



**Journal Title:** Telecommunication Journal

**Journal Issue:** vol.35 (no. 12), 1968

**Article Title:** The IVth Plenary Assembly of the CCITT

**Page number(s):** pp. 631-637

This electronic version (PDF) was scanned by the International Telecommunication Union (ITU) Library & Archives Service from an original paper document in the ITU Library & Archives collections.

La présente version électronique (PDF) a été numérisée par le Service de la bibliothèque et des archives de l'Union internationale des télécommunications (UIT) à partir d'un document papier original des collections de ce service.

Esta versión electrónica (PDF) ha sido escaneada por el Servicio de Biblioteca y Archivos de la Unión Internacional de Telecomunicaciones (UIT) a partir de un documento impreso original de las colecciones del Servicio de Biblioteca y Archivos de la UIT.

(ITU) للاتصالات الدولي الاتحاد في والمحفوظات المكتبة قسم أجراه الضوئي بالمسح تصوير نتاج (PDF) الإلكترونية النسخة هذه والمحفوظات المكتبة قسم في المتوفرة الوثائق ضمن أصلية ورقية وثيقة من نقلاً.

此电子版（PDF版本）由国际电信联盟（ITU）图书馆和档案室利用存于该处的纸质文件扫描提供。

Настоящий электронный вариант (PDF) был подготовлен в библиотечно-архивной службе Международного союза электросвязи путем сканирования исходного документа в бумажной форме из библиотечно-архивной службы МСЭ.

## The IVth Plenary Assembly of the CCITT



**I**n response to the generous invitation of the Government of the Argentine Republic, the IVth Plenary Assembly of the CCITT and the final meetings of the Study Groups which preceded it were held at Mar del Plata from 23 September to 25 October 1968.

*Lt. Col. R.R. Albariño*

### 1. The setting

Mar del Plata is a beautiful city of 350 000 inhabitants on the Atlantic coast, 400 km south of Buenos Aires. While it is an important industrial and commercial centre with a very lively fishing port, it is mainly a well-known seaside resort visited each year by more than two million tourists. Despite the sometimes inclement weather experienced there during September and October the participants in the Plenary Assembly greatly appreciated the charms of Mar del Plata and the surrounding country.

The meetings were held in the vast rooms of the Hotel Provincial which had been very tastefully fitted out to provide a congenial setting for, and facilitate, the work of the delegates. The Assembly had four meeting rooms with simultaneous interpretation facilities, the largest accommodating 400 and the smallest 80, together with four committee rooms and a large number of offices and workshops for the Secretariat.

Apart from these quite remarkable facilities, the delegates were the object of constant solicitude and delicate attentions on the part of their hosts; in a word, all the participants were able to appreciate the incomparable Argentine hospitality which also expressed itself in frequent receptions and excursions that created a most favourable atmosphere for the success of the meeting.

Tribute should be paid to those who made this complete success possible, namely the Organizing Committee set up by the Argentine Administration, among whose members I should like to mention in particular the Chairman, Mr. Huguier Rocca, and the General Secretary, Mr. de Paola.

### 2. Organization and proceedings

The Study Groups met from 23 September to 11 October, each of them for a few days under its Chairman, in order to finalize their reports to the Plenary Assembly. These various meetings were attended in all by 602 delegates, experts or observers, representing 72 administrations, 26 recognized private operating agencies, 36 scientific or industrial organizations and 15 international organizations.

The Plenary Assembly proper met from 14 to 25 October: 72 Members of the ITU and 15 international organizations were represented, making a total of 309 delegates or observers.

In accordance with the General Regulations annexed to the International Telecommunication Convention, the chairmanship of the Plenary Assembly was held by the Head of the Argentine delegation, Lt. Col. R. R. Albariño, Director-General of Co-ordination in the Office of the Secretary of State for Communications. I had the good fortune to work in close collaboration with him and feel well fitted to accord the highest praise to the great conscientiousness with which he prepared the meetings, and the competence, courtesy and authority with which he presided over the proceedings. This conviction is, I know, shared by all the delegates.

Mr. Albariño was assisted in his exacting task by five Vice-Chairmen elected by the Assembly and drawn from the five geographical regions of the ITU: Messrs. M. Ben Abdellah (Morocco), R. T. Black (United States), T. Kashiwagi (Japan), A. B. Björel (Sweden) and A. Poukhalski (USSR).

The Assembly set up four Committees to prepare and submit proposals on various problems of major importance:

**Committee A:** Organization of the Study Groups and methods of work

Chairman and Vice-Chairman; Messrs. M. B. Williams (United Kingdom) and Z. Szpigler (Poland);

**Committee B:** Programme of work of the Study Groups

Chairman and Vice-Chairman; Messrs. R. C. Sœur (France) and Saw Mamadou Aliou (Mali);

**Committee C:** Budget control

Chairman and Vice-Chairman: Messrs. O. H. Mohamed (Pakistan) and J. A. Wiltgen (Brazil);

**Committee D:** Technical co-operation

Chairman and Vice-Chairman: Messrs. Ingedayehu Girmaw (Ethiopia) and G. E. de Silva Ellawela (Ceylon).

The inaugural meeting of the Plenary Assembly, held on 14 October, was greatly honoured by the presence of Dr. Borda, Minister of the Interior, General Teglia, Secretary of State for Communications, Col. O. Dietrich, President of the National Telecommunication Undertaking and of various eminent civil and military persons of Mar del Plata. General Teglia was also good enough to attend the closing meeting on 25 October.

Mr. Mohamed Mili, Secretary-General of the ITU, took part in all the meetings of the Plenary Assembly itself. The CCIR was represented by its Senior Counsellor, Mr. N. V. Gadadhar.

The Secretariat of the meetings was provided by a staff of 167, roughly half of which were ITU staff members or recruited from Geneva, while the other half was recruited locally or seconded free of charge by the host administration. The local staff displayed exemplary competence and devotion and worked closely and on the best of terms with the staff from Geneva.

The work of the Plenary Assembly falls into two quite distinct groups:

- consideration and approval of Study Group reports with the issue of the corresponding recommendations and choice of new questions for study;
- discussions and adoption of proposals on general administration of the CCITT (organization, programmes, methods of work, financial needs), emanating either from Plenary Assembly Committees A, B, C and D or from other sources.

The main results obtained in these two fields are reviewed below.

### 3. Results of the work of Study Groups

#### 3.1 Telegraphy and data transmission

Following a study conducted jointly by the CCITT and the International Organization for Standardization (ISO), the IVth Plenary Assembly adopted a new telegraph alphabet No. 5 for use in message and data transmission. This alphabet corresponds to a two-condition, seven-unit code with an additional unit for error detection. It is



initially intended for use on leased circuits and not as a substitute for alphabet No. 2. The conditions of its use in synchronous and start-stop systems were defined.

The CCITT has taken a definite trend towards data transmission with ever higher bit rates, and, while leaving freedom of choice to leased circuit users, studied and described two modulator/demodulators (modems) operating at 2400 bits per second and issued a recommendation on the use of a group for data transmission at 48 000 bits/second.

It may be hoped that a lasting standardization has been reached for the interface between the modem and the data processing equipment, regardless of the bit rate, mode of transmission or even type of circuit.

For the future development of data transmission, the Plenary Assembly decided to study two types of network: telegraph-type networks using alphabet No. 5 and high modulation speeds and integrated networks using the new technique of pulse code modulation.

For telegraphy proper, recommendations were issued on the formats to be used in message retransmission networks and on links between genex and message retransmission networks.

Studies have been launched on automatic calculation of the number of words which could be performed by computers installed in switching centres, after some adjustment of the present regulations governing word counting.

On the operating side, mention should be made of agreements on the use and layout of credit cards, the duration of automatic telex calls for inclusion in international accounts and on the adoption of the minute charged as the basis for traffic evaluation. A draft revision of the Telegraph Regulations has also been produced for submission to a forthcoming Administrative Conference.

With regard to special telegraph circuits, a system of synchronous transmission on long submarine cables has been standardized and a charging system established based on the real duration of automatic telex calls on HF circuits with ARQ.

Finally, in facsimile telegraphy, the CCITT standardized the characteristics of an automatic black and white transmission service between telephone subscribers, improved the standardized test chart and decided to study transmission in colour.

### 3.2 Telephone transmission

Study Group XII amended the recommendation on the permissible propagation time in an international telephone connexion, raising this time from 250 to 400 milliseconds, an extremely important decision for the development of satellite communication. The Study Group, however, specified the conditions to be observed and precautions to be taken with connexions where the mean one-way propagation time is between 300 and 400 milliseconds.

The limits for the reference equivalents in national systems which were applicable to 95% of international calls are now recommended for 97% of them.

The new "transmission plan" concerning CCITT recommendations issued in 1964 on the basis of studies entrusted to Study Group XVI from 1960 onwards, may now be regarded as practically complete so far as switched circuits in the public telephone network are concerned. Study Group XVI is to pursue the study of integration in this network of circuits set up *via* communication satellites and circuits using pulse code modulation systems; it will also study the transmission characteristics of leased circuits.

Study Group XV amplified the recommendations concerning carrier systems on coaxial pairs in land and submarine cables. For the first time the CCITT issued a recommendation on systems employing pulse code modulation (PCM) and was able to unify some fundamental characteristics of such systems. As will be seen later, a new Study Group has been set up to conduct studies in this field which will cover the transmission of all types of signal (telephone, telegraph, facsimile, data, sound and television broadcasting) and deal with the structure of future integrated networks in which digital transmission and time division switching will be closely associated.

Special Autonomous Working Party No. 3 (GAS 3) prepared for publication in 1969 a handbook which will be entitled "Economic and technical aspects of the choice of transmission systems" and may be expected to be of great use to the developing countries.

### 3.3 Telephone operation and switching

In telephone operation the main question studied by Study Group II was the definition of new procedures for international accounting between administrations (or

private operating agencies). The new basic principles introduced are, on the one hand, remuneration on the basis no longer of traffic units but of the circuits provided and, on the other hand, the limitation of remuneration to the first transit centre when a call passes by automatic switching through several of such centres. These provisions, which constitute a radical departure from the present rules, will considerably simplify the implementation of the international routing plan.

In addition, Study Group II, in pursuance of decisions of the Plenipotentiary Conference of 1965, prepared a considerably briefer draft version of the Telephone Regulations. At the same time, it drafted new "Instructions for the international telephone service" applying both to the European and the continental service. Finally, it fixed the rules to govern the operation of, and charging for, intercontinental television transmissions *via* satellites and produced recommendations on the layout and use of credit cards.

Study Group III concerned itself mainly with the terms of lease of circuits and, on its proposal, the Plenary Assembly issued four recommendations enunciating these leasing rules. Furthermore, in response in particular to the wishes expressed by the developing countries, the Study Group considered the conditions in which costing studies and the establishment of certain general tariff principles might be undertaken in the various regions of the world. The actual provisions which the Plenary Assembly decided to adopt on these points will be described later.

Study Group XI, in close liaison with Study Group XIII, undertook and completed the study of a new international telephone signalling system called System No. 6. The effort involved and the success achieved are unprecedented, for whereas previous CCITT studies in this field were based on the experience already possessed by certain countries, System No. 6 is a modern data-transmission-type, common-channel signalling system based on completely original principles. A complete specification of this system was adopted and it will undergo thorough trials during the period 1969-1972.

A specification was also adopted for a System No. 5 *bis* of the conventional multi-frequency signalling type. This system is a variant, with additional operating facili-





General view of Mar del Plata. In the foreground on the left the Hotel Provincial, seat of the Plenary Assembly; on the right the Casino



View of the Chairman's table during the inaugural meeting. From right to left: Messrs. M. Mili, ITU Secretary-General, Dr. Borda, Minister of the Interior, General Tegli, Secretary of State for Communications, J. Rouvière, Director of the CCITT, Lieutenant-Colonel Albariño, Chairman of the IVth Plenary Assembly, and N. V. Gadadhar, Counsellor of the CCIR



Entrance to the Hotel Provincial with the emblem chosen for the IVth Plenary Assembly over the door

ties, of System No. 5 defined by the IIIrd Plenary Assembly.

Finally, the IVth Plenary Assembly also standardized for regional purposes two multifrequency inter-register signalling systems valid both for national use down to

local exchange level and for international operation in a specific region. These systems, which will be called "Regional Systems Nos. 1 and 2", correspond respectively to the system used in the North-American continent and to one evolved

from the studies of a certain number of European countries, which is known as the MFC (Berne) System."

Apart from assisting Study Group XI in defining the operating facilities of the new signalling systems, Study Group XIII re-



vised the international routing plan with a view to giving it greater flexibility and taking the use of satellite circuits into account. It further undertook studies on switching maintenance and supervision of service quality and on the human factors to be taken into account, particularly with a fully automatic international service.

Special Autonomous Working Party No. 1 (GAS 1) terminated its work on national automatic networks by publishing Part II of its manual which deals with questions of buildings, power supply, protection of staff and equipment, etc.

Special Autonomous Working Party No. 2 (GAS 2) likewise completed its task with the preparation of a detailed manual on local networks.

As for the handbook of Special Autonomous Working Party No. 5 (GAS 5) which has just appeared, this deals in particular with such questions as traffic growth as a function of economic relations, estimating the investment required for telecommunications and the corresponding methods of financing, and the importance accorded to telecommunications development in the various countries. This Working Party will continue its studies during the next period, concentrating in particular on the priority to be given to the different sectors of telecommunications and on the assembly of documentation on national tariffs.

## 3.4 Maintenance, protection, definitions and symbols

Study Group IV, which is concerned with line and circuit maintenance, specified an improved automatic measuring apparatus for world-wide use, established a system of supervision of circuit quality from a transmission standpoint, laid the bases, in collaboration with Study Group XIII, of a general maintenance organization for both switching and transmission capable of adoption on an international scale, regardless of national practices. Finally, it worked with sound broadcasting organizations on the maintenance of sound programme circuits.

Study Group V continued its studies on telecommunication line protection, in collaboration with the organizations competent in electric power fields, completed the preparation of a work on the effects of lightning discharges and considered, in concert with the other Study Groups concerned, the publication of a booklet on earthing.

## Study Group Chairmen and Vice-Chairmen appointed by the IVth Plenary Assembly

1. Ordinary Study Groups			
No.	Title	Chairmen Messrs.	Vice-Chairmen Messrs.
I	Telegraph operation and tariffs	A. GOMES (United States)	S. PARAMOR (United Kingdom)
II <sup>1</sup>	Telephone operation and tariffs	R. RÜTSCHI (Switzerland)	N. J. M. BIEZEN (Netherlands)
III	General tariff principles	L. BURTZ (France)	D. ROBERTSON (Canada)
IV <sup>1</sup>	Maintenance of lines and circuits	J. VALLOTON (Switzerland)	J. KIIL (Denmark)
V	Protection against electro-magnetic disturbances	H. RIEDEL (Federal Republic of Germany)	G. GRATTA (Italy)
VI	Protection and specifications for cable sheaths	J. R. WALTERS (United Kingdom)	A. BLANCHI (France)
VII	Definitions and symbols	M. DUCOMMUN (Switzerland) <sup>2</sup>	
VIII	Telegraph equipment	G. BAGGENSTOS (Switzerland)	I. SAVITSKI (USSR)
IX	Telegraph transmission quality	R. BROWN (Australia)	B. KUBIN (Czechoslovakia)
X	Telegraph switching	A. JANSEN (Netherlands)	D. FAUGERAS (France)
XI <sup>1</sup>	Telephone switching and signalling	A. JOUTY (France)	TCHOUTA MOUSSA (Cameroon)
XII <sup>1</sup>	Telephone transmission performance	F. KROUTL (Czechoslovakia)	F. ANDREWS (United States)
XIII <sup>1</sup>	Automatic and semi-automatic telephone networks	I. A. NEWSTEAD (Australia)	S. KUHN (Popular Republic of Poland)
XIV	Facsimile telegraphy	H. BITTER (Federal Republic of Germany)	W. WINOGRADOW (People's Republic of Poland)
XV	Transmission systems	F. JOB (France)	D. GAGLIARDI (Italy)
XVI <sup>1</sup>	Telephone circuits	J. C. BILLEN (United Kingdom)	A. SERRURE (Belgium)

<sup>1</sup> Mr. E. C. Laird (United States) was appointed Chairman of the Co-ordinating Group for these Study Groups on problems concerning the world automatic and semi-automatic telephone network.

<sup>2</sup> One person only was appointed pending a decision of the CCIR on the possible merging of CCITT Study Group VII and CCIR Study Group XIV.

Study Group VI produced recommendations for the protection of underground cables against corrosion, to take account in particular of the use of plastics for cable sheathing. It also prepared a booklet on maintenance methods for pressurized cables.

Finally, Study Group VII confined its activities to assisting the International Electrotechnical Commission (IEC) in compiling a single list of graphical symbols and the next edition of the international electrotechnical vocabulary.

2. Special Study Groups

Symbol	Title	Chairmen Messrs.	Vice-Chairmen Messrs.
Sp.A	Data transmission	J. RHODES (United Kingdom)	V. N. VAUGHAN (United States)
Sp.B	Abolished	—	—
Sp.C	Circuit noise (Joint CCITT/CCIR Study Group administered by the CCITT)	R. KAISER (Federal Republic of Germany)	T. MATSUMOTO <sup>3</sup> (Japan)
Sp.D	Pulse code modulation	R. BOYD (United States)	G. BAUDRIN (Belgium)
CMTT	Television transmission (Joint CCIR/CCITT Study Group administered by the CCIR)	Y. ANGEL (France)	W. SIMPSON (United Kingdom)

3. Plan Committees  
(Joint CCITT/CCIR administered by the CCITT)

Title	Chairmen Messrs.	Vice-Chairmen Messrs.
World Plan Committee	A. BIGI (Italy)	O. H. MOHAMED <sup>3</sup> (Pakistan)
Regional Plan Committee for Africa	L. DIA (Senegal)	I. GIRMAW <sup>3</sup> (Ethiopia)
Regional Plan Committee for Latin America	C. NUÑEZ (Mexico)	R. SEVERINI <sup>3</sup> (Argentina)
Regional Plan Committee for Asia and Oceania	A. ZAIDAN (Saudi Arabia)	S. FUJIKI <sup>3</sup> (Japan)
Regional Plan Committee for Europe and the Mediterranean Basin	T. NOAT (France)	H. DIETRICH <sup>3</sup> (People's Republic of Poland)

4. Special Autonomous Working Parties

Symbol	Title	Chairmen Messrs.	Vice-Chairmen Messrs.
GAS 3	Economic and technical compar- ison of transmission systems	AOUD (Morocco)	G. WALLENSTEIN (United States)
GAS 4	Primary power sources	F. BENTLEY (Canada)	M. LINDEN (Sweden)
GAS 5	Economic conditions and telecom- munication development	H. LONGQUEUE (France)	E. GALLI (Argentina)

4. Result of the work of the Plenary Assem-  
bly Committees and other decisions

4.1 Organization and methods of work

The Plenary Assembly, through the medium of its Committee A, made a careful examination of the disquieting situation created by the constant increase in the number of CCITT meetings and in the resultant heavy burdens both on the Union and its Member countries. To give some idea of this workload, I would mention that during the period between the IIIrd and IVth Plenary Assemblies and not including the latter, the CCITT held 1107 days of meetings and published 2015 contributions which were distributed to 8000 Study Group members. Committee A set itself the task of considering whether such a situation could be improved by reorganizing the Study Groups and reforming their methods of work. In preparation for this task, the difficulty of which I was fully aware, I had taken the step of first asking the Members of the Union to send me in writing their proposals for such reform and had had these proposals studied by a meeting of Study Group Chairmen and Vice-Chairmen convened in Geneva in June 1968. The conclusions of this meeting were submitted to Committee A. Despite these precautions and the efforts of Committee A, the results were rather disappointing and no agreement could be reached on any radical reforms. Perhaps one may draw the conclusion from this that the present organization, established at the Ist CCITT Plenary Assembly and modified somewhat at the IIInd and IIIrd Assemblies, is not all that bad and that the increase in the workload is an inevitable consequence of the development of telecommunications and of the rapid progress in their technique.

The IVth Plenary Assembly, to its credit, refused to be content with that over-simple interpretation and accordingly adopted a resolution on the setting up of a Group of ten experts (two per geographical region) to study between now and the Vth Plenary Assembly any changes to be made in the organization and methods of work of the CCITT. These experts will be appointed by the Administrative Council from the candidates presented by Member countries which have already been consulted for this purpose.

However, pending the conclusions of the Group of ten experts, the IVth Plenary Assembly already made some slight changes

<sup>3</sup> Provisional appointment to be confirmed by the next CCIR Plenary Assembly.



in the existing state of affairs. Firstly, with regard to the organization of the Study Groups, it decided to abolish Special Study Group B (World automatic and semi-automatic telephone network) and to replace it by one of the Co-ordination Groups which will be discussed further on in connexion with methods of work. On the other hand, the scope of the problems raised by the development of pulse code modulation led it to set up a new Study Group, known as Special Study Group D, to investigate these problems. Furthermore, the Plenary Assembly approved the creation of four Regional Tariff Groups to be attached to Study Group III (one for Africa, one for Latin America, another for Asia and Oceania and the fourth for Europe). Also, on the proposal of Committee B and after study by that Committee of the questions common to several Study Groups, it set up some Joint Working Parties.

As far as methods of work are concerned, minor changes were made in the additional Rules of Procedure of the CCITT to amplify and reinforce the existing provisions on the submission of contributions, their analysis in the form of tables recapitulating the various solutions proposed, the preparation of draft replies to straightforward questions and publication of draft plans of work for meetings.

The more substantial innovations it made were to provide for the study of a question within a particular Study Group by a special rapporteur or small team of rapporteurs and, in the case of questions concerning more than one Study Group but not amenable to the conventional solution of Joint Working Parties, the establishment of Co-ordination Groups by families of Study Groups which would consist of the Study Group Chairmen and Vice-Chairmen and would co-ordinate the joint studies. As already mentioned, such a Co-ordination Group has already been set up in place of the former Special Study Group B and others may be created as the need occurs.

A still more important result was obtained with regard to the procedure for provisional recommendations. It was agreed that if a draft recommendation on an urgent problem could be completed during the period between two Plenary Assemblies with the unanimous agreement of the members of the Study Group concerned, the Members of the Union could be consulted by corre-

spondence with a view to publishing the draft as a provisional recommendation, pending its final approval by the next Plenary Assembly.

A long debate took place on the desirability of severing the final meetings of Study Groups completely from the Plenary Assembly proper, the advantages of this solution being to leave some time for reflection between the publication of the final reports and their consideration by the Plenary Assembly and also to reduce expenditure considerably should the Assembly be held away from Geneva. The delegates of the developing countries mostly opposed this idea as it would not enable them as at present to take advantage of their participation at the Plenary Assembly to take part in the work of the Study Groups whose interim meetings they find it difficult to attend. A compromise proposal to have longer Plenary Assemblies at which they would be given full accounts of the work of each Study Group, followed by a discussion on it, did not succeed in fully satisfying them. That being so, it was decided to retain the present system at least for the Vth Plenary Assembly on the understanding that the final meetings of the Study Groups and the Plenary Assembly would therefore be held at Union headquarters.

Finally, Committee A established the procedure for publishing the new CCITT book (which will be a *White Book*). To expedite the publication of the work as far as possible and to facilitate its use, it was decided that the order of urgency and presentation would be as follows: first, the questions and their annexes in the form of booklets bound together by families, then the Recommendations in loose-leaf volumes, and finally the supplements in bound booklets from which all inessential texts would be omitted. An alphabetical index to the recommendations is to be compiled and repetition of recommendations in more than one volume will no longer be permitted.

### 4.2 Programme of work of the Study Groups

It is difficult to describe in detail the work of Committee B which was responsible for drawing up this programme, since it had to dwell at length on each of the numerous questions (about 300 in all) on the programme for the period 1968-1972.

This review enabled it to assign the questions to the various Study Groups, noting

in passing those of concern to more than one Study Group, to establish an order of importance and urgency of these questions to guide the Chairmen in drawing up their plans of work, to check whether there was any overlapping between questions proposed by different Study Groups and to propose a regrouping of related questions.

With regard to questions of concern to more than one Study Group, the Plenary Assembly approved the recommendations for the maintenance or abolition of existing Joint Working Parties and in a few cases for the creation of new Joint Working Parties, which Committee B, in full agreement with Committee A found advisable to make.

Finally, Committee B, gathering together all the proposals made by Study Group Chairmen, endeavoured to sketch a programme of meetings for the period 1968-1972. Since this was intended as an indication only, the Plenary Assembly simply took note of the programme without giving it formal approval, leaving it to the Chairmen to establish the final programme in agreement with the Director and within the limit of the credits authorized by the Administrative Council. The discussion which took place on the subject brought out the practical impossibility of strict observance of the rule of one meeting only per Study Group in the interval between two Plenary Assemblies. In some cases, this rule would prevent the timely completion of the studies and would not necessarily lead to economies in the Union budget.

### 4.3 Budget control

Committee C (Budget control) scrutinized, and raised no objection to, the provisional accounts for the holding of the IVth Plenary Assembly which at the time amounted to 1 870 000 Swiss francs. On that occasion, it expressed its gratitude to the host administration for the excellent organization of the Assembly. It also noted that for the study period ending with the close of the IVth Plenary Assembly, expenditure on CCITT meetings amounted to about 5 200 000 Swiss francs and remained as a whole within the limit authorized by the Administrative Council.

When considering Committee C's report, the Plenary Assembly noted that once again it did not feel itself in a position to apply No. 781 of the General Regulations, i.e. to approve the estimate of financial



needs of the CCITT until the following Plenary Assembly. These needs arise essentially from the holding of meetings and the increase in Secretariat staff.

It is quite clear that the Administrative Council is alone competent to authorize the expenditure involved but it seems regrettable to me that the Plenary Assembly, which is quite familiar with CCITT needs, cannot find a means of bringing its opinion to the attention of the Council while not trespassing on the latter's rights.

#### 4.4 Technical co-operation

Committee D studied those aspects of technical co-operation which come within the purview of the CCITT, namely those mentioned in Nos. 188 and 189 of the 1965 Convention. It referred back in this connexion to the programme of action drawn up in 1964 by the IIIrd Plenary Assembly and noted with satisfaction that the most important provisions of that programme had been successfully applied by the Study Groups, Special Autonomous Working Parties and the Secretariat during the period 1964-1968.

That being so, the Plenary Assembly adopted, on the proposal of Committee D, a new resolution recapitulating the main points of the previous programme and urging the developing countries to take a more active part in CCITT work.

At the same time, as I have already mentioned, the Plenary Assembly took favourable action on the ideas of Committee D regarding the establishment of Regional Tariff Groups and the preparation of a publication on earthing questions.

For lack of time, the work of the Plan Committees, which, too, is an interesting aspect of CCITT activities in technical co-operation, was not considered by the Plenary Assembly. Articles on the subject had, however, been previously published in the *Telecommunication Journal*.

#### 4.5 Other decisions

4.5.1 After completion of the work of Committees A and B, the Plenary Assembly proceeded to appoint the new Chairmen and Vice-Chairmen of the Study Groups and Special Autonomous Working Parties. A list of them is given in the table at the end of this article. Although the Study Group structure has been little changed, there are many new names in this list because, owing to an unfortunate combination of circumstances many Chairmen and Vice-Chairmen, who had done yeoman service with the CCITT, were obliged to resign their posts after the IVth Plenary Assembly. I should like to take this oppor-

tunity of expressing both the regrets and the gratitude of the entire CCITT.

4.5.2 Throughout its work, the Plenary Assembly displayed a considerable interest in satellite communication and emphasized the need for close co-ordination between the bodies studying the various aspects of these new transmission systems. On the proposal of the French delegation and with the agreement of the Secretary-General, it adopted a resolution on action to be taken to this end within the International Telecommunication Union.

4.5.3 The Plenary Assembly examined the report on CCITT activities prepared by the Director and approved it, with the exception of a passage on secretariat staff requirements which it merely noted.

4.5.4 The serving Director, whose term of office came normally to an end with the close of the IVth Plenary Assembly, was re-elected until the Vth Plenary Assembly.

4.5.5 Some invitations for meetings of Study Groups or Working Parties were issued; they were gratefully accepted in principle, subject to authorization of the corresponding expenditure by the Administrative Council.

No invitation having been made for the Vth Plenary Assembly, it will be held in principle in Geneva in the first half of 1972, the exact date to be fixed later in the light of progress made with studies.

#### 5. Conclusions

The reader who has had the patience to read this rather too long article to the end cannot fail to have been struck by the abundance and importance of the results obtained at the IVth Plenary Assembly particularly in fields where technique is undergoing extremely rapid evolution and where the CCITT has managed not to let itself be outstripped. This is an undoubted success to which the Argentine Administration made a powerful contribution, thereby earning the gratitude of telecommunication technicians throughout the world and especially of those of Latin America whom it enabled to enter into closer contact with the ITU on their own continent.

The new study period opening for the CCITT promises to be of equally burning interest as the last, with subjects to be studied such as satellite communication, pulse code modulation, integrated networks, time division switching, the introduction of computers into switching centres, world-wide automatic operation, high-speed data transmission—to mention but a few.

Since the Plenary Assembly has been kind enough to reaffirm its confidence in me, I am happy and proud to be associated with this work which seems to me bound to succeed even though no new organization is yet in force. After all, present methods have already stood the test and, pending something better, can do so again provided that the Secretariat obtains the wherewithal to do its job. The main thing is that the members of CCITT Study Groups, following the example of their elders, should pursue their studies in the same spirit of friendly and trustful collaboration and should be impelled by the same ardour and faith which has always inspired them hitherto.

J. Rouvière

### Visit by the Minister of Communications and the Permanent Representative of Pakistan

H. E. Khan A. Sobur Khan, Minister of Communications of Pakistan accompanied by H. E. Kamaluddin Ahmed, Ambassador extraordinary and plenipotentiary, Permanent Representative of Pakistan to the Office of the United Nations and the Specialized Agencies in Geneva, and Mr. O. H. Mohamed, Chief Engineer, Telegraph and Telephone Administration of Pakistan, paid a visit to Mr. M. Mili, Secretary-General of the ITU, on 27 November.

H. E. Khan A. Sobur Khan (left) during his discussion with Mr. M. Mili, Secretary-General of the ITU

(ITU)

