Spain	3	S ¹⁾	6. VI. 1967	—	
United States of America	30	S ¹⁾	29. V. 1967 ²⁾	—	
Ethiopia	1	S ¹⁾	29. VII. 1967	—	
Finland	3	S ¹⁾	3. II. 1967	S	22. VI. 1967
France	30	S	29. V. 1967	—	
Gabon Republic	½	S ¹⁾		S	
Ghana	1	S ¹⁾		S	
Greece	1	S ¹⁾	26. VII. 1968	S	26. VII. 1968
Guatemala	1	S ¹⁾		S	

*) Convention, Final Protocol, Additional Protocols.

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

Convention, Regulations (cont.)

ADMINISTRATIVE REGULATIONS															
Administrative Radio Conferences												Administrative Telegraph and Telephone Conference			
Radio Regulations								Additional Radio Regulations				Geneva (1958)			
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)		A.R.C. Geneva (1959)		Partial Revision W.A.R.C. Geneva (1967) (maritime)		Telegraph Regulations		Telephone Regulations	
7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
S	A	S	A	S	A	S	A	S	A	S	A	S	A	S	A
—	A	S	A	—		S		—	A	S		—	A	—	A
S	A	S	A	—	A ⁴⁾	—	A	S	A	—	A	—	A	—	A
S		S		S		S		S		S		S		S	
—	A ⁴⁾	S	A	S		—		—	A ⁴⁾	—		—	A ⁴⁾	—	A ⁴⁾
—	A	—	A ⁴⁾	—		—	A	—	A	—	A	—	A ⁴⁾	—	A ⁴⁾
S	A	S	A	—	A	S	A	S	A	S	A	S	A	S	A
S		—		—		—		S		—		—		—	
—	A ³⁰⁾	—	A	—	A ⁴⁾	S		—	A	S		—	A ⁴⁾	—	A ⁴⁾
S	¹⁾	S	¹⁾	S	¹⁾	S	¹⁾	S	¹⁾	—	¹⁾	—	¹⁾	—	¹⁾
—	A	—	A	—	A ⁴⁾	—		—	A	—		—	A ⁴⁾	—	A ⁴⁾
S	A	S	A	S	A	S	A	S	A	S	A	S	A	S	A
S	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—		S	A ⁴⁾	—		—	A	—	A
S		—		—		—		S	⁵⁾	—	⁵⁾	S		S	⁵⁾
S	A	S	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⁾	—	A ⁴⁾
S	A ³⁾	S	A	S	A	S	A	S	A	S	A	S	A	S	A
S	A ²⁵⁾	S	A	S	A	S	A	—	¹⁾	—	¹⁾	S	A ²⁸⁾	—	¹⁾
S	A	S	A	S	A ⁴⁾	S		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	A	S	A	S	A	S	A ³⁾	S	A
—	A	—	A	—		—		—	A	—		—	A ⁴⁾	—	A ⁴⁾
S	A	S	A	S		S		S	A	S		—	A	—	A
S	A	S	A	—	A ⁴⁾	S		S	A	S		S	A	S	A
—	A ³¹⁾	—		—		—		—	A	—		—	A	—	A

Table I.

Country or group of territories (In the alphabetical order of the French version of the country names)	CONVENTION, etc.				
	Plenipotentiary Conference, Montreux, 1965				
	Class of contribution No. of units	Convention, etc.*	Date on which the instrument of ratifi- cation or accession was deposited with the General Secretariat	Opt. Add. Protocol**	Date on which the instrument of ratifi- cation or accession was deposited with the General Secretariat
1	2	3	4	5	6
Guinea (Republic of)	½	S ¹⁾	3. X. 1966	—	
Guyana	½	A	8. III. 1967	—	
Haiti (Republic of)	1	S		S	
Upper Volta (Republic of)	½	S ¹⁾	5. IV. 1968	—	
Honduras (Republic of)	½	—		—	
Hungarian People's Republic	1	S ¹⁾	20. I. 1969 ³⁹⁾	—	
India (Republic of)	13	S ¹⁾	1. XII. 1967	—	
Indonesia (Republic of)	1	S ¹⁾		—	
Iran	1	S ¹⁾	11. II. 1969	—	
Iraq (Republic of)	1	S ¹⁾	15. VII. 1969 ²⁾	—	
Ireland	3	S	17. V. 1967	—	
Iceland	½	S ¹⁾	8. III. 1967	—	
Israel (State of)	1	S ¹⁾	20. III. 1968	—	
Italy	10	S ¹⁾	28. X. 1968	—	
Jamaica	1	S ¹⁾	2. IV. 1969 ²⁾	—	
Japan	20	S	30. VIII. 1967	S	30. VIII. 1967
Jordan (Hashemite Kingdom of)	½	S ¹⁾	1. III. 1967	—	
Kenya	½	S ¹⁾	25. X. 1968	—	
Kuwait (State of)	1	S ¹⁾	11. IV. 1968 ²⁾	—	
Laos (Kingdom of)	½	S	27. IX. 1967	—	
Lesotho (Kingdom of)	½	A	26. V. 1967	—	
Lebanon	1	S ¹⁾	10. I. 1967	—	
Liberia (Republic of)	1	S ¹⁾		—	
Libyan Arab Republic ⁴⁴⁾	½	A	15. VIII. 1968	—	
Liechtenstein (Principality of)	½	S ¹⁾	12. XII. 1967	S	12. XII. 1967
Luxembourg	½	S ¹⁾	31. XII. 1968	S	31. XII. 1968

*) Convention, Final Protocol, Additional Protocols.

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

Convention, Regulations (cont.)

ADMINISTRATIVE REGULATIONS															
Administrative Radio Conferences												Administrative Telegraph and Telephone Conference			
Radio Regulations								Additional Radio Regulations				Geneva (1958)			
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)					A.R.C. Geneva (1959)	Partial Revision W.A.R.C. Geneva (1967) (maritime)			Telegraph Regulations	Telephone Regulations		
7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
—	A ⁴⁾	—	A	—	A	—	A	—	A ⁴⁾	—	A	—	A ⁴⁾	—	A ⁴⁾
—	A ⁴⁾	—	A ⁴⁾	—	A	S	A	—	A ⁴⁾	S	A	—	A ⁴⁾	—	A ⁴⁾
—	—	—	—	—	—	—	—	—	—	—	—	—	A ⁴⁾	—	A ⁴⁾
—	A ⁴⁾	—	A	—	A ⁴⁾	—	A	—	A ⁴⁾	—	A	—	A ⁴⁾	—	A ⁴⁾
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S	A ⁴⁾ ³⁹⁾	S	A ⁴⁾	S	A ⁴⁾ ⁴²⁾	S	—	S	A ⁴⁾	S	—	S	A	S	A
S	A	S	A	S	A	S	A	S	A	S	A	S	A	S	A ²⁶⁾
S	A	S	—	S	—	S	—	S	A	S	—	S	A	S	A
S	A	—	A ⁴⁾	—	A ⁴⁾	—	—	S	A	—	—	S	A	S	A
S	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	S	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾
S	A	S	A	S	A	S	A	S	A	S	A	S	A	S	A
S	A	S	A	—	A ⁴⁾	S	—	S	A	S	—	S	A	S	A
S	A ²¹⁾	S	A	S	A	S	—	S	A ²¹⁾	S	—	S	A ²¹⁾	S	A ²¹⁾
—	A ⁴⁾	S	A ²⁰⁾	S	A ⁴⁾	S	A ⁴⁾	—	A ⁴⁾	S	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾
S	A	S	A	S	A	S	A	S	A	S	A	S	A	S	A
S	A	—	A ⁴⁾	—	—	S	—	S	A	S	—	S	A	S	A
—	A ⁴⁾	—	A	—	A	—	A	—	A ⁴⁾	—	A	—	A ⁴⁾	—	A ⁴⁾
S	A	S	A	S	A ⁴⁾	S	A	S	A	S	A	—	A	—	A
—	A ⁴⁾	—	A ⁴⁾	—	—	—	—	—	A ⁴⁾	—	—	—	A ⁴⁾	—	A ⁴⁾
S	A	S	A	—	—	—	—	S	A	—	—	S	A	S	A
—	A	S	—	—	—	S	—	—	A	S	—	—	A	—	A
S	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—	—	S	A ⁴⁾	—	—	S	A ⁴⁾	S	A ⁴⁾
—	A ⁴⁾	S	A ⁴⁾	—	A ⁴⁾	—	—	—	A ⁴⁾	—	—	—	A ⁴⁾	—	A ⁴⁾
S	A	S	A	S	A	—	A	S	A	—	A	S	A ³⁾	S	A

Table I.

Convention, Regulations (cont.)

Country or group of territories (In the alphabetical order of the French version of the country names)	CONVENTION, etc.				
	Plenipotentiary Conference, Montreux, 1965				
	Class of contribution No. of units	Convention, etc.	Date on which the instrument of rati- fication or accession was deposited with the General Secretariat	Opt. Add. Protocol **	Date on which the instrument of rati- fication or accession was deposited with the General Secretariat
1	2	3	4	5	6
Malaysia	3	S ¹⁾	6. IX. 1968	—	
Malawi	½	S ¹⁾	17. I. 1969	A	16. XII. 1966
Maldives (Republic of) ¹⁵⁾	½	A	28. II. 1967	—	
Malagasy Republic	1	S ¹⁾	18. VIII. 1967	S	
Mali (Republic of)	½	S ¹⁾	14. III. 1968	—	
Malta	½	S ¹⁾	9. V. 1969	S	9. V. 1969
Morocco (Kingdom of)	1	S ¹⁾	17. X. 1968	—	
Mauritius		A	30. VII. 1969	—	
Mauritania (Islamic Republic of)	½	S ¹⁾	13. VIII. 1969	S	13. VIII. 1969
Mexico	5	S ¹⁾	2. XI. 1967	S	
Monaco	½	S	22. IV. 1969	S	
Mongolian People's Republic	½	S ¹⁾		S	
Nauru (Republic of)	½	A	10. VI. 1969	—	
Nepal	½	S ¹⁾	1. VII. 1967 ²⁾	—	
Nicaragua	1	S ¹⁾	30. I. 1969	S	
Niger (Republic of the)	½	S ¹⁾	22. VI. 1967	—	
Nigeria (Federal Republic of)	2	S ¹⁾	21. I. 1967	—	
Norway	5	S ¹⁾	13. IX. 1968	A	13. IX. 1968
New Zealand	5	S ¹⁾	13. IV. 1967 ¹⁴⁾	A	18. VIII. 1969
Uganda	½	S ¹⁾	1. IV. 1967	—	
Pakistan	3	S ¹⁾	1. VI. 1967 ²⁾	—	
Panama	½	S ¹⁾		S	
Paraguay	1	S ¹⁾	8. IX. 1967	S	31. V. 1968
Netherlands (Kingdom of the)	8	S ¹⁾	27. XII. 1966 ¹⁹⁾	S	
Peru	2	S ¹⁾	1. III. 1967	—	
Philippines (Republic of the)	1	S ¹⁾		S	

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

ADMINISTRATIVE REGULATIONS															
Administrative Radio Conferences												Administrative Telegraph and Telephone Conference			
Radio Regulations								Additional Radio Regulations				Geneva (1958)			
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)					A.R.C. Geneva (1959)	Partial Revision W.A.R.C. Geneva (1967) (maritime)			Telegraph Regulations	Telephone Regulations		
7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
S	A	S	A	S	A	S	A ²⁾	S	A	S	A ²⁾	S	A	S	A
—	A ⁴⁾	—	A	—	A ⁴⁾	—	—	—	A ⁴⁾	—	—	—	A ⁴⁾	—	A ⁴⁾
—	A ⁴⁾	—	A ⁴⁾	—	—	—	—	—	A ⁴⁾	—	—	—	A ⁴⁾	—	A ⁴⁾
—	A ⁴⁾	—	A	—	A	—	A	—	A ⁴⁾	—	A	—	A ⁴⁾	—	A ⁴⁾
—	A	—	A	—	A ⁴⁾	—	—	—	A	—	—	—	A ⁴⁾	—	A ⁴⁾
—	A ⁴⁾	—	A ⁴⁾	S	A ⁴⁾	S	A ⁴⁾	—	A ⁴⁾	S	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾
S	A ³⁾	S	A	—	A ⁴⁾	—	—	S	A	—	—	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⁾
S	A	S	A	S	A ⁴⁾	S	—	S	A	S	—	S	A	S	A
S	A	S	A ⁴⁾	—	A ⁴⁾	S	A ⁴⁾	S	A	S	A ⁴⁾	S	A	S	A
—	1)	—	1)	—	1)	—	1)	—	1)	—	1)	—	A ⁴⁾	—	A ⁴⁾
—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾
S	A	—	A ⁴⁾	—	A ⁴⁾	—	—	S	A	—	—	—	A	—	A
S	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—	—	S	A ⁴⁾	—	—	—	A ⁴⁾	—	A ⁴⁾
—	A	—	A ⁴⁾	—	A	—	A	—	A	—	A	—	A ⁴⁾	—	A ⁴⁾
—	A	—	A	—	—	—	—	—	A	—	—	—	A ⁴⁾	—	A ⁴⁾
S	A	S	A ⁴⁾	S	A	S	—	S	A	S	—	S	A	S	A
S	A	S	A	S	A	S	A	S	A	S	A	S	A	—	A
—	A ⁴⁾	S	A	—	A	—	A	—	A ⁴⁾	—	A	—	A ⁴⁾	—	A ⁴⁾
S	A ³⁾	S	A ³⁾	S	A	S	A	S	A	S	A	S	A	S	A
—	A	—	—	—	—	—	—	—	A	—	—	—	A	—	A
S	A	—	A	—	A	—	A	S	A	—	A	S	A	S	A
S	A	S	A	S	A	S	—	S	A	S	—	S	A ³⁾	S	A
S	1)	—	1)	—	1)	—	1)	S	1)	—	1)	—	1)	—	1)
S	—	S	—	—	—	—	—	S	1)	—	1)	—	1)	—	1)

Table I.

Country or group of territories (In the alphabetical order of the French version of the country names)	CONVENTION, etc.				
	Plenipotentiary Conference, Montreux, 1965				
	Class of contribution No. of units	Convention, etc.	Date on which the instrument of rati- fication or accession was deposited with the General Secretariat	Opt. Add. Protocol **	Date on which the instrument of rati- fication or accession was deposited with the General Secretariat
1	2	3	4	5	6
Poland (People's Republic of)	3	S ¹⁾	17. I. 1969 ²⁾	—	
Portugal	3	S ¹⁾	10. IX. 1968	—	
Spanish Province in Africa ⁴⁷⁾	1	S	6. VI. 1967	—	
Portuguese Oversea Provinces	3	S	10. IX. 1968	—	
Syrian Arab Republic	1	S ¹⁾	1. VI. 1968	—	
United Arab Republic	5	S ¹⁾	12. IX. 1969	—	
Federal Republic of Germany	20	S ¹⁾	16. XII. 1968 ³⁸⁾	—	
Ukrainian Soviet Socialist Republic . . .	3	S ¹⁾	8. VIII. 1969 ²⁾	—	
Somali Republic	1	S ¹⁾		—	
Rhodesia	1	— ¹¹⁾	— ¹¹⁾	— ¹¹⁾	— ¹¹⁾
Roumania (Socialist Republic of)	1	S ¹⁾	29. IX. 1969 ⁴⁵⁾	—	
United Kingdom of Great Britain and Northern Ireland, the Channel Islands and the Isle of Man	30	S ¹⁾	4. I. 1967	S	4. I. 1967
Rwanda (Republic of)	½	S ¹⁾	11. XII. 1969 ⁴⁶⁾	S	
Senegal (Republic of the)	1	S ¹⁾	5. VI. 1967	S	12. XII. 1967
Sierra Leone	½	S ¹⁾		—	
Singapore (Republic of) ¹⁶⁾	1	S ¹⁾	23. XI. 1967	A	23. XI. 1967
Sudan (Republic of the)	1	S ¹⁾		—	
South Africa (Republic of) ¹⁸⁾	8	A	11. XI. 1966	—	
Sweden	10	S ¹⁾	8. I. 1968	A	8. I. 1968
Switzerland (Confederation of)	10	S ¹⁾	5. I. 1967	S	5. I. 1967
Tanzania (United Republic of)	½	S ¹⁾	7. X. 1967	—	
Chad (Republic of the)	½	S ¹⁾	30. X. 1968	S	30. X. 1968
Czechoslovak Socialist Republic	3	S ¹⁾	3. I. 1968 ²⁾	—	
Territories of the United States of America	25	S ¹⁾	29. V. 1967 ²⁾	—	

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

Convention, Regulations (cont.)

ADMINISTRATIVE REGULATIONS																	
Administrative Radio Conferences														Administrative Telegraph and Telephone Conference			
Radio Regulations										Additional Radio Regulations				Geneva (1958)			
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)							A.R.C. Geneva (1959)	Partial Revision W.A.R.C. Geneva (1967) (maritime)	Telegraph Regulations		Telephone Regulations			
7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		
S	1)	S	1)	S	1)	S	1)	S	1)	S	1)	S	A	S	A		
S	A	S	A	S	A ⁴⁾	S		S	A	S		S	A	S	A		
—	A	S	A	—		—		—	A	—		—	A	—	A		
S	A	—	A	S	A ⁴⁾	S		S	A	S		S	A	S	A		
—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—		—	A ⁴⁾	—		—	A ⁴⁾	—	A ⁴⁾		
S	A ⁴⁾	S	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	S	A ⁴⁾	—	A ⁴⁾	S	A	S	A		
S	A ²³⁾	S	A ³²⁾	S	A ⁴¹⁾	S	A ⁴¹⁾	S	A	S	A ⁴¹⁾	S	A ³⁾	S	A		
S	1)	S	A	—	A ³⁴⁾	—	1)	S	1)	—	1)	S	A	S	A		
—	A ⁴⁾	—		—		—		—	A ⁴⁾	—		—	A ⁴⁾	—	A ⁴⁾		
—	A	—	A	—		—		—	A	—		S	A	S	³⁸⁾		
S		S		S		S		S		S		S	A	S	A		
S	A	S	A	S	A	S	A	S	A	S	A	S	A	S	A		
—	A ⁴⁾	—	A	—	A	—	A	—	A ⁴⁾	—	A	—	A ⁴⁾	—	A ⁴⁾		
—	A	—	A	—	A	S	A	—	A	S	A	—	A ⁴⁾	—	A ⁴⁾		
—	A ⁴⁾	—	A ⁴⁾	S	A ³⁾	S	A ³⁾	—	A ⁴⁾	S	A ³⁾	—	A ⁴⁾	—	A ⁴⁾		
S	A	—		—		—		S	A	—		S	A	S	A		
S	A	S	A	S		S	A	S	A	S	A	S	A	S	A		
S	A	S	A	S	A ⁴⁾	S	A	S	A	S	A	S	A ²⁹⁾	S	A		
S	A	S	A	S		S		S	A	S		S	A	S	A		
—	A ⁴⁾	S	A	—	A	—	A	—	A ⁴⁾	—	A	—	A ⁴⁾	—	A ⁴⁾		
—	A	—	A	—	A ⁴⁾	S		—	A	S		—	A ⁴⁾	—	A ⁴⁾		
S	1)	S	1)	S	1)	S	1)	S	1)	S	1)	S	A	S	A		
—	A ²⁵⁾	S	A	¹³⁾	A	S	A	—	1)	—	1)	—	A ²⁸⁾	—	1)		

Table I.

Country or group of territories (In the alphabetical order of the French version of the country names)	CONVENTION, etc.				
	Plenipotentiary Conference, Montreux, 1965				
	Class of contribution No. of units	Convention, etc.*	Date on which the instrument of rati- fication or accession was deposited with the General Secretariat	Opt. Add. Protocol **	Date on which the instrument of rati- fication or accession was deposited with the General Secretariat
1	2	3	4	5	6
Overseas Territories for the international relations of which the Government of the United Kingdom of Great Britain and Northern Ireland are responsible ²²⁾	1	S	7. III. 1968 ²⁷⁾	S	7. III. 1968
Thailand	2	S ¹⁾	28. II. 1969 ²⁾	S	
Togolese Republic	1/2	S ¹⁾	8. VIII. 1967	S	
Trinidad and Tobago	1	S ¹⁾	13. XII. 1967	S	
Tunisia	2	S ¹⁾	1. IV. 1967	—	
Turkey	2	S ¹⁾	29. VIII. 1968	—	
Union of Soviet Socialist Republics . . .	30	S ¹⁾	16. IV. 1969 ²⁾	—	
Uruguay (Oriental Republic of)	1	—		—	
Venezuela (Republic of)	3	S ¹⁾	2. IV. 1969	—	
Viet-Nam (Republic of)	1	A	15. I. 1968 ³⁵⁾	A	15. I. 1968 ³⁵⁾
Yemen	1	—		—	
Southern Yemen (People's Republic of) .	1/2	A	15. VIII. 1968	—	
Yugoslavia (Socialist Federal Republic of) ¹⁰⁾	1	S ¹⁾	22. XII. 1967	—	
Zambia (Republic of)	1	S ¹⁾	13. XII. 1967	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 (Montreux, 1965).

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

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

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

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

⁶⁾⁻⁹⁾

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

¹¹⁾ See Administrative Council Resolution No. 599.

¹²⁾ See Notification No. 1000.

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

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

¹⁵⁾ Formerly: Maldive Islands.

Convention, Regulations (end)

ADMINISTRATIVE REGULATIONS															
Administrative Radio Conferences												Administrative Telegraph and Telephone Conference			
Radio Regulations								Additional Radio Regulations				Geneva (1958)			
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)					A.R.C. Geneva (1959)	Partial Revision W.A.R.C. Geneva (1967) (maritime)			Telegraph Regulations	Telephone Regulations		
7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
S	A	S	A	S	A	—		S	A	—		—	A	—	A
S	A	—	A	S	A ⁴⁾	—		S	A	—		—	A	—	A
—	A ⁴⁾	—	A	—	A ⁴⁾	S		—	A ⁴⁾	S		—	A ⁴⁾	—	A ⁴⁾
—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—		—	A ⁴⁾	—		—	A ⁴⁾	—	A ⁴⁾
S	A	—	A	—		S		S	A	S		S	A	S	A
S	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	S		S	A ⁴⁾	S		S	A	S	A
S	¹⁾	S	A	S	A ³⁴⁾	S	¹⁾	S	¹⁾	S	¹⁾	S	A	S	A
S		—		—		—		S		—		—		—	
S	A ⁴⁾	—	A ⁴⁾	S	A ⁴⁾	S	A ⁴⁾	S	A ⁴⁾	S	A ⁴⁾	S	A ⁴⁾	S	A ⁴⁾
—	A	—	A	—	A ⁴⁾	S		—	A	S		S	A	S	A
—		—		—		—		—		—		—		—	
—	A ⁴⁾	—	A ⁴⁾	—	A ⁴⁾	—		—	A ⁴⁾	—		—	A ⁴⁾	—	A ⁴⁾
S	A	S	A	S	A	S	A	S	A	S	A	S	A	S	A
—	A ⁴⁾	—	A	—	A ⁴⁾	—		—	A ⁴⁾	—		—	A ⁴⁾	—	A ⁴⁾

¹⁶⁾ Formerly: Singapore.

¹⁷⁾ Formerly: Burundi (Kingdom of).

¹⁸⁾ See Administrative Council Resolution No. 619.

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

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

"The Jamaican Delegation declares that it reserves the right of the Jamaican Government to take any action it deems necessary to safeguard its interests, should Members or Associate Members in any way fail to comply with the requirements

of the Radio Regulations of the Administrative Radio Conference, Geneva, 1959, as added to and amended by the Extraordinary Administrative Radio Conference, Geneva, 1963, or should reservations by other countries jeopardize its telecommunication services."

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

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

Associated States

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

Protected States

Brunei
Swaziland a)
Tonga

Other Territories

The Bahama Islands
Bermuda
British Antarctic Territory (including South Orkney Islands, South Shetland Islands and Graham Land)
British Honduras
British Virgin Islands
Cayman Islands
Falkland Islands (Colony and Dependencies, including South Georgia and the South Sandwich Islands)
Fiji
Gibraltar
Hong Kong
Mauritius b)
Montserrat
Pitcairn Islands Group
St. Helena (including Ascension Island and Tristan da Cunha)
St. Vincent
Seychelles
Turks and Caicos Islands
Western Pacific High Commission territories including:
British Solomon Islands Protectorate
Central and Southern Line Islands
Gilbert and Ellice Islands Colony
New Hebrides (United Kingdom — French Condominium)

- a) Now an independent State Member of the United Nations.
b) Now an independent State Member of the I.T.U.

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

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

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

26) In a letter dated 23 December 1961, the Indian Administration announced that it has approved the Telephone Regulations (Geneva, 1958), while reserving the right not to comply with the following provisions of those Regulations in running its services:

1. Article 16, paragraph 1 (validity of bookings);
2. Article 19, paragraph 3 (operating principles);
3. Article 21, paragraphs 1 and 2 (limitation of the duration of calls);
4. Article 35 (charging for calls booked with special facilities);
5. Article 36, paragraphs 2 and 3 (charges for booking changes).

(*Notification No. 883*.)

27) In approving these Regulations, the Argentine Administration declares that, in its relations with other Administrations, it will not apply the provisions and obligations of the said Regulations, Appendices and Resolutions which those Administrations, by formulating reservations, have not accepted or have not agreed to apply.

28) In a note, the United States Embassy in Berne declared that "the deposit of the instrument of ratification of the Telegraph Regulations (Geneva, 1958) and the Final Protocol to those Regulations constitutes the notification of approval by the United States of America, including all territories under the jurisdiction of the United States of America."

The United States Embassy declared furthermore:

"It should be noted that the ratification by the United States of America of the Regulations and Final Protocol is made subject to the declarations as set forth in the instrument of ratification. The declarations contained in the text of the instrument of ratification replace and are in lieu of the declarations which appear "For the United States of America" in the said Final Protocol."

(*Note by the General Secretariat: the text of this instrument is reproduced in Notification No. 829*.)

29) In approving the Telegraph Regulations (Geneva, 1958), the Swedish Government reserves the right, notwithstanding Article 8, paragraph 5 (Nos. 49 and 50) of the said Regulations, to apply an overall rate per word, including the Danish transit charge, for telegrams the normal routing of which passes through Denmark.

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

31) See Notification No. 911.

32) See Notification No. 977.

33) Comprising the following territories:

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

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

34) See Notifications Nos. 1004 and 1013.

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

36) See Notifications Nos. 1014, 1016, 1020, 1021, 1023, 1024 and 1025.

37) See Notification No. 1004.

38) See Notification No. 834.

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

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

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

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

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

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

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

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

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

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

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

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

41) See Notifications Nos. 1023 and 1024.

42) See Notification No. 1019.

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

44) Formerly: Libya (Kingdom of).

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

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

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

- a) the continuation of the dependent status of certain territories referred to in Article 20 of the Convention is not in accordance with the Declaration on the Granting of Independence to Colonial Countries and Peoples adopted by the General Assembly of the United Nations on 14 December 1960 in resolution 1514 (XV), which proclaims the necessity to put an end, rapidly and unconditionally to colonialism in all its forms and manifestations;
- b) the provisions of Article 1, Nos. 6 and 7, of the Convention are not in accordance with the principle that all States have the right to become parties to multilateral treaties governing questions of general interest.

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

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

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

47) Formerly: Spanish Provinces in 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 or group of territories	Broadcasting Agreement VHF/UHF (Geneva, 1963)		Broadcasting Agreement MF (Geneva, 1966)	
1	2	3	4	5
Algeria (Algerian Democratic and Popular Republic)	—		S	
Burundi (Republic of)	—		S	
Cameroon (Federal Republic of)	S		S	
Central African Republic	—		S	
Congo (Democratic Republic of the)	S		S	
Congo (Republic of the) (Brazzaville)	S		S	
Ivory Coast (Republic of the)	S		S	
Dahomey (Republic of)	S		S	
Group of Territories represented by the French Overseas Post and Telecommunication Agency ¹⁾	S	A	S	
Spain	S	A	S	
Ethiopia	S	A	S	
France ²⁾	S	A	S	
Gabon Republic	S		S	A
Ghana	S		S	
Guinea (Republic of)	S		S	
Upper Volta (Republic of)	S		S	
Kenya	S	A	S	A
Liberia (Republic of)	S		S	
Libyan Arab Republic	—		S	
Malawi	—		S	
Malagasy Republic	S		S	

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

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

²⁾ With respect to the Department of Reunion.

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

⁴⁾ See Administrative Council Resolution No. 619.

Table III. American Regional Agreements

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

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

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

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

**) For the Bahamas only.

Table IV. European Regional Conventions, Arrangements and Agreements

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

Country or group of territories	European Broadcasting Convention (Copenhagen, 1948)		European Regional Convention for the maritime mobile radio service (Copenhagen, 1948)		Regional Arrangement relative to Maritime Radiobeacons in the European Area of Region 1 (Paris, 1951)		Regional Agreement for Rhine Navigation (Brussels, 1957) [*]		Regional Agreement in the bands 68-73 Mc/s and 76-87.5 Mc/s (Geneva, 1960) ^{**}		Regional Agreement for the European Broadcasting Area (Stockholm, 1961)	
1	2	3	4	5	6	7	8	9	10	11	12	13
Albania (People's Republic of)	S	R	—	—	—	—	—	—	S	—	—	—
Algeria (Algerian Democratic and Popular Republic)	—	—	—	—	—	—	—	—	—	—	—	—
Austria	—	—	—	—	—	—	—	—	S	A	S	A
Belgium	S	R	S	R	S	A	S	A	—	—	S	A
Bielorussian 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	A
Greece	S	R	S	R	—	—	—	—	S	—	S	—
Hungarian People's Republic	S	R	—	—	—	—	—	—	S	A	S	—
Iraq (Republic of)	—	—	—	—	—	—	—	—	—	—	—	—
Ireland	S	R	S	R	—	A	—	—	—	—	S	A
Iceland	—	—	S	R	—	—	—	—	—	—	S	—
Israel (State of)	—	—	—	—	—	—	—	—	—	—	S	—
Italy	S	R	S	R	S	A	—	—	S	A	S	A
Jordan (Hashemite Kingdom of)	—	—	—	—	—	—	—	—	—	—	—	—
Lebanon	—	—	—	—	—	—	—	—	—	—	S	—
Libyan Arab Republic	—	—	—	—	—	—	—	—	—	—	—	—
Liechtenstein (Principality of)	—	—	—	—	—	—	—	—	—	—	—	—
Luxembourg	—	—	—	—	—	—	—	A	—	—	S	—
Malta	—	—	—	—	—	—	—	—	—	—	—	—
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	—	A	S	A	S	—
Netherlands (Kingdom of the)	S	R	S	R	S	A	S	A	—	—	S	A
Poland (People's Republic of)	S	R	—	—	—	—	—	—	S	—	S	—
Portugal	S	—	S	—	S	—	—	—	—	—	S	A
Portuguese Oversea Provinces	—	—	—	—	S	—	—	—	—	—	—	—
Syrian Arab Republic	—	—	—	—	—	—	—	—	—	—	—	—
United Arab Republic	—	—	—	—	—	—	—	—	—	—	—	—
Federal Republic of Germany	—	—	—	—	—	—	S	A	S	A	S	A ⁶⁾
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, the Channel Islands and the Isle of Man	S	R	S	R	S	A	—	A	—	—	S	A
Sweden	—	—	S	R	S	A	—	—	S	A	S	—
Switzerland (Confederation of)	S	R	—	—	—	—	S	A	S	A	S	A
Czechoslovak Socialist Republic	S	R	—	—	—	—	—	—	S	A	S	—
Overseas Territories for the international relations of which the Government of the United Kingdom of Great Britain and Northern Ireland are responsible	—	—	—	—	—	—	—	—	—	—	S	A
Tunisia	S	R	S	R	S	A	—	—	—	—	—	—
Turkey	—	—	S	—	S	A	—	—	S	—	S	—
Union of Soviet Socialist Republics	S	R	—	3)	—	—	—	—	S	A	S	A ⁵⁾
Yugoslavia (Socialist Federal Republic of)	S	R	—	—	—	—	—	—	S	—	S	A

^{*}) Regional Agreement concerning the establishment of an International VHF Radiotelephone Mobile Service for Rhine Navigation (Brussels, 1957).

^{**}) Regional Agreement for the use of frequencies in the bands 68-73 Mc/s and 76-87.5 Mc/s 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⁾

⁵⁾ Considering that, when the plans for the assignment of frequencies to television stations in the 645-960 Mc/s band were established at the Stockholm Conference in 1961, the requirements of the air radionavigation services of the USSR, the Ukrainian SSR and the Bielorussian 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 Bielorussian 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 Bielorussian 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 Mc/s (Annex 2, Chapter 2, of the Agreement), the frequencies 224.25/229.75 Mc/s 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 Mc/s in accordance with Article 5 of the Radio Regulations, Geneva, 1959.

Harmful interference to stations operating in the frequency band 223-235 Mc/s, which is allocated to the aeronautical radionavigation service on a primary basis, can only be avoided if the effective radiated power of the Sonneberg television station does not exceed 0.5/0.1 kW in the sector between 135 and 345 degrees."

Tables V.1 to V.5. Special Agreements

V.1. Special Regional Agreement concerning the use of the 100-104 Mc/s 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.

V.2. Special Agreement for use of the 582-606 Mc/s band for radionavigation purposes (Brussels, 1962)

This Agreement was concluded between the following Administrations: Belgium, Denmark, France, Netherlands (Kingdom of the), Federal Republic of Germany, United Kingdom of Great Britain and Northern Ireland and *Switzerland (Confederation of)*.

**V.3. Special Agreement in connection with the use of VHF and UHF
in fixed and mobile services in frontier areas
(Brussels, 1963)**

This Agreement was concluded between the Administrations of Belgium, Netherlands and the Federal Republic of Germany.

**V.4. Special Agreement concerning the use of frequencies for additional low-power television
transmitters operating in the ultra high-frequency range (Band IV, 472-582 Mc/s
and Band V, 582-960 Mc/s) in the frontier areas
(Karlsruhe, 1966)**

This Agreement was concluded between the following Administrations: Austria, Belgium, France, Italy, Luxembourg, Netherlands (Kingdom of the) and the Federal Republic of Germany.
This Agreement was approved without reservation by all these Administrations.

**V.5. Special Agreement concerning the coordinated use of frequencies
between 29.7 and 470 Mc/s by the fixed and land mobile services
(Vienna, 1969)**

This Agreement was concluded between the following Administrations: Austria, Italy, Federal Republic of Germany and Switzerland (Confederation of).
This Agreement was approved without reservation by all these Administrations.

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ANNEX 2

BUDGET FOR 1969

SUMMARY OF ESTIMATED EXPENDITURE IN 1969

EXPENDITURE	Expenditure 1968	Budget 1969	Additional credits 1969	Budget 1969 including additional credits
Swiss francs				
I. BUDGET OF THE UNION				
<i>Sect. 1.</i> Administrative Council . . .	430,247	450,000	12,000	462,000
Common Headquarters expenditure:				
<i>Sect. 2.</i> Staff	13,839,208	14,457,000	1,114,000	15,571,000
<i>Sect. 3.</i> Social security	2,752,402	3,150,400	202,300	3,352,700
<i>Sect. 4.</i> Premises	1,147,703	1,152,000	—	1,152,000
<i>Sect. 5.</i> Missions	144,519	128,000	15,000	143,000
<i>Sect. 6.</i> Office and misc. expenses . .	969,253	1,039,500	—	1,039,500
Provision for cost of regrading posts	—	40,000	—40,000	—
	19,283,332	20,416,900	1,303,300	21,720,200
<i>Sect. 7.</i> I.T.U. conf. under No. 208 of the Convention: Nil				
<i>Sect. 8.</i> C.C.I. meetings under No. 209 of the Convention:				
— C.C.I.R.	1,246,758	800,000	400,000	1,200,000
— C.C.I.T.T.	2,158,571	1,300,000	—300,000	1,000,000
<i>Sect. 10.</i> Other expenditure:				
— Preparation of a draft Const. Charter	125,110	115,000	—	115,000
— I.T.U. seminar	24,207			
— Seminars of I.T.U. Member Administrations	33,305	62,000	—	62,000
	22,871,283	22,693,900	1,403,300	24,097,200
Expenditure on fitting out C.C.I.T.T. Laboratory	8,929	20,000	—	20,000
Expenditure on maintenance and renewal of simult. interpretation .	14,813	15,000	—	15,000
Cancell. Cuban Telephone Co. arrears	—	—	16,800	16,800
	22,895,025	22,728,900	1,420,100	24,149,000
Transfer to I.T.U. Reserve Account .	1,255,303	—	—	—
	24,150,328	22,728,900	1,420,100	24,149,000
II. TECHNICAL COOPERATION SPECIAL ACCOUNTS BUDGET				
<i>Sect. 11.</i> Techn. Coop. admin. costs .	2,494,071	2,723,700	254,800	2,978,500
Provision for regrading posts . . .	—	20,000	—20,000	—
Carried forward to the following year	1,385,586	—	—	—
<i>Sect. 12.</i> Tech. Coop. Pub. Inf. costs	64,325	151,200	—	151,200
	3,943,982	2,894,900	234,800	3,129,700
III. SUPPLEMENTARY PUBLICATIONS BUDGET				
Total expenditure	2,935,345	3,016,400	—	3,016,400
Excess income	—	55,900	—	55,900
	2,935,345	3,072,300	—	3,072,300
<i>Pro mem.:</i>				
IV. SUPPLEMENTARY BUDGET FOR ADDITION OF A WING TO THE I.T.U. BUILDING				
Total expenditure	—	5,105,450	—	5,105,450

SUMMARY OF ESTIMATED INCOME IN 1969

INCOME	Income 1968	Budget 1969	Additional credits 1969	Budget 1969 including additional credits
Swiss francs				
I. BUDGET OF THE UNION				
Contributions:				
— Contribs. of Members and Associate Members of the Union to exp. for the current year . . .	21,595,400	21,875,700	—	21,875,700
— Contribs. of private operating agencies and scientific or industrial organizations to expenses of conferences and meetings under Sections 7 and 8:				
— C.C.I.R.	307,292	290,000	—	290,000
— C.C.I.T.T.	469,375	457,500	—	457,500
Sundry income	56,819	70,700	—	70,700
	22,428,886	22,693,900	—	22,693,900
Withdrawal from C.C.I.T.T. Reserve Account for fitting out C.C.I.T.T. Laboratory	8,929	20,000	—	20,000
Withdrawal from the renewal fund for the maint. and renewal of simult. interpret. and sound reproduc. equipment	14,813	15,000	—	15,000
	22,452,628	22,728,900	—	22,728,900
Withdrawal from the I.T.U. Reserve Account	1,697,700	—	1,420,100	1,420,100
	24,150,328	22,728,900	1,420,100	24,149,000
II. TECHNICAL COOPERATION SPECIAL ACCOUNTS BUDGET				
Contribs. to Techn. Coop. admin. costs and sums brought forward from previous years	3,879,657	2,743,700	234,800	2,978,500
Transf. of Pub. Inf. costs to SF projects	64,325	151,200	—	151,200
	3,943,982	2,894,900	234,800	3,129,700
III. SUPPLEMENTARY PUBLICATIONS BUDGET				
Total income	2,860,796	3,072,300	—	3,072,300
Excess expenditure	74,549	—	—	—
	2,935,345	3,072,300	—	3,072,300
<i>Pro mem.:</i>				
IV. SUPPLEMENTARY BUDGET FOR ADDITION OF A WING TO THE I.T.U. BUILDING				
Drawn on F.I.P.O.I. loan	—	5,105,450	—	5,105,450

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ANNEX 3

LIST OF PUBLICATIONS ISSUED BY THE UNION IN 1969

		No. of copies
1.	12 Notifications, Nos. 1014 to 1025	F 500 E 600 S 150
2.	1 Telegraph and Telephone Division Circular, No. 1458	F 500 E 600 S 200
3.	1 Radio Division Circular, No. 903	F 500 E 600 S 200
4.	27 General Secretariat Circulars, Nos. 1 to 27	F 600 E 800 S 200
5.	Supplement No. 4 to the Volume of Resolutions and Decisions of the Administrative Council, 24th Session 1969	F 600 E 750 S 300
6.	Financial Operating Report for 1968	F 450 E 500 S 250
7.	Report on the Activities of the Union in 1968	F 600 E 700 S 300
8.	Report to ECOSOC on the activities of the Union in 1968	F 550 E 800 S 300
9.	Telecommunication Journal, 12 numbers	F 1,800 E 3,100 S 800
10.	12 Operational Bulletins, Nos. 37 to 48	F 500 E 600 S 150
11.	List of Addresses, 2nd edition 1967: Supplement No. 4, trilingual	1,500
12.	List of Addresses, 3rd edition 1969 and Supplement No. 1, trilingual	1,500
13.	Telecommunication Statistics, 1968, trilingual	1,000

		No. of copies
14.	Table of international telex relations and traffic, 1968, trilingual	670
15.	Radio Regulations, 1968 edition, bound edition	F 2,000 E 3,500 S 600
	loose-leaf edition	F 1,600 E 3,500 S 1,000
16.	List of Telegraph Offices, 22nd edition 1965: Supplements Nos. 12 to 15, trilingual	20,000
17.	List of International Telephone Routes, 9th edition 1969, trilingual	1,050
18.	List of Coast Stations, 3rd edition 1966: Supplements Nos. 4 and 5, trilingual	30,500
19.	List of Ship Stations, 9th edition 1968, trilingual	20,100
20.	List of Radiodetermination and Special Service Stations, 4th edition 1968 and Supplements Nos. 1 and 2, trilingual	24,000
21.	Alphabetical List of call signs of stations used by the Maritime Mobile Service, 4th edition 1968: Supplements Nos. 3 to 6, multilingual.	22,800
22.	Alphabetical List of call signs of stations other than amateur stations, experi- mental stations and stations of the Maritime Mobile Service, 3rd edition 1968: Supplements Nos. 4 to 7, multilingual.	3,200
23.	International credit card for telegraph services, 1969, multilingual	100,000
24.	Instructions for the international telephone service, 1969	F 6,200 E 1,800 S 800
25.	Detailed Specifications of Signalling System R.2, 1969.	F 800 E 1,500 S 700
26.	White Book, IVth Plenary Assembly of the C.C.I.T.T., Mar del Plata, 1968: Volume I Volume II-A (Questions) Volume II-B. Volume III (Questions) Volume IV (Questions) Volume V (Questions).	F 1,100 E 2,100 F 1,400 E 2,700 F 1,300 E 2,500 F 1,400 E 2,800 F 1,300 E 2,800 F 1,300 E 2,700

		No. of copies
Volume VI (Questions)	F	1,300
	E	2,700
Volume VII (Questions)	F	1,300
	E	2,700
Volume VIII (Questions and Recommendations)	F	1,300
	E	2,700
Volume IX	F	1,100
	E	2,000
27. Documents of the XIth Plenary Assembly of the C.C.I.R., Oslo, 1966:		
Addendum 1 to Volume III	F	1,200
	E	3,500
	S	600
Addendum 1 to Volume IV	F	1,200
	E	3,250
	S	600
Addendum 3 to Volume V	F	1,200
	E	3,500
	S	600
28. Reports 413, 414 and 415 of the XIth Plenary Assembly of the C.C.I.R., Oslo, 1966	S	250
29. Handbook for monitoring stations	F	600
	E	900
30. International Frequency List, 4th edition 1967:		
Preface: Supplement 7, trilingual		2,030
Volume I: Supplement 7, multilingual		1,900
Volume II: Supplement 7, multilingual		1,900
Volume III: Supplement 7, multilingual		1,900
Volume IV <i>a</i>): Supplement 7, multilingual		1,500
Volume IV <i>b</i>): Supplement 7, multilingual		1,450
Volume IV <i>c</i>): Supplement 7, multilingual		1,300
Volume IV <i>d</i>): Supplement 7, multilingual		1,250
31. International Frequency List, 5th edition 1969:		
Preface and Supplements 1 and 2.	F	500
	E	1,200
	S	160
Volume I and Supplements 1 and 2, multilingual		1,700
Volume II and Supplements 1 and 2, multilingual		1,700
Volume III and Supplements 1 and 2, multilingual		1,700
Volume IV <i>a</i>) and Supplements 1 and 2, multilingual		1,400
Volume IV <i>b</i>) and Supplements 1 and 2, multilingual		1,300
Volume IV <i>c</i>) and Supplements 1 and 2, multilingual		1,250
Volume IV <i>d</i>) and Supplements 1 and 2, multilingual		1,250
32. List of fixed stations operating international circuits, 4th edition 1967:		
Supplement No. 7, trilingual		1,600
33. List of fixed stations operating international circuits, 5th edition 1969 and Supplements Nos. 1 and 2, trilingual		1,300

		No. of copies
34.	List of broadcasting stations operating in bands below 5950 kc/s, 5th edition 1969 and Supplement No. 1, trilingual	1,000
35.	List of space and radioastronomy service stations, 2nd edition 1969 and Supplement No. 1, trilingual	950
36.	I.F.R.B. Weekly Circulars, Parts I, II, III and Special, Nos. 838 to 888, trilingual	550
37.	I.F.R.B. Weekly Circulars, Part IV, Nos. 838 to 888, trilingual	550
38.	Summaries of monitoring information received by the I.F.R.B., Nos. 149 to 160, trilingual	470
39.	Summaries of monitoring information received by the I.F.R.B. on the use by broadcasting stations of the exclusive high frequency broadcasting bands, Nos. 28 to 33, trilingual	450
40.	Tentative high frequency broadcasting schedules, May 1969, September 1969, November 1969 and March 1970, trilingual	520
41.	High frequency broadcasting schedules, March 1968, May 1968 and September 1968, trilingual	470
42.	United Kingdom Seminar on Communication-Satellite Earth Station Planning and Operation, London 1968	F 200 S 100
43.	Information booklet No. 3: Eighth Report by the I.T.U. on telecommunication and the peaceful uses of outer space (1969)	F 5,100 E 6,800 S 2,400
44.	Information booklet No. 4: Symposium "Space and Radiocommunication", Paris (1969)	F 2,400 E 3,800 S 1,100
45.	Information booklet No. 5: World Telecommunication Day, 17 May 1969 . .	F 2,400 E 3,800 S 1,100

ANNEX 4

CONFERENCES AND MEETINGS AT WHICH THE UNION WAS REPRESENTED IN 1969

A. UNITED NATIONS

1. Consultative Committee on Administrative Questions Working Party, Geneva, 6-10 January.
2. Economic Commission for Europe: Meeting of Governmental Experts on Scientific and Technological Cooperation, Geneva, 20-24 January.
3. Economic Commission for Asia and the Far East: 1st session of the Telecommunication Sub-Committee, Bangkok, 22-29 January.
4. High Commission for Refugees: Inter-Agency Meeting on Assistance to Refugees in Africa coming within the competence of U.N.H.C.R., Geneva, 28-30 January.
5. Consultative Committee on Public Information (C.C.P.I.), Washington, D.C., 3-7 February.
6. Economic Commission for Asia and the Far East: 17th Session of the Transport and Communications Committee, Bangkok, 3-11 February.
7. Economic Commission for Africa: 9th Session of the Commission and observance of the Tenth Anniversary of the Commission, Addis Ababa, 3-14 February.
8. Resumed 10th Session of the A.C.C. Sub-Committee on Science and Technology, London, 10-11 February.
9. Committee on the Peaceful Uses of Outer Space: 1st Session of the Committee's Working Group to study the technical feasibility of communication by direct broadcast from satellites, New York, 10-21 February.
10. 6th Session of the A.C.C. Inter-Agency Working Group on Programmes and Activities relating to the Peaceful Uses of Outer Space, New York, 13-14 March.
11. 6th Session of the Scientific and Technical Sub-Committee of the Committee on the Peaceful Uses of Outer Space, New York, 17 March.
12. 30th Session of the Consultative Committee on Administrative Questions, Paris, 24 March-3 April.
13. Economic Commission for Latin America: 13th Session of the Commission, Lima, Peru, 14-23 April.
14. Economic Commission for Asia and the Far East: 25th Session of the Commission, Singapore, 15-28 April.
15. 47th Session of the Administrative Committee on Coordination, Rome, 28-29 April.
16. 5th Session of the Committee for Development Planning, Bangkok, 7-16 May.
17. 17th Session of the International Civil Service Advisory Board, New York, 20 May-4 June.
18. 8th Session of the Legal Sub-Committee of the Committee on the Peaceful Uses of Outer Space, Geneva, June/July.

19. Meeting of the Computer Users' Committee Working Party on Standardization, Geneva, 30 June.
20. Meeting of the A.C.C. Sub-Committee on the Development Decade, Geneva, 2-3 July.
21. 48th Session of the Administrative Committee on Coordination, Geneva, 8-9 July.
22. 47th Session of the Economic and Social Council, Geneva, 14 July-8 August.
23. Committee on the Peaceful Uses of Outer Space: 2nd Session of the Working Group to study the technical feasibility of communication by direct broadcast from satellites, Geneva, 28 July-8 August.
24. 5th meeting of the Asian Regional Group of the Advisory Committee on the Application of Science and Technology to Development, Bangkok, 6-8 August.
25. 12th Session of the Committee on the Peaceful Uses of Outer Space, New York, 8-12 September.
26. 24th Session of the General Assembly, New York, September.
27. 49th Session of the Administrative Committee on Coordination, New York, October.
28. Economic Commission for Asia and the Far East: 2nd Session of the Typhoon Committee, Manila, 2-8 December.
29. Economic Commission for Africa: Regional Symposium on the Utilization of Science and Technology for Development, Addis Ababa, 7-18 December.

B. SPECIALIZED AGENCIES

United Nations Educational, Scientific and Cultural Organization (UNESCO)

30. 5th Session of the Advisory Panel on Space Communication, Paris, 26-28 March.
31. Inter-Agency Meeting on the Preparation of the International Education Year, Geneva, 2-3 July.
32. 2nd Meeting of the International Advisory Committee on Documentation, Libraries and Archives, Paris, 19-22 August.
33. Meeting of Governmental Experts on International Arrangements in the Space Communication Field, Paris, 2-9 December.

United Nations Industrial Development Organization (UNIDO)

34. Development Meeting on the Manufacture of Telecommunication Equipment, Vienna, 13-24 October.

World Meteorological Organization (W.M.O.)

35. 2nd Session of the Joint W.M.O./I.O.C. Group of Experts on Telecommunication, Paris, 27-31 January.
36. 1st Joint Meeting of W.M.O. Executive Committee Panel of Experts on Meteorological Aspects for Ocean Affairs and the I.O.C. Working Committee for an Integrated Global Ocean Station System, Geneva, 25-28 February.

37. 8th Session of the Working Group on Meteorological Transmissions of the W.M.O. Regional Association VI (Europe), Geneva, 4-15 March.
38. Extraordinary Session of the Commission for Aeronautical Meteorology, Montreal, 9 April-3 May.
39. 21st Session of the Executive Committee, Geneva, May.
40. 6th Session of the Working Group on Meteorological Telecommunications of W.M.O. Regional Association I (Africa), Geneva, 7-18 July.
41. 2nd Joint Meeting of W.M.O. Executive Committee Panel of Experts on Meteorological Aspects for Ocean Affairs and the I.O.C. Working Committee for an Integrated Global Ocean Station System, Paris, 3-5 September.
42. Technical Conference on Upper-Air Instruments and Observations, Paris, 8-12 September.
43. 5th Session of Regional Association I (Africa), Geneva, 6-18 October.
44. 5th Session of the Commission for Climatology, Geneva, 20-31 October.
45. 2nd Session of the Working Group on Meteorological Telecommunications of W.M.O. Regional Association III (South America), Bogota, 21-31 October.
46. 5th Session of the Working Group on Telecommunications of the Commission for Synoptic Meteorology, Rome, 3-14 November.

Inter-Governmental Maritime Consultative Organization (I.M.C.O.)

47. 5th Session of the Sub-Committee on Radiocommunications, London, 14-17 January.
48. 19th Session of the Maritime Safety Committee, London, 24 February.

International Civil Aviation Organization (I.C.A.O.)

49. 6th Air Navigation Conference, Montreal, 9 April-3 May.
50. Limited (R.A.C./C.O.M.) European Regional Air Navigation Meeting, Paris, 18 November-6 December.
51. 2nd Meeting of the Panel on "Application of Space Techniques Relating to Aviation" (ASTRA), Montreal, 20-31 October.

Universal Postal Union (U.P.U.)

52. Meeting of the Committee on Teaching, Bern, 12 March.
53. XVIth Universal Postal Congress, Tokyo, October.

C. INTERNATIONAL ORGANIZATIONS

International Radio-Maritime Committee (C.I.R.M.)

54. 45th Meeting of the Technical Committee, Palma, Mallorca, 17-20 June.
55. 46th Meeting of the Technical Committee, London, 2-4 December.

Danube Commission

56. XXVIIth Session of the Commission, Budapest, 4-15 March.
57. Meeting of Experts on Navigation Questions, Budapest, 9-19 December.

Council of Europe

58. 3rd part of the 20th Ordinary Session of the Consultative Assembly, Strasbourg, 27-31 January.

European Broadcasting Union (E.B.U.)

59. 21st Meeting of the Technical Committee, Vienna, 14-18 April.
60. Round Table Conference on World Broadcasting, Montreux, 21 May.
61. E.B.U./O.I.R.T. Editorial Sub-Group Meeting on the New UHF Television Frequency Offsets for Bands IV and V in the European Broadcasting Area, Brussels, 19-20 May.
62. E.B.U./O.I.R.T. Editorial Sub-Group Meeting on the New UHF Television Frequency Offsets for Bands IV and V in the European Broadcasting Area, Geneva, 4, 5 and 15 September.

International Electrotechnical Commission (I.E.C.)

63. Meeting of Working Group 12/WG2, London, 24-28 February.
64. Meetings of Technical Committee 60, Sub-Committee 60A and Sub-Committee 60B, Baden-Baden, June.
65. Meeting of Sub-Committee 46C, Stockholm, 16-18 June.
66. XXXIVth General Meeting, Teheran, 3-13 November.

International Organization for Standardization (I.S.O.)

67. 5th Meeting of the Sub-Committee "Character Sets for Coding" of Committee 97, Naples, 12-14 May.

International Union of Radio Science (U.R.S.I.)

68. XVIth General Assembly, Ottawa, 18-28 August.

International Special Committee on Radio Interference (C.I.S.P.R.)

69. Meetings of Working Groups, Montreux, 19-30 May.

International Broadcasting and Television Organization (O.I.R.T.)

70. XXth Session of the Technical Commission, Moscow, 9-16 December.

International Telecommunications Satellite Consortium (INTELSAT)

71. Plenipotentiary Conference to Establish Definitive Arrangements for the INTELSAT, Washington, February.
72. 3rd Preparatory Committee Meeting of the Plenipotentiary Conference to Establish Definitive Arrangements for the INTELSAT, Washington, 18 November-15 December.

Organization of African Unity (O.A.U.)

73. 6th Session of the Conference of Heads of State and Government, Addis Ababa, 6-10 September.

African Development Bank

74. 5th Annual Assembly of the Governing Council, Freetown, Sierra Leone, 26-30 August.

Asian Broadcasting Union (A.B.U.)

75. Meetings of the Engineering Committee, Sydney, 14-16 October.
76. 6th General Assembly, Auckland, 21-24 October.

Union of National Radio and Television Organizations in Africa (U.R.T.N.A.)

77. 10th General Assembly, Brazzaville, 16-22 December.

Inter-American Association of Broadcasters (I.A.A.B.)

78. Technical Conference, Washington, 20-22 March.

*Inter-Union Commission on Allocation of Frequencies
for Radio Astronomy and Space Science (I.U.C.A.F.)*

79. Meeting, Brussels, 17-20 February.

European Conference of Posts and Telecommunications (C.E.P.T.)

80. Extraordinary Meeting of the Plenary Assembly, Lugano, 4-5 July.
81. Meeting of the "Telecommunications" Commission, Pontresina, 2-12 September.

Organization of American States (O.A.S.)

82. 4th Regular Meeting of the Inter-American Telecommunications Commission (CITEL), Asuncion, 8-12 September.

Argentine Republic

83. Meeting of Antarctic Telecommunication Experts, Buenos Aires, 1-12 September.

Asian Electronics Union

84. Asian Electronics Conference, Taipei, 24-29 November.

NOTE: Invitations to a considerable number of other meetings were declined either due to lack of credits or since the agenda did not, in the opinion of the Coordination Committee, justify I.T.U. representation.

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ANNEX 5

TECHNICAL ASSISTANCE UNDER I.T.U. AUSPICES IN 1969

TABLE 1

EXPERTS ENGAGED IN I.T.U. TECHNICAL ASSISTANCE PROGRAMME DURING 1969

(in the alphabetical order of the official French names of the countries)

Country or Region of Assignment	Name (Nationality)	Speciality and/or Title	Starting and closing date of mission	Brief description of work; Remarks
1. AFRICA				
Algeria (Special Fund)	Albert L. Claveyrolas (France)	Project Manager	9.12.1967	The experts continued their work at the National School for Telecommunications, imparting training to counterparts and lecturing on higher and medium level technician courses. By the end of 1969, some 98 higher level and 498 medium level technicians had been trained and 217 were under training, at various stages.
	Robert Béchet (France)	Instructor in transmission	9. 9.1965	
	Paul Chatard (France)	Instructor in VHF and microwave radio links	9. 9.1965	
	Claude M. Decerle (France)	Instructor on regulations and operation of telecommunications	19. 6.1968 18.12.1969	
	René D. Eldin (France)	Instructor in radiocommunications	25. 8.1968	
	Jean-François Gross (Switzerland)	Instructor in electricity and electronics	22. 9.1966	
	Jan Pit (Netherlands)	Associate expert (lecturer in physics)	4. 2.1968	
Cameroon (Technical Assistance)	Edward C. Dudman (United Kingdom)	Telecommunication adviser	5. 8.1968	The expert advised on all aspects of operation and expansion of the telecommunication services, under the second five-year development plan, which aims at providing the country with direct subscriber dialling between most of the more important centres and contemplates the installation of new automatic exchanges and a network of microwave radio links.
Central African Republic (Technical Assistance)	Henri Cocoz (France)	Instructor on line communications	9.11.1965	The expert continued to give instruction in cable jointing, overhead line installation and fundamentals in telephony at the PTT School. Some 45 cable jointers and linesmen, as also 9 foremen, have been trained so far.
	Armand A. Wuerst (Switzerland)	Instructor on telephone installations	18. 4.1968	The expert continued to give instruction in subscriber equipment installation and automatic telephone switching (cross-bar) at the « contrôleur » (medium-level technician) courses in the PTT School. Ten students following a two-year « contrôleur » course in telephony passed into the second year of the course in 1969.
East African Community (Kenya, Tanzania, Uganda) (Technical Assistance)	Booth Hubbell (U.S.A.)	Training adviser for Kenya, Tanzania and Uganda	21. 5.1968 6.12.1969	The expert completed his task of advising the East African Community on telecommunication training and submitted a final report, which has been passed on to the East African Community Administration.

Country or Region of Assignment	Name (Nationality)	Speciality and/or Title	Starting and closing date of mission	Brief description of work; Remarks
Congo (Kinshasa) (Technical Assistance) (Funds-in-Trust)	Gabre M. Gabre-Selassie (Ethiopia)	Adviser to the Minister of P.T.T.	24. 1.1969	The expert reviewed the studies made in regard to new telecommunication projects and assessed offers of equipment. He also advised on administrative matters in connection with the newly formed contracting operating company for Posts and Telecommunications in the Congo.
	Aurel Hostens (Belgium)	Automatic telegraphy expert (under Funds-in-Trust programme 1.1.1966 - 31.12.1968)	1. 1.1969 31.10.1969	The expert advised the Assistant Director, in charge of telegraphy, in the planning and operation of telex, teleprinter and telegraph services. He also supervised the installation and commissioning of new equipment.
	Joseph Ahoudji (Dahomey)	Expert in telegraph operation	19. 2.1969	The expert advised on the reorganization of the telegraph office services and gave on-the-job training to in-service personnel.
	Giovanni Cali (Italy)	Telephone exchange technician	4. 5.1966 30. 6.1969	The expert studied problems connected with the international and automatic telephone exchange projects and assisted the Chief of Telephone Planning.

(Special Fund)	Amrit L. Kumar (India)	Radio maintenance expert Regional adviser	1. 1.1962 31.12.1967 1. 1.1968	The expert acted as Adviser to the Provincial Director of Telecommunications for Kinshasa and assisted in all matters related to the expansion and improvement of telecommunication services in that province.
	Jules Marquet (Belgium)	Radio maintenance expert	15. 1.1963	The expert carried out installation and maintenance work on radio equipment and trained local staff in the receiving and transmitting stations in Kinshasa.
	Jean Piloyan (France)	Radio maintenance expert	10. 5.1965 28. 2.1969	The expert had been transferred to Lubumbashi in July 1968, where he continued to be engaged in the installation and maintenance of radio equipment in the province of Katanga.
	Etienne Rey (France)	Cable expert	27. 9.1963 30. 6.1969	The expert continued to advise on new cable installations and maintenance of outside plant till the end of his assignment.
	Jacques G. L. Lemay (Canada)	Project Manager	21. 9.1969	The experts continued their work at the National School of Posts and Telecommunications, training all categories of telecommunication personnel. They trained counterparts and lectured on technician and engineer-technician courses. Since 1963 (training commenced under the UNDP/TA programme),
	Bernard Pain (France)	Instructor in telegraphy	5. 3.1967	
	Honorato Garcia (Canada)	Instructor in radio	16.11.1967	
	Louis J. Le Saos (France)	Instructor in electronics	16. 3.1967	
	Pier L. Luppi (Italy)	Instructor in transmission	27. 2.1967	
	Charles Maurer (Switzerland)	Instructor in telephony	1. 1.1968	

Country or Region of Assignment	Name (Nationality)	Speciality and/or Title	Starting and closing date of mission	Brief description of work; Remarks
Congo (Kinshasa) (Special Fund) (<i>contd.</i>)	Fritz G. Schmid (Switzerland)	Radio instructor	1. 4.1968 30. 9.1969	more than 380 technicians and operators have been trained. Some 55 technicians and 30 engineer-technicians were under training at the end of 1969.
	Andrzej S. Paluchowski (Poland)	Instructor in telegraphy	9. 6.1969	
Ivory Coast (Technical Assistance)	Raymond Maurel (France)	Expert in vocational training	16. 4.1968	The expert established courses in carrier transmission and microwave techniques at the P.T.T. Training School. During 1968/1969, seven "contrôleurs I.E.M." (medium-level technicians) and 30 "agents I.E.M." (skilled workmen) were trained.
Ethiopia (Technical Assistance)	Roland F. Bradburn (United Kingdom)	Telephone and telegraph traffic expert	8. 4.1968	The expert continued to advise on all aspects of traffic and submitted recommendations for tariff revisions.
Gambia (Technical Assistance)	Cecil A. Wiltshire (Guyana)	Telecommunication training expert	14. 8.1965	The expert continued to train technicians in the operation and maintenance of radio and automatic telephone equipment.

Ghana (Special Fund)	Derk E. Luten (Netherlands)	Project Manager	8.10.1964 7.10.1969	The experts continued to give assistance in the development and expansion of the Department of Posts and Telecommunications' Telecommunication Engineering School, which was founded in 1949. They trained local counterparts and lectured on technicians' courses. During the years 1965-1969, approximately 70 courses were given, attended by approximately 1,400 trainees. During the year 1969, four long-term courses, involving 67 trainees, and ten short-term courses, attended by 147 trainees, were given.
	Hermannus Brunnekreef (Netherlands)	Instructor in telephony	25. 2.1965 24. 4.1969	
	Jan Elshout (Netherlands)	Associate expert — training in radio	11. 7.1967 10. 7.1969	
	Ernst P. Heutelbach (F.R. of Germany)	Instructor in telegraphy	1. 8.1967	
	Johan A. J. Schneider (Netherlands)	Instructor in transmission and carrier	17.12.1965	
	Alex H. van Assum (Netherlands)	Instructor in HF radio, VHF and microwave	25. 6.1967 24. 9.1969	
	Christianus P. van Vucht (Netherlands)	Instructor in lines and cables	1. 4.1965 31. 3.1969	
Equatorial Guinea (Technical Assistance)	Kurt V. B. Lillsunde (Sweden)	Telecommunication specialist	11.11.1969	The project for the rehabilitation of the telecommunication services in Equatorial Guinea was subcontracted, for a period of six months, to the Swedish Telecommunication Consulting A.B. Three specialists commenced the preliminary investigations and rehabilitation work in November 1969.
	Karl G. Steimar (Sweden)	Telecommunication specialist	11.11.1969	
	John L. Wiman (Sweden)	Radio technician	23.11.1969	
Upper Volta (Technical Assistance)	René A. Villard (France)	Expert in economics and operation of telecommunications	11.10.1968 10. 4.1969	The expert assisted in the reorganization of the Operating and Accounting Section and advised on new operational methods. He also trained personnel in the field of telephone subscription and accounting.

Country or Region of Assignment	Name (Nationality)	Speciality and/or Title	Starting and closing date of mission	Brief description of work; Remarks
Liberia (Technical Assistance)	Carl G. Dragstedt (Sweden)	Telecommunication expert on training and on organization and operation of microwave toll network and HF radio telecommunication systems	17. 7.1968 31.12.1969	The expert gave advice on the establishment of a Fault Control Section in the Administration and assisted the Telecommunication Training Expert with lecturing in HF radio and microwave techniques at the Training School.
	Arasurampet R. Ramanathan (India)	Telecommunication training expert	30. 6.1964	The expert continued the training programme established for technicians in the fields of telephony and radio. Two long-term courses were completed in 1969, by means of which 11 telephone and 19 radio technicians had received training.
Libya (Funds-in-Trust)	Alan Irwin (United Kingdom)	Planning engineer, long distance circuits (OPAS)	8.11.1965	The officer assisted in the bringing into service of a new submarine telephone cable, Libya-Italy. He also participated in the preparation of specifications for the submarine cable system, Tripoli-Benghazi, as well as in the planning and preparation of specifications for trunk and junction networks.

Madagascar (Special Fund)	Robert Lehmann (F. R. of Germany)	Planning engineer in cable networks (OPAS)	14. 2.1966 13. 2.1969	The officer was engaged in the planning and implementation of cable networks and participated in the technical planning committees. The officer was engaged in the preparation of a basic national switching, routing and numbering plan for the Libyan telephone network, as also in the preparation of specifications for new telephone exchanges. The officer provided specifications for the planning of local telephone cable networks and assisted in the implementation of the networks.
	Joseph Rodgers (United Kingdom)	Planning engineer switching (OPAS)	6.12.1965 2.12.1969	
	Douglas J. Kelly (New Zealand)	Planning engineer (local telephone cable networks) (OPAS)	1. 3.1969	
	Louis Léon (France)	Project manager	1. 7.1964	The experts continued their work at the National Institute of Telecommunications and Posts, training counterparts and lecturing on medium and higher level technician courses. Since 1965, some 1,000 personnel of 16 different categories have been trained for the Telecommunication Administration, Meteorology, Civil Aviation, Police and the U.S. Space Station near Tananarive. About 200 trainees were attending courses at the end of 1969.
	Michel Branle (France)	Instructor in telephony	23. 4.1965	
	Jean Félix (France)	Instructor in telegraphy	19. 3.1965	
	Jean J. Pinatel (France)	Instructor in telecommunication operations	3. 1.1967	
	Lucien Pourreau (France)	Instructor in long distance lines	4. 3.1966	
	Pierre L. Vergnes (France)	Instructor in meteorological electronics	13. 6.1969	

Country or Region of Assignment	Name (Nationality)	Speciality and/or Title	Starting and closing date of mission	Brief description of work; Remarks
Mali (Technical Assistance)	Jean C. F. Hubert (France)	Instructor responsible for technical training (wire and radio)	17. 3.1968	The expert assisted in the establishment of a National School of Posts and Telecommunications, which was officially opened on 3 November 1969. Training will be given to technicians on medium and lower levels. After the opening of the school, 85 students commenced training, 30 in telecommunications and 55 in the postal section.
	Georges Levet (France)	Instructor in practical training	1. 5.1969	The expert assisted in the practical demonstrations and laboratory work at the National School of Posts and Telecommunications.
Niger (Technical Assistance)	Raymond A. Chollet (France)	Expert on technical training	1.10.1968	The expert assisted in the establishment of training courses in telephony and telegraphy at the National Instruction Centre of Posts and Telecommunications. Eight "contrôleurs adjoints" (medium level) technicians were retrained and ten "agents des installations" (skilled workmen) were trained in 1969.
Nigeria (Technical Assistance)	S. Mahadeva Iyer (India)	Senior telecommunication engineer (OPAS)	16. 3.1968	The officer carried out the duties of senior telecommunication engineer in the district of Kaduna, Northern Nigeria.
	Spyros Kassimatis (Greece)	Senior telecommunication engineer (OPAS)	29. 2.1968 28. 2.1969	The officer assisted in the day-to-day running and organization of the Telecommunications Department.

	Leonid A. Shirokih (U.S.S.R.)	Senior telecommunication engineer (OPAS)	25. 5.1968 24. 5.1969	The officer assisted in the day-to-day running and organization of the Telecommunications Department.
	Hugo J. Stroobants (Belgium)	Senior telecommunication engineer (OPAS)	12. 3.1968 15. 3.1969	The officer prepared a syllabus for a course for technicians in radio-communications for the P. & T. Training School at Oshodi.
	David R. Thomas (United Kingdom)	Telecommunication officer (traffic) (OPAS)	1. 6.1966 31.12.1969	The officer continued to train officers in the northern region (Kaduna) and three traffic officers have been fully trained.
	V. R. Venugopal (India)	Senior telecommunication engineer (OPAS)	6. 6.1968 8. 6.1969	The officer gave assistance in the day-to-day running and organization of the Telecommunications Department in Ibadan.
	S. A. Christer Carlstedt (Sweden)	Associate expert	1.10.1968 30. 9.1969	The associate expert gave assistance in the day-to-day running of the Telecommunications Department in Lagos under the general supervision and direction of the OPAS officers.
	Börje N. E. Ljungquist (Sweden)	Associate expert.	1.10.1968 28. 2.1969	First as associate expert and later as senior telecommunication engineer, the officer was engaged in planning in the Telecommunications Department Headquarters in Lagos.
		Senior telecommunication engineer (OPAS)	1. 3.1969 30. 9.1969	
	Sten I. Svensson (Sweden)	Associate expert	1.10.1968 30. 9.1969	The associate expert assisted in the day-to-day running of the Telecommunications Department in Lagos under the general supervision and direction of the OPAS officers.

Country or Region of Assignment	Name (Nationality)	Speciality and/or Title	Starting and closing date of mission	Brief description of work; Remarks
Somalia (Technical Assistance)	Anatolij I. Krutkov (U.S.S.R.)	Telecommunication adviser	13. 1.1969	The expert gave advice on the general implementation of telecommunication development plans. He also assisted in the training of maintenance personnel and in the setting up of facilities for technical instruction.
	Gianfranco Segreti (Italy)	Radio instructor	4. 1.1969	The expert set up facilities for the teaching of radiocommunication subjects at the technician level. He gave instruction in this field, as also in basic telecommunication subjects, to 33 trainees.
Sierra Leone (Technical Assistance)	Kenneth A. Lees (United Kingdom)	Telecommunication instructor (OPAS)	26. 4.1964	The officer continued to assist the Posts and Telecommunications Department in the development of its Training Centre.
Sudan (Special Fund)	Leonard S. Scammell (United Kingdom)	Instructor in automatic telephony	5. 8.1963	The experts continued to be engaged in the preparation of course material, the supervision of training courses and the training of counterparts. In October 1969 a re-assessment of the training needs of the Telecommunications Department was carried out.
		Project manager	31. 3.1969	
	P. R. Desikachar (India)	Instructor in radio-communications	1. 4.1969	
	Mervyn A. Gale (United Kingdom)	Instructor in telegraphy	14. 2.1966	
	John H. M. Johnson (United Kingdom)	Carrier and line transmission instructor	8.12.1963	
			22. 1.1969	

	John B. King (United Kingdom)	Telephone traffic instructor	19. 3.1969	The Centre caters for a large variety of courses, both long-term and short-term and, during 1969, approximately 200 students were continuously under training at the Centre.
	Joseph M. Meehan (Ireland)	Telecommunication management instructor	18. 6.1969	
	Sabry A. A. Meguid (U.A.R.)	Telecommunication lines and cables instructor	6. 1.1969	
	Jan Elshout (Netherlands)	Associate expert in radio	11. 7.1969	
Swaziland (Technical Assistance)	Abdur Rouf Kazi (Pakistan)	Lecturer in electrical engineering and telecommunications (OPAS)	4.11.1969	The officer arrived at the duty station towards the end of 1969 and commenced giving basic training to technicians at the Technical Institute.
Chad (Technical Assistance)	Albert Bouchet (France)	Professor in general radio techniques	25. 4.1964	The expert continued to train radio technicians of the "contrôleur" (medium level technician) level. Since 1965, about 35 trainees have graduated, some of which came from Central African Republic, Gabon and the Congo (Brazzaville)
	Yves Heurtin (France)	Instructor in practical radio	26.10.1964	The expert continued to assist in the training of radio technicians in practical aspects, by means of demonstrations, tests and workshop practices.

Country or Region of Assignment	Name (Nationality)	Speciality and/or Title	Starting and closing date of mission	Brief description of work; Remarks
Zambia (Technical Assistance)	David G. Peck (United Kingdom)	Telecommunication adviser	26. 2.1969	The expert concentrated his activity mainly on making a survey for a new microwave trunk route. He also drafted legislation for the setting up of a self-financing telecommunication corporation.
Africa (Regional Project) (Technical Assistance)	Hertwig K. Bender (F. R. of Germany)	Regional expert (Member of Joint I.T.U./E.C.A. Mission)	16. 4.1968	The regional expert continued to give general advice on telecommunication matters to the countries in the eastern region of Africa, assessing the needs for technical assistance in the field of telecommunications and participating in the preparation of requests. In this connection the expert visited the following countries: Botswana, Kenya, Malawi, Sudan, Swaziland, Tanzania, Uganda and Zambia. The expert also drafted a request for a pilot circuit scheme for Swaziland/Malawi.
	Stanislas Sierakowski (Belgium)	Regional expert (Member of Joint I.T.U./E.C.A. Mission)	1. 9.1966	The regional expert continued to give general advice on telecommunication matters to countries in Central and Western Africa, assessing the needs for technical assistance in the field of telecommunications and participating in the preparation of requests. In this connection the expert visited the following countries: Burundi, Cameroon, Chad, Congo (Kinshasa), Congo (Brazzaville), Equatorial Guinea, Gabon, Ghana, Nigeria, Rwanda and Sudan

Pilot Telecommunication Circuit Ethiopia/Ivory Coast (Special Fund)	Norman E. Marshall (United Kingdom)	Radiocommunication expert (Ethiopia)	19. 3.1967 10. 4.1969	The expert assisted the Imperial Board of Telecommunications of Ethiopia and the Ministry of P. & T. of the Ivory Coast to establish an HF radio link between Addis Ababa and Abidjan, as also with the training of personnel for its operation and maintenance.
	Maurice R. Ravarit (France)	Automatic telegraphy expert (Ivory Coast)	2. 5.1967 28. 2.1969	The expert assisted the Ministry of P. & T. of the Ivory Coast in the installation of the telegraph terminal and ARQ equipment connected with the HF radio link to Addis Ababa. He also trained operators and maintenance personnel in this connection.
Multinational Training Centres (Kenya, Malawi, Swaziland, Tanzania, Uganda and Zambia) (Special Fund)	William B. Jago (United Kingdom)	Expert in postal and telecommunication training	30.12.1968	The expert was engaged in planning and drafting of requests for a comprehensive, coordinated group of multinational telecommunication and postal training centres in the countries of Eastern Africa. The preliminary work has been completed.

Country or Region of Assignment	Name (Nationality)	Speciality and/or Title	Starting and closing date of mission	Brief description of work; Remarks
African Preinvestment Project (Special Fund)	Paul Bassole (France)	Project manager (African Regional Telecommunication Expert 1.4.1968-31.8.1968)	1. 9.1968	Preliminary studies for the planning of a comprehensive pan-African Telecommunication trunk network were carried out by the experts, and requests prepared for further detailed pre-investment studies for links, identified by the preliminary studies, which are required. All work in connection with the preliminary studies was completed by the end of 1969. A comprehensive draft request was submitted to the UNDP in New York. The request is subdivided into five parts, each of which concerns a different group of countries. A general report on the preliminary operations was also completed, as well as the drafting of all other reports concerned, covering 38 African countries.
	Taofiqui Bouraima (Dahomey)	Transmission expert (Abidjan)	20. 2.1969	
	Samuel A. Boyd (United Kingdom)	Planning expert (Addis Ababa)	31. 3.1969	
	Lars O. Engvall (Sweden)	Operation traffic expert (Abidjan)	8. 1.1969	
	Ingidayehu Girmaw (Ethiopia)	Operation traffic expert (Addis Ababa)	9.12.1968 8. 9.1969	
	Georges A. Joël (France)	Planning expert (Abidjan)	14. 1.1969	
	Jan H. Spenning (Norway)	Transmission expert (Addis Ababa)	16.12.1968 14. 5.1969	

2. AMERICAS				
Antigua (Technical Assistance)	Albert J. Carey (U.S.A.)	Superintendent of telephones (OPAS)	19.11.1968	The expert concentrated his activities mainly on supervising the operation of the Government-owned inland telephone service, advising on telecommunication matters and preparing the allocation of licences for telecommunications and of frequencies for radiocommunications.
Argentina (Technical Assistance)	Antoine Fleuret (France)	Expert to evaluate quality of telephone service	6. 1.1969 5. 7.1969	The expert developed a method for measuring the quality of the telephone service and applied it to two main switching centres in the country, thus permitting the improvement of the maintenance procedures.
	Ercole Marello (Italy)	Expert in satellite communications	6. 6.1969 5.11.1969	The expert assisted in the acceptance tests of the earth station for satellite communications sited near Balcarce. In particular, he gave advice on the organization of the further measurements, the operation of the station and its maintenance.
Bolivia (Technical Assistance)	Pedro Chaher (Argentina)	Telecommunication Adviser	2. 9.1969	The expert gave advice on the establishment of a national telecommunication policy, including organizational and operational aspects. To this effect, he assisted in the formulation of technical, administrative and operational standards in relation to the creation of a National Telecommunication Enterprise (ENTEL), which work is still in progress.

Country or Region of Assignment	Name (Nationality)	Speciality and/or Title	Starting and closing date of mission	Brief description of work; Remarks
Chile (Technical Assistance)	Lothar Diehl (F. R. of Germany)	Expert in switching and automatic transmission in the telex service	31. 7.1967	The expert assisted in the planning, installation and operation, of the new telex network, as also in its integration into the national and international networks. The planning of the second phase of the telex network, which includes the planning of the international telex switching centre and the extension of the telegraph service within the country, was also commenced with the assistance of the expert.
	John Herbert Reinhardt (U.S.A.)	Expert in telecommunication organization and administration and in frequency management	4.11.1969	The expert commenced rendering assistance in the organization of the Telecommunication Department, which will take up the regulatory and controlling functions of telecommunications in the country. Moreover, the expert will advise on the establishment of a Test and Development Centre and on the modernization of monitoring stations.
	(Special Fund)	Jacques Raverdy (France)	Project Manager	1. 7.1968

Colombia (Special Fund)	Charles Rinaldi (France)	Radio-relay system and multiplex instructor	1.10.1969	The Centre is training engineers, technicians and skilled operators in telecommunication subjects and the experts have commenced the preparation of syllabi for courses in their specialized fields. They have also drawn up a list of equipment required for the laboratories. During the year, more than 1,000 students were undergoing training at the Centre.
	Claude M. Zenati (France)	Telegraphy instructor	28.11.1969	
	Ingemar Norberg (Sweden)	Project Manager	25. 9.1965	The experts continued to provide training for all telecommunication personnel up to high-level technicians at the Technological Institute for Electronics and Telecommunications in Bogota, and assisted the University of Cauca, Popayán, to develop further its Faculty of Electronics and Telecommunications Engineering and to establish a Centre of Applied Research in Electronics and Telecommunications. More than 50 engineers and 70 high-level technicians have been formed. In addition, some 1,500 engineers, technicians, operators, Colombian instructors and professors and telecommunication employees have participated in a very varied range of short-term courses. The training of the best counterparts in various Telecommunication Administrations and Universities overseas is being continued.
	Lennart G. Andersson (Sweden)	Associate expert in switching	28. 5.1969	
	Lars-Rune Berg (Sweden)	Associate expert in transmission	30. 9.1968	
	José L. Colon (U.S.A.)	Instructor in propagation	13. 7.1966	
	José E. Cordero (U.S.A.)	Instruction in transmission and carrier equipment	15. 3.1969	
			20.11.1965	
			7.11.1969	
	Kaj S. Elgstrand (Sweden)	Associate expert in ergonomics	15. 8.1968	
	Johan J. Ernberg (Sweden)	Associate expert in physics	30. 9.1968	
		Instructor in mathematics	30. 6.1969	
			1. 7.1969	
	Matthias J. Josten (F. R. of Germany)	Instructor in switching (applied research work)	1. 7.1968	

Country or Region of Assignment	Name (Nationality)	Speciality and/or Title	Starting and closing date of mission	Brief description of work; Remarks
Colombia (Special Fund) (<i>contd.</i>)	Knut E. Källström (Sweden)	Associate expert in switching	30. 9.1968	
		Lecturing and research work in propagation	31. 3.1969	
			1. 4.1969	
	Arnulf G. Liebetegger (United Kingdom)	Professor in mathematics	3. 6.1968	
			2. 7.1969	
	Artème Nicolazzi (France)	Instructor in transmission and associated equipment	1. 4.1966	
Dominican Republic (Technical Assistance)	Hector Rivera (U.S.A.)	Instructor in telegraphy	3. 3.1967	The expert continued to give assistance in the development of telecommunication networks and, in particular, in the preparation of technical specifications for equipment for the telephone and telegraph switching centres. He also advised on the technical evaluation of bids and on the organization of maintenance and operation. In this connection, he visited the following countries: Dominica, St. Kitts, Haiti and Jamaica.
			31. 1.1969	
	Lars A. Wern (Sweden)	Associate expert in electronics and transmission	30. 9.1968	
			29. 9.1969	
	Benjamin Brok ¹⁾ (U.S.A.)	Expert in telegraph and telephone exchange equipment	13. 2.1964	

Ecuador (Technical Assistance)	Johannes B. Berger (F. R. of Germany)	Frequency management expert	13.10.1969	The expert assisted in the establishment of a frequency monitoring and control centre and in the installation of the necessary equipment. He also provided in-service training for national counterpart personnel.
	Heinrich F. Kunst (F. R. of Germany)	Microwave expert	13.10.1969	The expert assisted in the planning and development of long-distance microwave systems, which involved participation in the preparation of specifications, assessment of technical aspects of offers, studies of traffic and feasibilities, assistance in the installation of equipment, as also the training of in-service national staff.
	Omar A. Posada da Silveira (Uruguay)	Microwave expert	17. 3.1968 16. 3.1969	The expert prepared specifications for equipment for long-distance microwave systems. He also advised on the technical assessment of offers and provided in-service training for national staff on microwave techniques, maintenance and operation of microwave equipment.

Country or Region of Assignment	Name (Nationality)	Speciality and/or Title	Starting and closing date of mission	Brief description of work; Remarks
Guatemala (Technical Assistance)	Hirokazu Shimada ¹⁾ (Japan)	Expert in telegraph and telephone exchange equipment	14.12.1967	The expert assisted the Governments of Central American countries in the planning and development of their national and international networks. He also participated in the preparation of specifications for the purchase of central office equipment and advised on the assessment of technical aspects of offers, the installation, maintenance and operation of the equipment, as also the conducting of acceptance tests. In addition, he provided in-service training for national staff. In this connection he visited Honduras, Nicaragua, Costa Rica, El Salvador and Panama.

Honduras (Technical Assistance)	Lars E. G. Gustafsson ¹⁾ (Sweden)	Expert in organization and operation of telecommunication services and tariffs	2.10.1967	The expert assisted the Governments of Central America in the development of their national and international networks, advised on problems of organization and operation of public telephone services and participated in studies of traffic problems for the establishment of rates and the carrying out of feasibility studies. He also advised on the assessment of financial and economic aspects of offers and provided in-service training for national staff. In this connection he visited Nicaragua, Costa Rica, El Salvador, Panama and Guatemala.
Jamaica (Technical Assistance)	Patrick J. O'Sullivan (Ireland)	Senior lecturer, telecommunication engineering (OPAS)	7. 8.1967	At the College of Arts, Science and Technology in Kingston, the expert lectured in mathematics and telecommunication subjects at a level equivalent to that of the City and Guilds Telecommunication Technician Certificate and the United Kingdom National Diploma. He also prepared detailed programmes of study and of practical training. Two associate experts will assist him in the lecturing and carrying out of the courses, one associate expert having taken up his duties towards the end of the year.
	Björn B. Nyberg (Sweden)	Associate expert in electrical engineering	6.11.1969	

Country or Region of Assignment	Name (Nationality)	Speciality and/or Title	Starting and closing date of mission	Brief description of work; Remarks
Nicaragua (Technical Assistance)	Wilfred D. McKenzie ¹⁾ (Australia)	Transmission expert	1. 7.1969	The expert assisted the Governments of Central America in the planning and development of their national and international networks and in the preparation of specifications for long-distance transmission systems. He also gave advice as regards the technical assessment of offers, the installation of the equipment, its maintenance and operation. He participated in the acceptance tests and provided in-service training for national staff. In this connection he visited the following countries: Honduras, Guatemala, Costa Rica, El Salvador and Panama.

Panama (Technical Assistance)	Wilhelmus J. Bünger ¹⁾ (Netherlands)	Expert in organization and operation of telecommunication services and tariffs	30. 6.1969	The expert assisted the Governments of Central America in the development of their national and international networks and advised on problems of organization and operation of public telephone services. He also assisted in the studies of traffic problems for establishing rates and carrying out feasibility studies and advised on the assessment of the financial and economic aspects of offers. In addition, he provided in-service training for national staff. In this connection he visited Honduras, Nicaragua, Guatemala, Costa Rica and El Salvador.
Paraguay (Technical Assistance)	Horst Schaetzke (F. R. of Germany)	Automatic telephone equipment expert	7.11.1966 30. 6.1969	After having assisted in the installation of new telephone switching equipment, the expert participated in the elaboration of maintenance instructions and procedures, the introduction of traffic statistics and the organization of the maintenance service and traffic measurements.

Country or Region of Assignment	Name (Nationality)	Speciality and/or Title	Starting and closing date of mission	Brief description of work; Remarks
Paraguay (Special Fund)	José E. Cordero (U.S.A.)	Project Manager	8.11.1969	The expert commenced his task of assisting in the implementation of the National Telecommunication Plan as far as technical and managerial training of personnel was concerned. This will, in particular, involve the revision of the curriculum for the Paraguayan Institute of Telecommunications and its adaptation to the requirements.
Peru (Technical Assistance)	Venkat V. Rao (India)	Frequency management expert	13. 4.1968	The expert advised on policy matters related to frequency management, drawing up national plans of frequency allocations and studying new requests for frequency assignments. He also assisted in the establishment of monitoring centres in the country and in the expansion of the Radio Control Department.

Trinidad (Technical Assistance)	Johannes Marsman ²⁾ (Netherlands)	Expert in organization and administration	13. 1.1966 12. 1.1969	The expert terminated his mission at the beginning of the year having been mainly engaged in assisting the Governments of the various Caribbean countries in the organization of national operating companies. In particular, the expert drafted telecommunication laws, regulations for the operation of different services, procedures for the delivery of licences, etc. He also advised on general matters related to telecommunication operation, with particular emphasis on staff training. The expert continued the work commenced by Mr. Marsman in the Caribbean area, his main activities during 1969 having been to advise on tariff matters, the updating of regulations, the provision of reports on the operation of different services, etc., and the recommendation of policies for concessions and for the fixing of rates. In this connection he visited Surinam, St. Vincent, Barbados, St. Kitts and the Dominican Republic.
	Theodorus Pasman ²⁾ (Netherlands)	Expert in telecommunication administration and tariffs	27. 7.1969	
Venezuela (Special Fund)	Jan Deketh (Netherlands) Humberto Ruiz (Peru)	Project Manager Instructor in radio equipment and radio systems Acting Project Manager	1. 1.1964 29. 4.1969 8. 9.1964 1. 5.1969	The experts continued to provide training for all categories of technical telecommunications personnel up to high-level technicians at the Training Centre for Telecommunication Technicians.

Country or Region of Assignment	Name (Nationality)	Speciality and/or Title	Starting and closing date of mission	Brief description of work; Remarks
Venezuela (Special Fund) (<i>contd.</i>)	Yoshizo Ito (Japan)	Instructor in telephone switching and traffic	17. 8.1969	<p>The project is now approaching the end of its first phase and a request for a second phase has been submitted to the UNDP in New York.</p> <p>A team of Venezuelan instructors has now been formed to continue the training of further high-level technicians. Each internationally recruited instructor has at least one counterpart (2 in most cases), including two to three instructors and assistant instructors for each speciality.</p> <p>About 300 high-level technicians have been formed and some 100 in-service technicians of various specialities trained. More than 500 employees participated in evening classes and over 1,100 completed correspondence courses.</p>
	Jorge Mareggiani (Argentina)	Instructor in electrical measurements and power equipment	7. 9.1964	
	Claude Moussac (France)	Instructor in theory and practice of transmission	16. 4.1966	
	Oscar G. Platter (Italy)	Instructor in telegraphy	11. 3.1966	
	Kaare Welle (Norway)	Instructor in telephone switching equipment and traffic	14. 6.1967 13. 6.1969	
	Christianus P. van Vucht (Netherlands)	Instructor in external plant	3. 6.1969	
Latin America (Regional Project) (Technical Assistance)	Juan A. Autelli (Argentina)	Telecommunication planning expert	1. 1.1968	<p>The regional expert concentrated his activities mainly on assisting the CITEL coordinator of Sub-regional Group 3 in his work related to the pre-investment study for the Inter-American telecommunication network, studying the national telecommunication networks in the countries within his jurisdiction</p>

	Roger L. Freeman (U.S.A.)	Telecommunication planning expert	24. 2.1968 23. 2.1969	<p>(Brasil, Uruguay, Paraguay, Bolivia, Peru, Chile and Argentina) during visits, advising and assisting them in the promotion, coordination and supervision of UNDP/TA projects to be implemented by the I.T.U. and in the establishment of UNDP/SF project requests.</p> <p>The regional expert continued to assist the CITEL coordinator of Subregional Group 2 in connection with the pre-investment study for the Inter-American telecommunication network, studying the national telecommunication networks in the countries under his jurisdiction (Colombia, Ecuador, Venezuela and the Caribbean Region).</p>
	Irwin S. Henderson (Canada)	Expert in switching, numbering and signalling attached to CITEL (Inter-American Telecommunication Commission)	4.10.1967 3. 2.1969	<p>The regional expert assisted the CITEL Secretariat in matters related to the pre-investment study for the Inter-American telecommunication network. In conformity with the recommendations of the C.C.I.T.T./C.C.I.R. Plan Commission, he advised on the particular aspects of the study related to switching, numbering and signalling and made a substantial contribution to the drafting of the relevant chapters of the final report on this study.</p>

Country or Region of Assignment	Name (Nationality)	Speciality and/or Title	Starting and closing date of mission	Brief description of work; Remarks
Latin America (Regional Project) (Technical Assistance) (<i>contd.</i>)	Alexander B. MacLennan (United Kingdom)	Telecommunication planning expert (Expert in microwave transmission systems in Central America 3.2.1964-31.12.1968)	1. 1.1969	The regional expert devoted the majority of his time to assisting the Central American countries in the planning of their regional and national telecommunication networks, including the preparation of technical specifications. He coordinated the activities of and assisted the other experts working in the area. He, furthermore, assisted the various countries in the selection of candidates for fellowships and collaborated in the drafting of a request for a regional training centre in the area. During the year he visited Nicaragua, Costa Rica, El Salvador, Honduras, Panama, Paraguay and Mexico.

	Omar A. Possada da Silveira (Uruguay)	Telecommunication planning expert	17. 3.1969	The regional expert assisted the CITELE coordinator of Sub-regional Group 2 in his work related to the pre-investment study for the Inter-American telecommunication network. On the occasion of his visits to Colombia, Venezuela, Trinidad, Paraguay, Uruguay, Haiti and the Dominican Republic, he gave advice on matters related to the programming of UNDP/TA projects to be implemented by the I.T.U. He, furthermore, collaborated in the drafting of the request for the second phase of Training Centre for Telecommunication Technicians in Venezuela as also for the Electronics and Telecommunication Training and Research Institute in Colombia.
Pre-Investment Study for Inter-American Network (IDB/ITU) (Special Fund)	Caesar F. Fiore (U.S.A.)	Telecommunication network planning specialist	1.12.1969	The expert commenced his activity of representing the I.T.U. on the Programme Management Group formed by the Inter-American Development Bank (I.D.B.) for the implementation of the pre-investment study for the Inter-American telecommunication network, of advising on the technical aspects of the study and of coordinating the organization of the fellowship programme provided for in this project.

¹⁾ On request, assisting other Central American countries.
²⁾ On request, assisting other countries in the Caribbean Area.

Country or Region of Assignment	Name (Nationality)	Speciality and/or Title	Starting and closing date of mission	Brief description of work; Remarks
3. ASIA AND THE FAR EAST				
Afghanistan (Technical Assistance)	Bernward Kupitz (F. R. of Germany)	Carrier and line transmission expert	27. 7.1967 31.12.1969	The expert assisted in the planning and advised on the installation, operation and maintenance of carrier and line transmission systems. He also assisted in the establishment of a workshop and trained local staff. During the course of his mission, the network was expanded considerably.
	Geoffrey Leng (United Kingdom)	HF-Radiocommunication expert	6.10.1969	The expert advised on and assisted in the maintenance and operation of HF-wireless transmitting and receiving stations and related equipment. He also assisted in fault clearing; the preparation of maintenance instructions and their execution; as also the training of counterparts;
	Hermann Sauermilch (F. R. of Germany)	Telecommunication adviser	8. 9.1958	The expert gave advice in all aspects of telecommunications on a high level and was particularly involved in planning matters.

(Special Fund)	Sadayuki Ohnuma (Japan)	Project manager	21. 4.1969	The first phase of the Telecommunication Training Centre project ended on 31 December 1969. Excellent physical facilities have been established. In the last year, the technician courses were continued and 32 trainees graduated. The best trainees have been retained to receive further training as counterparts. The experts continued to prepare course material, and excellent outside training facilities for practical training have been developed. The project will continue under a second phase of five-year duration.
	Arthur D. Bungay-Prevett (United Kingdom)	Instructor in telephony	1.11.1969	
	Roland Carnefur (Sweden)	Instructor in transmission and carrier systems	1.10.1967 31. 8.1969	
	Joseph Kennedy (Ireland)	Instructor in telephony	31. 8.1965 30. 5.1969	
	Yoshinori Kimura (Japan)	Instructor in transmission and carrier systems	17. 8.1969	
	Percival F. A. Morgan (United Kingdom)	Instructor in outside plant	5. 8.1968	
	Gijsbertus J. M. Pappot (Netherlands)	Associate expert — transmission and carrier systems	3. 1.1968	
	Eckhard Pense (F. R. of Germany)	Instructor in telegraphy	15. 5.1967	
	Kurt Scherrer (Switzerland)	Instructor in radio	1. 8.1965	
Saudi Arabia (Funds-in-Trust)	Rafique Ahmad (Pakistan)	Expert on automatic and manual telephone systems	18. 2.1968	The expert assisted in the improvement of the automatic telephone system and in the preparation of specifications for tenders for maintenance, operation and management of the system. A proposal for the expansion of the telephone network in the country was submitted by the expert.

Country or Region of Assignment	Name (Nationality)	Speciality and/or Title	Starting and closing date of mission	Brief description of work; Remarks
Saudi Arabia (Funds-in-Trust) (<i>contd.</i>)	Mukkavalli L. Sastry (India)	Broadcasting adviser	5. 2.1965	The expert assisted in the development of the broadcasting network, including the high-power transmitter project (Jeddah-Riyadh programme link), as well as in the maintenance and operation of broadcasting stations.
(Special Fund)	Rolf H. Stenerudh (Sweden)	Project manager	28. 1.1968 27. 9.1969	The Plan of Operation for the Telecommunication and Broadcasting Training Centre project was signed in February 1969. The Project manager assisted the Government in all preparatory work for the commencement of training and made specific proposals on the site and layout of the Centre buildings, recruitment of local instructors, training programmes, selection of candidates for fellowships, etc.

Ceylon (Technical Assistance)	Sachio Iijima (Japan)	Telephone exchange planning and design expert	9. 1.1969	The expert assisted in the evaluation of traffic data and recommended for the second stage of the development plan for telecommunications (Colombo Area Development Scheme), a modified plan which would enable the handling of the estimated traffic volume in 1972 and the following years. The expert also assisted in the preparation of a numbering plan for the whole country.
Indonesia (Special Fund)	Masafumi Kinoshita (Japan)	Project manager	1. 6.1968	The Plan of Operation was signed in February 1969 and the team of experts have assisted in the establishment of laboratories and requests for equipment. They have, together with their counterparts, prepared course programme syllabi. Three four-month courses in the fields of outside plant, radio and telegraphy were completed and the counterparts trained to conduct the subsequent courses on their own; similar courses in transmission and switching were also prepared and a course in power was in preparation.
	Hans-Jürgen Heymann (F. R. of Germany)	Telecommunication switching instructor	1. 6.1969	
	Ryuzaburo Inano (Japan)	Radio instructor	24.12.1968	
	Dieter Rosenbaum (F. R. of Germany)	Telecommunication power plant instructor	19.11.1969	
	Sten G. Sallander (Sweden)	Telecommunication lines and cables instructor	4.12.1968	
	Helmut E. A. Schnitzke (F. R. of Germany)	Telegraphy instructor	10. 2.1969	
	Alexander M. Skinner (Australia)	Carrier current and line transmission instructor	16. 1.1969	
	John W. Willmot (United Kingdom)	Training adviser	1.11.1968	

Country or Region of Assignment	Name (Nationality)	Speciality and/or Title	Starting and closing date of mission	Brief description of work; Remarks
West Irian (FUNDWI)	Oystein Linge (Norway)	Project manager	10.10.1968	The Project manager assisted in the preparation of a request for the most urgent spares needed for the commencement of the rehabilitation work. The team of experts examined the existing equipment, prepared specifications for spare parts and new equipment, and planned the repair and rehabilitation work to be undertaken in 1970 and 1971.
	Per-Erik Lundborg (Sweden)	Radio maintenance expert	20.10.1969	
	Maurice Ravarit (France)	Telegraph maintenance expert	20.10.1969	
	Stig T. Toreson (Sweden)	Radio maintenance expert	20.10.1969	
Iran (Technical Assistance)	Kinji Iwasaki (Japan)	Senior adviser on satellite communications	28. 9.1969 7.12.1969	The expert assisted in evaluating the results of the tests conducted at the Asadabad Earth Station, which became operational in October 1969. He also made recommendations on the maintenance and operation of the Earth Station, as well as related satellite communication circuits.
(Special Fund)	Duncan P. Taylor (United Kingdom)	Project manager designate	12.12.1969	Within the framework of preliminary operations for the Special Fund project, the expert is assisting the Government with all preparatory work for establishing a Telecommunication Training Centre as an extension of the existing P.T.T. School.

Iraq (Technical Assistance)	Yoshio Kobayashi (Japan)	Telecommunication planning network expert	9.12.1969	The expert was transferred to this project, on completion of his mission as an instructor at the Telecommunication Training Centre, and assisted in planning the telecommunication network for the Ministry of Oil.
	Yuichi Sato (Japan)	Technical adviser on automatic telex exchanges	2. 3.1969	The expert assisted in the planning and bringing into service of the telex system. Basic telegraph traffic data were analyzed and VFT facilities checked for this purpose. He also trained counterparts in the telex field.
(Special Fund)	Engels A. Demin (U.S.S.R.)	Project manager	16. 5.1969	The Telecommunication Training Centre project was originally scheduled to end in October 1968 but was extended for one and a half years. In 1969 a long-term technician course was continued and 86 trainees graduated. During the year, all experts, with the exception of the Project manager, completed their assignments and left the Centre. The counterparts took over the duties of the experts and have been running the courses satisfactorily.
	Johan F. Bos (Netherlands)	Associate expert — general telecommunications	30. 1.1967 29. 7.1969	
	Alfred K. Højbjerg (Denmark)	Instructor in telegraphy	15. 9.1968 14. 9.1969	
	David Holland (United Kingdom)	Instructor in outside plant	31. 5.1966 31. 7.1969	
	Yoshio Kobayashi (Japan)	Instructor in general telecommunication engineering field	9.12.1968 8.12.1969	
	Mitsuhiro Kondo (Japan)	Instructor in transmission and carrier	9.12.1968 8.12.1969	
	Karl-Heinz Pophal (F. R. of Germany)	Instructor in radio	1. 8.1966 31. 7.1969	
	Ramamrutham Radhakrishnan (India)	Instructor in telephone switching systems	29.11.1968 31. 7.1969	

Country or Region of Assignment	Name (Nationality)	Speciality and/or Title	Starting and closing date of mission	Brief description of work; Remarks
Jordan (Technical Assistance)	Petr P. Bazhan (U.S.S.R.)	Telephone cable network and line transmission expert	10. 1.1966 8. 1.1969	The expert terminated his mission during the course of which he had assisted in improving and developing the line transmission network. Plans for the reconstruction of old open-wire lines and the construction of new ones were drawn up by the expert. Various instructions for the maintenance of the lines and cable network were prepared. The expert also gave regular training to technicians in the field. The expert terminated his assignment during the course of which he had advised and assisted in the extension and modernization of radio services; on-the-job training; maintenance and repairs of equipment; installation of workshops; etc. Recommendations were made by him on the planning of the radio network as well as frequency management and monitoring.
	Ernst Hondong (F. R. of Germany)	Radio and carrier network expert	30.10.1965 9. 1.1969	

Kuwait (Funds-in-Trust)	Subbiah Sankara Raman (India)	Telephone and telex expert	7.12.1965	The expert had acted as the team leader of the ITU experts. In his specialized field, he advised on and assisted in the telephone development project and the bringing into service of the telex circuits. He also assisted in the improvement of the cable network, pending the arrival of a new expert in this field.
	Wadie F. Boulos (U.A.R.)	Telecommunication instructor	8. 7.1968	The expert assisted in the in-service training, in telecommunications subjects, of technicians, assistant technicians and operators of the Ministry of Posts, Telegraphs and Telephones.
	Austin F. Burke (Ireland)	Police telecommunication planning engineer (OPAS)	6. 1.1967	The officer continued to assist the Ministry of the Interior in the planning and expansion of the Police Radiomobile Telecommunication Service.
	Fouad H. El Kaffas (U.A.R.)	Telecommunication instructor	8. 7.1968	The expert assisted in the in-service training, in telecommunication subjects, of technicians, assistant technicians and operators of the Ministry of Posts, Telegraphs and Telephones.
	Shaikh A. Raheem (Pakistan)	Senior radiocommunication engineer (OPAS)	2.11.1966 1.11.1969	The officer, during the last year of his mission, continued to assist in the installation, operation and maintenance of all radiocommunication services.
	Chaudhry M. Sadiq (Pakistan)	Senior telecommunication engineer (telephone) (OPAS)	23. 7.1967	The officer continued to assist in the installation, operation and maintenance of all telephone services.

Country or Region of Assignment	Name (Nationality)	Speciality and/or Title	Starting and closing date of mission	Brief description of work; Remarks
Kuwait (Funds-in-Trust) (<i>contd.</i>)	M. M. Siddiqi (Pakistan)	Expert in stores organization (purchasing and supplies)	19. 7.1967	The expert continued to assist in the improvement of the stores organization and prepared the Purchase Procedure and Stores Procedure. Technicians were trained to be posted as storekeepers in various storehouses.
Malaysia (Technical Assistance)	Jack C. Whybourne (Australia)	National dialling system planning expert	12. 4.1967 11. 4.1969	The expert assisted in the preparation of residual, fundamental switching system plans from East Malaysia and in the establishment of firm design principles for new switching installations aimed at reaching the National Telephone system objective.
(Special Fund)	Colin W. C. Richards (United Kingdom)	Project Manager	24. 9.1962	The experts assisted in the consolidation of the training programme established in the Phase I project, as also in the development of training aids and the introduction of programmed learning in regular technician courses. A traffic wing has been established at the Centre in Kuala Lumpur and Regional Training Units have been established in Sabah and Sarawak.
	Denis W. Berry (United Kingdom)	Instructor in line plant, subscribers' apparatus and switching	24.10.1967	
	John M. Broderick (Australia)	Instructor in telecommunication traffic	12.12.1967	
	Clarence L. Canute (Australia)	Instructor in transmission	8. 6.1963	

	Bertil R. Carlsson (Sweden)	Associate expert — telecommunications (general)	18. 3.1968 17. 3.1969	
	Nils A. Carlsson (Sweden)	Associate expert — radio and transmission	18. 3.1968	
	Benno Engström (Sweden)	Associate expert — switching and telephone instruments	18. 3.1968	
	Mrs. Kerstin M. Engström (Sweden)	Associate expert — telecommunication traffic engineering	18. 3.1968	
	Signar Hammargren (Sweden)	Associate expert — telecommunications (general)	22.10.1969	
	Alfred Kurth Højbjerg (Denmark)	Instructor-Adviser on telegraph systems and equipment	15. 9.1969	
	Robert M. Johnsen (Norway)	Instructor in radio	28. 7.1964	
	John P. Killeen (Australia)	Instructor in line plant	8. 6.1963	
	Stig-Arne Larsson (Sweden)	Associate expert — telecommunications (general)	18. 3.1968	
	Bruce R. Muir (United Kingdom)	Instructor in telecommunication switching	15. 6.1966 14. 9.1969	

Country or Region of Assignment	Name (Nationality)	Speciality and/or Title	Starting and closing date of mission	Brief description of work; Remarks
Nepal (Technical Assistance)	Alfred H. T. Waldram (United Kingdom)	General adviser	13. 5.1968	The expert assisted in the preparation of a long-term development plan; the loan for the related equipment and installation will be provided by the International Bank for Reconstruction and Development. The expert also assisted in the preparation of a request for assistance from UNDP/SF for the establishment of a national Telecommunication Training Centre.
Philippines (Technical Assistance)	Edward L. Wright (Australia)	Expert in telecommunication organization and administration	1. 4.1968 31. 3.1969	The expert assisted in the amelioration of the national telegraph service, both in the extension of the modern operating facilities and in the improvement of operating procedures. He also assisted in the studies on the reorganization of the Bureau of Telecommunications.
Syrian Arab Republic (Technical Assistance)	Marcel Mauboussin (France)	Expert on accounting	23. 9.1968 22. 3.1969	The expert assisted in the establishment of a plan for the centralized accounting system. Recommendations were worked out by him on the organization and operation of the Accounting Centre and specifications for the mechanized system drawn up.

	Madan M. Misra (India)	Telecommunication expert on outside network plant	9.12.1968 8.12.1969	The expert assisted in planning the expansion of local networks, especially in the Damascus and Aleppo areas. A recommendation was worked out, by the expert, on a system of local line planning suitable for the country. Regional staff were trained in the practical application of this system.
	Djoka Branovacki (Yugoslavia)	Microwave expert (planning and maintenance)	7. 1.1969 6. 7.1969	The expert assisted in planning the expansion of the microwave network, as well as in improving the performance of the existing radio links. A specific proposal for the network in the triangle region Homs-Tartus-Latakia-Aleppo was made and standard maintenance procedures were also recommended by the expert.
Thailand (Funds-in-Trust)	James J. Senyard (Australia)	Expert in telephone exchange and local plant operation (under Technical Assistance Component 29.11.1967 28.11.1968)	29.11.1967 28.11.1969	The expert assisted in establishing maintenance procedures with a view to improving service quality on the telephone services. Technical and administrative or organizational procedures were established by the expert.

Country or Region of Assignment	Name (Nationality)	Speciality and/or Title	Starting and closing date of mission	Brief description of work; Remarks
Thailand (Special Fund)	R. Seshasayee (India)	Instructor in transmission and carrier systems	14.12.1964 30. 6.1967	<p>In the telecommunication Training, Test and Development Centre, the training programme has been further developed and course material for new courses prepared. A new building for the Test and Development Wing has been constructed and the installation of the necessary equipment commenced. The first phase of the project ended on 30 June 1969 and has been followed by a second phase of three-year duration. During 1969, the number of trainees has further increased and a total of 11,350 student weeks have been executed.</p> <p>In the Test and Development Centre, all calibration facilities have been installed. Further, a van with calibration facilities has become operational and will be sent to all stations throughout the country for calibration work. The question of installation of negative impedance repeaters in the local network of Bangkok has been referred to the Test and Development Centre and the work has been started.</p> <p>The preliminary work in regard to the drafting of specifications has also commenced.</p>
	Osmo S. Alho (Finland)	Project Manager	1. 7.1967	
	Wilfred A. Bergeron (U.S.A.)	Instructor in HF and VHF radio	1. 3.1967 28. 2.1969	
		Instructor in radio	30. 1.1965	
	Hans H. Junge Hansen (Denmark)	Associated expert in electronics	3.11.1968	
	Olof S. Linder (Sweden)	Instructor in telephone switching systems	18. 1.1965	
	Gösta A. Myrenfors (Sweden)	Instructor in telecommunication estimating, costing and stores accounting	15. 8.1966 22. 8.1969	
	Tarakad S. Subramanian (India)	Instructor in transmission and carrier systems	8. 5.1969	
	Kazuo Takeuchi (Japan)	Instructor in telegraphy	5. 9.1966 4. 9.1969	

Yemen (Technical Assistance)	Igorj M. Pavlichev (U.S.S.R.)	General telecommunication adviser	1. 9.1966 31.12.1969	The special features of the expert's activity were the extension of the telephone exchange and the local network in the three main cities, as also the concentration of all telecommunication and postal services in one building in each of these towns. The expert also assisted in the planning and installation of an overhead line trunk network, of which the first link — Hodeida-Taiz — is in operation.
(Special Fund)	Frank J. Collins (United Kingdom)	Consulting Engineer	5. 9.1969 5.10.1969	A consultant was engaged from Preece, Cardew and Rider to carry out a feasibility study for the construction of a telecommunication link using tropospheric scatter between the capital cities of the Yemen Arab Republic and the People's Republic of Southern Yemen, and to make recommendations on the question.
Southern Yemen (Technical Assistance)	Terence A. A. Marshall (United Kingdom)	Telephone exchange and equipment maintenance expert	25. 6.1969	The expert assisted in improving and developing the telecommunication services in the country and especially in the maintenance and repair of telephone exchange equipment. He also trained technicians in automatic exchange and subscriber apparatus maintenance.

Country or Region of Assignment	Name (Nationality)	Speciality and/or Title	Starting and closing date of mission	Brief description of work; Remarks
Asia and the Far East (Regional Project) (Technical Assistance)	Kaliyanpur V. Pai (India)	Senior regional tele- communication expert	9.12.1961	During 1969, the expert assisted in the preparation of ITU/SF training projects for Viet-Nam, Laos, Cambodia and Singapore. Further, TA projects were identified and requests prepared for India, Thailand, Cambodia, Viet-Nam and Laos. The expert participated in the Mekong River Basin project, attended the ECAFE meetings and the General Assembly of the Asian Broadcasting Union. He also assisted in the preparation of the request for the Feasibility Study for the Asian Telecommunication Network, as well as in the preparation of the related Plan of Operation. Accordingly, visits were made to Viet-Nam, Laos, Cambodia, India, Malaysia, Singapore, Australia and the I.T.U. headquarters. Furthermore, the expert prepared all documentation for the various meetings mentioned above, in addition to his various activities in accordance with the agreement for the ECAFE/ITU unit concluded between the I.T.U. and the ECAFE.

South East Asia and the Far East (Feasibility Studies) (Special Fund)	Norman V. Knight (United Kingdom)	Regional expert — Engineer economist	11.11.1969	The expert commenced his mission late in 1969 and was in the process of establishing a work programme. The expert made surveys in Cambodia and Laos and in Western Samoa, British Solomon Islands, New Hebrides, Gilbert and Ellice Islands and Fiji. At the same time, the needs for I.T.U. assistance under the UNDP/TA were identified. The expert participated, as I.T.U. representative, in the following meetings: 5th session — Development Planning ECAFE, Asian Broadcasting Union Conference (Sydney and Auckland), Asia Electronics Conference (Taipei), 2nd session of Typhoon Committee meeting (Manila). Detailed reports were established. The expert further assisted the Senior Regional Expert in drafting documentation for the various ECAFE meetings.
	A. David Tadde (U.S.A.)	Regional radiocommuni- cation expert	4. 2.1969	
	Henry G. Nowotny (Australia)	Project Manager	16.11.1969	The Project Manager assisted in the preparation of the draft Plan of Operation and went on an investigation tour of the countries covered by the Feasibility Study for the Asian Telecommunication Network.

Country or Region of Assignment	Name (Nationality)	Speciality and/or Title	Starting and closing date of mission	Brief description of work; Remarks
4. EUROPE				
Turkey (Special Fund)	Edward W. Collett (United Kingdom)	Project Manager	6.11.1967	In the National Telecommunication Training Centre substantial progress was made in the development of courses, the building up of course syllabi, course material and training aids. Long-term courses for new intake technicians in the exchange, telegraph and outside plant fields were started with a total of 40 trainees. Several short-term courses for technicians and senior technicians were given, as also seminars for engineers. All five new buildings of the Centre were completed. Five fellowships were awarded.
	Martin J. Keane (Ireland)	Carrier current and line transmission instructor	23.10.1968	
	Walter J. Lander (Canada)	Assistant telecommuni- cation switching instructor	3.11.1968	
	Ian Lemco (Canada)	Telecommunication switching instructor	21.10.1968	
	William S. Martin (Canada)	Telecommunication lines and cables instructor	1.10.1968	

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TABLE 2
FELLOWSHIPS DEALT WITH IN 1969

Country	Progr. sector	Year of award	Implemented in	Man/ Months in 1969	Host country(ies)	Field of study
1. AFRICA						
Algeria	TA	1968	1968/69/70/71	1/12	France	Telecommunication Engineering
	TA	1968	1968/69/70/71	1/12	France	Telecommunication Engineering
	TA	1969	1969	1/*	Senegal	BC and T.V. services, seminar
	SF	1969	1969	1/1	France, Thailand	Training methods
	SF	1968	1968/69	1/5	France	Switching
	SF	1968	1968/69	1/6	France	Transmission
	SF	1969	1969/70	1/3	France	Switching
	SF	1969	1969/70	1/3	France	Radio
	SF	1968	1968/69/70	1/12	France	Switching and transmission
	TA	1969	1969	1/*	I.T.U.	Integration of satellite communications, seminar
Botswana	TA	1969	1969	1/*	Ethiopia	Management techniques in telecommunications, seminar
Burundi	TA	1969	1969	1/*	Senegal	BC and T.V. services, seminar
	TA	1969	1969	1/*	I.T.U.	Integration of satellite communications, seminar
Cameroon	TA	1969	1969	1/*	Ethiopia	Management techniques in telecommunications, seminar

	TA	1969	1969	1/*	Ethiopia	Management techniques in telecommunications, seminar
	TA	1969	1969	1/*	Senegal	BC and T.V. services, seminar
	TA	1969	1970	1/1	France	Satellite communications
	TA	1969	1970	1/—	Madagascar	Telecommunication techniques
Central African Republic	TA	1967	1967/68/69	1/1	Madagascar	Electromechanical installations
	TA	1969	1970	1/—	Madagascar	Telecommunication engineering
	TA	1968	1968/69	1/4	France	Work foreman
	TA	1967	1967/68/69	1/1	Madagascar	Electromechanical installations
	TA	1967	1967/68/69	1/1	Madagascar	Electromechanical installations
	TA	1967	1967/68/69	1/6	Madagascar	Electromechanical installations
	TA	1969	1969	1/*	Senegal	BC and T.V. services, seminar
Comoro Islands	TA	1968	1968/69	1/5	Madagascar	Telegraphy
E.A.C. East African Community	TA	1968	1968/69	1/8	U.K.	Telecommunication practice
	TA	1968	1968/69	1/9	U.K.	Telecommunication practice
	TA	1968	1968/69	1/8	U.K.	Telecommunication practice
	TA	1968	1968/69	1/8	U.K.	Telecommunication practice
	TA	1969	1969/70	1/3	U.K.	Telecommunication practice
Congo (Brazzaville)	TA	1967	1968/69	1/4	France	Telecommunication practice
	TA	1967	1967/68/69	1/5	Madagascar	Telecommunication practice
	TA	1967	1967/68/69	1/5	Madagascar	Telecommunication practice
	TA	1968	1968/69	1/12	France	Overhead lines, underground cables
	TA	1968	1968/69	1/12	France	Overhead lines, underground cables
	TA	1969	1969	1/*	Senegal	BC and T.V. services, seminar
	TA	1969	1969	1/*	I.T.U.	Integration of satellite communications, seminar
Congo (Kinshasa)	TA	1968	1969	1/7	Belgium, France, Switzerland	Telecommunication administration

Country	Progr. sector	Year of award	Implemented in	Man/ Months in 1969	Host country(ies)	Field of study
Congo (Kinshasa) (<i>contd.</i>)	TA	1968	1969	1/7	Belgium, France, Switzerland	Telecommunication administration
	TA	1968	1969	1/8	Belgium, France	Telecommunication operation
	TA	1968	1969/70	1/4	Belgium, F.R. Germany	Telegraphy
	TA	1969	1970	1/—	France	Telephony
	TA	1968	1969/70	1/7	F.R. Germany, Belgium	Telegraphy
	SF	1968	1968/69	1/5	France	Lines and cables
	SF	1968	1968/69	1/4	France	Lines and cables
	SF	1969	1970	1/—	France	Telecommunication practice
	SF	1969	1970	1/—	France	Radio
	SF	1969	1969/70	1/8	F.R. Germany, Belgium	Telegraphy
Ivory Coast	TA	1969	1969/70	1/1	France	Telecommunication techniques
	TA	1969	1969/70	1/1	France	Telecommunication techniques
	TA	1969	1969	1/*	Senegal	BC and T.V. services, seminar
	TA	1969	1969	1/*	I.T.U.	Integration of satellite communications, seminar
Dahomey	TA	1968	1969/70	1/7	France	Telephony
	TA	1968	1970	1/—	France	Telephone operators supervision
	TA	1968	1969/70	1/3	France	Overhead lines, underground cables
	TA	1968	1970	1/—	France, Switzerland	Draughtsman
	TA	1969	1969	1/*	I.T.U.	Integration of satellite communications, seminar
	TA	1969	1969	1/*	Senegal	BC and T.V. services, seminar
Ethiopia	TA	1969	1969	1/*	I.T.U.	Integration of satellite communications, seminar

Gabon	TA	1969	1969	1/*	I.T.U.	Integration of satellite communications, seminar
	TA	1969	1969	1/*	Senegal	BC and T.V. services, seminar
	TA	1968	1968/69	1/7	Senegal	Radio
Gambia	TA	1969	1969	1/*	Ethiopia	Management techniques, seminar
	TA	1969	1969	1/*	I.T.U.	Integration of satellite communications, seminar
Ghana	TA	1969	1969	1/*	Senegal	BC and T.V. services, seminar
	TA	1969	1969	1/6	U.K., Netherlands	Sales, traffic
	TA	1969	1970/71	1/—	U.S.A.	Air conditioning in telecommunications installations
	TA	1969	1970/71	1/—	U.S.A., F.R. Germany, Netherlands, Sweden	Tariffs and traffic
	TA	1969	1969	1/*	Ethiopia	Management techniques in tel., seminar
	TA	1969	1969	1/*	Ethiopia	Management techniques in tel., seminar
Upper Volta	TA	1969	1969	1/*	I.T.U.	Integration of satellite communications, seminar
	TA	1969	1969	1/*	Senegal	BC and T.V. services, seminar
	TA	1967	1967/68/69	1/5	Madagascar	Long distance lines
	TA	1967	1967/68/69	1/6	Madagascar	Switching
	TA	1967	1967/68/69	1/5	Madagascar	Radio
	TA	1967	1967/68/69	1/6	Madagascar	Telegraphy
	TA	1967	1967/68/69	1/6	Madagascar	Telegraphy
	TA	1969	1969/70	1/—	Madagascar	Telecommunication engineering
	TA	1969	1970	1/—	Madagascar	Telecommunication engineering
	TA	1969	1969	1/*	Senegal	BC and T.V. services, seminar

Country	Progr. sector	Year of award	Implemented in	Man/ Months in 1969	Host country(ies)	Field of study
Kenya	TA	1969	1969	1/*	Ethiopia	Management techniques in tel., seminar
	TA	1969	1969	1/*	Ethiopia	Management techniques in tel., seminar
	TA	1969	1969	1/*	I.T.U.	Integration of satellite communications, seminar
	TA	1969	1969	1/*	Senegal	BC and T.V. services, seminar
Lesotho	TA	1969	1969	1/*	Ethiopia	Management techniques, seminar
Lebanon	TA	1969	1969	1/*	I.T.U.	Integration of satellite communications, seminar
Liberia	TA	1968	1969	1/9	U.S.A.	Administrative management
	TA	1967	1968/69/70	1/12	U.K.	Telephony
	TA	1967	1970	1/—	U.K.	Telecommunication engineering
	TA	1969	1969	1/*	Ethiopia	Management techniques, seminar
	TA	1969	1969	1/*	Ethiopia	Management techniques, seminar
	TA	1969	1969	1/*	I.T.U.	Integration of satellite communications, seminar
	TA	1969	1969	1/*	Senegal	BC and T.V. services, seminar
Libya	TA	1969	1969	1/*	Senegal	BC and T.V. services, seminar
	F in T	1968	1969/70	1/8	Italy	Transmission
Madagascar	TA	1969	1969	1/*	I.T.U.	Integration of satellite communications, seminar
	TA	1969	1969	1/*	Senegal	BC and T.V. services, seminar

Malawi	SF	1967	1967/68/69	1/7	France	Telecommunication engineering
	SF	1967	1967/68/69	1/7	France	Telecommunication engineering
	SF	1967	1967/68/69	1/8	France	Transmission, L.D.L.
	TA	1968	1969/70/71/72	1/3	U.K.	Telecommunication engineering
	TA	1968	1969/70/71/72	1/3	U.K.	Telecommunication engineering
	TA	1968	1969/70/71/72	1/3	U.K.	Telecommunication engineering
	TA	1968	1969/70/71/72	1/3	U.K.	Telecommunication engineering
	TA	1968	1969/70/71/72	1/3	U.K.	Telecommunication engineering
	TA	1968	1969/70/71/72	1/3	U.K.	Telecommunication engineering
	TA	1968	1969/70/71/72	1/3	U.K.	Telecommunication engineering
	TA	1968	1969/70/71/72	1/3	U.K.	Telecommunication engineering
	TA	1969	1969	1/*	Ethiopia	Management techniques, seminar
	TA	1969	1969	1/*	Ethiopia	Management techniques, seminar
	TA	1967	1967/68/69/70	1/2	Kenya	Telecommunication engineering
	TA	1967	1967/68/69/70	1/2	Kenya	Telecommunication engineering
	TA	1967	1967/68/69/70	1/2	Kenya	Telecommunication engineering
	TA	1966	1966/67/68/69/70	1/2	Kenya	Telecommunication engineering
	TA	1966	1966/67/68/69/70	1/2	Kenya	Telecommunication engineering
	TA	1969	1969/70	1/4	Kenya	Telecommunication engineering
	TA	1969	1969/70	1/4	Kenya	Telecommunication engineering
	TA	1969	1969/70	1/2	Kenya	Telecommunication engineering
	TA	1969	1969/70	1/1	Kenya	Telecommunication engineering
	TA	1969	1969/70	1/1	Kenya	Telecommunication engineering
	TA	1969	1969/70	1/1	Kenya	Telecommunication engineering
Mali	TA	1969	1969	1/*	I.T.U.	Integration of satellite communications, seminar
	TA	1969	1969	1/*	Senegal	BC and T.V. services, seminar
Morocco	TA	1969	1969	1/*	I.T.U.	Integration of satellite communications, seminar
	TA	1969	1969	1/*	Senegal	BC and T.V. services, seminar

Country	Progr. sector	Year of award	Implemented in	Man/ Months in 1969	Host country(ies)	Field of study
Mauritius	TA	1969	1969	1/*	Ethiopia	Management techniques, seminar
Mauritania	TA	1969	1969	1/*	Senegal	BC and T.V. services, seminar
Niger	TA	1968	1968/69/70	1/12	France	Telecommunication engineering
	TA	1968	1968/69	1/10	France	Telecommunication engineering
	TA	1969	1969	1/*	I.T.U.	Integration of satellite communications, seminar
	TA	1969	1969	1/*	Senegal	BC and T.V. services, seminar
Nigeria	TA	1969	1969	1/*	I.T.U.	Integration of satellite communications, seminar
	TA	1969	1969	1/*	Senegal	BC and T.V. services, seminar
Uganda	TA	1969	1969	1/*	Ethiopia	Management techniques in telecommunications, seminar
	TA	1969	1969	1/*	I.T.U.	Integration of satellite communications, seminar
U.A.R.	TA	1968	1968/69	1/4	France	Tropospheric scales propagation
	TA	1968	1969	1/4	U.S.A.	Telecommunication accounting
	TA	1968	1969	1/4	U.S.A.	Telecommunication accounting
	TA	1968	1969	1/4	U.S.A.	Computers in telecommunications
	TA	1968	1969	1/4	U.K., Sweden	Network planning
	TA	1968	1969	1/4	U.K., Sweden	Network planning
	TA	1968	1969	1/4	U.K., Sweden	Network planning
	TA	1968	1969	1/5	U.S.A.	Telecommunication accounting
	TA	1968	1969	1/4	U.K., Sweden	Network planning

	TA	1968	1969	1/5	U.S.A.	Computers in telecommunications
	TA	1968	1969	1/5	U.S.A.	Computers in telecommunications
	TA	1968	1969	1/6	U.K., Sweden	Trunk networks, HF carrier
	TA	1968	1969	1/6	Italy	Space propagation, earth stations
	TA	1968	1969	1/4	U.K., Sweden	Network planning
	TA	1968	1969	1/4	U.K., Sweden	Network planning
	TA	1968	1969/70	1/1	U.S.A.	Telecommunication accounting
	TA	1967	1969/70	1/3	Italy, F.R. Germany	Telex equipment
	TA	1968	1969/70	1/1	U.S.A.	Telecommunication accounting
	TA	1968	1969/70	1/1	U.S.A.	Telecommunication accounting
	TA	1969	1969	1/*	Ethiopia	Management techniques, seminar
	TA	1969	1969	1/*	Senegal	BC and T.V. services, seminar
Rwanda	TA	1969	1969	1/5	Netherlands	Telephone switching
	TA	1969	1969	1/5	Netherlands	Telephone switching
Senegal	TA	1969	1969	1/*	I.T.U.	Integration of satellite communications, seminar
Sierra Leone	TA	1969	1969	1/*	Ethiopia	Management techniques in tel., seminar
	TA	1969	1969	1/*	Ethiopia	Management techniques in tel., seminar
	TA	1969	1969	1/*	I.T.U.	Integration of satellite communications, seminar
	TA	1969	1969	1/*	Senegal	BC and T.V. services, seminar
Somalia	TA	1966	1967/68/69	1/9	Yugoslavia	Telecommunication engineering
	TA	1969	1969	1/*	Ethiopia	Management techniques, seminar
	TA	1969	1969	1/*	Ethiopia	Management techniques, seminar
	TA	1969	1969	1/*	I.T.U.	Integration of satellite communications, seminar
	TA	1969	1969	1/*	Senegal	BC and T.V. services, seminar

Country	Progr. sector	Year of award	Implemented in	Man/ Months in 1969	Host country(ies)	Field of study
Swaziland	TA	1969	1969	1/*	Ethiopia	Management techniques, seminar
Sudan	TA	1967	1967/68/69	1/5	U.K.	Radio
	TA	1967	1968/69	1/7	U.K.	Automatic telephony
	TA	1969	1969	1/*	Ethiopia	Management techniques in telecommunications, seminar
	TA	1969	1969	1/*)	Ethiopia	Management techniques in telecommunications, seminar
	TA	1969	1969	1/*)	Senegal	BC and T.V. services, seminar
	SF	1968	1968/69	1/11	Netherlands	Radio
	SF	1969	1970	1/—	F.R. of Germany, U.K.	Radio
Tanzania	TA	1969	1969	1/*	Ethiopia	Management techniques in telecommunications, seminar
	TA	1969	1969	1/*)	I.T.U.	Integration of satellite communications, seminar
	TA	1969	1969	1/*)	Senegal	BC and T.V. services, seminar
Chad	TA	1969	1970	1/—	Madagascar	Telecommunication engineering
	TA	1969	1970	1/—	Madagascar	Radio
	TA	1969	1970	1/—	Madagascar	Telecommunication systems
	TA	1969	1969	1/*)	Senegal	BC and T.V. services, seminar
Togo	TA	1969	1969	1/*)	Senegal	BC and T.V. services, seminar
	TA	1969	1969	1/*)	I.T.U.	Integration of satellite communications, seminar

Tunisia	TA	1969	1969	1/*	I.T.U.	Integration of satellite communications, seminar
	TA	1969	1969	1/6	France, Belgium, Sweden	Lines and networks
	TA	1968	1969	1/4	I.T.U., Switzerland, France	Frequency management
	TA	1968	1969	1/4	I.T.U., Switzerland, France	Frequency management
Zambia	TA	1969	1969	1/*	Senegal	BC and T.V. services, seminar
2. AMERICAS						
Argentina	TA	1968	1970	1/—	U.K., F.R. of Germany, U.S.A.	Tariffs
	TA	1968	1969	1/3	Italy	Tariffs
	TA	1968	1969	1/3	Italy	Tariffs
	TA	1969	1969	1/*	Venezuela	Management and network planning seminar
	TA	1969	1969	1/*	Venezuela	Management and network planning, seminar
	TA	1969	1969	1/*	I.T.U.	Integration of satellite communications, seminar
Bolivia	TA	1969	1969	1/*	I.T.U.	Integration of satellite communications, seminar
	TA	1968	1969/70	1/5	U.K., Italy	Microwaves
	TA	1968	1968/69/70	1/12	F.R. of Germany	Telex
	TA	1969	1970	1/—		Frequency Management
	TA	1969	1970	1/—		Telephone switching
	TA	1969	1970	1/—		Telecommunication systems
	TA	1969	1969	1/*	Venezuela	Telephone switching
	TA	1969	1969	1/*	Venezuela	Management and network planning, seminar
	TA	1969	1969	1/*	Venezuela	Management and network planning, seminar

Country	Progr. sector	Year of award	Implemented in	Man/ Months in 1969	Host country(ies)	Field of study
Brazil	TA	1969	1969	1/*	Venezuela	Management and network planning, seminar
	TA	1969	1969	1/*	Venezuela	Management and network planning, seminar
Chile	TA	1968	1969	1/3	U.K., Italy	L.D. communications
	TA	1967	1969/70	1/4	F.R. of Germany, Belgium, U.K., Mexico	Microwaves
	TA	1969	1970/71	1/—	France	Economics in telecommunications
	TA	1969	1970	1/—	F.R. of Germany, Belgium, U.K.	Microwaves (maintenance)
	TA	1969	1969	1/*	Venezuela	Management and network planning, seminar
	TA	1969	1969	1/*	Venezuela	Management and network planning, seminar
	TA	1969	1969	1/*	I.T.U.	Integration of satellite communications, seminar
Colombia	TA	1969	1969	1/*	Venezuela	Management and network planning, seminar
	TA	1969	1969	1/*	Venezuela	Management and network planning, seminar
	SF	1968	1968/69	1/7	Sweden, U.K., Spain	Telephony, switching, traffic
	SF	1968	1968/69	1/10	F.R. of Germany, Italy, Sweden, Belgium, U.K.	Telephony
	SF	1969	1969	1/2	U.K.	Microwaves
	SF	1968	1969/70/71/72	1/12	U.S.A.	Theoretical physics
	SF	1969	1969/70	1/4	U.K., Sweden, F.R. of Germany	Transmission and microwaves
	SF	1969	1969/70	1/6	U.S.A.	Antennas and propagation
	SF	1969	1969/70	1/4	U.K.	Microwave and carrier systems

Costa Rica	SF	1969	1970/71	1/—	Sweden, Mexico	Outside plant
	SF	1969	1969/70	1/3	U.K., F.R. of Germany, Italy	Telegraphy
	SF	1968	1968/69/70	1/12	U.S.A.	System theory
	SF	1969	1969/70	1/3	Netherlands	Electronic engineering
	TA	1968	1968/69	1/8	U.S.A.	Telephone networks
	TA	1969	1969	1/8	Spain, Sweden	Telephone switching
	TA	1969	1969	1/*	Venezuela	Management and network planning, seminar
	TA	1969	1969	1/*	Venezuela	Management and network planning, seminar
Cuba	TA	1969	1970	1/—	U.K.	Microwaves
	TA	1969	1970	1/—	U.K.	Multiplex
Dominican Republic	TA	1969	1969	1/*	Venezuela	Management and network planning, seminar
	TA	1969	1969	1/*	Venezuela	Management and network planning, seminar
El Salvador	TA	1969	1970	1/—	U.K.	Microwaves
	TA	1969	1969	1/*	Venezuela	Management and network planning, seminar
	TA	1969	1969	1/*	Venezuela	Management and network planning, seminar
Ecuador	TA	1969	1969	1/*	Venezuela	Management and network planning, seminar
	TA	1969	1969	1/*	Venezuela	Management and network planning, seminar
	TA	1969	1969	1/*	I.T.U.	Integration of satellite communications, seminar
Guatemala	TA	1969	1969	1/*	Venezuela	Management and network planning, seminar
	TA	1969	1969	1/*	Venezuela	Management and network planning, seminar

Country	Progr. sector	Year of award	Implemented in	Man/ Months in 1969	Host country(ies)	Field of study
Guyana	TA	1969	1970	1/—	I.T.U., U.K., Canada, U.S.A.	Frequency management
	TA	1969	1969	1/*	Venezuela	Management and network planning, seminar
	TA	1969	1969	1/*	Venezuela	Management and network planning, seminar
Honduras	TA	1969	1970	1/—	U.S.A., U.K.	Transmission engineering
	TA	1969	1969	1/*	Venezuela	Management and network planning, seminar
	TA	1969	1969	1/*	Venezuela	Management and network planning, seminar
Jamaica	TA	1969	1969	1/3	U.S.A.	Telecommunication administration
	TA	1968	1969/70	1/3	U.K., U.S.A.	Microwave, computer circuitry
	TA	1969	1969	1/*	Venezuela	Management and network planning, seminar
	TA	1969	1969	1/*	Venezuela	Management and network planning, seminar
	TA	1969	1969	1/*	I.T.U.	Integration of satellite communications, seminar
Mexico	TA	1968	1970	1/—	Japan	Microwaves
	TA	1968	1970	1/—	F.R. of Germany	Radio relay systems
	TA	1968	1970	1/—	F.R. of Germany	Computers in telecommunications
	TA	1968	1970	1/—	F.R. of Germany	Computers in telecommunications
	TA	1969	1969	1/*	Venezuela	Management and network planning, seminar
	TA	1969	1969	1/*	Venezuela	Management and network planning, seminar

Nicaragua	TA	1969	1970/71	1/—		Telecommunication practice
	TA	1969	1969	1/*	Venezuela	Management and network planning, seminar
	TA	1969	1969	1/*	Venezuela	Management and network planning, seminar
	TA	1969	1969	1/*	I.T.U.	Integration of satellite communications, seminar
Panama	TA	1969	1970/71	1/—		Telecommunication practice
	TA	1969	1969	1/*	Venezuela	Management and network planning, seminar
	TA	1969	1969	1/*	Venezuela	Management and network planning, seminar
Paraguay	TA	1969	1969	1/*	Venezuela	Management and network planning, seminar
	TA	1969	1969	1/*	Venezuela	Management and network planning, seminar
St. Lucia	TA	1969	1969	1/*	Venezuela	Management and network planning, seminar
Surinam	TA	1969	1970	1/—	Netherlands	Telephony (management, tariffs)
	TA	1969	1969	1/*	Venezuela	Management and network planning, seminar
	TA	1969	1969	1/*	Venezuela	Management and network planning, seminar
Trinidad and Tobago	TA	1969	1969	1/*	I.T.U.	Integration of satellite communications, seminar
Uruguay	TA	1969	1969	1/*	I.T.U.	Integration of satellite communications, seminar
	TA	1968	1969	1/6	Italy, France	Telex
	TA	1969	1969	1/*	Venezuela	Management and network planning, seminar
	TA	1969	1969	1/*	Venezuela	Management and network planning, seminar

Country	Progr. sector	Year of award	Implemented in	Man/ Months in 1969	Host country(ies)	Field of study
Venezuela	SF SF SF	1969 1968 1969	1970 1969 1969/70	1/— 1/3 1/2	Mexico Italy, Netherlands F.R. of Germany, Italy	Telephony Management vocational education Telegraphy
3. ASIA AND THE FAR EAST						
Afghanistan	TA TA SF SF SF TA	1969 1969 1969 1968 1969 1969	1970 1970 1969 1968/69 1969/70 1969	1/— 1/— 1/6 1/2 1/3 1/*	U.K. F.R. of Germany U.K., F.R. of Germany, U.S.S.R. Australia, Thailand, Malaysia U.K. I.T.U.	Outside plant Trunk exchanges Management of training centres Telephony training Automatic telephone exchanges Integration of satellite communications, seminar
Saudi Arabia	TA	1968	1969/70	1/4	Sweden, F.R. of Germany	Crossbar systems
Burma	TA TA TA TA	1968 1968 1968 1969	1970 1969/70 1970 1969	1/— 1/8 1/— 1/*	Sweden Sweden, Finland, Denmark Australia, Hong Kong I.T.U.	Automatic telephone networks Crossbar exchanges Telephone and telegraph carrier Integration of satellite communications, seminar
Ceylon	TA TA	1968 1969	1970 1970	1/— 1/—	Japan, India India, Japan	Automatic telephone exchanges Trunk and junction cable systems

	TA TA TA	1969 1969 1969	1970 1970 1970	1/— 1/— 1/—	Japan, Thailand Japan, Malaysia Japan, Malaysia	Crossbar switching exchanges Microwave Microwave
China	TA TA TA TA	1967 1969 1969 1969	1968/69 1969 1970 1970	1/5 1/6 1/— 1/—	U.S.A. U.S.A. U.S.A. U.S.A.	Subscriber trunk dialling Millimetric wave propagation Computer in telecommunications Computer in telecommunications
Korea	TA TA SF SF SF	1968 1969 1968 1968 1968	1969/70 1969 1969 1969 1969	1/4 1/* 1/2 1/2 1/2	U.S.A. I.T.U. Japan, Malaysia Japan, Malaysia Japan, Malaysia	Telecommunication engineering Integration of satellite communications, seminar Training methods Training methods Microwaves, training
India	TA TA TA TA TA TA SF	1968 1968 1968 1969 1969 1969 1968	1969 1969 1969 1969/70 1969/70 1969 1969	1/6 1/6 1/6 1/1 1/3 1/* 1/2	U.S.A. U.S.A. U.S.A. U.S.A. U.S.A. I.T.U. U.S.A., Canada, Switzerland	Electronic exchanges Crossbar systems Administration and planning Electronic switching Crossbar exchanges Integration of satellite communications, seminar Satellite communications
Indonesia	TA TA TA	1968 1968 1968	1969/70 1968/69 1969	1/11 1/2 1/6	Australia F.R. of Germany, Swe- den, Malaysia F.R. of Germany, Malaysia	Maritime telecommunication administration Telephone switching Carrier equipment

Country	Progr. sector	Year of award	Implemented in	Man/ Months in 1969	Host country(ies)	Field of study
Indonesia (<i>contd.</i>)	TA	1967	1968/69	1/3	Australia I.T.U.	Outside plant
	TA	1969	1969	1/*		Integration of satellite communications, seminar
Iran	TA	1968	1968/69	1/1	I.T.U., Switzerland	Frequency management
	TA	1968	1968/69	1/2	I.T.U., Switzerland, U.K.	Frequency management
	TA	1969	1969/70	1/4	Italy, India, Malaysia	Training in telecommunications
	TA	1969	1969	1/*	I.T.U.	Integration of satellite communications, seminar
Iraq	SF	1968	1969	1/6	U.K.	Telegraphy training
	SF	1968	1969	1/7	Australia	Lines and cables training
	SF	1967	1968/69	1/3	Pakistan, Malaysia, Japan, Australia	Telecommunication training
	SF	1968	1969	1/7	U.K.	Radio training
	SF	1968	1968/69	1/3	Japan	Carrier (telephony) training
	SF	1968	1968/69	1/3	Japan	Carrier (telephony) training
Jordan	TA	1969	1969	1/*	I.T.U.	Integration of satellite communications, seminar
Kuwait	TA	1968	1969/70	1/7	U.K.	Power equipment
Laos	TA	1968	1968/69/70	1/12	Malaysia	Radio and telephony
	TA	1969	1970/71	1/—	Australia	Radio
	TA	1969	1969	1/*	I.T.U.	Integration of satellite communications, seminar

Malaysia	TA	1968	1969	1/6	Australia	Crossbar system
	SF	1968	1969	1/5	Australia	Training, management techniques
	SF	1968	1969	1/8	Australia	Telegraphy, training
	SF	1968	1969	1/7	Australia	Switching
	SF	1968	1969	1/7	Australia	Line plants, training and teaching
	SF	1968	1969	1/4	U.K.	Radio, training
	SF	1968	1969/70	1/3	Australia	Training aids, training texts
	SF	1969	1970	1/—	Australia	Branch exchanges, signalling
	SF	1968	1969	1/6	Australia	Transmission, training
Nepal	TA	1969	1969	1/*	I.T.U.	Integration of satellite communications, seminar
Pakistan	TA	1968	1969/70	1/1	F.R. of Germany	EMD exchanges
	TA	1968	1970	1/—	U.K.	Radio terminals
	TA	1968	1969/70	1/1	F.R. of Germany	EMD exchanges
	TA	1968	1969/70	1/1	F.R. of Germany	EMD exchanges
	TA	1968	1970	1/—	F.R. of Germany	EMD exchanges
	TA	1969	1969	1/*	I.T.U.	Integration of satellite communications, seminar
	SF ¹⁾	1968	1968/69	1/7	F.R. of Germany	Trunk system planning
	SF ¹⁾	1968	1968/69	1/7	F.R. of Germany	Telephone system planning
	SF ¹⁾	1968	1968/69	1/7	F.R. of Germany	L.D. trunk system planning
	SF ¹⁾	1968	1968/69	1/7	F.R. of Germany	Telephone systems
	SF ¹⁾	1968	1968/69	1/7	F.R. of Germany	Traffic
Philippines	TA	1968	1968/69	1/2	U.K., Japan,	Satellite communications
	TA	1968	1969	1/2	China, Korea, Japan	Training in telecommunications

Country	Progr. sector	Year of award	Implemented in	Man/ Months in 1969	Host country(ies)	Field of study
Philippines (<i>contd.</i>)	TA	1969	1970	1/—	Japan, Italy, Denmark, U.S.A.	Telecommunication planning
	TA	1969	1970	1/—	U.S.A., U.K.	Microwave networks planning
	TA	1969	1969	1/*	I.T.U.	Integration of satellite communications, seminar
Samoa	TA	1969	1969	1/*	I.T.U.	Integration of satellite communications, seminar
Syria	TA	1968	1970	1/—	Netherlands	Automatic exchanges
	TA	1968	1970	1/—	France, U.K.	Local telephone networks
	TA	1969	1969	1/*	I.T.U.	Integration of satellite communications, seminar
Thailand	TA	1969	1969	1/*	I.T.U.	Integration of satellite communications, seminar
	TA	1969	1970	1/—	U.S.A., Australia	Telephone traffic engineering
	TA	1968	1969/70	1/4	U.K., Singapore, Malaysia	Telephone operation, national and international
	TA	1969	1969/70	1/4	U.K., Sweden, U.S.A. Singapore	Telephone operation supervision
	TA	1969	1970	1/—	U.S.A.	Satellite earth stations
	SF	1968	1968/69	1/2	Denmark	HF/VHF
	SF	1968	1968/69	1/6	Australia, Japan, Malaysia	Traffic engineering and operation
	SF	1968	1969	1/4	Malaysia, Singapore, Hong Kong, Japan	Traffic engineering and operation

	SF	1968	1968/69	1/1	Sweden	Stores and finance
	SF	1969	1970	1/—	Japan	Telegraphy
	SF	1969	1970	1/—	India, Japan, Pakistan	Telecommunication techniques
Tonga	TA	1967	1968/69	1/2	U.K.	Radio, radar
4. EUROPE						
Bulgaria	TA	1969	1969/70	1/1	France	Telephony
	TA	1969	1969	1/*	I.T.U.	Integration of satellite communications, seminar
Spain	TA	1968	1969	1/2	Switzerland, Italy	Economics, accounting
	TA	1968	1969	1/2	Switzerland, Italy	Telegraph accounting
	TA	1968	1969	1/2	Switzerland, Italy	Telegraph accounting
	TA	1969	1970	1/—	France, Italy	Radio
	TA	1969	1970	1/—	France	Telex
	TA	1969	1970	1/—	France	Accounting
Greece	TA	1967	1968/69	1/2	U.K.	Telephone services administration
	TA	1969	1970	1/—	U.K.	Coastal radio centres
	TA	1969	1970	1/—	U.K.	Coastal radio centres
Hungary	TA	1968	1969	1/4	Sweden	Crossbar exchanges
	TA	1968	1968/69	1/4	Sweden, Italy	Data transmission
	TA	1968	1968/69	1/4	France	Colour T.V., transmission by satellite
	TA	1968	1968/69	1/4	France	Telephone networks
	TA	1968	1968/69	1/3	France	Telephone networks

Country	Progr. sector	Year of award	Implemented in	Man/ Months in 1969	Host country(ies)	Field of study
Hungary (<i>contd.</i>)	TA	1968	1969/70	1/1	France	Switching
	TA	1969	1969	1/*	I.T.U.	Integration of satellite communications, seminar
Malta	TA	1969	1969	1/*	I.T.U.	Integration of satellite communications, seminar
Poland	TA	1969	1970	1/—	U.K.	Radio mobile services
Rumania	TA	1968	1968/69	1/2	France	VHF, UHF
	TA	1968	1969	1/1	France	Colour T.V.
	TA	1969	1970	1/—	U.S.A.	Data transmission
Czechoslovakia	TA	1969	1970	1/—	F.R. of Germany, France	Radio relay systems
	TA	1969	1970	1/—	France	Data transmission and collection
	TA	1969	1970	1/—	Switzerland	Work methods
	TA	1969	1970	1/—	Switzerland	Trunk and international telephone traffic
	TA	1969	1970	1/—	F.R. of Germany, Sweden	Mobile radio services
	TA	1969	1970	1/—	Switzerland	Management in telecommunications
	TA	1969	1970	1/—	F.R. of Germany, Sweden	Mobile radio services
	TA	1969	1970	1/—	Switzerland	Trunk and international traffic
	TA	1969	1970	1/—	U.K.	Data transmission and collection
	TA	1969	1970	1/—	F.R. of Germany, France	Radio relay systems
	TA	1969	1969	1/*	I.T.U.	Integration of satellite communications, seminar

Turkey	SF	1969	1969	1/4	Canada	Carrier equipment
	SF	1969	1969/70	1/1	Canada	Telephony
	SF	1969	1970	1/—	Sweden, Netherlands	Telephone exchanges
	SF	1969	1969/70	1/3	F.R. of Germany	Radio links
	SF	1969	1969/70	1/1	Ireland	Telegraphy
	TA	1969	1969	1/*	I.T.U.	Integration of satellite communications, seminar

*) The duration of a seminar was always less than one month.

¹⁾ Fellowships administered by the I.T.U. against the funds provided by the International Bank for Reconstruction and Development under a Special Fund project for which the Bank is Executing Agency.

TABLE 3

Projects approved by the U.N. Special Fund (S.F.) for which I.T.U. is Executing Agency as on 31.12.1969
(in the order of the dates of approval of projects)

Country	Description of Project	Date of Approval by S.F.	Duration in years	Assistance being provided by S.F.			Estimated Project Costs		
				No. experts man/months	No. fellowships man/months	Value of equipment	Special Fund Allocation	Government counterpart contribution	Total
1	2	3	4	5	6	7	8	9	10
<i>Approved Projects in operation:</i>									
Iraq	Telecommunication Training Centre, Baghdad	Jan. 1962	5	9/414	8/78	315,000	1,323,700	2,209,000	3,532,700
Venezuela	Training Centre for Telecommunications, Caracas	Jan. 1963	4	7/417	11/81	245,000	1,353,020	3,768,000	5,121,020
Thailand	Telecommunications Training, Test and Development Centre, Bangkok	Jun. 1963	5	10/365	13/96	297,000	1,143,100	1,225,000	2,368,100
Afghanistan	Telecommunication Training Centre, Kabul	Jan. 1964	5	9/335	3/18	295,000	914,400	443,000	1,357,400
Algeria	National School for Telecommunication Studies, Algiers	Jan. 1964	5	9/397	11/147	195,000	1,094,600	4,432,000	5,526,600
Colombia	Electronics and Telecommunications Training and Research, Popayan and Bogota	Jan. 1964	5	8/372	20/240	380,000	1,340,900	3,630,000	4,970,900
Ghana	Telecommunication Training Centre, Accra	Jan. 1964	5	8/360	8/90	245,000	1,096,200	1,773,000	2,869,200

1	2	3	4	5	6	7	8	9	10
Madagascar	National Institute of Telecommunications and Post, Antanetibé . .	Jan. 1964	5	6/274	8/132	197,000	871,370	1,577,000	2,448,370
India	Centre for Research and Training on the Use of Satellite Communications, Ahmedabad	Jun. 1964	4	7/36	3/14	535,000	692,804	412,000	1,104,804
REG-67	Pilot Telecommunication Circuit, Ethiopia/Ivory Coast	Jun. 1965	2½	8/154	10/61	435,500	832,470	278,000	1,104,470
Congo (Kinshasa)	National School of Telecommunications, Kinshasa	Jan. 1966	6	9/552	11/156	245,000	1,741,800	2,874,000	4,615,800
Saudi Arabia	Telecommunications and Broadcasting Training Centre, Jeddah . . .	Jan. 1967	5	11/372	12/144	45,000	1,127,000	3,810,000	4,937,000
Chile	Telecommunications Training Centre, Santiago	Jan. 1967	5	8/324	9/126	295,000	1,214,600	1,258,000	2,472,600
Malaysia	Telecommunications Training Centre (Phase II)	Jan. 1967	3	9/270	—	74,000	733,200	677,000	1,410,200
Turkey	National Telecommunications Training Centre, Ankara	Jan. 1967	5	10/420	15/180	320,000	1,432,300	3,059,000	4,491,300
Indonesia	Telecommunications Training Centre, Bandung	Jan. 1968	3	8/204	8/60	543,500	1,156,000	1,204,000	2,360,000
Pakistan	Telecommunications Staff College, Haripur	Jan. 1968	5	6/192	15/96	332,600	894,600	2,461,000	3,355,600

1	2	3	4	5	6	7	8	9	10
Sudan	Post and Telegraph Centre, Khartoum (Phase II)	Jan. 1968	3	9/294	8/66	150,000	878,600	850,000	1,728,600
Nigeria	Post and Telecommunications Training Centre, Oshodi	Jun. 1968	3	9/240	16/108	295,000	1,021,600	4,883,000	5,904,600
Paraguay	Assistance in the Implementation of the National Telecommunication Plan	Jun. 1968	3	4/78	5/66	4,000	241,600	107,000	348,600
Asia Regional	Asian Telecommunication Network—Feasibility Study.	Jun. 1969	2	5/96	104/156	80,000	538,200	42,000	580,200
Thailand	Telecommunications Training, Test and Development Centre, Bangkok (Phase II).	Jun. 1969	3	9/192	10/60	65,000	608,800	928,000	1,536,800
UAR	Technical Training and Research Inst. for Telecommunications, Cairo	Jun. 1969	4	5/168	27/132	400,000	950,200	2,651,000	3,601,200

ANNEX 6

SITUATION OF THE DEBTORS TO THE UNION ON 31 DECEMBER 1969

	Balances due for arrears	Relating to the years
	Swiss francs	
Bolivia	1,584,471.15	1950-1968
Brazil	73,468.85	1966-1968
Cambodia	23,851.87	1967-1968
Ceylon	10,312.40	1966-1968
Chile	511,282.70	1962-1968
Costa Rica	270,368.30	1959-1968
Dominican Republic	846,011.70	1959-1968
El Salvador (Republic of)	1,062,899.45	1961-1968
Ecuador	25,274.45	1964-1968
Haiti (Republic of)	439,026.10	1955-1968
Honduras (Republic of)	104,604.92	1963-1968
Nicaragua	55,779.—	1967-1968
Panama	95,697.77	1962-1968
Peru	238,161.45	1966-1968
Somali Republic	99,821.18	1966-1968
Uruguay	304,268.76	1962-1968
Yemen	271,151.30	1961-1968
Empresa Nacional de Telecom., Bogota	16,164.45	1963-1968
ENTEL, Rio de Janeiro	26,502.55	1964-1968
	<hr/>	
	6,059,118.35	
Other debtors	94,124.41	
	<hr/>	
	6,153,242.76	
	<hr/>	