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

FIFTH PLENARY ASSEMBLY

GENEVA, 4-15 DECEMBER 1972

GREEN BOOK VOLUME I

PART I

ORGANIZATION AND WORK
OF THE FIFTH PLENARY ASSEMBLY

PART II

RESOLUTIONS AND OPINIONS
ISSUED BY THE PLENARY ASSEMBLIES

PART III

STUDY GROUPS,
JOINT WORKING PARTIES AND
AUTONOMOUS SPECIALIZED
WORKING PARTIES
ALLOCATION OF QUESTIONS

PART IV

SERIES A RECOMMENDATIONS
(Organization of the work of the C.C.I.T.T.)
SERIES B RECOMMENDATIONS
(Means of expression)
SERIES C RECOMMENDATIONS
(General telecommunication statistics)

Published by
THE INTERNATIONAL TELECOMMUNICATION UNION
1973



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CONTENTS OF THE C.C.I.T.T. BOOKS
APPLICABLE AFTER THE FIFTH PLENARY ASSEMBLY (1972)

GREEN BOOK

- Volume I** — Minutes and reports of the Vth Plenary Assembly of the C.C.I.T.T.
— Resolutions and Opinions issued by the C.C.I.T.T.
— General table of Study Groups and Working Parties for the period 1973-1976.
— Summary table of Questions under study in the period 1973-1976.
— Recommendations (Series A) on the organization of the work of the C.C.I.T.T.
— Recommendations (Series B) relating to means of expression.
— Recommendations (Series C) relating to general telecommunication statistics.
- Volume II-A** — Recommendations (Series D) and Questions (Study Group III) relating to the lease of circuits.
— Recommendations (Series E) and Questions (Study Group II) relating to telephone operation and tariffs.
- Volume II-B** — Recommendations (Series F) and Questions (Study Group I) relating to telegraph operation and tariffs.
- Volume III** — Recommendations (Series G, H and J) and Questions (Study Groups XV, XVI, Special Study Group C and D) relating to line transmission.
- Volume IV** — Recommendations (Series M, N, and O) and Questions (Study Group IV) relating to the maintenance of international lines, circuits and chains of circuits.
- Volume V** — Recommendations (Series P) and Questions (Study Group XII) relating to telephone transmission quality, local networks and telephone sets equipment.
- Volume VI** — Recommendations (Series Q) and Questions (Study Groups XI and XIII) relating to telephone signalling and switching.
- Volume VII** — Recommendations (Series R, S, T and U) and Questions (Study Groups VIII, IX, X and XIV) relating to telegraph technique.
- Volume VIII** — Recommendations (Series V and X) and Questions (Study Group VII and Special Study Group A) relating to data transmission.
- Volume IX** — Recommendations (Series K) and Questions (Study Group V) relating to protection against interference.
— Recommendations (Series L) and Questions (Study Group VI) relating to the protection of cable sheaths and poles.

Each volume also contains, where appropriate:

- Definitions of specific terms used in the field of this volume.
- Supplements for information and documentary purposes.

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PART I

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Organization of the Fifth Plenary Assembly

List of participants

List of documents

Minutes of the plenary meetings

Reports

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ORGANIZATION OF THE FIFTH PLENARY ASSEMBLY OF THE INTERNATIONAL TELEGRAPH AND TELEPHONE CONSULTATIVE COMMITTEE

(GENEVA, 4-15 DECEMBER 1972)

The Fifth Plenary Assembly of the International Telegraph and Telephone Consultative Committee met in Geneva (Switzerland) from Monday, 4 December, to Friday, 15 December, 1972. The meetings were held at the Maison des Congrès.

The conference was preceded by the final meetings of the various Study Groups.

Eighty-six Administrations of Members of the Union, 26 recognized private operating agencies and 18 international organizations were represented in the Assembly, making a total of 358 delegates and observers.

Meetings of Study Groups

The following Study Groups and Working Parties held meetings preceding the Fifth Plenary Assembly:

Study Group	Title	Chairman	Date of the meeting
I	Telegraph operation and tariffs (including telex)	Mr. A. GOMES (United States)	13-15 November
II	Telephone operation and tariffs	Mr. R. RÜTSCHI (Switzerland)	13-15 November
III	General tariff principles; lease of telecommunication circuits	Mr. L. BURTZ (France)	16-17 November
IV	Transmission maintenance of international lines, circuits and chains of circuits	Mr. J. VALLOTON (Switzerland)	13-17 November
V	Protection against dangers and disturbances of electromagnetic origin	Mr. H. RIEDEL (F. R. of Germany)	20-21 November
VI	Protection and specifications of cable sheaths and poles	Mr. J. R. WALTERS (United Kingdom)	23-24 November
VIII	Telegraph equipment and local connecting lines	Mr. G. BAGGENSTOS (Switzerland)	21-22 November

Study Group	Title	Chairman	Date of the meeting
XI	Telegraph transmission quality; specification of equipment and rules for the maintenance of telegraph channels	Mr. R. BROWN (Australia)	16-20 November
X	Telegraph switching	Mr. Ch. JANSEN (Netherlands)	28-29 November
XI	Telephone switching and signalling	Mr. A. JOUTY (France)	27 Nov.-1 Dec.
XII	Telephone transmission performance and local telephone networks	Mr. F. T. ANDREWS (United States)	13-15 November
XIII	Automatic and semi-automatic telephone networks	Mr. S. KUHN (Poland)	22-24 November
XIV	Facsimile telegraph transmission and equipment	Mr. W. VINOGRADOW Vice-Chairman (Poland)	30 Nov.-1 Dec.
XV	Transmission systems	Mr. F. JOB (France)	20-24 November
XVI	Telephone circuits	Mr. J. BILLEN (United Kingdom)	16-17 November
Sp. A	Data transmission	Mr. J. RHODES (United Kingdom)	23-27 November
Sp. D	Pulse code modulation	Mr. R. BOYD (United States)	27 Nov.-1 Dec.
TAF	Tariffs (Africa)	Mr. M. SIDIBE (Mali)	29 Nov.-1 Dec.
GAS 5	Economic conditions and telecommunication development	Mr. H. LONGE- QUEUE (France)	20-21 November
Working Party			
Coord. Africa	Co-ordination Committee, Africa Plan	Mr. L. DIA (Senegal)	27-28 November
Coord. Asia	Co-ordination Committee, Asia and Oceania Plan	Mr. A. ZAIDAN (Saudi Arabia)	29-30 November

Meetings of the Plenary Assembly

The Plenary Assembly was presided over by Mr. H. BACZKO (People's Republic of Poland), who was assisted by the following five Vice-Chairmen:

Mr. R. T. BLACK (U.S.A.)
 Mr. J. J. HERNANDEZ-G. (Mexico)
 Mr. Y. MAKINO (Japan)
 Mr. M. A. SOW (Mali)
 Mr. Y. SAVITSKI (U.S.S.R.)

For the C.C.I.T.T. Secretariat, Mr. E. E. HUMMEL, Senior Counsellor, had taken over the responsibilities of Acting Director.

At the inaugural meeting, the Assembly stood a minute in silence in memory of the late Director, Mr. J. ROUVIÈRE.

The Assembly set up four Committees charged with major administrative decisions to be taken by the Plenary Assembly:

	<i>Chairman</i>	<i>Vice-Chairman</i>
<i>Committee A</i> — Working methods of the C.C.I.T.T.	Mr. D. VAN DEN BERG (Netherlands)	Mr. J. R. MARCHAND (Canada)
<i>Committee B</i> — Programme of work of Study Groups	Mr. L. BURTZ (France)	Mr. M. B. WILLIAMS (United Kingdom)
<i>Committee C</i> — Budget control	Mr. M. GHAZAL (Lebanon)	Mr. N'D. CISSÉ (Senegal)
<i>Committee D</i> — Technical assistance	Mr. A. S. IRRERA (Argentina)	Mr. A. GRAVELL (Australia)

Twelve plenary meetings were held in addition to the inaugural meeting of the Assembly. The heads of delegations met four times and Committee A also had four meetings for its work; Committees B, C and D each met twice.

LIST OF PARTICIPANTS
ATTENDING THE FIFTH PLENARY ASSEMBLY,
including those attending Study Group meetings

[with indication of the participation in the meetings of Study Groups, Special Autonomous Working
Parties or the Plenary Assembly (PA)]

I. ADMINISTRATIONS AND RECOGNIZED PRIVATE OPERATING AGENCIES

Attending

ALBANIA (People's Republic of)

Mr. H. DERSHA PA

Head of delegation

Delegate:

Mr. E. TUPJA PA

ALGERIA (Dem. and Pop. Republic)

Mr. S. DOUZIDIA PA

Head of delegation

Delegates:

Mr. M. ALI BELHADJ PA

Mr. A. AOUDIA I, III, GAS 5, TAF

Mr. M. CHERIF XII, III, GAS 5, XIII, XI, V, V/VI, VI

Mr. H. HAFIS PA

GERMANY (Federal Republic of)

Mr. H. PAUSCH PA

Head of delegation

Mr. J. KUPPER PA

Deputy head

Delegates:

Mr. F. BARDUA I

Mr. K. BERGER III, GAS 5

Mr. H. BIEHLER IX, Sp. A, XIV

Mr. J. BOHM IX, VIII, Sp. A, X, XIV, PA

Mr. S. DEHMER XII

Mr. R. DINGELDEY XIII, XI, PA

Mr. H. GABLER VIII, Sp. A, X

Mr. P. GRUPEN XIV

*Attending***GERMANY (Federal Republic of) (continued)**

Mr. J. HAAS	Sp. A
Mr. W. HEINRICH	IV
Mr. W. HOFMANN	Sp. A
Mr. U. HORN	XV
Mr. O. HUBER	II, III, XIII, TAF, Africa, Asia, PA
Mr. T. IRMER	Sp. D, PA
Dr. R. KAISER	PA
Miss G. KRAMER	PA
Mr. H. MEBES	XIV
Mr. R. MEHNE	PA
Mr. H. Merz	XI
Dr. W. D. OELS	XIV
Mr. W. PERNAU	XIII, Africa, Asia
Mr. F. PFAFFE	II, III, GAS 5, TAF, Asia, PA
Mr. H. RIEDEL	V, V/VI, VI, PA
Mr. W. SCHILLING	II, III, XIII, TAF, Africa, Asia
Mr. H. SCHIRMER	PA
Mr. G. SCHUTT	Sp. A, XII, XVI, XV, Sp. D, IV, PA
Mr. A. SCHWALL	I, XIV, III, TAF, PA
Mr. H. SPILGER	XIV
Dr. G. TISCHER	V, V/VI
Mr. H. VENHAUS	XII, XVI, XV, Sp. D, IV, PA
Mr. H. WIRZ	XVI, XV

SAUDIA ARABIA (Kingdom of)

Mr. A. ZAIDAN	PA
<i>Head of delegation</i>	
<i>Delegate:</i>	
Mr. M. MIRDAD	PA

ARGENTINE REPUBLIC

Mr. A. S. IRRERA	I, GAS 5, V, VI, PA
<i>Head of delegation</i>	
<i>Delegates:</i>	
Mr. L. D. AVIRON	XII, XV, Sp. D
Mr. A. ESTEVEZ	XIII, XI
Mr. O. A. KUSTRA	Sp. A, XV, Sp. D, IV
Mr. A. O. LOPEZ	XII, XVI, XI, V, VI, PA
Mr. J. M. MIRAMONTES	II, III, GAS 5
Mr. R. RAMAYÓN	II, III, XIII, XI, V, PA
Mr. R. SAIDMAN	I, IX, X, XIV, GAS 5, XIII, PA
Mr. J. R. ZAMUDIO	IX, VIII, Sp. A, X, XIV, IV, PA

AUSTRALIA (Commonwealth of)

Mr. A. GRAVELL	I, IX, VIII, Sp. A, X, XIV, XII, XVI, XV, Sp. D, II,
<i>Head of delegation</i>	III, GAS 5, XIII, XI, IV, V, V/VI, VI, Asia, PA
<i>Delegates:</i>	
Mr. A. C. BECKWITH	II, III, GAS 5, XIII, XI, Asia, PA

*Attending***AUSTRALIA (Commonwealth of) (continued)**

Mr. J. BOUCHER	I, IX, VIII, Sp. A, X, XIV
Mr. R. A. BROWN	I, IX, VIII, Sp. A, X, XIV, PA
Mr. D. W. Clark	XIII, XI
Mr. N. R. CRANE	IX, VIII, Sp. A, X, XIV, PA
Mr. H. T. DAVIS	IV, V, V/VI, VI
Mr. B. J. FEENAGHTY	XIII, XI
Mr. R. G. FLOOD	IV
Mr. G. T. HUGHES	II, III, GAS 5, Asia, PA
Mr. P. J. LENN	XII, XVI, XV, Sp. D
Mr. J. C. WILSON	XII, XVI, XV
Mr. H. S. WRAGGE	Sp. D, PA

AUSTRIA

Mr. K. KURMAYER	PA
<i>Head of delegation</i>	

Delegates:

Dr. J. BAYER	I
Mr. F. BÖSEL	Sp. D
Mr. K. ECKL	Sp. A
Mr. E. EISENZOPF	XII, XVI
Mr. K. HENSELY	II
Mr. W. KUDRNA	IV
Mr. E. PAULI	PA
Mr. L. PLAPPART	Sp. A, X
Mr. G. SCHALLER	XIII
Mr. J. SCHRAMEL	XI
Mr. W. SIMOTTA	XV
Mr. J. SINDELKA	III
Mr. K. VAVRA	PA
Mr. J. WEIPOLTSHAMMER	V, V/VI, VI

Radio Austria

Mr. E. HOYER	PA
Mr. J. KINIGER	PA

BELGIUM

Mr. G. BAUDRIN	PA
<i>Head of delegation</i>	

Delegates:

Mr. H. ADELAAR	Sp. D
Mr. J. BIOT	XIII, XI, PA
Mr. P. C. M. BOUCHIER	PA
Mr. P. DANAU	IV
Mr. C. DEKONINCK	IX
Mr. R. DENIVEL	XIV
Mr. F. EECKHOUDT	II, III
Mr. R. GRAINSON	PA
Mr. J. HENDERIECKX	I, Sp. A, X
Mr. J. P. LAMBOTTE	Sp. D

*Attending***BELGIUM (continued)**

Mr. G. MAES	VIII
Mr. G. NICAISE	I
Mr. R. PEETROONS	VIII
Mr. P. PLEHIERS	Sp. D, II, XI
Mr. N. ROBERTY	XIV, XII, XV
Mr. A. SERRURE	Sp. D
Mr. R. G. SEYEN	XV
Mr. A. V. G. THEYS	XV, IV
Mr. M. VANDER BIEST	XVI
Mr. L. VANHAVRE	Sp. D
Mr. J. VERVENNE	Sp. A

BIELORUSSIAN SOVIET SOCIALIST REPUBLIC

Mr. V. OULASSIK	PA
<i>Head of delegation</i>	

BRAZIL

Mr. J. SANTELLI Jr.	Sp. A, III, GAS 5, XI, PA
<i>Head of delegation</i>	

Delegate:

Mr. M. V. PIMENTEL	XII, XVI, XV, Sp. D, GAS 5, PA
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Empresa Brasileira de Telecomunicações – EMBRATEL

Mr. P. CASTELO BRANCO	I, III, GAS 5, Sp. A, X, XIV, PA
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BULGARIA (People's Republic of)

Mr. I. TODOROV	PA
<i>Head of delegation</i>	

Delegates:

Mr. D. KASSEV	I, Sp. A, II, III, GAS 5, XI
Mr. I. MANOLOV	PA

CAMEROUN (United Republic of)

Mr. TCHOUTA MOUSSA	XIII, XI, Africa, PA
<i>Head of delegation</i>	

Delegate:

Mr. D. ANGOULA	XII, XVI, XV, XIII, Africa, PA
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CANADA

Mr. J. R. MARCHAND	PA
<i>Head of delegation</i>	

Mr. V. C. MACDONALD	I, IX, VIII, Sp. A, X, XIV, Sp. D, PA
<i>Deputy head</i>	

Dr. J. B. DEMERCADO	Sp. A, X, XVI, Sp. D, III, PA
<i>Deputy head</i>	

*Attending***CANADA (continued)***Delegates:*

Mr. G. Y. R. ALLEN	V, V/VI, VI
Mr. W. D. E. ANDERSON	PA
Mr. R. F. BRETT	PA
Mr. A. CURRAN	PA
Mr. M. N. DAVIES	PA
Mr. L. GIROUX	XII, XVI, XV, Sp.D, PA
Mr. G. G. HENTER	I, II, III
Mr. G. R. LANG	Sp. A, X, PA
Mr. D. MACLEOD	PA
Mr. S. C. MACPHERSON	Sp. A, Sp. D, PA
Mr. M. PERRAS	PA
Mr. D. S. ROBERTSON	PA
Mr. P. F. WELLING	XIII, XI
Mr. J. L. WILSON	PA

Canadian Overseas Telecommunications Corporation

Mr. J. J. BROWNLEE	II, XVI, XV, Sp. D
Mr. M. BURNS	I, III
Mr. P. CASALTA	XII, IX, XVI, VIII, Sp. A, X, XIV
Mr. D. F. GILVARY	Sp. A, XI
Mr. A. D. HABER	X, XIV, Sp. D
Mr. G. MORGAN	IV

Canadian Telecommunications Carriers Association

Mr. E. R. ALLAN	IV, XV
Mr. W. D. E. ANDERSON	Sp. D
Mr. W. A. COSWAY	II, III, XIII, XI
Mr. K. T. HARRIS	Sp. A, X
Mr. N. E. HAUGHTON	Sp. A, Sp. D
Mr. N. NACHFOLGER	XII, XVI, XV
Mr. H. PANCHOLI	I, IX, VIII, X, XIV
Mr. P. QUÉSNEL	I, III, IX, VIII
Mr. L. P. SWAINE	I, III
Mr. L. C. TAIT	Sp. A
Mr. J. W. THIESSEN	XV
Mr. J. L. WILSON	VIII, Sp. A, XVI, Sp. D, II, XIII

CENTRAL AFRICAN REPUBLIC

Mr. J. M. SAKILA	I, IX, VIII, Sp. A, XIV, XIII, XI, TAF, PA
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*Head of delegation**Delegate:*

Mr. J. C. KOUNKOU	X, XII, XVI, XV, Sp. D, II, III, GAS 5, TAF, IV, V, V/VI, VI, Africa, PA
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CHINA (People's Republic of)

Mr. LIU YUAN	I, IX, VIII, Sp. A, X, XIV, II, III, GAS 5, XIII, XI, PA
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Head of delegation

*Attending***CHINA (People's Republic of) (continued)***Delegates:*

Mr. CHUAN Ching-chou	I, IX, VIII, Sp. A, X, XIV
Mr. HSUEH Hsiang-hsin	I, IX, VIII, Sp. A, X, XIV
Mr. HSU Ching-mei	PA
Mr. LIANG Chia-cho	XII, XVI, XV, Sp. D, IV, V, V/VI, VI, Asia, PA
Mr. LIU Chi-chung	All Study Groups and PA
Mr. LIU Hui-ming	PA
Mr. SUN Chin-tsan	I, IX, VIII, Sp. A, X, XIV, Asia
Mr. TANG Wei-min	I, II, III, V, V/VI, VI, Asia, PA
Mr. WANG Ming-tsien	XII, Sp. D, III, IV, V, V/VI, VI
Mr. WANG Tien-hsiang	I, IX, VIII, Sp. A, X, XIV, XII, XVI, XV, Sp. D, II, III, GAS 5, XIII, XI, IV, V, V/VI, VI, Asia, PA
Mr. WANG Yun-wei	XII, XVI, XV, Sp. D, PA
Mr. YANG Chao-chin	XII, XVI, XV, Sp. D, PA

CONGO (People's Republic of the)

Mr. M. NTSIBA	PA
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*Head of delegation**Delegate:*

Mr. J. P. OKOUO	PA
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KOREA (Republic of)

Mr. W. Y. LEE	PA
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*Head of delegation**Delegates:*

Mr. J. R. PARK	PA
Mr. B. W. RAH	PA
Mr. S. W. RHEE	PA

IVORY COAST (Republic of the)

Mr. A. KOUASSI	II, III, GAS 5, XIII, TAF, Africa, PA
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*Head of delegation**Delegate:*

Mr. Ch. NOGBOU	PA
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CUBA

Mr. R. HERNÁNDEZ CARTAYA	PA
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*Head of delegation**Delegates:*

Mr. F. AU KIM	IX, VIII, Sp. A, XV, Sp. D, IV, PA
Mr. R. MARTIN CAVEDA	I, II, III, GAS 5, PA
Mr. A. PINEDA ROS	X, XII, XVI, GAS 5, XIII, XI, PA

DAHOMÉY (Republic of)

Mr. T. BOURAÏMA	PA
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Head of delegation

*Attending***DENMARK**

Mr. G. PETERSEN	PA
<i>Head of delegation</i>	
Mr. H. LAURSEN	PA
<i>Deputy head</i>	
<i>Delegates:</i>	
Mr. N. K. I. BECH	GAS 5
Mr. N. CHRISTOFFERSEN	IV
Mr. O. DAHN	Sp. D
Mr. Ib GILBERG	XII
Mr. W. D. HANSEN	II
Mr. A. HILLESTRØM	XII
Mr. A. JACOBSEN	Sp. D
Mr. J. KIIL	XIII, IV
Mr. Ib HYLDSTRUP LARSEN	PA
Mr. T. J. LAURITZEN	IX, VIII, Sp. A, X
Mr. A. LINDBLAD	I
Mr. H. B. NIELSEN	XV
Mr. H. PEDERSEN	PA
Mr. J. F. PEDERSEN	III
Mr. P. STERNDOFF	XIII, XI
Mr. A. WALDORFF	Sp. D

The Great Northern Telegraph Co.

Mr. H. P. ANDERSEN	PA
Mr. B. GEHLSHOJ	XVI, XV
Mr. E. R. HANSEN	IV
Mr. P. E. JORGENSEN	PA
Mr. H. K. K. KRUSE	I, III
Mr. P. LAURSEN	PA

DOMINICAN REPUBLIC

Mr. F. HERRERA-ROA	PA
<i>Head of delegation</i>	

Compañía Dominicana de Teléfonos

Mr. J. J. BEUKEMA	Sp. A, XV, Sp. D
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EGYPT (Arab Republic of)

Mr. S. H. RAHEB	PA
<i>Head of delegation</i>	

SPAIN

Mr. J. M. PARDO	PA
<i>Head of delegation</i>	
<i>Delegates:</i>	
Mr. J. M. ARTO-MADRAZO	PA
Mr. J. GALILEA	VIII

*Attending***SPAIN (continued)**

Mr. L. MARTINEZ GOMEZ	XII
Mr. V. MARTIN MANRIQUE	XIV
Mr. F. MOLINA TINAUT	I, III, PA
Mr. J. M. NOVILLO FERTRELL	IX, VIII, PA
Mr. G. J. PARRA	X
Mr. L. TEROL	PA

Compañía Telefónica Nacional de España

Mr. J. M. BERISO	XIII
Mr. M. BERROCAL SINIS	III
Mr. J. CLEMENTE NISTAL	XI
Mr. M. A. ESTEVEZ BARTOLOME	XIII
Mr. R. CALDERÓN	GAS 5
Mr. F. CRESPO ROSAURO	II
Mr. C. DIAZ-GUERRA ALUAREZ	XV
Mr. A. FERRER HERRERO	IV
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Mr. J. P. I. HERMIDA	IV
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Mr. A. M. NIETO NIETO	XIII
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Mr. G. PEREZ SUAREZ	V, V/VI, VI
Mr. P. ROJO GIL	IV
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Mr. E. RUIZ RUBIO	XII, XI

UNITED STATES OF AMERICA

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Mr. R. B. CROWELL	PA
Mr. A. L. FREEMAN	PA
Mr. O. B. GIBSON	PA
Mr. A. GOMES	PA
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Mr. L. W. TUFT	PA
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*Attending***UNITED STATES OF AMERICA (continued)****Aeronautical Radio Inc.**

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American Telephone and Telegraph Co.

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 Mr. G. K. HELDER XV
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Communications Satellite Corporation

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*Attending***UNITED STATES OF AMERICA (continued)****I.T.T. World Communications Inc.**

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Mr. A. GOMES	I, VIII, X, XIV, II, III

R.C.A. Global Communications Inc.

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Mr. L. CODACOVİ	PA
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Mr. H. SCHOON	X
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Western Union International Inc.

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Mr. R. G. EGAN	PA
Mr. Th. GREENISH	PA
Mr. P. J. KLEIN	Sp. A, X
Mr. B. MASSUDA	IX, IV
Mr. Th. E. MITCHELL	I, III
Mr. P. H. SACH	I, III

Western Union Telegraph Co.

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ETHIOPIA

Mr. S. HABTEMARIAM	TAF, Africa, PA
<i>Head of delegation</i>	

FINLAND

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<i>Head of delegation</i>	
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Mr. T. KASANEN	VIII, Sp. A
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Mr. K. RAHKO	Sp. A, Sp. D, V, V/VI
Mr. P. SALONEN	XV, Sp. D
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Mr. H. VEKAOJA	PA

FRANCE

Mr. C. H. COTTEN	PA
<i>Head of delegation</i>	

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<i>Deputy head</i>	
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Mr. P. BERNHEIM	PA
Mr. M. BLANC	XV
Mr. A. BLANCHI	XV, V, V/VI, VI, PA
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Mr. J. P. CAIRE	XVI, XIII
Mr. C. CARROUGE	Sp. A
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Mr. A. CHASSIGNOL	I, II, III, GAS 5, TAF, PA
Mr. C. CHAUVIN	I
Mr. P. COLLET	XI
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Mr. G. DENNERY	Sp. A, Sp. D, PA
Mr. J. DUBOIS	XIII
Mr. A. DUPONT	VIII
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Mr. R. FAURIS	PA
Mr. R. FERRIEU	XVI, IV, PA
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Mr. E. GUERIN	Sp. A, X
Mr. F. JOB	XV, PA
Mr. A. JOUSSET	Sp. D, PA
Mr. A. M. JOUTY	XIII, XI, IV, PA
Mr. M. LACOUT	XI, Africa, Asia, PA
Mr. J. M. LAPREVOTE	XI
Mr. J. M. LAROCLETTE	II, III, XIII, TAF, Africa, PA
Mr. P. LE GALL	XIII, PA
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Mr. P. LORAND	XIII
Mr. DE MENDITTE	GAS 5
Mr. A. MESCHEMBERG	XV
Mr. C. MOUTON	I, Sp. A, III, Asia, PA
Mr. T. NOAT	PA
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Mr. G. PERINET	XV
Mr. J. M. PERSON	XIII
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Mr. A. RIBIERAS	V, V/VI

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Mr. J. SIMON	GAS 5, XIII
Mr. H. SOULIER	XV
Mr. M. TOUTAN	XV, PA
Mr. J. VENTRE	GAS 5
Miss V. FERNANDEZ	PA
Mrs. M. THEVENARD	PA

Thomson - CSF

Mr. D. BOUDRANT	Sp. A, Sp. D
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GABON REPUBLIC

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<i>Head of delegation</i>	

GHANA

Mr. P. T. DEBRAH	PA
<i>Head of delegation</i>	

GREECE

Dr. J. BOSKOVITS	PA
<i>Head of delegation</i>	
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Mr. M. PSYCHOYOS	PA

GUATEMALA

Mr. E. LOPEZ-HERRARTE	PA
<i>Head of delegation</i>	
<i>Delegate:</i>	
Mr. E. PERALTA DUARTE	PA

UPPER VOLTA (Republic of)

Mr. Y. KOUROUMA	TAF, Africa, PA
<i>Head of delegation</i>	
<i>Delegate:</i>	
Mr. D. SANON	TAF, Africa, PA

HUNGARIAN PEOPLE'S REPUBLIC

Mr. I. TOTH	PA
<i>Head of delegation</i>	
<i>Delegates:</i>	
Miss E. BARABAS	II, III
Mr. G. BATTISTIG	PA
Mr. G. FRISCHMANN	XII, XVI, XV, V, V/VI, VI

*Attending***HUNGARIAN PEOPLE'S REPUBLIC** (continued)

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Mr. G. GOGOLYAK	PA
Mr. L. HORVAT	IX, VIII, Sp. A, X
Mr. O. HUTTER	PA
Dr. L. KATONA-KIS	PA
Mr. G. LAJTHA	XV, Sp. D
Mr. L. NÁDOR	PA
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Mr. G. UNGVARI	IV
Dr. I. VARADI	PA

INDIA (Republic of)

Miss B. H. SHANTA PAI	I, IX, XIII, Sp. A, X, XIV, XV, Sp. D, II
<i>Head of delegation</i>	III, IV, V, V/VI, VI, Asia, PA
<i>Delegates:</i>	
Mr. P. S. ENDLAW	XII, XVI, GAS 5, XIII, XI, PA
Mr. D. K. NARASIMHAN	I, II, III, GAS 5, XIII, Asia, PA

INDONESIA (Republic of)

Mr. SOEHARDJONO	PA
<i>Head of delegation</i>	
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Mr. S. BRATAHALIM	XV, Sp. D, IV
Mr. A. DARMAN	XII, XVI, GAS 5, XIII, XI
Mr. M. K. M. MANGOENDIPRODJO	PA
Mr. W. M. MANGUNDIPRODJO	PA
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Mr. J. SUTANGGAR TENGKER	PA

IRAN

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Mr. G. PARSAPOUR	XII, XVI, XV, Asia, PA
Mr. H. RAJAI	PA
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Head of delegation

Delegates:

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ICELAND

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Delegate:

Mr. S. THORKELSSON PA

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Head of delegation

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Mr. A. RON II, III, XIII

ITALY

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Miss C. RUSSO PA

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Mr. M. VICARIO	XV
Mr. M. ZERELLA	PA

Italcable

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Mr. F. FRASCHETTI	III
Mr. V. DE GIORGIS	IX
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Mr. A. PAVOLETTONI	I
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Mr. A. PIETROMARCHI	XI
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Mr. A. SAVINO	Sp. D, PA
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Radiotelevisione Italiana

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Mr. G. B. LO PIPARO	V/VI
Mr. D. SABATINO	Sp. D
Mr. C. TERZANI	XV, Sp. D, II, III, PA

*Attending***JAPAN**

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Head of delegation

Delegates:

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Mr. H. HIDAKA PA

Mr. M. KATSUTA PA

Mr. S. OIZUMI PA

Kokusai Denshin Denwa Co.

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Mr. Y. ISHIKAWA XIII, XI

Mr. Y. KAWASUMI IV

Mr. M. KOJIMA II, III, PA

Mr. M. MASUDA PA

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Mr. S. SATOMI I, III, Asia, PA

Mr. S. SHIMURA XII, XVI, XV, PA

Mr. M. TOMITA XVI, Sp. D, PA

Nippon Telegraph and Telephone Public Corporation

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Mr. T. ICHIKAWA XV, Sp. D, PA

Mr. E. IWAHASHI XV, Sp. D

Mr. K. MATSUMOTO XV, XIII, Asia, PA

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Mr. J. SUGIURA IX, VIII, Sp. A, X, XIV

Mr. M. TSUDA XII, XVI, XV, Sp. D, PA

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Mr. T. YAMAMOTO PA

Mr. K. YAMAZAKI IV, V, V/VI, VI, PA

KENYA

Mr. J. ODERO Africa, TAF, PA

Head of delegation

Delegate:

Mr. H. CHASIA III, GAS 5, XIII, XI, TAF, Africa, PA

KHMER REPUBLIC

Mr. R. SISOWATH PA

Head of delegation

KUWAIT (State of)

Mr. A. A. ALSAADON PA

Head of delegation

*Attending***KUWAIT (State of) (continued)***Delegates:*

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Mr. ABDULHADI AL-QALLAF	XII, XVI, XV, Sp.D, PA
Mr. A. M. AL SABEJ	IX, VIII, X, XIV, GAS 5, Asia

LEBANON

Mr. M. GHAZAL	PA
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*Head of delegation***LUXEMBOURG**

Mr. C. DONDELINGER	PA
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*Head of delegation**Delegate:*

Mr. N. NEW	PA
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MALAYSIA

Mr. M. HASSAN	PA
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*Head of delegation**Delegate:*

Mr. S.W. MAH	Asia, PA
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MALAGASY REPUBLIC

Mr. P. RATOVONDRAHONA	X, VI, Africa, PA
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*Head of delegation***MALI (Republic of)**

Mr. M. A. SOW	III, GAS 5, TAF, Africa, PA
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*Head of delegation**Delegate:*

Mr. M. SIDIBE	III, GAS 5, XIII, TAF, Africa
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MOROCCO (Kingdom of)

Mr. M. AOUD	PA
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*Head of delegation**Delegate:*

Mr. M. MOUHCINE	TAF, Africa, PA
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MEXICO

Mr. J.J. HERNANDEZ G.	Sp.D, PA
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Head of delegation

Mr. H. ARELLANO	I, IX, VIII, Sp.A, X, XIV, XV, Sp.D, IV, PA
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*Deputy head**Delegate:*

Mr. E. LUENGAS HUBP-	XII, XVI, II, III, GAS 5, XIII, XI, TAF, V, V/VI, VI, PA
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*Attending***MONACO**

Mr. C. C. R. SOLAMITO PA
Head of delegation

MONGOLIAN PEOPLE'S REPUBLIC

Mr. J. CHOINKHOR PA
Head of delegation

NIGERIA (Federal Republic of)

Mr. S. O. OGUNLEYE II, III, GAS 5, XIII, TAF, XI, PA
Head of delegation

Delegates:

Mr. FATIMILEHIN IX, VIII, XV, Sp. D, Africa, PA
 Mr. O. SOETAN I, III, GAS 5, XIII, TAF, Africa, PA

NORWAY

Mr. P. ÖVREGARD PA
Head of delegation

Dr. N. KNUDTZON PA
Deputy head

Delegates:

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 Mr. T. BRYDE IX
 Mr. A. ENGE XV
 Mr. J. FUGLESANG IV
 Mr. K. HAMMERSTRØM I, III, PA
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 Mr. T. MOE Sp. A
 Mr. E. MÖRK VI
 Mr. P. MORTENSEN PA
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 Mr. K. SUNE IV
 Mr. T. THOMMESSEN X
 Mr. K. THORSTEINSEN Sp. D

NEW ZEALAND

Mr. L. D. BEWLEY Sp. D, II, GAS 5, XIII, IV, V, V/VI, VI, Asia, PA
Head of delegation

Delegates:

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 Mr. A. TURPIE I, X, XIV, III, GAS 5, XIII, PA

UGANDA

Mr. P. A. MUKASA PA

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Head of delegation

PARAGUAY

Mr. J. BALSEVICH PA
Head of delegation

NETHERLANDS (Kingdom of the)

Mr. P. LEENMAN PA
Head of delegation

Mr. B. J. BAKKER PA
Deputy head

Mr. D. VAN DEN BERG PA
Deputy head

Delegates:

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Mr. H. W. ELSBORG	XV
Mr. J. GOETZ	Sp. D
Mr. H. L. GORISSEN	XV
Mr. B. VAN DER GRAAF	IX, Sp. A
Mr. R. A. GRÜNEWALD	Sp. D
Mr. G. C. A. HARMSSEN	XV, Sp. D
Mr. J. W. VAN HILTEN	XI
Mr. F. HOLD	IX, Sp. A
Mr. A. CHR. JANSEN	Sp. A, X, XIV, PA
Mr. C. DE JONG	XVI
Mr. G. KNORR	Sp. A
Mr. A. KOK	Sp. D
Mr. A. DE LANGE	Sp. A
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Mr. D. VAN DE NIEUWEGIESSEN	XI
Mr. G. P. OUWEHAND	VIII
Mr. F. PROOS	V, V/VI, VI
Mr. H. PUNTER	II, III, PA
Mr. A. ROOS	Sp. A, X
Mr. F. F. SIJMONS	XIII
Mr. R. R. WILSON	XV
Mr. J. J. VAN DER WILT	XI

PERU

Mr. P. FERNANDEZ P. PA
Head of delegation

*Attending***PERU (continued)***Delegates:*

Mr. J. REYNA	PA
Mr. J. VIDAURRAZAGA	PA

POLAND (People's Republic of)

Mr. H. BACZKO	PA
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*Head of delegation**Delegates:*

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Mr. J. DUNIN	I, II, III, PA
Mr. B. GREJCZ	XII, XVI, GAS 5, IV, V, V/VI, VI, PA
Mr. J. KARAS	PA
Prof. S. KUHN	GAS 5, XIII, PA
Mr. J. MILEK	Sp. D
Mr. H. BOSAK	PA
Mr. J. SOCHACKI	Sp. A
Mr. S. SZLASA	IX, VIII
Mr. W. VINOGRADOW	X, XIV, PA
Mr. G. WISNIEWSKI	XIII, XI, PA

PORTUGAL

Mr. M. SANTOS SILVA	PA
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*Head of delegation**Delegates:*

Mr. J. POLARES BAPTISTA	PA
Mr. J. A. SILVA GOMES	PA

Companhia Portuguesa Rádio Marconi

Mr. S. GOMES	Sp. A, X
Mr. A. WREM VIANNA	I, II, III

SYRIAN ARAB REPUBLIC

Mr. T. TABBAKH	XV, Sp. D, PA
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*Head of delegation**Delegate:*

Mr. O. HAFFAR	XIII, XI, PA
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UKRAINIAN SOVIET SOCIALIST REPUBLIC

Mr. I. E. TIMCHENKO	PA
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*Head of delegation***ROUMANIA (Socialist Republic of)**

Mr. G. AIRINEI	PA
----------------	----

Head of delegation

*Attending***ROUMANIA (Socialist Republic of) (continued)***Delegates:*

Mr. I. PETRARU	PA
Mrs. N. SOROCEANU	II, III, GAS 5, XIII, XI, PA
Mr. G. TRIFU	XIII, XVI, XV, Sp. D, PA
Mr. I. UDIŁA	Sp. A, X, XIV, IV, V, V/VI, VI, PA

UNITED KINGDOM (of Great Britain and Northern Ireland)

Mr. M. B. WILLIAMS	PA
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Head of delegation

Mr. A. P. HAWKINS	PA
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*Deputy head**Delegates:*

Mr. J. C. BILLEN	PA
Mr. A. E. CHRISTMAS	PA
Mr. M. L. FORD	PA
Mr. L. J. HARRIS	PA
Mr. C. J. MAURER	PA
Mr. S. R. V. PARAMOR	PA
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Mr. P. L. SÖDERBERG	XI
Mr. E. STORESUND	XI
Mr. E. STRINDLUND	X
Mr. U. THUNE	II
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SWITZERLAND (Confederation of)**Cerberus Ltd. (Männedorf)**

Mr. H. ZEYEN	V, V/VI
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Hasler S.A.

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Mr. H. R. GESSLER	Sp. D
Mr. P. KAMM	Sp. D
Mr. A. KARTH	XV
Mr. H. MARBET	X
Mr. U. SCHÜPBACH	XIII, XI
Mr. E. SCHWERDTTEL	XIV
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Mr. K. H. WEISIGK	XIII

Standard Téléphone et Radio S.A. (Zürich)

Mr. E. H. Keller	XV
Mr. R. METZGER	Sp. A, XI
Mr. H. U. VOGEL	Sp. A

III. INTERNATIONAL ORGANIZATIONS

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(E.C.M.A.)**

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Mr. J. SCHWARZ	VIII, Sp. A

International Air Transport Association (I.A.T.A.)

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Mr. M. DEKKER	III, PA
Mr. J. ENGLEFIELD	III, PA
Mr. H. KERSHAW	Sp. A, XV, III, PA
Mr. K. S. MOLENAAR	III, PA
Mr. G. MONNIOT	III, PA
Mr. R. VARGUES	III, PA

International Chamber of Commerce (I.C.C.)

Mr. R. BAALMAN	I, II, III, PA
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**International Conference on Large High Tension
Electric Systems (C.I.G.R.E.)**

Mr. C. CABRILLAC	VI
Mr. L. CSUROS	V, V/VI
Mr. J. H. GOSDEN	VI
Mr. G. GRAND	V, V/VI
Mr. B. HEUZE	VI
Mr. M. PAIMBOEUF	V, V/VI, VI
Mr. A. RAIMO	V, V/VI

International Teletraffic Congress (I.T.C.)

Mr. A. JENSEN	XIII
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**International Press Telecommunications Council
(I.P.T.C.)**

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Mr. O. ROBINSON	I, II
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*Attending***International Organization for Standardization
(I.S.O.)**

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Mr. L. DURAND	Sp. A, PA
Mr. W. H. RABY	PA
Mr. J. L. WHEELER	Sp. A, XIV

International Radio and Television Organization

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World Meteorological Organization (W.M.O.)

Mr. H. BARI	PA
Mr. K. YAMAGUCHI	I, Sp. A, III, PA

Arab Telecommunication Union

Mr. M. GHAZAL	PA
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International Union of Railways

Mr. CH. LAURENT	IV, V/VI, VI, PA
Mr. J. LUGUET	Sp. A

IV. I.T.U. GENERAL SECRETARIAT

Attending

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Miss M. KNIGHT, Assistant to the Secretary General	PA
Mr. R. E. BUTLER, Deputy Secretary General	PA
Miss P. TAILLEFER, Assistant to the Deputy Secretary General	PA
Mr. L. ENGVALL, Engineer	PA
Mr. A. B. MACLENNAN, Engineer	Sp. A, XV, Sp. D, GAS 5, XIII, TAF, Africa, Asia, PA
Mr. H. POULIQUEN, Counsellor	XV, GAS 5, Africa, Asia, PA
Mr. R. SMITH, Engineer	I, IX, X, II, III, GAS 5, PA
Mr. R. MACHERET	II, III, GAS 5, PA
Mr. P.-A. TRAUB	I, III, GAS 5, TAF, PA
Mr. F. M. WOOLEY	PA

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

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 Mrs. U. SUBIOTTO, Assistant
 Mrs. M. ZINOVIEFF, Secretary of the Chairman of the PA

Mr. T. OKABE, Engineer
 Mr. A. CABRERA, Engineer
 Mr. M. MALEK-ASGHAR, Engineer
 Mr. Y. SENUMA, Engineer
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 Mr. F. BIGI, Engineer
 Mr. E. PIERRE, Engineer
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Mr. R. CHAPUIS, Counsellor
 Mr. M. BETANCOURT MASCAREÑAS, Engineer
 Mr. Y. BOZEC, Engineer
 Miss J. CAMPBELL, Assistant

Mr. D. J. DORMER, Counsellor
 Mr. R. BAILLOD, Engineer
 Mrs. A. ANSELMIER, Assistant

Mr. A. WOLF, Administrator
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 Mr. M. GEROMEL
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 Mrs. R. GALPIN
 Mrs. L. JEANMONOD
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 Miss J. PENTZ

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Attending

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Mr. N. GADADHAR, Senior Counsellor	PA
Mr. M. JOACHIM, Senior Counsellor	All study groups and PA
Mr. R. FROOM, Counsellor	Sp. D, PA
Mr. Y. Y. MAO, Counsellor	Sp. D, PA
Mr. A. ARAÏ, Engineer	VIII, Sp. A, XIV, XIII, PA
Mr. Y. KRUPIN, Engineer	Sp. D, IV
Mr. CH. STETTLER, Engineer	X, Africa, Asia

VII. INTERNATIONAL FREQUENCY REGISTRATION BOARD

Mr. T. NISHIZAKI, Member of the Board	PA
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Mrs. BROOK			
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	Mrs. S. YATES, minute writer	
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			<i>Mrs. B. BEST</i>
			<i>Mr. F. MASDEVALL</i>
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LIST OF DOCUMENTS OF THE FIFTH PLENARY ASSEMBLY

WHITE DOCUMENTS

AP V-No.	Title
1	Report on the C.C.I.T.T. activities between the IVth and the Vth Plenary Assembly
2	Publication of the new C.C.I.T.T. Book
3	Report on the working methods and organization of the C.C.I.T.T.
+ Corr.	Corrigendum to the report on the working methods and organization of the C.C.I.T.T.
4	Report on the C.C.I.T.T. Secretariat
5	Report on technical assistance
6	Report on the work of the Plan Committees during the 4th study period of the C.C.I.T.T. (1968-1972)
7	Programme of meetings and invitations for meetings outside Geneva
8	Participation of private operating agencies, international organizations and scientific or industrial organizations in the work of the C.C.I.T.T.
9	Election of the Director of the C.C.I.T.T.
10	Report to the Vth Plenary Assembly on the estimate of the financial needs of the C.C.I.T.T.
11	Factors concerning the immediate future of the C.C.I.T.T.
12	Recommendations of the <i>ad hoc</i> group "Future of the World Plan Committee" to the Vth Plenary Assembly of the C.C.I.T.T., Geneva, 1972
+ Corr.	
13	Preliminary report of Study Group XI to the Vth Plenary Assembly
+ Add.	
14	Proposed new or modified Recommendations and Supplements to Volume VI
15	New or modified questions proposed for study in the 1973-1976 study period
16	Preliminary report of Study Group XIII
17	Proposed new or modified Recommendations
18	New or modified questions proposed for study in the 1973-1976 period
19	List of telex destination codes
+ Add. 1	
20	List of country codes for the international semi-automatic or automatic telephone service
21	Preliminary report on the work of the Joint Working Party on "New data networks"—Parts I and II

AP V-No.	Title
22	Preliminary report on the work of the Joint Working Party NRD: Part III/1
23	Preliminary report on the work of the Joint Working Party NRD: Part III/2
24	Question on public data networks for the period 1972-1976—Part IV
25	Second draft of the handbook on <i>Earthing</i>
26	Preliminary report of Study Group IX—Parts I and II
27	Preliminary report of Study Group IX—Parts III and IV
28	Preliminary report of Study Group XVI (Facsimile telegraph transmission and equipment)
29	Preliminary report of Study Group I—Part A: Simplification of the Telegraph Regulations
+ Cor.	Corrigendum I to documents AP V/29-E/S and COM I-No. 97-E/S (Simplification of the Telegraph Regulations)
+ Add.	Addendum to document AP V/29-E/S and COM I-No. 97-E/S (Simplification of the Telegraph Regulations)
30	Preliminary report of Study Group I—Part B: Matters other than simplification of the Telegraph Regulations
31	Preliminary report of Study Group X—Parts I and II
32	Preliminary report of Study Group X—Parts III and IV
33	Third draft for the revision of the booklet on the <i>Preservation of wooden poles</i>
34	Drafts of new amended Recommendations for Volume IV
35	Guide for the application of the C.C.I.T.T. <i>Directives</i> in a simple case
36	Second draft text for sections 5 to 7 of Chapter XVIII
37	First draft of Chapter VIII of the handbook on the <i>Protection of telecommunication lines and equipment against lightning discharges</i>
38	Fourth draft of Chapter V of the handbook on the <i>Protection of telecommunication lines and equipment against lightning discharges</i>
39	Preliminary report by Study Group III to the Plenary Assembly
40	List of questions proposed for study during study period 1973-1976
41	Draft revised Recommendations submitted for approval by the Vth Plenary Assembly of the C.C.I.T.T.
42	Draft Recommendation G.702 Vocabulary of pulse code modulation and digital terms
43	Final report of Joint Special Study Group C to the Vth Plenary Assembly
44	Preliminary report by Special Autonomous Working Party No. 5 (GAS 5)
45	New draft recommendations or revised draft recommendations submitted for approval by the Vth Plenary Assembly of the C.C.I.T.T.
+ Add.	
46	Preliminary report by Study Group V to the Vth C.C.I.T.T. Plenary Assembly
47	Report on Rome Meeting, 20-22 September 1972
48	Extract from the preliminary report of Study Group X
49	Proposed amendments to Recommendation S.4
50	Proposed amendment to Recommendation F.30 following a decision by Study Group IX on the introduction of a "ready for test" signal
51	Extract from the preliminary report of Study Group X (document AP V-Nos. 31 and 32)
52	Preliminary report on the work of the Joint Working Party on Alphabet

AP V-No.	Title
53 + Corr.	Preliminary report on the work of Special Study Group A (Data transmission)
54	Draft recommendations on digital transmission systems (G.700 series)
55	Preliminary report of Study Group VIII
56	Preliminary report of Study Group VI (see also document AP V-No. 33)
57	Preliminary report to the Vth Plenary Assembly (Study Group XII)
58	Preliminary report to the Vth Plenary Assembly (Study Group IV)
59	Measure to improve C.C.I.T.T. operations
60	Proposals for a provisional recommendation for a new method for determining loudness ratings of local telephone circuits (Part 1)
61	Report on Question 15/XII—Parts 2 and 3
62	Final report of GM/FT 6 to the Plenary Assembly and to Study Groups XI and XIII
63	Preliminary report by Study Group II to the Plenary Assembly
64	Parts I, II and IV of the preliminary report of Study Group XVI to the Plenary Assembly
65	Proposed amendments to the beginning of Volume III and Volume V of the <i>White Book</i>
66	Proposals for a provisional recommendation for a new method for determining loudness ratings of local telephone circuits, Parts 4 and 5
67 + Corr.	Worldwide telex and gentex routing plan
68	Preliminary report of Study Group XV
69	Report on the meeting held in Geneva (26-29 June 1972)
70	Proposed Recommendations F "X" and F "Y"
71	Reliability and availability of leased telecommunication circuits
72	Annex to C.C.I.T.T. Question 8/C
73	Report to the Vth Plenary Assembly (Study Group VII)
74	Proposals for the revision of the J-series Recommendations concerning sound programme transmissions
75	Amended Questions (1, 2, 4, 6, 7 and 8/XV) and new questions concerning programme transmission
76	Final report of Special Autonomous Working Party No. 3 (GAS 3)
77	Final specifications of signalling system No. 6 for in-service application
78	Functioning of the regional tariff groups set up by the IVth Plenary Assembly
79	Dividing lines between the fields of competence of Study Groups I, II and III
80	Corrigendum to the draft reply to Question 11/XII—Part B
81	Report of the meeting in London on 11-15 September 1972 of a working group of Study Group IV studying Question 18/IV

AP V-No.	Title
82	Comments on the wording and contents of Recommendation M.18—revision of the present text
83	Report on the <i>ad hoc</i> working group held in London on 11-15 September 1972 regarding measuring instrument specifications
84	Proposals relating to Study Group VII
85	A proposed improved organization to deal with questions relating to maintenance
86	Reliability studies
87	Liaison statement from the I.S.O. to the Vth Plenary Assembly
88	Operational problems on leased data circuits
89	Draft instructions for the international telephone service
90	Status and work of regional tariff working parties
91	A proposed allocation of questions on maintenance
92	Form of publication of the C.C.I.T.T. volumes
93	Issuing the final reports of Study Group to all Study Group members
94	Remarks on the report of the <i>ad hoc</i> working group on the future of the World Plan Committee, (document AP V/12)
95	Final report of Study Group XII to the Plenary Assembly (amends and completes document AP V/57 and COM XII-No. 152)
96	Revised draft telegraph regulations
97	Final report of Study Group IX to the Vth Plenary Assembly
98	Final report of Study Group III to the Plenary Assembly (report of the meeting of Study Group III, 16-17 November 1972)
99	Final report by Study Group IV to the Vth Plenary Assembly
100	List of documents
101	Texts for Recommendations proposed for including in the K series (K. (x) and K.(x+1)) with proposals for the future study of a text for Recommendation K.(x+2).
102	Proposal for a new C.C.I.T.T. study question regarding temporary telex and telephone subscribers held by customers in other countries than their own
103	Final report of Study Group I to the Vth Plenary Assembly
104	Final report of Study Group II to the Vth Plenary Assembly (report on the meeting of the Study Group from 13-15 November 1972)
105	Statistics rationalization
106	Final report of Study Group XVI to the Vth Plenary Assembly
107	Final report of Study Group VIII to the Vth Plenary Assembly
108	Final report of Study Group VI to the Vth Plenary Assembly
109	Final report of Study Group V to the Vth Plenary Assembly
110	Final report of Special Autonomous Working Party No. 5 (GAS 5) to the Vth Plenary Assembly (Report on the Meeting of GAS 5, 20-21 November 1972)

AP V-No.	Title
111	Report of Co-ordination Group No. 1 to the Vth Plenary Assembly
112	Final report on the work of the Joint Working Party on "New data networks"
113	Final report of Study Group X to the Vth Plenary Assembly
114	Final report of Study Group XV to the Vth Plenary Assembly
115	Final report of Special Study Group A (Data transmission) to the Vth Plenary Assembly
116	Study of a domestic or regional satellite system for telecommunications and sound and television broadcast transmission
117	Cable systems with a small number of channels (Question 18/XV)
118	Final report on the work of the Joint Working Party on Alphabet
119	Options to be taken by the Vth Plenary Assembly for studies in 1973-1976 on the integrated services digital network
120	Proposal for a new C.C.I.T.T. study question regarding defaulting subscribers
121	Regional draft recommendations concerning the determination of accounting rate quotas and collection charges in telephone and telex relations between countries of Africa
122	Final report of Study Group XIII
123	Final report on the work of Study Group XIV (see preliminary report AP V/28)
124	Final report of Study Group XI to the Plenary Assembly
125	New or modified questions proposed for study in the 1973-1976 study period
126	Revised specification for signalling system R1
127	Specifications for system R2 (Recommendations G.350 to Q.388)
128	Corrections and additions to document AP V/62 (GM FT 6—Final report)
129	Simplification of telephone regulations (Resolution No. 36 of Plenipotentiary Conference)—Document AP V/104
130	Special Study Group D's final report—Part IV
131	Special Study Group D's final report to the Vth Plenary Assembly
132	Publication of new C.C.I.T.T. Book
133	Proposal to set up a new Autonomous Specialized Working Party (GAS 6) on stored-programme controlled exchanges

LIST OF TEMPORARY DOCUMENTS

Temp. doc. PA No.	Title
1	Tentative agenda for the week 4-8 December 1972
2	First list of documents
3	Second list of documents
4	Statement by W.M.O. representative at the Vth Plenary Assembly of the C.C.I.T.T.
5	Tentative agenda for the week 11-15 December 1972
6	Presentation of the economic statistics the publication of which is proposed by GAS 5
7	Third list of documents
8	Provisional minutes of the first plenary meeting
9	Provisional minutes of the second plenary meeting
10	Provisional minutes of the inaugural meeting
11	Presence of the representatives of the Government of the Republic of South Africa at the Vth Plenary Assembly of the C.C.I.T.T.
12	Report to the Vth Plenary Assembly on the working methods of the C.C.I.T.T.
13	Appendix 1 of the Telephone and Telegraph Regulations
14	Provisional minutes of the third plenary meeting
15	Provisional minutes of the fourth plenary meeting
16	Provisional minutes of the fifth plenary meeting
17	Provisional minutes of the sixth plenary meeting
18	Statement (Head of delegation from the Republic of Korea)
19	Statement (Delegation of the Republic of Viet-Nam)
20	Report of the Working Party of Committee A "Resolutions and opinions"
21	Statement (Delegation of the People's Republic of Albania)
22	Statement (Delegation of the People's Republic of Albania)

Temp. doc. PA No.	Title
23	Presence of representatives of the Government of the Republic of South Africa at the Vth Plenary Assembly of the C.C.I.T.T.
24	Statement (Delegation of the Bielorussian Soviet Socialist Republic, the Union of Soviet Socialist Republics and the Ukrainian Soviet Socialist Republic)
25	Report of Committee B to the Plenary Assembly
26	Report of Committee D to the Plenary Assembly
27	Provisional minutes of the seventh plenary meeting
28	Report of Committee C to the Plenary Assembly
29	Statement (Delegation of the People's Republic of China)
30	Statement (Delegation of the Khmer Republic)
31	Statement (Delegation of the United States of America and the Territories of the United States of America)
32	Amendments to temporary document No. 12
33	Statement (Head of the delegation of Cuba)
34	Statement (Head of the delegation of the Socialist Republic of Roumania)
35	Statement (Delegation of the People's Republic of Poland)
36	Statement (Delegation of the People's Republic of China)
37	Proposed opinion to be transmitted by the Vth Plenary Assembly to the Plenipotentiary Conference at Torremolinos in 1973
38	Statement (Head of the delegation of the Czechoslovak Socialist Republic)
39	Statement (Delegation of the Republic of South Africa)
40	Statement (Head of the delegation of the People's Republic of Bulgaria)
41	Provisional minutes of the eighth plenary meeting
42	Provisional minutes of the ninth plenary meeting
43	Provisional minutes of the tenth plenary meeting
44	Provisional minutes of the eleventh plenary meeting
45	Provisional minutes of the twelfth and last plenary meeting

MINUTES OF THE PLENARY MEETINGS

THE INAUGURAL MEETING

(minutes as amended at the Eleventh Plenary Meeting)

Monday, 4 December 1972, at 11.30 a.m.

Chairman: Mr. A. BIGI (Italy)

(later) Mr. H. BACZKO (People's Republic of Poland)

Subjects discussed:

1. Election of the Chairman of the Vth Plenary Assembly
2. Address by the Chairman
3. Election of the Vice-Chairmen of the Vth Plenary Assembly
4. Address by the Secretary-General
5. Address by Mr. E. HUMMEL, Acting Director of the C.C.I.T.T.
6. Address by Mr. F. LOCHER, Director-General of the Swiss P.T.T., representing Mr. R. BONVIN, Federal Councillor
7. Statement by the Delegate of the People's Republic of China

1. Election of the Chairman of the Vth Plenary Assembly of the C.C.I.T.T.

Mr. BIGI, Dean of the Heads of Delegations, called the meeting together. He welcomed warmly the new participants who included the Delegation of the People's Republic of China. On behalf of the Meeting of the Heads of Delegations he proposed Mr. Baczko (People's Republic of Poland) as Chairman of the Vth Plenary Assembly. Mr. BACZKO was elected by acclamation.

2. Address by Mr. H. Baczko, Chairman of the Vth Plenary Assembly of the C.C.I.T.T.

Mr. Locher, Mr. Mili, Mr. Hummel, distinguished delegates:

May I first of all express my sincere emotion on my nomination as Chairman of the Vth Plenary Assembly. This nomination is considered by me as an honour for my country and my region and as an appreciation of the contribution of Polish scientists to technical and international co-operation in the field of telecommunications. I am aware of the difficulties facing me and know that the tasks entrusted to me are onerous and complex. I thank you for the confidence you have shown in me and I assure you that I will do my best to live up to your expectations. I am sure that, with the help of the Chairmen of the Committees, Mr. Hummel, the staff of the Secretariat and the staff of the I.T.U., our Assembly will overcome all difficulties and that at the end of our work we shall be happy with the results achieved. On looking round the Assembly I see many new faces, including the delegates of new members of the C.C.I.T.T. family, participating for the first time at a Plenary Assembly. Among them I see and extend

a warm welcome to the delegation of the People's Republic of China. I also welcome all those who have worked in this same room on other occasions. We have together spent many hours in discussions and debates during which we have developed concepts which have now been translated into reality and are of major importance in the world network of telecommunications.

I greatly regret the absence of one person who has been with us since the foundation of the C.C.I.T.T., Mr. Jean Rouvière, its first Director, an outstanding expert, a great person and a friend to us all, who unfortunately did not live to see the opening of the Vth Plenary Assembly nor the results of the preparatory work to which he devoted so much of his time. I am sure I am expressing your wishes in addressing to Mrs. Rouvière and to the family our sincere condolences and our deep sympathy. May I request you to observe one minute's silence in memory of Mr. Rouvière.

I should like to say a few words to those who no longer actively participate in our meetings but whose work over many years has greatly contributed to our success. First, Mr. Valensi, who for many years headed the C.C.I.T.T. and acted as its Director, and Mr. Lagenburger, who was Chairman of the IIIrd Plenary Assembly. I should like to express my best wishes to them for a well-earned retirement.

This Plenary Assembly is the Fifth and is thus an anniversary of which we are proud. We can look back on our work with pride but we must also look ahead. We are on this occasion meeting at C.C.I.T.T. headquarters but we have also held assemblies in Mar del Plata and New Delhi, which shows the increasing universality of our organization. More and more countries are taking part in our work and as a result of the favourable trends in international affairs fewer blanks are left on the map with regard to the C.C.I.T.T.'s activities. Although there are many areas in which problems still need to be solved, such as the Near East and Indo-China, a more favourable climate for international contacts now exists. The I.T.U. has an increasingly important role to play and it is our responsibility to create a framework of development in which the I.T.U. can attain its proper place and not lag behind. We are witnessing exceptional changes and progress in technology, including satellite communications, electronic communications, pulse code modulation and data transmission. These techniques must be put at the service of mankind as soon as possible. It is essential to select from the mass of problems those whose solution will make modern techniques accessible to all countries and enable such techniques to be mastered by our colleagues from developing countries. Contacts with these countries are also very important and we must therefore develop technical aid intensively. We have set up a group of experts that has studied the problems of the C.C.I.T.T. in great detail trying to find the weak links in our organization. It has put forward a number of proposals to expedite our work. Our main tasks include discussion of the report of this group of experts, and the establishment of guidelines and directives to enable our goals to be achieved more rapidly. The results of our work will no doubt affect the work of the conference in Torremolinos. If we work well here and develop our working methods efficiently the C.C.I.T.T. problems will be put forward in the best way.

In conclusion, we have the task of electing a new Director, a person who will see that the directives are put into practice in accordance with the Convention and the new Telegraph and Telephone Regulations, which form part of the work of the C.C.I.T.T.

I have mentioned only some of the problems facing us but our agenda includes others.

Our programme is a vast one, but I hope that by working in a spirit of co-operation, by making compromises where necessary, and by uniting our efforts in the cause of telecommunications for the service of mankind we shall achieve our objectives.

I also hope that we shall have some time to spare to enjoy the unique charm of Geneva, a city with many moods and changes of weather. I hope Geneva will smile on us despite the season we have chosen for our Assembly.

3. Election of the Vice-Chairmen of the Vth Plenary Assembly

Mr. BIGI, Dean, on behalf of the meeting of Heads of Delegations proposed the following as Vice-Chairmen: Mr. BLACK (United States of America), Mr. HERNANDEZ (Mexico), Mr. MAKINO (Japan), Mr. SOW (Mali) and Mr. SAVITSKII (U.S.S.R.). Their election was approved by acclamation.

4. Address by Mr. M. Mili, Secretary-General of the Union

Mr. Chairman,

May I first of all congratulate you, on behalf of the I.T.U., on your brilliant election as Chairman of this Vth Plenary Assembly of the C.C.I.T.T. Your extensive knowledge of the workings of this permanent organ of the Union, your many years of dynamic and active participation in its work and your work with the Administrative Council of the Union, whose 26th Session you so admirably chaired, makes you specially fitted to take the chair at this important conference.

Mr. Chairman,

Mr. Director-General of the Swiss P.T.T., representing Mr. Bonvin, Federal Councillor,

Ladies and Gentlemen,

Although it is the firm principle of the I.T.U. in general and of the C.C.I.T.T. in particular to face steadfastly towards the future, it is still a good idea to cast a glance behind us from time to time. Without becoming captivated by history, it is sometimes useful for us to trace the main lines of our past development from which to derive guidance for future action.

Don't be afraid; I have no intention of going back to the very beginnings of the Union, or even to those of the C.C.I.F., whose activities, if one counts its predecessors the C.C.I.F. and the C.C.I.T., cover a good half-century. I shall not go beyond the first Plenary Assembly which, in 1956, decided to create the C.C.I.T.T. by merging the former Telegraph and Telephone Committees into a single body.

This historic decision, as bold as it was sensible, marked a decisive turning-point in the history of the I.T.U. and highlighted a fundamental development in the international telecommunications of the time.

Before the invention of telex, the techniques of telegraphy and telephony were sufficiently different for the two bodies, the C.C.I.F. and the C.C.I.T., to be able to exist side by side without encroaching on each other's activities. But the advent of telex, which introduced telephone technique into the transmission of written messages, together with other innovations, was to make some kind of alliance between the two C.C.I.s inevitable.

Furthermore, although the C.C.I.F. and the C.C.I.T. were in principle open to all the Members of the Union, their activities were focused on problems of major or even exclusive concern to the European countries—to such an extent that the United States and Canada had not seen fit to sign or approve the Telephone Regulations established in 1958 and still in force.

Yet the activities of these two Consultative Committees (C.C.I.F. and C.C.I.T.) were greatly stimulated by the fact that there was already a transcontinental network in North America which constituted a technical model for an international network on a continental scale. Thus one had a paradoxical situation where the representatives of that part of the world confined themselves to describing their own network without displaying any particular interest in the problems raised, in Europe and elsewhere, by the existence of frontiers and by language differences.

For their part, the Europeans were entirely bound up in their own problems to the exclusion of all else and regarded North American matters as belonging to a continent too remote to have any real bearing on telecommunications in the old world.

In short, although both sides were Members of this same organization which is called the I.T.U., we had the impression that we were dealing, in telecommunications, with two fairly different worlds with technical standards and modes of operation which were not always the same.

Very fortunately, the development of telegraph and telephone techniques, which were continually brought nearer together, coupled with the advent of the countries of the third world to the international scene, was to change all this.

Thus the establishment of the C.C.I.T.T. coincided with one outstanding event in this development which was a genuine technical revolution: I refer to the laying of the first transatlantic telephone cables. These brought about a spectacular rapprochement between Europe and the North American continent, leading automatically to a considerable broadening of the scope of the C.C.I.T.T.'s activities. Submarine telephone cables now opened up the whole world to the automatic telephone and telex operation which already existed within certain continents.

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A further highly important event also coincided with the creation of the C.C.I.T.T.; this was the arrival in force of new or developing countries in the I.T.U. This post-war phenomenon had begun to have a certain influence on Union activities in the '50s, but the full impact was not felt until the beginning of the '60s.

The I.T.U. then found itself faced with new problems, most important among which were those of technical cooperation. As you know, a number of C.C.I.T.T. Study Groups have had to take account of this by changing their structure, the Plan Committee for example, or by setting up special Working Parties such as the GAS, or by agreeing to deal with questions of particular concern to these countries.

This two-pronged development had a number of consequences. The first concerned the places at which the Plenary Assemblies met.

For example, in 1960, the second C.C.I.T.T. Plenary Assembly was held outside Europe in New Delhi, as if to emphasize the worldwide mission of an organization in the process of renewal. Moreover, for the first time there was a Technical Co-operation Committee among the Committees of the Assembly.

Finally, this important New Delhi meeting, with an eye to the future worldwide automatic network, also broached the transmission, operation and planning problems of intercontinental links.

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The spectacular expansion of Plan activities was another feature of the evolutionary process. At the outset, the C.C.I.F.'s general interconnection programme applied solely to Europe though later it was extended to the Mediterranean Basin and then to some Asian countries.

By 1960, it was felt necessary to extend Plan activities to the whole world by setting up three regional sub-committees and a regional group, which in 1968 became four committees, and a World Plan Committee, responsible for the smooth development of the intercontinental network.

This geographical extension of planning activities was accompanied on various occasions by a revision of methods of work. At first, for example, the main task was to plan the telecommunication arteries required between the various countries, on the basis of fairly sketchy traffic estimates. Later the Plan Committees went in for detailed studies of traffic volume and flow. Recently, they have included satellite links in the intercontinental arteries.

Finally, technical advance on the one hand and the explosion in telecommunication media on the other hand caused the World Plan Committee to question the very efficacy of its work. For example, opening the World Plan Committee's meeting in Venice last year, our late regretted Mr. Rouvière said:

"After rendering yeoman service, the World Plan Committee is coming to a turning-point in its career. Either it must consider that it is no longer of any use, which would be extremely regrettable, or it must introduce new methods of work."

In response to this appeal, the World Plan Committee set up a Working Group to consider the best way of carrying through such a reform.

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With the emergence of the computer as an essential tool for all kinds of activities, data transmission and high-capacity circuits were to confront the C.C.I.T.T. with fresh problems urgently requiring solution.

The large-scale intervention of the computer in various telecommunication techniques, the use of satellites for many telecommunication services and the imminent development of telephone cables with a capacity of several thousand channels now call for a complete overhaul of the C.C.I.T.T.'s methods of work.

Foreseeing these developments, Mr. Rouvière stated at the inaugural meeting of the New Delhi Plenary Assembly:

"First of all, the C.C.I.T.T., without betraying the traditions which are its mainspring, has to adapt the rhythm of its work to the requirements of modern life. In the past, it could take time to reflect on problems before studying them and could carefully polish the solutions it found. Henceforth, however, progress in telecommunications is too rapid for such comfortable habits to be retained.

"As soon as a new technique appears on the horizon, the C.C.I.T.T. has to take it up immediately and make the speediest possible studies, for fear of being too late to ensure international standardization. Our

Plenary Assembly will have to face this position and endeavour to rejuvenate the organization and working methods of the C.C.I.T.T. to ensure that full efficiency is maintained, without which, I have no hesitation in stating here, there would be no point in its existence at all."

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Ladies and Gentlemen,

These words of prophetic wisdom, spoken 12 years ago, still hold good today and I would wish you to be guided by them now.

Already in 1968, at Mar del Plata, you decided that the Study Group meetings and the Plenary Assembly would in future be held separately. You also adopted the principle of provisional recommendations and introduced some improvements in your methods of work. I am certain that you will continue along these lines, adopting new solutions calculated to enhance the C.C.I.T.T.'s well-known efficiency.

In this connection, I should like to say how much we appreciate the admirable work done by the specialized secretariat of this permanent organ of the Union, especially when one considers how modest its resources have always been.

In my position I am well able to realize the extraordinary devotion to duty displayed by the Counsellors and the administrative staff of this secretariat.

I should also like to reaffirm all I said four years ago on the excellent relations which I had with the late and much lamented Mr. Rouvière, who was a great friend of mine, and on the admirable manner in which the staff of our respective secretariats work together. I am certain that this harmonious relationship will persist after the election of the new director.

However, although the C.C.I.R. and the C.C.I.T.T. are performing work of the same quality, one cannot help noticing that their methods of work, particularly with regard to the Study Group meetings, are not the same. Whereas, for the C.C.I.R., everything is centred on a single period between two consecutive Plenary Assemblies, the C.C.I.T.T. spreads its meetings out over the years, which permits greater flexibility in their organization.

Needless to say, such a difference is bound to have repercussions on the cost of the meetings of each organ and I think that this is a matter which deserves the Administrations' serious attention.

I also welcome the systematic study undertaken by the specialized secretariat of the C.C.I.T.T. on the respective methods of work of the C.C.I.T.T. and the C.C.I.R. to enable you to make a thorough review of those which concern you. I am sure that this delicate matter will engage your full attention.

Mr. Chairmar,

Ladies and Gentlemen,

Like the first transatlantic telephone cable in 1956, the communication satellite and the very high-capacity telephone cable have brought a new cohesion to telecommunications throughout the world.

Yet, paradoxically, veritable centrifugal forces seem to be at work which, if we are not careful, might split the Union into three elements, each withdrawn within itself: the C.E.P.T. countries, the North American countries and the countries of the third world.

If such a trend were to be confirmed, it would run contrary to the very objectives of the Union as set out in Article 4 of the Convention. It would also be a complete negation of the spirit which has always animated the work of the I.T.U.

Very fortunately, co-operation between the I.T.U. on the one hand and C.E.P.T. and the other regional organizations on the other hand is excellent and we are sure that it will be further strengthened.

While those problems of particular concern to a given region would be better dealt with by regional unions, problems of worldwide scope must remain the exclusive province of the I.T.U.

However, complaints are fairly often heard about delay by the I.T.U. in publishing its documents. This could be used as a valid pretext to strengthen the prerogatives and hence the standing of the regional unions at the expense of the I.T.U.'s authority. Such delay represents a real handicap for the Union and prevents it from properly fulfilling its role. It is therefore my duty to emphasize this disturbing situation here, while assuring you that the problem is receiving our constant attention.

As you know, the General Secretariat is responsible for the translation, typing, reproduction and dispatch services which are common services available to all four permanent organs of the Union. In performing these tasks, it works fully in concert with the specialized secretariat of the C.C.I.T.T. However, when it is faced with a large influx of documents to be translated and reproduced at very short notice, it cannot carry out its task properly, particularly if Administrations send in their contributions after the prescribed dates and especially if delegates arrive at meetings with documents in their pockets which have to be translated and published in a great hurry.

The publication of the books containing the results of your deliberations is also one of the major preoccupations of the General Secretariat, which in this field acts in close co-operation with the C.C.I.T.T. staff. This is one of the matters which you will have to discuss when studying the report of the group of experts on the organization and working methods of the C.C.I.T.T. I cherish the hope that the measures which this Assembly decides upon will provide a satisfactory solution to this serious problem which has been worrying us for over a decade.

Mr. Chairman,

Ladies and Gentlemen,

The I.T.U. has always managed to adapt itself to technical progress and I am therefore convinced that the future of the C.C.I.T.T. will be worthy of that brilliant past which I have just recalled. I accordingly wish you every success in the accomplishment of your onerous task.

5. Address by Mr. E. Hummel, Acting Director of the C.C.I.T.T.

Mr. Chairman,

Mr. Director-General,

Mr. Secretary-General,

Ladies and Gentlemen,

May I, at first, congratulate most heartily our Chairman, Mr. Baczko, on his outstanding election this morning. With your profound knowledge of the problems of the C.C.I.T.T. and your reputation for excellently guided meetings, I am sure that our Plenary Assembly will be an entire success and indicate the future guidelines of the C.C.I.T.T.

On behalf of the Secretariat of the C.C.I.T.T. and myself, I wish to address a very cordial welcome to you and it is a great pleasure for me to see not only so many member Administrations and recognized private operating agencies from all over the world but also high representatives from the Swiss Government, from the United Nations specialized agencies and from all the international organizations with which we have such amicable and fruitful relations. I am especially pleased to welcome the People's Republic of China and would like to thank this Delegation for the interest it shows in our work.

It is with a sense of deep emotion that I take the floor on this occasion since our highly esteemed Director, Mr. J. Rouvière, who would have delivered the inaugural address, is no longer with us. I had the sad duty to inform you by circular-letter that Mr. Rouvière died in July this year, leaving a gap of which we all are painfully aware. His sense of humour, his command of the most subtle shades of the French language, his never-ceasing readiness to defend the interests of the C.C.I.T.T. and, last but not least, his brilliant technical and administrative talent, were the guarantor to directing so efficiently a worldwide organ such as the C.C.I.T.T.

The departure of Mr. Rouvière was a great blow to the Secretariat of the C.C.I.T.T., especially at a period when the preparations of the Vth Plenary Assembly had to be started. From my knowledge of the points which are of major concern to the membership of the C.C.I.T.T. and to the Secretariat itself, I have attempted to provide the Plenary Assembly with all the information necessary for your findings, and have tried to avoid influencing the meeting by making any undue emphasis on one or the other aspect. On the question of the publication of the next C.C.I.T.T. Book which has always, and rightly so, attracted much attention and discussion at previous Plenary Assemblies, I undertook a cost study considering various procedures, in which task I was amicably and very efficiently assisted by the General Secretariat to which I want to express my gratitude for the excellent spirit of collaboration.

Another important subject is the adaption of our working methods to the ever-increasing scope and workload of the C.C.I.T.T. It is a well-known fact that technology, user requirements and new facilities in telecommunications expand to an extent which challenges every Administration and also, inevitably, our C.C.I.T.T. Our experience

during the fourth study period has shown that a further increase in the number and length of study group meetings cannot be absorbed and as a consequence, our working methods and our means in terms of staff and budgetary resources might need a review. In order to assist the Plenary Assembly in this review, the C.C.I.T.T. Secretariat undertook an analysis of the respective working methods of the C.C.I.R. and the C.C.I.T.T. which resulted in a description of advantages and disadvantages of both methods, showing at the same time the extremely budget-conscious philosophy of the C.C.I.T.T. methods. I may add that this date of our Plenary Assembly was fortunately chosen, just prior to the meeting of the Administrative Council, and the Plenipotentiary Conference, both in 1973. Thus it will give us the opportunity to make known to these Assemblies the views of the Plenary Assembly on the future needs of the Secretariat of the C.C.I.T.T. to keep abreast with the rapid expansion of worldwide telecommunications.

Turning to the conference room accommodation of our meetings I very much regret that I could not offer to you one of the more modern conference buildings in Geneva. It seems to me, however, that it is good tradition of C.C.I.T.T. Plenary Assemblies to meet in this historical building, described by Mr. Rouvière in 1960 as "our good old glass cage, icy in winter, glowing in summer and being threatened with demolition for thirty years." Fortunately the Canton did not demolish it, perhaps because they know the financial reluctance of our Administrative Council and because they would not like to make us homeless.

Mr. Chairman, Ladies and Gentlemen, in closing I wish to express the sincere gratitude of the C.C.I.T.T. Secretariat to all the Chairmen, Vice-Chairmen and Delegates who worked with so much devotion in the various Study Groups and Working Parties thus making possible the success of our C.C.I.T.T. in reaching common solutions to the problems of international telecommunications. The work they did in drafting 67 new recommendations and amending a great number of existing recommendations is ample proof of the unique spirit of co-operation by which the work of the C.C.I.T.T. has always been characterized and to which we must whole-heartedly dedicate ourselves in our future work.

Mr. Chairman, Ladies and Gentlemen, I wish the Vth Plenary Assembly of the C.C.I.T.T. complete success.

6. Address by Mr. F. Locher, Director-General of the Swiss P.T.T.

It is with pleasure that I welcome you, on the occasion of the inauguration of the Vth Plenary Assembly, on behalf of the Government of the Swiss Confederation and present my best wishes for the success of this international conference which will have a great impact on the development of telecommunications in general and on the quality of the services offered to our subscribers.

Many recommendations will be submitted within the next few days for approval by this Conference which will thus be able to appreciate the work carried out in a spirit of constructive co-operation with the C.C.I.T.T. Secretariat. We regret that Mr. Rouvière is no longer with us to review the work carried out since the Mar del Plata Plenary Assembly in 1968.

Telecommunications in general and particularly the telegraph, télex and telephone services have become a part of our life and their use has become so natural that subscribers only become aware of them when they are faulty. We are used to being able to make telephone calls throughout the world and very often resort to automatic calls without any difficulty. Experts know, however, that unrelenting efforts are required to devise new equipment. We are aware of the difficulties of coming to terms with maintenance, tariff and operational problems as well as those involved in new data transmission networks and cable and satellite telecommunications. These problems can only be solved in the framework of an organization like the C.C.I.T.T. which has performed this task unceasingly throughout its existence. I think I am speaking on behalf of you all when I say that the C.C.I.T.T. Secretariat has done a good job and its staff deserve our congratulations.

The working methods of the C.C.I.T.T. will be revised, as happens at all our Plenary Assemblies, to adapt the organization of the C.C.I.T.T. to the tasks at hand and ensure the best possible effectiveness of the delegates. I hope that we shall succeed in our task and maintain a structure which has proved itself.

Let us not forget the work done by all Delegations, Chairmen and Study Groups. The Study Group Chairmen will report on their work and be assigned new tasks in the next study period. We wish them every success in their efforts in favour of worldwide telecommunications and assure them of our gratitude.

Mr. Chairman,

Ladies and Gentlemen,

I wish to express once again my best wishes to this Plenary Assembly and to formulate the hope that we shall attain our objectives in the spirit of full international co-operation.

7. Statement by the Delegation of the People's Republic of China

Mr. Chairman,

Mr. Bigi, Dean of the Heads of Delegations,

Mr. Mili, Secretary-General of the I.T.U.,

Fellow Delegates,

First of all, please allow me, in the name of the Telecommunication Delegation of the People's Republic of China, to express sincere thanks to Mr. Chairman, Mr. Bigi, the Dean, and Mr. Hummel, C.C.I.T.T. Acting Director, for the welcome they have given us.

On 29 May 1972, the 27th Session of the Administrative Council of the International Telecommunication Union adopted the Resolution restoring to the People's Republic of China her lawful rights in the I.T.U. This is a victory for all the countries that uphold justice. We would like to extend heartfelt thanks to Algeria, Pakistan and Yugoslavia which upheld principle and justice and sponsored the Resolution calling for the restoration of China's legitimate rights in the I.T.U., to those countries which supported this Resolution, and to all countries and personages showing sympathy, support and friendship to China.

I would like to take this opportunity to state that the Chinese Government has decided to accede to the International Telecommunication Convention (Montreux, 1965), but makes reservations on the Articles concerning the assignment and utilization of radio frequencies in the Radio Regulations annexed to the Convention. At the same time it must be pointed out that the signatures on the International Telecommunication Convention and the ratification thereof made by the Chiang Kai-shek clique in the past by usurping the name of China are illegal and therefore null and void, and that the representatives of the so-called "Republic of Viet-Nam" have no right to sign the Convention in the name of the Vietnamese people and therefore they have no right to attend any of the I.T.U. conferences and meetings.

In the present circumstances in which north and south Korea have agreed on the principle of independent and peaceful reunification, we are opposed to the representation of the south Korean authorities alone at the current C.C.I.T.T. Plenary Assembly.

The Chinese Minister of Foreign Affairs, Chi Peng-fei, has clearly expressed the above-stated attitude of the Chinese Government to the Secretary-General of the I.T.U. through diplomatic channels.

We must also point out that the Lon Nol Regime was imposed on the Khmer people by foreign forces. It has been illegal from the very beginning and absolutely has no right to be represented at any of the I.T.U. conferences and meetings on behalf of the Cambodian people.

For reasons known to all, the People's Republic of China was unreasonably excluded from the I.T.U. for as long as 22 years with the result that we are not well acquainted with conditions in the International Telecommunication Union. We have come to attend this Assembly with a readiness to learn. Starting from today, we shall progressively and actively take part in those beneficial activities of the I.T.U.

We are ready to make joint efforts with you to enable the present Plenary Assembly to achieve positive results.

Thank you, Mr. Chairman,

Thank you, fellow Delegates.

The meeting rose at 1 p.m.

FIRST PLENARY MEETING**Monday, 4 December 1972, at 3.15 p.m.***Chairman:* Mr. H. BACZKO (People's Republic of Poland)*Subjects discussed :*

1. Tribute to the dead
2. Expression of appreciation to retired delegates and officials of the C.C.I.T.T.
3. Setting up of the Conference Committees
4. Election of Chairmen and Vice-Chairmen of Committees
5. Constitution of the Conference Secretariat
6. Approval of the provisional agenda for the first week of the Plenary Assembly
7. Procedure for election of the new Director
8. Report by Study Group I
9. Report by Study Group II

1. Tribute to the dead

The ACTING DIRECTOR of the C.C.I.T.T. read out the names of delegates and officials of C.C.I.T.T. meetings who had died since the IVth Plenary Assembly:

Mr. A. KOPPING	Germany (Federal Republic of)
Mr. E. SCHULZ	Germany (Federal Republic of)
Mr. FERNANDEZ	Argentina
Mr. R. J. KOLBE	Australia
Mr. R. V. MCKAY	Australia
Mr. W. H. OTTO	Australia
Mr. A. E. SHEPHERD	Australia
Mr. F. HENNEBERG	Austria
Mr. N. WENINGER	Austria
Mr. D. H. HAWLEY	Canada
Mr. G. H. PESCU	Canada
Mr. G. GELLA	Spain
Mr. S. M. MYERS	U.S.A. - F.C.C.
Mr. W. H. WATKINS	U.S.A. - F.C.C.
Mr. R. T. JAMES	U.S.A. - A.T. & T.
Mr. M. KAARENTO	Finland
Mr. OGBONAIYE	Nigeria
Mr. R. ALVES	Portugal
Mr. A. GATO	Portugal
Dr. N. W. J. LEWIS	United Kingdom - P.O.
Mr. J. M. CHORLEY	United Kingdom - B.B.C.
Mr. A. R. A. RENDAL	United Kingdom - B.B.C.
Mr. N. RÖNNBLUM	Sweden
Mr. A. MÖCKLI	Switzerland
Mr. C. E. GINDER - ANSI-ISO	Staff Engineer of American National Standards Institute
Mr. J. ROUVIÈRE	Director, C.C.I.T.T.

The Assembly stood for a moment's silence.

2. Expression of appreciation to retired delegates and officials of the C.C.I.T.T.

The ACTING DIRECTOR of the C.C.I.T.T. read out the names of delegates and officials of C.C.I.T.T. meetings who had retired since the IVth Plenary Assembly:

Mr. H. BITTER (Chairman SG XIV)	Germany (Federal Republic of)
Dr. R. KAISER (Chairman SG Sp. C)	Germany (Federal Republic of)

Mr. A. OHLMER (Chairman JWP NRD)	Germany (Federal Republic of)
Mr. C. J. GRIFFITHS	Australia
Mr. W. D. RHYS-JONES	Australia
Mr. J. L. SKERRETT	Australia
Mr. E. R. BANKS	Australia, resigned
Mr. O. MEINL	Austria
Mr. E. NEUHAUSER	Austria
Mr. M. LAMBIOTTE	Belgium
Mr. H. CLAEYS	Belgium
Mr. H. BISAILLON	Canada
Mr. D. F. BOWIE	Canada
Mr. J. R. LAMB	Canada
Mr. T. J. MACGREGOR	Canada
Mr. F. A. MATTEWS	Canada
Mr. H. J. WILLIAMSON	Canada
Mr. D. J. DE PAULA	Spain
Mr. D. J. MARTIN VAZQUEZ	Spain
Mr. J. F. CORKILL	U.S.A. - F.C.C.
Mr. E. L. KLINKSCALES	U.S.A. - F.C.C.
Mr. F. T. MCGANN	U.S.A. - F.C.C.
Mr. J. M. BARSTOW	U.S.A. - A.T. & T.
Mr. C. CLOS	U.S.A. - A.T. & T.
Mr. E. C. LAIRD	U.S.A. - A.T. & T.
Mr. D. T. OSGOOD	U.S.A. - A.T. & T.
Mr. J. P. RUNYON	U.S.A. - A.T. & T.
Mr. E. R. TARVIN	U.S.A. - A.T. & T.
Mr. E. N. WELLS	U.S.A. - A.T. & T.
Mr. V. HAVERINEN	Finland
Mr. G. LETELLIER	France
Mr. P. MARZIN	France
Mr. R. SUEUR	France
Mr. R. VARGUES	France
Mr. J. A. ESHUN	Ghana
Dr. J. BENKÖ	Hungarian People's Republic
Mr. M. FARIELLO	Italy - ASST
Mr. A. SPASIANO	Italy - Italcable
Mr. T. HACHIFUJI	Japan - K.D.D.
Mr. S. M. MUQTADIR	Pakistan
Mr. S. A. SATHAR	Pakistan
Mr. R. S. SALT	United Kingdom - P.O.
Mr. W. E. TOBIN	United Kingdom - P.O.
Mr. D. E. L. SHORTER	United Kingdom - B.B.C.
Mr. N. BERGLUND	Sweden
Prof. W. FÜRRER	Switzerland
Mr. H. KOELLIKER	Switzerland
Mr. CH. LANCOUD	Switzerland
Mr. L. B. HARMER	U.K. Overseas Territories - Bermuda Telephone Co. Ltd.
Mr. B. JELIČ	Yugoslavia
Mr. M. MILIČ	Yugoslavia
Mr. R. PETROVIČ	Yugoslavia
Mr. B. KALONJI	Zaire
Mr. J. MULUMBA	Zaire
Mr. F. TUMBA	Zaire
Mr. J. BESSEYRE	C.C.I.T.T.
Mr. P. CASTAGNÉ	C.C.I.T.T.

The CHAIRMAN speaking on behalf of all those present, wished the above retired delegates and officials every success and a happy retirement.

3. Setting up of the Conference Committees

The Assembly *decided* to establish four Committees, with the terms of reference proposed by the meeting of Heads of Delegations:

Committee A — Working methods of the C.C.I.T.T.

Terms of reference: Consideration of working methods of Study Groups and the Secretariat, definition of the Secretariat, definition of the resulting necessary resources

Committee B — Programme of work of Study Groups

Terms of reference: Detailed allocation of questions submitted to the Vth Plenary Assembly to the various Study Groups, Joint Study Groups, Special Study Groups, Special Autonomous Working Parties and Joint Working Parties

Committee C — Budget control

Terms of reference: Approval of accounts of the Vth Plenary Assembly

Committee D — Technical assistance

4. Election of the Chairmen and Vice-Chairmen of the Committees

The Assembly elected the Chairmen and Vice-Chairmen proposed by the meeting of Heads of Delegations:

Committee A — Mr. VAN DEN BERG (Netherlands)
Mr. MARCHAND (Canada)

Committee B — Mr. BURTZ (France)
Mr. WILLIAMS (United Kingdom)

Committee C — Mr. GHAZAL (Lebanon)
Mr. CISSE (Senegal)

Committee D — Mr. IRRERA (Argentina)
Mr. GRAVELL (Australia)

5. Constitution of the Conference Secretariat

The ACTING DIRECTOR of the C.C.I.T.T. informed the Assembly that the following C.C.I.T.T. Counsellors would act as Committee secretaries:

Committee A — Mr. DORMER

Committee B — Mr. LALOU

Committee C — Mr. CHAPUIS

Committee D — Mr. CHAPUIS

6. Approval of the provisional agenda for the first week of the Plenary Assembly

The CHAIRMAN submitted for approval the provisional agenda contained in temporary document No. 1, with additional item "Procedure for the election of the new Director of the C.C.I.T.T." for the second plenary meeting.

It was pointed out that the report of the NRD Joint Working Party should be included in the French version of the agenda for the fourth plenary meeting.

Further to the request that in the first week Committees A and B should not meet simultaneously, it was *decided* that the heads of delegations meeting should be held at 2 p.m. on Friday, 8 December, followed by Committee D at 3.30 p.m.

With these alterations, the provisional agenda was *approved*.

The following timetable was *adopted*:

9.30 a.m. to 12.30 p.m.
and 3 p.m. to 6 p.m.

7. Procedure for election of the new Director

The SECRETARY-GENERAL read out the part of the Administrative Council Resolution relating to the deadline for the submission of candidatures.

It was *agreed* that the deadline would be midnight, 5 December, G.M.T.

Several delegates having expressed their preference for the election to be deferred to the following week to allow time for examination of possible last-minute candidatures, it was *decided* to hold the election on the morning of Monday, 11 December 1972.

8. Report by Study Group I

The Chairman of Study Group I, Mr. GOMES (United States of America) introduced the report.

At his request, the Vice-Chairman, Mr. PARAMOR (United Kingdom), (Chairman of the RTG Working Party) presented the section dealing with the simplification of the Telegraph Regulations (document AP V-No. 29, with the revisions resulting from the pre-plenary meeting appearing in Document AP V-No. 103; also Document AP V-No. 96 giving the draft revised Telegraph Regulations as approved by the pre-plenary meeting). He referred in particular to the changes of substance and new definitions proposed by the Study Group in these documents. He pointed out the following addition to be made to the final report (sub-paragraph 1.9.4 on page 5 of Document AP V-No. 103):

On page 33, A10, insert as the first item under 1.2.3 Optional telegrams "Meteorological telegrams" and under Service indications "OBS".

The Vice-Chairman recalled that a joint meeting of Study Groups I and II had produced a revised version of Appendix I (Payment of balances of accounts) common to both the Telegraph and Telephone Regulations (Appendix I to AP V-No. 96), which took account of special terms and present conditions, for example, in new paragraphs 6.1 and 11. It was believed that reasonable compatibility with the U.P.U.'s requirements had been attained. After some discussion it had been decided to maintain the separate Appendix rather than publish it as part of the main body of the Regulations.

Finally, he pointed out that in paragraph 3 of the Appendix the term "being maintained in effect" was virtually untranslatable into French and Spanish.

The delegate of the UNITED KINGDOM, referring to that point, said that the English text did not correspond to the other versions.

"The CHAIRMAN proposed that a small working party composed of one member each from the delegations of France, Spain and the United Kingdom be set up to align the texts in the three languages. It was so *agreed*."

The Chairmen of the Study Group continued the presentation of Document AP V-No. 103, pointing out that on page 14 under Question 6/1 the signs ☒, ✱ and Ω should be inserted in the appropriate spaces. He said that as only five countries still used Alphabet No. 1 and intended to abandon it, it had been agreed to delete that alphabet but to allow its use by bilateral agreement. Six out of the twenty-nine questions could be regarded as completed and it had been decided to follow the example of Study Group X and drop Question 8/1 which should therefore be deleted from paragraph 3.3 on page 23 and paragraph 6 on page 24.

The representative of the WORLD METEOROLOGICAL ORGANIZATION presented the document submitted by that organization and drew the attention of the Assembly to the proposal in Document AP V-No. 103 to classify meteorological telegrams as "Optional". He emphasized the serious repercussions of any

changes to the Regulations which would delay the transmission of meteorological telegrams, so vital for the collection and relay of data.

The Chairman of the RTG Working Party explained that according to the List of Optional Provisions many countries did not admit meteorological telegrams; he assured the Representative of the W.M.O. that no change had been made in the order of priority of transmission.

The report of Study Group I was *adopted* unanimously.

The CHAIRMAN congratulated the Chairman, Vice-Chairman, all who had participated in the Study Group and the C.C.I.T.T. Secretariat.

9. Report by Study Group II

The Chairman of Study Group II, Mr. RÜTSCHI (Switzerland), introduced the preliminary report (AP V-No. 63) and the final report (AP V-No. 104). Sixteen of the nineteen questions allocated to the Study Group could be considered as completed and the remaining three were of a permanent nature. Nine new Recommendations were submitted to the Plenary Assembly and four had been revised.

The delegate of CANADA noted that the amendment just made to the English text of Appendix I to Document AP V-No. 96 (see item 8 above) would also apply to Document AP V-No. 104.

The DEPUTY SECRETARY-GENERAL of the I.T.U. thought it would be appropriate to include a provision in the Telephone Regulations, similar to that adopted by Study Group I, recognizing the obligation of Administrations to exchange certain information through the Union; the forthcoming T & T Conference could then decide the subject matter of such exchanges.

The Chairman of the Study Group, while noting with pleasure that finally the texts of the Telephone and Telegraph Regulations had been aligned, felt that it was not for the Plenary Assembly to make changes in the texts already studied thoroughly by Administrations.

The Chairman agreed with the previous speaker that the suggestion should be considered but that it was for the T & T Conference to examine the matter.

The delegate of the UNITED KINGDOM said that Study Group II had done no more than edit the Telephone Regulations as discussed at Mar del Plata. However, he suggested that in the following instance the original wording should be reintroduced: Article 16 on page 15 (part 5 of AP V-No. 45) should therefore read "Each Administration shall ... collected from its public". It was so *agreed*.

The delegate of SWEDEN drew attention to the proposed new question in Document AP V-No. 102. The ACTING DIRECTOR of the C.C.I.T.T. said that the questions to be submitted to Committee B had already been examined by the various Study Groups and the Assembly would have to decide whether it agreed with the substance of the question. The delegate of the United Kingdom felt that it was not in fact a question of an international nature. As a result of those comments, the delegate of Sweden withdrew the proposed question.

The representative of the INTERNATIONAL STANDARDS ORGANIZATION, referring to Document AP V-No. 87 and in particular sub-item b on pages 2 and 3 (Keyboard arrangements) regretted that inadequate co-operation in the early stages had resulted in a similar but different arrangement of the layout between the push-button telephone keyboard and the numeric keyboard of office and data processing machines, a difference which is a cause of confusion for users of both types of equipment.

The CHAIRMAN took note of that pertinent aspect and said that in future an endeavour should be made to develop greater uniformity.

The report of Study Group II was *adopted* unanimously.

The CHAIRMAN expressed the Assembly's appreciation of the work carried out by the Chairman of the Study Group, the Working Party Chairmen and the C.C.I.T.T. Secretariat.

The meeting rose at 6.30 p.m.

SECOND PLENARY MEETING**Tuesday, 5 December 1972 at 3.15 p.m.***Chairman:* Mr. H. BACZKO (People's Republic of Poland)*Subjects discussed:*

1. Report by Study Group IV
2. Report by Study Group IX
3. Report by Study Group V
4. Report by Study Group VI
5. Report by Co-ordination Group No. 1
6. Procedure for election of the new Director
7. Publication of the new C.C.I.T.T. Book

1. Report by Study Group IV (Maintenance of lines, circuits and chains of circuits) (Documents AP V-Nos. 58, 99, 34, 83, 25, 71, 82, 88)

The Chairman of Study Group IV, Mr. J. VALLOTON (Switzerland) presented the preliminary and final reports (Documents AP V-Nos. 58 and 99) of the Group to the Plenary Assembly. He reviewed the work carried out by the Group during the previous study period, and outlined the Group's proposals for its future work. He thanked Mr. Kiil, Vice-Chairman, the other members of the Group and Mr. Dormer and Mr. Baillo, C.C.I.T.T. Counsellors, for their contribution to the work of the Group.

In reply to the wish expressed by Mr. Valloton that Volume IV of the *White Book* remain in application until the next edition was in print, the ACTING DIRECTOR of the C.C.I.T.T. confirmed that this was normal practice and that new Recommendations came into operation only upon their publication in the official languages of the I.T.U., unless bilateral arrangements had been made previously between individual countries. The delegate of SWITZERLAND pointed out that making a Recommendation operational on its date of publication often created difficulties as various countries had further to translate the text into other languages for the use of their personnel. He proposed, as an alternative, that a Study Group, when proposing a Recommendation, might suggest a date for its entry into worldwide operation. The proposal was *adopted*.

The report of Study Group IV was *adopted* unanimously.

The CHAIRMAN thanked all those concerned in the work of the Group for having successfully carried out their task. He particularly thanked Mr. Valloton, who was retiring as Chairman of Study Group IV, for his valuable contribution to the work of the Group during his term of office.

2. Report by Study Group IX (Telegraph transmission) (Documents AP V-Nos. 26, 27, 97)

The Chairman of Study Group IX, Mr. R. A. BROWN (Australia), reviewed the work of the Study Group and presented its final report to the Plenary Assembly. He mentioned that two new draft Recommendations, X.40 and S.10 (Document AP V-No. 27) were before the Assembly for approval and gave an account of the 14 questions proposed by the Group for the next study period.

Mr. Brown indicated the following amendments to the text of Document AP V-No. 97, page 11. In the second paragraph, on the first line, delete the comma following the words "R.51" and add "or X.33", on the second line delete the words "for isochronous distortion" and delete the whole of the fourth line. Delete the third paragraph, starting "Note 1 ...". On the second line of the second paragraph under Question 22/IX add after "circuits" the words, "which may include regeneration,".

The Assembly *adopted* the report of Study Group IX, as amended, unanimously without discussion.

The CHAIRMAN thanked the Chairman of Study Group IX, its Vice-Chairman, Mr. Kubin (Czechoslovakia), and the members of the Group for the considerable work they had done.

3. Report by Study Group V (Protection against danger and electromagnetic interference) (Documents AP V-Nos. 46, 109, 101, 47, 38, 36, 25, 35)

The Chairman of Study Group V, Mr. H. RIEDEL (Federal Republic of Germany), presented the report of the Group to the Plenary Assembly. He described the work carried out by the Group in the 1968-1972 study period and reviewed the status of the questions allotted to the Group. It was proposed to continue the examination of 15 questions, either unchanged or with revised wording, in the next study period and to introduce two new questions for study.

The delegate of ITALY asked that if no arrangements had already been made for the publication of the "Guide for the application of the C.C.I.T.T. Directives in a simple case" (Document AP V-No. 35), it should be offered as a publication for use by developing countries, and could be considered by Committee D of the Plenary Assembly. He was informed that it was to be published as a separate booklet, in the same format as the *Directives* so that it could be filed in the existing *Directives* binder or elsewhere, as desired.

The report of Study Group V was *adopted* unanimously.

The CHAIRMAN thanked the Chairman, Vice-Chairman and members of Study Group V for the excellent work they had done.

4. Report by Study Group VI (Protection and specification of cable sheaths and poles) (Documents AP V-Nos. 56, 108, 33, 38, 25)

The Chairman of Study Group VI, Mr. J. R. WALTERS (United Kingdom), presented the report of the Group to the Plenary Assembly. In his review of the work of the Group he said that five of the 20 questions allotted to it could be discharged as satisfactorily dealt with. It was proposed that the remainder be kept for further study in addition to three new questions. The draft of the revised booklet on the preservation of wooden poles (Document AP V-No. 33) was before the Assembly for approval.

Mr. Walters thanked Mr. Dormer and Mr. Baillod of the C.C.I.T.T. for the assistance they had given Study Group VI, he also expressed his appreciation of the contribution made by Mr. A. Bianchi, Vice-Chairman, and the other members of the Group including the rapporteurs who had dealt with several questions by correspondence.

The report of Study Group VI was *adopted* unanimously without discussion.

The Chairman in turn thanked Mr. Walters and all members of Study Group VI for the important and valuable work they had done.

5. Report by Co-ordination Group No. 1 (World automatic and semi-automatic telephone network) (Document AP V-No. 111)

The Chairman of Co-ordination Group No. 1, Mr. E. C. LAIRD, (United States of America), reviewed the work of the Group and presented its report to the Plenary Assembly.

Mr. Laird indicated the following amendment to Document AP V-No. 111, page 10. On the third line under *Question* add ",10" after the figure "9", and on the first line under *Proposals* add ",10" after the figure "6".

The delegate of the UNITED KINGDOM proposed that the word "Chairman" on the second line of the third paragraph on page 307 of Document AP V-No. 111 be replaced by "Chairmen".

The report as amended above was *adopted* unanimously.

The Chairman congratulated all those who participated in the work of Co-ordination Group No. 1 for the important contribution made by this Group, and expressed his particular thanks to Mr. Laird who was due to retire.

6. Procedure for election of the new Director (Document AP V-No. 9)

The procedure for election of the new Director set out in Document AP V-No. 9 was *adopted*.

7. Publication of the new C.C.I.T.T. Book (Documents AP V-Nos. 2, 3, 92)

The Co-ordinator of the Team of Experts, Mr. A. BIGI (Italy), in reviewing the team's report on the subject (Document AP V-No. 3) said that the two matters before the Assembly for its decision were the resources to be used in compilation and publication of the C.C.I.T.T. Book and the format the Book would take.

The DEPUTY SECRETARY-GENERAL said that as far as resources were concerned, the Administrative Council at its 27th Session had considered that it would be preferable to request Administrations to assist by lending staff rather than to recruit staff on a temporary basis. The matter was at present before Committee A for discussion.

The ACTING DIRECTOR of the C.C.I.T.T., in introducing Document AP V-No. 2, said that with regard to format, cost appraisal had indicated the best solution would be for the C.C.I.T.T. Book to be issued in bound book form on A4 paper using typographical printing of new and amended text and offset printing of unamended text. Reproduction techniques making use of the computer were, as Mr. Bigi had mentioned, very promising and worth considering for the future although costs at present were relatively high.

On the CHAIRMAN's suggestion, it was *decided* to postpone discussion on this topic to the next plenary meeting.

The meeting rose at 6.15 p.m.

THIRD PLENARY MEETING

Wednesday, 6 December 1972 at 3.15 p.m.

Chairman: Mr. H. BACZKO (People's Republic of Poland)

Subjects discussed:

1. Publication of the C.C.I.T.T. Book (cont.)
2. Report of Study Group XII
3. Report of Study Group XVI
4. Report of Study Group III
5. Reports of Study Group VIII and Joint Working Party ALP

1. Publication of the new C.C.I.T.T. Book (continued) (Documents AP V-Nos. 2, 3, 92)

The delegate of the U.S.S.R. wondered why a completely new edition of the C.C.I.T.T. Book had to be produced after each Plenary Assembly since over 50% of the material in the previous edition was carried forward unchanged. He suggested that there would be considerable saving of time and money if only new and amended material were printed and distributed for insertion into existing Volumes. In reply, the ACTING DIRECTOR of the C.C.I.T.T. said that as any addition or amendment affected the layout of all subsequent pages this made it essential to have the whole Book reprinted each time.

In discussion of the form the new Book would take, the delegate of the U.S.S.R. said that although the *White Book* had not been found very convenient to use, the loose-leaf principle was good and a more satisfactory version of it could no doubt be found. The delegate of PAKISTAN objected to the loose-leaf form because of the danger of the loose sheets being lost or misfiled. The DEPUTY SECRETARY-GENERAL said that a repetition of the present system of a number of booklets in ring binders was not recommended.

as it created difficulties in document handling. A fully loose-leaf system would not become economic until computer treatment of texts became feasible in a few years' time. A bound book was therefore indicated.

In reply to some objections to green as the colour for the next C.C.I.T.T. Book, the Deputy Secretary-General and the DIRECTOR OF THE C.C.I.R. explained that the colour could be a dark green which could easily be distinguished from the light green of the English edition of the C.C.I.R. Book and from the green of Administrative Radio Conference documents.

On the question of page size, the Deputy Secretary-General referring to Document No. 2 submitted by the Acting Director of the C.C.I.T.T. and the Deputy Secretary-General said that A4 had been recommended by both C.C.I.T.T. and General Secretariat as it was an I.S.O. standard size in wide use and therefore cost less than that used previously. C.C.I.T.T. documents were already produced on A4 paper and this would facilitate the use of these texts in the preparation of the C.C.I.T.T. Book. In the long-term view, A4 was the most convenient size for computer use and offset printing.

It was *decided* that the next edition of the C.C.I.T.T. Book would be dark green, have a page size of A4 and be in bound-book form.

2. Report of Study Group XII (Telephone transmission quality) (Documents AP V-Nos. 57, 60, 61, 65, 66, 80, 95)

In the absence of the Chairman, Mr. F. Kroutl (Czechoslovakia), the Vice-Chairman, Mr. F. T. ANDREWS (United States of America), presented the preliminary and final reports of Study Group XII (Documents AP V-Nos. 57 and 95) to the Plenary Assembly. His review of the activity of the group included an account of the work of the C.C.I.T.T. Laboratory, responsibility for which was entrusted to the one permanent working party of the group. In the current study period, the group had made extensive use of special rapporteurs to handle work by correspondence between meetings and this system had proved very effective. With regard to the future programme of the group, 18 of the 22 questions allotted it had been concluded, and it was proposed to continue with the remaining 14 (seven with new titles) and four new questions. Five Recommendations with new or amended texts were before the Assembly for approval.

Mr. Andrews indicated a number of minor amendments to Document AP V-No. 57 (see Annex).

The report of Study Group XII as amended was *adopted* unanimously.

The CHAIRMAN thanked Mr. Andrews, the Vice-Chairman, the Chairman of the Laboratory Working Party, the special rapporteurs and all others concerned in the work of Study Group XII for the successful way they had carried out their tasks, and expressed his particular thanks to the Chairman, Mr. Kroutl, who had been unable to attend the Plenary Assembly.

3. Report of Study Group XVI (Telephone circuits) (Documents AP V-Nos. 64, 65, 106)

The Chairman of Study Group XVI, Mr. J. BILLEN (United Kingdom), in presenting the preliminary and final reports of his Study Group to the Plenary Assembly, reviewed the work which had been carried out by the group in the current study period and outlined its proposed future programme of work. As in Study Group XII, a great deal of work had been entrusted to special rapporteurs and this had proved a highly effective and satisfactory procedure.

Mr. Billen indicated a minor amendment to Document AP V-No. 106 (see Annex).

The Chairman of JOINT SPECIAL STUDY GROUP C sought clarification on the future of Question 6/XVI (Document AP V-No. 106, pages 17 and 18) in relation to Question 9/C which had to be abandoned by Special Study Group C for lack of contributions. Mr. Billen explained that it was proposed to continue the study of noise recommendations for circuits in the telephone network under new Question E/XVI. Regarding the possibility of reducing the noise limit given in revised Recommendation G.123

(Document AP V-No. 106, page 28) from 1000 pW0p to 500 pW0p which was commented on by the delegate of AUSTRALIA, Mr. Billen said that a new question was proposed for study by Study Group XV, relating to the noise attributable to terminal modulating equipment in carrier transmission systems.

The report of Study Group XVI was *adopted* unanimously.

The CHAIRMAN thanked Mr. Billen, and all those concerned in the work of Study Group XVI for their contribution to its successful work.

4. Report of Study Group III (General tariff principles) (Documents AP V-Nos. 39, 40, 41, 78, 98, 90, 121)

The Chairman of Study Group III, Mr. L. BURTZ (France) presented the reports of the group to the Plenary Assembly and reviewed the work carried out in the current study period. He described in particular the progress made by the regional tariff groups for Africa (TAF), Latin America (TAL), Asia (TAS) and Europe and the Mediterranean Basin (TEUREM). Four new draft Recommendations of regional importance, in addition to four other new draft Recommendations, were before the Assembly for its approval. In outlining the future programme of work for Study Group III Mr. Burtz said that it was proposed to continue the study of six of the 11 questions assigned to the group in 1969 and to begin the study of five new questions.

Mr. Burtz indicated some minor editorial amendments to Document AP V-No. 98 (see Annex).

The representative of I.A.T.A. said that his organization remained most concerned by the increasingly restrictive nature of the revised Recommendations D.1, D.2 and D.3. As an example I.A.T.A. noted that some wording in the recommendations implied that Administrations had the right to determine the adequate service for user's needs. I.A.T.A. believed that only the user himself could make such an assessment and felt that the whole approach to circuit leasing and the D series Recommendations themselves should be completely reconsidered in the next plenary period. It was hoped that I.A.T.A. would be able to contribute meaningfully to the redrafting of these recommendations and the organization's congratulations and appreciation were expressed to the Chairman of Study Group III for the progress made and for his continued indulgence toward the I.A.T.A. position.

The report of Study Group III, as amended, was *adopted* unanimously.

The CHAIRMAN thanked Mr. Burtz, the members of Study Group III, the chairmen of the Regional Tariff Groups and all others who participated in the activities of the group for the excellent work they had done. He expressed his thanks in particular to Mr. Robertson, Vice-Chairman, who was due to retire, and Mr. R. V. T. Pryor, Chairman of a Working Party.

5. Reports of Study Group VIII (Telegraph equipment and local connecting lines) (Documents AP V-Nos. 55, 107) and **Joint Working Party ALP (Use of alphabet No. 5)** (Documents AP V-Nos. 52, 118)

The Assembly *agreed* that Mr. G. BAGGENSTOS (Switzerland) as Chairman of both groups should present the reports of Study Group VIII and Joint Working Party ALP together.

With regard to Study Group VIII, Mr. BAGGENSTOS reviewed the results of the group's work in revising existing recommendations, gave an account of the four new draft recommendations proposed and went through the proposed future programme of study set out on pages 12 to 14 of the final report (Document AP V-No. 107). Throughout the study period the group had worked in close collaboration with I.S.O.

In presenting the report of Joint Working Party ALP, Mr. Baggenstos said that as the basic code table given on page 15 of Document AP V-No. 52 permitted different interpretations of the same signal (a number of signals represented more than one national use character as a result of different national

usages) a second table (page 21) had been provided for use when national or particular forms were not required. He pointed out that the revised draft of Recommendation V.3 was identical to the revised I.S.O. Recommendation R.646 and said that Joint Working Party ALP had enjoyed a very fruitful and mutually beneficial collaboration with I.S.O.

Mr. Baggenstos indicated a minor amendment to Document AP V-No. 107 (see Annex).

The reports of Study Group VIII and Joint Working Party ALP were *adopted* unanimously.

The CHAIRMAN congratulated Mr. Baggenstos and thanked him, the Vice-Chairman and all other members of Study Group VIII and Joint Working Party ALP for the successful way they had carried out their task. He also expressed his appreciation to I.S.O. for its help and co-operation.

The meeting rose at 6.5 p.m.

ANNEX

Amendments to Study Group reports

1. Amendments to Document AP V-No. 57 (Study Group XII)

Page 6 :

In the column headed "Rapporteurs and notes" add the name of Mr. S. Munday (UKPO) opposite Questions 1/XII, 9/XII, 10/XII and 22/XII.

Page 175 :

Add to the foot of the table Questions B/XII, C/XII and D/XII with the titles given on pages 57-59 of Document AP V-No. 95.

2. Amendment to Document AP V-No. 106 (Study Group XVI)

Page 35 :

Add to the end of the title of Question B/XVI the words "from the point of view of customer's opinion".

3. Amendments to Document AP V-No. 98 (Study Group III)

Page 4 : paragraph 3.3.3:

Align the first three lines in the English text beginning "For a transitional period" with the French text; and in the French text align the third line under "Telephone service" starting "semi-automatic..." with the English text.

Page 7 : paragraph 6.6, second line:

Replace the words "Study Group II" by "Study Group III".

Page 8 : paragraph 6.8, English text only:

Replace "IVth Plenary Assembly" by "Vth Plenary Assembly".

Page 11 :

Insert the words "and telegraph services" after the words "telex services" in the second line of the title of Question 11/III; and align the French text of the title of Question D/III with the English text.

4. Amendment to Document AP V-No. 107 (Study Group VIII)

Page 11 : English text only:

In the fifth and sixth lines of subparagraphs 2(a) and 2(b) insert the sign "Q" after the sign "=".

FOURTH PLENARY MEETING

Thursday, 7 December 1972, at 3 p.m.

Chairman: Mr. H. BACZKO (People's Republic of Poland)

Subjects discussed:

1. Report by Study Group XIV
2. Report on Study Group VII
3. Report by Study Group X
4. Report by Special Study Group A
5. Report by the Joint Working Party on New Data Networks

The CHAIRMAN announced that by midnight on 5 December four candidatures had been received for the post of Director of the C.C.I.T.T. Details were given in Documents I, II, III and IV/ELEC. The election would take place at 9.30 a.m. on 11 December.

1. Report by Study Group XIV (Facsimile telegraph transmission and equipment) (Documents AP V-Nos. 28 and 123)

The Vice-Chairman of Study Group XIV, Mr. W. VINOGRADOV (Poland) presented the preliminary and final reports of the Study Group to the Plenary Assembly. He reviewed the work carried out during the last study period, when eleven questions had been examined. Special attention had been paid to the problem of increasing transmission speed and reducing the power used. It was proposed to replace the term "black-and-white facsimile" by "document facsimile". Amendments were suggested to Recommendations T.2, T.10, T.10 *bis* and T.11 while a new text of an LTG Recommendation had been drawn up. The future programme, comprising ten questions, would demand continued effort to improve existing Recommendations, bearing in mind the wide range of facsimile equipment available on the market, and to formulate new Recommendations on such equipment.

The representative of the INTERNATIONAL PRESS TELECOMMUNICATIONS COUNCIL (I.P.T.C.) congratulated the Study Group and its Chairman on what had been accomplished in the last study period. He drew attention to the tremendous increase in the use of facsimile document machines, which were being designed and sold on an impressive scale. Unfortunately the machines were by no means compatible and attention had already been drawn to the urgent problem thus created. If greater compatibility could be achieved, he was firmly convinced that within a few years an entirely new method of facsimile communication would become available. Already an A4 page could be sent in four minutes, which shortly would be reduced to one minute or even less. At that speed, and with modern waveband techniques and the elimination of redundancy, the system was potentially a strong rival to the postal, telegraph and telex services.

The delegate of the UNITED KINGDOM believed that a public service of documentary facsimile transmission was finally entering a new and highly profitable phase. For it to become practical and popular, standardization was of the essence. The work of Study Group XIV was thus most important and, even more than in the past, should be supported in the future.

The report of Study Group XIV was *adopted* unanimously.

The CHAIRMAN expressed his appreciation of the valuable contribution made by Study Group XIV to the problem as a whole and asked the delegate of the Federal Republic of Germany to convey his gratitude to Mr. H. Bitter who had served as Chairman following the IVth Plenary Assembly until July 1971.

2. Report on Study Group VII (Means of expression) (Document AP V-No. 73)

The Chairman of Study Group VII, Mr. H. DUCOMMUN (Switzerland), introduced the Study Group's report to the Plenary Assembly. It explained the status of the Study Group and the proposal for its amalgamation with the pertinent Study Group of the C.C.I.R. and summarized the separate activities of the C.C.I.T.T./C.C.I.R./I.E.C. Joint Co-ordination Group for the revision of the sections concerned with telecommunications of the International Electrotechnical Vocabulary and the C.C.I./I.E.C. Joint Working Group on Graphical Symbols for Telecommunications. It was proposed that the terms of reference of the latter should be broadened to cover rules for the preparation of diagrams, charts and tables and for item designation. Proposals were submitted on Recommendations in the A and B series. With regard to the future of Study Group VII, in view of the importance of reliable definitions as well as the financial saving that would result, he invited the Assembly to approve the proposal that the activities of C.C.I.T.T. Study Group VII should henceforth be merged with those of former C.C.I.R. Study Group XIV (at present called the C.I.V.), dealing with definitions.

The delegate of the UNITED KINGDOM considered work on terms, definitions and vocabulary extremely important for the activities of both C.C.I.s. There were two aspects. On the one hand, the vocabulary

working parties of the Study Groups, where the experts were to be found, were constantly producing new concepts and new lists of definitions and they probably gave the most accurate picture of the new terms that were evolving. On the other hand, there was the problem of reconciling the new terms with those of a similar kind used in world technology and publishing them for universal use. His Administration was concerned with what went on in between and was anxious that work on definitions in individual C.C.I. Study Groups should continue. The question was whether, in view of the fact that the C.C.I./I.E.C. Joint Group was already operating effectively, a joint C.C.I.T.T./C.C.I.R. Study Group was really necessary.

The delegate of SPAIN agreed that collaboration with the I.E.C. offered many practical advantages and that co-ordination of work on terminology was essential. He fully supported the proposal to set up a Joint C.C.I. Study Group, which should consist of terminology experts from the different Study Groups to achieve the desired standardization of terms and definitions. It would also relieve the heavy burden of work on the C.C.I.T.T.

The DIRECTOR OF THE C.C.I.R. briefly recalled proceedings at the XIIth Plenary Assembly of the C.C.I.R. at New Delhi in 1970, which had decided in favour of establishing the Joint C.C.I. Study Group and, pending a decision by the Vth Plenary Assembly of the C.C.I.T.T., had set up an Interim Study Group on Vocabulary (C.I.V.) whose terms of reference were set out in Volume VII, page 292, of the XIIth Plenary Assembly documents.

Much of the work on definition of terms could be done by the Study Groups concerned, but there was a problem of co-ordination which was being handled by the C.I.V., and he considered that the C.I.V. was performing a useful service. If the Vth Plenary Assembly wished Study Group VII to merge with the C.I.V. and create a joint Study Group, that might be a good solution. No suggestion had been made as to which Organ should manage the joint Study Group, but he was willing to undertake the task if requested to do so.

The ACTING DIRECTOR OF THE C.C.I.T.T. referred to working procedures and said that definitions drafted by the Study Groups were submitted for approval to the Plenary Assembly of the C.C.I.T.T. and subsequently were published in the Volumes of the C.C.I.T.T. Book. At the same time, the drafts which had been adopted by the parent Study Group could be passed to the Joint C.C.I.T.T./C.C.I.R. Study Group and then to the I.E.C./C.C.I. Joint Group for approval and publication in the International Electrotechnical Vocabulary (I.E.V.). The Joint C.C.I.T.T./C.C.I.R. Study Group should be very small and be composed only of the rapporteurs of the various Working Groups on definitions, set up by the Study Groups of the C.C.I.s

After further discussion in which the delegates of FRANCE, CANADA, UNITED KINGDOM, U.S.S.R., CAMEROON, LEBANON and SWEDEN took part, it was *agreed* that the C.C.I.T.T. should collaborate in a Joint C.C.I.T.T./C.C.I.R. Study Group, to which it would send the rapporteurs of the vocabulary working parties of the various C.C.I.T.T. Study Groups, and that the Group should be set up and managed by the C.C.I.R.

The proposal to broaden the terms of reference of the Joint Working Party on Graphical Symbols and the subsequent amendment to Recommendation A.13 as indicated in Document AP V-No. 73 was *approved*.

The amendment to Recommendation A.12 as proposed in Document AP V-No. 73 was also *approved*.

The report of Study Group VII, as amended, was *adopted* unanimously.

The CHAIRMAN thanked Mr. Ducommun and the other authors for their excellent report.

3. Report of Study Group X (Telegraph switching) (Documents AP V-Nos. 31, 32, 67 and 113)

The Chairman of Study Group X, Mr. A. JANSEN (Netherlands), presented the Study Group's report on activities in the 1968-1972 period. Ten questions had been examined, three of them by Joint Working Parties. Amendments to Recommendations in the U series and to Recommendation F.69 as well as new Recommendations were proposed along with the future study programme. Replies to the questionnaire on the worldwide telex and gentex routing plan, contained in Document AP V-No. 67, would be published in the *Green Book*.

The report of Study Group X was *adopted* unanimously without discussion.

The CHAIRMAN congratulated Mr. Jansen, the Vice-Chairman and all members of the Study Group and the Joint Working Parties as well as the C.C.I.T.T. Secretariat on the successful work they had performed.

4. Report of Special Study Group A (Data transmission) (Documents AP V-Nos. 53, 115 and 87)

The Chairman of Special Study Group A, Mr. J. RHODES (United Kingdom), submitted the Study Group's report which dealt with all the points of Question 1/A on data transmission which had been assigned to it, except points C, H and AJ, Part 2, which were the subject of separate reports by the Alphabet and NRD Joint Working Parties. Details were given of Study Group and Working Party meetings and the Chairman stressed the close relationship that existed with I.S.O. Draft revised or new Recommendations were listed in Document AP V-No. 115 (pages 24 and 25). Of the 29 points examined, six had been completed and the remainder should be retained unchanged or with revised wording and additional points. Three new points were proposed. The new study programme was set out in Part III of the same document.

The representative of the INTERNATIONAL ORGANIZATION FOR STANDARDIZATION (I.S.O.) made the following statement:

"The I.S.O., particularly Technical Committee 97 which is responsible for standardization in the field of data processing, wishes to stress the importance of co-operation between the I.S.O. and the C.C.I.T.T. on data transmission. The I.S.O. is gratified by the results already achieved by Special Study Group A.

"The results of this study period include, for example, two Recommendations which are likely to promote the development of data transmission pending the introduction of new data networks. These are Recommendation V.26 *bis*, which regulates 2400 bit/s transmission on the general telephone network, and Recommendation V.15 which regulates the use of acoustic couplers on the same network.

"Even if the Recommendations published do not always offer as universal a solution to each problem as users might wish, their approval by your Assembly nevertheless shows the unanimous desire of Administrations to authorize new services and thus put an end to the hesitation of some countries in this respect.

"With regard to the future programme of Special Study Group A, the I.S.O. would emphasize the importance and urgency of all questions that contribute to ensuring the *quality* of data transmission (signal quality, loop tests, etc.). The I.S.O. is also working on these questions and can contribute to progress in the C.C.I.T.T. The other questions with which we are concerned include those on 300 bit/s transmission and the definition of interfaces with electrical characteristics adapted to modern techniques.

"In conclusion, we wish to thank all members of the C.C.I.T.T. for their understanding of the need for co-operation between our two organizations, especially Mr. Rhodes, Mr. Vaughan and Mr. Okabe who attended many I.S.O. meetings."

The representative of the E.C.M.A. (European Computer Manufacturers Association) wished to endorse the remarks of the previous speaker. Computer users were no longer content to process data at the location of the computer but wanted the computer to be connected to remote terminals. The result was a steadily increasing need for data transmission facilities. His organization therefore was most grateful to Special Study Group A for the important work it had performed, particularly in the last few years, and for its readiness to accept contributions that were not always in line with C.C.I.T.T. terminology. He hoped that work would be continued in the same spirit of fruitful co-operation.

The report of Special Study Group A was *adopted* unanimously.

The CHAIRMAN expressed his appreciation of the useful work carried out by the Study Group and thanked all who had taken part. Special thanks were due to Mr. Rhodes, who was retiring after an extremely active career.

5. Report of the Joint Working Party on New Data Networks (Documents AP V-Nos. 21, 22, 23, 24 and 112)

The Vice-Chairman of the Joint Working Party, Mr. V. C. MACDONALD (Canada), introduced the Joint Working Party's report in the absence of the Chairman, Mr. O. A. Ohlmer (Federal Republic of Germany), who had recently retired and who had asked that his thanks should be conveyed to all who had participated in the work and to the Acting Director of the C.C.I.T.T.; he had particularly appreciated the interest shown by Mr. J. Rouvière, the late Director of the C.C.I.T.T.

The Vice-Chairman recalled that, in addition to the question on a new telegraph-type network for data transmission assigned by the IVth Plenary Assembly, a second question on the characteristics of a separate switched network for data-type services had been included in the N.R.D. programme. He referred to the meetings held by the Joint Working Party and by the three sub-Groups which had been set up.

In view of the variety of solutions under consideration for network structures, switching systems and modes of operation for future data networks in different countries, it had appeared that only general characteristics could be defined, leaving the national data networks as much freedom as possible for future development. The Joint Working Party had therefore decided that its general purpose was to recommend which data services should be offered on a worldwide basis on public data networks and to simplify interconnections.

The integration of data services in any international digital network that might be established was left for future clarification. Should such a network be introduced for telephone and video services only, its signalling arrangements would not concern international public data networks, but if data services were integrated in the network the control signalling would be greatly influenced by data network requirements. It was thus evident that the future N.R.D. study programme on synchronous type networks should be studied in closer collaboration with Special Study Group D.

Six Recommendations had been drafted which were set out in Documents AP V-Nos. 22 and 23. Also relevant were Recommendations U.12 of Study Group X and X.40 of Study Group IX. The new study programme consisted of one question on the general characteristics which should be standardized to permit international data communication over public data networks. It was divided into a number of points and was the subject of Document AP V-No. 24. Amendments to the draft Recommendations and the study programme were contained in Document AP V-No. 112, which had received the agreement of Study Groups X and Special A.

The report of the Joint Working Party was *adopted* unanimously without discussion.

The CHAIRMAN asked the delegate of the Federal Republic of Germany to express the Assembly's gratitude to Mr. Ohlmer and their best wishes for a happy retirement. He thanked all members of the Joint Working Party for the admirable work they had performed.

The representative of the International Chamber of Commerce made the following statement:

"Mr. Chairman,

"I must apologize for having asked for the floor to make a very short statement on a subject which was already finalized before my arrival this morning. The reason is simply to express a word of warm appreciation on behalf of two international organizations participating in the work of the C.C.I.T.T.

"It concerns the approval by the Plenary Assembly of the Report of Study Group II, especially with regard to the Recommendation which will permit the exchange of international telephone calls at reduced rates during off-peak periods between countries or regions where the time difference is not greater than 3 hours.

"As you will remember, the study of this question was originated by the International Chamber of Commerce and supported by the International Press Telecommunications Council at the last meeting of Study Group III preceding the IVth Plenary Assembly at Mar del Plata with a view to spreading traffic over a longer period of the day and thus, apart from stimulating better equipment and circuit utilization, improving the service for international business calls and the exchange of news.

"The I.C.C. and the I.P.T.C. are therefore most grateful, not only to Mr. Rütschi, Mr. Punter and Mr. Burtz, but to all the other members of Study Groups II and III who have considered this proposal with so much care and with such keen awareness of the public good.

"Both the International Chamber of Commerce and the International Press Telecommunications Council are convinced that the early implementation of this Recommendation will help to relieve the congestion which is so common in the international telephone network, especially in Europe. Congestion inhibits the revenue of the P.T.T. Administrations just as much as it frustrates business and the flow of news. It is in fact one of the arch-enemies of communication.

"What is also indisputable is that this Recommendation shows that the C.C.I.T.T. is forever mindful of the public interest. We live in a world where people are becoming increasingly migratory. More and more men and women are starting new lives away from their families and the countries of their birth, and for them the telephone is a convenient way of shortening the gap between home and exile. For them and for every type of user this Recommendation will make the world not only a more efficient but a kinder place and of this the C.C.I.T.T. should be very proud."

The meeting rose at 6.20 p.m.

FIFTH PLENARY MEETING

Friday, 8 December 1972, at 9.40 a.m.

Chairman: Mr. H. BACZKO (People's Republic of Poland)

Subjects discussed:

1. Publication of the C.C.I.T.T. Book (continued)
2. Report of Study Group XI
3. Report of Joint Working Party FT 6
4. Report of Study Group XIII
5. Election of the Director of the C.C.I.T.T. (eligibility to vote)
6. Report of Special Study Group C

1. Publication of the C.C.I.T.T. Book (continued) (Document AP V-No. 93)

Introducing Document AP V-No. 93, the delegate of the UNITED KINGDOM said that the proposal had been made because not all study group members attended the Plenary Assembly and those who had not had therefore not seen the final reports of their study groups. The final reports and the future programmes of work of the groups ought to be in the hands of all study group members as soon as possible to give them a basis for their future work. The proposal only applied to the documents of the present Plenary Assembly as final meetings of study groups would in future be separated from the Plenary Assembly to leave time for distribution of documents.

The delegate of NEW ZEALAND supported the proposal but proposed that the words "including corresponding members" be added to the end of the last line of Document AP V-No. 93.

The ACTING DIRECTOR of the C.C.I.T.T. agreed that it was essential for study group members to have the final reports as soon as possible and said that was the reason why all documents had been printed as a contribution from the relevant study group, thus facilitating their dispatch in January. A more important problem was the number of copies of each document to be distributed. There were approximately 10,000 addressees and the cost of reproducing and dispatching documents to all of them would be considerable, bearing in mind that annual dispatch expenses were in the region of Sw. fr. 200,000. Moreover, as pointed out by the DEPUTY SECRETARY-GENERAL, the sheer volume of work involved would hold up shipment of the documents and delay work on the C.C.I.T.T. Book.

The delegate of New Zealand proposed that to overcome that difficulty only one copy of each document should be sent to each Administration.

It was *decided* to adopt the United Kingdom proposal as amended by New Zealand and to follow the New Zealand suggestion to limit distribution to one copy per Administration.

2. Report of Study Group XI (Telephone switching and signalling) (Documents AP V-Nos. 13 + Addendum, 14, 15, 77, 124, 125, 126, 127 and 119)

The Chairman of Study Group XI, Mr. A. JOUTY (France) in presenting the reports of his Study Group to the Plenary Assembly reviewed the work carried out in the current study period and outlined the proposed future programme of work. With regard to signalling system No. 6, the field trials had been assigned to Joint Working Party FT 6, and as the work of that group had been fairly autonomous its report would be presented separately.

There was a minor editorial amendment to Document AP V-No. 125 (see Annex). In addition, the texts of Recommendations Q.46 and Q.47 were to be aligned with the texts of Recommendations G.732 and G.733 as proposed by Special Study Group D.

The report of Study Group XI, as amended, was *adopted* unanimously without discussion.

The CHAIRMAN congratulated Mr. Jouty and thanked him and all those concerned in the work of Study Group XI for the high quality of their work.

3. Report of Joint Working Party FT 6 (Field trials of system No. 6) (Documents AP V-Nos. 62 and 128)

In the absence of the Chairman of Joint Working Party FT 6, Mr. J. J. Bernard (Netherlands), Mr. A. JOUTY (France) presented its report to the Plenary Assembly. In describing the various phases of the work carried out, particular attention was drawn to the summary of the work done on signalling system No. 6 given in the last three paragraphs on page 4 of Document AP V-No. 62. The working party had completed its task but some suggestions for supplementary work had been proposed and had been included by Study Groups XI and XIII in their programmes of future work.

The report of Joint Working Party FT 6 was *adopted* unanimously without discussion.

The CHAIRMAN thanked Mr. Jouty for his presentation of the report and expressed his appreciation of the very successful way in which Mr. Bernard and all those who took part in the work of Joint Working Party FT 6 had completed their tasks.

4. Report of Study Group XIII (Automatic and semi-automatic telephone networks) (Documents AP V-Nos. 16, 17, 18 and 122)

The Chairman of Study Group XII, Professor S. KUHN (Poland) presented the report of the group to the Plenary Assembly. The work had been dealt with by two permanent working parties and by a number of ad hoc working parties. Twenty-one questions had been allotted to Study Group XIII by the IVth Plenary Assembly and one had been added in the course of its work. The study of 20 of these questions had been completed and it was proposed to continue with the remaining two in the next study period and to begin the study of eleven new questions. As a result of its work, the group proposed ten modified Recommendations, fourteen revised Recommendations and eight new Recommendations for the Assembly's approval.

Professor Kuhn expressed his thanks to all those who had taken part in the work of Study Group XIII and expressed his special appreciation to Mr. N. I. Newstead, the former chairman of the group, who had resigned from that office for personal reasons in February 1972.

The report of Study Group XIII was *adopted* unanimously without discussion.

The CHAIRMAN congratulated Professor Kuhn and joined him in his thanks to all those concerned in the work of Study Group XIII.

5. Election of the Director of the C.C.I.T.T. (Eligibility to vote)

With regard to proxy votes, the SECRETARY-GENERAL drew the Assembly's attention to the terms of Articles 640 and 630 of the Montreux Convention, which governed such votes. Delegations which had been asked by another Member of the Union to vote on its behalf were reminded that the appropriate authority to exercise these powers must be in the hands of the Secretariat by 9.30 a.m. on Monday, 11 December 1972 at the latest.

The Assembly was further reminded that the countries which had neither signed nor ratified the Convention were not eligible to vote in the election for the Director of the C.C.I.T.T. unless such signatures were received by 9.30 a.m. on Monday, 11 December 1972 at the latest.

6. Report of Joint Special Study Group C (Noise and reliability of networks) (Documents AP V-Nos. 43, 71, 72 and 86)

The Chairman of Joint Special Study Group C, Mr. R. KAISER (Federal Republic of Germany) presented the report of the group to the Plenary Assembly. Document AP V-No. 72 is to be considered as an integral part of this report and Document AP V-No. 43 also contains valuable information in the form of Annexes and Supplements. The group's activities during the current study period were reviewed and the proposed future study programme outlined.

Mr. Kaiser pointed out that Document AP V-No. 71 contained some harsh criticisms from I.A.T.A. but he considered that they applied to the C.C.I.T.T. as a whole and not just to Joint Special Study Group C.

Referring to Document AP V-No. 86, the delegate of the UNITED KINGDOM said that while the second part of that proposal concerned methods of work and would be examined in Committee A, the first part concerned the proposed programme of work of Joint Special Study Group C and should be discussed in the Plenary. The United Kingdom delegation agreed with the objectives set out in the first paragraph and the first sentence of the second paragraph of Annex 1 to question 12/C (p. 63, Document AP V-No. 43) but felt that the programme set out for the C.C.I.T.T. in the rest of Annex 1 (p. 64) to the same question and involving further subdivision of reliability objectives was too extensive and would involve an immense amount of work. Careful consideration should be given to the amount of work on reliability that Administrations, private operating agencies and the C.C.I.T.T. Secretariat could afford to support. The United Kingdom delegation considered that the programme should not go below the broad subdivision into switching and transmission.

The CHAIRMAN of Study Group XV said that Document AP V-No. 86 had been discussed in his study group and that opinion had been divided on how far reliability studies could be taken. A compromise had been proposed in draft Question 42/XV and the matter would be referred to again when the report of Study Group XV was before the Plenary Assembly for discussion.

Mr. Kaiser agreed that a great deal of work would be involved if Recommendations were to be produced on all the topics mentioned under Annexes 1 and 2 to Question 12/C. That was not the intention, however. What was proposed was to collect as much data as possible on those subjects. His experience had shown that there was a great lack of information on reliability and that it would be very useful to carry out such studies.

On the understanding that the group in its future work on reliability would confine itself in draft Recommendations to the broad aspects of switching and transmission and that studies on any more detailed topic would be confined to collecting background information, the report of Joint Special Study Group C was *adopted* unanimously.

The CHAIRMAN congratulated Mr. Kaiser, and asked the Assembly to join him in thanking Mr. Kaiser and Mr. Matsumoto, Vice-Chairman of Joint Special Study Group C, who were both retiring. He also expressed his thanks to all others concerned in the work of Special Study Group C for their excellent work.

The meeting rose at 12.40 p.m.

ANNEX

Amendment to Document AP V-No. 125 (Study Group XI)

Page 16 :

delete paragraph 3.

SIXTH PLENARY MEETING

Monday, 11 December 1972, at 9.30 a.m.

Chairman: Mr. H. BACZKO (People's Republic of Poland)

Subjects discussed:

1. Approval of the agenda for the week 11-15 December 1972
2. Election of the Director of the C.C.I.T.T.

1. Approval of the agenda for the week 11-15 December 1972

The provisional agenda contained in Temporary Document No. 5 was *adopted*.

2. Election of the Director of the C.C.I.T.T.

The CHAIRMAN reminded the Assembly of the four candidates for the post of Director: Mr. R. J. L. Croze (France), Mr. R. Rütschi (Switzerland), Mr. S. Sædiman (Indonesia) and Mr. J. Biot (Belgium).

The SECRETARY-GENERAL informed delegations of the voting procedure, noted that the Swiss delegation and the French delegation were duly authorized to vote for the delegations of Liechtenstein and Laos respectively and pointed out that requests received by telegram were not valid until such time as official letters of confirmation had been received.

The delegates of Australia, the United States of America and Denmark were elected as tellers.

It was *agreed* to hold a secret ballot and the Secretary-General proceeded with a roll-call vote (see Annex).

The CHAIRMAN announced the result of the ballot: number of countries voting – 85:

for Mr. Biot	4
for Mr. Croze	61
for Mr. Rütschi	14
for Mr. Sædiman	6

Mr. Croze (France) was therefore elected Director.

The CHAIRMAN congratulated Mr. Croze on his election and invited him to take his seat on the rostrum.

The Head of the FRENCH DELEGATION thanked the Assembly for the confidence shown in Mr. Croze and assured them that the new Director's profound knowledge of telecommunications together with his personal qualities would play an effective part in the work of the C.C.I.T.T. itself and among wider international circles. He hoped that the other candidates would continue their active role in the C.C.I.T.T. for many years and he wished them every success.

The SECRETARY-GENERAL OF THE I.T.U. speaking for himself, the I.T.U. and the Co-ordination Committee, congratulated Mr. Croze whose past work and positive contribution to the development of telecommunications were well known. He was sure that Mr. Croze would continue the admirable work of his predecessor and further the collaboration which had always existed between the late Director and the Co-ordination Committee.

The ACTING DIRECTOR OF THE C.C.I.T.T. associated himself with the congratulations already expressed to the new Director and wished him every personal success; at the same time he assured him of the desire of the Secretariat to assist him to every possible extent for the benefit of the C.C.I.T.T. as a whole.

Mr. RÜTSCHI (Switzerland) congratulated Mr. Croze warmly on his election and wished him good health and success in his new duties. He thanked those delegations which had supported his own candidature and said that, having participated in C.C.I.T.T. and I.T.U. work for 25 years, he would continue to do so, with the agreement of his Administration and to the extent of his possibilities, and would not fail to put his own experience at the service of the new Director. He concluded by thanking the French delegation for their kind words.

Mr. BIOT (Belgium) also congratulated Mr. Croze on his election as Director, especially as a sincere friendship had developed between himself and the newly elected Director in the course of many years of collaboration between Belgium and France. He was confident that Mr. Croze would guide the C.C.I.T.T. with a firm and expert hand through a difficult period in which new techniques would be developed and important decisions have to be taken. He thanked those Administrations which had supported his own candidature and assured the Assembly of his Administration's continued participation in the work of the C.C.I.T.T.

Mr. SCEDIMAN (Indonesia) expressed his appreciation to the French delegation and his personal congratulations to Mr. Croze. He thanked the Assembly for the opportunity of being present and being allowed to submit his candidature. He thanked those Administrations which had voted for him and assured participants that his Administration would continue to co-operate actively in the work of the C.C.I.T.T.

The DIRECTOR OF THE C.C.I.T.T. said that he was much affected by the tributes paid to him and he wished to thank most heartily those delegations which had given him their support. He also thanked the Secretary-General of the I.T.U., the French delegation and the other three candidates. He assured all delegates that he would make himself available to the I.T.U. generally and in particular to the C.C.I.T.T. from the beginning of January 1973. He recalled his own deep attachment to the C.C.I.T.T. and his faith in the progress of telecommunications throughout the world, and said that he would endeavour to be a worthy successor to Mr. Rouvière.

In conclusion, he said that while it was an honour for him to take his place on the rostrum it would be presumptuous on his part to intervene in the discussions as Director before he had familiarized himself with the internal working methods of the C.C.I.T.T. He hoped therefore that Mr. Hummel who had so ably organized the Assembly would continue with his role and provide advice and information as required.

The CHAIRMAN recalled that paragraph 4.1 of the Administrative Council Decision provided for the newly elected Director to participate immediately in the work of the Assembly so that he could make known his views, particularly on the organization and future activities of the C.C.I.T.T. For his part he was happy to know that he would be able to count upon the new Director's experience and knowledge when taking the decisions which would be required in the course of the Plenary Assembly.

The meeting rose at 10.50 a.m.

ANNEX

List of countries which voted

Albania
Algeria
Germany (F.R. of)
Saudia Arabia
Argentina

Australia
Austria
Belgium
Bielorussia
Brazil

Bulgaria	Luxembourg
Cameroon	Malaysia
Canada	Malagasy Republic
Central African Republic	Mali
China	Morocco
Congo	Mexico
Korea	Monaco
Ivory Coast	Mongolia
Cuba	Nigeria
Dahomey	Norway
Denmark	New Zealand
Egypt	Uganda
French Overseas Territories	Pakistan
Spain	Paraguay
United States of America	Netherlands
Ethiopia	Peru
Finland	Poland
France	Portugal
Gabon	Syria
Greece	Ukraine
Guatemala	Roumania
Upper Volta	United Kingdom of Great Britain and Northern Ireland
Hungary	Senegal
India	South Africa
Indonesia	Sweden
Iran	Switzerland
Ireland	Tanzania
Iceland	Czechoslovakia
Israel	Territories of the United States of America
Italy	Territories of the United Kingdom
Japan	Thailand
Kenya	Togo
Khmer Republic	Tunisia
Kuwait	Turkey
Laos (through France by proxy)	Union of Soviet Socialist Republics
Lebanon	Viet-Nam
Liechtenstein	Yugoslavia
(through Switzerland by proxy)	Zaire

SEVENTH PLENARY MEETING

Monday, 11 December 1972, at 4.45 p.m.

Chairman: Mr. H. BACZKO (People's Republic of Poland)

Subjects discussed:

1. Report of the Secretariat on the C.C.I.T.T. activities
2. Report on the C.C.I.T.T. Secretariat
3. Revision of the Resolutions and Opinions of the *White Book*, Volume I
4. Report of GAS 3

1. Report of the Secretariat on C.C.I.T.T. activities (Document AP V-No. 1)

In presenting the report of the Secretariat on C.C.I.T.T. activities, (Document AP V-No. 1), the ACTING DIRECTOR OF THE C.C.I.T.T. drew attention to the following points. The statistical information given in paragraph 2.3 was a new feature of the section dealing with study group and working party activities and the Secretariat would like to know whether the Plenary Assembly found such a table useful. With regard to section 4, C.C.I.T.T. collaboration with other organizations had been on two levels. In some cases (e.g. with I.S.O., I.E.C., W.M.O., U.P.U.) there had been full collaboration between the C.C.I.T.T. and the other organizations on subjects of mutual interest, while in others (e.g. with I.C.P.O.) the C.C.I.T.T. had been invited to give advice on a subject of special interest to the other organization. In section 5 it should be noted that in spite of a decrease in the number of working days there had been an increase of the order of 30% in the number of circulars and contributions issued. To overcome the difficulties of having less time to discuss more contributions, Administrations had invited a number of informal meetings outside the C.C.I.T.T. At C.C.I.T.T. meetings it had frequently been left to the Secretariat, due to lack of time, to put the finishing touches to texts and to finalize decisions. That was perhaps an undesirable situation. Attention was also drawn to the large increase in the number of registered members of study groups.

The delegate of IRAN said that the I.T.U. representative in Iran had recently attended a meeting of the Asian Broadcasting Union (A.B.U.) in Teheran on behalf of the C.C.I.T.T. and wondered if that organization should be included in section 4 of Document AP V-No. 1.

In reply, the CHAIRMAN said that a more appropriate place to mention that meeting would be the I.T.U.'s report to the next session of the Administrative Council.

The report of the Secretariat on C.C.I.T.T. activities was *approved* unanimously.

The CHAIRMAN congratulated the Acting Director of the C.C.I.T.T. He expressed once more his appreciation of the achievements of the late Director of the C.C.I.T.T. during the 1969-1972 study period, and went on to thank Mr. Hummel for his excellent work as Acting Director during Mr. Rouvière's illness and after his death, and for the competent way he had shouldered the heavy task of preparing the Plenary Assembly.

2. Report on the C.C.I.T.T. Secretariat (Document AP V-No. 4)

The Acting Director of the C.C.I.T.T. briefly introduced the report of the C.C.I.T.T. Secretariat, which was self-explanatory.

The report was *adopted* unanimously without discussion.

The CHAIRMAN thanked the Acting Director and all the staff of the C.C.I.T.T. Secretariat for the successful way they had carried out their work during the current study period and extended his best wishes to them for the future.

3. Revision of the Resolutions and Opinions of the "White Book", Volume I

The CHAIRMAN said that the task of revising the Resolutions and Opinions of the *White Book* was divided between Committees A, D and the Plenary Assembly. He proposed that examination of these Resolutions and Opinions for which the Plenary Assembly was responsible be entrusted to a small working party which would consider any amendments that might be necessary and report back to the Assembly. It was so *agreed*.

The CHAIRMAN, with the consent of the head of the Canadian delegation, proposed Mr. Robertson (Canada) as Chairman of the Working Party and proposed that the other members be provided by the delegations of France, the Federal Republic of Germany and the United Kingdom. The composition of the working party was *approved*.

The CHAIRMAN briefly went through the Resolutions and Opinions in the *White Book*, Volume I, indicating which body had responsibility for revision, as follows:

- Committee A: Resolutions Nos. 1 and 2; Opinion No. 3
- Committee B: Resolution No. 3; Opinion No. 5

Plenary Assembly: Resolutions Nos. 4-9; Opinions Nos. 1, 2 and 4.

The Acting Director of the C.C.I.T.T. asked the Working Party to take note of a possible error in Opinion No. 1 on page 184 of the *White Book*, Volume I. In the third line under "expresses the opinion" it appeared that the word "previously" should be replaced by "provisionally".

4. Report of Special Autonomous Working Party No. 3 (GAS 3) (Documents AP V-Nos. 76, 116 and 117)

The Chairman of GAS 3, Mr. M. AOUD (Morocco) presented the report of the Working Party (Document AP V-No. 76) to the Plenary Assembly, giving a review of its work and an outline of its proposed future programme. The activities of GAS 3 during the 1969-1972 period had resulted in the preparation of 150 new pages for the Handbook. Those additions were at present being printed and would be available shortly.

Introducing Document AP V-No. 116, the delegate of SAUDI ARABIA said that as a consequence of the satellite study requested by the Plan Committee for Asia and Oceania (paragraph 3.3, pages 11 and 12 of Document AP V-No. 76) the countries concerned would like to have it confirmed that GAS 3 would supplement the texts on communication-satellite systems. The delegate of AUSTRALIA reiterated his country's willingness to submit a contribution on the subject. Mr. Aoud said that GAS 3 was prepared to carry out the work subject to the approval of the Plenary Assembly.

The delegate of AUSTRALIA said that the proposal put forward in Document AP V-No. 117 had arisen as a result of the discussions at the meeting of the Co-ordination Committee of the Plan Committee for Asia and Oceania held immediately before the Plenary Assembly. Mr. Aoud confirmed that technical sheet C.3.6 would be supplemented and up-dated when that became necessary.

The delegate of CANADA said that some national systems had acquired or were considering acquiring powerful computers for possible time-sharing on national communication networks. In some cases, however, the disadvantages of large time-sharing networks outweighed their advantages. It was therefore proposed that GAS 3 be asked to examine the economic and technical aspects of operating effective time-sharing computer installations using the national telecommunications network.

Mr. Aoud pointed out that the proposal put forward by Canada lay outside the terms of reference of GAS 3 and could not be considered by that Working Party unless the Assembly enlarged those terms of reference.

The CHAIRMAN suggested that consideration of the Canadian proposal be deferred until the matter had been examined by the heads of delegations, since instead of extending the terms of reference of GAS 3 the question could perhaps be assigned to GAS 6. It was so *agreed*.

The proposals contained in Documents AP V-Nos. 116 and 117 were *approved* and the report of Special Autonomous Working Party No. 3 *adopted*.

The CHAIRMAN thanked Mr. Aoud and all others concerned in the work of GAS 3 for the excellent work they had done.

The meeting rose at 6.5 p.m.

EIGHTH PLENARY SESSION

Wednesday, 13 December 1972 at 9.30 a.m.

Chairman: Mr. H. BACZKO (People's Republic of Poland)

Subjects discussed:

1. Report of GAS 5
2. Report on the work of the Plan Committees, and the World Plan ad hoc Group
3. Report on Telecommunication Statistics
4. Report on Study Group XV.

1. Report of GAS 5 (Documents AP V-Nos. 44 and 110 and Temporary Document AP V-No. 6)

The Chairman of GAS 5, Mr. LONGEQUEUE (France) introduced the above-mentioned documents and recalled the activities of GAS 5 in the course of the 1964-68 and 1969-72 study periods. He stressed the unanimity of opinion which was obtained in the various studies. He expressed his appreciation to the Vice-Chairman, the Chairmen of the Working Parties, the authors and to the Special Advisers from developing countries.

The outcome of the work of GAS 5 was the publication of three up-dated chapters of the previous Manual "Telecommunications – Economic Studies" and eleven new chapters plus a bibliography. Studies had been carried out along two main lines in the 1969-72 period: the place of telecommunications in the economic life of a nation and the relationship between cost price and financial structure on the one hand and rate level in a national tariff system on the other. The Manual constituted a non-exhaustive collection of studies based on information collected from countries. GAS 5 stressed the importance of collecting economic statistics on telecommunications and presented a Recommendation, which was adopted, that the I.T.U. General Secretariat issues a Statistical Yearbook (see Annex 2 to Document AP V-No. 110).

The trend for the 1973-76 period was to direct the studies to more practical ends, for this purpose GAS 5 unanimously defined a number of themes (Annex 3).

The report of GAS 5 was *adopted* unanimously.

The CHAIRMAN said that the work performed by GAS 5 was of great value to both developing and developed countries. He thanked the Chairman, Vice-Chairman and all those who had contributed so effectively to its work.

2. Report on the work of the Plan Committees

The Chairman of the World Plan Committee, Mr. BIGI (Italy) introduced Document AP V-No. 6, the report on the work of the Plan Committees during the 1968-72 study period and pointed out some additions to the List of Telex Destination Codes (Document AP V-No. 19 and Annex) and List of Telephone Country Codes (Document AP V-No. 20).

The delegate of MEXICO said that the setting up of a co-ordination committee for the Plan Committee for Latin America was on the agenda of the next meeting.

The delegate of BRAZIL confirmed the invitation to hold the next meeting of the Plan Committee for Latin America in June 1973 in Brazilia, the exact date will be fixed with the Director of the C.C.I.T.T.

The delegate of SPAIN confirmed the invitation of the Spanish Administration to hold the next meeting of the Plan Committee for Europe and the Mediterranean Basin in 1974 in Spain, the date and organizational details to be arranged later with the Director of the C.C.I.T.T.

The Chairman of the Plan Committee for Africa, Mr. DIA (Senegal), summarized the activities of that Committee.

The delegate of ZAIRE confirmed the invitation to hold the next meeting of the Plan Committee for Africa in Kinshasa in 1975.

The Vice-Chairman of the World Plan Committee, Mr. MOHAMED (Pakistan) said that the material being collected and issued by the Plan Committees was of great value; the decisions taken at the last meeting of the World Plan at Venice were of great importance, particularly the decision to revise the working methods. In this context, the proposal by the World Plan ad hoc group to issue statistical and planning material every two years instead of at present every four years, would have far-reaching effects on international telecommunication planning. He himself would not be able to carry on as Vice-Chairman of the World Plan Committee due to a change of his responsibility, but he thanked all delegations for the help he had been given.

The CHAIRMAN in turn thanked Mr. Mohamed for the contribution he had made as Vice-Chairman of the World Plan Committee.

The Chairman of the Plan Committee for Asia and Oceania, Mr. ZAIDAN (Saudi Arabia), referred to Documents AP V-Nos. 116 and 117 concerning the study of a satellite system for domestic or regional purposes and the study of cable systems with a small number of channels. He stressed the specific interest of these questions to the regions of Asia and Oceania.

The delegate of JAPAN confirmed the invitation for the next meeting of the Plan Committee for Asia and Oceania to be held in Tokyo in 1974.

The Chairman of the Plan Committee for Europe and the Mediterranean Basin, Mr. NOAT (France) said that when the Co-ordination Committee for that region was set up, it was asked to see whether it was feasible and advisable to co-ordinate European circuit forecasting by computer and envisage the creation of a data bank. The inquiry which was conducted showed that few European countries at present used computers for calculating international circuits and that the stocking of data should be studied but that it did not seem timely to centralize circuit calculations.

Mr. Bigi concluded discussion on the World Plan Committee report by a general expression of thanks to all those who had assisted him personally or in any way participated in the work of the Plan Committee.

At Mr. Bigi's invitation, the Chairman of the World Plan Ad Hoc Group, Mr. BLACK (United States of America), presented the report in Document AP V-No. 12. The Ad Hoc Group had produced a new draft for the Plan Guide and Questionnaire, the deficiencies in the existing Plan having become evident at the Venice meeting. He concluded by saying that the Ad Hoc Group made no claim that its recommendations represented the ultimate potential of an improved World Plan but it was felt that were a considerable improvement over former procedures and sufficiently flexible to allow for future changes. He hoped that it would be possible to implement the Group's recommendation rapidly and test their potential effectiveness. He terminated by thanking all those who had assisted him in his task.

The delegate of MEXICO, seconded by the delegate of CUBA, expressed some doubts concerning the usefulness of the suppression of circuit forecasts. The new World Plan should, however, enter into force after this Plenary Assembly.

The Chairman of the Ad Hoc Group stressed that proposals in the document were not definitive and that the question of circuit forecasts remains under study. In reply to a point raised by the delegate of MALAYSIA concerning use of the term "Hot line", he said that the list in question was only intended as an indication and that this item could well be deleted. It was so *agreed*.

The delegate of ITALY supported the new World Plan as it stood. Circuit forecasts for great bundles of circuits are difficult and not very reliable.

The delegate of the U.S.S.R. said his Administration was in entire agreement with the Ad Hoc Group's recommendations and felt they would contribute to more effective application of the Plan Guide. The existing Plan Book contains contradictions and inaccuracies, the circuit forecasts were sometimes unrealistic. With the restriction of data in the new Plan Book to a reasonable amount, more precise data are to be expected.

The Chairman of the World Plan Committee congratulated Mr. Black on his excellent work, and agreed that the proposals should be put into practice as soon as possible. It was so *agreed* and the report of the World Plan Ad Hoc Group *adopted*.

3. Report on Telecommunication Statistics

The ACTING DIRECTOR of the C.C.I.T.T. introduced Document AP V-No. 105, prepared at the request of the World Plan Ad Hoc Group. Due to the great work-load of the Secretariat for the preparation of the Vth Plenary Assembly this analytical document could only be published as a temporary document to the final meetings of the Study Groups concerned and it merited careful consideration during

the next study period. This was also the view of the various Study Groups concerned which would like to undertake a profound study of the problem.

The SECRETARY-GENERAL of the I.T.U. recalled that the question of publication of other statistics, which originated from the various Organs of the I.T.U. had already been discussed by the Administrative Council and he had been asked to present a document on the matter. Any constructive suggestions by the Plenary Assembly would therefore be most welcome.

The CHAIRMAN said the document would be noted, and it was understood that the C.C.I.T.T. would continue its work in the statistics field, in association with its Study Groups I, II, IX, X and the World Plan Committee.

4. Report of Study Group XV

The report was presented by the Chairman of the Study Group, Mr. JOB (France) (Document AP V-Nos. 68, 74, 75, 69 and 114), who reviewed the progress achieved and summarized the work of the various Working Parties. He thanked all the Chairmen, Vice-Chairmen, members of the Study Groups and the C.C.I.T.T. Secretariat.

Mr. LALOU, C.C.I.T.T. Senior Counsellor, in reply to a query by the delegate of Italy regarding treatment of Question 18/XV, said in his understanding there was no question of reaching a Recommendation if GAS 3 methods were used and therefore it was correct for it to be deleted from the programme of Study Group XV. The Chairman of the Study Group agreed with that interpretation. Mr. Lalou added that material errors in the various language versions would be corrected as necessary.

The meeting *approved* the report of Study Group XV.

The CHAIRMAN expressed his appreciation to Mr. Job for the enormous volume of work he had undertaken and congratulated him on the results.

The meeting rose at 12.45 p.m.

NINTH PLENARY MEETING

Wednesday, 13 December 1972 at 3.15 p.m.

Chairman: Mr. H. BACZKO (People's Republic of Poland)

Subjects discussed:

1. Report by Joint Working Party LTG
 2. Report by Special Study Group D
 3. Amendments to Appendix 1 of the Telegraph and Telephone Regulations
 4. Approval of the Minutes of the First, Second, Third and Fourth Plenary Meetings
 5. Report on Temporary Document No. 20 (Report of the Working Party of Committee A "Resolutions and Opinions")
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1. Report by Joint Working Party LTG (Use of telephone-type lines for purposes other than telephony) (Documents AP V-Nos. 69 and 114)

The Chairman of Joint Working Party LTG, Mr. M. TOUTAN (France) presented the report of his Working Party to the Plenary Assembly. He reviewed the work which had been carried out by the Working Party in the current study period and outlined its future programme of work.

In reply to a question put by Mr. LALOU, Senior Counsellor, Secretary of Committee B at a previous meeting, Mr. Toutan said that with regard to the questions assigned to Study Group IX, it was proposed to carry out a study of Question 1/IX jointly between Study Group IX and Joint Working Party LTG, in other words the first group to meet would start the study of the question and then hand it on to the other to continue and so on. Questions 2, 4 and 24/IX would be studied by Study Group IX first and the

results sent to Joint Working Party LTG as they came out. With regard to the questions proposed for Study Group XIV, Questions 3, 9 and B/XIV were to go first to Study Group XIV with Joint Working Party LTG being kept informed of the progress of the work, while Question 6/XIV was to be studied by Joint Working Party LTG, which would keep Study Group XIV informed of the progress of work. As far as Question 1/A for Special Study Group A was concerned, study of point J was to be carried out by Joint Working Party LTG as had been done during the current study period, while points Z and AG would be studied jointly by Special Study Group A and Joint Working Party LTG as had been done previously within the framework of Questions 38 and 39/XV.

The Chairman of Study Group IX, Mr. R. BROWN (Australia) said that the treatment proposed for Question 1/IX was not in line with the discussion in Committee B, where it had been decided that Study Group IX should examine that question first. Mr. Toutan said that had been true for the old form of Question 1/IX to which the remark on page 8 of Document AP V/No. 69 applied. Since then both Study Group IX and Joint Working Party LTG had added to the text of the question. Joint Working Party LTG was best placed to answer certain aspects of the new form of the question and that was why joint study of the question had been proposed. However, it was quite clear that only a specialized study group was competent to deal with the specifications of the signals in the telephony band and an alternative suggestion was that Question 1/IX go first to Study Group IX for study of the characteristics of telegraph channels, with the results being sent to Joint Working Party LTG as they came out so that they could be compared with the results of other study groups and Joint Working Party LTG could make proposals concerning the methods of provision of these channels. The Chairman of Study Group IX said that the latter procedure would be satisfactory.

In reply to a question from the Chairman of Special Study Group C, Mr. R. KAISER (F.R. of Germany), Mr. Toutan confirmed that the new question mentioned under the report on Question 36/XV on page 7 of Document AP V-No. 69 and described on pages 32-33 of that document was in fact the new Question L/XV. In view of the fact that study of this question could not be carried out outside the context of Question 11/C, the following procedure was proposed for dealing with it. All study groups concerned would first study the question and keep Joint Working Party LTG informed of the progress of work. Joint Working Party LTG would then consider these results, extract the points of common interest and forward them to Special Study Group C. Special Study Group C would not need to wait for that work to be completed but would, in the meantime, carry out its studies independently and then consider how they could be brought into line with the other work. The Chairman of Special Study Group C agreed that that procedure would be satisfactory.

The Assembly *took note* of the points discussed and unanimously *adopted* the report of Joint Working Party LTG.

The CHAIRMAN congratulated Mr. Toutan and expressed his appreciation of the successful way he and all others concerned in the work of Joint Working Party LTG had carried out the tasks entrusted to them.

2. Report by Special Study Group D (Pulse Code Modulation) (Documents AP V-Nos. 42, 54, 130 and 131)

The Chairman of Special Study Group D, Mr. R. C. BOYD (United States of America) presented the report of the group to the Plenary Assembly. He described the activities of Special Study Group D in the 1969-72 study period, gave an account of the results achieved by the group and went through the questions proposed for future study.

With regard to the list of questions for future study by Special Study Group D (page 61, Document AP V-No. 69) the Assembly was asked to note that in view of note 2 to Question A/D it was proposed to remove that question from the list and merge it with Question 35/XV. Question 13/D would be studied by a new Joint Working Party, Special Study Group D being the controlling Study Group for the period

1973-76. It was further proposed to change the title of Question B/D to read "Internal blocking characteristics in digital exchanges". In addition, the following editorial amendments were to be made to Document AP V-No. 130, page 3: on the first line of the first paragraph delete "transmission"; on the second line of the third paragraph delete "the relative importance of".

The delegate of ITALY suggested that in view of the importance of the integration of services when planning digital systems (see point a of Question 1/D) the title of Question 1/D should be expanded to "Planning of digital systems and integration of services" irrespective of whether Special Study Group D or Joint Working Party NRD had primary responsibility for such integration.

The report of Special Study Group D, with the above amendments, was *adopted* unanimously.

The CHAIRMAN thanked Mr. Boyd and all others concerned in the work of Special Study Group D for the satisfactory results they had achieved.

3. Amendments to Appendix 1 of the Telephone and Telegraph Regulations (AP V-Temporary Document No. 13).

The delegate of the UNITED KINGDOM presented AP V-Temporary Document No. 13, which gave the results of the work of the Working Party set up to align the three language versions of the text of Appendix 1 of the Telephone and Telegraph Regulations.

The document was *approved*. The complete text of the Appendix, as amended, appears as Annex 1 to the present minutes.

4. Approval of the Minutes of the First, Second, Third and Fourth Plenary Meetings (AP V-Temporary Documents Nos. 8, 9, 14 and 15)

Minutes of the First Plenary Meeting (AP V-Temporary Document No. 8)

A number of delegations gave notice of further names to be added to the lists of delegates who had died or retired since the previous Plenary Assembly.

With reference to Item 8 (pages 6-7, AP V-Temporary Document No. 8) it was *decided* that, as the amendments to Appendix 1 of the Telephone and Telegraph Regulations given in AP V-Temporary Document No. 13 had been approved and had thus superseded the corrections listed in the minutes, to replace that part of the minutes by a short paragraph stating that as the three language versions of the text did not correspond a small working party had been set up to deal with the problem.

A number of other editorial amendments was proposed.

The minutes of the First Plenary Meeting, as amended, were *approved*.

Minutes of the Second Plenary Meeting (AP V-Temporary Document No. 9)

Approved, subject to a number of minor editorial amendments.

Minutes of the Third Plenary Meeting (AP V-Temporary Document No. 14)

Approved, subject to a number of minor editorial amendments.

Minutes of the Fourth Plenary Meeting (AP V-Temporary Document No. 15)

Approved, subject to a number of minor editorial amendments.

5. Report on Temporary Document No. 20 (Report of the Working Party of Committee A "Resolutions and Opinions")

The Chairman of the Working Party Mr. ROBERTSON, (Canada) introduced the above document. He was congratulated by the Chairman of Committee A who pointed out a minor amendment and said that where the texts differed, that in Document AP V-No. 12 should be substituted for the one in Temporary Document No. 20.

The meeting rose at 6 p.m.

ANNEX

Payment of balances of accounts

The currencies used for the payment of balances of international telecommunication accounts, which in principle are to be drawn up in gold francs, and the methods of conversion into such currencies shall be as follows, in the absence of special arrangements between Administrations and/or recognized private operating agencies:

- (1) The payment of balances of international telecommunication accounts shall be made in the currency selected by the creditor after consultation with the debtor. If there is disagreement the choice of the creditor shall prevail in all cases subject to the provisions in paragraph 6.1. If the creditor does not specify a currency the choice shall rest with the debtor.
- (2) The amount of the payment, as determined hereafter, in the selected currency shall be equivalent in value to the balance of the account.
- (3) If the balance of the account is expressed in gold francs, the amount of the selected currency which is equivalent in value to that balance shall be determined by relating the value of the gold franc in effect on the day before payment to—
 - (a) the gold par value of the selected currency approved by the International Monetary Fund (hereafter designated as I.M.F.);
 - (b) or, if more recently established than the I.M.F.-approved gold par value, the gold value of the central rate of the selected currency established under I.M.F. Executive Board decision (hereafter designated as central rate)¹;
 - (c) or the gold par value of the selected currency fixed unilaterally by the appropriate Government or official issuing authority (hereafter designated as fixed unilaterally).
- (3.1) If the selected currency does not have a value of the kind shown in paragraph 3, or if the margins permitted by the I.M.F. are not being observed (paragraph 3a or b), the equivalent value of the selected currency shall be determined by its relationship on the official or generally accepted foreign exchange market, as provided in paragraph 6, to another currency with a value of the kind shown in paragraph 3.
- (4) If the balance of the account is expressed in a currency other than gold francs and the selected currency is the same as the currency of the balance of the account, the amount of the selected currency for payment shall be the amount of the balance of the account.
- (5) If the balance of the account is expressed in a currency other than gold francs and the selected currency for payment is different from the currency of the balance of the account, the amount of the selected currency for payment shall be determined by relating the gold value of the currency of the balance of the account to the gold value of the selected currency by reference to their value as in paragraph 3.
- (5.1) If either or both of the currencies mentioned in paragraph 5 do not have a value of the kind shown in paragraph 3, the equivalent value of one currency to the other shall be determined by their relationship on the official or generally accepted foreign exchange market, as provided in paragraph 6.
- (6) For the purpose of determining the official or generally accepted foreign exchange market equivalent referred to in paragraphs 3.1 and 5.1, the rate used shall be the closing rate for currency which can be used in the majority of merchandise trade transactions for spot delivery cable transfers in the official or generally accepted foreign exchange market of the main financial centre of the debtor country on the day prior to payment or the most recent rate quoted.
- (6.1) If a creditor selects a currency with a gold par rate fixed unilaterally or a currency the equivalent value of which is to be determined by its relationship to a currency with a gold par rate fixed unilaterally, the use of the selected currency must be acceptable to the debtor.
- (7) The debtor shall transmit, on the date of payment, the amount of the selected currency as computed above by a bank cheque, transfer or any other means, acceptable to the debtor and the creditor. If the creditor expresses no preference, the choice shall fall to the debtor.
- (8) Provided the periods of payment are observed, Administrations or recognized private operating agencies may by mutual agreement settle their balances of various kinds by offsetting credits and debits in their rela-

¹ Where the central rate is in terms of another I.M.F. member's currency (hereafter described as such other currency), the amount of the selected currency shall be determined by first relating the gold franc amount to the I.M.F.-approved par value of such other currency and then by relating the resulting amount of such other currency to the selected currency for payment. Where such other currency has no I.M.F.-approved par value in effect, paragraph 6 shall apply.

tions with other Administrations and/or recognized private operating agencies. The offsetting may be extended by mutual agreement to debts arising from postal services where both Administrations or recognized private operating agencies operate both postal and telecommunication services.

- (9) The payment charges imposed in the debtor country (taxes, clearing charges, commission, etc.) shall be borne by the debtor. The charges imposed in the creditor country, including payment charges imposed by banks in intermediate countries, shall be borne by the creditor.
- (10) If, between the time the remittance (cheque, etc.) is effected and the time the creditor receives it, a variation occurs in the equivalent value of the selected currency calculated as described in paragraphs 3, 3.1, 5, 5.1 or 6, and if the difference resulting from such variation exceeds 5% of the amount due as calculated following such variation, the total difference shall be shared equally between debtor and creditor.
- (11) If there should be a radical change in the international monetary system (e.g. a substantial general change in the official price of gold, or if gold ceased to be used generally as a basic reference for currencies) which invalidates or makes inappropriate one or more of the foregoing paragraphs, Administrations and recognized private operating agencies shall be free to adopt, by mutual agreement, different procedures for the payment of balances of accounts, pending a revision of this Appendix.

TENTH PLENARY MEETING

Thursday, 14 December 1972, at 10.30 a.m.

Chairman: Mr. H. BACZKO (People's Republic of Poland)

Subjects discussed:

1. Appointment of Study Group Chairmen and Vice-Chairmen
2. Report of Committee A (Temporary Document No. 12)

1. Appointment of Chairmen and Vice-Chairmen

The CHAIRMAN read out the proposals submitted by the heads of delegations. He announced that the number of Vice-Chairmen appointed to the various Study Groups depended on the volume of work; it was also proposed that the Vice-Chairmen act as Chairmen of the different Working Parties set up, although of course it was ultimately for the Study Group Chairmen to select the persons most qualified.

Two new Joint Working Parties were proposed:

Digital paths over cable: Mr. D. GAGLIARDI (Italy)

Mr. VASQUEZ (Spain)

Waveguide systems: Mr. R.W. WHITE (United Kingdom)

Mr. L. BOURGEAT (France)

The ACTING DIRECTOR OF THE C.C.I.T.T. said that Committee B had decided to retain Joint Working Party MAT, Mr. Bieler (Federal Republic of Germany) was proposed as Chairman, and that there was a proposal that the Chairmen of the Tariff Groups be elected at their first meeting.

The CHAIRMAN agreed to those suggestions. He stressed that the list above had been drawn up due to the spirit of compromise shown by the heads of delegations; it constituted an attempt to keep up with progress and give more countries the opportunities for active participation in C.C.I.T.T. work.

The DIRECTOR OF THE C.C.I.R. reported that at the previous C.C.I.R. Plenary Assembly when the possibility of appointing more than one Vice-Chairman to a Study Group had been raised, the Convention had been interpreted differently.

The CHAIRMAN said that probably such matters would be settled at the 1973 Plenipotentiary Conference, i.e. before the next Plenary Assembly of the C.C.I.R.; he felt that the Conference would endorse the C.C.I.T.T.'s interpretation.

The delegates of SAUDI ARABIA, JAPAN, PAKISTAN and MALAYSIA expressed their support for the proposals and their appreciation of the efforts made towards wider representation in the list of Chairmen and Vice-Chairmen.

The proposals were *adopted*.

(The list of Chairmen and Vice-Chairmen is annexed to this report.)

The delegate of CANADA made the following proposal for the text of a Plenary Assembly decision:

"Draft Plenary Assembly Decision"

"The Vth Plenary Assembly has adopted the principle of multiple Vice-Chairmanships in an attempt to broaden participation by Administrations in the work of the Study Groups and to provide the Chairmen of the more heavily loaded Study Groups with additional assistance in carrying out their work programmes.

"The Vth Plenary Assembly recognized, however, that the arrangement is a novel one, that it is not clear to all whether it is in conformity with the Convention, and also that it could lead to a number of practical problems in the future.

"The Vth Plenary Assembly, therefore, decides:

- "(a) that the application of the principle of multiple Vice-Chairmanships is experimental in character, at this stage, and is intended only for the next plenary period, so as not to prejudge the decisions of the forthcoming Plenipotentiary Conference in this respect;
- "(b) that the Chairmen of Study Groups, and Administrations, shall observe the efficacy of the new arrangements over the next period, and be prepared to comment on its continued suitability, or to propose alternatives, at the VIth Plenary Assembly;
- "(c) that the appointments of Vice-Chairmen made by the Vth Plenary Assembly in those Study Groups where there are several, are also temporary, so as to provide the VIth Plenary Assembly with the ability and flexibility to modify or even renege on the new arrangements in the light of experience;
- "(d) that the VIth Plenary Assembly shall give special attention to the procedure to be followed in handling nominations and in effecting the eventual selection of Study Group Chairmen and Vice-Chairmen."

That proposal was supported by the delegates of AUSTRALIA, THE UNITED KINGDOM, SPAIN, U.S.S.R., LEBANON, FRANCE and the UNITED STATES OF AMERICA. Since no delegation had any objections, this decision was *adopted*.

2. Report of Committee A (Temporary Document No. 12)

The Committee A report (Methods of work of the C.C.I.T.T.) was introduced by the Chairman, Mr. VAN DEN BERG (Netherlands). He requested the Secretariat to make any alignment or corrections where necessary.

He thanked the Team of Experts which had worked under the guidance of Mr. Bigi, the Acting Director of the C.C.I.T.T., and all delegations which had submitted documents, the Vice-Chairman, Mr. Marchand, who had also chaired a Working Party, and all those members who had helped to draft Annex 1. Finally, he expressed his thanks to the C.C.I.T.T. Secretariat.

The delegate of NEW ZEALAND referred to paragraph 2.1 on page 5 concerning the concurrent meetings of associated Study Groups and thought the text should be clarified to the effect that the meetings should be held consecutively and not simultaneously.

The delegate of ARGENTINA (Chairman of Committee D), pointed out a correction to Annex 5 (page 18) resulting from a decision by that Committee to delete references to a Technical Assistance Committee in view of the amendment made to Resolution No. 1.

The delegate of LEBANON referred to the first paragraph on page 13 regarding the cost of meetings and felt that the Secretary-General would have trouble in presenting the matter to the Council; perhaps the amount for language services should have been foreseen already in the C.C.I.T.T. meetings budget.

The SECRETARY-GENERAL explained that the language services were divided into two services; translation, which came under Common Services and for which credits were entered under normal General Secretariat expenses, and interpretation, which came under the Conference budgets. Pages 11, 12 and 13 should therefore be amended to that effect.

Mr. CROZE, the new Director of the C.C.I.T.T., drew the attention of the Assembly to the estimate of 6 500 000 francs in Temporary Document No. 12, and the fact that a figure of 7 815 000 francs was given in Document AP V No. 10, and asked whether the difference resulted from the fact that interpretation costs were not included in the lower figure.

Mr. MARCHAND, Chairman of the Working Party concerned, agreed that "language services" should be replaced by "interpretation services". The figure in Temporary Document No. 12 was given as a guideline. The delegates of the TERRITORIES OF THE UNITED STATES OF AMERICA and the UNITED KINGDOM said they had understood in the Working Party that interpretation costs were meant to be included in the figure quoted.

The ACTING DIRECTOR OF THE C.C.I.T.T. considered that a percentage increase in workload was not a sufficient criterion for estimating costs, as future meetings would require more extensive interpretation facilities than were provided in the past.

The delegate of SPAIN, referring to the footnote on page 6, pointed out that in Temporary Document No. 20 it was stated that "no change should be made to Resolution No. 6". Indeed such a change in favour of a reduced language service should be avoided and he would even think that Resolution No. 6 could be dropped. The Assembly followed this suggestion and *decided to delete* this Resolution.

As a result of the numerous proposed changes and at the suggestion of the delegate of LEBANON, it was *agreed* that a small working group, under the chairmanship of Mr. Marchand, would deal with all inconsistencies in the text, align and redraft where necessary and submit the revisions to a later Plenary meeting (see minutes of the Twelfth Plenary meeting).

The meeting rose at 1.15 p.m.

ANNEX

List of Study Groups and Plan Committees

Abbreviated designation		Title	Chairman	Vice-Chairman
COM I	Study Group I	Telegraph operation and tariffs (including telex).	Mr. S. R. V. PARAMOR (United Kingdom)	Mr. A. SCHWALL (Germany, F. R. of)
COM II	Study Group II	Telephone operation and tariffs.	Mr. R. RÜTSCHI (Switzerland)	Mr. D. WARNER (United States)
COM III	Study Group III	General tariff principles; lease of telecommunication circuits.	Mr. L. BURTZ (France)	Mr. M. KOJIMA (Japan) Mr. A. E. SCHWAMBERGER (United States)

Abbreviated designation		Title	Chairman	Vice-Chairman
COM IV	Study Group IV	Transmission maintenance of international lines, circuits and chains of circuits.	Mr. J. KIIL (Denmark)	Mr. B. GREJCZ (Poland) Mr. H. L. MARCHESE (United States)
COM V	Study Group V	Protection against dangers and disturbances of electro-magnetic origin.	Mr. H. RIEDEL (Germany, F. R. of)	Mr. G. GRATTA (Italy)
COM VI	Study Group VI	Protection and specifications of cables sheaths and poles.	Mr. J. R. WALTERS (United Kingdom)	Mr. A. BLANCHI (France)
COM VII	Study Group VII	New networks for data transmission.	Mr. V. C. MACDONALD (Canada)	Mr. N. R. CRANE (Australia) Mr. H. GABLER (Germany, F. R. of) Mr. A. SERRURE (Belgium)
COM VIII	Study Group VIII	Telegraph and data terminal equipment, local connecting lines.	Mr. G. BAGGENSTOS (Switzerland)	Mr. Y. SAVITSKI (U.S.S.R.)
COM IX	Study Group IX	Telegraph transmission quality; specification of equipment and rules for the maintenance of telegraph channels.	Mr. R. BROWN (Australia)	Mr. B. KUBIN (Czechoslovakia)
COM X	Study Group X	Telegraph switching.	Mr. Ch. JANSEN (Netherlands)	Mr. E. E. DANIELS (United Kingdom) Mr. D. FAUGERAS (France)
COM XI	Study Group XI	Telephone switching and signalling.	Mr. J. S. RYAN (United States)	Mr. P. PLEHIERS (Belgium) Mr. P. STERNDOFF (Denmark) Mr. TCHOUTA MOUSSA (Cameroon)
COM XII	Study Group XII	Telephone transmission performance and local telephone networks.	Mr. F. T. ANDREWS (United States)	Mr. D. L. RICHARDS (United Kingdom) Mr. H. SHIMADA (Japan)

Abbreviated designation		Title	Chairman	Vice-Chairman
COM XIII	Study Group XIII	Automatic and semi-automatic telephone networks.	Prof. S. KUHN (Poland)	Mr. J. BIOT (Belgium) Mr. J. TÅNGE (Sweden)
COM XIV	Study Group XIV	Facsimile telegraph transmission and equipment.	Mr. M. STEPHENSON (United Kingdom)	Mr. W. VINOGRADOV (Poland)
COM XV	Study Group XV	Transmission systems.	Mr. F. JOB (Poland)	Mr. W. BARJASZ (Poland) Mr. G. SARACO (Italy) Mr. A. V. G. THEYS (Belgium)
COM XVI	Study Group XVI	Telephone circuits.	Mr. S. MUNDAY (United Kingdom)	Mr. J. WILSON (Canada)
COM Sp.A	Study Group Special A	Data transmission.	Mr. V.N. VAUGHAN (United States)	Mr. G. D. ALLERY (United Kingdom) Mr. H. BIEHLER (Germany, F. R. of) Mr. G. DENNERY (France)
COM Sp.C	Study Group Special C	Noise. (Joint C.C.I.R./C.C.I.T.T. Study Group, administered by the C.C.I.T.T.).	Mr. H. WIRZ (Germany, F. R. of)	Mr. M. TOMITA (Japan)
COM Sp.D	Study Group Special D	Pulse code modulation.	Mr. T. IRMER (Germany, F. R. of)	Mr. M. DECINA (Italy) Mr. H. K. PFYFFER (Switzerland) Mr. A. PINET (France) Mr. H. RAAG (United States)
C.M.T.T.	Joint Study Group on television transmission	Television transmission. (Joint C.C.I.R./C.C.I.T.T. Study Group administered by the C.C.I.R.).	Mr. Y. ANGEL (France)	Mr. W. G. SIMPSON (United Kingdom)
C.M.V.	Joint Study Group on definitions and symbols	Definitions and symbols. (Joint C.C.I.R./C.C.I.T.T. Study Group administered by the C.C.I.R.).	Mr. R. VILLENEUVE (France)	Mr. M. DUCOMMUN (Switzerland) Mr. B. A. DURÁN (Spain)

Abbreviated designation		Title	Chairman	Vice-Chairman ^a
WORLD PLAN	World Plan Committee	Worldwide telecommunication plan (Joint C.C.I.T.T./C.C.I.R. Committee, administered by the C.C.I.T.T.).	Mr. A. BIGI (Italy)	Mr. M. GHAZAL (Lebanon) Mr. A. GRAVELL (Australia) Mr. C. H. MOREIRA (Brazil)
PLAN AFRICA	Plan Committee for Africa	Telecommunication plan for Africa (Joint C.C.I.T.T./C.C.I.R. Committee, administered by the C.C.I.T.T.).	Mr. L. DIA (Senegal)	Mr. I. GIRMAW (Ethiopia) Mr. S. O. OGUNLEYE (Nigeria)
PLAN LAT. AM.	Plan Committee for Latin America	Telecommunication plan for Latin America (Joint C.C.I.T.T./C.C.I.R. Committee, administered by the C.C.I.T.T.).	Mr. C. NÚÑEZ-A. (Mexico)	Mr. J. O. DÍAZ (Argentina)
PLAN ASIA	Plan Committee for Asia and Oceania	Telecommunication Plan for Asia and Oceania (Joint C.C.I.T.T./C.C.I.R. Committee, administered by the C.C.I.T.T.).	Mr. A. ZAIDAN (Saudi Arabia)	Mr. S. FUJIKI (Japan) Mr. H. HERISCHI (Iran)
PLAN EUROPE	Plan Committee for Europe and the Mediterranean Basin	Telecommunication plan for Europe and the Mediterranean Basin (Joint C.C.I.T.T./C.C.I.R. Committee, administered by the C.C.I.T.T.).	Mr. M. TOUTAN (France)	Mr. H. DIETRICH (Poland) Mr. L. TEROL MILLER (Spain)

^a Provisional appointment pending the next C.C.I.R. Plenary Assembly.

Joint Working Parties

Abbreviated designation	Title	Study Groups concerned ^a	Chairman	Vice-Chairman
GM CDF	Protection against lightning.	V, VI	Mr. H. RIEDEL (Germany, F. R. of)	
GM CNC	Digital paths over cable.	Sp. D, XV	Mr. D. GAGLIARDI (Italy)	Mr. J. M. VÁZQUEZ-Q. (Spain)
GM LTG	Use of telephone-type lines for purposes other than telephony.	IX, XIV, XV, Sp. A, Sp. C	Mr. L. GUILLET (France)	Mr. E. TOUMANOVSKI (U.S.S.R.)

Abbreviated designation	Title	Study Groups concerned ^a	Chairman	Vice-Chairmen
GM MAT	Automatic telegraph maintenance.	VIII, IX, X	Mr. H. BIEHLER (Germany, F. R. of)	
GM SGO	Waveguide systems.	XV, Sp. D	Mr R. W. WHITE (United Kingdom)	Mr. L. BOURGEAT (France)
GM TAF	Tariffs (Africa).	I, II, III	Mr. M. SIDIBE (Mali)	
GM TAL	Tariffs (Latin America).	I, II, III	^b	
GM TAS	Tariffs (Asia).	I, II, III	^b	
GM TEUR	Tariffs (Europe).	I, II, III	Mr. W. JOST (Switzerland)	

^a The controlling Study Group is underlined.

^b The Chairmen and Vice-Chairmen, if any, for the GM TAL and GM TAS will be elected at their next meeting.

List of special autonomous Working Parties set up to carry out background studies of interest to the developing countries

Abbreviated designation	Title	Chairman	Vice-Chairmen
GAS 3	Economic and technical comparison of transmission systems.	Mr. M. AOUD (Morocco)	Mr. J. J. HERNANDEZ-G. (Mexico) Mr. T. SAKASHITA (Japan) Mr. G. WALLENSTEIN (United States)
GAS 5	Economic conditions and telecommunication development.	Mr. H. LONGQUEUE (France)	Mr. S. O. OGUNLEYE (Nigeria) Mr. F. E. RALL (Argentina)

ELEVENTH PLENARY MEETING

Thursday, 14 December 1972 at 3.20 p.m.

Chairman: Mr. H. BACZKO (People's Republic of Poland)

Subjects discussed:

1. Approval of the Minutes of the Fifth and Sixth Plenary Meetings
2. Approval of the Minutes of the Inaugural Meeting
3. Publication of the new C.C.I.T.T. Book

4. Report by Committee D
5. Report by Committee B

1. Approval of the Minutes of the Fifth and Sixth Plenary Meetings (AP V-Temporary Documents Nos. 16 and 17)

Minutes of the Fifth Plenary Meeting (AP V-Temporary Document No. 16)

Approved, subject to a minor editorial amendment.

Minutes of the Sixth Plenary Meeting (Temporary Document No. 17)

Approved, subject to a minor editorial amendment.

2. Minutes of the Inaugural Meeting (Temporary Document No. 10)

The DEPUTY SECRETARY-GENERAL said that the Documents reflected in their entirety the speeches made at the Inaugural Meeting. Temporary Documents Nos. 18, 19, 21, 22 and 24 submitted by the delegations of the Republic of Korea, the Republic of Viet-Nam, the People's Republic of Albania and the delegations of the Bielorussian S.S.R., the U.S.S.R. and the Ukrainian S.S.R., should also be considered in association with the minutes. A subsequent amendment to Temporary Document No. 19 (Republic of Viet-Nam) added that the statement therein applied equally to the comments contained in Temporary Documents Nos. 22 and 24.

Further statements of a similar nature had been submitted to the Secretariat by a number of delegations and were in the course of publication. The Deputy Secretary-General suggested that in accordance with normal I.T.U. practice all the statements concerned should be included in the formal Report of the Plenary Assembly. It was so *agreed*.

The Deputy Secretary-General said also that the drafting amendments to Document No. 10 which had been handed in to the Secretariat would be incorporated in the minutes.

On that understanding, the minutes of the Inaugural Meeting were *adopted* for inclusion in the records of the Vth Plenary Assembly.

3. Publication of the C.C.I.T.T. Book (AP V-Document No. 132)

The delegate of POLAND expressed concern over the long time taken to publish the different volumes of the C.C.I.T.T. Book. He suggested that to improve this situation, the Secretary-General be authorized to finance, if necessary, from the I.T.U. supplementary publications' budget the recruitment of highly qualified specialists to reinforce the staff responsible for preparing the volumes for publication. A draft opinion to this effect was presented by the Polish delegation in Document AP V-No. 132 and he proposed its adoption by the meeting.

The SECRETARY-GENERAL said that he wished to assure the Assembly that the use of the supplementary publications' budget would have no repercussions on the contributory unit, as the extra expenditure would be met by increasing the cost of the C.C.I.T.T. Book. The work would require the employment of four specialists for six months to a year at most and the cost would be in the region of 180,000 to 360,000 Swiss francs, depending on the length of time involved. The resultant increase in the price of a complete set of Volumes of the C.C.I.T.T. Book would be from 75 to 100 Swiss francs.

The delegate of the UNITED KINGDOM said that it was considered that the adoption of such an opinion was the responsibility of the Administrative Council rather than the Plenary Assembly. Although the supplementary budget was self-supporting and the use of it authorized by the Financial Regulations, ultimate responsibility for taking on extra staff still lay with the Administrative Council. To overcome the difficulty and enable work to start at once without waiting for the next session of the Administrative Council, he proposed, with the support of the delegates of the FEDERAL REPUBLIC OF GERMANY, FRANCE

and the UNITED STATES OF AMERICA, that the final paragraph under "express the opinion" on page 4 of AP V-Document No. 132 be replaced by the following:

"That, pending further consideration of this problem by the Administrative Council, the Secretary-General should, in consultation with the Director of the C.C.I.T.T., take such exceptional staffing measures as may be necessary to ensure publication of the C.C.I.T.T. Volumes within one year, and report to the Council accordingly."

After the explanation of the Secretary-General that the proposed amended text gives him sufficient ground for necessary action, the delegate of POLAND agreed to this amendment. The draft opinion, as amended, was *approved*.

In reply to the delegate of SPAIN, who pointed out that the page numbering of the Spanish version of certain volumes of the White Book did not correspond to that of the English and French editions and hoped that such discordance could be avoided in future, the Deputy Secretary-General said that the situation had arisen after the IVth Plenary Assembly, when so few subscriptions had been received for the Spanish edition that the cost of its publication in the same form as the other languages would have been prohibitive. In view of the value of having an edition in Spanish, I.T.U. headquarters had decided to print one in offset within its own resources. That procedure had greatly reduced the cost although the inconvenience of page numbers which did not correspond to the other editions had had to be accepted. He assured the delegations of all Spanish-speaking countries that the decisions made by the Vth Plenary Assembly with respect to the next C.C.I.T.T. Book ensured that the page numbering would be uniform for the three language editions.

4. Report by Committee D (Temporary Document No. 26)

The Chairman of Committee D, Mr. A. S. IRRERA (Argentina) reviewed the work done by the Committee during the two meetings held during the Assembly and presented its report to the Plenary Assembly for approval. With regard to the need discussed in Committee D for changing its terms of reference, examination of that question and the drafting of a Resolution based on the opinion emitted by the World Plan Committee, Venice, 1971, had been entrusted to a sub-working party under the Chairmanship of Mr. Aoud (Morocco), and its report appeared as Annex 2 to Temporary Document No. 26. There had been no time for Committee D to examine the report of the sub-working party in detail, but as it followed the decisions made in Committee D it was recommended to the Plenary Assembly for adoption, subject to the following amendments.

Page 3, second paragraph: in the fourth line, after "Nigeria" add "Malaysia"; in the last two lines (to align the wording of the title with that given in the proposed amendment to point v of Resolution No. 1, on page 6) replace "and dissemination of information" by "and C.C.I.T.T. activities in connection with seminars".

Page 8: if the recommendations given in Annex 2 were accepted, Opinion No. 5 would have to be amended as follows: in the first line under the title replace "IIIrd" by "Vth" and "1964" by "1972". Under "considering" third paragraph, fourth line, delete "technical assistance". In the next to last paragraph, fourth line, delete "technical assistance", and in the last paragraph, fourth line, replace "Assistance" by "Co-operation".

With regard to the last amendment proposed, the Secretary-General said that it would be preferable for the opinion not to mention the Technical Co-operation budget at all. The General Secretariat was prepared at all times to co-operate with the C.C.I.T.T. but did not wish to have any reference to the Technical Co-operation budget in the opinion as it would lead to difficulties with U.N.D.P. owing to the latter's new policy on technical assistance. He proposed that the words "and Technical Co-operation" be deleted from the last paragraph.

The report of Committee D, as amended, was *adopted* unanimously.

The CHAIRMAN congratulated Mr. Irrera and thanked him and all others who had taken part in the work of Committee D and the sub-working party for their excellent work.

5. Report by Committee B (Temporary Document AP V-No. 25)

The Chairman of Committee B, Mr. BURTZ (France) introduced the Committee's report (Temporary Document No. 25) to the Plenary Assembly and reviewed its recommendations for allocation of the questions proposed for examination during the 1973-76 study period. With reference to the questions assigned to Joint Working Parties (Annex 1, page 3), the Assembly was asked to note that some controlling study groups still had to be designated. He proposed that Study Group III should act as the controlling study group for the work of Joint Working Parties TAF, TAL, TAS and TEUREM and requested proposals for the other groups.

The Chairman of Study Group XV proposed Study Group XV as the controlling study group for Joint Working Party LTG, the Chairman of Study Group IX proposed Study Group IX as controlling study group for Joint Working Party MAT and the Chairman of Study Group V proposed Study Group V as controlling study group for Joint Working Party CDF.

The above proposals were *accepted*.

The delegate of the United States of America pointed out that on page 1, paragraph 3, of the English text "Special Study Group B" should be replaced by "Special Study Group D".

The CHAIRMAN OF STUDY GROUP X indicated that Question 8/X on page 16 of AP V-Temporary Document No. 25 should be given an asterisk.

The ACTING DIRECTOR OF THE C.C.I.T.T. reminded the Assembly that because publication of the final versions of the definitions being prepared by the new joint C.C.I.R./C.C.I.T.T. Study Group on Vocabulary might take some time it had been decided that the definitions so far prepared should, as an interim measure, appear in the new C.C.I.T.T. Book. He proposed that a sentence to that effect be added to paragraph 6, page 1, of AP V-Temporary Document No. 25.

The CHAIRMAN OF SPECIAL STUDY GROUP C proposed a slight change in the procedure for appointing the reliability rapporteurs mentioned in paragraph 7, suggesting that it should be the responsibility of each study group concerned to appoint a rapporteur.

Mr. T. IRMER (Federal Republic of Germany), speaking as the future chairman of Special Study Group D, objected to Note 2 to Annex 1 (page 3 of AP V-Temporary Document No. 25) on the grounds that the document if approved was only valid for the next study period in any case. In reply, Mr. LALOU, Senior Counsellor, Secretary to Committee B, conceded the point but said the note had been inserted as a reminder that Study Group XV might take over from Special Study Group D as controlling study group after the next study period. Moreover, the allocation of the new question for Joint Working Party CNC (page 31, AP V-Temporary Document No. 25) was still provisional and a final decision had not been made. It had been put in the list of questions for Special Study Group D, as controlling group, but Study Group XV would be responsible for the detailed aspects of its study. Mr. Irmer proposed that to indicate the situation the title be changed from "Question M/XV (13/D)" to "Question 13/D (M/XV)" and the complete wording given under Question 13/D.

In reply to the delegate of SYRIA, who wished to be assured that all aspects of Question 6/XI had been assigned for study in the next study period, Mr. CHAPUIS, Counsellor, said that, as recommended by the Working Party of heads of delegations set up under the chairmanship of Mr. Tchouta Moussa (Cameroon) to examine the matter and as agreed by the meeting of heads of delegations, it was proposed that Study Group XI set up a working party to be responsible for examining not only Part A (technical aspects) of the annex to that question but also Part B (economic, maintenance and staff training aspects).

The report of Committee B, as amended, was *adopted* unanimously.

The CHAIRMAN thanked Mr. Burtz and all those who had participated in the work of Committee B for the successful way they had completed their task.

The meeting rose at 6.15 p.m.

TWELFTH AND LAST PLENARY MEETING**Friday, 15 December 1972, at 9.20 a.m.***Chairman:* Mr. H. BACZKO (People's Republic of Poland)*Subjects discussed:*

1. Report of Committee C
2. Report of Committee A (continued)
3. Proposed Opinion to be transmitted to the Plenipotentiary Conference
4. Approval of the minutes of the Seventh Plenary meeting (Temp. Doc. 27)
5. Invitation for Study Group meeting, date and place of the VIth Plenary Assembly
6. Taking of oath by the new Director of the C.C.I.T.T.
7. Closure of the Vth Plenary Assembly

1. Report of Committee C (Budget Control)

Committee C's report, contained in Temporary Document No. 28 was introduced by the Committee's Chairman, Mr. M. GHAZAL (Lebanon) who drew particular attention to the overall figures quoted in the table on page 10 of the document, and the fact that the estimated total exceeded by 308,000 Swiss francs the credits authorized by the Administrative Council. In reply to the CHAIRMAN OF THE PLENARY ASSEMBLY who pointed out that the Plenary Assembly itself finishes ahead of schedule and that no supplementary night or Saturday meetings were organized during the Assembly and wished to know exactly how far his own responsibility extended when the report on the Vth Plenary Assembly will be considered by the following Council session, both Mr. GHAZAL and the DEPUTY SECRETARY-GENERAL of the I.T.U. stressed the difficulty of separating the expenditure on the Plenary Assembly itself from that on the final Study Group meetings.

After thanks had been expressed to the Chairman and Vice-Chairman of the Committee, the report of Committee C was *approved*.

2. Report of Committee A (continued)

The Chairman of Committee A, Mr. VAN DEN BERG (Netherlands), said that most of the points left in abeyance at the previous meeting had already been clarified or were being dealt with. With regard to page 8 of Temporary Document 12/PLEN., it had been agreed that the points mentioned represented an ideal and that the proposals made by the Canadian delegation did not constitute a contradiction; with regard to Resolution No. 1 on pp. 18 and 19, written amendments had been submitted by the delegate of Roumania and they would be incorporated, plus any others handed in to the Secretariat.

Mr. MARCHAND (Canada) reported on the results of the Working Party appointed at the 10th Plenary meeting and given in Temporary Document No. 32/PLEN.

Mr. LALOU, Senior Counsellor of the I.T.U., pointed out that the French and English texts did not correspond and indicated the changes to be made.

Mr. CROZE, the new Director of the C.C.I.T.T., said that he was obliged to make reservations about the figure of Sw. fr. 6,500,000 arrived at by the Working Party.

Subject to those remarks, the document was *adopted*.

3. Proposed Opinion to be transmitted to the 1973 Plenipotentiary Conference

The Opinion, contained in Temporary Document No. 37, was introduced by the delegate of MEXICO, and supported by the delegates of FRANCE and the FEDERAL REPUBLIC of GERMANY.

The document was *adopted*.

4. Approval of the minutes of the Seventh Plenary Meeting (Temp. Doc. 27)

The minutes were *approved*, subject to an insertion in the third paragraph on page 4: "... the discussions at the meeting of the Co-ordination Committee of the Plan Committee..."

5. Invitations for Study Group meetings, date and place of the VIth Plenary Assembly

The invitations below were offered for the following study period:

Study Group III	France
Study Group XV	France (first meeting)
GAS 5	France
Study Group XV and Special Study Group D	Japan (probably April or May 1975)
Special Study Group C (and associated Study Groups)	Federal Republic of Germany (perhaps 1974)
Study Group VII	Canada
Study Group X	Netherlands
Plan Committee for Europe and the Mediterranean Basin	Spain
Plan Committee for Africa + TAF	Zaire (confirmation)
+ (possibly) Africa Regional Group of GAS 5	
Plan Committee for Latin America + TAL	Brazil (confirmation)

With respect to the Plenary Assembly, the delegate of the U.S.S.R. asked whether there were any obstacles to holding the Final Study Group meeting in one place and the Plenary Assembly in another. The DIRECTOR OF THE C.C.I.T.T. assured him that, on the contrary, it would probably be more convenient to hold the Study Group meetings in Geneva, and the Plenary elsewhere.

The delegate of FRANCE proffered the invitation to hold the VIth Plenary Assembly of the C.C.I.T.T. in France in 1976, either in Paris or on the Côte d'Azur, depending on the time of year selected.

The CHAIRMAN thanked all the delegations concerned and said that their invitations would be accepted in principle, subject to approval by the Administrative Council and consideration of the decision already taken to hold associated Study Groups together.

6. Taking of oath by the new Director of the C.C.I.T.T.

The CHAIRMAN took pleasure in confirming the appointment of the new Director and wished him every success in his new post.

Mr. CROZE solemnly took oath as newly elected Director of the C.C.I.T.T. before the Plenary Assembly.

7. Closure of the VIth Plenary Assembly

The delegate of FRANCE congratulated the Chairman on his competence, authority and amiability and on having so successfully performed his duties.

The delegate of SAUDI ARABIA said that he understood the difficulty of the Chairman's task and said how much the Assembly had appreciated the manner in which he had conducted the work of the meeting.

The DIRECTOR OF THE C.C.I.T.T. reiterated his warmest thanks to the whole Assembly. He appreciated the importance of the task entrusted to him; and though it would be a challenging and difficult one at times he would endeavour to prove worthy of such trust. With the full co-operation of his new colleagues on the I.T.U. staff he was sure that the difficulties would be overcome. He had followed with great interest the proceedings of the Assembly which he felt had been of a high quality and he was sure that the wisdom of the decisions taken would become apparent.



The authority and skill of Mr. Baczko who had conducted the discussions in a masterly fashion were largely responsible for the success of the meeting. He wished to thank the Secretary-General, the Chairmen and Vice-Chairmen of the Committees and those delegates who had participated in the discussions.

The Director expressed thanks to his future colleagues in the C.C.I.T.T. Secretariat, particularly to Mr. Hummel, Acting Director, who had been responsible for preparing the Assembly. Finally, he wished all participants a safe journey home and encouraged them to look forward to the meetings to be held in the forthcoming study period.

The SECRETARY-GENERAL made the following statement:

"Mr. Chairman,

"Ladies and Gentlemen,

"At the close of this Vth Plenary Assembly, allow me first of all to thank you, Mr. Chairman, for the masterly fashion in which you have directed the discussions. Your knowledge of problems and of people and your natural gift for presiding over meetings place you among the best chairmen that I.T.U. conferences have known for very many years. The I.T.U. as a whole and especially those participating in the work of the C.C.I.T.T. are extremely grateful to you.

"At the Inaugural meeting, you yourself said that this Vth Plenary Assembly would mark a turning point in the history of the C.C.I.T.T. That is quite true and it is fortunate that the Assembly has been presided over by so striking a personality as yourself.

"Ladies and Gentlemen,

"For two weeks you have taken an active part in discussions which are extremely important for the future of the C.C.I.T.T. and hence of the I.T.U. Throughout these debates you have shown that spirit of co-operation which has always prevailed in the work of this permanent organ of the Union. You have thus confirmed once more that the main objective of delegates to I.T.U. conferences is to find practical solutions which take account both of the fundamental interests of the Members of the Union as a whole and of the specific interests of each one. This search for a consensus acceptable to all, this effort by everybody to understand one another's problems, are what have made our organization successful. On behalf of the I.T.U., I should like to congratulate you and suggest that you continue on this road, which we consider the only one which will enable the Union to move forward.

"As for my friend and colleague, Mr. Croze, the new Director of the C.C.I.T.T., I should like again to wish him every success in the discharge of his onerous duties.

"Mr. Rouvière, his predecessor, took the affairs of the C.C.I.T.T. in hand when it was first set up and he worked to translate into deeds the new ideas which were at the basis of its creation.

"Today the C.C.I.T.T. is at another turning point, a decisive one which is directly related to the impressive advance of technique, to the emergence of new telecommunication media and to their penetration into all the activities of modern civilization. It was inevitable that the Plenary Assembly's choice should fall on a man whose knowledge, competence and past activity offered every assurance that the undertaking entrusted to him should be fully successful.

"Ladies and Gentlemen,

"May I tell you all, and the Chairmen and Vice-Chairmen of the study groups in particular, what a pleasure it has been for me to pass these few days in your company. They have enabled me to hark back to the happy time when I used to sit among you as delegate of a country whose principle it is to place international co-operation and mutual understanding among all peoples above everything else. Your activity within the C.C.I.T.T. does honour to the I.T.U. and enhances its authority and prestige.

"Mr. Chairman,

"Ladies and Gentlemen,

"To conclude: allow me to wish, on behalf of the I.T.U., excellent health for you and your families

and a very pleasant return to your homes. And since we are on the eve of traditional festivities, to honour a happy tradition, let me also wish you a good and glad New Year.

"May 1973 fulfil all your wishes both domestically and in your work, may it likewise confirm our dear Union in its pursuit of all the aims that history has assigned it.

"A happy return and may we meet again soon."

The CHAIRMAN made the following statement:

"Ladies and Gentlemen,

"The Vth Plenary Assembly of the C.C.I.T.T., which I had the honour of presiding over, is coming to an end. I should like to express my warm thanks to the authorities of the Canton and City of Geneva for their hospitality and to all citizens of this beautiful town for the kindness they have consistently shown us. For two weeks—it was much longer for some of you—we have spent the day in this building which already housed so many important conferences of the International Telecommunication Union in the past; we have had long discussions in an attempt to open up new areas for the development of the C.C.I.T.T. so that it might keep pace with the rapid evolution of techniques and help telecommunication to fulfil its cardinal role as a means of communication between peoples at a time when more favourable conditions appear to exist for international co-operation and for contacts between countries however far apart.

"At the inaugural meeting of the Assembly, I said that we had a very heavy agenda but, as an inveterate optimist, I expressed the conviction that, given our willingness to co-operate and to compromise where necessary, we would be able to overcome all our difficulties and get through the work ahead of us.

"Allow me, Ladies and Gentlemen, at the close of our discussions to present a brief balance sheet of the results obtained and to see whether my optimism was justified.

"Obviously I cannot cover all that was achieved in one short speech; I shall therefore only mention those results which I consider to be the most important.

"We have examined the detailed reports prepared by the C.C.I.T.T. Secretariat and all of the Study Groups on the work carried out during the period between the IVth and Vth Plenary Assemblies. We have approved these reports and, in so doing, we have given an important tool to those in every country who work with telecommunications: a set of Recommendations which draws their attention to the manifold possibilities offered by modern technology and suggests the most efficient and most economic way of exploiting it. The reports which we have approved have shown, once again, how wide-ranging are the problems with which the C.C.I.T.T. is concerned and the extent of the work it has accomplished in these fields.

"I should like again to thank all members of the Study Groups and Working Parties, their Chairmen and Vice-Chairmen, the Counsellors and the staff of the C.C.I.T.T. Secretariat for the enormous amount of work they have performed and to compliment them on the results obtained.

"I am also pleased to note that membership of the Study Groups, and particularly the representation of the developing countries, is steadily increasing. One example of the growing interest in the work of the C.C.I.T.T. is the increasing number of countries participating in our Plenary Assemblies. The present Assembly was attended by the representatives of 88 countries, 15 more than at the IVth Plenary Assembly.

"One of the primary tasks of a Plenary Assembly is to establish and approve the C.C.I.T.T. programme of work for the next study period. We have established that programme, which provides a logical sequel to the work done by the Study Groups in the preceding period and which takes account of the most urgent problems whose solution is essential for the development and efficient functioning of the telecommunication network. Out of a large number of questions, we have adopted for study those which, in our view, are the most important; there are about 300 and many of them are very complex and wide in scope. These questions have been assigned to the appropriate Study Groups.

"To rationalize the work of the Study Groups and enable Administrations to delegate their best specialists, despite the fact that they are urgently needed in their own countries, we debated at length how best to ensure co-ordination of the work of certain Study Groups and whether we ought to maintain or disband certain Study Groups and Working Parties and if we should set up some new ones. We carefully reviewed these Study Groups' terms of reference and introduced the necessary amendments in the light of experience and the rapid development of telecommunication techniques. For example, Working Parties were created to examine the problems posed by digital channels over cable or by waveguide systems and, in the programme of Study Group XI, greater emphasis was placed on stored programme controlled exchanges. These significant steps will undoubtedly improve our work and contribute to its effectiveness.

"In view of the very heavy programme of some Study Groups, we found it necessary to appoint several Vice-Chairmen with whom the Chairmen would share more of their responsibilities in future. In principle, the Vice-Chairmen should preside over the Working Parties which have to be set up to bring the work of their Study Groups to a successful conclusion. The new procedure will be tested in practice in the coming study period and it will be for the VIth Plenary Assembly to determine whether our decision was valid and useful. However, we can already see that it permits a larger number of representatives from different countries to take an active and leading part in the work of the C.C.I.T.T. Consequently, there is better representation of the various geographical regions. One immediate result of these decisions is that chairmanship of the Study Groups has been allocated to the representatives of 30 countries compared with only 23 countries in the last period.

"We have given a lot of thought to the question of to whom we should entrust the responsibility of directing the autonomous and joint study groups and working parties that we have set up. We have based our choice of their officers—Chairmen and Vice-Chairmen—on the long experience of certain countries in the various sectors and the personal experience of the eminent specialists whom Administrations are good enough to make available to our organization. I am sure that, in their expert hands, the work of the Study Groups will proceed efficiently and that it will be possible to deal with their very heavy programme.

"I should like to thank all those Administrations and recognized private operating agencies which have placed the services of their highly qualified specialists at our disposal. I would also warmly thank all the Chairmen and Vice-Chairmen we have appointed for having agreed, in the general interest, to undertake these duties in addition to their normal work. My thanks also go to all of you, Ladies and Gentlemen, for the assistance you have given me throughout these difficult discussions and for your readiness to compromise, without which we could not have arrived at satisfactory conclusions. I hope that all Study Groups and Working Parties will be fully successful in the work they will carry out under the direction of the Chairmen and Vice-Chairmen we have appointed.

"Another of our preoccupations was that the results of our work, which will be incorporated in the new C.C.I.T.T. *Green Book*, should be published as quickly as possible. The texts in that Book must be clear; they must be identical in the three working languages of the I.T.U.; and they must accurately reflect the conclusions of the studies carried out. I hope that, as a result of the measures for which we have provided in the Opinion adopted by the Assembly and which authorize the Secretary-General, in consultation with the Director of the C.C.I.T.T., to strengthen if necessary the staff assigned to edit the *Green Book*, it will be possible to complete this work with the minimum delay. At the same time there will be less pressure on the C.C.I.T.T. Secretariat, which will be able to concentrate on the day-to-day work of the Study Groups.

"I am most grateful to all the Administrations and recognized private operating agencies which have already so generously offered to help in this matter. I am sure that, if their generous assistance is fully used, and if extra editing staff is recruited, the time required to publish the different volumes can be considerably reduced.

"We reappraised our own working methods most carefully. We made the necessary changes on the basis of the highly pertinent Recommendations submitted by the Team of Experts presided over by Mr. Bigi and of the discussions at this Plenary Assembly. We followed the principle that it is the work of the Study Groups that makes the C.C.I.T.T. effective. We therefore discussed first of all the methods likely to speed up the work and to facilitate the preparation of solutions to the problems investigated by the Study Groups. I feel that the measures envisaged, particularly the appointment of rapporteurs to prepare the study of various questions, the appointment of special rapporteurs and co-ordinators, and more careful preparation of meetings will make the C.C.I.T.T. even more effective than in the past.

"We elected the new Director of the C.C.I.T.T. We have presented him with an onerous task, but we know that Mr. Croze's long and brilliant career, his wide knowledge of technical and international problems and staff training and the organizing ability which he has repeatedly demonstrated, particularly during the many years when he managed French telecommunications as Director-General of Telecommunications in the French P.T.T. Ministry, will enable him to overcome all difficulties and to lead the C.C.I.T.T. along the paths we have laid down.

"I am sure that he will always receive every assistance and co-operation from his colleagues on the I.T.U. Co-ordination Committee and the other officials in the General Secretariat and, above all, from the entire C.C.I.T.T. Secretariat. It is fortunate that the Secretariat has been built around such a remarkable team of specialists. Many of them have worked in the organization for some time and they all have wide experience and deep knowledge of the problems with which the C.C.I.T.T. is concerned. Every Study Group Chairman has stressed the assistance given to him by the Secretariat staff and has personally thanked them for the amount of work they have performed. The list of these names is a long one and should include all those who as "non-commissioned officers and privates" have discharged in such an exemplary fashion the many auxiliary tasks which nevertheless are essential and without which we should not have been so successful. That long list of staff working for the Secretariat vouches for the standard of C.C.I.T.T. performance in future.

"This team spirit is in the best C.C.I.T.T. tradition and was remarkably demonstrated during the illness and after the death of our most respected Director, Mr. Jean Rouvière. In that difficult period, not only was there no falling-off of C.C.I.T.T. work, but all of the additional duties connected with the preparation of this Vth Plenary Assembly were executed smoothly.

"In considering what has been accomplished at the Assembly, we must recognize that these excellent efforts are largely the result of efficient preparation. The main responsibility in this respect fell to Mr. Hummel who, after Mr. Jean Rouvière's death, acted as Director of the C.C.I.T.T. I should like to congratulate Mr. Hummel on his achievement and to thank him for seeing that we received most of the important Assembly documents before we arrived except, of course, those embodying the conclusions of the Study Group preparatory meetings held in November. Our work was thus greatly facilitated. I am also appreciative of his co-operation during the Assembly.

"My thanks also go to Mr. Mili, our Secretary-General, to Mr. Butler, our Deputy Secretary-General, to Mr. Herbstreit, Director of the C.C.I.R., and to the other senior officials of the General Secretariat for the active part they have taken in the Assembly and for their preparatory work, for many constructive proposals, for sound advice and for the assistance given to me personally.

"I must also express my gratitude to the Vice-Chairmen of the Assembly and to the Chairmen and Vice-Chairmen of the Study Groups and Working Parties for their invaluable help during our debates. I would warmly thank the secretaries of the Committees, the minute writers, translators and interpreters

who made up for our often inadequate knowledge of the five languages in which the discussions were conducted, as well as the operators and technicians who made sure that everyone could hear and be heard.

"Our Assembly could not have been successful without the help of all those who worked in the meeting rooms and those whom we did not see but who did all sorts of jobs to make our life easier. I am thinking of the typists, the staff responsible for the reproduction and distribution of documents, the ladies in the reception office who welcomed us and answered all our questions, the telephone operators and the messengers who were always ready to help.

"Finally, I wish to thank the representatives of the various international organizations for their active co-operation in the Study Groups, for their participation in the Assembly and for their recognition of the value of the work done by the C.C.I.T.T. Above all, I wish to thank you, Ladies and Gentlemen, who represent the Administrations of our Members and the recognized private operating agencies, for all that you have done to ensure a successful outcome of the Plenary Assembly.

"Ladies, Gentlemen, my dear colleagues, I wish you a safe journey home and I hope that the friendly relations established during our stay in Geneva will remain unchanged for many long years.

"I hereby declare closed the Vth Plenary Assembly of the C.C.I.T.T."

The meeting rose at 12.30 p.m.

ANNEX TO THE MINUTES OF THE PLENARY MEETINGS

Statements issued by certain delegations

Nigeria, Algeria, Ghana, Upper-Volta, Cameroon, Senegal, Togo, Ethiopia, Morocco, Dahomey, Gabon, Zaïre.

**Presence of the Representatives of the Government of the Republic of South Africa
at the Vth Plenary Assembly of the C.C.I.T.T.**

(Temporary Document No. 11/PLEN.)

The delegations of Nigeria, Algeria, Ghana, Upper-Volta, Cameroon, Senegal, Togo, Ethiopia, Morocco, Dahomey, Gabon and Zaïre deplore the presence of the representatives of the Government of the Republic of South Africa at the Vth Plenary Assembly of the C.C.I.T.T.

Head of delegation from the Republic of Korea

Statement

(Temporary Document No. 18/PLEN.)

Referring to the intervention of the representative of the People's Republic of China at the Inaugural Meeting of the Vth Plenary Assembly, the Republic of Korea delegation is fully entitled under all relevant international decisions and rules, including those in the I.T.U., to represent Korea at any I.T.U. conferences and meetings.

The current South-North dialogue in Korea which aims at the peaceful reunification has not authorized any foreign country including the People's Republic of China to discuss the representation of Korean people and, moreover, in a way which could perpetuate the artificial division of Korea. The delegation regrets that this matter has been raised at a purely technical meeting.

Delegation of the Republic of Viet-Nam

(Temporary Document No. 19/PLEN.)

With reference to the declaration of the Chinese Delegation at the opening meeting of the Vth Plenary Assembly, the delegation of the Republic of Viet-Nam deplores the attitude of the Chinese delegation which, contrary to the firmly established tradition in the I.T.U., was authorized to make use of an international conference of a technical nature to raise political problems.

The Republic of Viet-Nam, while not recognizing the authority of Peking, refrains from raising this question of a bilateral nature at the Plenary Assembly of the C.C.I.T.T.

The delegation of the Republic of Viet-Nam categorically rejects the tendentious statements of the Chinese delegation with regard to the Republic of Viet-Nam and declares them null and void. It hopes that the Chinese delegation will follow the example of the other delegations and take part in the discussions in the constructive spirit which is traditional in the I.T.U. and not engage in sterile polemics which have no place in international conferences.

Addendum :

This reply concerns also the written statements by the delegations of ALBANIA, BIELORUSSIA, the SOVIET UNION and of the UKRAINE.

Head of the delegation

Statement by the delegation of the People's Republic of Albania

(Temporary Document No. 21/PLEN.)

The delegation of the People's Republic of Albania wishes to express its great satisfaction at the presence, for the first time in this Assembly, of the delegation of the People's Republic of China.

The presence of the great People's Republic of China in this organization will serve to reinforce the authority and the effectiveness of the Union because none of the tasks and none of the important problems with which it is faced can be dealt with successfully without the participation of representatives of the largest nation in the world.

Head of the delegation

(Signed) H. DERSHA

Statement by the delegation of the People's Republic of Albania

(Temporary Document No. 22/PLEN.)

The delegation of the People's Republic of Albania wishes to state that the legitimate representatives of the Cambodian people are the representatives of the Royal Government of National Union of Cambodia. It also protests against the presence at this Assembly of the delegations of the so-called Republic of Korea and Republic of Viet-Nam because these delegations do not represent the Korean and Vietnamese peoples. The Albanian delegation likewise protests against the presence here of the representatives of the Government of the Republic of South Africa.

Head of the delegation

(Signed) H. DERSHA

Central African Republic, People's Republic of the Congo and Republic of the Chad

**Presence of Representatives of the Government of the Republic of South Africa
at the Vth Plenary Assembly of the C.C.I.T.T.**

(Temporary Document No. 23/PLEN.)

The delegations of the Central African Republic, of the People's Republic of the Congo and of the Republic of the Chad appreciate the statement contained in Temporary Document No. 11 and consider that the presence of representatives of the Government of the Republic of South Africa at the Plenary Assembly is at variance with the measures taken with regard to that Government at the last Plenipotentiary Conference of the Union held at Montreux in 1965.

*For the Central African
Republic*

(Signed) J. M. SAKILA

*For the People's Republic
of the Congo*

(Signed) M. NTSIBA

*For the Republic of
the Chad*

(Signed) J. M. SAKILA

Mr. H. BACZKO,
Chairman of the Vth Plenary Assembly of the C.C.I.T.T.,
Geneva.

(Temporary Document No. 24/PLEN.)

Dear Sir,

The delegation of the Bielorussian Soviet Socialist Republic, the Union of Soviet Socialist Republics and the Ukrainian Soviet Socialist Republic formally protest against the participation in the work of the Vth Plenary Assembly of the C.C.I.T.T. of persons shown on the list of participants submitted to the Assembly as members of the so-called delegations of Viet-Nam and of Korea.

The delegations of the Bielorussian S.S.R., the U.S.S.R. and the Ukrainian S.S.R. refer to the statement which they made on signature of the International Telecommunication Convention (Montreux, 1965). They

consider that the persons speaking at this meeting on behalf of the Saigon Administration do not represent South Viet-Nam at this Assembly and even less can claim to represent the entire territory of Viet-Nam. Their presence as delegates to the Assembly is therefore illegal.

Similarly, the delegates of South Korea who are attending this Assembly cannot and have no right to represent the whole of Korea. Their claim to address the Assembly on behalf of the entire territory of Korea has no legal basis.

We would ask you to treat this statement as an official document of the Vth Plenary Assembly of the C.C.I.T.T.

Yours faithfully,

Head of the delegation of the Bielorussian Soviet Socialist Republic
(Signed) V. OULASSIK

Head of the delegation of the Union of Soviet Socialist Republics
(Signed) J. SAVITSKY

Head of the delegation of the Ukrainian Soviet Socialist Republic
(Signed) I. TIMCHENKO

Delegation of the People's Republic of China
(Temporary Document No. 29/PLEN.)

The South African white authorities of colonialist domination is a racist régime of a small number of people, which is imposed on the broad masses of the South African people. It is by no means qualified to represent the South African people attending the Vth C.C.I.T.T. Plenary Assembly.

Delegation of the Khmer Republic
(Temporary Document No. 30/PLEN.)

I respectfully request the Chairman of the Vth Plenary Assembly to consider the allegations of the People's Republic of China concerning my Government as null and void and to delete them from the Minutes. My delegation considers the behaviour of the Chinese delegation indecorous and the insertion of such slander in the Minutes of a specialized technical conference quite absurd.

The Khmer Republic is a Member of long standing of the United Nations and, as such, is by right a member of any specialized agency.

Delegations of the United States of America and the Territories of the United States of America

Statement

(Temporary Document No. 31/PLEN.)

The delegations of the United States of America and of the Territories of the United States regret the attempt of certain delegations to introduce membership questions into the C.C.I.T.T. Vth Plenary Assembly. The I.T.U. Convention establishes the procedures for participation and representation of members in meetings of the Union. These procedures do not assign any responsibility to a technical organ, and therefore consideration of such questions is outside the purview of this Assembly.

Head of the delegation of Cuba

Declaration

(Temporary Document AP V-No. 33/PLEN.)

The delegation of Cuba refers to Temporary Documents Nos. 18 and 19/PLEN. and stresses the need for the people of the Democratic People's Republic of Korea to be represented at this Assembly as is its proper right.

It also notes the absence of the Democratic Republic of Viet-Nam whose example of valour and of constancy in technical, economic, social and political activities excites universal admiration.

The Administrations of Seoul and Saigon cannot be representatives of the peoples of Korea and Viet-Nam respectively.

Head of the delegation

(Signed) René Hernandez CARTAYA

(Temporary Document No. 34/PLEN.)

Sir,

The delegation of the Socialist Republic of Romania would refer to Temporary Documents No. 18/PLEN. and No. 19/PLEN. and wishes to declare that the authors of Temporary Document No. 19/PLEN. have no right to act on behalf of South Viet-Nam, far less for the entire territory of Viet-Nam.

Similarly, the delegates of South Korea cannot represent the whole of Korea at the Vth Plenary Assembly. Accept, Sir, the assurances of my highest consideration.

*For the head of the delegation
of the Socialist Republic of Romania*

(Signed) I. PETRARU

Delegation of the People's Republic of Poland

Statement by the delegation of the People's Republic of Poland

(Temporary Document No. 35/PLEN.)

The delegation of the People's Republic of Poland, considering that the so-called delegations of the Republic of Korea and the Republic of Viet-Nam do not represent the Korean and Vietnamese nations, formally protests against the participation in the work of the Vth Plenary Assembly of the C.C.I.T.T. of the persons alleged to be delegates of Viet-Nam and Korea.

For the head of the delegation

(Signed) J. KARAS

Declaration by the delegation of the People's Republic of China

(Temporary Document No. 36/PLEN.)

We have noted that, in notes (3) and (5) in the List of Country Codes for the International Semi-Automatic and Automatic Service (*White Book*, Volume II-A, Recommendation E.161, page 10), Hong Kong, which is Chinese territory, is shown as an "Overseas Territory for the international relations of which the Government of the United Kingdom of Great Britain and Northern Ireland are responsible" and that Macao, which is Chinese territory, is shown as a "Portuguese Oversea Province". The delegation of the People's Republic of China makes the following declaration in this connection:

The imperialist occupation of the Chinese territories of Hong Kong and Macao, which is a legacy of the past when unfair treaties were imposed on China, cannot change the fact that Hong Kong and Macao belong to China.

The delegation of the People's Republic of China asks that this declaration be distributed to all delegations present and reproduced in full in the official documents of the Assembly.

Head of the delegation

Mr. H. BACZKO,
*Chairman,
Vth Plenary Assembly of the
International Telegraph and
Telephone Consultative Committee,
Geneva.*

(Temporary Document No. 38/PLEN.)

Sir,

The delegation of the Czechoslovak Socialist Republic protests against the participation in the work of this Assembly of the persons shown as members of the so-called delegations of Korea and Viet-Nam in the list of participants in the Vth Plenary Assembly of the C.C.I.T.T.

The delegates of South Korea and South Viet-Nam have no right to represent the whole of Korea and Viet-Nam.

Their claims to speak in the Assembly on behalf of the entire territory of Korea or Viet-Nam have no legal basis and their presence as delegations at the Assembly is accordingly illegal.

I have the honour to be,
Your Obedient Servant,
L. DVOŘÁČEK,
*Head of the delegation of the
Czechoslovak Socialist Republic.*

Delegation of the Republic of South Africa

(Temporary Document No. 39/PLEN.)

The delegation of the Republic of South Africa regrets the statements made by certain delegations questioning its right of participation in the C.C.I.T.T. Vth Plenary Assembly and sees them purely as an exercise in political propaganda.

*Head of the delegation of the
Republic of South Africa
(Signed) C. G. GOUWS*

(Temporary Document No. 40/PLEN.)

To the Chairman of the
Vth Plenary Assembly of the C.C.I.T.T.

Sir,

The delegation of the People's Republic of Bulgaria refers to Temporary Documents Nos. 18/PLEN. and 19/PLEN. and wishes to declare that the so-called delegations of the Republic of Korea and the Republic of Viet-Nam do not represent the Korean and Vietnamese nations and cannot represent the whole of Korea and of Viet-Nam at the Vth Plenary Assembly.

Accept Sir, the assurances of my highest consideration.

*Head of the delegation of the
People's Republic of Bulgaria
(Signed) I. TODOREV*

Mr. H. BACZKO,
*Chairman of the Vth Plenary Assembly of the C.C.I.T.T.,
Geneva.*

Sir,

The delegation of the Hungarian Administration to the Plenary Assembly, referring to the statements made by the delegation of the Hungarian People's Republic and included in the Final Protocol to the International Telecommunication Convention (Montreux, 1965), declares that the delegation of the Republic of Korea has no right to represent the whole territory of Korea.

Similarly, the delegation of the Republic of Viet-Nam has not the right to act on behalf of South Viet-Nam, and still less on behalf of the whole territory of Viet-Nam.

Consequently, the statements and legal acts made by these two delegations to this effect during the work of this Plenary Assembly and appearing in various documents are illegal.

I therefore request you, Mr. Chairman, to treat this statement as an official document of the Vth Plenary Assembly of the C.C.I.T.T.

Yours faithfully,

Illés TÓTH

Head of the Hungarian delegation

Statement by Algeria

The delegation of the Algerian Democratic and Popular Republic wishes to declare:

1. That the Saigon authorities do not represent South Viet-Nam; their representatives at the present Assembly cannot speak on behalf of the Vietnamese people;
2. That the representatives of South Korea have no right to speak on behalf of the whole of Korea; and
3. That the legitimate representatives of the Cambodian people are those of the Royal Government of National Union of Cambodia.

*Head of the delegation of the
Algerian Democratic and Popular Republic*

(Signed) M. DOUZISIA

REPORTS

REPORT OF THE SENIOR COUNSELLOR, ACTING DIRECTOR OF THE C.C.I.T.T., ON THE C.C.I.T.T. ACTIVITIES BETWEEN THE IVth AND THE Vth PLENARY ASSEMBLIES

(as approved by the Vth Plenary Assembly on 11 December 1972)

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Annex : C.C.I.T.T. meetings during the IVth study period

1. General

The expiring study period 1968-72 can be considered in general as a very successful one, both from the point of view of the results achieved and from the efforts of the Secretariat to keep the running cost as small as possible. There is reason to doubt whether it will be possible to deal with a further increase in the volume of work if special measures are not taken. Proposals in this connection are given in Document AP V-No. 11.

In most cases, the elaboration of recommendations, often in the form of compromise solutions, did not give rise to special difficulties; however, in certain domains some countries seemed already to be committed. This is due to the fact that it frequently happens, in these days, that similar developments are taking place at about the same time in various countries. Many of these developments may be of such a nature that no question of an international recommendation concerning them will ever arise. Where such a possibility exists, however, it is desirable in the interests of worldwide compatibility of equipment, that the C.C.I.T.T. should be informed before any country becomes committed to particular principles of technique in connection with a given development. The C.C.I.T.T. might therefore express the wish, through its Plenary Assembly, that its members should send in information at a very early stage about the essential characteristics of those of its new developments that seem likely to give rise in the future to a need for international recommendations concerning them.

2. Study group and working party activities

2.1 *Organization of the work of study groups*

The IVth Plenary Assembly retained the sixteen ordinary study groups and the existing Special Study Groups A and C. It abolished Special Study Group B, a co-ordination group concerned with the worldwide semi-automatic and automatic telephone network, and set up a new Special Study Group D to deal with pulse-code modulation problems. The IVth Plenary Assembly also retained the World and Regional Plan Committees.

With regard to the working parties, it maintained Joint Working Parties ALP, TGX, LTG and MAT set up by the IIIrd Plenary Assembly and established eleven new joint working parties to deal with regional tariff questions, protection of telecommunication installations, tests of the new signalling system No. 6 and the establishment of new networks for data transmission.

Finally, the IVth Plenary Assembly abolished the former GAS 1 and 2, as their tasks had been previously completed.

2.2 *Short outline of the results achieved by the various study groups and working parties*

Telegraph operation and tariffs

In accordance with the terms of Resolution No. 36 of the Plenipotentiary Conference of the I.T.U. (Montreux, 1965) Study Group I has completed the drafting of a simplified set of International Telegraph Regulations and C.C.I.T.T. Recommendations which will supplement them for submission to the Vth Plenary Assembly of the C.C.I.T.T. In the presentation of these proposals, the new Regulations have been arranged editorially on lines similar to the proposed Telephone Regulations.

Study Group I has incorporated some substantive amendments in the new texts with proposals for others such as the Appendix on the payment of balances of accounts and the abolition of money order telegrams and postal cheque telegrams as a separate class which have been initiated by the C.C.I.T.T. and are still being considered by the U.P.U. at the time of the drafting of this report. The draft telegraph regulations, after approval by the Plenary Assembly, will be submitted to the World Administrative Telephone and Telegraph Conference in the spring of 1973.

It might be permitted, on this occasion, to express the view that the positive result of this immense undertaking is largely due to the excellent spirit of collaboration in Study Group I.

Alphabetical telegraphy

Study Group VIII continued its work on the standardization of apparatus with International Telegraph Alphabet No. 5 and established a tentative list of transmission speeds which will be further studied.

Study Group IX, based on the imminent requirements for medium speed telegraph channels as expressed by JWP/NRD, drafted a recommendation on the frequency division of a primary group to derive 2400 and 9660 baud channels. These channels might be used in switched data networks or as point-to-point circuits. Good progress has also been achieved in the field of time division multiplex systems for analogous channels and for p.c.m. systems, a field which is very promising for the future. The study group finally amended a number of existing recommendations and drafted a new recommendation on transmission at reduced character rate.

Joint Working Party MAT, in the light of practical experience, elaborated some amendments to Recommendation R.79 on automatic maintenance tests which enable also the testing of radio telegraph circuits. The studies on the inclusion into the test of intercontinental circuits with signal regeneration is being pursued.

Joint Working Party TGX dealt with the results of tests with the intercontinental signalling system type C and amended some of the provisions of Recommendation U.11 accordingly with a view to save holding time of intercontinental circuits, to better identify transit centres and to signal certain fault conditions.

Joint Working Party ALP devoted itself to the revision of the International Alphabet No. 5 in close collaboration with I.S.O. The relevant recommendations of C.C.I.T.T. and I.S.O. are now in line on the substantial points and an appendix to the C.C.I.T.T. Recommendation will indicate complementary I.S.O. publications.

One of the most important tasks of Study Group X, during this study period, was the study of a new telex signalling system, specifically designed for computer-controlled exchanges and with the possibility of handling telex and data traffic with the same system. The procedure proposed in a new draft recommendation is very much in line with that of a signalling system for data transmission above 50 bauds-over anisochronous channels so that Administrations will be able, if so desired, to merge both systems into one which results in a single network for telex and data.

In the more classical field of use of ARQ-circuits for fully automatic service, the study group proposes to drop the further study of charging on the basis of efficient time and to recommend, as the only method, charging on the basis of elapsed time with the efficiency factor as a control for forced release or busying. Finally, the study group amended a number of existing recommendations in order to adapt them to meet new requirements.

Facsimile telegraphy

The working party "Facsimile transmission" of Study Group XIV pursued its study on the transmission aspect of facsimile telegraphy and concentrated on the question of simultaneous transmission of facsimile and telegraph signals. A list of technical provisions was laid down to supply a common basis to the members of the group interested in undertaking tests on this kind of operation. After evaluation of the test results the group will be able to draft a relevant recommendation.

Data transmission

Study Group Sp.A was heavily burdened during this study period with an extensive work programme, due to various fields in which the study group is actively involved. One of the most important tasks was the study of modems for increased modulation rates on switched and leased telephone circuits for which there is a significant demand. Since for transmission at 2400 bit/s over leased circuits there have already been standardized new methods at Mar del Plata (the techniques of which have been taken as a basis for study of 2400 bit/s modems over the switched network), and since a large quantity of modems of each modulation method are already in existence, Study Group Sp.A was not able to standardize on one single method for the switched network application. Therefore, for an interim period, both methods may be employed and, in the meantime, study on an improved modulation method will be pursued.

Further recommendations were elaborated on the following subjects: a modem for 4800 bit/s over leased circuits; a list of standardized data signalling rates for synchronous data transmission; an exhaustive list of interchange circuits with their definitions and electrical characteristics; use of acoustic coupling for data transmission and a general method for comparison tests of modems. The study group also revised a number of recommendations.

Joint Working Party NRD, in the first study period of its existence, had a very full programme and succeeded in drafting a number of fundamental recommendations on public data networks. The group was in the favourable position of being able to deal with all technical and service aspects of data networks and the recommendations elaborated are inspired by the desire to render the new service as flexible as possible to meet existing and future requirements. Recommendations on the following subjects were drafted: user classes and data signalling rates; recommended user facilities; control signalling system

between anisochronous data networks; parameters of multiplexing scheme for the interface between synchronous networks and finally on the customer interfaces. A considerable number of questions need further study, again putting a heavy work load on JWP/NRD. This is, however, comprehensible from the fact that the group is dealing with an entirely new international service, besides the existing telephone and telegraph services.

Telephone transmission

Study Group XII devoted most of its efforts to an attempt to define internationally acceptable methods for the objective measurement of telephone transmission performance, taking into account the results of objective measurements and subjective comparisons carried out in the C.C.I.T.T. Laboratory, as well as work in progress in several countries. These objective measurements would be quicker, cheaper and easier to reproduce in various laboratories than the present subjective test methods, but their results cannot be relied upon in evaluating transmission performance in international connections until the current studies have been completed.

Study Group XII retained the limits now recommended for propagation time in a telephone call, but showed great interest in the use of new methods to combat echo effect. It also studied reference equivalents in national networks, circuit noise, limits for crosstalk between telephone circuits, artificial mouths and the transmission performance of pulse-code modulation systems, including satellite systems of the SPADE type. Study Group XVI collaborated in some of the work of Study Group XII, and also studied the use of echo suppressors, attenuation distortion in telephone circuits and connections, circuit noise in national networks and on international circuits, characteristics of leased circuits, and so forth.

Study Group XV examined a large number of questions concerning cables and analogue transmission systems, especially carrier systems with frequency division multiplexing. Special reference should be made to methods of obtaining high-quality monophonic or stereophonic sound programme circuits, interchangeability of submarine cables during repairs, future standardization of new types of coaxial pairs and waveguides for long-distance transmission, characteristics of regulators and their effect on the stability of transmission systems and standardization of input and output levels of carrier terminal equipments. Although there is as yet no international visual telephone service (picture transmission combined with a telephone call), studies are being conducted with a view to standardizing (at the worldwide level, if possible) the basic parameters to be used for interconnecting national systems.

Special Study Group D, set up by the IVth Plenary Assembly to study digital systems, has already examined transmission systems using pulse-code modulation. Two types of primary multiplex have been specified, with their own respective speech encoding laws and two corresponding types of asynchronous secondary multiplex. Discussions have already taken place on methods of interconnection between these two types of multiplex and especially on the possibility of intercontinental transmission via satellite. Studies have also been carried out on the encoding of various signals other than speech signals (sound broadcasting, visual telephone, television) and of assemblies of telephone channels already constituted by frequency division multiplexing. The study group has defined the transmission media offered by p.c.m. systems for telegraphy, data transmission and various signalling systems. Measuring methods are being studied and attempts are being made to fix objectives for line error rates.

Special Study Group C (a Joint C.C.I.T.T./C.C.I.R. Study Group) continued its work on circuit noise and permissible signal power. It undertook a general study of reliability problems, in connection with which Study Group XV has begun to collect data on the actual service reliability of cable transmission systems.

Telephone operation and tariffs

Study Group II completed the following work:

1. It defined the scope of the Recommendation on international telephone accounting between Administrations or recognized private operating agencies. This Recommendation (E.250), which was adopted by the IVth Plenary Assembly, completely changes the traditional rules (contained in particular in the Telephone Regulations). The provisions of Recommendation E.250 are already partly in force and this year, for example, the flat-rate price procedure of remuneration for the facilities made available (circuits) was introduced in many European countries. Study Group II adopted the "conversation time" defined by electric signals as the traffic unit for accounting purposes. It recognized, however, that it would take a long time for Recommendation E.250 to be fully implemented, especially so far as the provision of metering devices for international automatic transit routings is concerned.
2. It revised the Instructions for the International Telephone Service (a number of changes were put into effect on 1 January 1971) and a new edition of the Instructions will be published immediately after the Plenary Assembly.
3. It introduced a number of amendments and additions to C.C.I.T.T. recommendations so that these would elaborate on the general principles, which were the only provisions retained in the draft Telephone Regulations examined by the IVth Plenary Assembly in pursuance of Montreux Resolution No. 36.
4. It prepared draft recommendations on the following:
 - 4.1 operational procedures and charging rules for international sound programme and telephone circuits;
 - 4.2 operational procedures and charging rules for international conference calls;
 - 4.3 the printing of telephone numbers on letterheads;
 - 4.4 the layout of subscriber telephone keysets with 16 push-buttons.
5. It recommended the adoption of reduced rates during light traffic periods and defined the procedures for applying them to international traffic.

General tariff principles

Study Group III concentrated mainly on tariff questions and the conditions governing the use of leased continental and intercontinental circuits. After long and laborious negotiations, it substantially amended Recommendations D.1 and D.2 which are the basic texts on the subject.

The four regional tariff groups (Africa, Latin America, Asia, Europe and the Mediterranean Basin), set up under the auspices of Study Group III by the IVth Plenary Assembly, held meetings but, doubtless for want of material and because the groups could not meet often enough, satisfactory progress was achieved only by the TEUREM and TAF groups. The TEUREM Group radically revised the basic components used for international rate-fixing in Europe.

Economic studies relating to common carriers in telecommunications

In October 1972 GAS 5 published a new handbook entitled "Economic Studies—1972" consisting of eight revised chapters and eleven new chapters dealing in particular with charging procedures in national traffic. It worked on the publication of a telecommunications statistical yearbook which was requested by the IVth Plenary Assembly and it assembled valuable information to define the scope of the yearbook.

Switching

Study Group XI followed the progress of the field trials of signalling system No. 6 which were successfully conducted by Working Party FT 6, a joint working party of Study Groups XI and XIII.

The trials of system No. 6 are undoubtedly one of the major research and development projects recently carried out in telecommunications at international level, whether from the point of view of the outlay on equipment (including circuits), or the mass of data collected or of the amount of work put into it by the members of Working Party FT 6. It took seven meetings of the working party, lasting two weeks each and held at six-monthly intervals. These were attended by those responsible for the trials in the nine key countries in an international test polygon which covered the entire world.

Study Group XI was involved in the standardization of system No. 6 and laid down the policy to be followed with regard to certain basic aspects of the problem, including retention of the 20-bit format for the signalling unit, which had been the subject of arduous discussions.

The use of system No. 6 or of systems derived from it for national networks is already being considered by countries whose networks are technically among the most highly developed. Use of the system was considered in Study Group XI in connection with one of the questions assigned to it.

Study Group XI devoted a great deal of time to the specifications of other standardized signalling systems and to the conditions governing their interworking. The digital versions for signalling on p.c.m. transmission channels were defined for systems R.1 and R.2.

Finally, Study Group XI –

- defined the characteristics of a signalling system for demand assignment satellite circuits;
- defined the noise provisions to be observed by circuits traversing an international switching centre;
- undertook studies for the standardization of functional specifications and of a high-level programming language for stored programme controlled telephone exchanges.

Telephone service quality and maintenance of switching equipment

In addition to being jointly responsible with Study Group XI for the supervision of the tests of system No. 6, Study Group XIII dealt with many subjects. Apart from the problems connected with the operation of demand assignment satellite telephone circuits and the World Routing Plan, the work of Study Group XIII centred on two groups of subjects:

- those relating to the *quality of the international telephone service*, including overall grade of service. One conclusion to be drawn is that the quality at present, in some traffic relations, is not fully satisfactory in the international automatic service where the caller often has to make three or more attempts before getting through to his correspondent;
- those relating to the corrective provisions which depend on switching equipments to remedy the defects: organization of the *maintenance* of these equipments.

Recommendations based on the studies carried out on both groups of subjects are being submitted to the Plenary Assembly.

Maintenance of international lines, circuits and chains of circuits

During the study period, Study Group IV has dealt with the various aspects of maintenance concerning communication satellites, end-to-end testing on circuits for television transmission and the establishment of basic specification clauses for suitable measuring equipment for checking the fundamental transmission characteristics of the lines and circuits involved. This latter subject has involved Study Group IV in the development of automatic measurement equipment to deal with the vast increase in the number of lines in the world network. The study group has continued to analyze measurement results in order to keep track of trends in the transmission quality of the network. A particularly fruitful study has led to the establishment of tests for the purpose of ensuring a suitable transmission quality on circuit destined to carry television (video) transmissions. For this, an ad hoc group of television experts was formed in view of the very specialized nature of the subject. The same group has

also undertaken that in the future it will study basic specification clauses for measurement equipment suitable for making the tests proposed.

Protection against dangers and disturbances of electromagnetic origin

Apart from studying the specific questions set for its study, Study Group V has made progress towards completing draft texts for the publications for which it is responsible. As a result it is able to submit, for the approval of the Plenary Assembly, new texts for inclusion in the "Directives concerning the protection of telecommunication lines against harmful effects from electricity lines" and for "Guidelines for the use of the directives" for the handbook on protection against lightning, and for basic specification clauses for lightning protectors. Good progress has been made with texts concerning "Earthing" and the protection of power-feeding systems, and new recommendations are in course of preparation for inclusion in Volume IX of the C.C.I.T.T. Book on lightning protectors. Work continues on the text of the handbook on the protection of lines against lightning discharges.

Protection and specifications of cable sheaths and poles

During 1968-72, Study Group VI has drawn up new and revised texts for submission to the Plenary Assembly for the following publications:

- "Recommendations for the protection of underground cables against corrosion".
- "Preservation of wooden poles carrying overhead telecommunication lines".
- "The protection of telecommunication cables by pressurization".

The publication on "The protection of telecommunication cables by pressurization" was published in 1969.

Study Group VI has been particularly active in the field of cables using plastic materials in their make-up and devoted itself especially to the various methods for jointing such cables, including both the cable sheath closure methods for plastic sheaths and the methods for jointing plastic insulated conductors. Study Group VI proposes the publication of a handbook giving details of the methods in use in a number of countries.

Booklet on "Primary sources of energy"

The final editing of the volume was completed in 1969 and the booklet was subsequently published in 1970.

2.3 *Some statistical figures on the study group activities*

As the outcome of the work of the study groups of the C.C.I.T.T., there have been drafted a number of new recommendations and amendments to existing recommendations involving total re-drafting or significant modification to the wording. The table overleaf gives an indication of this work for each study group or equivalent, together with information on the number of meetings, meeting days and documents studied.

3. **Publication of printed volumes of the C.C.I.T.T.**

During its fourth study period, the C.C.I.T.T. Secretariat issued the following publications:

Results of the work of the IVth Plenary Assembly, Mar del Plata, 1968, contained in the various volumes of the White Book

- Volume I
- Minutes and reports of the IVth Plenary Assembly of the C.C.I.T.T.
 - Resolutions and opinions issued by the C.C.I.T.T.
 - General table of study groups and working parties for the period 1968-72
 - Summary table of questions under study in the period 1968-72

Study group or equivalent	No. of meeting days	No. of meetings	No. of contributions studied	Series of recommendations	No. of new recommendations	No. of substantially amended recommendations
I	41	4	109	F	3	8
II	89 ^a	15 ^a	136	E	4	23
III	40 ^a	11 ^a	52	D	0	6
				M	2	21
IV	94	14	170	N	2	17
				O (proposed)	6	0
V	30	7	80	K	6	0
VI	22	6	46	L	2	0
VIII	3	1	39	S	0	0
IX	15 ^a	3 ^a	61 ^a	R	2 ^b	5
X	15 ^a	3 ^a	102 ^a	U	1	5 ^a 1 ^b
XI	41 ^a	7 ^a	153	Q	4	24
XII	24	4	160	P	1	2
XIII	55 ^a	8 ^a	99	Q	5	10
XIV	5	1	26	T	0	0
				G.161..	0	12
XV	50 ^a	6 ^a	214	J	3	6
				G.101..G.159	0	10
XVI	14	2	102	V	8	12
Sp. A	31 ^a	7 ^a	311 ^a	G, H	1	2
Sp. C	14	3	91	G.700..	10	1
Sp. D	33 ^a	5 ^a	149	Q.251..295	0	26
GM/FT 6	58	7	106	H	1	8
GM LTG	11	2	36	X (proposed)	6	0
GM NRD	38	9	106			

^a Including those of joint working parties (or permanent working groups) controlled by this study group.

^b Recommendations which belong to another series.

— Recommendations (Series A) on the organization of the work of the C.C.I.T.T.

— Recommendations (Series B) and Questions (Study Group VII) relating to means of expression

Volume II A — Recommendations (Series D) and Questions (Study Group III) relating to the lease of circuits

— Recommendations (Series E) and Questions (Study Group II) relating to telephone operation and tariffs

Volume II B — Recommendations (Series F) and Questions (Study Group I) relating to telegraph operation and tariffs

Volume III — Recommendations (Series G, H and J) and Questions (Study Groups XV, XVI, C and D) relating to line transmission

Volume IV — Recommendations (Series M and N) and Questions (Study Group IV) relating to the maintenance of international lines, circuits and chains of circuits

Volume V — Recommendations (Series P) and Questions (Study Group XII) relating to telephone transmission quality, local networks and telephone sets equipment

- Volume VI — Recommendations (Series Q) and Questions (Study Groups XI and XIII) relating to telephone signalling and switching
- Volume VII — Recommendations (Series R, S, T and U) and Questions (Study Groups VIII, IX, X, and XIV) relating to telegraph technique.
- Volume VIII — Recommendations (Series V) and Questions (Special Study Group A) relating to data transmission
- Volume IX — Recommendations (Series K) and Questions (Study Group V) relating to protection against interference
— Recommendations (Series L) and Questions (Study Group VI) relating to the protection of cable sheaths and poles.

General plans for the development of the international network

- Plan for Latin America, Asunción, 1969
- Plan for Europe and the Mediterranean Basin, Warsaw, 1970
- Plan for Asia and Oceania, Teheran, 1970
- Plan for Africa, Lagos, 1971
- World Plan, Venice, 1971.

Other publications

- Handbook on pressurization of telecommunication cables (1970).
- Instructions for the international telephone service (1969).
- Standardized test chart for facsimile transmissions (1969).
- Manual GAS 3, Economic and technical aspects of the choice of transmission systems (1969).
- "Propagation"—Appendix to Section B.IV.3 of Manual GAS 3 (1971).
- New pages (about 150) and amended pages for Manual GAS 3 (1972).
- Manual GAS 4, Primary sources of energy (1970).
- Detailed specifications for the C.C.I.T.T. signalling system R2 (1969).
- Detailed specifications for signalling system No. 6 (1972).
- Amended reprint of recommendations for the protection of underground cables against corrosion (1960-70).

4. Collaboration with other international organizations

The C.C.I.T.T. has had occasion to work with the following United Nations specialized agencies and international organizations:

- Universal Postal Union (U.P.U.),
- World Meteorological Organization (W.M.O.),
- European Conference of Postal and Telecommunications Administration (C.E.P.T.),
- Organization for Economic Co-operation and Development (O.E.C.D.),
- European Computer Manufacturers' Association,
- International Air Transport Association (I.A.T.A.),
- International Chamber of Commerce (I.C.C.),
- International Committee for Press Telecommunications (I.P.T.C.),
- International Electrotechnical Commission (I.E.C.),
- Congrès international de télétrafic (C.I.T.) (International Teletraffic Congress),
- International Organization for Standardization (I.S.O.),
- International Criminal Police Organization (I.C.P.O.),
- International Radio and Television Organization (I.R.T.O.),
- European Broadcasting Union (E.B.U.),
- International Union of Producers and Distributors of Electrical Energy (UNIPEDE),
- International Union of Public Transport (I.U.P.T.).

5. Volume of work of the C.C.I.T.T.

After this brief description of C.C.I.T.T. activities in 1968-72, I feel I should give a few figures which give striking evidence of the heavy burden of work borne by the Secretariat:

(a) *Volume of work* (excluding meeting of the Plenary Assembly)

	<i>1st period</i> (1959-60)	<i>2nd period</i> (1960-64)	<i>3rd period</i> (1964-68)	<i>4th period</i> (1968-72)
Meeting days	628	808	1107	810
Contributions published	1000	1500	2015	2625
Circulars issued	120	140	160	200

This gives an average of 202 days of meetings a year for the whole period 1968-72, to which we must add a number of meetings with limited participation, such as those of co-ordination, editorial and other groups.

(b) *Participation*

	<i>1st period</i> (1959-60)	<i>2nd period</i> (1960-64)	<i>3rd period</i> (1964-68)	<i>4th period</i> (1968-72)
Registered members of study groups	2615	4496	(approx.) 8000	9946
Private operating agencies taking part	20	25	39	43
Industrial organizations taking part	22	61	83	97

6. Changes in the chairmanship of study groups

The following changes in the chairmanship of study groups have occurred since the IVth Plenary Assembly:

In Study Group XIII, Mr. A. Newstead (Australia), who left his Administration, was replaced by Mr. Kühn (Poland), Vice-Chairman of Study Group XIII. The study group then elected Mr. J. Biot (Belgium) first Vice-Chairman and Mr. I. Tånge (Sweden) second Vice-Chairman.

In Study Group XIV, owing to the retirement of Mr. Bitter (F.R. of Germany), the chairmanship of the study group had been taken over by Mr. Vinogradov (Poland).

E. HUMMEL

ANNEX

C.C.I.T.T. meetings during the IVth study period (26 October 1968 to 12 November 1972)

Meetings held in 1969

Date	Purpose of the meeting	Place
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

Meetings held in 1969 (continued)

Date	Purpose of the meeting	Place
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	Asunción
18-24 September	Working Group TAL (Tariffs for Latin America)	Asunción
29 Sept.-3 Oct.	Working Party IV/3 (Maintenance programme)	Geneva
6-10 October	Working Party IV/4 (Network stability)	Geneva
27 Oct.-7 Nov.	Special Study Group D (Pulse code modulation)	Geneva
24 Nov.-12 Dec.	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

Meetings held in 1970

Date	Purpose of the meeting	Place
12-23 January	Working Party XIII/1 (Maintenance and service grade)	Geneva
19-23 January	Working Party XIII/2 (Network planning)	Geneva
26 Jan.-4 Feb.	Study Group XIII (Automatic and semi-automatic telephone networks)	Geneva
28-30 January	Study Group VI (Protection)	Geneva
2-6 February	Working Party CDF (Protection against lightning)	Geneva
5-18 February	Study Group XI (Telephone switching and signalling)	Geneva
16-26 February	Study Group XII (Telephone transmission performance and local telephone networks)	Melbourne
19-24 February	Working Party FT 6 (Field trials of system No. 6)	Geneva
3-13 March	Study Group XVI (Telephone circuits)	Melbourne
5-18 March	Working Party III/1 (Leasing of intercontinental circuits)	Geneva

Meetings held in 1970 (continued)

Date	Purpose of the meeting	Place
23-25 March	Editorial Group "Instructions"	Geneva
6-7 April	Working Party LTG (Use of telephone-type lines for purposes other than telephony)	Geneva
6-10 April	Working Party II/5 (Human factors in telephony)	Geneva
8-21 April	Study Group XV (Transmission systems)	Geneva
13-17 April	Working Party IV/2 (Measuring equipments)	Darmstadt
20-29 April	Regional Plan Committee for Asia and Oceania	Teheran
2-3 May	TAS Working Party (Asia tariffs)	Teheran
6-8 May	Working Party IV/5 (Maintenance instructions for new systems)	Geneva
11-21 May	Study Group IV (Maintenance)	Geneva
15-19 June	"Multiplex" Working Party (of Special Study Group D)	Geneva
22-26 June	Working Party PAR (Protective devices)	Geneva
22 June-7 July	Study Group I (Telegraph operation and tariffs)	Montreal
22 June-7 July	Study Group II (Telephone operation and tariffs)	Montreal
29 June-3 July	Working Party PFP (Protection of power-feeding systems)	Geneva
8-14 July	Study Group III (General tariff principles; lease of telecommunication circuits)	Montreal
1-11 September	Editorial Group of GAS 3	Geneva
3-4 September	Co-ordination Group, Study Groups II, IV, XI, XII, XIII, XVI	Geneva
14-23 September	Plan Committee for Europe and the Mediterranean Basin	Warsaw
17-23 September	Working Party XIII/2 (Network planning)	Munich
24-25 September	TEUR Working Party (Europe tariffs)	Warsaw
28 Sept.-2 Oct.	Working Party IV/3 (Maintenance programme)	Geneva
5-7 October	Group of TV Experts, Study Group IV	Geneva
5-28 October	Working parties of Study Group XV	Geneva
12-23 October	Working Party FT 6 (Field trials of system No. 6)	London
19-23 October	Working parties of Study Group XIV	Geneva

Meetings held in 1970 (continued)

Date	Purpose of the meeting	Place
26 Oct.-3 Nov.	Working parties of Study Group IX and Study Group IX (Telegraph transmission)	Geneva
4-10 November	GAS 5 (Economic conditions and telecommunication development)	Geneva
11-17 November	Working Party II/4 (Programme and television transmissions)	Geneva
18-20 November	Joint Working Party ALP (Alphabet No. 5)	Geneva
23-25 November	Study Group VIII (Telegraph equipment)	Geneva
23-27 November	Joint Working Party LTG (Use of telephone-type lines for purposes other than telephony)	Geneva
23-27 November	Joint Working Party NRD (New networks for data transmission)	Geneva
30 Nov.-4 Dec.	Working Party XI/3 (Stored programme controlled exchanges)	Geneva
30 Nov.-4 Dec.	Working parties of Special Study Group A	Geneva
7-18 December	Special Study Group A	Geneva

Meetings held in 1971

Date	Purpose of the meeting	Place
11-22 January	Working Party XIII/1 (Maintenance and service quality)	Geneva
18-26 January	Plan Committee for Africa	Lagos
27-29 January	Tariff Group for Africa (TAF)	Lagos
15-19 February	Special Study Group C (Noise)	Geneva
22 Feb.-5 March	Working Party II/1 (International telephone accounting)	Geneva
8-12 March	Working Party on network programming by computer	Geneva
8-19 March	Special Study Group D (Pulse-code modulation)	Geneva
9-12 March	Working Party on review of the Guide and the layout of the Plan Book for Europe and the Mediterranean Basin	Geneva

Meetings held in 1971 (continued)

Date	Purpose of the meeting	Place
16-18 March	Joint Working Party NRD 1/1 (New networks for data transmission) (Interworking between asynchronous data networks)	Darmstadt
22-24 March	Joint Working Party MAT (Automatic telegraph maintenance)	Geneva
22-31 March	Working Party II/2 (Instructions to operators)	Geneva
22 March-2 April	Study Group XV (Transmission systems)	Geneva
25-27 March	Working Party of Study Group XV (Echo suppressors)	Geneva
25-31 March	Joint Working Party TGX (Worldwide telex and gentex routing plan)	Geneva
1-7 April	Study Group X (Telegraph switching)	Geneva
13-21 April	Working Party IV/4 (International network quality)	Geneva
14-16 April	Working Parties RTG/RTF (Working parties to revise the Telegraph and Telephone Regulations)	Geneva
19-29 April	Working Party RTG (To revise the Telegraph Regulations)	Geneva
20-22 April	Sub-working Group NRD 1/2 on interworking between synchronous data networks	Rome
22-27 April	Editorial Group for Question 10 of Study Group IV	Geneva
17-28 May	FT 6 Working Party (Field trials of system No. 6)	Brussels
24-28 May	Working Party II/5 (Human factors in telephony)	Geneva
1-7 June	Working Party XI/1 (Intercontinental signalling)	Geneva
1-7 June	Study Group VI (Protection and specifications of cable sheaths and posts)	Geneva
8-14 June	Working Party XI/2 (Signalling on digital systems)	Geneva
8-18 June	Study Group V (Protection against dangers and disturbances of electromagnetic origin)	Geneva
15-22 June	Working Party III/1 (Leasing of intercontinental circuits)	Geneva
23 June-2 July	Tariff Group for Europe and the Mediterranean Basin (TEUREM)	Geneva
5-9 July	Ad Hoc Working Party of TV Experts, Study Group IV	Geneva
5-9 July	Sub-working Group NRD/3 on data service requirements	Geneva

Meetings held in 1971 (continued)

Date	Purpose of the meeting	Place
12-16 July	Sub-working Group NRD 1/1 on interworking between asynchronous data networks	Geneva
1-10 September	GAS 3 (Economic and technical aspects of the choice of transmission systems)	Geneva
13-17 September	GAS 5 (Economic conditions and telecommunication development)	Geneva
20-24 September	Laboratory Working Party	Geneva
23-27 September	Working Party RTF (To revise the Telegraph Regulations)	Geneva
27 Sept.-1 Oct.	Working Party IV/3 (Maintenance programme)	Geneva
28 Sept.-1 Oct.	Study Group I (Telegraph operation and tariffs)	Geneva
4-6 October	Working Party XIII/2 (Network planning)	Geneva
4-8 October	Working Party IV/5 (Maintenance instructions for new systems)	Geneva
11-22 October	World Plan Committee	Venice
18-22 October	Group of Experts on demand-assigned signalling systems	Geneva
25 Oct.-5 Nov.	Working Party FT 6 (Field trials of system No. 6)	Geneva
8-12 November	Sub-working Group NRD 1/2 on interworking between synchronous data networks	Geneva
8-12 November	Multiplex Working Party of Special Study Group D	Geneva
8-12 November	Working Party II/4 (Programme and television transmission)	Geneva
15-17 November	Wideband Codecs Working Party of Special Study Group D	Geneva
15-19 November	Modems Working Party of Special Study Group A	Geneva
22-24 November	Maintenance Working Party of Special Study Group A	Geneva
22-26 November	Editorial Group for Volume IV	Geneva
22-26 November	Study Group XII (Telephone transmission performance and local telephone networks)	Geneva
29 Nov.-3 Dec.	Study Group XVI (Telephone circuits)	Geneva
6-10 December	Group of Experts for the study of the organization and methods of work of the C.C.I.T.T.	Geneva

Meetings held in 1972

Date	Purpose of the meeting	Place
17-28 January	Study Group IV (Maintenance)	Geneva
2-4 February	NRD 1 (Interworking of data networks)	Geneva
7-9 February	NRD 2 (Interface between data terminal equipments and data networks)	Geneva
14-24 February	Study Group XI (Telephone signalling and switching)	Geneva
22 Feb.-3 March	Study Group XIII (Automatic and semi-automatic telephone networks)	Geneva
6-7 March	Co-ordination Group No. 1	Geneva
6-8 March	Visual telephone WP of Study Group XV	Geneva
6-10 March	Co-ordination Committee for the Plan for Europe and the Mediterranean Basin	Geneva
6-10 March	Joint Working Party NRD (New data network)	Geneva
9-10 March	Coaxial pairs WP of Study Group XV	Geneva
13-17 March	Study Group IX (Telegraph transmission quality)	Geneva
20-24 March	Study Group X (Telegraph switching)	Geneva
20-24 March	Special Study Group C (Noise)	Geneva
24 April-1 May	Study Group II (Telephone operation and tariffs)	Geneva
2-5 May	Study Group III (General tariff principles; lease of circuits)	Geneva
8-19 May	FT 6 (Field trials in signalling system No. 6)	Geneva
8-19 May	Drafting Group for Volume IV	Geneva
15-19 May	Special Study Group A (Data transmission)	Geneva
23-26 May	Programme transmission WP of Study Group XV	Geneva
26-29 June	Joint Working Party LTG (Use of lines for purposes other than telephony)	Geneva
1-4 July	Working Party II/5 (Human factor in telephony)	Stockholm
10-19 July	Ad Hoc Working Party of the World Plan Committee	Geneva
24-28 July	Working Party for the Laboratory	Geneva
11-15 September	Working Party of Study Group IV (to study Questions 10/IV and 18/IV)	London
11-22 September	FT 6 (Field trials of signalling system No. 6)	Geneva

REPORT BY COMMITTEE A

WORKING METHODS OF THE C.C.I.T.T.

(as amended and approved by the Vth Plenary Assembly on 14 and 15 December 1972)

The terms of reference of Committee A were framed as follows:

“Consideration of working methods of the C.C.I.T.T. study groups and the Secretariat and definition of the resulting necessary resources.”

The following documents were considered in the course of the Committee's work:

- AP V-No. 3 — Report of the team of experts on the working methods and organization of C.C.I.T.T.;
- AP V-No. 10 — Report by the Senior Counsellor, Acting Director of the C.C.I.T.T., on the estimate of the financial needs of the C.C.I.T.T.;
- AP V-No. 11 — Report of the Senior Counsellor, Acting Director of the C.C.I.T.T., on factors concerning the immediate future of the C.C.I.T.T.;
- AP V-No. 59 — (Part III, point 2.5 and Annex 8) (United States of America). Measures to improve C.C.I.T.T. operations;

C.C.I.T.T. Collective-letter ¹ on the seconding of engineer/translators to the C.C.I.T.T. Secretariat;

TD No. 1/COM A — Methods of work within C.C.I.T.T. (Australia);

TD No. 2/COM A — Example of the increase in the “output” of a study group (C.C.I.T.T. Secretariat).

CONTENTS

Part I. Comments on, and amendments and additions made by Committee A to, the Report of the Team of Experts, Document AP V-No. 3.

Part II. Annexes to the Committee's report.

¹ This Collective-letter bears the number 2461 in English and French and is dated 3 November 1972, whereas the Spanish version bears the number 2471 and is dated 6 November 1972.

PART I

**COMMENTS ON, AND AMENDMENTS AND ADDITIONS MADE BY COMMITTEE A TO,
THE REPORT OF THE TEAM OF EXPERTS, DOCUMENT AP V-No. 3****Introduction**

Committee A gave its agreement to a proposal to leave to the C.C.I.T.T. Secretariat any changes in the C.C.I.T.T. Resolutions in Volume I that result from the proposals of the Committee as approved by the Plenary Assembly. Some detailed modifications are already given in the Annexes to this report. Committee A proposes that the other modifications shall be drawn up by the Secretariat after the end of the Plenary Assembly.

The various points studied at the meeting of Committee A are set out below; they relate to Document AP V-No. 3.

Page 2 – Methods of work*Comments of the Committee A***1. Existing methods of work**

The methods of work now used in the C.C.I.T.T. derive from the provisions of C.C.I.T.T. Resolution No. 1.

According to these methods the study groups (and their main working parties) hold a number of meetings, each of short duration, at different intervals of time. The report on each meeting is drawn up by the Secretariat on the basis of temporary documents approved in principle by the meeting and of the results of discussion during the meeting.

The purpose of these methods was to save the time of the delegates attending the meeting and this appears to have been achieved. On the other hand, they place a heavy burden on the C.C.I.T.T. Secretariat.

Owing to the growth in number and diversity of the subjects studied, the increase in the workload and in the number of study groups, due to the development of telecommunications throughout the world and the ever swifter evolution of the technical means employed, it has become clearly impossible to continue to apply the present methods without a substantial increase in the engineer staff of the Secretariat and augmenting the budget for meetings.

By way of information, the following comparison is offered of the main advantages and drawbacks of present methods:

Advantages

- Saving delegates' time;
- financial economy;
- possibility of holding certain meetings away from Geneva.

Drawbacks

- No provision for special arrangements during meetings to facilitate the task of the C.C.I.T.T. and its Secretariat;
- difficulty of preparing reports in several languages on meetings of short duration while they are being held;
- time-lag in the production of the final reports of the meetings;

- lateness of the information on dates of meetings and difficulty for the Administrations to study the problems and submit contributions within the time-limits set.

At the same time one of the two other specialized permanent organs of the I.T.U., namely the C.C.I.R., uses the following methods of work which contrast with the C.C.I.T.T. methods described above.

Besides the meetings immediately preceding a Plenary Assembly, each C.C.I.R. study group holds a single "interim meeting" in the three years between two Plenary Assemblies. Several study group meetings are grouped together. At the beginning of each meeting, each study group divides into working parties and each working party into sub-groups in which there are specialists capable of taking an active part in the work on each subject. The meetings of the sub-groups are arranged so that one delegate can sometimes follow the work of several sub-groups but so that one or two days elapse between the meetings of the same sub-group enabling reports to be drafted between sessions to permit completely finished texts to be submitted to each study group before the close of the meeting.

While with this system the difficulties referred to above in connection with present C.C.I.T.T. methods are avoided, experience shows that it has certain defects common to all grouped meetings:

- heavy cost of meetings, mainly because of the large number of sub-groups;
- difficulty of organizing meetings when the number of participants exceeds a certain figure;
- impossibility for the Secretariat to follow the work of all the working groups and sub-groups;
- to Administrations, loss of the valuable services of their expert delegates for the whole duration of the meetings.

Although the methods of work of the C.C.I.T.T. are proving less and less satisfactory, the application of C.C.I.R. methods to the C.C.I.T.T. seems impossible in practice owing to the large number of study groups, the diversity of the subjects to be dealt with and the volume of work to be done.

2. A proposed new method

A new method of work is suggested in Document AP V-No. 11 which offers a middle way between the two methods described above and seems to combine the advantages of both of them without their drawbacks. It was considered as a compromise solution. The broad lines of this method are as follows:

- 2.1 Meetings of study groups with common interests or dealing with problems possessing certain affinities should, if possible, be arranged so as to enable Administrations to send one delegate or representative to cover several meetings. So far as possible, the arrangement chosen should enable the study groups meeting during the period to communicate any information they may need to one another without delay. Furthermore, it should enable specialists from all over the world in the same disciplines or related or complementary disciplines to have direct contacts with each other to the benefit of the participants themselves and of their Administrations. At the same time it should not entail repeated absences of those specialists from their countries.
- 2.2 The final meetings of study groups towards the close of each study period would end three months before the beginning of the Plenary Assembly to enable the C.C.I.T.T. Secretariat to prepare full and homogeneous final reports and to give the delegates to the Plenary Assembly an opportunity to study them fully.
- 2.3 The timetable of meetings should be prepared and brought to the knowledge of Administrations well in advance (one year) to give the latter time to study problems and submit contributions within the prescribed time-limits and to give the C.C.I.T.T. Secretariat the time to distribute

those contributions. In this way the Chairmen of study groups and the delegates could so organize their work as to consider the contributions in advance, which would help to enhance the efficiency of meetings and cut down their length.

- 2.4 Working parties or sub-working parties should be set up by study groups only after thorough consideration of the questions and only if a question or group of questions with points in common cannot be settled otherwise than by specialists. Proliferation of working parties and sub-groups must be avoided as far as possible.
- 2.5 The study of questions by correspondence should be encouraged as far as practicable at least during the early stages of their study. The appointment for this purpose of rapporteur/co-ordinators (special rapporteurs) responsible for the progress of the study and for preparing documents and summing up its results is a method that has already been used with success by some study groups (see in this connection the explanations in Annex 2 to this report).
- 2.6 On conclusion of the study of each question the study groups could appoint one or two members to prepare a document summing up the final results of the work. This document would be designed to aid the C.C.I.T.T. Secretariat in establishing the final reports.
- 2.7 Questions which have not elicited any contribution should not be placed on the agenda of meetings and at the end of the study period should be deleted from the list of questions.
- 2.8 Increased use could be made of the procedure of Resolution No. 2 (see in this connection, in Annex 3 to the present report, the amended version of this Resolution which takes account of the proposals of the Team of Experts and of a certain concern expressed by the United States delegate).

3. *Conclusions on the new proposed method*

The constant assignment of new tasks to the C.C.I.T.T., the growth in the volume of work and adoption of the new method of work just outlined must lead to increased expenditure on the C.C.I.T.T. Secretariat. Committee A was in agreement, however, that Administrations might find this expense compensated by better organization of the working of the C.C.I.T.T., by economies on delegates' travel, by their less frequent absence from their Administrations and by the speedier production of the awaited Recommendations and specifications.

With regard to the languages to be used in the issuing of documents and in interpretation at study group and working party meetings and of their working parties Committee A proposes to abide by the provisions of Article 17 of the International Telecommunication Convention (Montreux, 1965), in particular numbers 242 and 243, and to Administrative Council Decision D.356 which offer all the requisite flexibility to enable the language coverage to be adapted to the different circumstances that may arise.¹

The application within the framework of the agreed new methods of work of the following provisions was also regarded as calculated to help to improve the efficiency and the working conditions of meetings and to lighten the burden on the C.C.I.T.T. Secretariat:

- (a) to arrange for some delegates to assist more actively in drafting documents than they do with the present methods of work, so that documents may be issued more promptly during meetings;
- (b) the Secretariat, for its part, should be able to co-ordinate this drafting work sufficiently to dispense with the need for editing groups (as distinct from drafting groups) during the meetings. To this

¹However, an amendment to Resolution No. 6 is necessary.

end, and as a general rule, drafting groups might be established at each meeting which would be responsible for drafting a summary of the reasons that lead to the decisions by the Study Group or Working Party.

Page 5 – Methods of work

Committee A adopted the proposals made by the Team of Experts with some slight amendments. The text of these proposals, thus amended and submitted to the Plenary Assembly for approval, is as follows:

- (i) to allow no discussion on questions on which an insufficient number of contributions are received; it was concluded that the Chairman was the best judge of the number and scale of the contributions required for a question to be studied usefully;
- (ii) to hold no meeting at all if there were insufficient contributions; it found that some meetings had in fact already been postponed for this reason, but concluded that no general rule could be laid down since the necessary steps had to be taken well beforehand in order to avoid waste. The decision whether to cancel a meeting or not would be taken by the Director of the C.C.I.T.T.;
- (iii) to apply more stringently the criteria of C.C.I.T.T. Opinion No. 3 on the preliminary examination of new draft questions, which still applies in full. Towards the close of each study period the attention of study groups should be drawn to this Opinion so that they may apply the criteria it contains when preparing proposed new questions (see Annex 4 to this report);
- (iv) not to re-issue as white documents, late contributions which have appeared as temporary documents during a meeting, unless the Study Group so decides; it was concluded that it should be for the Study Group as a whole to accept or reject discussion of such late contributions and not merely the Chairman;
- (v) to amplify the general rule of Resolution No. 1, paragraph III 4(c) of Chapter III, as follows (see Annex 5 to this report): contributions received at least four months before a meeting should be published in the normal way. Exceptionally, when an Administration has failed to observe this time-limit, it should advise the C.C.I.T.T. Secretariat about the forthcoming late contribution and its contents. The Administration concerned should itself circulate copies of late contributions to Administrations due to attend the meeting, if the C.C.I.T.T. Secretariat is unable to do so. The Secretariat will, nevertheless, do everything in its power, with due regard to the resources of the Common Services of the I.T.U. General Secretariat, to distribute as soon as practicable any contributions received late owing to exceptional circumstances;
- (vi) to endeavour to persuade Administrations to follow the rules already established for the presentation, form, and timing of documents as included in Resolution No. 1, III.3. A reminder circular from the Director should be issued whenever appropriate.

Page 5 – Comments by Committee A on points (iv) and (v) above

Point (iv)

Some contributions of general (and not merely incidental) interest which may, for example, be of some scientific importance (measurement results), although received too late to be distributed before a meeting and accordingly issued as temporary documents, might exceptionally be distributed later as contributions.

Point (v)

Fear was expressed that too strict an application of the provisions of Resolution 1, especially the four-month rule, might partly cripple the work of the C.C.I.T.T. It is fully realized that non-observance of this rule involves the C.C.I.T.T. Secretariat in certain material difficulties (translation, typing, reproduction and dispatch of contributions) but it is nonetheless obvious that, from the standpoint of efficacy, a written document presented during a meeting has undoubted advantages over an oral statement. Nor must it be overlooked that the composition of the delegations of certain Administrations depends on the subjects discussed and the problems raised in the contributions received. The wish was therefore expressed that the provisions adopted be not too strictly and rigidly applied and that their spirit rather than their letter should prevail.

Page 9 – Financial needs of the C.C.I.T.T.

During consideration of point (v) concerning the financial needs of the C.C.I.T.T., Committee A set up a small working group to study the matters dealt with in this point and the proposals made by the Senior Counsellor, Acting Director of the C.C.I.T.T., in Document AP V-No. 10. The results of the work of this small group are given in Annex 1 to this report. The group consisted of volunteers representing the Administrations of Australia, Canada, France, Italy, Peru, United Kingdom and the United States of America, under the Chairmanship of Mr. Marchand (Canada).

Page 10 – Appointment of Study Group Chairmen and Vice-Chairmen

Committee A proposes that the Plenary Assembly adopt the following which is a slightly modified version of pages 10 and 11 of the report of the Team of Experts (Document AP V-No. 3):

- (i) Appointments should be made primarily on the basis of individual competence (in the technology of the Study Group concerned as well as in chairing meetings).
- (ii) Chairmen who are not in direct touch with the technology of their Study Group through change of duty in their own Administration or other cause, or who find they cannot devote adequate time to the work, should not be expected to continue in office indefinitely.
- (iii) Chairmen need not automatically be re-elected; it may sometimes be useful to limit the term of office of a Chairman, but there should be no hard and fast rule on this point.
- (iv) New Vice-Chairmen of Study Groups (and, in some cases, Chairmen) may be expected to be drawn from amongst the existing Chairmen of Working Parties who have proved their competence.
- (v) Within the limits of these principles, nationals of as many countries as possible should be included in the list of office-holders showing, if possible, a reasonable geographical balance.

A C.C.I.T.T. opinion on "The appointment of Chairmen", incorporating the above points will be drafted by the C.C.I.T.T. Secretariat for inclusion in Volume I of the C.C.I.T.T. Book if the Plenary Assembly so desires.

Page 11

Committee A discussed in detail point (iii) concerning the automatic re-election of study group Chairmen. It decided to modify the point slightly by replacing at the end of the last sentence the words "should not" by "need not".

While accepting this principle as amended, the Committee points out that it may perhaps be useful to limit the term of office of the Chairman but that there should be no hard and fast rule on the matter.

Page 12 (Foot of the page, sub-paragraphs a) and b)) – Preparation of the C.C.I.T.T. volumes

Following discussion, the Committee approved the conclusions of the Senior Counsellor, Acting Director of the C.C.I.T.T., in his report concerning the immediate future of the C.C.I.T.T. (see foot of page 19 of Document AP V-No. 11).

During the discussion on the publication of the C.C.I.T.T. books, a debate ensued on Collective Letter No. 2461 (E and F) and 2471 (S) which deals with the secondment of engineer/translators to the C.C.I.T.T. A brief résumé of views expressed during the debate follows:

1. The Administrations of Canada, France and the United Kingdom signified their agreement in principle to the solution envisaged. They expressed reservations, however, concerning the duration of the secondment of their staffs, the United Kingdom delegate having pointed out that secondment for four months was equivalent to a sum of 40,000 francs for the engagement in his country of a professional technical consultant. The Administrations concerned said they must study the problem further, as it was brought to their attention only recently by Collective Letter No. 2461 (E and F) and 2471 (S).

2. The Spanish Administration stated that it was unable to detach specialized staff for four months, not only for financial reasons, but above all because its internal organization would be seriously affected if it were deprived of the services of one or more specialist officials. However, in agreement with the delegations of other Spanish-speaking countries, the Spanish delegation was prepared to carry out the necessary work in Spain. Instead of spending a prolonged period in Geneva, one or more Spanish officials could make brief visits to I.T.U. Headquarters to maintain contact and ensure co-ordination.

3. The Argentine Administration pointed out that it had been unable to examine Collective Letter No. 2471 as it was only received by its delegation on the latter's arrival in Geneva. It supported as a positive solution the proposal of Spain that it serve as co-ordinator in the matter.

4. To simplify the work of preparing the manuscripts, the United Kingdom and the U.S.S.R. Administrations proposed reducing the number of pages in the various C.C.I.T.T. volumes by eliminating all the Annexes which largely contain the texts of certain contributions published earlier during study periods.

The Administration of Nigeria expressed disagreement with this idea, pointing out that for the developing countries the C.C.I.T.T. volumes should be kept as full as possible and contain the maximum information available since such countries did not generally receive all C.C.I.T.T. contributions.

5. The Committee took note of the various solutions suggested for the work of publication and decided to leave the problem in abeyance to enable Administrations to look more closely into the proposals made in Collective Letter No. 2461 (E and F) and 2471 (S). The attention of Administrations was particularly directed to the need for direct discussion and collaboration to ensure that texts in 3 languages had an adequate degree of similarity of meaning. Methods involving correspondence and independent work in the home countries of the persons concerned would have little chance of success with the time available.

Page 13 – Preparation of C.C.I.T.T. documents and publications in future

Committee A took note of the proposals made in the first paragraph on page 13 and of the conclusion at the foot of page 19 of Document AP V-No. 11 which are based on Annexes 2 and 3 to Document AP V-No. 11. It supports the proposal to create a group of technical editors in the C.C.I.T.T. Secretariat and therefore proposes that the Plenary Assembly make a request to the Administrative Council to approve the appointment of four permanent posts for technical revisers in the C.C.I.T.T. Secretariat, so that in future the Secretariat may prepare the texts for the C.C.I.T.T. books in good time, and may ensure use of correct and uniform terminology in the three working languages in the documentation for meetings (C.C.I.T.T. contributions).

Page 16 – Duties of the Director

Committee A proposes to add the clause "within his financial authority" after "authorized" in the second line of the proposed amendment to paragraph 7. (See below in Annex 5, item (f), the proposed amendment to the *White Book*, Volume I, page 170, II.7.)

PART II

ANNEXES TO THE COMMITTEE'S REPORT

ANNEX 1

Analysis of the financial needs of the C.C.I.T.T. for the period 1973–1976

On analysis of the financial needs of the C.C.I.T.T., three distinct sectors can be identified:

- a) the credits required for maintaining the C.C.I.T.T. Secretariat, namely, the cost of its staff, establishment, premises, equipment, etc., that is, its regular expenses;
- b) expenditures incurred by the meetings convened in execution of its work programme;
- c) additional expenditures corresponding to the common services provided by the General Secretariat.

So far as the first sector is concerned, the Plenary Assembly has noted the growing workload assigned to the C.C.I.T.T. Secretariat which, in the context of the present working procedures, already represents an overload that might reduce the efficiency of its contribution to the C.C.I.T.T. programme. This fact alone would seem to indicate a need to strengthen the Secretariat. Furthermore, the growing complexity of technique would seem to dictate the assignment of additional staff, expert in the new specialized fields which have been added to the C.C.I.T.T. programme.

On the other hand, the Plenary Assembly has taken certain measures which promise to lighten the burden on the Secretariat, in particular the provision that the Study Groups would themselves carry the preparation of C.C.I.T.T. texts to a more advanced stage, and the gradual extension of use of the computer in the final production of those texts. It would, however, be rash to assume that one can judge at this stage of the salutary effect of these new measures. Their application will undoubtedly be gradual and their effects will not make themselves felt overnight.

The Plenary Assembly noted that in one particular field—that of the engineer/editors needed for the preparation of the C.C.I.T.T. Volumes—the Administrative Council chose the alternative of seeking the temporary secondment of extra staff by Administrations free of charge rather than increase the permanent establishment of the Secretariat. However, Administrations have not yet responded positively to this appeal.

It seems, therefore, that the excessive workload at present carried by the C.C.I.T.T. Secretariat will not be lightened in the near future and that it must claim the attention of the Administrative Council. However, in order not to prejudge the Council's decisions on that point, the Vth Plenary Assembly merely seeks to draw its attention to the problem which is assuming increasing importance and expresses the hope that the Council may find a satisfactory remedy to it.

With regard to expenditure on the meetings which the C.C.I.T.T. convenes to implement its programme of work, the Plenary Assembly has to take into account the following factors:

1. The number of questions to be studied by the C.C.I.T.T. has fallen from 309 (period 1968-72) to 293 (period 1973-76).
2. The expected increase in documentation submitted in response to the C.C.I.T.T. which, based on the experience of the last two periods, would be of the order of 40%, i.e. 10% per annum.
3. The growing need to provide a full interpretation service at a larger number of meetings.
4. The decision on the joint holding of meetings of study groups dealing with subjects which have a certain affinity (e.g., I, II and III; Sp.A, NRD, X; etc.).
5. The decision to increase the proportion of final drafting work to be done by the study groups themselves
6. The availability of more meeting rooms in the new wing of the I.T.U. building.

The estimate of the financial needs of the C.C.I.T.T. as regards the meetings it will have to convene during the next study period is therefore based, firstly, on the expenditure incurred in the period just ending and on the relative scope of the new programme it will have to undertake, bearing in mind as far as possible the new factors which might modify this simple extrapolation.

The costs of holding meetings in the 1968-72 period, excluding those related to meetings held outside Geneva and those related to Decision No. 356 were approximately 4400000 Swiss francs. Projecting into the future the combined effects of the two first factors (whose resultant represents a factor of 35%), the cost of meetings held in Geneva is expected to rise to approximately 5900000 Swiss francs. Adding to the figure the cost of the anticipated meetings of the Plan Committees (600000 Swiss francs), the expected total cost of meetings to be held in the 1972-76 period would be of the order of 6500000 Swiss francs. This estimate does not take into account the usual effects of inflation since they cannot be evaluated in advance; Council will presumably be better able to apply the necessary adjustments in finding the annual budgets of the I.T.U.

In respect of factor 3 (linguistic services to be provided for in the C.C.I.T.T. budget), it is difficult to predict the total possible increase for such services; the following estimate therefore only reflects the type of increases experienced in the past. It will be necessary for the Director and the Secretary-General to examine the appropriate allowances to be made in the budget to be presented for examination and approval by the Administrative Council. In this respect, it would seem essential to specify all the various budget requirements for the management of the C.C.I.T.T., such as staff, interpreters, translation services, typing, paper and document mailing costs, overtime, etc.

In respect of factors 4, 5 and 6, factor number 4—grouping of meetings—would have the effect of increasing certain Secretariat costs due to the extra staff required under such circumstances. This effect cannot be evaluated at this stage. However, when taken in conjunction with factors 5 and 6, which should have opposite effects, it may well be that they will offset each other and not significantly alter the above estimate.

Concerning the additional costs corresponding to the provision of common services, the attention of the Secretary-General and of the Administrative Council should be drawn to the need to provide the wherewithal to ensure the efficiency and success of a larger and more complex programme of studies.

In summary, the Plenary Assembly, with the time and elements at its disposal, considers that in order for the C.C.I.T.T. to successfully carry out its 1973-76 programme, it will require over that period financial resources of the order of 6.5 million Swiss francs for sector (b), subject of course to the effects of inflation and of any other new factors which cannot, at this time, be predicted.

ANNEX 2

Rapporteurs

In Resolution No. 1, Section 12 (*White Book*, Volume I, page 174) it is stated that some studies may be entrusted to a rapporteur or a group of collaborators chaired by a rapporteur. During the discussions in Committee A, further details were requested regarding the duties of such a rapporteur or group of collaborators.

Though not wishing to specify their functions too rigidly, so as to leave full discretion to the rapporteur whenever such a method of working is adopted, Committee A requested that some more details should be published in Volume I of the *Green Book*, to provide information concerning that paragraph of Resolution No. 1, and to give a clearer idea of this method of working.

In one method, a single special rapporteur may be designated to analyse the contents of normally distributed contributions and to draw up a report, which is itself presented as a contribution, giving the results of his analysis.

In another method, a special rapporteur is appointed for the study of a single question requiring detailed consideration before decisions can be taken on it. The special rapporteur works primarily by correspondence with any other collaborators interested in the preliminary study of the question. Any Administration submitting contributions on the matter in question does so directly to the special rapporteur (with a copy, if so desired, to the C.C.I.T.T. Secretariat). The C.C.I.T.T. Secretariat and, through it, the I.T.U. Common Services are at the disposal of the special rapporteur for the translation and distribution of any document. However, the distribution of this preliminary documentation is limited to the members of the group collaborating with the special rapporteur. There often comes a time when the study cannot progress further by correspondence alone; in that case the special rapporteur may call a private meeting of his collaborators whenever he wishes.

When his work and that of the group is completed or cannot progress any further, the special rapporteur prepares a document for submission to the study group responsible for study of the question. This document, which constitutes the report of the special rapporteur, may include a draft Recommendation, if it is possible to formulate one or, when the views expressed are too numerous and too divergent, a summary of the observations made, in which case responsibility for further study of the question reverts to the Study Group.

ANNEX 3

Proposed new wording for Resolution No. 2 : Provisional Recommendations

(Note : for the text see Resolution No. 27 in part II of this volume.)

ANNEX 4

Revision of Opinion No. 3**Preliminary examination of New Draft Questions**

(Note : for the text see Opinion No. 3 in part II of this volume.)

ANNEX 5

Amendments to Resolution No. 1 : Additional rules of procedure of the C.C.I.T.T.¹

¹ Note by the Secretariat : All amendments decided have been announced in Resolution No. 1, the text of which is reproduced in part II of this volume.

REPORT OF THE “ RESOLUTIONS AND OPINIONS ” WORKING PARTY OF COMMITTEE A

(as amended and approved by the Vth Plenary Assembly on 13 and 14 December, 1972)

Terms of reference

To examine Resolutions Nos. 4, 5, 6, 7, 8 and 9 and Opinions Nos. 1, 2, 3 and 4 of the C.C.I.T.T. *White Book*, Volume I, and to propose amendments as may be considered necessary.

The following comments are submitted:

1. *Resolution No. 4*

Revised as shown in the new text of this Resolution, following the decision by the Vth Plenary Assembly on the next edition of the C.C.I.T.T. Book (Third Plenary meeting).

2. *Resolution No. 5*

Add to the list on page 179:

“X New Data Networks VIII”

3. *Resolution No. 6*

No change.¹

4. *Resolution No. 7*

Delete — Action has been taken.

5. *Resolution No. 8*

No change.

6. *Resolution No. 9*

Delete the third considerata, viz., “that the C.C.I.T.T. Plenary Assembly has resolved to set up a group of experts to study the problems of organization within the C.C.I.T.T.”.

7. *Opinion No. 1*

Amended as shown in the new text.

8. *Opinion No. 2*

No change.

9. *Opinion No. 3*

Amended as shown in the new text. This is the revision proposed by the U.S.A. (Document AP V/59) and adopted by Committee A.

10. *Opinion No. 4*

Deleted: the volume of detail cannot be kept up to date. Refer now to I.T.U. publications “List of Addresses” and “List of Heads of Administrations”.

¹Note: The Vth Plenary Assembly, at its Twelfth Plenary Meeting on 14 December 1972, decided to delete this Resolution.

REPORT OF THE TEAM OF EXPERTS ON WORKING METHODS AND ORGANIZATION OF THE C.C.I.T.T.

Note: At its meeting in Geneva the Team of Experts learnt with great sorrow of the death of one of its members, Mr. E. Fernandez, and requested that a telegram of condolence be sent to the Administration of the Argentine Republic.

1. Introduction

1.1 *Terms of reference*

On the basis of Resolution No. 7 of the IVth Plenary Assembly, Mar del Plata, 1968 (see Annex 1), as modified by Administrative Council Resolution No. 656 (1969) (see Annex 2), a team of experts was set up, the membership of which is shown in Annex 3.

The organization and the operation of the C.C.I.T.T. are governed by Article 14 of the International Telecommunications Convention, Montreux 1965, by chapters 10 to 19 of the General Regulations annexed to the Convention and by the Additional Rules of Procedure of the C.C.I.T.T. (see Resolutions Nos. 1 to 6) as adopted at Mar del Plata (1968).

The terms of reference, contained in Resolution No. 7 (see Annex 1) require that the report of the Team of Experts be sent to Administrations¹ six months before the Vth Plenary Assembly of the C.C.I.T.T. and, for information, to the Administrative Council. One item was referred to the Study Team by the Administrative Council and is to be covered by a special report calling for decisions by the Council; this item relates to the measures to be adopted to speed up the issue of C.C.I.T.T. publications. Section 2.5 of this report is relevant.

1.2 *Work of the Team*

Mr. A. Bigi (Italy) was chosen as co-ordinator for the Team which commenced work by correspondence. The matter to be examined fell naturally into two parts:

- (i) Methods of Work.
- (ii) Organization of Study Groups.

Following this preliminary work, a meeting of the Team was held in Geneva from 6 to 10 December 1971, under the Chairmanship of Mr. Bigi, to draw up the draft report to the Plenary Assembly.

At the beginning of the meeting Mr. MacDonald (Canada) and Mr. Baudazzi (Italy) were requested to draw up a list of contributions submitted and other documents which might prove useful to the Study Team in its discussions. This list is attached as Annex 4. Documents were made available for reference purposes at the meeting.

In addition a drafting committee comprising Messrs. MacDonald (co-ordinator), Baudazzi and Kilvington was set up to prepare the report of the team.

¹In this report the word Administration is to be understood as including Recognised Private Operating Agencies taking part in the work of the C.C.I.T.T.

During the course of its meeting the Team had the benefit of advice from the Director, C.C.I.T.T., and his Counsellors, and from the Deputy Secretary-General of the I.T.U.

The Team used as its Agenda a summary, prepared by the Chairman, of views expressed in correspondence (Annex 4, Reference 1). When it became apparent that the time available was likely to be insufficient to deal with the whole agenda in full committee, it was decided to set up two sub-groups:

Sub-Group 1: Methods of Work (Chairman Mr. T. Kilvington), Publishing of the Books (Reference Administrative Council Decision 359 of the 25th Session), and all the steps in the study process leading to the Recommendations.

Sub-Group 2: Organization of the Study Groups
(Chairman Mr. A. Chr. Jansen)
Structure of Groups and terms of reference of Chairmen.

The sub-groups both worked toward drafting proposals aimed at the efficient utilization of resources and the prompt publication of the results concerning the technical, operating and tariff questions envisaged in Paragraph 187, Article 14, of the I.T.U. Convention.

The output of these two sub-groups was examined by the full Team, but there was not sufficient time to conclude a final report at its December meeting. The drafting group was therefore requested to draw up and distribute a draft giving the conclusions reached at Geneva.

The final draft report, to be distributed in March, was to take account of such written comment as might be received. This procedure has been followed.

2. Methods of work

2.1 Preparation for Study Group meetings

Resolution No. 1 deals with the preparation for study group meetings by the Chairman (III 4b), the C.C.I.T.T. Secretariat (III 5), working parties (III 11) and Rapporteurs (III 12).

The Team recommends that III 12 of Resolution No. 1 (page 174 of Vol. I of the *White Book*) be amended by adding the following sentence to the second line after the words "Study Group or Working Party", to read as follows : "... to make a preliminary analysis of the more complex questions and/or" to draft a reply etc...

The Team noted the difficulties that are brought about by the late submission of documents for Study Group meetings. According to Resolution No. 1, III 3(e), such documents should be submitted to the C.C.I.T.T. Secretariat four months before the date of the meeting at which they are to be discussed. This would leave adequate time for translation, reproduction and distribution to all the participant bodies. However, it is said that very few documents reach the C.C.I.T.T. by the due date and this results in most documents reaching participants only a short while before the related meeting, or even not being available to participants until the meeting opens. This is a most unsatisfactory situation but the solution rests largely in the hands of the Administrations themselves.

The Team considered that a stronger effort should be made to persuade Administrations to follow the rules already established for the presentation, form, and timing of documents as included in Resolution No. 1, III 3. It was considered that a suitable circular from the Director should be issued whenever appropriate.

One proposal considered by the Team was that immediately on receipt of a contribution, and before waiting for translation, the C.C.I.T.T. Secretariat should send a single copy of it in its original language to each Administration which has registered its participation in the Study Group concerned. This would give Administrations an opportunity to take early action on the document if they thought it necessary, and the idea was particularly welcomed by representatives of those countries whose language is not one

of the three working languages of the Union. They are faced with translation into their own language in any case and this proposal would give a welcome additional period of time for the purpose. However, the C.C.I.T.T. Secretariat saw considerable difficulties (financial, administrative and practical) in adopting this proposal.

The following proposals, made with a view to improving the efficiency of the work of the Study Groups, were considered and the conclusions indicated were reached :

- (i) to allow no discussion on questions on which an insufficient number of contributions are received ; it was concluded that the Chairman was the best judge of the number and scale of the contributions required for a question to be studied usefully ;
- (ii) to hold no meeting at all if there were insufficient contributions ; it was found that some meetings had in fact already been postponed for this reason, but concluded that no general rule could be laid down since the necessary steps had to be taken well beforehand in order to avoid waste ;
- (iii) to apply more stringently the criteria of C.C.I.T.T. Opinion No. 3 (Preliminary examination of new draft questions) ;
- (iv) not to re-issue as white documents, late contributions which have appeared as temporary documents during a meeting, unless the Study Group so decides ; it was concluded that it should be for the Study Group as a whole to accept or reject late contributions and not merely the Chairman ;
- (v) to amplify the general rule of Resolution No. 1, paragraph III 4(c) of Chapter III, as follows : contributions received at least four months before a meeting should be published in the normal way. Exceptionally, when an Administration has failed to observe this time-limit, it should advise the C.C.I.T.T. Secretariat about the forthcoming late contribution and its contents. The Administration concerned should itself circulate copies of late contributions to Administrations due to attend the meeting, if the C.C.I.T.T. Secretariat is unable to do so.

An appropriate amendment to Resolution No. 1 is included in Annex 6.

2.2 *Timing of Final Study Group meetings*

The present paragraph 14 of Resolution 1 specifies that "all study groups shall meet at the meeting place of the Plenary Assembly, in order to prepare final versions of draft recommendations to be submitted to the P.A. for approval".

Experience at the IVth Plenary Assembly in Mar del Plata, according to contributions made by some Administrations, had shown that the growing volume of work made it difficult for these final draft recommendations to be reproduced in a form convenient to read in the short interval (numbered in a few days) available to the Secretariat for editing the final results of study group meetings at the same place just prior to the Plenary. In any case there was often very little time for national delegations to consider the final draft recommendations before being called upon to approve or reject them in Plenary Sessions, which themselves are very crowded. The ever-increasing influence of the published recommendations when the new C.C.I.T.T. books become available make it all the more necessary that each draft recommendation be adequately examined by Plenary delegations before convening to vote upon the matter.

Most of the experts were in favour of separating the Plenary Assembly from the final study group meetings in the hope that it would result in the following advantages :

1. After the final meeting of a study group, the Secretariat would be able to prepare the final report to be submitted to the Plenary Assembly and send it to Administrations by the date decided upon.

2. Extra time would be available for the examination of new questions being proposed for the formal study programme. The realignment required in Opinion 3 is given in Annex 5.
3. It would be possible for the "Work Programme Committee" which meets during the Plenary Assembly to function more efficiently than in the past.

The following points were brought out in the course of the discussion :

- (a) It was recalled that at the Plenary Assembly in Mar del Plata certain developing countries were opposed to such a separation and it was suggested that if there was to be an interval between the final study group meetings and the Plenary Assembly, the latter should be made more informative for countries which had not been taking part in the study group meetings (*White Book*, Vol. I, p. 123).
- (b) However, if there was an interval between the final study group meetings and the Plenary Assembly, requests for information could be prepared by those concerned during the period which would be available for the examination of the final reports. Following the presentation of study group reports there could be discussions based upon written questions submitted in advance.
- (c) It was not possible to define the maximum and minimum period to be allowed between the end of every final study group meeting and the beginning of the Plenary Assembly, hence the above proposal for amendment to Resolution No. 1 states a general objective, leaving the Director and the Chairman free to make the best arrangements according to circumstances.

The Team proposes that paragraphs 13 and 14 of Resolution No. 1 be deleted and replaced by a new paragraph 13 as follows :

- "13 (a) All study groups shall meet sufficiently in advance of the Plenary Assembly to allow the final report of each study group to reach Administrations at least one month before the Plenary Assembly. The report shall be the document forwarded to the Plenary Assembly.
- (b) The final report of each study group, prepared in accordance with paragraph III.9, is the responsibility of the Study Group Chairman, and shall include :
- the final text of draft recommendations ;
 - the text of provisional recommendations for adoption by the Plenary Assembly (these will have had approval by correspondence during the study period under Resolution No. 2) ;
 - a summary report on the status of questions, the study of which has not been concluded, and new questions the reasons for which are given as required in Opinion 3 ;
 - the list of questions proposed to the Plenary Assembly for the following Plenary period.
- (c) The schedule of final meetings of study groups to meet the object stated in paragraph 13 (a) above shall be adjusted in the light of circumstances by the Director of the C.C.I.T.T. in co-operation with the Chairman of the study group in question.
- (d) The Director will advise all Administrations as to the dates of the final meetings of study groups by circular letter at least three months beforehand, in order that, among other things, the Administrations may submit draft questions proposed for study in the following Plenary period in accordance with Opinion No. 3."

The existing paragraph 15 should then be renumbered 14.

Opinion No. 3 concerns the submission of questions for approval at the final study group meetings, in order to align this matter with the intention of providing all information possible in advance of the Plenary, for examination by Administrations. It will require realignment as given in Annex 5.

Thus the Team feels it has dealt with the reference made in Section C, page 123 of the *White Book*, Vol. I, which asked that the separation of the final meetings from the Plenary Assembly be considered by the Team.

2.3 Organization of the Plenary Assembly

The Team considered that the work of the Plenary Assembly should be organized so as to enable it to devote adequate time to the important management and organizational aspects of the C.C.I.T.T. for the ensuing Plenary period. The following sequence of work is suggested :

- (i) The Plenary Assembly should examine the final reports from study groups (defined in III 13. b, as amended in Annex 6, as the responsibility of the Chairman), deal with the approval of recommendations and examine for approval the lists of questions appearing in these reports. It should then examine reports from the Director, C.C.I.T.T., on activities in the previous Plenary period. Simultaneously, the Budget Control Committee should hold its first meeting to approve the budget of the current Plenary Assembly.
- (ii) The Organization Committee should meet and prepare organizational proposals (see 1.4 of Resolution No. 1, amended in Annex 6).
The Committee dealing with questions concerning the new and developing countries should meet simultaneously.
- (iii) The Plenary Assembly should elect Chairmen and Vice-Chairmen for the new Plenary period (see paragraph 2.4 following, for consideration).
- (iv) The Work Programme Committee should meet and develop a draft programme of work (see 1.5 of Resolution No. 1).

Assuming that the final meetings of study groups will be separated from the Plenary Assembly, the Team thought it would be useful to take advantage of this interval to prepare the work of the Work Programme Committee. This could be done by the Chairmen in office at that time, in co-operation with the Director. The draft programmes thus prepared would be submitted to the Work Programme Committee (which would then include the new Chairmen and Vice-Chairmen). It should be understood that, even after approval by the Plenary Assembly, such programmes are only intended to provide a general guide and may be altered by the Director, in consultation with the Chairmen of the study groups concerned, according to circumstances.

- (v) The Budget Control Committee should meet again, this time in order to prepare a report proposing that the Plenary Assembly approve the estimate of the financial needs of the C.C.I.T.T. until the next Plenary Assembly, to be submitted later on to the Administrative Council of the I.T.U., provided for in Item 781 of the General Regulations annexed to the International Telecommunication Convention, as one of the duties of the Plenary Assembly.

With regard to the work of the Budget Control Committee, it was pointed out that account would have to be taken of —

- No. 211 of the Convention, concerning the approval of the annual budget of the Union by the Administrative Council ;

- No. 36, establishing the budget of the I.T.U. from one Plenipotentiary Conference to the next ;
 - No. 781 of the General Regulations (in fact, the last Plenary Assemblies have refused to apply this provision and to approve the estimates of the financial needs of the C.C.I.T.T.).
- (vi) The Plenary Assembly should receive and consider the reports of the Plenary Committees, and make final decisions on the recommendations submitted to it.
- The necessary revisions to Resolution No. 1 are given in Annex 6.

2.4 *Appointment of Study Group Chairmen and Vice-Chairmen*

The Team recognized that the efficient working of a study group depends critically on the quality of its Chairman and upon the time he is able to devote to adequate preparation for meetings. It noted that the appointment of Chairmen and Vice-Chairmen was covered by the specific and detailed provisions of No. 792 (Chapter 15) of the General Regulations annexed to the Montreux Convention, 1965. It proposes no amendment to the relevant passages of C.C.I.T.T. Resolution No. 1 (paragraphs 2 (b)(ii) and (4)) but suggests that heads of delegations should bear the spirit of the following points in mind when implementing this Resolution :

- (i) That appointments should be made primarily on the basis of individual competence (in the technology of the study group concerned as well as in chairing meetings).
- (ii) that Chairmen who are not in direct touch with the technology of their Study Group through change of duty in their own Administration or other cause, or who find they cannot devote adequate time to the work, should not be expected to continue in office indefinitely;
- (iii) that, in particular, a Chairman should not automatically be re-elected;
- (iv) that new Vice-Chairmen of Study Groups (and, in some cases, Chairmen) may be expected to be drawn from amongst the existing Chairmen of Working Parties who have proved their competence;
- (v) that, within the limits of these principles, nationals of as many countries as possible should be included in the list of office-holders showing, if possible, a reasonable geographical balance.

A C.C.I.T.T. Opinion on "The Appointment of Chairmen", incorporating the above points may be desirable.

Some members of the Study Team proposed that the term of office of the Chairmen and Vice-Chairmen should, in principle, be restricted to two study periods. They argued that this would enable the available talent to be used to better effect, on the principle of equitable geographical distribution. A proposal was also submitted for the election of each Chairman by his Study Group. Others considered that the present method was adequate and sufficiently flexible, enabling the C.C.I.T.T. to retain the services of able and experienced Chairmen for as long as they were required. A proposal to allow the appointment of more than one Vice-Chairman per Study Group did not find favour with the majority of the Team.

2.5 Publication of C.C.I.T.T. volumes

(C.C.I.T.T. Resolution No. 4 and Administrative Council Decision No. 359 of 25th Session)

Following the IVth Plenary Assembly of the C.C.I.T.T. at Mar del Plata the drafting, editing and publication of the documents in their final form was only completed about two years after the Plenary Assembly. The Team is unanimously of the opinion that steps should be taken to reduce this period to not more than one year after future Plenary Assemblies as directed by the IVth Plenary Assembly in adopting the report of the Books Working Party (*White Book*, Volume I, pages 125, 126). The Team concluded that this objective could not be achieved within the current methods and resources of the C.C.I.T.T. and that additional effort would be necessary.

2.5.1 Resources

Such additional effort might come from within the organization itself by placing squarely upon the Chairman of, and delegates to, Study Group meetings (in collaboration with the C.C.I.T.T. counsellor present) the responsibility for preparing properly drafted, edited and translated texts of their output documents at the end of final study group meetings. Such a solution is clearly impracticable in the case of the forthcoming Vth Plenary Assembly since this method of working is not the current practice of all C.C.I.T.T. Study Groups, and since, as decided at the IVth Plenary Assembly (page 85, Volume I of the *White Book*), there will be no time interval between the final study group meetings and the Vth Plenary Assembly.

Thus, if more rapid publication is to be achieved after the Vth Plenary Assembly, the only possibility appears to be the provision of assistance to the C.C.I.T.T. Secretariat to cope with the peak load.

Such assistance might be provided by

- (a) staff loaned by Administrations for limited periods following the Plenary Assembly, or
- (b) staff directly recruited by C.C.I.T.T. on a temporary basis.

A third alternative has been proposed to the effect that, for the forthcoming Plenary Assembly, Administrations might be disposed to permit some of their specialists to remain after the final study group meetings (both during the Plenary Assembly itself and a week or two beyond it) in order to see that there are fully agreed texts before the end of the year.

It is considered that the proposal to loan staff directly from Administrations to the C.C.I.T.T. raises problems of divided responsibility which could lead to practical difficulties. Direct recruitment of temporary staff has been suggested to the Administrative Council by the Director of the C.C.I.T.T. (Document CA26-47 (Annex, page 7)) who advocates that three additional engineers should be recruited for a period of one year (from 1 October 1972) to deal with the preparation of documents for publication following the Vth Plenary Assembly. The Team notes that these engineers would require adequate background support in the form of translators, revisers and editors as well as stenographic, typing, drawing, designing, lay-out, composition, printing and proof-reading personnel—as well as assembling and dispatching of documents by service personnel. The extent to which this is within the resources of the General Secretariat should be considered by the Administrative Council. Whichever method is adopted the objective of publishing the Volume of the C.C.I.T.T. Vth Plenary Assembly by the end of 1973 must be met.

2.5.2 Format

At the IVth Plenary Assembly it was agreed in Resolution No. 4 that some volumes of the C.C.I.T.T. should be produced in loose-leaf form and this has been done. However, other volumes were prepared in the form of separate loose fascicules, some with as many as 80 to 90 pages, which could be inserted into

a binder. This method of presentation is not considered satisfactory since it does not give the advantage expected from true loose-leaf presentation; in the case of amendment to any part of the content of a fascicule it is necessary to reproduce all its constituent pages. It is recommended that this method should not be repeated.

While total production in true loose-leaf form has advantages and disadvantages (e.g. it provides far easier replacement of amended pages but requires a stronger quality of paper and gives rise to page numbering difficulties) it is considered that a form using smaller fascicules, perhaps one for each Recommendation or Resolution, might prove a satisfactory solution to the problem.

Administrations are invited to consider this point further.

2.5.3 *Printing*

The Team noted that offset litho printing methods in which the final copies are exact reproductions of a single master might have important advantages in reducing production time and cost compared with normal type-setting, which calls for tedious proof-reading, and should carefully be considered.

The Team also noted that methods are now available for storing the make-up of printed matter on magnetic tape. Amendments can easily be inserted into the tape record and a revised master copy can be printed out when required for subsequent reproduction by the offset litho process. The I.T.U. computer is expected to have the capability to carry out this processing by the latter half of 1973 and it seems that this method could give substantial economy of effort, following the Vth Plenary Assembly.

The Team did not feel able to make a specific proposal regarding the precise methods of reproduction to be used, since it is not able in a short space of time to make a realistic estimate of the savings that might occur. The Team took note of a contribution entitled "Printing of Contents of C.C.I.T.T. Books Following the Vth Plenary Assembly", which has been received from the I.T.U. General Secretariat. The magnitude of the task of publishing the C.C.I.T.T. Volumes, and various practical considerations are described in this paper, which has been reproduced as Annex 8.

The Team considers that the responsibility for publishing C.C.I.T.T. documents by the best and quickest modern methods, at the lowest possible cost, lies with the Director, C.C.I.T.T. and the General Secretariat. If the results do not meet the needs of the C.C.I.T.T., it will be for future Plenary Assemblies to study the matter further and make the necessary Resolution.

2.6 *Use of computer*

Apart from the use of a computer in the reproduction of documents, the Team considered whether there were other aspects of the work of the C.C.I.T.T. where computers could be of value.

The use of computers for planning inter-regional circuit provision has already been considered by Study Group XIII and some of the Plan Committees. However, there seem to be some serious objections to the use of a central computer for this purpose; Administrations responsible for the actual provision of circuits are known to be anxious to have the planning under their own control and are unwilling to entrust the work to a centralized office.

On the other hand there is some possibility that a centralized record of international circuits might prove a useful source of information for Administrations. This is understood to be still under consideration by Study Group XIII and the Team is not able to comment on its usefulness.

No other uses of a central computer are known to the Team apart from day-to-day housekeeping problems of document dispatch and accounting. Some documents submitted to the C.C.I.T.T. are the

result of computer analysis but this is carried out by individual Administrations and the use of a central I.T.U. computer would not be very helpful. The Team does not therefore feel that there is at present great scope for computer assistance to the C.C.I.T.T. apart from the publication application mentioned in the previous section.

2.7 More rapid adoption of Recommendations

The Team considered that even when the objective of publishing the C.C.I.T.T. Books within the 12 months following the Plenary Assembly had been achieved, there may be occasions when provisional application of conclusions reached by the Study Group may be of sufficient value that the procedure established at Mar del Plata (1968) in Resolution No. 2 "Provisional Recommendations" might be applied with advantage.

This procedure is of special interest early in the study period if, for example, a unanimous agreement develops on a point of great technical interest which could not be settled during the previous study period.

It might also be stressed that there are some groups that may be able to meet only once and have their output approved as Provisional Recommendations using the procedures of present Resolution No. 2. This might reduce the number of meetings.

However, the experience of the Secretariat with approval by correspondence had not always been successful. On at least one occasion it had been necessary to send out a second notice appealing for attention to the first request before the simple majority of favourable replies necessary for provisional adoption of the proposed draft Recommendation were received.

As paragraph 3 of Resolution No. 2 had on occasion been given varying interpretations, it was decided to modify it as shown in Annex 9.

The Director of the C.C.I.T.T. stated that the proposed new text for Resolution No. 2 might avoid errors of interpretation but would not in itself solve the difficulties which the Secretariat had met with in applying the Resolution, namely the inadequate number of replies received from Administrations on various occasions.

2.8 Duties of the Director

The Team considered that the terms of Resolution No. 1, Section II, dealing with the duties of the Director, are generally satisfactory but suggested two minor amendments as follows, in order to reinforce his role :

Paragraph 5. To emphasise one particular aspect of the work, it is proposed to add the following sentence to paragraph 5 :

"In particular, the Director shall submit to the Plenary Assembly such proposals concerning the organization and terms of reference of the Study Groups, for the succeeding Plenary period, as he may consider necessary."

Paragraph 7. It is considered that the provisions of paragraph 7 are intended to apply only to the period between Plenary Assemblies and therefore it is proposed, in order to make this clear, to re-write the paragraph as follows :

"In the interval between Plenary Assemblies, when circumstances demand it, the Director is authorized to take exceptional measures to maintain the efficiency of work of the C.C.I.T.T."

3. Organization of study groups

Time did not permit agreement to be reached on a recommended organization of the study groups. Nevertheless, the conclusions of Sub-Group 2 were considered by the Team to be sufficiently useful for inclusion in this report.

Some indication is given of the strength of opinion in each case but this was only tested amongst the experts present who were from seven different countries. Furthermore it was realized that it would be necessary for the Vth Plenary Assembly, in establishing the organization for the next study period, to take note of the reports of existing study groups. These will contain new draft questions as well as the status reached with respect to those set at the IVth Plenary Assembly.

S.G. I, II, III

Having considered proposals submitted by several countries, a majority was in favour of changing the present structure of Study Groups I, II and III to the following :

- S.G. I : telegraph operations;
- S.G. II : telephone operations;
- S.G. III : general tariffs.

S.G. IV

Although it has been pointed out by the C.C.I.T.T. Secretariat that the work load of S.G. IV in its present form is rather heavy, nevertheless the majority suggested that it be labelled "General Telecommunication Maintenance" and that it also cover the relevant maintenance parts of the present IX, Sp. A, GM-MAT and XIII.

S.G. V, VI

Opinion was evenly divided upon a proposal to consolidate S.G. V and VI. Moreover, the C.C.I.T.T. Secretariat strongly questioned the usefulness of a merger, claiming that the establishment of two Working Parties within a newly created single Study Group would be the result of a merger, practically leaving things unchanged.

S.G. VII

The majority was in favour of transforming S.G. VII into an Autonomous Working Party (GAS), to be composed of rapporteurs, on definitions of the Study Groups and to work together with I.E.C., I.S.O. and C.C.I.R. in accordance with Recommendations A.12 and A.20.

Some were of the opinion that this Autonomous Working Party would be superfluous, since co-ordination between international bodies concerned with definitions is already in the process of being established.

S.G. VIII

All members of the Team favoured retention of S.G. VIII, some members in addition proposing that if Sp.A were to be eliminated then its terminal equipment questions should be transferred to S.G. VIII. A majority of members favoured the transfer of the facsimile apparatus questions to S.G. VIII.

S.G. IX

Two possibilities were considered for S.G. IX, both with its future linked to that of S.G. Sp.A as follows :

(i) If Sp.A is kept, S.G. IX should be consolidated with it to form a single Study Group.

(ii) If Sp.A is eliminated, S.G. IX should be maintained and cover all modem questions.

It must be added that the C.C.I.T.T. Secretariat strongly feels that whatever the future of S.G. IX or Sp.A will be, the modem questions should all be kept in one Study Group.

S.G. X

The Team was unanimously in favour of retaining this Study Group.

S.G. XI

The Team was unanimously in favour of retaining this Study Group with the possibility of additions deriving from the abolishment of other Study Groups.

S.G. XII

The Team was unanimously in favour of retaining this Study Group.

S.G. XIII

A majority was in favour of discontinuing S.G. XIII and allocating its questions to Study Groups II, IV and XI. Information received subsequent to the meeting of the Team of Experts emphasizes the wide range of views on the future of S.G. XIII, which will certainly lead to further discussion.

S.G. XIV

A majority was in favour of discontinuing S.G. XIV and transferring its questions to S.G. VIII with the exception of facsimile transmission questions which would be transferred to S.G. XV and be studied by GM-LTG.

S.G. XV

The Team was unanimously in favour of retaining S.G. XV as it is.

S.G. XVI

The Team was unanimously in favour of retaining S.G. XVI as it is.

Sp.A

A small majority favoured the retention of S.G. Sp.A. The majority of those who were in favour of its elimination wanted to allocate its questions as follows:

- terminal equipment to S.G. VIII;
- maintenance to S.G. IV;
- modems to S.G. IX.

Written comments subsequent to the meeting have pointed out that the problems of Data Transmission are not purely telegraphic and that this would need to be borne in mind should Sp.A be eliminated and consequently all of its questions allocated to other study groups.

Sp.C

The Team was unanimously in favour of retaining S.G. Sp.C, which is a joint C.C.I.T.T.-C.C.I.R. Study Group, as it is.

Sp.D

The Team was unanimously in favour of maintaining S.G. Sp.D, and to retain its status.

CMTT, GM, GAS

The Team was unanimously in favour of maintaining C.M.T.T., the Joint Working Parties and the Special Autonomous Working Parties as they stand until the Vth Plenary Assembly decides which questions will be put to study for the 1972-76 period.

GM NRD

With regard to GM-NRD, it was proposed that it be given the status of a Special Study Group and that it should work in closer touch with S.G. Sp.D.

GM LTG

If S.G. XIV is discontinued as proposed previously, GM LTG would acquire the facsimile transmission questions.

Plan Committees

The World Plan Committee, at its meeting in Venice, October 11 to 21, 1971, decided to set up an Ad Hoc Working Party on the future of the World Plan Committee to review the methods of work, define improvements, and recommend what information should be included in the Plan. The Director of the C.C.I.T.T. has conveyed this information to Administrations of the I.T.U., in Circular Letter P3, 179, World Plan, dated 18 November, 1971.

Subject to the approval of the necessary credits by the Administrative Council, this group hoped to meet at Geneva in July 1972. The Chairman of the Ad Hoc Committee, Mr. R. T. Black (United States) and the Vice-Chairman, Mr. C. H. Moreira (Brazil) are expected to be in a position to advise the Vth Plenary Assembly of developments in this regard.

LIST OF ANNEXES

Annex 1 : Resolution 7 (Mar del Plata)

Annex 2 : Administrative Council Resolution 656 (1969)

Annex 3 : List of Members of Team

Annex 4 : List of Documents submitted or relevant

Annex 5 : C.C.I.T.T. Opinion No. 3 amendments

Annex 6 : C.C.I.T.T. Resolution No. 1 amendments

Annex 7 : Annex to Document No. 4170 (CA 26-47)

Annex 8 : Printing of Contents of C.C.I.T.T. Books following the Vth Plenary Assembly

Annex 9 : C.C.I.T.T. Resolution No. 2 amendments



ANNEX 1

RESOLUTION No. 7

Team of Experts for organization and methods of work of the C.C.I.T.T.

(Mar del Plata, 1968)

The International Telegraph and Telephone Consultative Committee,

considering

(a) the rapid rate of emergence of new techniques which are thought likely to affect profoundly the development of public telecommunications services in all Member countries;

(b) the increasing load of work combined with change in technical emphasis as measured by the number of meetings, participation in meetings, the number of Recommendations under review, the number of books and manuals being published and the numbers of new Study Groups, Joint Study Groups and Special Autonomous Working Parties being requested;

(c) that at the IVth and previous Plenary Assemblies some problems have already been clearly identified: for example, difficulty in the Secretariat in maintaining adequate time schedules, publication in a reasonable time of reports, books and manuals, difficulty of Member countries in sending qualified representatives to the increasing number of meetings;

(d) that at every Plenary Assembly the question of the reorganization of the C.C.I.T.T. arises but the time available is insufficient for adequate discussion;

(e) that to meet the needs that are becoming more and more evident, high efficiency in the working methods linking C.C.I.T.T. participants with the Secretariat is essential;

decides

to set up as soon as possible a study team of ten experts (two from each region) possessing knowledge and experience of C.C.I.T.T. activities and of contemporary methods of organization at senior management level in telecommunication administrations, with the following terms of reference:

1. To undertake a fresh review and a basic assessment of the requirements of the overall consultative process inherent to the C.C.I.T.T. activity, as provided for in Article 14 of the Convention;

2. To prepare a draft proposal on the organization and working methods of the C.C.I.T.T. and a draft proposal identifying the appropriate Study Groups and their terms of reference, and the principles upon which the above should adapt to changing conditions, taking into consideration:

- discussions which took place at the IIIrd and IVth Plenary Assemblies of the C.C.I.T.T.;
- views which have already been submitted, or may further be submitted, by Administrations;
- the experience of the C.C.I.T.T. Secretariat and the other permanent organs of the I.T.U.;
- the financial implications of their proposals;

3. To prepare this draft in sufficient time to enable it to be distributed to Members of the C.C.I.T.T. at least six months before the opening of the Vth Plenary Assembly;

instructs the Director of the C.C.I.T.T.

1. To invite the member Administrations of the C.C.I.T.T. to submit nominations with associated curriculum vitae for the study team in time for distribution to the Members of the Administrative Council at least one month before its 24th Session;

2. To make the necessary administrative arrangements to enable the study team to carry out its work within the resources allocated from the Administrative Council for the general work of the C.C.I.T.T. and such special budgetary support as may be authorized for this project;

3. To transmit the draft prepared by the study team to the Administrative Council for information and to the Members of the C.C.I.T.T. for their study and later consideration at the Vth Plenary Assembly of the C.C.I.T.T.;

4. To make available to the members of the study team full access to C.C.I.T.T. records and to the staff of the Secretariat for consultation;

requests the Administrative Council at its 24th meeting,

1. To select the members of the study team in accordance with the provisions of the "decides" above (since the IVth Plenary Assembly could not do it and it would be undesirable to delay until the Vth Plenary Assembly);

2. To consider the authorization of the travel and subsistence expenses of the experts from the budget of the Union in case one or more meetings are required before the Vth Plenary Assembly of the C.C.I.T.T.;

urges Members of the C.C.I.T.T.

1. To submit to the study team through the Director additional comments, suggestions and proposals in regard to the organization of the C.C.I.T.T. and its working methods no later than 1 October 1969;

2. To make freely available to the members of the study team such information and advice from their own experts and C.C.I.T.T. participants as may be requested by the members of the study team.

ANNEX 2

Resolution No. 656 by the Administrative Council

Group of Experts for the Study of Organization and Methods of Work of the C.C.I.T.T.

The Administrative Council,

having examined

the Résolution adopted by the IVth Plenary Assembly of the C.C.I.T.T., Mar del Plata, 1968, which requested the Administrative 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.;

having considered

in the light of normal practices in the I.T.U., the question of authorising payment of travel expenses of the study team from the budget of the Union, as requested by the Plenary Assembly;

concludes

that it would be inappropriate to pay such travel and subsistence expenses;

taking into account

the views expressed by the members of the Council, its responsibilities and the nominations submitted by the Member countries;

recognizing

that it is the desire of the majority of the Members to establish such a team of experts as soon as possible;

considers

that the study Team should have as broad a representation as possible;

resolves

1. that the membership of the study Team should be composed of one expert from each country which has submitted a nomination in accordance with the Mar del Plata Resolution provided they still wish to participate;
2. To further invite other Administrations, if they so desire, to nominate by 1 October 1969 one expert to participate in the work of the Team;
3. That the Team shall select a co-ordinator for the conduct of its work;
4. That the group shall conduct its work by correspondence and, if necessary, may convene meetings in Geneva;
5. To invite Members of the Union to submit to the Team, through the Director of the C.C.I.T.T., comments, suggestions and proposals concerning the organization and methods of work of the C.C.I.T.T.;
6. To request the Director of the C.C.I.T.T. to transmit the draft proposals prepared by the Team to the Members at least six months prior to the Vth Plenary Assembly of the C.C.I.T.T.;

instructs the Director of the C.C.I.T.T.

to bring this Resolution to the attention of the Members and to make the necessary administrative arrangements to enable the Team to carry out its work.

Ref.: Docs. 3873, 3960, 3967, 3974 and 3977/CA24 – May 1969.

ANNEX 3

Members of Team of Experts

A. BIGI (Italy)—Chairman

Federal Republic of Germany	Dr. R. KAISER *
Argentina	E. FERNANDEZ †
	R. A. SALVADOR
Australia	R. K. MCKINNON *
Belgium	G. BAUDRIN *
Brazil	Z. FUZESI *
	J. SANTELLI Junior *
Cameroon	TCHOUTA MOUSSA *
Canada	V. C. MACDONALD *
U.S.A.	E. C. LAIRD *
Czechoslovakia	S. HOUDEK
France	A. M. JOUTY *
India	N. V. SHENOI
Italy	C. BAUDAZZI *
Japan	MITSUO KOJIMA *
Netherlands	A. CHR. JANSEN *
Poland	W. ADASZEWSKI
	J. KARAS
Romania	I. PETRARU *
United Kingdom	T. KILVINGTON *
Sweden	T. LARSSON *
Switzerland	R. RÜTSCHI *

† Deceased during the course of the work of the Team.

* Present at the meeting of the Team.

ANNEX 4

List of documents submitted or relevant

6 December	1971	Mr. Bigi	— Summary of work by correspondence
6 December	1971	Brazil	— Organization and methods of work
9 November	1971	Mr. Bigi	— Aide mémoire, The Hague, September 1971
28 September	1971	Mr. MacDonald	— Reply to Collective Letter 1529
20 September	1971	Mr. Rouvière	— Collective Letter 1529 transmitting document submitted to Administrative Council—May 1971 concerning publication delays
12 August	1971	U.K.	— Reorganization of working methods
7 August	1971	Mr. Bigi	— Organization of the C.C.I.T.T.
4 August	1971	Mr. Rüttschi (Switzerland)	— Organization and methods of work
9 April	1971	K.D.D.	— Working methods of the C.C.I.T.T.
11 February	1971	Australia	— Reply to Mr. Bigi's letter of 5 August 1970
18 January	1971	Nordic countries	— Working methods of the C.C.I.T.T.
30 November	1970	U.S.A. (Mr. Laird)	— Contribution to Panel of Experts
8 October	1970	France (Mr. Jouty)	— Reply to Mr. Bigi's letter of 5 August 1970
31 August	1970	Brazil (Mr. Fuzesi)	— Reply to Mr. Bigi's letter of 5 August 1970
11 August	1970	Canada (Mr. MacDonald)	— Reply to Mr. Bigi's letter of 5 August 1970
11 May	1970	Mr. Rouvière	— Collective Letter No. 899 transmitting Nordic proposals of 19 February 1970
March	1970	F. R. Germany (Dr. Kaiser)	— Reply to Collective Letter 601 of 12 November 1969
19 February	1970	Nordic countries	— Future organization
7 January	1970	Belgium (Mr. Baudrin)	— Replies to letter from Mr. Bigi, December 1969
12 December	1969	Mr. Bigi	— Inaugural letter for co-ordination of studies
12 November	1969	Mr. Rouvière	— Collective Letter 601 announcing names of experts taking part in the work, following Circular Letter 27 of 6 June 1969 giving the opinion of the Administrative Council and their nomination of Mr. A. Bigi as co-ordinator. A complete file of proposals received to date is included
24 January	1969	Mr. Rouvière	— Document 3837/CA 24-5—Report to the 24th Session of Administrative Council, as approved by IVth Plenary Assembly (Mar del Plata 1968) "except for section 7 on resources of the C.C.I.T.T. Secretariat, which it simply noted".
24 October	1968	<i>White Book</i> , page 117	— Report of Committee A—working methods and organization of study groups
August (I.T.U. Journal)	1965	D. J. Dormer (C.C.I.T.T. Secretariat)	— The C.C.I.T.T. and its Secretariat (a description)
6 June	1958	Mr. Rouvière	— Document AS/3—Lightening the burden on study groups by improvement in their working methods

ANNEX 5

Opinion No. 3 : Preliminary examination of new draft question

Proposed amendment :

Opinion No. 3 (p. 186, *White Book*, Vol. I), first paragraph following "expresses the opinion".

Replace the final phrase ("before the opening of the Plenary Assembly") by:

"... before the opening date of the last meeting of the Study Group concerned preceding the Plenary Assembly";
and in the fourth paragraph following "expresses the opinion", *replace* the words "opening of the Plenary Assembly" by:

"opening of the Study Group Meeting".

ANNEX 6

RESOLUTION No. 1

Additional rules of procedure of C.C.I.T.T.

Proposed amendments :

a) *I.2 a) iv) (p. 168, White Book)*

Replace by:

"(iv) to make proposals for the constitution of an Organization Committee and a Technical Assistance Committee (paragraph 4 below); and a Work Programme Committee (paragraph 5 below)."

b) *I.2 b) (p. 168, White Book)*

Replace first four words ("b) Before the closing meeting...") by:

"b) As soon as possible after the opening..."

c) *I.4 (p. 168, White Book)*

Replace by:

"4. The Plenary Assembly shall set up an Organization Committee to consider the organization and working methods of the C.C.I.T.T. and a Technical Assistance Committee to consider the activities of the C.C.I.T.T. concerning the new and developing countries.

On the basis of the proposals of the Organization Committee and the judgment on those proposals by the Heads of Delegations, the Plenary Assembly shall set up Study Groups and, where appropriate, Working Parties. It shall designate Study Group Chairmen and Vice-Chairmen and, if it so desires, Chairmen and Vice-Chairmen of such Working Parties."

d) *Following I.6 (p. 169, White Book)*

Add new paragraph 7:

"7. The work of the Plenary Assembly should be organized so as to enable it to devote adequate time to the important administrative and organizational aspects of C.C.I.T.T. for the ensuing Plenary period. As a general rule, the following sequence is recommended:

"a) The Plenary Assembly should examine reports from Study Groups and the Director, C.C.I.T.T., on activities in the previous Plenary period, deal with the approval of Recommendations and note the lists of questions appearing in these reports.

Simultaneously, the Budget Control Committee should meet to approve the budget of the current Plenary Assembly.

"b) The Organization Committee should meet and prepare organizational proposals (see 1.4).
The Technical Assistance Committee should meet simultaneously.

“c) Heads of Delegations should meet to—

- consider proposals made concerning the constitution of Study Groups and Working Parties;
- prepare proposals for the Plenary Assembly concerning the designation of Study Group Chairmen and Vice-Chairmen and, when necessary, Working Party Chairmen and Vice-Chairmen.

“d) The Plenary Assembly should elect Chairmen and Vice-Chairmen for the new Plenary period (see 1.2(b) of the Resolution, as amended above).

“e) The Work Programme Committee should meet and develop a draft programme of work (see 1.5 of the Resolution).

“f) The Budget Control Committee should meet and prepare a report proposing that the Plenary Assembly approve an estimate of the financial needs of the C.C.I.T.T. until the next Plenary Assembly, to be submitted later on to the Administrative Council of the I.T.U., as provided for in Item 781 of the General Regulations annexed to the International Telecommunication Convention.

“g) The Plenary Assembly should receive and consider the reports of the Plenary Committees, and make final decisions on the recommendations submitted to it.”

e) II.5 (p. 170, White Book)

Add:

“In particular, the Director shall submit to the Plenary Assembly such proposals concerning the organization and terms of reference of the Study Groups, for the succeeding Plenary period, as he may consider necessary.”

f) II.7 (p. 170, White Book)

Replace by:

“In the interval between Plenary Assemblies, when circumstances demand it, the Director is authorized to take exceptional measures to maintain the efficiency of work of the C.C.I.T.T.”

g) III, 4(c) (p. 173, White Book)

Add:

“Contributions received at least four months before a meeting, should be published in the normal way. Exceptionally, when an Administration has failed to observe this time-limit, it should advise the C.C.I.T.T. Secretariat about the forthcoming late contribution and its contents. The Administration concerned should itself circulate copies of late contributions to Administrations due to attend the meeting, if the C.C.I.T.T. Secretariat is unable to do so.”

h) III, 12 (p. 174, White Book)

Amend first paragraph to read:

“A Study Group or Working Party may instruct one or more rapporteurs, appointed in person by the Study Group or Working Party, to make a preliminary analysis of the more complex questions and/or to draft a reply to a question for submission to the Study Group or Working Party.”

i) III, 13 and 14 (pp. 174, 175, White Book)

Replace by:

“13. a) All Study Groups shall meet sufficiently in advance of the Plenary Assembly to allow the Final Report of each Study Group to reach Administrations at least one month before the Plenary Assembly.

"The report shall be the document forwarded to the Plenary Assembly.

"b) The final report of each Study Group, prepared in accordance with paragraph III.9 above, is the responsibility of the Study Group Chairman, and shall include:

- the final text of draft recommendations;
- the text of provisional recommendations adopted by the Plenary Assembly (these will have had approval by correspondence during the study period under Resolution No. 2);
- a summary report on the status of questions, the study of which has not concluded, and new questions the reasons for which are given as required in Opinion 3;
- the list of questions proposed to the Plenary Assembly for the following Plenary period.

"c) The schedule of final meetings of Study Groups to meet the object we stated in paragraph 13 a) above shall be adjusted in the light of circumstances by the Director of the C.C.I.T.T. in co-operation with the Chairman of the Study Group in question.

"d) The Director will advise all Administrations and RPOAs as to the dates of the final meetings of Study Groups by circular letter at least three months beforehand, in order that, among other things, the Administrations and RPOAs may submit draft questions proposed for study in the following Plenary period in accordance with Opinion No. 3."

j) *III, 15 (p. 175, White Book)*

Renumber as III, 14.

ANNEX 7

Proposed measures to speed up the publication of C.C.I.T.T. texts (Annex to Administrative Council document No. 4170 CA26-47)

1. Introduction

The Administrative Council expressed concern at what it considered to be excessive delays in publishing the C.C.I.T.T. *White Book* after the IVth Plenary Assembly. This paper attempts to set out in a clear manner the factors involved and to put forward possible solutions for speeding up C.C.I.T.T. publications.

It should be noted, first of all, that the publication process consists of two entirely distinct phases:

- a) the preparation and editing of the texts to be published which fall entirely within the competence of the C.C.I.T.T.;
- b) the actual publication and sale of documents which fall within the competence of the General Secretariat with the active collaboration of the C.C.I.T.T.

The comments which follow concern solely the work performed by the C.C.I.T.T.

2. Present situation

It is perhaps of some use to emphasize that as far as the publication of their documents are concerned, the two C.C.I.s have to face quite different problems.

The Plenary Assembly of the C.C.I.R. has a drafting committee which, in principle, completely edits the texts from the study groups in the three working languages of the Union. It therefore only remains for the texts to be tidied up with no additional fundamental editorial work involved and for them to be passed on to the Publications service. A team of technical editing staff composed of regular members of the C.C.I.R. Secretariat and of technical editing and other staff is assigned from the General Secretariat to assist the Director to provide this service.

In view of the length and diversity of C.C.I.T.T. texts, it is inconceivable for a drafting committee meeting for a two-week period to put them into final form. The amendments made by the Plenary Assembly to the study group proposals take the form merely of guiding principles, and considerable work remains to be done after the Assembly has ended for the drafting of the texts.

Thus the work falls either on the Secretariat—which has inadequate engineering staff for such work to be completed in the time scale envisaged by the Administrative Council for the production of the publications—or on drafting groups set up by the Plenary Assembly. In both cases there are inevitable delays, which lengthen with the volume of the documentation, and it is not surprising that it took almost two years to publish the *White Books*.

3. *Proposed solution*

It is proposed to set up, as an experiment, in the C.C.I.T.T. Secretariat, a service similar to that which already exists in the C.C.I.R. Secretariat. The service would require the engagement of three P3 engineers, with an excellent general knowledge of international telegraphy and telephony; it would be extremely desirable if each of these engineers could specialize in one of the working languages of the Union (English, French, Spanish) and be able to contribute to the editing of texts. They could be aided by G6 assistants (one such post already exists; the others would have to be provided within the framework of the Secretary-General's prerogatives).

These engineers would work in constant liaison with the staff of the various technical departments of the C.C.I.T.T.; they should therefore be incorporated into the specialized Secretariat and could in no way come from a common service. In addition to the books containing the Recommendations of the C.C.I.T.T., they would also deal with Plan books, Manuals and the reports on meetings. In view of their technical background they could be used during slack periods to help with the preparation and running of meetings.

This proposal is not a new idea and it was in fact mentioned in the reports submitted to successive Plenary Assemblies on C.C.I.T.T. staff requirements but, considering the few new posts which were authorized, it has been necessary up till now to give priority to posts for specialists in the various technical departments.

Should the Administrative Council share this point of view it would be advantageous to recruit the engineers towards the end of 1972, to give them the possibility of becoming familiar with their work by following the discussion at the Vth Plenary Assembly, and to set them to work on editing at the beginning of 1973. To this end, and to mark the experimental nature of the proposal, an allocation of 50 000 Swiss francs has been included in the budgetary estimates for C.C.I.T.T. meetings in 1972. The engineers who would also be carrying out some editing work could be given one-year contracts beginning on 1 October 1972 and ending on 30 September 1973, which would obviously entail another allocation in the 1973 budget. If, contrary to all expectations, the experiment were to prove disappointing, the Council would have the possibility of terminating it during its session in 1973. If it proved a success the creation of permanent posts could be envisaged.

4. *Collaboration between the General Secretariat and the C.C.I.T.T.*

It is for the General Secretariat to submit to the Council proposals on the tasks which it has to carry out in connection with C.C.I.T.T. publications but it is evident that the two organs must work very closely together. In particular, proof-reading should be done in close association with the C.C.I.T.T. Secretariat and the assistants to the engineers might very well be used for this purpose.

J. ROUVIÈRE

Director of the C.C.I.T.T.

ANNEX 8

Printing of contents of C.C.I.T.T. Books following the Vth Plenary Assembly*(Source : I.T.U. General Secretariat)*

1. Historically the "Report of the 'Books' Working Party" indicates that the purpose of having a loose-leaf form was to speed up publication of the most urgent sections (Questions and Recommendations) of the Books. The Working Party added that with the loose-leaf method the printing of the Recommendations would not have to be repeated in related parts of the book because they could be grouped at the user's convenience.

2. After considering this report the Plenary issued Resolution No. 4 which has been the basis for the publication of nine volumes in the form of files which permit the use of separate volume or loose-leaf form. Annex A gives some indications of the size of the printing task and supplementary information arising from the separation of the volumes into a series of files for production. The information represents total printing effort and indirectly consequences which have a relationship to mailing costs, storage, etc.

3. The records show that the books of the IIIrd Plenary Assembly which included the Questions, Recommendations and Supplements were issued within 10 to 28 months after the close of the Plenary. By separating the Questions and Recommendations and printing them in loose-leaf form the information was published between 7 and 19 months after the IVth Plenary.

4. The IVth Plenary Assembly books have required the printing of more than 4 000 pages.

5. It is estimated that the Vth Plenary will require the printing of at least 5 000 pages.

Effectiveness of the Books in loose-leaf form

6. Loose-leaf printing could be handled in two forms—

- (a) the entire publication prepared at the outset in loose-leaf with single sheets printed for insertion in covers; and
- (b) or in the form of files which permit the use of separate volume or loose-leaf form to be incorporated in a loose-leaf cover.

7. Resolution No. 4 of the IVth Plenary Assembly envisaged that the books would be separated into files (i.e. as in (b) above). You will note from the enclosed Annex that the number of files per volume varied from one to five and generally either two or three. (The increase in respect of the Spanish arose from the need for economic reasons to print the material on offset inside the I.T.U. to enable comparable pricing arrangements consistent with the finance regulations.)

8. Thus, the following comments are made on the basis of the decision to prepare files separately. In practice, the *White Book* has been prepared in fascicule form with up to 96 pages bound together.

9. The use of fascicules means that whenever there is a correction of any importance it is necessary to reprint the entire fascicule (which of course would also be necessary if bound volumes were used).

10. From the standpoint of publication costs certain assumptions can be made. We know that the actual cost of printing each page is the same whether it is to be inserted in a loose-leaf system or bound. The loose-leaf cover is estimated to cost 6.10 Swiss francs for each one, whereas the binding for an equal number of pages is estimated to cost 1.90 Swiss francs. In the case of the *White Book* it is therefore estimated that the additional cost

to the subscribers has been 4.20 Swiss francs per cover. This does not include additional expenditures for despatch, mailing and storage estimated at about 6 Swiss francs extra per cover.

11. Because the loose-leaf form required each subscriber to keep his copy up to date it has been necessary to eliminate block shipments. This has added considerably to our work. For example, for the Netherlands we normally send "Books" to one address. Now we have to make out labels, wrap packages and pay postage charges to 35 to 40 subscribers. In the case of one United Kingdom company to which we previously sent one shipment we now have to send the Books and inserts to 109 different addresses. It is estimated that our Sales Service's work with relation to the "Books" is four times greater because the loose-leaf form is used instead of bound volumes.

12. It must be borne in mind also that a full set of the *White Books* in French, with its carton, occupies 68 cms of shelf space, whereas the contents would occupy only 16.3 cms. Since we must keep supplies for sale for a minimum of three years the additional storage space occupied over that needed for a book is expensive.

13. Another practical problem with the present series of *White Books* is the possibility of re-using the binders for texts established by future Plenary Assemblies and the replacement of pages will require special consideration.

14. On the other hand, if method (a) above had been followed by the Plenary Assembly, a number of the above comments would require qualification, or would not apply if the printing had been organized on a single-sheet basis. In this regard, it would have been necessary, however, to use thicker paper in order to be strong enough not to tear out of the binder. The use of thicker paper could require more covers in order to have room for insertion.

Future problems with relation to present loose-leaf form

15. We shall have to purchase new covers because the present ones will not provide enough space for the estimated 1,000 additional pages. (This means that each new set of "Book" covers would cost about 84 Swiss francs more than if they were bound.) Furthermore, the present covers are printed with "Plenary Assembly—Mar del Plata" on them.

16. A number of factors require consideration. To some extent the response will depend upon the policy decision for the printing of the next volumes. Some questions to be considered are:

- (a) What proportion of pages will have to be renewed?
(The proportion will be high due to the adoption of dB values only instead of decibels and nepers.)
- (b) If all pages are not renewed what method will be used to indicate the difference between the IVth and the Vth Plenary pages?
- (c) What instructions will be necessary to have each subscriber brought up to date with the assurance that he has all texts?
- (d) Will the new texts be in the form of single sheets or fascicules?
- (e) Will the new texts be sent to subscribers in a single package for each book or as rapidly as they are ready?

Alternative course of action to speed up preparation and publication

17. Separately, we have discussed with the Administrative Council the necessary resources to enable the treatment of texts flowing from the Plenary Assembly, checking of proofs, etc., in order to have adequate preparation work completed within our secretarial facilities at Headquarters. This matter was deferred by the Administrative Council until the 1972 Session in the light of information on progress by the Bigi Committee.

18. Nevertheless, as can be seen from the Annex, the actual printing operations are considerable, and it is felt desirable that we should take account of new techniques in printing.

19. Firstly, we believe that (having regard also to the experience with the Spanish language productions) it is practical to organize publications at more economical rates through an offset composition preparatory to printing.

Text presentation

20. The concept of a loose-leaf system appears to be twofold:

- (a) it provides speedier publication of the more urgent information in the Books; and
- (b) the subsequent use of replacement pages to incorporate changes in order to facilitate the publication process.

21. To a certain extent, as is evident from paragraph 4, improvements in regard to (a) were achieved.

22. As regards (b) the method adopted with the present loose-leaf system will not make a significant contribution to the improvement in the time schedule of the actual printing.

23. The basic question seems to lie in:

- (a) examination of the degree of maintenance of unchanged texts from one Plenary Assembly to another for particular subjects; and
- (b) the provisions for the introduction of changes in the basic records to facilitate printing.

24. Modern printing techniques (particularly in spheres where changes are introduced in the "drafting" stages to prepared texts or where the basic records exist and require updating at a later stage) utilize magnetic or paper tape recording or storage in the initial preparation in the printing process. The advantage is the facility to introduce changes speedily and economically in the composition processes when a revised text requires printing at a later stage. Thus text preparation for the printer can be expedited, and the processes envisage computer or special composer machine applications.

25. One of the factors which influenced the choice of the new computer at the I.T.U. Headquarters was the application as an aid in publication production in which we have had experience in publications of statistical and numerical data associated with the International Frequency List, List of Ship Stations, etc. The new machine will have complete facilities for text treatment for printing preparation. The General Secretariat has this application under close examination and every effort will be made to introduce new printing techniques which by modern methods of text treatment would enable us to store texts on tapes.

26. It is expected that after corrections are made on the tapes, the computer would produce the text ready for offset printing.

27. Irrespective of whether the policy is to continue the presentation of the "Book" in bound volume or in loose-leaf form, the above changes in the physical handling of texts could reduce the time at present involved in the printing process.

28. We are not sure what the complete answer is at this stage including the extent to which text material will remain unchanged in volumes from one Plenary Assembly to another. We feel that the Bigi Committee might be informed of the foregoing comments as a result of the General Secretariat studies which are continuing in regard to improvement in the publications.

29. We should be glad to discuss the various observations with the Team.

APPENDIX

Printing of C.C.I.T.T. White Books

Vo- lumes	Number of files per volume	Total number of covers prepared	Number of pages	Comparison between			
				Weight		Thickness	
				Contents (grammes)	File covers (grammes)	Contents (cm)	File (cm)
	F E S	F/E/S	F E S	F	F	F	F
I	bound edition	— — —	— — —	—	—	—	—
II A	1 1 2	4 932	280 280 362	430	420	1.3	4.0
II B	1 1 1	4 248	224 224 302	350	420	1.2	4.0
III	3 3 4	28 252	912 912 1 196	1 229	1 260	3.8	12.0
IV	2 2 3	24 330	598 598 852	923	840	2.7	8.0
V	2 2 2	8 832	392 392 540	358	840	1.1	8.0
VI	3 3 5	32 108	680 680 858	994	1 260	2.9	12.0
VII	2 2 2	8 840	414 414 528	665	840	1.9	8.0
VIII	2 2 2	8 840	444 444 618	308	840	1.0	8.0
IX	1 1 1	3 486	80 80 110	135	420	0.4	4.0
Total	17 17 22	123 868	4 024 4 024 5 366	5 392 7 140 12 532 grammes		16.3	68.0

F : French E : English S : Spanish

ANNEX 9

RÉSOLUTION No. 2

Provisional Recommendations

Proposed amendments :(a) *Delete* first four words of "Decides 2":

"In cases of urgency".

(b) *Amend* last sentence of "Decides 3" to read:

"The Recommendation shall be provisionally adopted if, within this time-limit, a simple majority is in favour, provided that more than half of the I.T.U. Members represented at the meeting of the Study Group which proposed the application of Resolution No. 2 had, in fact, replied."

**REPORT OF THE
SENIOR COUNSELLOR, ACTING DIRECTOR OF THE C.C.I.T.T.,
ON THE FACTORS CONCERNING
THE IMMEDIATE FUTURE OF THE C.C.I.T.T.**

1. Introduction

In view of the loss of our late Director, Mr. Rouvière, I feel that it is my duty to inform the Plenary Assembly of the results of the joint deliberations undertaken by the four Heads of Department on the working methods of the C.C.I.T.T. and on the work of the Secretariat.

It has been recognized for some time that the functioning of the C.C.I.T.T. and its Secretariat is becoming increasingly difficult. The IVth Plenary Assembly appointed a team of experts to study the working methods and organization of the C.C.I.T.T. This team drew up a report (Document AP V-No. 3) in which it proposes a new structure for the Study Groups and improvements in the working methods laid down in the Additional Rules of Procedure (Resolution No. 1).

For our part, we would draw the attention of the Plenary Assembly to certain problems which do not derive from these Rules of Procedure but from traditional practices relating to the holding of meetings.

2. Methods of work now followed in C.C.I.T.T. meetings

2.1 According to the methods now used in the C.C.I.T.T., which are based on the principles mentioned in the background summary in Annex 1 (Section 1), the Study Groups (and their main working parties) hold a large number of meetings, each of short duration, at different intervals of time. The report on each meeting is drawn up by the Secretariat on the basis of temporary documents adopted in principle by the meeting and of the results of discussion during the meeting.

The purpose of these methods was to save delegates' time and this appears to have been achieved. While it is not certain that a comparison with the C.C.I.R. can correctly be made, such a comparison would indicate that the C.C.I.T.T., with roughly 15% more staff and 30% more meetings budget (annual average), produces and studies approximately twice the number of printed pages in a given study period. (The number of pages is not in itself, of course, a criterion for judging the results achieved but nevertheless, for texts of equal difficulty, it gives an idea of the work that is involved.)

2.2 However, the methods used by the C.C.I.T.T. impose a heavy burden on the Secretariat. To be able to derive full benefit from these methods, and to enable the Secretariat to cope with the constant increase in the volume of work without falling behind, a substantial increase in staff would have been necessary. However, the I.T.U. Administrative Council has never agreed to such large increases in staff.

In the following, a comparison has been made of the advantages and disadvantages of the present working method. By this is meant the holding of short meetings at different intervals of time (which is applied by most Study Groups) and the preparation of the report by the Secretariat.

2.3 *Advantages*

2.3.1 It saves delegates' time.

2.3.2 Considerable flexibility is possible in choosing the dates of meetings to take account of current studies in Administrations, or in other organizations, on rapidly evolving techniques.

2.3.3 The present method is relatively cheap because most of the meetings, upon our request, do not ask for additional staff or even for overtime in the Common Services (translation, typing pool, roneo) putting up with the consequences described in 2.4.2. It must be noted that only with this economical method was it possible for the C.C.I.T.T. to manage within the annual budget limits fixed by the Administrative Council.

2.3.4 The present method offers the advantage of holding some meetings away from Geneva in order to keep in touch with technical work going on in various countries and can reduce the inconvenience to those countries which are far from Geneva. If costs are to be kept to a reasonable level, this is only possible in the case of short and small meetings and with a limit on the working languages (spoken and written), unless of course the host country agrees to pay some of the expenses.

2.4 *Disadvantages*

2.4.1 Small meetings spread out in time and, which, so far as the C.C.I.T.T. is concerned, go on almost without interruption, do not benefit from any special arrangements (overtime, additional staff, change in working hours) for translation, typing and reproduction by the Common Services, except for some priority while the meetings are in progress. The Common Services must work for all I.T.U. organs and therefore the C.C.I.T.T. cannot expect priority for the publication of the reports on these meetings which are spread out over the whole year.

2.4.2 With the modest means available in terms of staff and meeting budget (see paragraph 2.1), it is impossible to issue the report on a meeting in several languages during a one-week meeting. This is an important consideration from the language point of view because it naturally leads to working in one language only. This might however be considered as a certain advantage insofar as it concerns the working tempo during a meeting.

2.4.3 The meetings of the Working Parties for which a particular department is responsible are very often held one after another, the subjects being grouped to avoid high travel costs for the delegates from distant countries. The drafting of the report on any one of these meetings—which takes as much time as the meeting itself, or perhaps more—is thus automatically delayed by the time required for each subsequent meeting and the time required to draft the reports of the meetings held previously.

2.4.4 As the departments as a whole are occupied almost without interruption by these successive meetings, it is becoming almost impossible for the heads of departments to meet to ensure the co-ordination which is nevertheless indispensable.

2.4.5 If a particular Study Group or the large Working Parties attached to it hold meetings at too close intervals, a whole chain of inconveniences results. Administrations, because they are advised of the date of the meeting only a few months in advance, are not motivated to prepare their contributions in time for them to be received by the Secretariat within the prescribed time limit (four months before the meeting). Other Administrations have insufficient time to make a sufficiently full study of late

contributions, study of which is often postponed until another meeting. The disadvantages of these late contributions are well known, but the discussions of the Team of Experts on organization (document AP V/3, pp. 4 and 5) show that it is difficult to make definite rules to remedy the situation and that the trouble must be attacked at the source.

In the end, with the increasing delay in the publication of meeting reports (sometimes six months elapse between the end of the meeting and the despatch of the report to Administrations), if Study Groups and their Working Parties continue to hold meetings at very short intervals, we shall get to the point where the report of one meeting will not be available until just before the beginning of the next meeting concerning the same Study Group.

3. Solutions envisaged

3.1 This situation clearly cannot continue. If we want to keep the present methods and work with reasonable efficiency, it will become essential to increase substantially the permanent engineers staff of the C.C.I.T.T. Secretariat and, to a certain extent, the meetings budget in order to allow for overtime in the Common Services.

3.2 Should this suggestion prove unacceptable, consideration might be given to an alternative which would consist in adopting working methods similar to those of the C.C.I.R. which are summarized in Annex 1. Such a course would entail a very high increase (at least 50%) in the meetings budget and a great deal of work would have to be done by the delegates during the meetings.

3.3 One might try to find a reasonable solution between the two extremes. A possible compromise is described by way of example in Annex 1; as this is basically a question of a change of practice and not of Rules of Procedure, practical application could be left to the new Director, provided the Plenary Assembly approve some general principles.

4. Budget problems

4.1 Whatever the method adopted in future,

- continuance of the present method with a large number of meetings held at intervals and spread out over the year,
- grouped meetings as in the C.C.I.R.,
- mid-way compromise solution,

additional credits for the C.C.I.T.T. either for the recruitment of engineers or for the meetings budget will prove to be required.

4.2 Other reasons as well give rise to the question of an increase in the staff of the C.C.I.T.T. Secretariat.

4.2.1 The Team of Experts was concerned with reducing the excessive time required to produce C.C.I.T.T. publications (Document AP V-No. 3, pages 11-13). The Administrative Council did not grant any credits for engaging temporary staff in 1972 and the Plenary Assembly will need to devise a provisional solution to this problem. However, as Annex 2 indicates, there are good grounds for envisaging the recruitment of technical revisers on a more permanent basis; Annex 3 gives the relevant estimates.

4.2.2 With the development of techniques, the range of questions dealt with by the C.C.I.T.T. is constantly increasing as new subjects are introduced (submarine cables with submerged repeaters, satellites, data transmission, common channel signalling, PCM, stored-programme-controlled electronic-switching). This expansion of the sphere of activities of the C.C.I.T.T. has been accompanied by an enormous increase in the number of contributions and especially in the number of meeting reports.

4.2.3 Despite this increase in the number of contributions and the fact that contributions have been systematically prepared in two languages since 1956 and three languages since 1969, the staff of the C.C.I.T.T. Secretariat between 1949 (C.C.I.F. + C.C.I.T.) and the present time has increased from 17 to only 35 persons, which at present represents only 6% of the staff of the I.T.U. (1949: 9%; 1969: 7%).

5. Conclusions

5.1 The C.C.I.T.T. has reached a critical point in its existence. If it is to discharge its duties in the future as it has done in the past, it is clear that, while every possible improvement in its organization should be considered, it must also be given the means to work efficiently and to cope with the increasing volume of work resulting from the remarkable expansion in telecommunications.

5.2 The following main problem areas exist to which the Annexes to this contribution propose appropriate solutions :

5.2.1 *Shortage of engineer staff in the Secretariat*

A further increase in the number and length of meetings cannot be absorbed. As a general rule, extensive use should be made in future of rapporteurs, work by correspondence and the setting-up of drafting groups responsible for parts of the report. "One-way" translation and interpretation, if provided at all, might be foreseen for Joint Working Parties, Working Parties and, if possible, for the smaller Study Groups.

The meetings budget needs to be increased by at least 15 to 20% to cater for the overtime work in the Common Services in order to ensure prompt production of documents while meetings are in progress. Annex 1 of this document contains some explanations on this subject.

5.2.2 *Lack of technical revisers and editing staff in the Secretariat*

To date the C.C.I.T.T. Secretariat, in contrast to the C.C.I.R., has no technical revisers and editors at its disposal. Unless they are provided, and notwithstanding the possible issue of the Volumes of the C.C.I.T.T. Book within a year after a Plenary Assembly in one language, it will not be possible in any case for the Volumes in the other two languages to be ready within the time-limit. In the course of a study period, ordinary contributions are either published without technical revision or delayed until an engineer is available for their revision. For lack of editing staff, another important task, the re-editing of the "List of definitions of essential telecommunication terms", has fallen behind. As Annexes 2 and 3 to this document explain, a number of technical reviser/editors—at least four—is needed to cater for the foreseeable work.

5.3 The question of whether to make a considerable increase in the means available to the C.C.I.T.T. and its Secretariat and to see that its relative share of the I.T.U. budget is higher than the present modest figure is a matter of I.T.U. general policy which will depend mainly on the Plenipotentiary Conference and which goes beyond the management decisions of the Administrative Council.

5.4 It happens that this present Plenary Assembly, unlike most of the others, is being held only a short time before a Plenipotentiary Conference (Torremolinos, September 1973), so that it has a special responsibility for the future of the C.C.I.T.T. within the studies being undertaken about the future of the I.T.U.

It will be up to the Plenary Assembly to decide whether it wishes to express an opinion to the Plenipotentiary Conference and, if so, whether it should be expressed:

- as an Opinion of a general nature
- by means of a report, which would be drafted by a few well-known and representative persons duly designated by the Assembly.

E. HUMMEL

ANNEX 1

Working procedures at meetings

1. Background

The working methods of the C.C.I.T.T. are described in the various editions of Resolution No. 1; it is also useful to know about the discussions which led to the drafting and amending of that Resolution (see Volume I of the *Red Book*, pages 77-86; Volume I *bis* of the *Red Book*, pages 141-148; Volume I of the *Blue Book*, pages 140-152 and 184 to 191; Volume I of the *White Book*, pages 117 to 126 and 167 to 175).

For an understanding of the intent that lies in the wording of these texts, it is particularly helpful to examine the extracts (reproduced in Volume I of the *Red Book*, pages 82 to 86), taken from the report on the Meeting of Chairmen and Vice-Chairmen which proposed working methods for the C.C.I.T.T. when the C.C.I.F. and the C.C.I.T. were merged in 1956. The following passages are particularly noteworthy:

Pages 83-84, paragraph 1.5

"1.5 The meeting feels that measures tending to lighten the burden on Chairmen should be taken, because Chairmen generally have very onerous duties in their national Administrations. Moreover, it is only reasonable that a specialized secretariat staff of Union officials should take over the task of drawing up reports, rather than a national official who must do so without any kind of remuneration. The same applies to the 'Rapporteurs de séance' whose services are called upon at meetings of C.C.I.T. Study Groups."

Page 84, paragraph 1.7

"1.7 The distribution of Study Group meetings over the period between two Plenary Assemblies will make it easier to send an official from the C.C.I.T.T. Secretariat to these (Study Group) meetings..."

Another consideration is the desire to keep the time spent by delegates at meetings to a strict minimum and hence to reduce the expenditure of Administrations even if, in so doing, the costs borne by the I.T.U. budget are increased. This concern has always been felt, but it appears very clearly in the latest version of Resolution No. 1 (*White Book*, Volume I, page 172, paragraph III.4(b)), which provides that a draft working plan indicating the questions to be studied *from day to day*¹ must be sent to delegates one month before each meeting.

2. Grouping of meetings

The method applied by the C.C.I.R. and whose salient features are summarized below, is quite the opposite of present C.C.I.T.T. methods.

Besides the meetings immediately preceding a Plenary Assembly, each Study Group holds one single "interim meeting" in the three years between two Plenary Assemblies. Several Study Group meetings are grouped together.

¹ Words omitted in the original official translation into English.

At the beginning of each meeting, each Study Group divides into Working Parties and each Working Party into Sub-Groups in which there are specialists capable of taking an active part in the work on each subject. The meetings of the Sub-Groups are arranged so that a delegate can follow the work of several Sub-Groups but so that one or two days elapse between the meetings of the same Sub-Group enabling reports to be drafted between sessions to permit completely finished texts to be submitted to each Study Group before the close of the meeting.

It is clear that with this system the difficulties referred to above in connection with present C.C.I.T.T. methods are avoided. However, experience shows that it has certain defects.

a) The meetings are expensive. This is mainly because of the large number of Sub-Groups (often 12 or 16 per Study Group) and the liberal provision of interpretation services.

The organization of such groups of meetings is onerous, moreover, and in recent years they have rarely been invited outside Geneva.

b) It is materially impossible for the Secretariat to follow the work of all of the Sub-Groups, and the texts that will constitute the reports on the meetings must necessarily be written by some of the delegates. This is a heavy burden on the delegates concerned, who must devote themselves entirely to the work of the meeting for several weeks. Other delegates, on the other hand, are absent from their home countries for the same period, even though they are interested only in a small number of the subjects dealt with. This system, therefore, quite fails to meet the requirement to make the best use of delegates' time.

However, it has to be noted that some Administrations of countries far from Geneva prefer to send delegates for several weeks at a time rather than several times in the same year for short meetings.

c) Because texts are drafted by many delegates, they must all be reviewed by an Editing Committee or by Editing Groups which further complicates the organization.

d) The preparation of a group of meetings requires the production of an enormous quantity of documents in a few months so that the Common Services are overburdened and the work of other I.T.U. organs suffers considerably.

3. Studies by correspondence

The preliminary study of a question by correspondence, which has to be co-ordinated by a Special Rapporteur, is a most commendable practice which has proved effective, but it still leaves some difficulties. If a question of very wide interest (for example, the standardization of p.c.m. systems) is to be dealt with in this way, the Special Rapporteur and his correspondents in fact, soon become a working party which needs to hold a meeting for which it asks the Secretariat to arrange for translation and publication of the contributions from Administrations. Whatever methods are finally adopted, this practice ought to be maintained though its limitations will have to be recognized.

4. A possible compromise

As mentioned above, it has become impossible to continue to apply existing methods without substantially increasing the engineers' staff of the Secretariat. However, we do not propose to go to the other extreme which would be to adopt the methods of the C.C.I.R., for these also have their disadvantages.

The following procedure seems to be a reasonable compromise in view of the conflicting requirements.

a) The number of meetings during a study period held by a Study Group including meetings of its Working Parties should not exceed two or three, including the final meeting of the Study Group for approval of the Preliminary Report.

Meetings of Joint Working Parties and Working Parties will have at their disposal translation and consecutive interpretation from all working languages into the one language chosen by the meeting, but not vice versa, however. This method is all the more commendable as enquiries made of delegates at meetings have revealed that some, having an expert knowledge of the technique but only a fair knowledge of the language of a particular speaker, prefer to listen to the speaker direct rather than to the interpreter.

This rule will also be applied to Study Group meetings if so decided by the Study Group at the beginning of a study period.

b) The meetings of Study Groups with common interests should be held at the same time, appropriately interspersed, but it is absolutely essential to limit the number of temporary Working Parties and Sub-Groups. For this purpose the Secretariat must play an active role in the preparation of the meetings (which will be possible if there are not too many) and should study in advance, in conjunction with the Chairmen, the temporary Working Parties to be set up during each meeting.

c) It will thus be necessary to prepare the overall timetable of these groups of meetings a long time in advance. If the rapid development of technique or the activities of other organizations require the discussion of an important and urgent problem at a time other than the one scheduled, a small meeting could be organized to prepare the solution to that problem.

d) It will be necessary to make provision for overtime in the Common Services (translation, typing, reproduction) for those Study Group meetings which enjoy full translation and interpretation facilities and especially for the grouped meetings. The resultant necessary increase in the meetings budget will depend directly upon the number of meetings working in all three languages; a provisional forecast of 20% of the total might be taken as a basis for the next few years.

e) So that documents can be issued promptly during meetings, delegates should assist more actively in drafting than they do with present working methods, but the Secretariat should be able to co-ordinate the work sufficiently to dispense with the need for editing groups (as distinct from drafting groups) during the meetings. To this end, and as a general rule, drafting groups might be established at each meeting which are responsible for drafting a summary of the reasons that lead to the decisions by the Study Group or Working Party.

ANNEX 2

Setting-up a group of technical revisers in the C.C.I.T.T. Secretariat

The working methods of the C.C.I.T.T. are such that reports of meetings and the draft wording of recommendations are drawn up by the C.C.I.T.T. Secretariat. The technical staff in the Secretariat (excluding the Laboratory) are of various nationalities and their distribution by mother tongue is as follows:

French	5
English	2
Spanish	1
Japanese	2
German	1
Italian	1
Afghan	1

Thus eight members of the Secretariat can write their texts in one of the working languages, using their mother tongue, but five have to write in a foreign language. Thus, linguistic revision of texts within the Secretariat is desirable to bring all publications into the same shape. One might consider this as the price for the multi-national and multi-lingual structure towards which the Secretariat of the C.C.I.T.T. has been developing during the past years.

Systematic revision of texts received from Administrations, though often desirable, is at present not practical, due to lack of time. Purely linguistic revision could, in theory, be carried out by the I.T.U. language service, but the revisers are already heavily overloaded and are unable even now to revise all the translation work that they are called upon to do. In any case, for technical documents, "purely linguistic" revision is a notion that has little meaning, since it is rare for a text to be incomprehensible if the correct terminology is used. On the other hand, a document using the correct technical terminology can often be allowed to pass for study purposes, even though the

language is not grammatically correct. Texts for publication require a higher linguistic standard, and the technical terminology needs to be examined in order to eliminate incomprehensible jargon. This elimination can only be achieved by a technical reviser who is competent in the technique concerned. Linguistic revision and revision of technical terminology need revisers having as their mother tongue the language of the text to be revised.

Modern technology is such that the technical terminology of one discipline may be meaningless to one who is not expert in that discipline, and the field is constantly narrowing as techniques progress. This fact is already well known and amply demonstrated in interpretation. The difficulty of ensuring the correct technical terminology is more noticeable in the case of printed texts since the reader may have no one to whom he can quickly turn for explanation of a passage that seems to him unclear or ambiguous. Such are the difficulties encountered that in a recent particular case in the C.C.I.T.T., during meetings concerned with the testing of television circuits—a field normally outside the range of C.C.I.T.T. activities—delegates decided to work in English only and, in this particular case, the C.C.I.T.T. Secretariat had to ask for a delegate to do the Secretary's job because of the specialized nature of the terminology.

This preamble shows that technical documents and publications need expert revision of technical terminology, which may, in the event, be more important than linguistic revision. The degree of specialization that the technical revisers need is such that only very few would be able to deal satisfactorily with texts concerning different disciplines (C.C.I.R. and C.C.I.T.T.) and even then only after long experience.

Technical revisers of adequate competence will in any case be difficult to find. Their mother tongue must be that of the text they are revising. They must have an excellent knowledge of the working language they are revising from. They must have a sufficient knowledge of the technique concerned. And finally they must be conscientious in the performance of their work.

These reasons appear fully to justify the employment of a group of technical revisers in the C.C.I.T.T. Secretariat. They will not be perfect, and they will need, on occasion, to refer to the particular section of the C.C.I.T.T. Secretariat responsible for the Study Group concerned. Easy and rapid contact is necessary to avoid delay, and for various reasons telephone contact alone would not be adequate. (Reference to other documents, context of doubtful phrases, reference to other branches of C.C.I.T.T. activities.)

Similar proposals for a group of revisers in the C.C.I.T.T. Secretariat have been made in the past. So far as is known, a similar analysis of their functions has not previously been put on paper. A realization of the amount of work that is or ought to be done leads to the belief that such revisers would not often be unoccupied provided their linguistic abilities were related to the amount of work to be done in three working languages. This inevitably means at least one reviser for each language.

Assuming that suitable staff can be found, they will need to gain experience before they can become fully effective. They are not likely to be appointed before the end of 1973 and they would, probably, in that case only reach their full effectiveness around the time of the VIth Plenary Assembly.

(Note : The question of grading has not been touched upon, but will have to be examined. It might be so difficult to find suitable personnel that nothing but a relatively high grading would be sufficiently attractive.)

ANNEX 3

Estimate of the number of revisers of technical terminology required in the C.C.I.T.T.

1. Preparation of the C.C.I.T.T. Books

1.1 Objective

The Team of Experts on organization (Document AP V/3, pages 11 and 12) recalled that, in accordance with the request of the IVth Plenary Assembly, the time taken to publish the Books after the Vth Plenary Assembly should not be more than one year. The Team concluded that this objective could not be achieved with the current methods and resources of the C.C.I.T.T. and that additional means would be necessary.

According to a study made in 1970 by the I.T.U. General Secretariat, six months must be allowed for the printing, binding and despatch of Books so that, if the one-year time limit is to be respected, the C.C.I.T.T. Secretariat must prepare the manuscripts in six months at the most.

1.2 *Preparation of the White Book in 1969*

A study by sampling, based on some typical examples, was made of the dates by which the C.C.I.T.T. Secretariat furnished manuscripts during a period when there were few meetings and when preparation of the manuscripts represented the major part of its work.

It appeared that the rate of production was relatively slow in the beginning for new or completely revised texts which were the most urgent. Moreover, part of the texts prepared in one language by a C.C.I.T.T. official first had to be translated from another language; this considerably held up the preparation of certain texts, which were issued at a much faster rate in the last few months.

For this reason, and because of the size of the C.C.I.T.T. Secretariat (which was insufficient at that time), much more than six months were necessary to prepare all of the manuscripts. However, it is possible to calculate the average number of pages of new text prepared per month per official in the professional category (Counsellor or Engineer) who worked on the *White Book*. The average for an engineer is about 50 printed pages per month for the preparation of a text in one language and for a reviser about three times that number for the subsequent revision of the same text translated into another language.

The calculation does not take account of the time taken to get the manuscripts ready for the printer, as it is very difficult to separate this from delays due to various causes. Examination of specific cases shows that this time is not very great when the editors and proofreaders (who are the ones who do this work) are available.

This average does not represent the output of any particular official; in particular, the Counsellors do different work from their engineers-assistants and some of their time is taken up by administrative duties even when the Books are being prepared. Nevertheless, the overall average may be used to assess the staff necessary to prepare the manuscripts within a given time, assuming that no time is lost to other areas.

1.3 *Action proposed*

The *White Book* consists of about 4,000 pages per language. There will be an increase by approximately 1,000 pages of new text after the next Plenary Assembly, the amended texts will be of the order of 1,200 pages. It may happen that other documents, which are not issued regularly, will have to be prepared at the same time as the Plenary Assembly Book (as happened in 1969 when the GAS 3 Handbook was published). If allowance is made for approximately 3,000 new and amended pages per language, with the present staff of the Secretariat (11 Counsellors or Engineers working on the Book), it will be just possible to get the texts ready in one language in six months assuming that no time is lost waiting for translations.

To respect the six months' time-limit for one language and to ensure that the texts in the other languages follow soon after, it is essential that revisers of technical terminology be made available full time to the Secretariat while the manuscripts are being prepared. The editing of the Book in all three languages (lay-out of the Book, supervision of the printer) would be a further, very important task of the reviser-editors.

By way of comparison, three technical editors (one per language) in the C.C.I.R. have dealt with 3,270 pages (in each language) of texts already adopted by the Plenary Assembly and in more or less final form. The C.C.I.T.T. should therefore have at least four technical revisers.

As a cross-check, taking the overall averages mentioned in paragraph 1.2, the preparation of 3,000 pages of manuscript in six months would require

$$\frac{3000}{6 \times 50} = 10 \text{ persons per language}$$

$$\frac{2 \times 3000}{6 \times 150} = 6 \text{ other people for the other two languages}$$

amounting to 16 people in all as against the 15 envisaged. The margin of uncertainty in these approximate calculations is thus comparable to the workload for one reviser. This overload could be taken over by the two engineers of the Plan Division who are included in Annex 2 but not for this work since they must give priority to the Plan Books.

2. Technical revision of documents

As indicated in Annex 2, it is also advisable for technical revisers to be available outside the period devoted to preparing the manuscripts for printing. A rough estimate shows that in four years the C.C.I.T.T. has published about 34,000 pages of contributions (white documents) per language. If we deduct the documents counted twice (distribution to more than one Study Group), we arrive at about 6,000 pages per year per language.

Given the estimates in paragraph 1.3, the work of revision in two languages requires:

$$\frac{2 \times 6000}{12 \times 150} = 6 \text{ revisers}$$

it being understood that during this time the engineers will be occupied with the preparation and holding of meetings and with drafting reports in one language.

3. Conclusion

The C.C.I.T.T. Secretariat would require at least four permanent technical revisers in order to publish the books in the required time-limits and to carry out satisfactorily the work connected with meetings.

REPORT BY COMMITTEE B

PROGRAMME OF WORK OF STUDY GROUPS

(as amended and approved by the Vth Plenary Assembly on 14 December 1972)

Terms of reference

The terms of reference assigned to Committee B by the Plenary Assembly (Document AP V-Temp. 1/PLEN. (Rev.)) were as follows:

Detailed allocation of questions submitted to the Vth Plenary Assembly by the various Study Groups, Joint Study Groups, Special Study Groups, Special Autonomous Working Parties and Joint Working Parties.

List of Questions

See Annex 3, together with the comments in Annex 2.

General

1. A question is considered urgent if special steps have to be taken to enable its study to be completed before the next Plenary Assembly. These questions are marked with an asterisk (*).
2. The Committee did not consider it necessary to mention the internal Working Parties of the Study Groups and it merely indicated when Joint Working Parties ought to be set up to study certain questions.
3. It was felt to be impracticable to mention all the Study Groups concerned in the work on each of the Questions of Special Study Group D (Pulse code modulation). It would be desirable for the Chairman appointed to head Special Study Group D to agree with the other chairmen on establishing liaison with the Study Groups concerned as work progresses. In particular, the work on the integration of services in digital networks must be co-ordinated in this fashion under Question 1/D.
4. Committee B proposes in Annex 1 to entrust the study of various questions to Joint Working Parties existing or to be set up. It proposes disbanding the ALP, TGX, FT 6, PFP, PAR and TER Working Parties.
5. It must be well understood that, when no Joint Working Party is set up, the main purpose of indicating the various Study Groups interested in the examination of the questions is to inform the members of the Study Group to which the question is assigned so that they may ensure the necessary co-ordination within the framework of their national Administrations.
6. For all questions dealing with definitions, it is understood that the results of the work must be communicated to the new Joint C.C.I.R./C.C.I.T.T. Study Group on vocabulary. At the same time, the draft definitions of the C.C.I.T.T. will be published in the C.C.I.T.T. book as an interim measure.

7. Committee B proposes that "reliability rapporteurs" be appointed, each of whom must be familiar with the work of one of the C.C.I.T.T. Study Groups I, II, IV, VI, IX, XIII, XIV, XV, Special A and Special D, C.C.I.R. Study Groups 4 and 9 and the CMTT.

These rapporteurs would work mainly by correspondence and should take part (so far as reliability problems are concerned) in the work of Special Joint Study Group C, which would continue to act as general co-ordinator with regard to Question 12/C. They should be appointed by the Study Groups concerned at the beginning of the next period.

8. Committee B expressed the view that in the next period the Study Group should prepare the texts of their questions for the VIth Plenary Assembly in a more standard form. In particular, questions containing a large number of points should be avoided; the points should be framed as separate questions as far as possible.

9. No subjects for study were assigned to GAS 4. The subjects assigned to GAS 3 and GAS 5 for study are those contained in their reports, with any additions approved by the Plenary Assembly.

ANNEX 1

Joint working parties

(see Part III of this volume)

ANNEX 2

Comments on the study of certain questions and revised texts

Question 9/III

Study Group III will be able to examine this question when SG VII has furnished information on the technical characteristics of the networks envisaged.

Question 13/V

A reference to Question 4/XVI should be inserted in the text of this question, and vice versa.

Question 21/V

Concerns Study Group XV, but there is no need to maintain the PFP Working Party.

Questions 22/V and 14/VI

To be examined by GM CDF.

Question 7/VI

Documentary question, the study of which should lead to the preparation of a handbook.

Question 8/VI

To be examined in connection with the corresponding point in Question 23/XV.

Question 9/VIII

Concerns Study Groups I (Question 6/I) and Special A (point C of Question 1/A); however, it is proposed to discontinue GM ALP.

Questions 1, 2, 4 and 24/IX

Each of these questions must first be examined by Study Group IX, whose reply will be transmitted to GM LTG.

Question 2/IX

Constitutes a special aspect of Question 27/XV.

Question 22/IX (identical with Question 11/X)

To be examined by GM MAT; Study Group VIII no longer has to take part in this Joint Working Party.

Question 6/XI

Documentary Question.

Question 2/XI (identical with Question 2/XIII)

To be examined jointly by Study Groups XI and XIII.

Questions 5/XII and 8/XVI

Should have identical texts with the following title:

"Question 5/XII (8/XVI) – Hourly noise clause

(New question, linked with Question 4/C; the result of the study to be transmitted to Special Joint Study Group C)"

Question 2/XIII

See 2/XI.

Question 14/XIII

See hereafter the new text under the title Question 14/XIII (former Question B/D).

Question 11/XIII

The results of the study to be transmitted to Study Group XVI.

Questions 3, 5 and 9/XIV

Concern GM LTG (to which the results of the study should be transmitted).

Question 6/XIV

To be examined by GM LTG.

Former Question 18/XV

This question was deleted from those assigned to Study Group XV. The Plenary Assembly approved the study by GAS 3 of systems with a small number of channels over cable with a view to supplementing the Handbook "Economic and technical aspects of the choice of transmission systems".

Questions 6/XV and 27/XV

Concern Special Joint Study Group C.

Questions 25, 26, 28, 29, 24, 27 and 30/XV

To be examined by GM LTG.

Questions M/XV and R/XV (former numbering)

Questions M/XV and R/XV proposed in Document AP V-No. 114 have been replaced by a single Question 21/XV (13/D) the text of which is given in Annex 4. This question will be examined by the new GM CNC (Joint Working Party of Special Study Group D, the controlling Study Group for the period 1973–76, and Study Group XV) which Committee B proposes to set up.

Question 23/XV

To be examined by the Joint Working Party already set up by Study Group XV (controlling Study Group) and Special Study Group D, which Committee B proposes to confirm as GM SGO. A reference to Question 8/VI will be introduced.

Question 5/XVI

To be examined in collaboration with Special Joint Study Group C.

Question 6/XVI

To be examined in collaboration with Study Group II.

Question 8/XVI

See Question 5/XII.

Question 1/A

Point F proposed in the report of Special Study Group A has been transferred to Study Group X. Point H and Part 2 of Point AG are dealt with in the programme of SG VII and should be deleted from Question 1/A.

Point J—to be examined by GM LTG.

Points Z and AG—concern GM LTG.

Question 1/C

To be examined in liaison with the work of GM LTG.

Question 2/C

See General Remark No. 7 above.

Question 9/C (former numbering : Question A/C)

Delete Part a) of this Question; only Part b) will be examined as a documentary question.

Questions of Special Study Group D

See General Remark No. 3 above.

Questions 8/D and 13/D

In view of the proposals concerning Question 22/XV, Committee B proposes the following wording:

“Question 8/D—Digital transmission systems over radio-relay and satellite paths.

(Continuation of Question 8/D studied in 1968–1972).

“What characteristics are to be recommended for digital transmission systems set up on the following types of path:

“a) terrestrial radio relay;

“b) communication satellites?

“Note 1—For each type of path, study will need to be co-ordinated between C.C.I.T.T. and C.C.I.R.

“Note 2—This question should be studied in conjunction with Questions 1/D, 7/D, 9/D and 13/D. In studying part b), note should also be taken of Question 5/D.

“Note 3—Part b) will also need to be studied in relation with Question 9/D. The interface between terrestrial and satellite digital systems will require particular study in view of the satellite system's point-to-multipoint transmission characteristics and the PCM techniques envisaged to provide satellite multiple access.

“Note 4—GM SGO is studying waveguide systems under Question 23/XV.

“Note 5—Special Study Group D should co-ordinate the study of points A to E of Question 13/D (22/XV) for all types of digital paths.”

*Question 13/D (22/XV)—Digital transmission systems over cable**Question A/D (former numbering)*

There is no point in retaining Question A/D; it will be sufficient to add at the end of the Note to the new text of Question 35/XV (Document AP V-No. 114, page 69) after “PCM systems” “... conforming to Recommendations G.711 and G.712”.

Question B/D (former numbering)

The text of Question B/D (to be examined by Study Group XIII) has been replaced by the following:

“Question 14/XIII—Grade of service and blocking characteristics in digital exchanges

“(New Question)

“Considering

— that digital exchanges appear to be capable of economically providing a very low internal blocking probability, which would not exert a significant influence on the end-to-end blocking probability in a digital network;

— that the internal blocking probabilities associated with contemporary analogue exchanges do influence the end-to-end blocking probability of present networks;

“the following Question should be studied:

“a) what recommendation can be made for the internal blocking probability which should be the design aim for digital exchanges in a digital network?

“b) would this internal blocking probability be varied for digital exchanges which interwork with analogue exchanges in a mixed analogue/digital network?”

Question 1/VII

Points H and I—concern also Study Group X.

Point S—concerns also Study Groups IX and Special D.

ANNEX 3 (for memory)

List of questions to be examined by study groups during the period 1973–1976

(see Part III of this volume)

ANNEX 4 (for memory)

Proposed new question for new joint working party on digital paths over cable

(see Part III of this volume)

REPORT BY COMMITTEE C

BUDGET CONTROL

(as approved by the Vth Plenary Assembly on 15 December 1972)

1. General and terms of reference of Committee C

The Chairman of Committee C was Mr. M. Ghazal (Lebanon) who was assisted by Mr. N'D. Cisse (Senegal), Vice-Chairman.

At two meetings held on 12 and 14 December 1972, Committee C considered Document AP V-No. 10 containing the report to the Vth Plenary Assembly by the Senior Counsellor, Acting Director, on the financial needs of the C.C.I.T.T.

The terms of reference assigned to Committee C by the Vth Plenary Assembly are as set out on page 2 of the above-mentioned report and are defined in Rule 5 of the Rules of Procedure of Conferences, Nos. 674 to 676 of the General Regulations annexed to the Convention, Montreux, 1965.

The terms of reference are as follows:

- 1) to determine the organization and the facilities to be made available to the participants in the Plenary Assembly;
- 2) to examine and approve the accounts for expenditure incurred during the Plenary Assembly;
- 3) to submit to the Plenary Assembly, first an interim statement, and then, at the last meeting, a final report showing as accurately as possible the total expenditure of the Assembly; the report must then be transmitted, together with the observations of the Assembly, to the Secretary-General for submission to the Administrative Council.

The above-mentioned points of Committee C's terms of reference are dealt with in Sections 2 to 4 below.

2. Appraisal of the organization and facilities made available to participants in the Vth Plenary Assembly

Mr. WOLF, Administrative Officer of the C.C.I.T.T., recalled why it had been necessary to hold the Plenary Assembly in the Maison des Congrès. The building, which had been used for more than twenty years by C.C.I.T.T. delegates and, prior to 1956, by the C.C.I.F. and C.C.I.T., had been built in 1932 as temporary accommodation for important international meetings. The building would be demolished very shortly as soon as the large Geneva International Conference Centre opposite I.T.U. headquarters had been inaugurated, but unfortunately the Maison des Congrès in Place de Chateaubriand had been the only building available for the Vth Plenary Assembly. Those rather small and austere premises it offered should be improved upon in future when other Plenary Assemblies were held in Geneva, particularly in view of the facilities available in the new extension to the I.T.U. headquarters building.

Committee C took note of the difficulties encountered in finding premises for the present Plenary Assembly. It expressed the hope that future Plenary Assemblies of the C.C.I.T.T. would be held in more

comfortable, less bare premises. As the use of such premises would probably entail an increase in the credits for the rental of meeting rooms, due allowance should be made in the budget estimates for the C.C.I.T.T. to be submitted to the Plenipotentiary Conference to be held at Torremolinos in 1973.

Committee C asked that in future:

- the simultaneous interpretation installations should be of better quality than the mobile installations provided in the Maison des Congrès (crosstalk occurred on certain channels);
- Plenary Assembly reports, especially the minutes of Plenary meetings, should be distributed more quickly, the aim being to have the minutes distributed not later than two days after the meeting.

Committee C wished to thank the Swiss Administration for the excellent organization of the international telephone, telegraph and telex facilities for use by participants free of charge.

3. Expenditure incurred during the Vth Plenary Assembly

3.1 An account of this expenditure, with reference to Annexes II/2 and II/3 of Document AP V-No. 10, was submitted by Mr. Wolf, who was assisted, when necessary, by Mr. Prélaz, Chief of I.T.U. Finance Department.

The estimate of expenses as on 10 December 1972 is given in Annex 1.

The following information was furnished on this expenditure and on certain changes which it had been necessary to make in the provisional budget in Document AP V-No. 10, written on 1 July 1972.

3.2 In the estimate of expenditure in Annex 1, all costs incurred since 31 July 1972 both for the Study Group meetings immediately prior to the Plenary Assembly (three weeks of meetings, with four Study Groups always meeting at the same time) and for the Plenary Assembly itself had been included in Plenary Assembly expenditure. Also included were all the expenses incurred between 31 August and 10 December 1972 for the production of documents, particularly the costs of translating, typing, reproducing and dispatching Plenary Assembly documents.

3.3 Document production for the Plenary Assembly exceeded the provision made by the I.T.U. Administrative Council for the budget for C.C.I.T.T. meetings (Study Groups and Plenary Assembly) when it established that budget at its 1971 Session and when subsequently granting additional credits at its Session in 1972. The documents produced for the Plenary Assembly and the preparatory meetings so far amount to *13 million pages*. Another figure quoted in connection with the preparation of documents was that of 45,000 photocopies made on the machines installed in the Maison des Congrès for the C.C.I.T.T. Secretariat and for the immediate reproduction of urgent documents, particularly during the Study Group meetings.

It had thus been necessary to augment the temporary staff recruited for document production and also to have offset printing done outside the I.T.U. by Geneva firms, although the offset plates were supplied by I.T.U. The following changes should therefore be made in the summary of expenditure for the Plenary Assembly:

- a) an increase in the temporary staff listed in the "Staff for the Vth Plenary Assembly", Annex II/3 to Document AP V-No. 10, pages 13 and 14. This increase concerns the following items:

- (13) meeting room messengers
- (14) messenger/drivers
- (29) office assistants for document reproduction,

making a total of 30 additional weeks of employment contracts. These extensions of contract of 30 weeks must be judged in relation to the total estimate of 4 800 man/days for personnel recruited outside;

- b) a charge of 198 000 Swiss francs for contracts for document production placed with offset printers in Geneva.

3.4 In response to certain requests for clarification, it was explained that the expenditure mentioned under b) in point 3.3 above was entered in Annex 1 in section B opposite "Documents production". The overheads included postage which was a heavy item (283 000 Swiss francs for postage on Study Group contributions and Plenary Assembly documents sent off at the end of November).

The item "Salaries" in Annex 1 naturally include only those of staff from outside the I.T.U. specially recruited for the Plenary Assembly. Annex II/3 gave the breakdown of such staff in table form. The 4th and 5th columns in the table showed the source of the staff:

- C.C.I.T.T.
- I.T.U. or outside.

Committee C observed that it would be preferable for the breakdown to be in three columns in future:

- C.C.I.T.T.
- from the I.T.U.
- from outside,

since the first two columns concerned staff paid from the ordinary budget of the I.T.U. which occasioned no special expenditure for the Plenary Assembly. The layout adopted in that Annex was due to uncertainty on 1 July (the date on which Document AP V-No. 10 was written) concerning the exact number of staff that could be detached from I.T.U. organs other than the C.C.I.T.T.

3.5 Committee C submits to the Plenary Assembly the table in Annex 2 summarizing expenditure on C.C.I.T.T. meetings in 1972 (Study Groups and Plenary Assembly) and showing the budget estimates for those meetings. Columns 6, 7 and 8 in the table give the breakdown of expenses between:

- (Col. 6) — Study Group meetings until 31 July 1972;
- (Col. 7) — Study Group meetings during the three weeks preceding the Plenary Assembly;
- (Col. 8) — the Plenary Assembly itself; total expenditure is shown in Column 9.

3.6 Committee C considers that in future the table in Annex 2 should give a more detailed breakdown of the item "Salaries and related expenses" and show the duties carried out by staff recruited outside the Union (interpreters, translators, typists, document reproduction staff, messengers).

3.7 Committee C, comparing the expenditure incurred for C.C.I.T.T. meetings in 1972, i.e. 2 223 000 Swiss francs, and that provided in the 1972 budget by the I.T.U. Administrative Council, i.e.:

	1 750 000	Swiss francs (last column of the table on page 8 of Document AP V-No. 10)
+	165 000	Swiss francs (additional credits voted by the Administrative Council in 1972)
	1 915 000	Swiss francs

noted that there the credits were exceeded by 308 000 Swiss francs.

3.8 Committee C noted that every effort had been made to observe the Administrative Council's instructions to exercise strict economy and remain within the budget limits it had fixed. For example, the office assistant in each of the four departments of the C.C.I.T.T. who is responsible for the documents submitted by the Study Groups (temporary documents and Plenary Assembly documents) and who acts as secretary for the department was not given any temporary help, as she was at the New Delhi Plenary Assembly in 1960, despite the fact that at this Assembly, in case of emergency, no immediate aid could

be obtained from the typing pool which, unlike in Mar del Plata at the Plenary Assembly in 1968, was working in another building.

The excess expenditure amounting to approximately 300 000 francs is attributable mainly to temporary staff for document production (roughly 100 000 francs), mailing costs and offset printing by Geneva firms (198 000 francs) (point 3.3 b)).

The Plenary Assembly will report to the Administrative Council the fact that the credits have been exceeded, pointing out that the excess is due to the mass of documents issued for the Plenary Assembly and its preparatory meetings (cost of production and also of postage). This output of documentation is a reflection of the intense activity of the C.C.I.T.T., particularly during the last year of the current study period. Finally, it should be observed that it is always difficult to fix in advance such items of expenditure as documents production, as the estimates can only be rough forecasts.

4. Final statement of expenditure of the Assembly

4.1 Reference was made by a delegation to No. 675 of the Convention which provides: "Before the budget approved by the Administrative Council for the conference or meeting is exhausted, the budget control committee, in collaboration with the secretariat of the conference or meeting, shall present an interim statement of the expenditure to the plenary meeting. The plenary meeting shall take this statement into account in considering whether the progress made is sufficient to justify a prolongation of the conference or meeting after the date when the approved budget will be exhausted." Mr. BUTLER, Deputy Secretary-General, said that the amounts paid for the Plenary Assembly had not then—by 12 December—exceeded the budget credits. The estimates in Annex 1 related to commitments to expenditure.

4.2 The final statement of expenditure of the Plenary Assembly on the day of the meeting of Committee C may be considered to be that contained in Annex 1.

4.3 Committee C noted, however, that the Senior Counsellor, Acting Director of the C.C.I.T.T., had decided that all Plenary Assembly documents (final reports of Study Groups and related documents) should be published both as Plenary Assembly documents and as contributions of the Study Groups concerned. The decision had been taken so that, after the Plenary Assembly, the members of every Study Group would receive the report of the meeting of their Study Group, held just prior to the Assembly, although the majority of Study Group members were not attending the Assembly. That procedure for publishing documents had been requested, moreover, by the United Kingdom in a Plenary Assembly document. To prevent impossible overloading of the reproduction services, it had been decided that the 1 200 or so copies required of each Study Group contribution should be reproduced in January-February 1973 and that the number of copies produced immediately should be limited strictly to what was required by the Assembly.

Committee C confirmed that the additional copies of such documents would have to be produced and distributed.

ANNEX 1

A. Expenditure incurred during the Plenary Assembly itself

	Swiss francs
Interpreters' salaries	270 000.—
Other salaries	259 000.—
Overtime	30 000.—
Insurance	17 000.—
Subsistence allowance of staff recruited outside Switzerland	4 000.—
Rental of the Maison des Congrès, including lighting, heating and watchmen	65 000.—
Transport, including hire of vehicles for liaison with I.T.U. services	8 000.—
Banner placed on the façade of the Maison des Congrès	1 000.—
Hire of dictaphones for translators	1 000.—
Documents production	85 000.—
Telephone costs (installation and charges)	5 000.—
Badges and documentation for participants	3 000.—
Office supplies	21 000.—
Postage	48 000.—
Sundry and unforeseen	14 000.—
Total . . .	831 000.—

B. Total expenditure incurred for the Plenary Assembly

(including preparatory work)

As on 10 December 1972, this total expenditure was as follows:

	Swiss francs
Salaries	808 000.—
Travel costs	17 000.—
Insurance	46 000.—
Premises, furniture, machines	75 000.—
Document production	347 000.—
Supplies and overheads, including postage	210 000.—
Technical installations	—
Sundry and unforeseen	14 000.—
Total . . .	1 517 000.—

Expenditure on meetings incurred between 1 January and 31 July 1972 amounted in round figures to 706 000 Swiss francs. If this sum is added to the total expenditure occasioned by holding the Plenary Assembly, the expenditure for 1972 as a whole amounts to 2 223 000 francs.

ANNEX 2

Statement of expenditure on C.C.I.T.T. meetings - 1972^a

(Amounts rounded off to nearest 1000 Swiss francs)

Sub-heads and items	Original budget	Revised budget	Transfers of credits	Credits available	Expenses Jan.-July	Expenses Prep. P.A. ^b	Expenses of P.A. ^b	Total expenditure
1	2	3	4	5	6	7	8	9
<i>I—Staff expenses</i>								
Salaries and related expenses	1 020 000	1 160 000	+ 77 000	1 237 000	429 000	249 000	559 000	1 237 000
Travel costs	140 000	142 000	—123 000	19 000	2 000	13 000	4 000	19 000
Insurance	15 000	16 500	+ 46 000	62 500	39 000	29 000	17 000	85 000
	1 175 000	1 318 500	—	1 318 500	470 000	291 000	580 000	1 341 000
<i>II—Premises and equipment</i>								
Premises, furniture, machines	55 000	55 000		55 000	11 000	—	75 000	86 000
Document production	235 000	242 000		242 000	93 000	262 000	85 000	440 000 ^c
Supplies and overheads	270 000	284 000		284 000	4 000	8 000	29 000	41 000
Postage					127 000	125 000	48 000	300 000 ^d
Technical installations								
Sundry and unforeseen	15 000	15 500		15 500	1 000	—	14 000	15 000
	575 000	596 500		596 500	236 000	395 000	251 000	882 000
Total, Section 8.1	1 750 000	1 915 000	—	1 915 000	706 000	686 000	831 000	2 223 000 ^e

^a Actual expenditure, commitments to expenditure and estimated expenditure until the end of 1972.^b Including the final meetings of Study Groups.^c Including 198 000 Swiss francs for the production of documents outside the Union to enable them to be distributed before the meetings began.^d This sum takes no account of the cost of dispatching the documents to be distributed in January/February 1973, at present estimated at 60 000 Swiss francs.^e I.e. actual expenditure as on 12.12.1972: 1 800 745.50.

REPORT BY COMMITTEE D TECHNICAL ASSISTANCE

(as amended and approved by the Vth Plenary Assembly on 14 December, 1972)

CONTENTS

1. Introduction
2. General discussion
3. Future of Committee D
4. Resolution No. 3 of the IVth Plenary Assembly of the C.C.I.T.T.
5. Plan committees and technical assistance
6. Opinion of the World Plan Committee

Annex 1—Technical co-operation in the I.T.U. General Secretariat

Annex 2—

1. Amendments to Resolution No. 1 (Volume I, pages 167–169) proposed to the Vth Plenary Assembly by Committee D (including the suggested terms of reference for the new Committee).
2. Resolution No. 3. Participation in C.C.I.T.T. activities. Communications submitted to Plan Committees and seminars.
3. Opinion No. 5. Examination at regional Plan meetings of certain questions outside the Plan Committee's terms of reference.
4. Resolution No. 10. Problems encountered by developing countries when implementing the Plan.

1. Introduction

Committee D (Technical Assistance) held two meetings during the Vth Plenary Assembly of the C.C.I.T.T., on the afternoon of Friday 8 December and on the morning of Tuesday 12 December. The CHAIRMAN was Mr. Aldo Santiago IRRERA (Argentina) who was assisted by Mr. Allan GRAVELL (Australia), VICE-CHAIRMAN.

The CHAIRMAN thanked the Assembly for the honour bestowed upon him and for the confidence in his country shown by his election.

2. General discussion

The CHAIRMAN pointed out that the Committee's terms of reference were sufficiently broad to permit a general discussion.

Mr. Mohamed MILI, SECRETARY-GENERAL OF THE I.T.U., reviewed the technical co-operation activities of the General Secretariat and stressed the close relations that exist between the General Secretariat and other organs of the I.T.U. in that field (see the summary of Mr. Mili's remarks in Annex 1, below).

3. Future of Committee D

3.1 In accordance with a proposal by Mr. AOUD (Morocco), a discussion was held on the advisability of retaining Committee D with its present technical assistance function at future Plenary Assemblies of the C.C.I.T.T.

The technical assistance problems with which the C.C.I.T.T. deals could be handled by other Committees of the Plenary Assembly. Moreover, given the grouping of C.C.I.T.T. Study Group meetings and the decision by the Plenary Assembly that their Chairmen and Vice-Chairmen should be more regionally representative, a larger number of countries will henceforth take a more active part in these meetings.

As was pointed out by Mr. AOUD and Mr. WALLENSTEIN (Chairman and Vice-Chairman of GAS 3) and by Mr. LONGUEUE (Chairman of GAS 5), whose views were endorsed by a number of delegates, the work of the GAS groups is so useful in that it is of interest to all countries and should not be considered merely as an aspect of technical assistance for developing countries only.

3.2 As explained in Document AP V-No. 5, point 2 (Role of the C.C.I.T.T. in technical assistance), a procedure is already laid down (in Nos. 188 and 189 and Resolution No. 28 of the Montreux Convention) for the study of national problems by the C.C.I.T.T.

In view of the above-mentioned provisions and the discussion which took place, the Committee decided to set up, under the chairmanship of Mr. Aoud, a Sub-Working Group, consisting of delegates from Argentina, Cuba, France, Malaysia, Nigeria and the United Kingdom, together with members of the C.C.I.T.T. Secretariat and the General Secretariat to draw up broad terms of reference for the new Committee which the Plenary Assembly suggests should replace Committee D at the VIth Plenary Assembly of the C.C.I.T.T. (see Annex 2 below). The exact terms of reference of the new Committee will be adopted by the VIth Plenary Assembly. It is proposed that the new Committee be called "Committee on handbooks and C.C.I.T.T. activities in connection with seminars".

4. Resolution No. 3 of the IVth Plenary Assembly of the C.C.I.T.T.

4.1 The Committee took note of the report submitted in Document AP V-No. 5, point 3, to the Plenary Assembly by the Senior Counsellor, Acting Director of the C.C.I.T.T., on the measures taken in pursuance of Resolution No. 3 (*White Book*, Volume I, page 176). The report covers the following points:

- a) Information in the Telecommunication Journal;
- b) Documentary manuals;
- c) Earthing;
- d) Technical lectures during meetings of Regional Plan Committees;
- e) Contributions and participation by Chairmen and/or members of Study Groups and members of the C.C.I.T.T. Secretariat in seminars organized by the I.T.U.;
- f) Information provided by the C.C.I.T.T. Secretariat to Administrations at their request.

4.2 In view of the information given in Document AP V-No. 5 and the experience of Administrations since the IVth Plenary Assembly, the Committee decided to examine Resolution No. 3 with a view to amending it as required. This task also was entrusted to Mr. Aoud's Sub-Working Group and its conclusions are given in Annex 2 below.

5. Plan Committees and Technical Assistance (point 4 of Document AP V-No. 5)

Committee D took note of the activity carried out under this heading pursuant to Administrative Council Resolution No. 448.

6. Opinion emitted by the World Plan Committee, Venice 1971

At Venice in 1971, the World Plan Committee emitted an opinion with a view to facilitating the solution of problems of concern to developing countries in implementing the Plan.

Committee D decided to put this World Plan Committee Opinion (Document AP V-No. 5, Annex, page 7) in the form of a C.C.I.T.T. Resolution and thus submit it for consideration by the Plenary Assembly. Mr. Aoud's Sub-Working Group undertook to draft the Resolution (see Annex 2 to this Report).

ANNEX 1

(to the Report by Committee D)

Technical Co-operation in the I.T.U. General Secretariat

The SECRETARY-GENERAL, after recalling the terms of the Convention relating to the responsibilities of the C.C.I.s with regard to technical co-operation (Nos. 152, 159, 188 and 189 and Resolutions Nos. 28 and 29 annexed to the Convention), said that the Co-ordination Committee usually met once a month and dealt with the activities of the Technical Co-operation Department at every meeting.

In 1968, furthermore, the Co-ordination Committee had decided to set up two working groups in which the four permanent organs of the Union were represented. The groups were presided over by the Chief of the Technical Co-operation Department and their responsibilities were as follows:

- a) the first selected the experts recruited for implementing projects;
- b) the second selected the equipment for training centres.

The C.C.I.T.T. had also taken part in the seminars organized by the General Secretariat, including the seminar on signalling systems held in Tunis in 1971, at which lectures had been given by Administration experts who were chairmen of C.C.I.T.T. Study Groups or Working Parties and by one of the C.C.I.T.T. counsellors. Thus, the General Secretariat had always called on the C.C.I.T.T. for assistance whenever it judged necessary.

There was no question, therefore, but that the permanent organs of the Union, and principally the C.C.I.T.T., were closely associated with the work of the Technical Co-operation Department.

The Secretary-General explained that pre-investment surveys were necessary before the plans established by the Plan Committees could be implemented and that the U.N.D.P. had recognized the necessity for financing such surveys. They were carried out by firms of consultants and followed up by regional meetings which took decisions on the execution of projects. A first meeting, for example, was held in Addis Ababa in November 1972 and a second was envisaged for May 1973 for the projects concerning the West African countries.

Similar surveys had also been undertaken in Asia and Latin America.

The Secretary-General considered that the work of the regional Plan Committees should be co-ordinated with those connected with the pre-investment surveys. The ad hoc Working Party of the Plan Committee (CHAIRMAN: Mr. BLACK, United States of America) should consider the question.

Mr. MILI announced that the Governing Council of U.N.D.P. had decided to reduce the credits granted for regional projects (pre-investment surveys, seminars); as credits for national projects were to be increased.

There would thus be fewer resources available for the organization of seminars, those responsible considering that seminars, considered in isolation, were autonomous regional projects. It might be possible to continue to organize such seminars by associating them with larger scale regional projects (such as the regional pre-investment surveys).

ANNEX 2 (for memory)

1. Amendments to Resolution No. 1 (White Book, volume I, pages 167-169) proposed to the Vth Plenary Assembly by Committee D

(These amendments are carried into the text of new Resolution No. 1, see Part II of this volume)

2. RESOLUTION No. 3

Participation in C.C.I.T.T. activities
Communications submitted to Plan Committees and seminars

(Text: see Part II of this volume)

3. OPINION No. 5

Examination at Regional Plan Meetings of certain questions
outside the Plan Committee's terms of reference

(Text: see Part II of this volume)

4. RESOLUTION No. 10

Problems encountered by Developing Countries when implementing the Plan

(Text: see Part II of this volume)

Note: Resolution based on the Opinion expressed by the World Plan Committee, Venice, 1971 (see page 7 of Doc. AP V - No. 5).

REPORT OF THE SENIOR COUNSELLOR, ACTING DIRECTOR OF THE C.C.I.T.T., TO THE Vth PLENARY ASSEMBLY ON THE ESTIMATE OF THE FINANCIAL NEEDS OF THE C.C.I.T.T.

Introduction

1. Under Chapter 17, No. 806, of the General Regulations annexed to the Convention (Montreux, 1965) it is the duty of the Director of the C.C.I.T.T. to submit for the approval of each Plenary Assembly an estimate of the financial needs of the C.C.I.T.T. up to the next Plenary Assembly. Under Chapter 12, No. 781, of the General Regulations, the Assembly approves this estimate for submission to the Administrative Council.

2. The Additional Rules of Procedure of the C.C.I.T.T., contained in Resolution No. 1 of the Mar del Plata Plenary Assembly, 1968, provide that the "Report on the Financial Needs of the Committee until the next Plenary Assembly" shall contain a summary of the accounts for the years which have elapsed since the preceding Plenary Assembly, as well as the "Estimated expenses of the C.C.I.T.T." to cover its financial requirements until the next Plenary Assembly. The summary of the accounts for preceding years is shown in Part II below and the estimated expenses of the C.C.I.T.T. in Part III.

3. Finally, No. 807 of the General Regulations states that the Director of the C.C.I.T.T. shall base the budget estimates of the C.C.I.T.T. for inclusion in the annual budget of the Union on the estimate of financial needs approved by the Plenary Assembly of the C.C.I.T.T.

4. The terms of reference of the Budget Control Committee are defined as follows in Rule 5 of the Rules of Procedure of Conferences, Nos. 674 to 676 of the General Regulations annexed to the Montreux Convention, 1965:

- to determine the organization and the facilities to be made available to the participants in the Plenary Assembly (Annexes II/2, II/3 and II/4 to this report are designed to facilitate this task);
- to examine and approve the accounts for expenditure incurred during the Plenary Assembly (at the appropriate time, this information will be given in a working document for the Budget Control Committee);
- to submit to the Plenary Assembly, first an interim statement, and then, at the last meeting, a final report showing as accurately as possible the total expenditure of the Assembly; the report must then be transmitted, together with the observations of the Assembly, to the Secretary-General for submission to the Administrative Council.

PART I

Operational expenses of the Secretariat in the years 1968 to 1971 and budget estimates for 1972

As staff expenditure depends on the number of posts approved by the Administrative Council, Annex I/1 merely gives the number of permanent officials for the years 1968 to 1972. The table clearly shows that, despite the Director's unceasing efforts to obtain more staff and despite the great increase in the work load of the Secretariat, very few new posts have been approved by the Administrative Council

since the end of the IVth Plenary Assembly. The filling of these posts and other staff changes are explained and commented on in the Report on the C.C.I.T.T. Secretariat in Document AP V-No. 3.

Since with the centralization of budget items, there is no means of distinguishing between the expenditure on staff and on general services of the different I.T.U. organs, a recapitulation of expenditure can be given only for the Laboratory Reserve Fund (Annex I/2) and for meetings; the latter, however, is given in Part II of this report.

ANNEX I/1

Permanent posts in the Secretariat and Laboratory of the C.C.I.T.T. approved by the Administrative Council

Grade	Number				
	1968	1969	1970	1971	1972
Director	1	1	1	1	1
D.1	1	1	1	2	2
P.5	3	3	3	2	2
P.4	—	—	—	1	3
P.3	8	8	10	9	7
P.2	2	2	3	3	3
P.1	3	3	2	2	2
G.7	—	—	—	1	1
G.6	1	1	1	1	2
G.5	10	11	11	10	9
G.3	1	1	1	1	1
Total	30	31	33	33	33

ANNEX I/2

Transactions in the Laboratory Reserve Fund, 1968 to 1971

	Position on 1 January	Expenditure on fitting out the Laboratory	Income from calibration tests	Interest on investments	Position on 31 December
Position of the Fund on 1 January 1968	58 471.50	8 928.55	8 050.—	305.50	57 898.45
Position on 1 January 1969	57 898.45	2 540.—	20 878.—	320.55	76 557.—
Position on 1 January 1970	76 557.—	17 672.60	18 267.—	380.55	77 531.95
Position on 1 January 1971	77 531.95	20 878.85	23 016.55	378.90	80 048.55

PART II

Expenditure on Study Group meetings and the Vth Plenary Assembly

1. The budgets for meetings held from 1969 to 1972, which were adjusted to actual needs by the Administrative Council in accordance with Protocol I annexed to the Montreux Convention, 1965, and expenditure incurred on meetings from 1969 to 1971 appear in the table in Annex II/1.

In accordance with Article 16 of the Convention (Montreux, 1965) the expenses of C.C.I.T.T. meetings are borne by all Members and Associate Members, by recognized private operating agencies and scientific and industrial organizations which took part or agreed to take part and by international organizations which are not exempted by virtue of Administrative Council Resolution No. 574 (amended). For bodies other than Members or Associate Members, the annual amount of the contributory unit as laid down by the Administrative Council is now 10 000 Swiss francs and will be increased to 12 500 Swiss francs as from 1 January 1973.

2. The organization and facilities provided for delegates to the Vth Plenary Assembly are described in Annexes II/2, II/3 and II/4. Annexes II/2 and II/3 describe respectively the premises and staff provided for the Plenary Assembly while Annex II/4 mentions the telegraph and telephone franking privileges granted by the Swiss P.T.T. Enterprise.

3. The interim statement of expenses incurred for the Plenary Assembly will be prepared as soon as I have the necessary information.

ANNEX II/1

Expenditure in the years 1969 to 1971 and budget estimates 1969 to 1972

Item	Budget 1969	Expenditure 1969	Budget 1970	Expenditure 1970	Budget 1971	Expenditure 1971	Budget ^a 1972
Number of meetings		15		45		51	47
Number of meeting days		107		258		294	260
Salaries and related expenses in accordance with Administrative Council Decision No. 356			1 177 000 ^a	1 184 528	320 000	315 212	300 000
Other salaries and related expenses	670 000	280 648			893 000	708 506	720 000
Travel costs			380 000	338 086	65 000	120 383	140 000
Insurance	20 000	3 369	15 000	63 285	15 000	59 768	15 000
Premises, furniture, machines	20 000	19 270	40 000	50 978	75 000	51 796	55 000
Documents production	120 000	49 692	180 000	118 938	125 000	200 166	235 000
Supplies and overheads	160 000	91 110 ^e	230 000	216 758 ^e	200 000	280 067 ^e	270 000
Technical installations	—	—	—	—	—	—	—
Sundry and unforeseen	10 000	546	20 000	1 394	10 000	6 969	15 000
Total	1 000 000	444 635	2 042 000	1 973 967 ^b	1 703 000	1 742 867 ^c	1 750 000

^a Including 400 000 Swiss francs for the translation of documents into Spanish in accordance with Administrative Council Decision No. 356.

^b Including 21 682 Swiss francs as participation by Canada in the costs of the Montreal meetings.

^c Including 11 202 Swiss francs as participation by the Belgian T.T. Administration in the cost of a meeting held at Brussels and 35 004 Swiss francs paid by the Italian Administration towards the cost of the World Plan Committee meeting held at Venice. Without the financial support of these two Administrations, it would have been impossible to keep total expenditure for 1971 within the limits of the credits granted by the Administrative Council.

^d Study Group meetings throughout the year and the Plenary Assembly.

^e Mainly the cost of sending out Study Group documents which amounted to: 79 592 Swiss francs in 1969, 201 233 Swiss francs in 1970, and 266 149 Swiss francs in 1971.

Annex II/2

Premises for the Vth Plenary Assembly of the C.C.I.T.T., Geneva 1972

Item	Purpose	Period of use
A. I.T.U.		
<i>Headquarters</i>		
Rooms A and CD	Study Group meetings	13 November-1 December
Until 1 December, the staff assigned to the Secretariat of Study Groups IV, V and VI of the Co-ordination Groups for Africa and Asia and of the TAF Group will work in the usual I.T.U. offices.		
B. Maison des Congrès		
<i>Meeting rooms</i>		
Room A } Room B }	S.G. meeting, P.A.	13 November-15 December
Room 5	S.G. meetings	13 November-1 December
Room 2 } Room 3 }	Meetings of Working Parties	13 November-15 December
<i>Offices</i>		
801	Senior Counsellor acting Director	13 November-15 December
802	Secretary to Senior Counsellor	13 November-15 December
803	Assistant to Senior Counsellor	13 November-15 December
805	Chairman of Plenary Assembly	1-15 December
806	2 Engineers	13 November-15 December
808	2 Engineers	4-15 December
First floor recess	Administrator, 1 Assistant	13 November-15 December
713	Administrator's assistants	13 November-15 December
711	Interpreters	13 November-15 December
Hall	Reception and Information Office	13 November-15 December
Room 4	Document distribution	13 November-15 December
705	Stocks of documents	13 November-15 December
626/627/628	Typists for language service	13 November-15 December

Item	Purpose	Period of use
<i>Offices (end)</i>		
629	2 Translators	13 November-15 December
630	2 Translators	13 November-15 December
631	2 Translators	13 November-15 December
632	1 Engineer, 1 Assistant	4-15 December
633	1 Counsellor	4-15 December
634	Working Party meetings	13 November-15 December
642	Document planning	13 November-15 December
643	2 Engineers	13 November-15 December
644	1 Counsellor	13 November-15 December
645	2 Assistants	13 November-15 December
646	1 Senior Counsellor	13 November-15 December
647	Stores	13 November-15 December
648	2 Engineers	13 November-15 December

ANNEX II/3

Staff for the Vth Plenary Assembly

Item No.	Duties	Number	Coming from		Duration of service
			C.C.I.T.T.	I.T.U. or outside	
1	Senior Counsellors	2	2		13 Nov.-15 Dec.
2	Counsellors	2	2		13 Nov.-15 Dec.
3	Engineers	9	9		13 Nov.-15 Dec.
4	Secretary	1	1		13 Nov.-15 Dec.
5	Assistants	5	5		13 Nov.-15 Dec.
6	Administrator	1	1		13 Nov.-15 Dec.
7	Administrator's assistants	2	1		13 Nov.-15 Dec.
				1	6 Nov.-20 Dec.
8	Deputy administrator	1	1		13 Nov.-15 Dec.
9	Planning assistants	2		2	6 Nov.-15 Dec.
10	Assistants for registration of delegates	3	1		13 Nov.-15 Dec.
				2	9 Nov.-15 Dec.
11	Office assistant for registration of delegates	2		2	13 Nov.-15 Dec.

ANNEX II/3 (continued)

Item No.	Duties	Number	Coming from		Duration of service
			C.C.I.T.T.	I.T.U. or outside	
12	Head of messengers and drivers	1	1		13 Nov.-15 Dec.
13	Meeting room messengers	4		2	13 Nov.-15 Dec.
				2	13 Nov.-15 Dec.
14	Document messengers	4		2	13 Nov.-15 Dec.
				2	13 Nov.- 1 Dec.
15	Messengers/drivers	3		2	9 Nov.-20 Dec.
				1	9 Nov.- 1 Dec.
16	Telephonist	1		1	9 Nov.-15 Dec.
17	Machines superintendent	1	1		13 Nov.-15 Dec.
18	Person in charge of printed documents	1	1		13 Nov.-15 Dec.
19	Supplies	1	1		13 Nov.-15 Dec.
20	Chief, Document Distribution	1		1	6 Nov.-20 Dec.
21	Deputy chiefs	2		2	6 Nov.-20 Dec.
22	Office assistants for documents	5		2	6 Nov.-20 Dec.
				3	13 Nov.- 1 Dec.
23	Chief, Typing Pool	1		1	13 Nov.-15 Dec.
24	Assistant chiefs	3		3	13 Nov.-15 Dec.
25	Heads of Section, F-E-S	3		3	13 Nov.-15 Dec.
26	Typists, F-E-S	24		15	13 Nov.-15 Dec.
				9	13 Nov.- 8 Dec.
27	Chief, document reproduction	1		1	13 Nov.-15 Dec.
28	Deputy chiefs	2		2	13 Nov.-15 Dec.
29	Office assistant for document reproduction	18		12	13 Nov.-15 Dec.
				6	13 Nov.- 8 Dec.
30	Translators, F-E-S	18		14	13 Nov.-15 Dec.
				4	13 Nov.- 8 Dec.
31	Typists for language service	6		3	13 Nov.-15 Dec.
				3	13 Nov.- 8 Dec.
32	Interpreters, F-E-S-R	40		20	13 Nov.-15 Dec.
				20	13 Nov.- 1 Dec.
33	Interpretation equipment operators	4		2	13 Nov.-15 Dec.
				2	13 Nov.- 1 Dec.
		174	27	147	

ANNEX II/4

Telegraph and telephone franking privileges

As in the case of all other meetings held at Union headquarters, the Swiss P.T.T. enterprise wishes to grant the telegraph and telephone franking privileges mentioned in Opinion No. 1 of the Telegraph and Telephone Conference, Geneva, 1958, to delegates and representatives.

PART III

Financial requirements of the C.C.I.T.T. until the VIth Plenary Assembly

1. *Staff requirements*

Experience during the study period 1969-72 has shown that an increase in staff of approximately 10% every four years is necessary to cope with the growing work-load of the C.C.I.T.T. Secretariat. Our activities tend to expand not only in the traditional spheres of C.C.I.T.T. work, but also, and at an even greater rate, in the field of technical assistance. It is therefore advisable to foresee, for the period 1973-76, the addition of 3 to 4 engineers' posts (grades P.3 and P.4) to reinforce the staff. This figure should be regarded as provisional only and the exact date at which a request for an increase in staff might be necessary will be dictated by the work-load experienced in future. I should be grateful, however, if the VIth Plenary Assembly would bring this provisional estimate to the attention of the Administrative Council since the Assembly, in establishing the programme for the next study period, is in the best position to judge the amount of work entailed in carrying out that programme and the consequent staff requirements of the C.C.I.T.T. The Council, in the full exercise of its sovereignty, will then be able to take this provisional estimate as a basis for its deliberations on the limit of budget expenditure for the years to come, which will be considered by the Plenipotentiary Conference in 1973.

2. *Requirements for future Study Group meetings and VIth Plenary Assembly*

It is obvious that the cost of the meetings to be held in the new period can only be accurately estimated when the Plenary Assembly has drawn up the programme of work for the period.

The provisional estimate in Annex III/1 is based on experience acquired with regard to expenditure on meetings and, for the years 1974-76, on the duration of meetings in the years 1970-72, which is the corresponding period in relation to the following Plenary Assembly. To take into account the probable increase in the volume of work, this estimate has been increased by 15%.

If the Plenary Assembly approves these credits in principle, the I.T.U. General Secretariat will be asked to propose that they should be included by the Plenipotentiary Conference in 1973 in the ceiling for expenditure on I.T.U. conferences and meetings from 1974 until the next Plenipotentiary Conference. The final allocation of annual credits is, of course, the responsibility of the Administrative Council.

ANNEX III/1

Budget of future C.C.I.T.T. meetings

(in Swiss francs)

	1973	1974	1975	1976
Salaries and related expenses in accordance with Administrative Council Decision No. 356	These expenses are now included in another section of the I.T.U. budget.			
Other salaries and related expenses	168 000	1 200 000	1 400 000	1 700 000
Travel costs	74 000	300 000 ^b	200 000 ^b	100 000 ^b
Insurance	4 000	30 000	30 000	30 000
Premises, furniture, machines	9 000	50 000	100 000	300 000
Document production	54 000	200 000	250 000	300 000
Supplies and overheads	97 000	300 000	400 000	450 000
Technical installations	—	—	—	—
Sundry and unforeseen	9 000	20 000	20 000	20 000
Total	415 000 ^a	2 100 000 ^c	2 400 000 ^c	2 900 000 ^c

^a Budget finally approved by the Administrative Council at its 27th Session, May-June 1972, authorizing a meeting of the Plan Committee for Latin America to be held in Brazil (140 000 frs.), and a study programme of eight meeting weeks at Geneva.

^b This estimate takes account of invitations already received to hold certain Plan meetings outside Geneva:

- in 1974, the Plan Committee for Asia and Oceania, in Asia, 200 000 frs.; the Plan Committee for Europe and the Mediterranean Basin, in Europe, 60 000 frs.; reserve for other meetings outside Geneva, 40 000 frs;
- in 1975, the Plan Committee for Africa, in Africa, 110 000 frs.; reserve for other meetings outside Geneva, 90 000 frs.;
- in 1976, reserve for meetings held outside Geneva, 100 000 frs.

^c On the basis of experience from 1970 to 1972 and the probable rise in costs, these estimates would permit:

- in 1974, 52 weeks of meetings;
- in 1975, 60 weeks of meetings;
- in 1976, 30 weeks of Study Group meetings and all meetings connected with the VIth Plenary Assembly.

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PART II

**RESOLUTIONS ADOPTED AND OPINIONS EXPRESSED
BY THE PLENARY ASSEMBLIES**

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RESOLUTIONS

RESOLUTION No. 1

Additional rules of procedure of the C.C.I.T.T.

(Geneva, 1956; Geneva, 1958; New Delhi, 1960; Geneva, 1964; Mar del Plata, 1968, and Geneva, 1972)

The International Telegraph and Telephone Consultative Committee,

in view of Article 14, § 6 of the International Telecommunication Convention, Montreux, 1965;

in view of Chapter 11 and Chapter 16 of the General Regulations annexed to the Montreux Convention, 1965;

decides

that as far as the International Telegraph and Telephone Consultative Committee is concerned, the General Regulations annexed to the Montreux Convention (1965) shall be amplified as follows:

I. Plenary Assembly (PA)

1. a) If the PA meets at the seat of the Union, the precise date of its meeting shall be decided by the Director of the Committee in agreement with the Secretary-General of the Union. If the PA does not meet at the seat of the Union, the exact date of the meeting shall be decided by the inviting government in agreement with the Director of the Committee.

b) The Director of the Committee shall send an invitation to participate in the meeting of the PA to all Members and Associate Members of the Union. If a recognized private operating agency is already a member of the C.C.I.T.T., the invitation will also be addressed to this recognized private operating agency. If a scientific or industrial organization is registered as participating in Study Groups of the C.C.I.T.T., the invitation will be sent to it for the preparatory meetings of these Study Groups.

If the PA does not meet at the seat of the Union, the Director shall send the above-mentioned invitation in the name of the inviting government.

c) Members of the C.C.I.T.T. which wish to participate in the meeting are required to advise the Director of the Committee, by letter or telegram, at least a month before the meeting, of the names of the delegates of Administrations and representatives of recognized private operating agencies who will attend meetings of the preparatory Study Groups and meetings of the PA (and especially of the names of the heads of their delegations) as well as the names of experts of the scientific and industrial organizations who will attend meetings of the preparatory Study Groups only. The Director of the C.C.I.T.T. shall forward this information to the Administration of the inviting government, if any.

d) The Director of the C.C.I.T.T. shall invite the Director of the C.C.I.R., the United Nations, the Specialized Agencies of the United Nations which reciprocally allow representatives of the Union to attend their conferences, and the other international organizations whose work the Administrative Council considers should be co-ordinated with the work of the Union and whose activities are similar, to attend the PA in an advisory capacity. The United Nations, the Specialized Agencies and other international organizations are required to notify the names of their observers in the same way as specified in paragraph (c) for members of the C.C.I.T.T.

2. a) Before the opening meeting of the PA, the heads of delegations shall meet:

i) to prepare the programme of work for the PA, based on proposals by the Director of the



C.C.I.T.T. This shall be submitted to the PA at its first meeting. (This programme may contain proposals for the setting-up of committees for the duration of the PA);

- ii) to designate the persons who will be proposed as Vice-Chairmen and if necessary (meeting of the PA at the seat of the Union) as Chairman of the meeting of the PA;
 - iii) to make proposals to the PA for the constitution of the "Budget Control Committee" called upon to examine the "Report on the financial needs of the Committee until the next PA and the expenses incurred by the current PA";
 - iv) to make proposals for the constitution of an Organization Committee (paragraph 4 below); and a Work Programme Committee (paragraph 5 below);
 - v) to propose to the Plenary Assembly the Constitution of a Committee on handbooks and C.C.I.T.T. activities in connection with seminars (paragraph 6 below);
 - vi) to propose to the Plenary Assembly any other Plenary Assembly Committee which the heads of delegations might deem it advisable to set up.
- b) As soon as possible after the opening of the PA, the heads of delegations shall meet:
- i) to consider the proposals of the Organization Committee concerning the constitution of Study Groups and Working Parties;
 - ii) to draw up proposals concerning the designation of Chairmen and Vice-Chairmen for Study Groups and such Working Parties as it is required to set up.

3. a) Recommendations submitted to a vote in the course of a PA shall be considered as adopted if they obtain a majority of votes; the minutes of the PA shall indicate the results of the vote without mentioning the delegations which voted for or against, unless a delegation expressly asks that its vote should be mentioned;

b) The corresponding recommendations shall also mention these results, in the form:

"The C.C.I.T.T. unanimously issues the recommendation ..." or "The C.C.I.T.T. issues, by a majority (of ... votes to ..., with ... abstentions), the recommendation ..."

c) When a country is not represented by an Administration, the representatives of the recognized private operating agencies of that country shall, as a whole, regardless of their number, be entitled to a single vote.

4. The Plenary Assembly shall set up an Organization Committee to examine the organization and working methods of the C.C.I.T.T. a Budget Control Committee, in accordance with No. 674 of the I.T.U. Convention (Montreux, 1965), to draw up the financial requirements of the C.C.I.T.T. up to the next Plenary Assembly (No. 781), and such other Committees as the Heads of Delegations may consider to be necessary.

On the basis of the proposals of the Organization Committee and the judgment on those proposals by the Heads of Delegations, the Plenary Assembly shall set up Study Groups and, where appropriate, Working Parties. It shall designate Study Group Chairmen and Vice-Chairmen and, if it so desires, Chairmen and Vice-Chairmen of such Working Parties.

5. The Plenary Assembly shall set up a work programme committee composed of:
- the Chairmen of the Study Groups and of the Working Parties set up by the PA;
 - representatives of the delegations.

This Committee shall consider the questions proposed for study by the Study Groups (or proposed for further study). It shall decide whether they are suitable for study, check that there is no duplication of questions referred to different Study Groups, assemble associated questions, and submit a report to the PA setting forth the questions which it proposes for study and making suggestions for their apportionment among the Study Groups and Working Parties.

The Work Programme Committee shall submit for approval by the PA a draft programme of Study Group and Working Party meetings for the period up to the following PA.

6. The Plenary Assembly shall set up a Committee on handbooks and C.C.I.T.T. activities in connection with seminars.

This committee shall define the policy to be adopted by the Plenary Assembly for dealing with subjects concerning planning, the establishment and management of *national* telecommunication networks which are of general interest for all countries Members of the I.T.U.

It shall make a preliminary examination of the reports on the work of the Autonomous Specialized Working Parties (GAS). It shall study the guidance to be given to these GAS for the next study period with a view to the publication of new handbooks or of new sections to existing handbooks. It shall consider the advisability of establishing new GAS.

It shall also propose to the Plenary Assembly any useful provisions concerning the manner of organizing seminars or symposia to be held in conjunction with external meetings of the C.C.I.T.T. (particularly meetings of the Regional Plan Committees) or within the framework of the United Nations Development Programme (U.N.D.P.) or the programme of other international organizations.

7. On the proposal of the Work Programme Committee, the PA shall:

- prepare the list and text of questions requiring study or further study up to the following PA;
- allocate these questions to Study Groups and Working Parties;
- decide, when a question is of interest to several Study Groups, whether:
 - to set up a Joint Working Party composed of members of the Study Groups concerned, or
 - to entrust the study to a single Study Group, the necessary co-ordination being effected within the framework of national organizations;
- set up co-ordination groups for each family of Study Groups; these groups shall be composed of the Chairmen and Vice-Chairmen of the Study Groups in the family concerned and shall carry out the necessary co-ordination for studies that are common to the Study Groups in the family;
- shall draw up, in general outline at least, a programme for the meetings to be held by Study Groups and Working Parties set up by the Assembly until such time as the Plenary Assembly meets again.

8. The Plenary Assembly should be organized so as to enable it to devote adequate time to the important administrative and organizational aspects of C.C.I.T.T. for the ensuing Plenary period. As a general rule, the following sequence is recommended:

a) The Plenary Assembly should examine reports from Study Groups and the Director, C.C.I.T.T., on activities in the previous Plenary period, deal with the approval of Recommendations and note the lists of questions appearing in these reports.

While the PA is in session, Study Group Chairmen shall hold themselves at the disposal of the PA, to supply information on matters which concern their Study Groups.

Simultaneously, the Budget Control Committee should meet to approve the budget of the current Plenary Assembly.

b) The Organization Committee should meet and prepare organizational proposals (see I.4).

c) The "Committee on handbooks and C.C.I.T.T. activities in connection with seminars" should meet simultaneously.

d) Heads of Delegations should meet (see I.2b) of the Resolution)

e) The Plenary Assembly should elect Chairmen and Vice-Chairmen for the new Plenary period.

f) The Work Programme Committee should meet and develop a draft programme of work (see I.5 of the Resolution).

g) The Budget Control Committee should meet and prepare a report proposing that the Plenary Assembly approve an estimate of the financial needs of the C.C.I.T.T. until the next Plenary Assembly, to be submitted later on to the Administrative Council of the I.T.U., as provided for in Item 781 of the General Regulations annexed to the International Telecommunication Convention.

h) The Plenary Assembly should receive and consider the reports of the Plenary Committees, and make final decisions on the recommendations submitted to it.

II. The Director

1. The Director of the C.C.I.T.T. is empowered to enter into direct contact with the Chairmen and Rapporteurs of the Study Groups and Working Parties.

2. In order that the Director and his assistants may keep up to date on technical progress, Administrations and private operating agencies (as far as circumstances permit) may authorize him to visit their installations and to obtain all necessary information; the expenses incurred in this connection are chargeable to the C.C.I.T.T.

3. The Director shall take all the necessary preparatory measures for meetings of the PA, Study Groups and Working Parties, the work of which he should co-ordinate in such a way that the meetings will produce the best results in the shortest possible time. To this end he may decide, with the agreement of the Chairmen of Study Groups or Working Parties, in the same way as the Plenary Assembly, to set up Working Parties attached to one Study Group or Joint Working Parties concerning several Study Groups for the purpose of studying a question or group of questions. He shall fix, by agreement with the Chairmen, the dates and programmes of Study Group and Working Party meetings; he groups these meetings in time according to the nature of the work and the availability of the C.C.I.T.T. Secretariat.

4. a) In his "Report on the Financial Needs of the Committee until the next PA", the Director shall communicate to the PA (for information) a summary of the accounts for the years which have elapsed since the preceding PA and the "Estimated Expenses of the C.C.I.T.T." to cover the financial requirements of the Committee until the next PA.

b) These "Estimated Expenses of the C.C.I.T.T." shall first be submitted to a preliminary examination by the "Budget Control Committee"; the Chairman of this Committee shall prepare a report on this subject for the PA. After approval, these "Estimated Expenses of the C.C.I.T.T." shall be sent by the Director of the C.C.I.T.T. to the Secretary-General of the Union, for submission to the Administrative Council.

c) After the PA, the Director shall supply the Secretary-General of the Union (for the information of the I.T.U. Administrative Council) with a list of Study Group meetings scheduled up to the time of the next Plenary Assembly, and with an estimate of the probable costs of those Study Group meetings.

d) The Director of the C.C.I.T.T. shall submit, for a preliminary examination by the "Budget Control Committee" and thereafter for approval by the PA, the account for expenditure incurred for the current PA.

5. Within the limitations of the Regulations of the Union, the Director may submit to the PA any report or proposal which he considers would help to improve the work of the C.C.I.T.T., so that the PA may decide what action to take.

In particular, the Director shall submit to the Plenary Assembly such proposals concerning the organization and terms of reference of the Study Groups, for the succeeding Plenary period, as he may consider necessary.

6. After a meeting of the PA, the Director shall supply a list of the Study Groups and Working Parties set up by the Plenary Assembly to the Administrations of Members of the Union, recognized private operating agencies and scientific or industrial organizations taking part in the Consultative Committee's activities, with an indication of the questions referred to Study Groups and Working Parties for study. He shall ask them to say what Study Groups and Working Parties they wish to take part in, and to supply the names of rapporteurs (delegates, representatives and experts) appointed to represent them.

Furthermore, he shall supply a list of Study Groups and Working Parties, as drawn up by the Plenary Assembly, to the international organizations, and ask them which Study Groups and Working Parties they wish to be represented in by observers.

7. In the interval between Plenary Assemblies, when circumstances demand it, the Director is authorized to take exceptional measures to maintain the efficiency of work of the C.C.I.T.T. within his financial authority.

III. Study Groups and Working Parties

1. Classification of Study Groups

1. a) Study Groups shall be classified as normal Study Groups, Joint C.C.I.T.T.-C.C.I.R. Study Groups, and Special Study Groups.

b) A Special Study Group shall submit any draft recommendations it draws up to the Study Groups interested before they are submitted to the PA.

c) A Joint Study Group, set up with the approval of the Plenary Assemblies of both C.C.I.s, shall submit draft recommendations to the first PA to meet after the draft recommendation has been drawn up; the draft recommendation in question would then be provisionally approved by this Plenary Assembly, pending approval by the Plenary Assembly of the other C.C.I.

One of the C.C.I.s shall be responsible for the management of a Joint Study Group. The C.C.I. concerned will appoint the Chairman, while the other C.C.I. will appoint the Vice-Chairman¹.

2. Registration of participants

2. a) The Administrations, recognized private operating agencies and scientific or industrial organizations shall be represented, in the Study Groups and Working Parties in whose work they wish to take part, by rapporteurs, appointed by name and chosen by them as experts qualified to collaborate in the search for technically and economically satisfactory solutions to the questions under study. However, exceptionally, registration with a Study Group, or Working Party, may be made without specifying the name of the rapporteurs concerned. International organizations shall give the names of their prospective observers.

b) To study questions of common interest to the C.C.I.T.T. and the C.C.I.R., Administrations, recognized private operating agencies and scientific or industrial organizations may also appoint rapporteurs from the C.C.I.R. to a Study Group of the C.C.I.T.T.; such an appointment does not carry with it the obligation to share in the expenses of the C.C.I.T.T.

3. Form of submission of contributions

3. a) The Administrations, the recognized private operating agencies, the scientific or industrial organizations registered with a Study Group or Working Party, Chairmen and rapporteurs shall send their contributions, relating to the studies being made, to the Director of the C.C.I.T.T.

b) These contributions shall contain comments, results of experiments or proposals designed to further the studies to which they relate.

c) Contributions should be presented in accordance with the following general directives:

- i) Contributions should be concisely drafted, avoiding any unnecessary details, tables or statistics that make no direct contribution to the reply to a question. They should be clearly written with a view to being universally understood, that is, as codified as possible, using international terminology and avoiding the technical jargon peculiar to the author's country. When a contribution deals with several questions, the questions should be separated so that the text of each question begins on a fresh sheet of paper (not on the back of a page).
- ii) A reply to any one question should not as a general rule exceed 2500 words (five pages), nor include more than three pages of figures (making eight pages in all). The reply should be

¹ At its Vth Plenary Assembly, the C.C.I.T.T.—which is responsible for the management of the Plan Committees—provisionally appointed the Vice-Chairmen of these Committees. These designations are provisional until the next Plenary Assembly of the C.C.I.R. which will elect the definitive Vice-Chairmen.

accompanied by a summary and should be followed by conclusions whenever possible, in the form of a draft Recommendation.

- iii) Documents of purely theoretical interest which are not directly related to the questions under study should not be submitted in their entirety. Short abstracts only of such articles could be sent to the C.C.I.T.T. for translation and publication.
- iv) Articles which have been or will be published in the technical press should not be submitted to the C.C.I.T.T. Short abstracts only of such articles could, however, be sent to the C.C.I.T.T. for translation and publication.
- v) Passages of an unduly commercial nature included in a contribution may be deleted by the Director of the C.C.I.T.T. in agreement with the Chairman: the author of the contribution will be advised of any such deletions.

d) Contributions should be drafted in one of the working languages of the Union and sent in four copies to the C.C.I.T.T. Secretariat; one of these copies will be sent immediately to the Chairman by the C.C.I.T.T. Secretariat.

It is recommended that a translation of contributions in another working language be sent to the C.C.I.T.T. Secretariat.

Contributions should be submitted on very white paper of A4 format, in clear black type. If the paper is not of A4 format, the text on each page should not exceed that format.

The top half of the first page should be left blank.

e) Documents which are to be studied by a Study Group or a Working Party meeting should reach the Director at least four months before the date fixed for the opening of the meeting concerned.

4. *Processing of contributions*

a) Contributions received at least four months before a meeting should be published in the normal way. That is, so far as possible, the Director shall group the documents received question by question, shall have the necessary translations made and shall send them to the members of Study Groups concerned, in the working language they desire, two months before the date laid down for the opening of the Study Group or Working Party meeting having the question concerned on its agenda.

b) If a Chairman, in agreement with the rapporteurs of his Study Group or his Working Party, states that his Study Group (or Working Party) is willing to use documents in the original working language, the Director shall send on the documents regrouped as specified in paragraph 4 a) above, without having them translated. This procedure cannot be changed during the period between two Plenary Assemblies.

c) Contributions received by the Director less than four months before the date fixed for the opening of a meeting cannot as a general rule be dealt with in accordance with the procedure outlined under 4 a) and 7 a).

d) Exceptionally, when an Administration has failed to observe this time limit, it should advise the C.C.I.T.T. Secretariat about the forthcoming late contribution and its contents. The Administration concerned should itself circulate copies of late contributions to Administrations due to attend the meeting, if the C.C.I.T.T. Secretariat is unable to do so. The Secretariat will, nevertheless, do everything in its power, with due regard to the resources of the Common Services of the I.T.U. General Secretariat, to distribute as soon as practicable any contributions received late owing to exceptional circumstances.

e) It should be for the Study Group as a whole to accept or reject discussion of such late contributions.

f) The Director of the C.C.I.T.T. should endeavour to persuade Administrations to follow the rules

already established for the presentation, form, and timing of documents as laid down in section III.3. A reminder circular from the Director should be issued whenever appropriate.

g) The Secretariat of the C.C.I.T.T. should not re-issue as white documents, late contributions which have appeared as temporary documents during a meeting, unless the Study Group so decides.

h) Some contributions of general (and not merely incidental) interest which may, for example, be of some scientific importance (measurement results), although received too late to be distributed before a meeting and accordingly issued as temporary documents, might exceptionally be distributed later as contributions.

5. *Frequency of meetings*

a) Study Groups and Working Parties shall meet in principle once in the period of time between the end of a PA and the meetings mentioned in paragraph 5 d) below. Exceptionally, extra meetings may be held, with the approval of the Director and the agreement of a majority of the Administrations represented on the Study Group or Working Party concerned.

b) Meetings of study groups with common interests or dealing with problems possessing certain affinities should, if possible, be arranged so as to enable Administrations to send one delegate or representative to cover several meetings. So far as possible, the arrangement chosen should enable the study groups meeting during the period to communicate any information they may need to one another without delay. Furthermore, it should enable specialists from all over the world in the same disciplines or related or complementary disciplines to have direct contacts with each other to the benefit of the participants themselves and of their Administrations. At the same time it should not entail repeated absences of those specialists from their countries.

c) The timetable of meetings will be prepared and brought to the knowledge of Administrations well in advance (one year) to give the latter time to study problems and submit contributions within the prescribed time-limits and to give the C.C.I.T.T. Secretariat the time to distribute those contributions. In this way the Chairmen of study groups and the delegates can so organize their work as to consider the contributions in advance, which will help to enhance the efficiency of meetings and cut down their length.

d) The final meetings of study groups towards the close of each study period shall end not later than three months before the beginning of the Plenary Assembly to enable the preparation of full and homogeneous final reports and to give the delegates to the Plenary Assembly an opportunity to study them fully.

e) The schedule of final meetings of Study Groups to meet the object stated in section 10 below shall be adjusted in the light of circumstances by the Director of the C.C.I.T.T. in co-operation with the Chairman of the Study Group in question.

f) The Director will advise all Administrations and RPOAs as to the dates of the final meetings of Study Groups by circular letter at least 3 months beforehand, in order that, among other things, the Administrations and RPOAs may submit draft questions proposed for study in the following Plenary period in accordance with Opinion No. 3.

6. *Invitations*

a) In accordance with Opinion No. 1, Study Groups and Working Parties may meet outside Geneva if invited to do so by Administrations or recognized private operating agencies of countries Members or Associate Members of the Union. Such invitations must be submitted to the Plenary Assembly and accepted by it, and shall be taken up only if they are compatible with the credits allocated to the C.C.I.T.T. by the Administrative Council.

b) The only invitations which the Director is authorized to accept without such action by the Plenary Assembly are those extended to small Working Parties by countries close to Switzerland. They may be accepted only if the chairmen concerned are in agreement and if the budgetary resources of the C.C.I.T.T. permit.

c) Invitations mentioned in a) and b) above shall be issued and accepted, and meetings outside Geneva subsequently arranged only if conditions provided for in I.T.U. Administrative Council Decision No. 304, of April 1963, can be met.

d) Should an invitation be cancelled for any reason between Plenary Assemblies, a proposal shall be made to Administrations that the meeting be convened in Geneva, in principle on the date originally planned.

7. *Preparation of meetings*

a) Before each meeting, a draft working plan listing the questions to be examined and the subject of each of them should be prepared by the Chairman, with the help of the Secretariat. This working plan should indicate the point reached in the study of each question and the documents relating to it.

The working plan should indicate which questions are to be studied on each day, but it must be regarded as subject to change in the light of the rate at which work proceeds. Chairmen shall try to follow it as far as possible.

The working plan will be sent out at least one month before the beginning of each meeting.

b) If there are insufficient contributions, no meeting at all should be scheduled. The decision whether to cancel a meeting or not will be taken by the Director of the C.C.I.T.T.

c) If, from the contributions received, it appears that there is agreement among Administrations on the lines of the reply to a question (or part of a question) the Chairman, with the assistance of the Secretariat, may submit a draft reply, possibly accompanied by a draft Recommendation.

d) If the contributions received reveal a variety of proposals or points of view, the Secretariat should, if possible, prepare a table summing up the different positions of Administrations on the question and the point reached in the study. The table should be sent to members of the Study Group, if possible in advance of the meeting.

8. *Conduct of meetings*

a) The Chairman shall direct the debates during the meeting, with the assistance of the Secretariat.

b) The Chairman is authorized to decide that there shall be no discussion on questions on which an insufficient number of contributions are received.

c) Questions which have not elicited any contribution should not be placed on the agenda of meetings and at the end of the study period should be deleted from the list of Questions.

d) Study Groups and Working Parties may set up *working teams* (which should be as small as possible) during their meetings, to study questions allocated to those particular Study Groups and Working Parties.

e) A Study Group may entrust a question or group of questions to a Working Party for preliminary study. It may, by agreement with another Study Group (or, if necessary, with other Study Groups) entrust a Joint Working Party with the study of a question or group of questions which may be of common interest to the Study Groups concerned. One of these Study Groups, known as the Controlling Study Group, shall have the final responsibility for the study. The contributions used as a basis for discussions by the Joint Working Party will be sent solely to the rapporteurs registered in the Joint Working Party; final reports only of these Joint Working Parties shall be sent to all the members of the Study Groups concerned.

f) Working parties or sub-working parties should be set up by study groups only after thorough consideration of the questions and only if a question or group of questions with points in common cannot

be settled otherwise than by specialists. Proliferation of working parties and sub-groups must be avoided as far as possible.

g) The study of questions by correspondence should be encouraged as far as practicable at least during the early stages of their study. For this purpose, a study Group or Working Party may instruct a special rapporteur, appointed in person by the Study Group or Working Party, to work alone or in collaboration with others, to make a preliminary analysis of the more complex questions and/or to draft a reply to a question for submission to the Study Group or Working Party.

When the special rapporteur works with a group of collaborators, he shall choose whatever method of work is considered most appropriate: correspondence or private meetings of the group.

The special rapporteur would then submit a report to the Study Group or Working Party for examination at the next meeting.

(For further details of the working methods for special rapporteurs, see Annex 1 to this Resolution).

h) A Study Group or a Working Party may decide that a meeting is limited to rapporteurs of Administrations and recognized private operating agencies.

9. Preparation of reports, recommendations and new questions

a) A report on the work done during a meeting shall be prepared by the Secretariat.

To assist the C.C.I.T.T. Secretariat in this task, the Study Group may arrange for some delegates to draft certain elements of the report. The Secretariat should co-ordinate this drafting work sufficiently to dispense with the need for Editing Groups (as distinct from Drafting Groups) during the meetings. To this end, and as a general rule, drafting groups might be established at each meeting which would be responsible for drafting a summary of the reasons that lead to the decisions by the Study Group or Working Party.

This report shall be submitted, if possible, for approval before the end of the meeting; otherwise it shall be submitted for approval by the Chairman of the meeting, unless the meeting declares itself satisfied by approval of the texts in accordance with 9 b) below.

b) The drafts of Recommendations and Resolutions shall be prepared by the Chairman, whenever possible with the assistance of the specialized Secretariat or temporary working teams. These texts must be approved in their final form before the meeting disbands.

c) Increased use should be made of the procedure of Resolution No. 2 (Provisional Recommendations).

d) Administrations and private operating agencies are authorized to communicate Study Group or Working Party reports and documents to any experts they consider it expedient to consult, except where the Study Group or the Working Party concerned has specifically decided that its report, or a document, is to be treated as confidential.

e) The Chairmen are requested to apply more stringently the criteria of C.C.I.T.T. Opinion No. 3 on the preliminary examination of new draft questions. Towards the close of each study period the attention of study groups should be drawn to this Opinion so that they may apply the criteria it contains when preparing proposed new Questions.

10. Final meetings of Study Groups

a) All Study Groups shall meet sufficiently in advance of the Plenary Assembly to allow the Final Report of each Study Group to reach Administrations at least one month before the Plenary Assembly (see also paragraph 5.d to 5.f).

b) On conclusion of the study of each question the study groups could appoint one or two members to prepare a text summing up the final results of the work. This document would be designed to aid the Chairman and the C.C.I.T.T. Secretariat in establishing the final report.

- c) The final report shall be the document forwarded to the Plenary Assembly.
- d) The final report of each Study Group is the responsibility of the Study Group Chairman, and shall include:
 - the final text of draft recommendations;
 - the text of provisional recommendations to be adopted by the Plenary Assembly (these will have had approval by correspondence during the study period under Resolution No. 2);
 - a summary report on the status of questions, the study of which has not concluded, and new questions the reasons for which are given as required in Opinion 3;
 - the list of questions proposed to the Plenary Assembly for the following Plenary period.

ANNEX 1

(to C.C.I.T.T. Resolution No. 1)

Rapporteurs

In Resolution No. 1, Section III 8. g) it is stated that some studies may be entrusted to a special rapporteur. According to the second paragraph of Section 8.g) full discretion is given to a group of collaborateurs chaired by a rapporteur whenever such a method of working is adopted.

However, the following indications may give a clearer idea of this method of working.

In one method, a single special rapporteur may be designated to analyze the contents of normally distributed contributions and to draw up a report, which is itself presented as a contribution, giving the results of his analysis.

In another method, a special rapporteur is appointed for the study of a single question requiring detailed consideration before decisions can be taken on it. The special rapporteur works primarily by correspondence with any other collaborators interested in the preliminary study of the question. Any Administration submitting contributions on the matter in question does so directly to the special rapporteur (with a copy, if so desired, to the C.C.I.T.T. Secretariat). The C.C.I.T.T. Secretariat and, through it, the I.T.U. Common Services are at the disposal of the special rapporteur for the translation and distribution of any document. However, the distribution of this preliminary documentation is limited to the members of the group collaborating with the special rapporteur. There often comes a time when the study cannot progress further by correspondence alone; in that case the special rapporteur may call a private meeting of his collaborators whenever he wishes.

When his work and that of the group is completed or cannot progress any farther, the special rapporteur prepares a document for submission to the study group responsible for study of the question. This document, which constitutes the report of the special rapporteur, may include a draft Recommendation, if it is possible to formulate one or, when the views expressed are too numerous and too divergent, a summary of the observations made, in which case responsibility for further study of the question reverts to the Study Group.

RESOLUTION No. 2

Provisional Recommendations

(*Mar del Plata, 1968; Geneva, 1972*)

The International Telegraph and Telephone Consultative Committee
decides that:

1. A Study Group meeting may decide that the following procedure for provisional approval be applied to a draft Recommendation. Such a decision shall be taken by unanimous agreement between the Administrations and recognized private operating agencies represented at the meeting of the Study Group.

2. As soon as possible after the relevant meeting, the C.C.I.T.T. Secretariat shall request the Administrations of countries Members of the I.T.U. to inform it within three months whether they approve the provisional adoption of the draft Recommendation concerned. The Recommendation shall be provisionally adopted if, within this time-limit, a simple majority is in favour, provided that more than half of the I.T.U. Members represented at the meeting of the Study Group which proposed the application of Resolution No. 2 had, in fact, replied. Where the RPOAs of an I.T.U. Member were the Members

at the Study Group meeting, the vote shall be in accordance with No. 789 of the I.T.U. Convention (Montreux, 1965).

3. Definitive adoption of the Recommendation will be a matter for the following Plenary Assembly.

RESOLUTION No. 3

Participation in C.C.I.T.T. activities **Communications submitted to Plan Committees and seminars** (Geneva, 1964; Mar del Plata, 1968; Geneva, 1972)

The International Telegraph and Telephone Consultative Committee

emphasizes the advantage

for countries Members of the I.T.U. of participating in C.C.I.T.T. activities by sending suitable delegations for continuing participation in Study Groups, Working Parties and Plan Committees;

decides that

certain technical papers submitted to the Plan Committees and to I.T.U. seminars should be widely disseminated. The C.C.I.T.T. may also organize seminars periodically which might give a general view of the C.C.I.T.T. organization and examine in detail selected subjects of general or special interest to the countries of a region.

RESOLUTION No. 4

Publication of C.C.I.T.T. books (Geneva, 1958; New Delhi, 1960; Geneva, 1964; Mar del Plata, 1968; Geneva, 1972)

The International Telegraph and Telephone Consultative Committee

decides that :

1. The C.C.I.T.T. Books shall be published in separate volumes according to the following plan:

Volume I — Minutes and Reports of the Plenary Assembly

Opinions and Resolutions

Recommendations on:

— the organization and working procedures of the C.C.I.T.T.

— means of expression

List of Study Groups and Questions under study

Volume II A — Telephone operation and tariffs

Volume II B — Telegraph operation and tariffs

Volume III — Line transmission

Volume IV — Line maintenance and measurements

Volume V — Telephone performance rating and telephone equipment

Volume VI — Telephone signalling and switching

Volume VII — Telegraph technique

Volume VIII — Data transmission

Volume IX — Protection.

2. Each volume (except for Volume I) will contain, for the particular subject it covers:

— the questions under study;

— the Recommendations (regional and world-wide as appropriate);

— the text of the supplements (contributions, or extracts from them, which the Study Groups, in agreement with the Director of the C.C.I.T.T., considered worth publishing owing to their interest).

Each volume may also contain definitions of the technical terms used in the Recommendations.

3. The Books should be published in the form of bound volumes and in A.4 format size.

4. When any volume becomes excessive in the number of pages, it may be divided into Parts A and B; Part A should contain the Recommendations and Part B the questions and supplements.

5. Other publications not contained in the Books, such as:

- the general plans for the development of the international network;
- the Directives for protection against the effects of power lines;
- Recommendations against corrosion;
- List of definitions (Part I);
- Instructions for the international telephone service;
- and a variety of pamphlets, the publication of which is requested by a Plenary Assembly;

will be published and re-edited, when necessary, independently of the volumes of the Book.

6. Publications issued in loose-leaf form, and which require up-dating from time to time, should in principle be amended by issuing new pages.

RESOLUTION No. 5

Numbering and lay-out of C.C.I.T.T. Recommendations

(Geneva, 1958; New Delhi, 1960; Geneva, 1964, and Geneva, 1972)

The International Telegraph and Telephone Consultative Committee

decides:

1. That all C.C.I.T.T. Recommendations shall be numbered; the number of each Recommendation shall have a letter prefix referring to the series, as well as a reference number.

2. The series of Recommendations shall be as follows:

Reference letter of the series	Scope of the series	Volume in which the Recommendation will be published
A	Organization of the work of the C.C.I.T.T.	I
B	Means of expression (definitions, vocabulary, symbols, classification)	I
D	Lease of international telecommunication circuits	II
E	Telephone operation and tariffs	II
F	Telegraph operation and tariffs	II
G	Transmission: lines, radio-relay systems, radiotelephone circuits	III
H	Utilization of lines for telegraphy and phototelegraphy	III
J	Radio and television programme transmissions	III
K	Protection against interference	IX
L	Protection against corrosion	IX
M	Maintenance of telephone circuits and carrier systems	IV
N	Maintenance for programme and television transmissions	IV
O	Specification of measuring equipment	IV
P	Telephone transmission quality. Telephone installations and local line networks	V
Q	Telephone switching and signalling	VI
R	Telegraph channels	VII
S	Alphabetical telegraph apparatus	VII
T	Facsimile telegraph apparatus	VII
U	Telegraph switching	VII
V	Data transmission	VIII
X	New data networks	VIII

3. Recommendations in one series shall be classified in sections according to subject.

4. The operative part of a Recommendation shall be preceded by a statement of the reasons that have led to the issue of the Recommendation. This will be worded, so far as possible, in an informative way, omitting the formula "considering".

RESOLUTION No. 6

Multiple Vice-Chairmanships

The Vth Plenary Assembly of the C.C.I.T.T. (Geneva, 1972) has adopted the principle of multiple Vice-Chairmanships in an attempt to broaden participation by Administrations in the work of the Study Groups and to provide the Chairmen of the more heavily loaded Study Groups with additional assistance in carrying out their work programmes.

The Vth Plenary Assembly recognized, however, that the arrangement is a novel one, that it is not clear to all whether it is in conformity with the Convention, and also that it could lead to a number of practical problems in the future.

The Vth Plenary Assembly, therefore, decides:

(a) that the application of the principle of multiple Vice-Chairmanships is experimental in character, at this stage, and is intended only for the next plenary period, so as not to prejudice the decisions of the forthcoming Plenipotentiary Conference in this respect;

(b) that the Chairmen of Study Groups, and Administrations, shall observe the efficacy of the new arrangements over the next period, and be prepared to comment on its continued suitability, or to propose alternatives, at the VIth Plenary Assembly;

(c) that the appointments of Vice-Chairmen made by the Vth Plenary Assembly in those Study Groups where there are several, are also temporary, so as to provide the VIth Plenary Assembly with the ability and flexibility to modify or even renege on the new arrangements in the light of experience;

(d) that the VIth Plenary Assembly shall give special attention to the procedure to be followed in handling nominations and in effecting the eventual selection of Study Group Chairmen and Vice-Chairmen.

RESOLUTION No. 8

Co-operation with the I.E.C. in the standardization of cables, wires and waveguides

(New Delhi, 1960; Geneva, 1964; Mar del Plata, 1968)

The International Telegraph and Telephone Consultative Committee,

considering

that the International Electrotechnical Commission has set up a new Technical Committee (T.C.46) to prepare international recommendations on cables, wires and waveguides and accessories for use in telecommunication equipment and systems using similar techniques;

that the cables intended for use in public telephone networks are not included in the terms of reference of this Committee;

that other points of the terms of reference of this Committee have not been narrowly defined and that its work in this respect should be co-ordinated with that of the C.C.I.T.T.;

that telephone and telegraph Administrations reserve the right to establish some of the specifications for wires and cables intended for internal cabling of certain telecommunication equipment whenever they consider it advisable;

instructs the Director of the C.C.I.T.T. to take any useful measures to ensure efficient liaison between the C.C.I.T.T. and I.E.C. Technical Committee 46, in accordance with the principles given below;

recommends to Member Administrations of the C.C.I.T.T. whose countries participate in the work of the I.E.C. to take an active part—each within the national Committee of the I.E.C.—in work connected with the activities of Technical Committee 46, so that the views of telegraph and telephone Administrations may be duly taken into account.

ANNEX

(to Resolution No. 8)

Principles of co-operation between the C.C.I.T.T. and I.E.C. Technical Committee 46

1. The aim of the standardization envisaged by the I.E.C. is to cut down the number of types of cables to be made, so that the price may be lowered and so that the cables made by different manufacturers will be interchangeable. This policy is analogous to that followed by the C.C.I.T.T. as regards those types of cable for which it alone is competent. The I.E.C. can study the standardization of internal cabling for use for various purposes in electronics, including telecommunications (the same principle has already been applied with regard to other items of telecommunication equipment). Nevertheless, if cables or wires standardized by the I.E.C. can be used in telegraph or telephone installations, they must not interfere with the application of C.C.I.T.T. recommendations concerning those installations. It is especially important that the electrical characteristics of the cables are compatible with C.C.I.T.T. recommendations on transmission, drawn up by Study Groups XV and XVI; certain points of design may concern Study Groups V and VI.

2. It therefore seems very desirable for the draft recommendations studied by T.C. 46 to be forwarded to the C.C.I.T.T. for examination. To simplify co-operation, the result of this examination should preferably be expressed in one of the following forms:

- a) The C.C.I.T.T. has no comment to make on this draft, or
- b) Recommendation... should be brought into line with C.C.I.T.T. recommendation..., or
- c) The C.C.I.T.T. is at present studying the point dealt with in recommendation..., which it considers as being within its terms of reference.

As a general rule, this examination should be carried out by the appropriate C.C.I.T.T. Study Group, but, since I.E.C. procedure involves time-limits that may not be exceeded (and which are sometimes rather short), the Plenary Assembly leaves it to the Director to take any appropriate practical measures.

3. The Director of the C.C.I.T.T. will continue to supply the I.E.C. with any useful documentation regarding C.C.I.T.T. work.

RESOLUTION No. 9

Work of the I.T.U. in the field of space communications

(*Mar del Plata, 1968 ; Geneva, 1972*)

The International Telegraph and Telephone Consultative Committee

aware

of the important and urgent problems raised by the integration of space communications within existing systems, which will continue to develop,

considering

that the I.T.U. and its organs are the sole bodies within the United Nations system qualified to issue recommendations relating to such integration;

that the Administrative Council of the I.T.U. has adopted Resolutions Nos. 636 and 637 concerning the role and the activities of the I.T.U. in the field of space communications;

decides

to request the Director of the C.C.I.T.T., in co-operation with the Director of the C.C.I.R., to advise the Secretary-General in his task of determining the basic direction of future work of the permanent organs of the I.T.U. in the field of space communication to ensure wider co-operation with all the Administrations and recognized private operating agencies concerned with space communications.

RESOLUTION No. 10**Problems encountered by developing countries when implementing the Plan***(Geneva, 1972)*

The International Telegraph and Telephone Consultative Committee,

considering

the complexity of the Plans prepared by the World Plan Committee and the Regional Plan Committees and their importance for world-wide telecommunications;

recognizing

that in implementing these Plans developing countries may encounter difficulties urgently requiring solution;

considering

the need for the problems of concern to developing countries to be clearly formulated by the Plan Committees;

resolves

that the importance of such problems should be given due recognition and that the requisite priority should be accorded for their solution.

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OPINIONS

OPINION No. 1

Location of C.C.I.T.T. meetings

The Special Assembly of the C.C.I.T.T. (Geneva, 1958)

express the opinion

that the holding of meetings of the C.C.I.T.T. outside Geneva is desirable in certain circumstances, in so far as these meetings remain within the possibilities of the C.C.I.T.T. budget.

The IIIrd Plenary Assembly of the C.C.I.T.T. (Geneva, 1964) and the Vth Plenary Assembly of the C.C.I.T.T. (Geneva, 1972)

express the opinion

that the invitations of the meetings would be submitted to the Plenary Assembly of the C.C.I.T.T. and provisionally be accepted by it, subject to the credits allocated to the C.C.I.T.T. which allow of honouring them;

that the inviting Administrations conform to Decision No. 304 of the 1963 session of the Administrative Council of the I.T.U.

Remark.—Text of Council Decision No. 304

The Council decided that, in view of the provisions of the Convention that all Members and Associate Members shall be entitled to participate in conferences and meetings of the Union, the Secretary-General, when drawing up an agreement with an inviting government on the arrangements to be made concerning a conference or meeting of the Union, shall include therein a clause to the effect that the inviting Administration shall apply without reservation the provisions of the Convention and shall permit the persons attending on behalf of Members and Associate Members of the Union and other bodies invited, and officials of the Union, as well as their families, to enter the country concerned and to sojourn therein throughout the duration of their function or mission in connection with the conference or meeting.

OPINION No. 2

Exchange of views on new techniques at C.C.I.T.T. meetings

The Special Assembly of the C.C.I.T.T. (Geneva, 1958)

expresses the opinion

that the Director of the C.C.I.T.T., in agreement with the Chairman of the Study Group or Sub-

Group concerned and with the consent of the inviting Administration, if there is one, should organize an exchange of views and opinions on new techniques in the telegraph and telephone field on the occasion of C.C.I.T.T. meetings;

that, in principle, the time spent on this exchange of views should not prolong the meeting by more than one day.

OPINION No. 3

Preliminary examination of new draft questions

The Vth Plenary Assembly of the C.C.I.T.T. (Geneva, 1972),

considering

that, when new draft questions are handed in just before the meetings of a Plenary Assembly, the Study Groups concerned are not always able to make a thorough study of their real object and to submit them in a clear and precise form;

that the study of these questions is often rendered difficult thereby;

expresses the opinion

that the Administrations or recognized private operating agencies which want the Plenary Assembly to set a new question for study should hand in the text of such question to the C.C.I.T.T. Secretariat at least two months before the opening date of the last meeting of the Study Group concerned preceding the Plenary Assembly;

that proposed questions should be accompanied by reasons justifying the interest of the questions, with an indication of their degree of urgency;

that Administrations should for this purpose use a form for handing in new questions based on the form annexed hereto;

that the forms received by the C.C.I.T.T. Secretariat should be circulated to the members of the Study Group (or groups) concerned so as to be received at least one month before the opening of the Study Group meeting;

that the same procedure should be used for the studies proposed by the Director of the C.C.I.T.T.;

that each Study Group should consider these new questions at its final meeting and determine that the study of the question serves a real purpose. A ranking of urgency should be assigned to the questions.

Some suggested guidelines are:

- a) The question should specify all information needed. Where possible, and if considered useful in clarifying the question, the draft of the new recommendation or an outline of the contents of the new recommendation should be included.
- b) The purpose of the questions should be clear, with indication of the kind of new recommendation desired, or of specific additions or changes in existing recommendations contemplated.
- c) A question calling for changes in existing recommendations should make clear why the existing recommendations need change with indications as to how new proposals will improve matters.
- d) A question should avoid asking individual members to make extensive tests or provide extensive statistical or other data unless this is clearly essential and likely to lead to some useful results within the Plenary Assembly study interval.
- e) A question should not be so comprehensive in scope as to discourage responses and therefore remain on the agenda for a long period of years.

ANNEX

(to Opinion No. 3)

C.C.I.T.T.

Study Group No. . . .

FORM FOR HANDING IN A NEW QUESTION

Administration ¹ of origin:

Date of handing in:

Text of question:

Type of question ²:

Reasons or experience motivating the proposed new question:

Date by which the recommendation should be issued,
and order of urgency ³:

Draft of the recommendation or outline of the contents of
the draft recommendation:

¹ Or C.C.I.T.T.² Background question, question designed to lead to a Recommendation, etc.³ The urgency will be either: short term, leading to the issue of a Recommendation by the next Plenary Assembly, or long term.

OPINION No. 4

The Vth Plenary Assembly of the C.C.I.T.T. (Geneva, 1972),

considering

that in the interest of all Administrations it is necessary for the C.C.I.T.T. volumes to be made available to the services and organizations concerned as quickly as possible so that the provisions they contain may be assimilated and applied at the earliest opportunity,

that these volumes have to be prepared under the direction of specialists highly qualified in the subject so that the texts prepared on conclusion of many years of study suffer no distortion in course of translation into the different official languages of the Union,

that with the present methods of preparing the volumes long delays in publication cannot be avoided,

that the Administrative Council at its 27th Session (1972), for budgetary reasons, did not approve the proposals of the Director of the C.C.I.T.T. to set up within the C.C.I.T.T. Secretariat a technical editing section consisting of three engineer/translators,

that in Document AP V-No. 11 submitted by the Senior Counsellor, Acting Director of the C.C.I.T.T., the recruitment is recommended of at least four technical reviser/editors to prepare the C.C.I.T.T. texts,

that accordingly, and pursuant to the recommendations of the Team of Experts on the working methods and organization of the C.C.I.T.T., the idea was envisaged that Administrations should volunteer to make qualified experts available for collaboration with the C.C.I.T.T. Specialized Secretariat in preparing the final texts of these volumes for publication,

that certain Administrations have already graciously offered their assistance in this respect but that such help may prove insufficient,

that owing to the evolution of telecommunication facilities and methods of operation, it is necessary for the C.C.I.T.T. volumes to be edited under the direction of specialists with the same standard of qualifications as those who carried out the actual studies,

takes the view

that to improve and expedite the process of publication of the C.C.I.T.T. volumes, it is necessary to reinforce the staff responsible for the editing of these volumes by a group of highly qualified specialists from different parts of the world with an excellent knowledge of the subjects dealt with and of official languages of the Union whose task it will be to see that the texts adopted by the Vth Plenary Assembly are aligned in a clear and unambiguous fashion in the working languages of the I.T.U.,

expresses the opinion

that, pending further consideration of this problem by the Administrative Council, the Secretary-General should, in consultation with the Director of the C.C.I.T.T., take such exceptional staffing measures as may be necessary to ensure publication of the C.C.I.T.T. volumes within one year, and report to the Council accordingly.

OPINION No. 5

Examination at regional Plan meetings of certain questions outside the Plan Committee's terms of reference

The Vth Plenary Assembly (Geneva, 1972),

considering

that, at meetings of the Regional Plan Committees, participating countries have often submitted Resolutions or Opinions or have requested studies on questions which do not come within the competence of the Plan Committees, as defined in Administrative Resolution No. 448, or of the C.C.I.T.T. or C.C.I.R. as laid down in the Convention (Montreux, 1965, Article 14 § 5);

that these resolutions, opinions and studies generally fall within the field of the I.F.R.B. or of the Department of Technical Co-operation in the General Secretariat;

that it is quite understandable that countries which cannot send delegates to all meetings held outside their continents should take the opportunity, when the Plan Committee meets in their continents, of submitting all requests within the province of the I.T.U. without considering whether or not they are the responsibility of a Plan Committee;

that it is important to do everything possible to satisfy these countries' desires within the limits of the statutory duties of the Consultative Committees;

requests the Administrative Council to recommend

that, when Plan meetings are held, separate meetings may be arranged, either before or after but outside the Plan meetings, in the same place and under the aegis of the competent organs of the Union

for the purpose of examining questions pertaining to the I.F.R.B. or the Technical Co-operation Department of the General Secretariat;

that the expenses incurred for the common services provided at such series of meetings should be borne by the I.T.U. budget sections in a manner to be agreed by the heads of the organs concerned.

OPINION No. 6

Resources of the C.C.I.T.T.

The Vth Plenary Assembly of the C.C.I.T.T. (Geneva, 1972),

considering

- (i) the world-wide need for improved communication among peoples;
- (ii) the development, often described as explosive, of public telecommunications¹ and the fact that investment in the telecommunication equipment required is bound to increase at the same rate;
- (iii) the large economic interest of the C.C.I.T.T. Recommendations, through the standardization they provide for the telecommunication undertakings (Administrations or private operating agencies) of the countries Members of the I.T.U.;
- (iv) the desirability of framing C.C.I.T.T. Recommendations applicable on a world scale in advance of, rather than subsequent to, agreement on regional standards;
- (v) the need for C.C.I.T.T. Recommendations approved by the Plenary Assembly to be made available promptly to Administrations;

expresses the wish that

the Plenipotentiary Conference, Torremolinos, 1973:

- (a) take into due consideration
 - the ever-increasing importance of public telecommunications¹ and their sustained growth;
 - the essential role to be played by the C.C.I.T.T. in the establishment at international level of standards for telecommunication networks, which now can be developed harmoniously only within the framework of a universal, world-wide plan;
- (b) ensure that all the necessary facilities are accorded to the C.C.I.T.T. and its Secretariat to carry out its work.

¹ Public telecommunications = telephone, telegraph, telex, data transmission.

OPINION No. 7**Appointment of Study Group Chairmen and Vice-Chairmen**

The Vth Plenary Assembly of the C.C.I.T.T. (Geneva, 1972),

recognizing

that the efficient working of study groups depends critically on the quality of their Chairmen and Vice-Chairmen and upon the time they are able to devote to adequate preparation for meetings;

noticing

that the appointment of Chairmen and Vice-Chairmen is covered by the specific and detailed provisions of No. 792 (Chapter 15) of the General Regulations annexed to the Montreux Convention, 1965;

that paragraphs 2.b) ii), 4) and 8) of C.C.I.T.T. Resolution No. 1 stipulate the procedure for the designation of Study Group Chairmen and Vice-Chairmen;

suggests

that heads of delegations should bear the spirit of the following points in mind when implementing the above-mentioned provisions:

- 1) Appointments should be made primarily on the basis of individual competence (in the technology of the Study Group concerned as well as in chairing meetings).
- 2) Chairmen who are not in direct touch with the technology of their Study Group through change of duty in their own Administration or other cause, or who find they cannot devote adequate time to the work, should not be expected to continue in office indefinitely.
- 3) Chairmen need not automatically be re-elected; it may sometimes be useful to limit the term of office of a Chairman, but there should be no hard-and-fast rule on this point.
- 4) New Vice-Chairmen of Study Groups (and, in some cases, Chairmen) may be expected to be drawn from amongst the existing Chairmen of Working Parties who have proved their competence.
- 5) Within the limits of these principles, nationals of as many countries as possible should be included in the list of office-holders, showing, if possible, a reasonable geographical balance.

PART III

LIST OF STUDY GROUPS, PLAN COMMITTEES AND WORKING PARTIES

LIST OF QUESTIONS AND ASSIGNMENT OF THESE QUESTIONS

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STUDY GROUPS

Abbreviated designation		Title	Chairman	Vice-Chairman
COM I	Study Group I	Telegraph operation and tariff (including telex)	Mr. S. R. V. PARAMOR (United Kingdom)	Mr. A. SCHWALL (Germany, F. R. of)
COM II	Study Group II	Telephone operation and tariffs	Mr. R. RÜTSCHI (Switzerland)	Mr. D. WARNER (United States)
COM III	Study Group III	General tariff principles; lease of telecommunication circuits	Mr. L. BURTZ (France)	Mr. M. KOJIMA (Japan) Mr. A. E. SCHWAMBERGER (United States)
COM IV	Study Group IV	Transmission maintenance of international lines, circuits and chains of circuits	Mr. J. KIIL (Denmark)	Mr. B. GREJCZ (Poland) Mr. H. L. MARCHESE (United States)
COM V	Study Group V	Protection against dangers and disturbances of electro-magnetic origin	Mr. H. RIEDEL (Germany, F. R. of)	Mr. G. GRATTA (Italy)
COM VI	Study Group VI	Protection and specifications of cable sheaths and poles	Mr. J. R. WALTERS (United Kingdom)	Mr. A. BLANCHI (France)
COM VII	Study Group VII	New networks for data transmission	Mr. V. C. MACDONALD (Canada)	Mr. N. R. CRANE (Australia) Mr. H. GABLER (Germany, F. R. of) Mr. A. SERRURE (Belgium)
COM VIII	Study Group VIII	Telegraph and data terminal equipment, local connecting lines	Mr. G. BAGGENSTOS (Switzerland)	Mr. Y. SAVITSKI (U.S.S.R.)

Abbreviated designation		Title	Chairman	Vice-Chairman
COM IX	Study Group IX	Telegraph transmission quality; specification of equipment and rules for the maintenance of telegraph channels	Mr. R. BROWN (Australia)	Mr. B. KUBIN (Czechoslovakia)
COM X	Study Group X	Telegraph switching	Mr. Ch. JANSEN (Netherlands)	Mr. E. E. DANIELS (United Kingdom) Mr. D. FAUGERAS (France)
COM XI	Study Group XI	Telephone switching and signalling	Mr. J. S. RYAN (United States)	Mr. P. PLEHIERS (Belgium) Mr. P. STERN DORFF (Denmark) Mr. TCHOUTA MOUSSA (Cameroon)
COM XII	Study Group XII	Telephone transmission performance and local telephone networks	Mr. F. T. ANDREWS (United States)	Mr. D. L. RICHARDS (United Kingdom) Mr. H. SHIMADA (Japan)
COM XIII	Study Group XIII	Automatic and semi-automatic telephone networks	Prof. S. KUHN (Poland)	Mr. J. BIOT (Belgium) Mr. J. TÅNGE (Sweden)
COM XIV	Study Group XIV	Facsimile telegraph transmission and equipment	Mr. M. STEPHENSON (United Kingdom)	Mr. W. VINOGRADOV (Poland)
COM XV	Study Group XV	Transmission systems	Mr. F. JOB (France)	Mr. W. BARJASZ (Poland) Mr. G. SARACO (Italy) Mr. A. V. G. THEYS (Belgium)

Abbreviated designation		Title	Chairman	Vice-Chairman
COM XVI	Study Group XVI	Telephone circuits	Mr. S. MUNDAY (United Kingdom)	Mr. J. WILSON (Canada)
COM Sp. A	Study Group Special A	Data transmission	Mr. V. N. VAUGHAN (United States)	Mr. G. D. ALLERY (United Kingdom) Mr. H. BIEHLER (Germany, F. R. of) Mr. G. DENNERY (France)
COM Sp. C	Study Group Special C	Noise (Joint C.C.I.R./C.C.I.T.T. Study Group, administered by the C.C.I.T.T.)	Mr. H. WIRZ (Germany, F. R. of)	Mr. M. TOMITA ¹ (Japan)
COM Sp. D	Study Group Special D	Pulse code modulation	Mr. T. IRMER (Germany, F. R. of)	Mr. M. DECINA (Italy) Mr. H. K. PFYFFER (Switzerland) Mr. A. PINET (France) Mr. H. RAAG (United States)
CMTT	Joint Study Group on television transmission	Television transmission (Joint C.C.I.R./C.C.I.T.T. Study Group administered by the C.C.I.R.)	Mr. Y. ANGEL ² (France)	Mr. W. G. SIMPSON (United Kingdom)
CMV	Joint Study Group on definitions and symbols	Definitions and symbols (Joint C.C.I.R./C.C.I.T.T. Study Group administered by the C.C.I.R.)	Mr. R. VILLENEUVE ² (France)	Mr. M. DUCOMMUN (Switzerland) Mr. B. A. DURÁN (Spain)

¹Provisional appointment pending the next C.C.I.R. Plenary Assembly.

²Appointed by the C.C.I.R.

PLAN COMMITTEES

Abbreviated designation		Title	Chairman	Vice-Chairman *
WORLD PLAN	World Plan Committee	World-wide telecommunication plan (Joint C.C.I.T.T./C.C.I.R. Committee, administered by the C.C.I.T.T.)	Mr. A. BIGI (Italy)	Mr. M. GHAZAL (Lebanon) Mr. A. GRAVELL (Australia) Mr. C. H. MOREIRA (Brazil)
PLAN AFRICA	Plan Committee for Africa	Telecommunication plan for Africa (Joint C.C.I.T.T./C.C.I.R. Committee, administered by the C.C.I.T.T.)	Mr. L. DIA (Senegal)	Mr. I. GIRMAW (Ethiopia) Mr. S. O. OGUNLEYE (Nigeria)
PLAN LAT. AM.	Plan Committee for Latin America	Telecommunication plan for Latin America (Joint C.C.I.T.T./C.C.I.R. Committee, administered by the C.C.I.T.T.)	Mr. C. NÚÑEZ-A. (Mexico)	Mr. J. O. DÍAZ (Argentina)
PLAN ASIA	Plan Committee for Asia and Oceania	Telecommunication Plan for Asia and Oceania (Joint C.C.I.T.T./C.C.I.R. Committee, administered by the C.C.I.T.T.)	Mr. A. ZAIDAN (Saudi Arabia)	Mr. S. FUJIKI (Japan) Mr. M. HERISCHI (Iran)
PLAN EUROPE	Plan Committee for Europe and the Mediterranean Basin	Telecommunication plan for Europe and the Mediterranean Basin (Joint C.C.I.T.T./C.C.I.R. Committee, administered by the C.C.I.T.T.)	Mr. M. TOUTAN (France)	Mr. H. DIETRICH (Poland) Mr. L. TEROL MILLER (Spain)

* Provisional appointment pending the next C.C.I.R. Plenary Assembly

JOINT WORKING PARTIES

Abbreviated designation	Title	Study Groups concerned ^a	Chairman	Vice-Chairman
GM CDF	Protection against lightning	<i>V, VI</i>	Mr. H. RIEDEL (Germany, F. R. of)	
GM CNC	Digital paths over cable	<i>Sp. D, XV</i>	Mr. D. GAGLIARDI (Italy)	Mr. J. M. VÁZQUEZ-Q. (Spain)
GM LTG	Use of telephone-type lines for purposes other than telephony	<i>IX, XIV, XV, Sp. A, Sp. C</i>	Mr. L. GUILLET (France)	Mr. E. TOUMANOVSKI (U.S.S.R.)
GM MAT	Automatic telegraph maintenance	<i>IX, X</i>	Mr. H. BIEHLER (Germany, F. R. of)	
GM SGO	Waveguide systems	<i>XV, Sp. D</i>	Mr. R. W. WHITE (United Kingdom)	Mr. L. BOURGEAT (France)
GM TAF	Tariffs (Africa)	<i>I, II, III</i>	Mr. M. SIDIBE (Mali)	
GM TAL	Tariffs (Latin America)	<i>I, II, III</i>	*	
GM TAS	Tariffs (Asia)	<i>I, II, III</i>	*	
GM TEUR	Tariffs (Europe)	<i>I, II, III</i>	Mr. W. JOST (Switzerland)	

^a The controlling Study Group is marked in italics.

* The Chairmen and Vice-Chairmen, if any, for the GM TAL and GM TAS Groups will be elected at their next meeting.

**SPECIAL AUTONOMOUS WORKING PARTIES SET UP TO CARRY
OUT BACKGROUND STUDIES OF INTEREST TO THE DEVELOPING COUNTRIES**

Abbreviated designation	Title	Chairman	Vice-Chairman
GAS 3	Economic and technical comparison of transmission systems	Mr. M. AOUD (Morocco)	Mr. J. J. HERNANDEZ-G. (Mexico) Mr. T. SAKASHITA (Japan) Mr. G. WALLENSTEIN (United States)
GAS 5	Economic conditions and telecommunication development	Mr. H. LONGQUEUE (France)	Mr. S. O. OGUNLEYE (Nigeria) Mr. F. E. RALL (Argentina)

LIST OF QUESTIONS TO BE STUDIED DURING THE STUDY PERIOD 1973-1976 AND THEIR ALLOCATION TO STUDY GROUPS, SPECIAL STUDY GROUPS AND JOINT WORKING PARTIES

General

1. A question is considered urgent if special steps have to be taken to enable its study to be completed before the next Plenary Assembly. These questions are marked with an asterisk (*).

2. It was felt to be impracticable to mention all the Study Groups concerned in the work on each of the questions of Study Group VII and Special Study Group D. It would be desirable for the Chairmen of these Study Groups to agree with the other Chairmen on establishing liaison with the Study Groups concerned as work progresses. In particular, the work on the integration of services in digital networks must be co-ordinated in this fashion under Question 1/D.

3. It must be well understood that, when no Joint Working Party is set up, the main purpose of indicating the various Study Groups interested in the examination of the questions is to inform the members of the Study Group to which the question is assigned so that they may ensure the necessary co-ordination within the framework of their national Administrations.

4. This list does not mention the internal Working Parties of the Study Groups but only indicates Joint Working Parties.

5. For all questions dealing with definitions, it is understood that the results of the work must be communicated to the new Joint C.C.I.R./C.C.I.T.T. Study Group on vocabulary. The definitions will be published in the C.C.I.T.T. Books as provisional texts pending their examination by this Joint Study Group.

6. The Plenary Assembly decided that "reliability rapporteurs" should be appointed, each of whom must be familiar with the work of one of the various Study Groups concerned, i.e.:

- Study Groups I, II, IV, VI, IX, XIII, XIV, XV and Special Study Groups A and D of the C.C.I.T.T.;
- Study Groups 4 and 9 of the C.C.I.R. and the CMTT

These rapporteurs will work mainly by correspondence and take part (so far as reliability problems are concerned) in the work of Special Joint Study Group C, which will continue to act as general co-ordinator with regard to Question 12/C. They will be appointed by the Study Groups concerned at the beginning of the period 1973-1976.

The attention of Study Groups II and XIV and Special Study Group A is drawn to the fact that they are requested to study a number of points *urgently* (relating to service interruptions and breaks in transmission), which do not appear in this list but are given in the complete text of Question 2/C (continuation of former Question 12/C).

7. No subjects for study were assigned to GAS 4. The subjects assigned to GAS 3 and GAS 5 for study are those contained in their reports, with any additions approved by the Plenary Assembly.

8. Committee B expressed the view, which was approved by the Plenary Assembly, that in the next period the Study Groups should prepare the texts of their questions for the VIth Plenary Assembly in a more standard form. In particular, questions containing a large number of points should be avoided; the points should be framed as separate questions as far as possible.

STUDY GROUP I

Question No.	Short title	Remarks
1/I	Counting of words	a
2/I	New principles for telegraph tariffs	
3/I	Simplification of the public telegram service	
5/I	Revision of the series F Recommendations	
6/I	Use of Telegraph Alphabet No. 5	
9/I	Revision of the Recommendations relating to the gentex service	
10/I	Retransmission of telegrams	
14/I	Revision of the series F Recommendations relating to the telex service	
25/I	Deletion of money order telegrams and postal cheque telegrams as a separate class	
26/I	Data transmission statistics	
27/I	Phototelegram rates in the intercontinental system	
28/I	Telegraph tariffs in the intercontinental system	
29/I	Intercontinental phototelegraph calls	
30/I	Joint use of the public telegram and telex services	
		S.G. II to be kept informed

^a Also concerns S.G. VIII (Question 9/VIII) and Special Study Group A (Question 1/A, point C).

STUDY GROUP II

Question No.	Short title	Remarks
1/II	Application of the Instructions for the International Telephone Service and any amendments required	Permanent question
2/II	Review and amendments as necessary of the accounting procedures set forth in Recommendations for international telephone traffic and their mode of application	Permanent question
3/II	Mode of application of the flat-rate procedure set forth in Recommendation E.250 in remuneration for facilities made available to the Administrations of other countries	
4/II	Use of data transmission for the exchange of information between Administrations for billing and accounting purposes	
5/II	Review of operational and charging provisions for sound and television programme transmissions set forth in Recommendation E.330	
6/II	International transferred account-telephone calls	
7/II	Use of computers to supply information requested on foreign numbers of telephone subscribers	
8/II	Customer performance in fully automatic working in the world-wide telephone network	Also concerns S.G. XIII
9/II	Information for users of the world-wide telephone network	Also concerns S.G. XIII
10/II	Standardization of symbols and other aspects of subscriber equipment to meet human factor needs	Also concerns S.G. XIII

STUDY GROUP III

Question No.	Short title	Remarks
1/III	Amendments and additions to Recommendation D.1	Permanent question
2/III	Amendments and additions to Recommendation D.2	
3/III	Amendments and additions to Recommendation D.3	
4/III	Leasing of transmission facilities for high speed data systems	
5/III	Leased sound and television programme circuits	
6/III	Direct distance exchange service	
7/III	Reduced rates during light traffic periods	
8/III	Activity of data service centres	
9/III	Establishment of tariff principles for data transmission on public networks dedicated to this type of transmission	In association with S.G. VII
10/III	Cost study for determining the basic tariff components for: sound and television programme transmissions; leased sound and television programme circuits; (to be conducted on a regional basis)	To be studied by JWP TAF, TAL, TAS and TEUREM
11/III	Fixing of basic components of tariffs for the telephone, telex and telegraph services (to be conducted on a regional basis)	To be studied by JWP TAF, TAL, TAS and TEUREM

STUDY GROUP IV

Question No.	Short title	Remarks
1/IV	Stability of the international network	See Question 28/IX
2/IV	Short breaks in transmission	
3/IV	Phase changes	
4/IV	Terminology for Study Group IV	
5/IV	Maintenance of groups, supergroups, etc.	
7/IV	Keeping Volume IV of the C.C.I.T.T. Book up to date	
8/IV	Limits of impulsive noise	
9/IV	Re-establishment service with the help of wideband switching	
10/IV	Measuring instrument specifications	
11/IV	Automatic transmission measuring equipment	
12/IV	Echo suppressor testing	
13/IV	Maintenance equipment for sound-programme circuits	

STUDY GROUP IV (continued)

Question No.	Short title	Remarks
14/IV	General maintenance organization	Also Question 1/XIII
15/IV	Application of quality control to maintenance measurements	
16/IV	Maintenance of new systems specified by the C.C.I.T.T.	
17/IV	Effect on maintenance of the introduction of new components and of modern equipment design	
18/IV	Maintenance of telephone-type circuits Maintenance of PCM systems Maintenance of demand-assignment circuits Plans for restoration of service	
19/IV	Maintenance of sound-programme circuits	
20/IV	Maintenance of television circuits	
21/IV	Measurements on switched connections	
22/IV	Assessment of the availability of international circuits	

STUDY GROUP V

Question No.	Short title	Remarks
1/V	Protective devices	
2/V	Devices reducing the voltage of wires with respect to earth	
3/V	Problems posed by the arrangement of protective devices on telecommunication circuits subject to high induced voltages	
4/V	Screening effect of metallic-sheathed cables with a plastic covering	
8/V	High-reliability power lines fault statistics	
9/V	Joint use of supports and trenches, etc. by telecommunication lines and power lines	
10/V	Booster transformers	
13/V	Unbalance of telephone installations	
15/V	Reduction of harmonics in special cases	
17/V	D.c. power lines at very high voltage	
19/V	Effect of radio station emissions on telecommunication circuits	
21/V	Tests to be carried out on power-fed transistorized repeaters to check the efficiency of the protection from external interference	

Concerns S.G. XV

STUDY GROUP V (continued)

Question No.	Short title	Remarks
22/V	Protection against lightning	For study by JWP CDF (see Question 14/VI)
23/V	Problems of interconnection with carrier systems on power lines	
24/V	Preparation of a Handbook on earthing	
25/V	Examination of the existing permissible induced voltage limits and possible amendments to the Directives	
26/V	Revision of the Directives	

STUDY GROUP VI

Question No.	Short title	Remarks
1/VI	Aluminium cable sheaths. Protective covering for these sheaths	Documentary question with a view to producing a handbook
2/VI	Protection of aluminium conductors and joints	
3/VI	Use of plastic materials as protective coverings for metal cable sheaths	
4/VI	Cable sheaths made of plastics	
5/VI	Attacks on plastic materials by insects and rodents	
6/VI	Cables with plastic-insulated conductors	
7/VI	Methods of making conductor joints	
8/VI	Corrosion protection for waveguides	To be studied with point 1.8 of Question 23/XV
9/VI	Joint cathodic protection of several networks	
10/VI	Unusual cases of corrosion	
11/VI	Amendments to the Recommendations against corrosion	
13/VI	Corrosion due to direct-current exchange with nearby electrode systems	For study by JWP CDF (see Question 22/V)
14/VI	Protection against lightning	

STUDY GROUP VI (continued)

Question No.	Short title	Remarks
15/VI	Protection of screens and armouring	
16/VI	Degradation of plastic sheaths	
17/VI	Stray alternating currents	
18/VI	Requirements when armouring is used	
19/VI	Corrosion and earthing problems consequent upon the use of non-conducting water-pipes, and of non-conducting cable sheaths for power and telecommunication purposes	

STUDY GROUP VII

Question I/VII — Public data networks (continuation of Questions 9/X — 1/A — Point H and 1/A — Point AJ, part 2, 1968-1972, amended at Geneva, 1972)

- Point A* — Standardization of user classes of service for public data networks
- Point B* — Standardization of user facilities
- Point C* — Packet-mode operation
- Point D* — Call set-up and clear-down time
- Point E* — What numbering plan should be adopted for public data networks?
- Point F* — Grade of service
- Point G* — Transmission quality
- Point H* — Interworking problems which may arise with the telex service (also concerns Study Group X)
- Point I* — Standardization of signalling in anisochronous public data networks (also concerns Study Group X, Question 3/X)
- Point J* — Implementation of the user facilities in public data networks
- Point K ** — The provision of features in the DTE-DCE interface for fault identification and isolation
- Point L* — The use on public data networks of DTEs which are designed for interfacing to existing V-series modems
- Point M* — Protection of control characters used for signalling at the DTE-DCE interface
- Point N* — The means of operation when the DTE is in a local or non-operating mode
- Point O* — Compatibility between DTE-DCE interfaces used for start-stop and synchronous services
- Point P ** — The interface between DTE and DCE for start-stop services
- Point Q ** — The interface between DTE and DCE for synchronous services
- Point R* — Definition of terms arising during the study of public data networks
- Point S ** — Multiplex structure for international links between synchronous data networks (also concerns Study Groups IX and Sp.D)
- Point T* — Timing and synchronization
- Point U ** — Centralized control signalling for international connections between synchronous data networks

Question I/VII (continued)

- Point V ** — Decentralized control signalling for international connections between synchronous data networks
- Point W* — What are the characteristics of and requirements on the bearer channels over which the 64 kbit/s aggregate multiplex bit rate channels are to be carried?
- Point X* — Error control
- Point Y* — Security in data networks

STUDY GROUP VIII

Question No.	Short title	Remarks
9/VIII	Standardization of data terminal equipment with Alphabet No. 5	Also concerns S.G. I (Question 6/I) and Sp. A (Question 1/A, point C)

STUDY GROUP IX

Question No.	Short title	Remarks
1/IX	Characteristics of telegraph channels obtained from a leased telephone-type circuit used for the simultaneous transmission of different facilities	In association with JWP LTG ^a
2/IX *	Reduction of transmission levels in frequency-modulated voice-frequency telegraph systems	JWP LTG to be kept informed; special aspect of Question 27/XV
4/IX	Routing of MC VFT systems on PCM telephone bearer circuits	JWP LTG to be kept informed
5/IX	Methods of noise and error measurements on circuits for telegraphy and data transmission	
6/IX	Transmission plan	
11/IX	Definitions concerning telegraph transmission quality	
12/IX	Effect on telegraph distortion of sudden changes in level	
14/IX	Frequency-modulated voice-frequency telegraph systems	
22/IX	Automatic maintenance tests of telegraph circuits	To be studied by JWP MAT
24/IX *	Time-subdivision of a telephone channel for telegraphy and data transmission	JWP LTG to be kept informed

^a Study Group IX should first study the characteristics of VFT channels and then JWP LTG the methods of deriving them.

STUDY GROUP IX (continued)

Question No.	Short title	Remarks
26/IX	Synchronous system for special codes	Also concerns S.G. IV (Question 3/IV)
28/IX	Effect of sudden phase changes on telegraph distortion	
29/IX	Telegraph frequency division multiplex systems for data signalling rates above 200 bit/s	
31/IX *	Time division of a PCM system and of a primary group for telegraphy and data transmission	

STUDY GROUP X

Question No.	Short title	Remarks
1/X	Automatic originating and answering of calls in the telex network	Also concerns S.G. VII (see Question 1/VII, point I)
2/X	Further standardization of telex and gentex signalling in accordance with Recommendation U.1 (Type A and Type B) and Recommendation U.20	
3/X *	Continuation of the study of the terminal and transit control signalling system for telex and similar services according to Recommendation U.12 (Type D)	
5/X *	What technical problems should be considered in introducing new service requirements for telex?	
8/X *	Further standardization of telex and gentex intercontinental transit signalling in accordance with Recommendation U.11 (Type C) on the basis of experience gained	
10/X	Signal transfer delay in the telex network	To be studied by JWP MAT
11/X	Automatic maintenance tests of telegraph circuits	

STUDY GROUP XI

Question No.	Short title	Remarks
1/XI	Digital version of C.C.I.T.T. Signalling System No. 6	In association with S.G. XIII (Question 2/XIII)
2/XI	Maintenance methods for Signalling System No. 6	
3/XI	Structure of the international common channel signalling network	
4/XI	Signalling arrangements for integrated (switching and transmission) digital telephone networks	
5/XI	Interworking of international Signalling System No. 6 and national common channel signalling systems	
6/XI	Influence of stored-programme control on the development of communication networks	
7/XI	Methods of presentation of functional specification and of description of internal logic processes in SPC ^b telephone exchanges	
8/XI	High level programming language for SPC ^b telephone exchanges	
9/XI	Command language for SPC ^b telephone exchanges	
10/XI	Interworking of signalling systems	
11/XI	Satellite signalling systems	

^a A Working Party of Study Group XI is to be responsible for examining not only Part A (technical aspects) of the Annex to this question but also Part B (economic, maintenance and staff training aspects). (See section 5 of the Minutes of the 11th Plenary Meeting, Vth Plenary Assembly.)

^b SPC = Stored-programme control.

STUDY GROUP XII

Question No.	Short title	Remarks
1/XII	National system reference equivalents in the new transmission plan	Question 8/XVI ^a
2/XII	Assessment of service transmission quality	
3/XII	Reference equivalents of operators' headsets	
4/XII	Effect of circuit noise on transmission performance	
5/XII	Hourly noise clause	
6/XII	Users' tolerance of echo and propagation time	
7/XII	Determination of transmission quality by objective measurements	
8/XII	Measuring the efficiency of a microphone or a receiver	
9/XII	Sidetone	

^a Results of the study to be transmitted to Special Study Group C.

STUDY GROUP XII (continued)

Question No.	Short title	Remarks
10/XII	Increase in the sensitivity of local systems	
11/XII	Limits for intelligible crosstalk	
12/XII	Artificial voices, mouths and ears	
13/XII	Non-linear distortion of telephone apparatus	
14/XII	Effect of attenuation distortion	
15/XII	Measuring of loudness ratings	
16/XII	Impedance variations in subscriber lines and telephone sets	
17/XII	Loudspeaker telephones	
18/XII	Transmission performance of pulse code modulation systems	

STUDY GROUP XIII

Question No.	Short title	Remarks
1/XIII	General maintenance organization	Question 14/IV <i>a</i>
2/XIII	Maintenance methods for Signalling System No. 6	
3/XIII	Network maintenance information	
4/XIII	Criteria for the application of network management actions	
5/XIII	Procedures for traffic measurement and computation	<i>b</i>
6/XIII	Calculation of the number of circuits in a group carrying overflow traffic	
7/XIII	Influence of non-coincident busy hours on network planning	
8/XIII	Requirements of a command language for SPC international exchanges	
9/XIII	Field trials of centralized processing of service observation results	<i>c</i>
10/XIII	Repeated attempts	
11/XIII	Information on traffic routing in the international network	
12/XIII	Subscriber-to-subscriber test calls as means to obtain information on quality of service. Characteristics of responding equipment	
13/XIII	Use of computers for network planning and circuit group dimensioning	
14/XIII	Internal blocking characteristics in digital exchanges	

^a To be studied in association with Study Group XI (Question 2/XI).

^b Also concerns Study Group XI (Question 9/XI).

^c Results to be transmitted to Study Group XVI.

STUDY GROUP XIV

Question No.	Short title	Remarks
1/XIV	Transmission of black-and-white facsimile on telegraph type circuits	Also concerns Study Group VII
2/XIV	Digital facsimile equipments over various transmission facilities	
3/XIV	Increase in transmission speed of facsimile telegraphy in case of analogue transmission on telephone-type circuits	Results to be transmitted to JWP LTG
5/XIV *	Permissible power levels in facsimile transmission on telephone-type circuits	Results to be transmitted to JWP LTG
6/XIV	Use of leased telephone-type circuit for the simultaneous transmission of signals of 1) facsimile and telegraph, 2) facsimile and speech and 3) facsimile and data	To be studied by JWP LTG
7/XIV *	Facsimile service between subscribers	Results to be transmitted to JWP LTG
8/XIV	Facsimile transmission of colour documents	
9/XIV	High-speed facsimile transmission on wideband circuits	
10/XIV	Definitions for facsimile telegraphy	
11/XIV	Facsimile transmission over Earth satellites	

STUDY GROUP XV

Question No.	Short title	Remarks
1/XV	Characteristics of equipments and lines providing programme circuits at 15 kHz for monophonic transmission	Concerns Special Study Group C
2/XV	Characteristics of equipments and lines providing pairs of circuits for stereophonic programme transmission	
3/XV	Setting-up of 5 kHz sound programme circuits	
4/XV	Visual telephone service	
5/XV	Visual telephone service conforming to television broadcasting standards	
6/XV	Programme circuits set up on group or supergroup links	
7/XV	Companders for programme transmission	
8/XV	Interconnection of sound programme circuits in the basic group	
9/XV	Crosstalk from a sound programme circuit into a telephone circuit	

STUDY GROUP XV (continued)

Question No.	Short title	Remarks
10/XV	Echo suppressor improvements—new methods of controlling echo	
11/XV	Interference at harmonics from the mains	
12/XV	Interfering frequencies on wideband group, supergroup, etc., circuits	
13/XV	Target design values for noise in modulating equipments	
14/XV	Limiting values for the group delay distortion for a pair of channel transmitting and receiving equipments of one terminal equipment	
15/XV	Line regulators, group regulators, etc.	
16/XV	10 800 channels on 2.6/9.5 mm coaxial pairs	
17/XV	Cables for 10 800 channel systems	
18/XV	Cables for systems with more than 10 800 channels	
19/XV	Analogue systems with more than 10 800 channels	
20/XV	Television transmission on 60 MHz systems	
21/XV	Use of quinary group	
22/XV	Digital transmission systems over cable	To be studied by JWP CNC (Question 13/D)
23/XV	Waveguide systems	To be studied by JWP SGO
24/XV	Subdivision of the frequency band transmitted by a leased telephone-type circuit	To be studied by JWP LTG
25/XV	Unification of the characteristics of telephone-type circuits used for transmission (telegraph, facsimile, data, etc.)	To be studied by JWP LTG
26/XV	Unification of certain characteristics of signals transmitted over telephone-type circuits	To be studied by JWP LTG
27/XV	Signal power over the band on a telephone-type circuit	Concerns Special Study Group C ^a
28/XV	Characteristics of wideband group or supergroup circuits for the transmission of broad spectrum signals	To be studied by JWP LTG
29/XV	Characteristics of broad-spectrum signals to be transmitted over wideband group or supergroup circuits	To be studied by JWP LTG
30/XV	Extension of digital circuits using satellite communications systems	To be studied by JWP LTG
31/XV	Submarine cables and systems	
32/XV	Definition of the reliability of a transmission system and objectives	
33/XV	Reliability of transmission systems	

^a To be studied first by all the Study Groups concerned and then by JWP LTG which will transmit its proposals to Special Study Group C (Question 1/C).

STUDY GROUP XVI

Question No.	Short title	Remarks
1/XVI	Transmission characteristics of circuits and connections in the switched telephone network	In association with Special Study Group C In association with Study Group II Question 5/XII ^a
2/XVI	Characteristics of leased circuits	
3/XVI	Statistical evaluation of the transmission performance of the switched telephone network	
4/XVI	Transmission aspects of unbalance about earth	
5/XVI	Noise clauses for circuits in the telephone network	
6/XVI	Transmission aspects of conference calls	
7/XVI	Revision of the Manual on Automatic Networks	
8/XVI	Hourly noise clause	
9/XVI	Return loss of PCM channel equipments	
10/XVI	Incorporation of circuits on PCM systems in the existing telephone network	

^a Results to be transmitted to Special Study Group C.

SPECIAL STUDY GROUP A

Question 1/A

<i>Point B</i>	<i>Supplement to the vocabulary for data transmission</i>
<i>Point C</i>	<i>Complement to standardization of International Alphabet No. 5</i> (Also concerns Study Groups I (Q.6/I) and VIII (Q.9/VIII))
<i>Point J</i>	<i>Use of leased telephone-type circuit for the simultaneous transmission of: 1) data and speech</i> <i>2) data and facsimile signals</i> (to be studied by JWP LTG)
<i>Point L</i>	<i>Tests for data transmission system on telephone-type circuits</i>
<i>Point O *</i>	<i>Modem for data signalling rates above 1200 bits per second on the general switched telephone network and 2400 bits per second on telephone-type leased circuits</i>
<i>Point Q</i>	<i>Further study of parallel data transmission for universal use on telephone circuits (see Recommendation V.30)</i>
<i>Point Qbis *</i>	<i>Study of parallel data transmission systems using the push-button telephone signalling frequencies</i>
<i>Point R *</i>	<i>Error control in the general telephone network</i>
<i>Point S+T</i>	<i>Measurement of phase distortion and transmission loss between subscribers</i> (Also concerns Study Groups IV and XIV)
<i>Point U</i>	<i>Specification of characteristics of circuits leased for data transmission ; measuring techniques to check these characteristics</i> (Also concerns Study Group IV)
<i>Point V</i>	<i>Specification of impulse noise limits for data transmission over switched telephone circuits</i> (Also concerns Study Group IV)

SPECIAL STUDY GROUP A (continued)**Question 1/A**

- Point W** *Maintenance methods*
 (Also concerns Study Groups IV and VIII)
- Point Y* *Automatic originating and answering of calls in the telephone network*
- Point Z** *Data transmission over 48 kHz and 240 kHz circuits*
 (Also concerns JWP LTG)¹
- Point AB* *Use of digital transmission (or pulse code modulation)*
 (to be studied by Special Study Group D)
- Point AC* *Use of circuits established by means of satellite*
- Point AD* *Comparative tests of modems for use over telephone-type circuits*
- Point AE** *Interchange circuits*
- Point AG* *Transmission constraints on wideband data systems*
 (Also concerns JWP LTG)¹
- Point AH* *Modems for transmission of medical analogue data*
- Point AI* *Transmission of data over intercontinental telephone-type circuits*
- Point BA** *Duplex modems*
- Point BB* *Tests for data transmission systems on wideband circuits*
- Point BC* *Revision of the existing V series Recommendations*

¹ Joint Working Party LTG will study these problems in connection with Questions 28/XV and 29/XV.

JOINT SPECIAL STUDY GROUP C

Question No.	Short title	Remarks
1/C	Loading of carrier systems	In association with the work of JWP LTG
2/C	Definitions and general studies relating to reliability	See para. 6 under "General"
3/C	Low-noise channels for very long circuits	
4/C	Hourly-mean noise for radio-relay links	
5/C	Artificial load for systems providing less than 60 carrier channels	
6/C	Measuring method for noise produced by modulation equipments	
7/C	Characteristics of an impulsive noise-measuring instrument for wideband data transmission	In collaboration with IV and Sp.A
8/C	Noise measurements using a signal having a uniform spectrum	
9/C	Reliability and availability of local networks	Documentary question
10/C	Hypothetical reference circuits for very long systems	

SPECIAL STUDY GROUP D ^a

Question No.	Short title	Remarks
1/D	Planning of digital systems and integration of services	To be studied by JWP CNC (Question 22/XV)
2/D	Primary PCM multiplex equipment	
3/D	Switching and signalling in digital networks	
4/D	Maintenance and operation of the digital network	
5/D	Synchronization of digital networks	
6/D	Higher-order PCM and digital multiplex equipment	
7/D	Interfaces for digital systems	
8/D	Digital transmission systems over radio-relay and satellite paths	
9/D *	International digital paths	
10/D	Digital coding of wideband signals	
11/D	Other methods of encoding than PCM	
12/D	Interference at harmonics from the mains	
13/D	Digital transmission systems over cable	

^a See paragraph 2 under "General".

QUESTIONS FOR STUDY BY JOINT WORKING PARTIES

No. of the Question ^a	Abbreviated designation	Title	Study Groups concerned	Controlling Study Group
11/III	GM TAF	Tariffs (Africa)	I, II, III	III
11/III	GM TAL	Tariffs (Latin America)	I, II, III	III
11/III	GM TAS	Tariffs (Asia)	I, II, III	III
11/III	GM TEUREM	Tariffs (Europe and the Mediterranean basin)	I, II, III	III
6/XIV; 24/XV to 30/XV; 1/A, point J	GM LTG	Use of telephone-type lines for purposes other than telephony	IX, XIV, XV, Sp. A, Sp. C	XV
22/IX (11/X)	GM MAT	Automatic telegraph maintenance	IX, X	IX
22/V (14/VI)	GM CDF	Protection against lightning	V, VI	V
23/XV	GM SGO	Waveguide systems	XV, Sp. D	XV
22/XV (13/D)	GM CNC	Digital paths over cable	XV, Sp. D	Sp. D

^a This list does not contain questions in the study of which the Joint Working Parties are merely associated.

PART IV

SERIES A RECOMMENDATIONS

Organization of the work of the C.C.I.T.T.

SERIES B RECOMMENDATIONS

Means of expression

SERIES C RECOMMENDATIONS

General telecommunication statistics

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SERIES A RECOMMENDATIONS

Organization of the work of the C.C.I.T.T.

(See also Resolutions)

<i>Recommendation No.</i>	<i>Title</i>
A.10	Collaboration on definitions for telecommunications between C.C.I.T.T. Study Groups and co-operation with the CMV
A.12	Collaboration with the International Electrotechnical Commission on the subject of definitions for telecommunications
A.13	Preparation of a list of graphical symbols for diagrams and rules for the preparation of diagrams, charts and tables and for item designation, in telecommunications
A.14	Publication of definitions
A.20	Collaboration with other international organizations over data transmission

Recommendation A. 10

COLLABORATION ON DEFINITIONS FOR TELECOMMUNICATIONS BETWEEN C.C.I.T.T. STUDY GROUPS AND CO-OPERATION WITH THE C.M.V.

(New Delhi, 1960, and Geneva, 1964; amended Geneva, 1972)

The C.C.I.T.T.,

considering that

if a Study Group of the C.C.I.T.T. should become aware of the necessity for a new definition, the form of the definition and the associated terms in various languages should be standardized as soon as possible, and in conjunction with other C.C.I.T.T. Study Groups in order that it can be ensured that there is no conflict with existing terms and definitions,

considering also

the decision of the Vth Plenary Assembly of the C.C.I.T.T. to co-operate in a Joint C.C.I.R./C.C.I.T.T. Vocabulary Committee (CMV) to be managed by the C.C.I.R. and having the following mandate:

- to study, in collaboration with the Study Groups of C.C.I.R. and C.C.I.T.T., technical terminology and related subjects (graphical and letter symbols and other means of expression, systematic classification, units of measurement, etc.) in order to meet the needs of these Study Groups and to make the best possible use of the joint co-operation groups established between the C.C.I.'s and the corresponding technical committees of the International Electrotechnical Commission (e.g. Technical Committee No. 1 for terminology and Technical Committee No. 3 for graphical symbols) (see Recommendations A.12 and A.13);

unanimously recommends

that "vocabulary" Working Parties of the Study Groups of the C.C.I.T.T. should be formed as necessary, the results of their work being communicated directly to other C.C.I.T.T. Study Groups concerned, and to the Joint C.C.I.R./C.C.I.T.T. Vocabulary Committee (CMV);

that the rapporteurs of the C.C.I.T.T. Vocabulary Working Parties should represent the C.C.I.T.T. at the Joint Study Group CMV

Recommendation A. 12

COLLABORATION WITH THE INTERNATIONAL ELECTROTECHNICAL COMMISSION ON THE SUBJECT OF DEFINITIONS FOR TELECOMMUNICATIONS

(Geneva, 1964; amended at Mar del Plata, 1968, and Geneva, 1972)

The C.C.I.T.T.

unanimously recommends

that in order to provide an internationally agreed vocabulary of telecommunications, the C.C.I.T.T. should co-operate with the C.C.I.R. and the International Electrotechnical Commission for the purpose of preparing those sections concerned with telecommunications in a new edition of the International Electrotechnical Vocabulary.

It is understood that for this purpose there shall be established:

- a joint co-ordination group composed of members of the I.E.C. and of the I.T.U.;
- a number of groups of technical experts to be set up by the joint co-ordination group to prepare the drafts of the various sections of the *Telecommunications vocabulary*.

It is furthermore understood that the joint co-ordination group will be composed of twelve members and that the I.T.U. (itself represented by equal numbers of members of the C.C.I.R. and the C.C.I.T.T.) will be represented on an equal footing with the I.E.C. In the joint co-ordination group

- the Chairman will be chosen from among members of the I.T.U. (C.C.I.T.T. and C.C.I.R.);
- the Secretary will be chosen from among members of the I.E.C. which will also provide the Secretariat.

Recommendation A. 13

PREPARATION OF A LIST OF GRAPHICAL SYMBOLS FOR DIAGRAMS AND RULES FOR THE PREPARATION OF DIAGRAMS, CHARTS AND TABLES AND FOR ITEM DESIGNATION IN TELECOMMUNICATIONS

(New Delhi, 1960; amended at Geneva, 1964; Mar del Plata, 1968, and Geneva, 1972)

The C.C.I.T.T.

unanimously recommends

that the C.C.I.T.T. should continue to co-operate in the work of the C.C.I.T.T./C.C.I.R./I.E.C. Joint Working Group which has been set up to prepare, for international telecommunications:

- an approved list of graphical symbols for diagrams;
- approved rules for the preparation of diagrams, charts and tables and for item designation;

it being understood that:

within the Joint Working Group, the I.T.U. (itself represented by equal numbers of members from the C.C.I.R. and the C.C.I.T.T.) is represented on an equal footing with the I.E.C.;

the Joint Working Group, while being fully representative, is as small as possible to be able to work effectively and quickly;

C.C.I.T.T. members of the Joint Working Group are empowered to take decisions on questions relating to symbols and the rules referred to above (referring to the C.C.I.T.T. Study Groups in cases of extreme difficulty), so that the publication of an approved list does not have to await formal approval by the following Plenary Assembly of the C.C.I.T.T.

Recommendation A. 14

PUBLICATION OF DEFINITIONS

(Mar del Plata, 1968; amended at Geneva 1972)

The C.C.I.T.T.,

considering

that revision and re-edition of a complete list of definitions cannot be done very frequently, in view of the volume of work involved;

that rapid developments in telecommunications lead to constant change in the terms used and that it is desirable to publish approved terms and definitions with the minimum possible delay, even though these terms and definitions have not been examined to see how they fit into the complete system of terms and definitions for telecommunications;

unanimously recommends

that after each Plenary Assembly the C.C.I.T.T. Secretariat should assemble all the terms and definitions, proposed by each Study Group, and approved by the Plenary Assembly, and should publish these in the appropriate Volume(s) of the C.C.I.T.T.

The terms and definitions shall be given only in the languages of the C.C.I.T.T. Book.

Recommendation A. 20

COLLABORATION WITH OTHER INTERNATIONAL ORGANIZATIONS OVER DATA TRANSMISSION

(Geneva, 1964; revised at Mar del Plata, 1968, and at Geneva 1972)

The C.C.I.T.T.,

considering

that, according to Article 1 of the agreement between the United Nations and the International Telecommunication Union, the United Nations recognizes the International Telecommunication Union 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;

that Article 4 of the International Telecommunication Convention states that the purposes of the Union are:

- a) to maintain and extend international co-operation for the improvement and rational use of telecommunication of all kinds;
- b) 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;

that Article 30 of the Convention states that, in furtherance of complete international co-ordination on matters affecting telecommunication, the Union shall co-operate with international organizations having related interests and activities;



that in the study of data transmission the C.C.I.T.T. has to collaborate with the organizations dealing with data processing and particularly the International Organization for Standardization (I.S.O.) and the International Electrotechnical Commission (I.E.C.);

that this collaboration has to be organized in a manner which will avoid duplication of work and decisions that would be contrary to the principles set out above,

unanimously declares the view

that international standards for data transmission should be established with the following considerations in mind:

1. Clearly, it will be the responsibility of the C.C.I.T.T. to lay down standards for *transmission channels*, i.e. aspects of data transmission which require a knowledge of telecommunication networks or affect performance of these networks.

2. The standardization of signal conversion terminal equipment (modems) is the province of the C.C.I.T.T.; the standardization of the junction (interface) between modem and the data terminal equipment is a matter for agreement between the C.C.I.T.T. and the I.S.O. or the I.E.C.

3. Devices designed to detect and (or) correct errors must take account of:

- the error rate tolerable to the user;
- the line transmission conditions;
- the code, which has to meet the exigencies of the data alphabet and the requirements of error-control (this must be such as to give an output satisfactory to the user) together with the requisite signalling (synchronism, repetition, signals, etc.).

Standardization here may not come wholly within the C.C.I.T.T.'s province, but the C.C.I.T.T. has very considerable interests at stake.

4. The alphabet (definition 52.02 in the *List of definitions*) is a "table of correspondence between an agreed set of characters and the signals which represent them".

The C.C.I.T.T. and the I.S.O. reached agreement on an alphabet for general (but not exclusive) use for data and message transmission and have standardized a common alphabet which is known as International Alphabet No. 5 (C.C.I.T.T. Recommendation V.3) (ISO/646-1972: seven-bit coded character sets for information processing interchange).

Complementary study of some control characters of the alphabet should be effected in co-operation with each other.

5. Coding (definition 52.05 in the *List of definitions*) is "a system of rules and conventions according to which the telegraph signals forming a message or the data signals forming a block should be formed, transmitted, received and processed." Hence, it consists of a transformation of the format of the signals in the alphabet for taking account of synchronous methods, and introduction of redundancy in accordance with the error-control system. This is not a field in which the C.C.I.T.T. alone may be able to decide; however, no decision should be taken without reference to the Committee because of the possible restrictions which transmission and switching peculiarities may impose on coding.

When the general switched network is used (telephone or telex) and when the error-control devices are subject to restrictions (switching signals—reserved sequences), it is the C.C.I.T.T. which is in fact responsible for any necessary standardization in conjunction with other bodies.

6. The limits to be observed for transmission performance on the transmission path (modem included) fall within the competence of the C.C.I.T.T.; the limits for the transmission performance of the sending equipment and the margin of terminal data equipment (depending on the terminal apparatus and the transmission path limits) should be fixed by agreement between the I.S.O. and the C.C.I.T.T.

7. In all instances, the C.C.I.T.T. alone can lay down manual and automatic operating procedures for the setting-up, holding and clearing of calls for data communications when the general switched network is used, including type and form of signals to be interchanged at the interface between data-terminal equipment and data circuit-terminating equipment.

SERIES B RECOMMENDATIONS

Means of expression

<i>Recommendation No.</i>	<i>Short title</i>
B.1	Letter symbols for telecommunications
B.3	Use of the international system of units
B.4	Transmission units
B.10	Lists of graphical symbols for diagrams and rules for the preparation of diagrams, charts and tables for telecommunications

Recommendation B.1

LETTER SYMBOLS FOR TELECOMMUNICATIONS

(former Recommendations B.1 and B.2 of the C.C.I.T.T. ; Geneva, 1964, and Mar del Plata, 1968)

In order to simplify the reading of documents dealing with telecommunication technique, it is essential to use simple notations in a homogeneous system and having a well-defined meaning. Moreover, it is an advantage, whenever possible, to have notations that have been universally adopted.

Irrespective of the language used, use should be made of the letter symbols for quantities and units recommended by the International Electrotechnical Commission.

In particular:

- the symbol Hz representing hertz should be used as the unit of frequency
- the symbol dB should be used to represent decibel
- the symbol N should be used to represent newton
- the symbol Np should be used to represent neper.

Abbreviations representing measurement conditions are not covered by this recommendation (for example, "r" for "relative value", "p" for "psophometric", etc.). These abbreviations are under study.

Recommendation B.3

USE OF THE INTERNATIONAL SYSTEM OF UNITS

(former Recommendation 6 of the C.C.I.F. ; amended at New Delhi, 1960, and at Geneva, 1964)

In their mutual relations it is desirable that the I.T.U. and its permanent organs and Administrations and private operating agencies should:

1. use the units of the system adopted by the International Committee for Weights and Measures and endorsed by the I.S.O. and known as the "international system of units (S.I.)" based on the following fundamental units: metre, kilogramme, second, ampere, Kelvin and candela;
2. in principle, use electrotechnical relationships in their rationalized form.

Recommendation B.4

TRANSMISSION UNIT

(Mar del Plata, 1968)

The C.C.I.T.T.,

considering

that for the purposes of transmission measurements and the expression of the results of such measurements, two transmission units, namely, the neper and the bel, together with their submultiples were provisionally recommended on an equal footing by the 1926 Plenary Assembly of the Comité consultatif international des communications téléphoniques à grande distance, and that until now, the C.C.I.T.T. has continued to use these two units on an equal footing;

that now, as then, it would be convenient for international specification limits and for the exchange of information at international level concerning the results of transmission measurements to use only one transmission unit;

that although national Administrations still differ in the transmission unit that they use within their own country, both the neper and the decibel are in common use, and sometimes both within one country;

that for radiocommunications, the decibel is the only unit used for expressing measurement results in transmission units,

unanimously recommends

that countries can continue to use either the neper or the decibel for measurement purposes within their own territory;

that for the international exchange of information concerning line transmission measurement and related values and for the international specification of limits for such values the only transmission unit to be used should be the decibel;

that to avoid unnecessary conversion of values, countries which prefer to do so can continue to use the neper between themselves by bilateral agreement;

that for theoretical, scientific calculations, where ratios are expressed in terms of logarithms to the base "e", the neper will always be used, implicitly or explicitly.

Recommendation B.10

LIST OF GRAPHICAL SYMBOLS FOR DIAGRAMS AND RULES FOR THE PREPARATION OF DIAGRAMS, CHARTS AND TABLES AND FOR ITEM DESIGNATION RELATING TO TELECOMMUNICATIONS AND PUBLISHED BY THE I.E.C.

(Mar del Plata, 1968 ; amended at Geneva, 1972)

The C.C.I.T.T., which co-operates in the work of the C.C.I./I.E.C. Joint Working Group set up for the purpose of establishing, for international telecommunications, an approved list of graphical symbols for diagrams and approved rules for the preparation of diagrams, charts and tables and for item designation (see Recommendation A.13), recommends that, on diagrams for international use concerning telecommunications, the Administrations and private operating agencies of the C.C.I.T.T. and the C.C.I.T.T. Secretariat should use the graphical symbols for diagrams given in I.E.C. Series 117 publications and should observe the rules for the preparation of diagrams, charts and tables and for item designation laid down in I.E.C. Series 113 publications.

SERIES C RECOMMENDATIONS

General telecommunication statistics

Recommendation C.1

YEARBOOK OF COMMON CARRIER TELECOMMUNICATION STATISTICS

(Geneva, 1972)

1. The C.C.I.T.T. recommends that a "Yearbook of Common Carrier Telecommunication Statistics" be published annually by the General Secretariat of the I.T.U.

2. This statistical Yearbook is to be a collection of data on the various branches of common carrier telecommunications, namely:

- telephone service,
- telegraph service,
- telex service,
- the data transmission service.

(Radio services *other than broadcasting* (sound or television) are regarded as common carriers to the extent to which they are used for the transmission of paid messages between subscribers of the telecommunications undertaking.)

3. The data gathered by the I.T.U. General Secretariat from Administrations should reach it by 1 September of the year following that covered by the Yearbook.

4. The statistical data to be collected by the I.T.U. General Secretariat and published by it are those covered by the items listed in Annex 1 to this recommendation. Any explanations required for uniform and unambiguous interpretation of the items are given in Annex 2.

5. The data assembled will be published in *chronological series* recapitulating the figures for the past ten years.

Important note—Those countries not in a position to communicate all the data listed in the recommendation should provide the data they do have and mark with a dash ("—") those items not evaluated.

ANNEX 1

C.C.I.T.T.
Yearbook of Common Carrier
Telecommunication Statistics

The data given are valid from

Name of country

[illegible][illegible]

[illegible][illegible]

ANNEX 2

YEARBOOK OF COMMON CARRIER TELECOMMUNICATION STATISTICS

Instructions and explanatory notes on how the tables should be filled in

General remark—When items of statistics are presented in a different manner from that specified in this Annex, they should be accompanied by an explanation to enable them to be interpreted correctly.

III. *Number of telephone stations of all kinds :*

Main and additional telephone stations which have access to the public switched network.

V. *Waiting list :*

These are applications for subscription, completion of which must be delayed beyond a specific period because of lack of resources (equipment, lines, etc.)

The specific period should be defined for each country and indicated in a note.

VIII. *Telephone call :*

The effective use made of a connection set up between the calling and the called stations. If an estimate of calls is not available, then total measured pulses or other appropriate statistics may be given, suitably annotated.

X. *Telex connection :*

Line having access to the public switched network. Gentex connections should be included; if not, a note should be added.

XI. *Telex calls :*

If the number of calls is not available, the number of recorded minutes or number of metered pulses could be given, suitably annotated.

XII. *Modems :*

(1)—include those on both telex and telephone switched networks.

(2)—include modems on all classes of circuits leased for private service.

XIII and XIV. *Common carrier telecommunications :*

By "common carrier telecommunications" is understood the traditional field of telecommunications: telephony, telegraphy, telex, data transmission. As telecommunication undertakings in some countries are responsible for providing and maintaining sound and television broadcasting facilities, and sometimes also for the collection of the charged fees for these services, it is stipulated that *neither* these fees *nor* the investments for the services in question should be taken into account in these items.

(Point 2 of the Recommendation gives a brief indication of the field covered by the statistical Yearbook.)

XIII. (4) *Other revenue of the telephone service :*

State the nature of the revenue entered under this heading.

XIII. (8) *Other revenue of the telecommunication services :*

Give the revenue which did not fall under the headings (5), (6) or (7), and state its nature, e.g. in particular revenue other than operating revenue.

Note : As stated above, fees relating to sound and broadcasting television should be excluded.

XIV. Annual gross investments :

Gross *annual* capital expenditure without deduction of amortization. The precise definition is given in the GAS 5 Handbook (Economic Studies, Chapter VII, paragraph 1.1.2).

"1.1.2 The term 'investments' generally means the expenditures associated with acquiring and owning property and plant. These include expenditure on initial installations and on additions to existing installations where the usage is expected to be over an extended period of time.

Investments comprise the following:

- the cost of material and equipment, including freight, storage, purchase taxes and handling costs;
- installation costs, including the cost of labour, supervision and contract services (as well as the cost of staff of the operating Administration taking part in installation);
- project planning costs;
- purchase of land and buildings.

A distinction must be made between gross investment and net investment (after deduction of amortization). It proved impossible to apply the concept of net investment, because of the considerable differences in the interpretation of the concept of amortization in the telecommunication sector."

XIV. (4) Under this heading give the evaluation of the Gross Domestic Product (GDP) at factor cost for the country concerned. If the GDP is not available, the Gross National Product (GNP) at market prices may be used, with an appropriate note. These data should be taken from the statistics on the country's national economy.

From these data can be calculated the ratio for item (5):

$$\frac{\text{total investment for telecommunications}}{\text{GDP}}$$

i.e. $\frac{\text{item (3)}}{\text{item (4)}}$

XIV. (6) Under this heading, give the evaluation of the Gross Fixed Capital Formation (GFCF) for the country concerned. This should be taken from the statistics on the country's national economy.

From these data can be calculated the ratio for item (7).

$$\frac{\text{total investment for telecommunications}}{\text{GFCF}}$$

i.e. $\frac{\text{item (3)}}{\text{item (6)}}$

XV. Maintenance and repair costs for the telephone service :

This comprises the cost of material used and the salaries of maintenance staff.

XVI. Exchange rate :

The exchange rate given should be that prevailing at the end of the year. The date of any major currency revaluations occurring in the course of the year should be given in a footnote.

